



PERFORMANCE QUALITY SAFETY

# PQS devices catalogue

Pre-qualified equipment for the Expanded Programme on Immunization (EPI)



WHO Department of Immunization, Vaccines and Biologicals-Quality, Standards and Safety

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World Health  
Organization

# Preface

The PQS on-line catalogue includes details of all immunization-related products currently pre-qualified by WHO for procurement by United Nations agencies. The catalogue is produced and maintained by the Quality, Safety and Standards group in the Immunization, Vaccine and Biologicals Department of WHO, Geneva. It replaces the old WHO/UNICEF Product Information Sheets (PIS), the last edition of which was published in 2000. Only products included in the PQS catalogue are now recommended to be purchased by UN agencies.

PQS performance specifications and verification protocols have been phased in on a category-by-category basis since 2006. There are many new specifications and the old PIS specifications and test procedures have also been replaced. Once a PQS specification has been published, manufacturers are granted a transition period in which to meet the new standards. Whenever a new product is pre-qualified, a data sheet is published on the PQS website.

This document and the individual product data sheets are available on the internet only at:

<[http://apps.who.int/immunization\\_standards/vaccine\\_quality/pqs\\_catalogue/index.aspx](http://apps.who.int/immunization_standards/vaccine_quality/pqs_catalogue/index.aspx) >

There is no hardcopy version. Each edition of the catalogue is date-stamped. It will be updated regularly to ensure that the information it contains is current.

A related catalogue of WHO pre-qualified vaccines will be made available on the internet later in 2011. This will be published and managed in a similar manner. Details will be provided in future catalogue revisions.

## Navigation

The catalogue is divided by category as follows:

- E001: Cold rooms, freezer rooms and related equipment;
- E002: Transport (guideline only);
- E003: Refrigerators and freezers;
- E004: Insulated containers;
- E005: Ice-packs, cool-packs and warm-packs;
- E006: Temperature monitoring devices;
- E007: Cold chain accessories;
- E008: Single-use injection devices;
- E009: (not currently used);
- E010: Waste management equipment;
- E011: Specimen collection equipment;
- E012: (not currently used);
- E013: Therapeutic injection devices.

## Coding

Each section includes details of currently pre-qualified products, a guideline on the choice of equipment in the category and links to relevant supporting documents.

Every product has a unique reference - the PQS product code. This comprises the category reference - e.g. E003 - followed by a number. Breaks in the numerical sequence will appear when an item is dropped from the catalogue. A unique reference is never reassigned to another product.

## Feedback

User feedback is an essential component of PQS and the PQS website includes a feedback page. In particular we would like you to tell us how the products in the catalogue perform under field conditions. We will share this information with the manufacturers so that they can improve their products and we will also use it to develop better specifications.

Any general comments and queries can be addressed to: [pqsinfo@who.int](mailto:pqsinfo@who.int)

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## Glossary

The following definitions explain some key terms relevant to equipment specification. The list is not exhaustive: a term is only included where it is not common knowledge and where correct interpretation is essential in order to make an informed choice of equipment. Equipment purchasers are also encouraged to read the relevant PQS specifications and verification protocols.

**Autonomy (solar refrigerators):** The autonomy of a solar refrigerator measures the ability of the equipment to store vaccine during periods of heavy cloud. It is defined as the maximum number of days during which the refrigerator can continue to maintain a full vaccine load at a temperature between +2°C and +8°C when the photovoltaic panels are not generating electricity.

**Cold life, cool life and warm life for cold boxes and vaccine carriers:** Cold life applies when fully frozen water-packs are used as the coolant; these will continue to be used for transporting OPV and single antigen freeze-dried (lyophilized) vaccines. Cool life applies when cool water-packs are used and warm life applies when warm water-packs are used to protect freeze-sensitive vaccines in very cold climates.

- *Cold life with frozen water-packs:* Cold life is measured from the moment when the container lid is closed until the temperature of the warmest point in the vaccine storage compartment first reaches +10°C, at a constant ambient temperature of +43°C.
- *Cool life with cool water-packs at +5°C:* Cool life is measured from the moment when the container is closed, until the temperature of the warmest point inside the vaccine storage compartment first reaches +20°C, at a constant ambient temperature of +43°C.
- *Warm life with warm water-packs at +18°C:* Warm life is measured from the moment when the container is closed, until the temperature of the coldest point inside the vaccine storage compartment first reaches 0°C at a constant ambient temperature of -20°C.

**EVM:** Effective Vaccine Management initiative. This merges the EVSM and Vaccine Management Assessment (VMA) initiatives. The [EVM website](#) contains all the EVM resources.

**EVSM:** Effective Vaccine Store Management initiative. The EVSM assessment process has now been replaced by EVM. However, the EVSM Model Quality Plan is still relevant and is referred to in this document.

**Holdover time:** The time in hours during which all points in the vaccine compartment of a vaccine refrigerator remain below +10°C, at the maximum ambient temperature of the temperature zone for which the appliance is rated, after the power supply has been disconnected. For vaccine freezers, the holdover time is the time in hours during which the vaccine compartment remains below -5°C.

**Primary store:** A store which receives some or all of its vaccine directly from a national or international vaccine manufacturer.

**Sub-national store:** A store which receives vaccine from a primary store or a higher level sub-national store.

**Water-pack:** Flat plastic container, filled with water, which can be used as a frozen water-pack (ice-pack), a cool water-pack or a warm water-pack.

**Water-pack freezing capacity (kg/24 hrs):** The maximum weight of water-packs which can be fully frozen, in one batch, during a 24 hour freezing cycle. During this period the temperature of the vaccine storage compartment must remain within the acceptable temperature range of +2°C to +8°C.

**Vaccine storage capacity:** For a freezer, refrigerator, cold box or vaccine carrier: the actual volume available for the storage of vaccine as stated by the equipment manufacturer or established by physical measurement.

## Abbreviations

The following symbols and abbreviations may occur in the section guidelines and in the product data sheets:

--	information not applicable or not available
( )	performance data as reported by manufacturer
[ ]	estimated
++	not tested
<	less than or equal to
>	greater than or equal to
°C	degrees celsius (centigrade)
A	ampere
AC	alternating current
BCG	bacille Calmette-Guérin vaccine (for tuberculosis)
cc	cubic centimetre
CFC	chloro-fluoro-carbon
cm	centimetre
dB(A)	decibels
DC	direct current
DT	diphtheria and tetanus toxoid vaccine
DTP	diphtheria-tetanus-pertussis vaccine

g	grams
G	gauge
GWP	global warming potential (CO <sub>2</sub> = 1.0)
H x W x L	height by width by length (or depth)
HC	hydrocarbon
HDPE	high density polyethylene
HepB	hepatitis B vaccine
HFC	hydro fluorocarbon
Hib	<i>Haemophilus influenzae</i> type b vaccine
HIP	high impact polystyrene
hrs.	hours
Hz	hertz (cycles per second)
id	internal diameter
IPV	inactivated polio vaccine
kg	kilograms
km	kilometre
kPa	kilo Pascals (100 kPa = 1 Bar = 14.5 psi)
kVA	kilovolt-ampere
kWh	kilowatt-hours
LDPE	low density polyethylene
LLDPE	linear low density polyethylene
LPG	liquid petroleum gas
LPM	litres per minute
lts or l	litres
m	metre
m <sup>3</sup>	cubic metre
max	maximum
min	minimum
ml	millilitre
mm	millimetre
MMR	measles-mumps-rubella vaccine
MR	measles-rubella vaccine
No.	number
od	outer diameter
ODP	ozone depletion potential
OPV	oral polio vaccine
PoA	price on application
psi	pounds per square inch
PVC	polyvinyl chloride plastic
PW	peak watt
RH	relative humidity

RPM	revolutions per minute
TT	tetanus toxoid vaccine
V	volt
VAC	voltage alternating current
VDC	voltage direct current
W	watt
YF	yellow fever vaccine

### Product pre-qualification under PQS

PQS performance specifications and verification protocols can be downloaded from the PQS website.

Every item listed in the catalogue has been shown to comply with the relevant PQS performance specification, and has been independently assessed against the companion verification protocols. There are three types of verification:

**Type-examination:** Some products such as cold rooms and solar power systems are site-specific but are made up of standard manufactured components. These are pre-qualified by a 'type-examination' procedure. A technical expert carries out a detailed assessment against a standard checklist to determine that all the components comply fully with the specification. Type-examination is also used for certain other product types which meet normal industry standards, and are not considered to be programme-critical; for example, temperature data loggers used for temperature monitoring studies.

**Type-testing:** A product that is programme-critical is generally 'type-tested'. Type-testing also starts with a 'type-examination' procedure. This is followed by standardized laboratory testing to ensure full compliance with the critical performance requirements.

**Full Quality Assurance:** A few products (for example – cold rooms, solar power systems and event logger type temperature monitoring systems) require quality-assured on-site installation and commissioning if they are to operate successfully. An additional type of verification protocol known as a Quality Assurance (QA) protocol applies to such equipment. A QA protocol is installation-specific and is intended to form part of the contractual agreement with the equipment supplier/installer. QA protocols can be downloaded from the PQS website in Microsoft Word format. This allows purchasers of such equipment to complete the document to suit their own specific needs.

**Annual review procedure:** Following initial pre-qualification, all listed products must pass an annual review. This process will take account of feedback from purchasing agencies and users. Adverse reports may lead to product modifications, to suspension or, in serious cases, to removal from the catalogue.

### How to order products

When you order a product, whether from a UN procurement agency or direct from the manufacturer, you should:

- Give the full PQS product code.
- Give the manufacturer's product code as shown on the product data sheet.
- If product options are available, including spare parts, clearly state the ones that are required.

**Guide prices:** Where prices are given, they are shown in US dollars and are generally given as indicative Ex-Works (EXW) prices. Where possible these guide



prices will be updated annually; however, before purchasing, you will need to obtain a firm quotation, either from a UN procurement agency, or by direct negotiation with the manufacturer.

**Shipping:** Shipping costs vary considerably according to destination and are not included within the guide prices. Purchasers should always confirm freight charges with the supplier before placing an order. Estimated freight charges should be included in budgets, and shipping lead times should be included in project plans.

**Incoterms:** Manufacturers and suppliers offer delivery arrangements based on international standard definitions known as *Incoterms*. As noted above, guide prices in the PQS catalogue are generally quoted EXW. The two tables show who pays the cost of each service item in the delivery chain. A new edition of Incoterms was published in 2010 and is being phased in. Those below refer to the long-established 2000 edition. It is essential to check which version is being used by the supplier.

**Incoterms definitions**

TERM	EXW Ex-Works	FCA Free Carrier	FAS Free Alongside Ship	FOB Free On-Board Vessel	CFR Cost & Freight	CIF Cost Insurance & Freight	CPT Carriage Paid To
SERVICE	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays
Warehouse storage at point of origin	Seller	Seller	Seller	Seller	Seller	Seller	Seller
Warehouse labour at point of origin	Seller	Seller	Seller	Seller	Seller	Seller	Seller
Export packing	Seller	Seller	Seller	Seller	Seller	Seller	Seller
Loading at point of origin	Buyer	Seller	Seller	Seller	Seller	Seller	Seller
Inland freight	Buyer	Buyer	Seller	Seller	Seller	Seller	Seller
Port receiving charges	Buyer	Buyer	Seller	Seller	Seller	Seller	Seller
Forwarders fee	Buyer	Buyer	Seller	Seller	Seller	Seller	Seller
Loading on ocean carrier	Buyer	Buyer	Buyer	Seller	Seller	Seller	Seller
Ocean/Air freight charges	Buyer	Buyer	Buyer	Buyer	Seller	Seller	Seller
Charges at foreign Port/Airport	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Seller
Customs, Duties & Taxes abroad	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer
Delivery charges to final destination	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer	Buyer

TERM	CIP Carriage & Insurance Paid To	DAF Delivery At Frontier	DES Delivered Ex-Ship	DEQ Delivered Ex-Quay, Duty Unpaid	DDU Delivered Duty Unpaid	DDP Delivered Duty Paid
SERVICE	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays	Who Pays
Warehouse storage at point of origin	Seller	Seller	Seller	Seller	Seller	Seller
Warehouse labour at point of origin	Seller	Seller	Seller	Seller	Seller	Seller
Export packing	Seller	Seller	Seller	Seller	Seller	Seller
Loading at point of origin	Seller	Seller	Seller	Seller	Seller	Seller
Inland freight	Seller	Seller	Seller	Seller	Seller	Seller
Port receiving charges	Seller	Seller	Seller	Seller	Seller	Seller
Forwarders fee	Seller	Seller	Seller	Seller	Seller	Seller
Loading on ocean carrier	Seller	Seller	Seller	Seller	Seller	Seller
Ocean/Air freight charges	Seller	Seller	Seller	Seller	Seller	Seller
Charges at foreign Port/Airport	Seller	Seller	Buyer	Seller	Seller	Seller
Customs, Duties & Taxes abroad	Buyer	Buyer	Buyer	Buyer	Buyer	Seller
Delivery charges to final destination	Buyer	Buyer	Buyer	Buyer	Seller	Seller

Source: <http://www.skymartworldwide.com/incoterms-2009.html>

The official Incoterm definitions can be purchased from the [International Chamber of Commerce](#) website.

### **Where to order products**

Orders can be placed directly with the manufacturer at the address given on the product data sheet.

Most items can also be purchased through the [WHO Contracting and Procurement Service](#) or from [UNICEF Supply Division](#) in Copenhagen, Denmark.

Vehicles, motorbikes and power products can be purchased through the Inter-Agency Procurement Services Office ([UNDP/IAPSO](#)). UNICEF-SD also supplies vehicles.

Other equipment suppliers include: [International Dispensary Association](#) (IDA) in The Netherlands and [Médecins Sans Frontières Logistique](#) (MSFL) in France.

Authorization is needed to gain full access to most of these websites.



# General information

## Vaccine storage and distribution

The following table shows the current WHO guidance on vaccine storage temperatures. Use these recommendations when calculating refrigeration needs.

### WHO vaccine storage recommendations

Vaccine	Primary	Sub-national		Health Facility	Health Post
		Province	District		
	Maximum storage period			Maximum storage period	
	6-12 months	3 months	1 month	1 month	According to session plan
OPV	Store at -15°C to -25°C OPV is the only vaccine that can safely be frozen and unfrozen repeatedly		Store at +2°C to +8°C		
BCG	Store these lyophilized vaccines at +2°C to +8°C. Under exceptional circumstances they can be temporarily stored at -15°C to -25°C (e.g. if there is a temporary shortage of storage space. Never freeze diluent.		Store at +2°C to +8°C		
Hib lyophilized					
JE					
Measles					
Meningitis					
MMR					
MR					
Yellow Fever					
Cholera					
DT/TT/Td					
DTP					
DTP-HepB					
DTP-HepB+Hib lyo					
DTP-HepB-Hib liquid					
DTP-Hib					
Hepatitis B					
Hib liquid					
HPV					
Influenza					
IPV					
Pneumococcal					
Rabies					
Rotavirus					
<p><b>Diluent:</b> If diluent is included in the vaccine packaging, store it between +2°C and +8°C. However, if diluent is supplied separately, it can be stored outside the cold chain but must be cooled before use, preferably for a day or for a period of time sufficient to ensure that the vaccine and diluent are both at temperatures between +2°C and +8°C when they are reconstituted. Never freeze diluent.</p> <p>Note that diluent/adjuvant for some pandemic influenza vaccines must be stored in the cold chain.</p>					

## Vaccine distribution guidelines

### *Frozen water-packs*

WHO recommends that OPV and the single antigen freeze-dried (lyophilized) vaccines should be distributed in cold boxes or vaccine carriers, lined with frozen icepacks.

### *Conditioned ice-packs*

Field studies continue to show that vaccine freezing during transport remains one of the principal causes of damage to freeze-sensitive liquid vaccines in the cold chain. The use of 'conditioned' ice-packs has previously been recommended as the way to avoid this risk; however ice-pack conditioning is a time-consuming process and recent cold chain surveys have shown that the practice is difficult to enforce and is widely ignored. Note that the use of cardboard, newspaper or similar material to isolate freeze-sensitive vaccines from fully frozen ice-packs is completely ineffective as a means for preventing vaccine freezing.

### *Cool water-packs*

The only way to eliminate the freezing risk entirely is to transport liquid vaccines, other than OPV, in cold boxes lined with cool water-packs which have been pre-cooled in a refrigerator to a temperature of +2°C to +8°C. Where it is essential to transport OPV, liquid and freeze-dried vaccines in a single carrier, experiments have shown that cool water-packs may safely be used provided the cool life of the carrier is not exceeded. For current guidance on the performance and use of cool water-packs refer to Kartoglu U, Ganivet S, Guichard S, Aiyer V, Bollens P, Maire D, Altay B. *Use of cool water-packs to prevent freezing during vaccine transportation at the country level*. PDA Journal of Pharmaceutical Science and Technology, Vol. 63, No. 1, January–February 2009, 11-26.

Changing over to the use of cool water-packs involves significant changes in practice. In addition there are equipment implications because additional refrigerators will be needed at primary and sub-national level to cool the water-packs in bulk. Consequently it is strongly recommended that the introduction of this method should be preceded by a formal cold chain study based on [WHO/IVB/05.01](#): *WHO Study Protocol for Temperature Monitoring in the Vaccine Cold Chain*. The study design should aim to establish the extent of current problems and also the logistical and financial implications of the changeover to the use of cool water-packs.

### *Warm water-packs*

Field experience in cold climates has shown that it is necessary to protect freeze-sensitive vaccines from exposure to ambient temperatures below 0°C during transport. Unfrozen ice packs, stabilized at a room temperature between 10°C to 24°C, can be used for the transport of freeze-sensitive vaccines for a period not exceeding 8 hours. These vaccines are generally very heat stable and the short time (typically less than 8 hours) that they are subjected to these temperatures will not harm them. For fuller guidance refer to Figure 1.5.4.A of [WHO/IVB/04.18](#). *EVSM Module 2: Model Quality Plan*.

## Vaccine vial monitors (VVMs)

The majority of vaccines used in EPI are now supplied with VVMs. Guidance on their use can be found in the document [WHO/V&B/02.35](#) *Getting started with vaccine vial monitors*. Since this was written, VVMs have been shown to be a powerful tool for

managing the use of vaccines generally, and for preventing wastage in routine, outreach and campaign settings. In addition, many studies have shown that VVMs can enable the more heat-stable vaccines to be used safely beyond the cold chain.

### Refrigerants and foaming agents

Concerns over depletion of the stratospheric ozone layer have led to a global effort to phase out the production and consumption of chlorofluorocarbons (CFCs).

Subsequent concerns over global warming have reinforced the need to remove eliminate these substances because they are also potent greenhouse gases.

Until 1995, the CFCs, R11 and R12, were commonly used as refrigerant gases in compression refrigeration circuits and as foaming agents for the insulation of refrigerators and insulated containers (cold boxes and vaccines carriers).

Under the terms of the [Montreal Protocol](#), the international community has committed itself to the elimination of these gases. The Protocol called for the cessation of CFC consumption as of 1<sup>st</sup> January 1996 in industrialized nations and from 1<sup>st</sup> January 2010 in developing nations.

#### Refrigerants

R12 is commonly replaced with HFC 134a. An increasing number of manufacturers are now using the hydrocarbon R600 (isobutene). Cold room and freezer room manufactures may use a variety of other refrigerants. Until 2010, developing country manufacturers were still allowed to use CFC refrigerants, but many of them had already made the change to more environmentally-benign gases.

In PQS performance specifications permit the use of HFC (hydrofluorocarbon) or HC (hydrocarbon) refrigerants in refrigerators and freezers. This is a change from the situation which applied under PIS, which did not allow the use of hydrocarbons. Hydrocarbons are still not permitted for cold rooms and freezer rooms

The table below gives the Ozone Depletion Potential (ODP) and Global Warming Potential (GWP) figures for the gases described above, and in the next section. Equipment which uses cyclopentane foamed insulation and R600 refrigerant is currently the best environmental choice.

### ODP and GWP figures for some key gases

Gas	Use	Ozone Depletion Potential (ODP)	Global Warming potential (GWP) <sup>a</sup>
R11	Refrigerant & foaming agent	1.0	4,680 <sup>1</sup>
R12	Refrigerant & foaming agent	1.0	10,720 <sup>2</sup>
R134a	Refrigerant	0.25	1,410 <sup>3</sup>
R600	Refrigerant	0.0	204
Cyclopentane	Foaming agent	0.0	11
R141b	Foaming agent (HCFC)	0.11	700

a. The GWP for CO<sub>2</sub> = 1.0

<sup>1</sup> Source: Inter-governmental Panel on Climate Change (IPCC)

<sup>2</sup> Source: IPCC

<sup>3</sup> Source: IPCC

### *Foaming agents*

R11 is no longer used as a foaming agent by any of the industrialized country manufacturers listed in the PQS catalogue. It is now replaced by cyclopentane in European countries and by R141b in the USA (the use of R141b was banned in Europe as of 1<sup>st</sup> January 2004 and it will eventually be phased out worldwide in 2030). Because R141b has a much higher Global Warming Potential (GWP) than cyclopentane; the latter is less damaging to the environment when it is released into the atmosphere. Other gases are under investigation as replacements for R141b, including HPC-245fa, HFC-365mfc, HFC-234a, isopentane and n-pentane and various blends.

### *Managing existing equipment containing CFCs*

CFCs have now been phased out worldwide. For this reason, programme managers should ensure that remaining CFC equipment is responsibly managed:

1. Check that tools for the repair of CFC equipment is locally available and that cold chain technicians are trained.
2. Keep an inventory of CFC equipment and where it is installed.
3. Make sure that CFC equipment is decommissioned in a responsible manner at the end of its service life and that the refrigerant is recovered and destroyed.

# E001

## Cold rooms, freezer rooms and related equipment

All the equipment included in the E001 category is manufactured for a specific application. It then has to be assembled and commissioned on site by a competent installer. The end user must specify clearly what is required, must select or build the space where the equipment will be housed and must provide the necessary electrical power supply, wiring and other services to which the equipment will be connected by the installer.

### **E001.1 Cold rooms and freezer rooms**

A building housing a cold room needs to be accessible to delivery vehicles and in good condition. It must have suitable finishes, adequate ventilation, and the correct electricity supply.

The steps involved in buying and commissioning a cold room are summarised below, together with links to the relevant reference documents.

1. *Establish net vaccine capacity:* It is essential to calculate accurately the net vaccine capacity of the cold room(s) and freezer room(s), taking account of future vaccine introductions. WHO tools are available to help establish the required capacity of the store. DO NOT order on the basis of gross capacity – for example a 40 m<sup>3</sup> room – without verifying usable net capacity with the supplier.
2. *Decide location:* Select the spaces(s) in which the equipment is to be installed. [WHO/V&B/02.34: Guideline for establishing or improving primary and intermediate vaccine stores](#) provides guidance on building selection and preparation.
3. *Shortlist suppliers:* UNICEF Supply Division has long-term purchase agreements with PQS pre-qualified cold room companies. If the room is not being purchased through UNICEF, prepare a tender long list. This should preferably include the pre-qualified companies listed in the PQS catalogue. Establish which companies on the long list are able to provide, install, commission and service cold rooms and freezer rooms at the chosen site. Based on this information, make a short list. Every company on the short list should have a satisfactory arrangement with a competent installation contractor in the country where the equipment is to be installed and must be able to provide a long-term maintenance service.

4. *Prepare and invite tenders:* Prepare tender documentation using the PQS specification E001/CR/FR-01 and verification protocol E001/CR/FR-VP02 templates and invite tenders. If required, invite tenders for a standby generator and voltage stabilizer at the same time. Specific guidance on specifying and buying generators is given in section E01.2. Guidance on heavy duty voltage stabilizers is given in E01.3.
5. *Place order:* Receive and evaluate tenders, agree an installation programme, and place an order with the winning supplier.
6. *Prepare the site:* Prepare the space for the cold room in accordance with the supplier's requirements and the guidance link in point 2 above
7. *Supervise:* Supervise the installation and oversee commissioning and user training.
8. *Monitor:* Check the performance of the equipment in use and monitor the effectiveness of the maintenance agreement.
9. *Maintain:* Ensure that the maintenance agreement is renewed after the expiry of the initial contract. Ensure that the temperature monitoring equipment is re-calibrated annually. Refer to the [WHO/IVB/04.16-20: WHO-UNICEF Effective Vaccine Store Management Initiative](#), to [WHO/V&B/02.31: User's handbook for vaccine cold rooms and freezer rooms](#) and to [WHO/V&B/02.30: How to look after a cold room or freezer room: self-assessment tool](#).

## **E001.2 Standby generators**

WHO and UNICEF now recommend that all primary vaccine stores should be fitted with a standby generator with automatic start up, regardless of the reliability of the mains power supply – see [WHO/IVB/04.16-20: WHO-UNICEF Effective Vaccine Store Management Initiative](#). In addition, consider installing standby generators in the following situations:

- At large intermediate vaccine stores, equipped with cold rooms.
- At other sub-national stores where the mains power supply is sufficiently unreliable to compromise the performance of ice-lined refrigerators, even when they are fitted with voltage stabilizers.

In all other situations, if power cuts are a chronic problem, review alternative solutions such as ice-lined appliances fitted with voltage stabilizers, photovoltaic equipment, or equipment which runs on kerosene or bottled gas. The decision to purchase a standby generator should not be taken lightly since it involves an investment of several thousand dollars, together with significant maintenance and training costs.

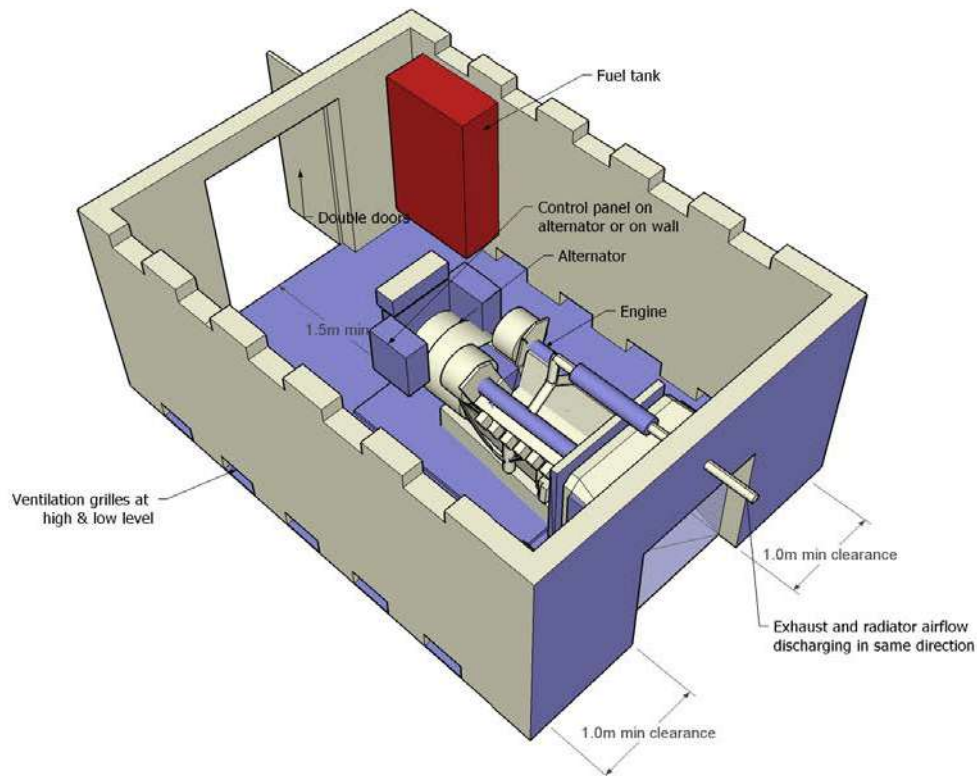
### **E001.2.1 Specifying the generator**

The guidance notes in this section are for background information only. They are intended to be used to brief a professional engineer and/or to communicate with system suppliers and installers. Wherever possible, the generator should be supplied by the cold room/freezer room manufacturer as part of a comprehensive package - see E001.1. In all other cases, seek the advice of a qualified electrical engineer. In situations where an engineer is not available, refer to a reliable technical source such

as *Engineering in Emergencies – A practical guide for relief worker*, available in hardcopy or CD format from [RedR](#)<sup>1</sup>

**The generator house:** The size of a standby generator is determined by the rated load of the equipment to which it is connected. The figure below shows the layout of a typical generator house.

### A typical generator house



Adapted from *Engineering in emergencies*

The generator house should have a concrete floor slab. Provide ventilation openings near the bottom of the walls to provide cooling air, with additional openings in the wall nearest the air filter to supply cool air for combustion. In addition, provide ventilation openings along the top of the walls to release accumulated hot air. All ventilation openings should be fitted with mesh grilles to keep out pests. Arrange the exhaust pipe above the cooling air outlet to discharge in the same direction. Keep the exhaust system as short as possible, with the minimum number of bends.

Fuel tanks should ideally be 'bunded'. A bunded tank consists of a tank mounted inside an outer housing large enough to accommodate the total contents of the tank, should it develop a leak. This ensures that fuel spills are contained and cannot get into the drainage system or the ground water.

#### *E001.2.2 Inviting tenders for a generator*

Prepare a tender short list. Every company on the short list must have a satisfactory arrangement with a competent installation contractor in the country where the

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<sup>1</sup> The information which follows in this section is partly based upon Section 14.3.3 of *Engineering in Emergencies – A practical guide for relief workers*, 1<sup>st</sup> Edition, Intermediate Technology Publications, 2001.



equipment is to be installed and should be able to provide a long-term maintenance service or training for local technicians.

Tender invitations should include the following information:

1. *Client*: Name of the client.
2. *Location*: Site location.
3. *Delivery/installation date*: Specify the required date for delivery/installation.
4. *Payment arrangements*: Specify currency, payment stages, etc.
5. *Information to be supplied by tenderers*: Price (Incoterm). Full technical details of the proposed equipment including fuel consumption on full load (fuel consumption will be a significant factor in choosing a generator set if anticipated run-times are long – less significant if the generator will be used infrequently). Details of the manufacturer's in-country installation and service network. Manufacturer's infrastructure requirements (e.g. cable connections, etc.). Manufacturer's detailed recommendations for the generator house layout, construction and ventilation.
6. *The supply required*: **Either**: Single phase, 2-wire (phase and neutral), and system voltage, for example 110V, 220V or 240V. **Or**: Three-phase, 4-wire (three-phase and neutral), and system voltage, for example: 380/220V or 415/240V.
7. *Supply frequency*: 50 Hz or 60 Hz.
8. *Connected equipment*: A schedule listing every item of connected equipment, including cold rooms, freezer rooms, refrigerators and freezers. In addition, list all other equipment for which standby power is required, such as computers, printers, and electric lighting. For each item on the list, give the power requirement in kW. In the case of motors (e.g. cold room compressors), give the method of starting, e.g. direct-on-line (DOL). If you cannot find this information, give full details of each item of equipment, including manufacturer and model number, and request the tenderer to obtain the missing data.
9. *Site conditions*: Ambient temperature, humidity and altitude affect generator performance. Give the annual maximum and minimum temperature at the site in degrees centigrade, the maximum and minimum relative humidity in percent and the altitude of the site above sea level in metres.
10. *Mounting method*: Skid mounted. Mobile units are available, but are not appropriate for a fixed installation.
11. *Weather protection*: State whether the generator should be supplied as an open or weather-protected set. Open sets will be housed in a generator house. Weather-protected sets may be mounted outdoors.
12. *Soundproofing*: Soundproofed housings are usually expensive. A locally made masonry enclosure is often cheaper and, in the case of units installed outside, they also provide protection against the weather – see figure above.
13. *Fuel*: Diesel is universal on all but the smallest portable generators. Natural gas might be required in areas with stringent air pollution regulations.
14. *Engine start*: If automatic mains-failure start and/or shut down are needed, this must be clearly stated. Otherwise specify hand and/or electric start, complete with battery (even with electric start, it is useful to have a hand-start facility when the battery is flat or missing).

15. *Engine monitoring facilities*: Over-heating, low oil pressure, battery charging ammeter or indicator. Automatic engine shut-down in the event of over-heating, low oil pressure or broken fan belt. Engine monitoring meters and indicators may be mounted on the control panel – see next item.
16. *Control panel*: Integrated (set-mounted) or free-standing control panel. Integrated control panels must be mounted on anti-vibration mountings. Instrumentation to include: One ammeter per phase. One voltmeter and selector switch (to monitor each phase-phase and phase-neutral voltage). Frequency meter. Hours-run meter.
17. *Fuel tank capacity*: Sufficient to allow a minimum of 72 hours continuous running. Specify that it should be banded.
18. *Exhaust pipework*: Run length and bends needed to ensure discharge in a safe location.
19. *Spare parts*: **Either**: ensure that the supplier has an effective service network in-country. **Or**: order an adequate supply of spare parts and consumables, sufficient for a minimum of two year's normal operation, as recommended by the set manufacturer.
20. *Installation*: Specify whether the equipment is to be installed and commissioned by the manufacturer's in-country agent (strongly recommended), or by others.
21. *Training*: The manufacturer, or installer, must train vaccine store staff and maintenance technicians in the use of the equipment and must provide comprehensive operating and service manuals in the appropriate language.
22. *Maintenance agreement*: Wherever possible, arrange for the equipment to be maintained by the set manufacturer's in-country service agent. The tender documents should clearly specify the length of the maintenance agreement, the minimum requirements for routine maintenance and the maximum acceptable response time in the event of an emergency – e.g. equipment failure during a power outage.

### *E001.2.3 Choosing a supplier*

The lowest bidder is not always the cheapest when lifetime operating costs are considered. Significant factors which reduce operating costs include:

*Local availability of technical expertise and spare parts*: Tenderers without a local service network should generally be excluded.

*Fuel consumption*: A model with low fuel consumption may be cheaper to operate over its whole working life than a model with higher fuel consumption but a lower purchase price.

*Revolutions per minute (RPM)*: Slow running generators with ratings below 1,800 RPM have longer working lives. Models running at 3,000 to 3,600 RPM are found to require more maintenance, have greater fuel consumption and a higher rate of mechanical wear. A cheap high RPM model may be a poorer choice than a more expensive low RPM model.

### *E001.2.4 Suppliers of standby generators*

Inclusion in the following list does not imply any recommendation by the World Health Organization.

<p><b>The Americas</b> Cummins Power Generation 1400 73<sup>rd</sup> Avenue. NE Fridley, MN 55432 USA Tel: +1 763 574 5000 Fax: +1 763 574 5282 Email: <a href="mailto:ask.powergen@cummins.com">ask.powergen@cummins.com</a> Web: <a href="http://www.cumminsonan.com">http://www.cumminsonan.com</a></p>	<p>Lister Petter Ltd. Long Street, Dursley Gloucestershire GL11 4HS United Kingdom Tel: +44 (0)1453 544 141 Fax: +44 (0)1453 546 732 Email: <a href="mailto:sales@lister-petter.co.uk">sales@lister-petter.co.uk</a> Web: <a href="mailto:webmaster@lister-petter.co.uk">webmaster@lister-petter.co.uk</a></p>
<p><b>Europe</b> GENELEC SA Z.I. Nord Aranas 62, Rue du Nizerand 69400 Villefranche s/Saone France Tel: +33 (4) 74 62 65 05 Fax: +33 (4) 74 09 07 28 Email: <a href="mailto:genelec@genelec.tm.fr">genelec@genelec.tm.fr</a> Web: <a href="http://www.genelec.tm.fr">www.genelec.tm.fr</a></p>	<p>FG Wilson Ltd. 1 Millennium Way Springvale Business Park Belfast Co. Antrim Northern Ireland BT12 7AL Tel: +44 (0) 28 9049 5000 Fax: +44 (0) 28 2826 1111 Web: <a href="http://www.fgwilson.com">http://www.fgwilson.com</a></p>
<p>** Bruno S.R.L. S.S. 91 Km 0,600 I-8305 Grottaminarda (AV) Italy Tel: +39 0825 421005 Fax: +39 0825 426169 Email: <a href="mailto:dir@brunogenerators.it">dir@brunogenerators.it</a> Web : <a href="http://www.brunogenerators.it">www.brunogenerators.it</a></p>	<p><b>Western Pacific</b> Yanmar Web: <a href="http://www.yanmar.co.jp/en">http://www.yanmar.co.jp/en</a></p>
<p>** Coelmo S.R.L. Agglomerato Industriale ASI I-80011 Accera (NA) Italy Tel: +39 081 8039 731 Fax : + 39 081 8039 724 Email: <a href="mailto:lgordano@coelmo.it">lgordano@coelmo.it</a> Web: <a href="http://www.coelmo.it">www.coelmo.it</a></p>	

\*\* Currently have a long-term purchase agreement (LTA) with UNICEF-SD

### **E001.3 Voltage stabilizers for larger vaccine stores**

Fluctuations in the electricity supply can cause the premature failure of motors, compressors and other electrical and electronic components. Fortunately, fluctuations can be controlled effectively, and damage can be avoided, by installing a *voltage stabilizer* on the power line which supplies the equipment. In addition, a *surge protection* device is recommended to prevent damage in the event of lightning induced spikes on the supply line. *Lightning protection* should also be included in areas where lightning is common.

Wherever voltage fluctuations exceed  $\pm 7\%$  of the rated voltage at the supply point, WHO recommends that refrigeration equipment should be connected to the mains supply via a voltage stabilizer. This applies to cold rooms, freezer rooms, vaccine refrigerators and vaccine and icepack freezers at any level in the cold chain. Associated electronic temperature monitoring equipment and computers should also be connected to a voltage-regulated circuit; this type of equipment is particularly sensitive to voltage fluctuations and to lightning-induced power surges.

There are various types of *surge protector*. Some can only survive a limited number of surge events; with this type of equipment it is essential to stock an adequate stock of replacement components and to know how to replace them in the event of a failure.

It is generally good practise to ensure that refrigeration equipment and temperature monitoring/computers are supplied by separate dedicated supplies with separate voltage stabilizers. This ensures that the load variation of the refrigeration equipment does not adversely affect the electronic equipment, and allows the most appropriate type of voltage stabilizer to be chosen for each of the two load types.

Finally, the cost and design life of available equipment varies widely, with a design life of up to 50 years possible for highly critical applications. Large vaccine stores can hold hundreds of thousands dollars worth of vaccine and the cost of loosing this inventory needs to be taken into account when choosing a voltage stabilizer and/or surge protector - it may be economically justifiable to install a more expensive system because it is more reliable and longer lasting.

#### *E001.3.1 Types of stabilizer*

The chosen voltage stabilizer must be able to cope with the full range of voltage fluctuations found at the vaccine store site. Within the parameters outlined above, it must also be affordable.

**Servo-mechanical voltage stabilizers** provide a reliable and economical method of stabilising mains voltage range variations of up to 50%. They use a proven technology that combines electro-mechanical components with electronic sensing and control to give a continuous, smooth and very stable output voltage. Servo-mechanical voltage stabilizers have some moving parts which, depending on the application, will require a small amount of low-level maintenance after a long period of time.

This technology is the most suitable one for primary vaccine stores and for larger sub-national stores. A disadvantage of the technology is its slow response time to voltage changes, but this is not considered to be a major drawback for cold store equipment. Another disadvantage is that it may be less reliable than tap-changing, particularly if the equipment is not properly maintained.

**Electronic voltage stabilizers:** A solid-state continuous acting electronic voltage stabilizer provides a better alternative for applications requiring extremely fast correction speed, or applications located in hostile climatic conditions. A problem with cheaper models of this type of equipment is that they often incorporate a cooling fan. These may clog up in dusty conditions. Alternatives which rely entirely on convection cooling are available, but they are typically more expensive than servo-mechanical devices.

**Tap-changing voltage stabilizers and conditioners:** There are a number of different tap-changing regulators on the market and some are more reliable than others. A common type, used by many manufacturers, incorporates electronic tap-changing techniques. This type is prone to failure due to switching stresses. The more reliable devices use relays.

For less sensitive equipment, where the output voltage only needs to be maintained within broad limits, a tap-changing solution is acceptable. All tap-changing regulators produce voltage jumps at the moment of tap-changing; fortunately refrigeration and air-conditioning units can accept these jumps. Tap-changing regulators may be unsuitable for loads such as sensitive monitoring equipment because they can cause graphic distortion or data loss. If ignored, this will eventually shorten the life of the connected equipment, or cause expensive damage.

Tap-changing regulators are an appropriate choice for stabilizing the supply to individual refrigerators or freezers in small sub-national stores and at service point level. As an example, one widely used unit can control output voltages between -8% to +9% when the input voltage varies between -34% to +26%. These units should always include a time delay cut out to protect against high/low voltage damage to refrigeration compressors. High capacity tap-changing units are available for cold rooms, but are typically more expensive than equivalent servo-mechanical units.

#### *E001.3.2 When to install a voltage stabilizer*

Voltage stabilizers are strongly recommended whenever new vaccine refrigeration equipment is being installed, particularly where a problem exists with the electricity supply to the site. If existing vaccine cold room motors, compressors, relays and other related electric equipment suffer frequent failure; this is a good indication that the stability of the mains supply is poor.

If the area surrounding the vaccine store is under development, there is a risk that the development of the electricity supply will not match growing demand. This can lead to an unstable, unreliable or fluctuating electricity supply. In such situations it is prudent to install voltage regulation equipment as a precautionary measure.

#### *E001.3.3 Inviting tenders for a voltage stabilizer*

Prepare a tender short list and provide bidders with the following information::

1. *Rated mains supply:* **Either:** Single phase, 2-wire (phase and neutral), and system voltage, for example 110V, 220V or 240V. **Or:** Three-phase, 4-wire (three-phase and neutral), and system voltage, for example: 380/220V or 415/240V.
2. *Supply frequency:* 50 Hz or 60 Hz.
3. *Measured voltage and frequency fluctuations:* A qualified electrical engineer should be asked to obtain these measurements, which should be taken at frequent intervals over a period of at least a week. Allow for all potential loads and allow also for seasonal load variations.
4. *Electrical storm activity:* Indicate the frequency and intensity of electrical storms.
5. *Connected equipment:* Provide a schedule listing every item of connected equipment, including cold rooms, freezer rooms, refrigerators and freezers. In addition, list all other equipment for which voltage regulation and surge protection is required, such as computers, printers, and electric lighting. For each item on the list, give the power requirement in kW. In the case of motors (e.g. cold room compressors), give the method of starting, e.g. direct-on-line (DOL). If you cannot find this information, give full details of each item of equipment, including manufacturer and model number, and request the tenderer to obtain the missing data.
6. *Site conditions:* Peak ambient temperature and humidity may affect equipment performance. Give the annual maximum temperature at the site in degrees centigrade together with the maximum relative humidity in percent.
7. *Generator:* If there is a standby generator, provide full details of the unit, including make, model, kVA rating, start method (manual or automatic mains-failure) and stop method (manual or mains-resumption).

*E001.3.4 Suppliers of voltage stabilizers*

Inclusion in the following list does not imply recommendation by the World Health Organization.

<p><b>The Americas</b> Eaton (was Best Power) 8609 Six Forks Road Raleigh, NC 27615 U.S.A. Tel: +1 919 872 3020 Email: <a href="mailto:powerquality@eaton.com">powerquality@eaton.com</a> Web: <a href="http://www.bestpower.com">www.bestpower.com</a></p>	<p>Advance Electronics Ltd Advance Park Wrexham LL14 3YR United Kingdom Tel: +44 (0)1978 821000 Fax: +44 (0)1978 821 000 Email: <a href="mailto:sales@aelgroup.co.uk">sales@aelgroup.co.uk</a> Web: <a href="http://www.aelgroup.co.uk">www.aelgroup.co.uk</a></p>
<p><b>Europe</b> Claude Lyons Ltd. Brook Road Waltham Cross Hertfordshire EN8 7LR United Kingdom Tel: +44 (0) 1992 768 888 Fax: +44 (0) 1992 788 000 Email: <a href="mailto:info@claudelyons.co.uk">info@claudelyons.co.uk</a> Web: <a href="http://www.claudelyons.co.uk">www.claudelyons.co.uk</a></p>	<p>Watford Control Instruments Ltd. 5 Godwin Road Corby, Northants NN17 4DS United Kingdom Telephone: 44 (1536) 401345 Fax: 44 (1536) 401164 Email: <a href="mailto:sales@watfordcontrol.co.uk">sales@watfordcontrol.co.uk</a> Web: <a href="http://www.watfordcontrol.co.uk">www.watfordcontrol.co.uk</a></p>

**E001 data sheets follow**



## E001: Cold rooms and freezer rooms

**PQS code:** E001/001  
**Description:** Cold rooms and Freezer rooms  
**Manufactured in:** Finland  
**Company:** Porkka Finland Oy  
**Address:** Soisalmentie 3  
 FI-15860 Hollola  
 Finland  
**Telephone:** +358 20 5555 - 12  
**Email:** [petri.hiilloste@huurre.com](mailto:petri.hiilloste@huurre.com); [gordonmacbride@porkka.co.uk](mailto:gordonmacbride@porkka.co.uk)  
**Web address:** [www.porkka.fi](http://www.porkka.fi)

## Specifications

**Temperature zones:** Hot Temperate Cold

### ENCLOSURE CONSTRUCTION OPTIONS

<b>Cold room sizes:</b>	>10 m3	<b>Freezer room sizes:</b>	>10 m3
<b>Wall&amp;ceiling panel finish</b>	Polyester coated steel	<b>Panel insulation material:</b>	Polyurethane high density
<b>Floor panel finish</b>	Glassfiber re-enforced anti-slip plywood	<b>Panel thickness options:</b>	100mm (standard); 150mm (option)
<b>Mounting options:</b>	Wall	<b>Panel jointing system:</b>	Cam-lock jointing
<b>Shelving system:</b>	Adjustable shelves only	<b>Shelving material:</b>	Plastic

### EQUIPMENT OPTIONS

<b>Refrige. units options:</b>	- Monoblock - Split system -	<b>Refrigerant:</b>	R-404a
<b>Duty sharing:</b>	- Timed changeover - Manual changeover -	<b>Foaming agent:</b>	N-Pentane
<b>Plume guard:</b>	Yes	<b>Cold climate protection:</b>	Yes
<b>Door seal heater:</b>	Yes	<b>Auto-defrost:</b>	Yes
<b>Pressure valve:</b>	Yes	<b>Floor panel heater:</b>	Yes
<b>Voltage regulator:</b>	Yes	<b>Strip curtain:</b>	Yes
<b>Voltage options:</b>	Yes	<b>IEC 60335:</b>	Yes
<b>Cut-out system:</b>	Yes	<b>Surge protection:</b>	Yes

### TEMPERATURE MONITORING & ALARM OPTIONS:

<b>Temperature recording:</b>	- Dial thermometer - Event logger -	<b>Alarm system:</b>	Yes
<b>Comments:</b>	Can provide cold rooms larger than 40m3		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -	<b>ISO 14001:</b>	Yes
<b>Supplied regions:</b>	All	<b>Installation service:</b>	- Advisory service - Installer network -
<b>Warranty period:</b>	1 year	<b>Maintenance service:</b>	- Advisory service - Maintenance network -
<b>Current PQS status:</b>	pre-qualified 17 Aug 2010	<b>Valid until :</b>	May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





## E001: Cold rooms and freezer rooms

<b>PQS code:</b>	<b>E001/002</b>
<b>Description:</b>	Cold rooms and freezer rooms
<b>Manufactured in:</b>	France
<b>Company:</b>	Zhendre Froid & Climatisation 122 Avenue des Pyrénées – B.P. 82 33883 Villenave d'Ornon France
<b>Address:</b>	
<b>Telephone:</b>	+ 33 (0)5 56 87 71 22
<b>Email:</b>	<a href="mailto:ftiercelin@zhendre.com">ftiercelin@zhendre.com</a>
<b>Web address:</b>	<a href="http://www.zhendre.com">www.zhendre.com</a>

## Specifications

**Temperature zones:** Hot Temperate Cold

### ENCLOSURE CONSTRUCTION OPTIONS

<b>Cold room sizes:</b>	>10m <sup>3</sup>	<b>Freezer room sizes:</b>	>10 m <sup>3</sup>
<b>Wall&amp;ceiling panel finish</b>	Galvanized steel 5/10 Iceberg white powdered-coated	<b>Panel insulation material:</b>	Polyurethane high density
<b>Floor panel finish</b>	Phenolic resin	<b>Panel thickness options:</b>	100 mm
<b>Mounting options:</b>	Wall Wall split	<b>Panel jointing system:</b>	cam-lock, 2 polyethylene joints onto the 4 edges of each panel
<b>Shelving system:</b>	Adjustable shelves only	<b>Shelving material:</b>	Steel

### EQUIPMENT OPTIONS

<b>Refrige. units options:</b>	- Monoblock - Split system -	<b>Refrigerant:</b>	R404a
<b>Duty sharing:</b>	- Manual changeover -	<b>Foaming agent:</b>	Polyurethane high density
<b>Plume guard:</b>	Yes	<b>Cold climate protection:</b>	Yes
<b>Door seal heater:</b>	Yes	<b>Auto-defrost:</b>	Yes
<b>Pressure valve:</b>	Yes	<b>Floor panel heater:</b>	No
<b>Voltage regulator:</b>	No	<b>Strip curtain:</b>	Yes
<b>Voltage options:</b>	Yes	<b>IEC 60335:</b>	Yes
<b>Cut-out system:</b>	Yes	<b>Surge protection:</b>	Yes

### TEMPERATURE MONITORING & ALARM OPTIONS:

<b>Temperature recording:</b>	- Dial thermometer -	<b>Alarm system:</b>	Yes
<b>Comments:</b>			
<b>Quality standard:</b>	- ISO 9001 -	<b>ISO 14001:</b>	Yes
<b>Supplied regions:</b>	All regions	<b>Installation service:</b>	- Advisory service - Installer network -
<b>Warranty period:</b>	1 year	<b>Maintenance service:</b>	- Advisory service - Maintenance network -
<b>Current PQS status:</b>	<i>pre-qualified 20 Apr 2011</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E001: Cold rooms and freezer rooms

<b>PQS code:</b>	<b>E001/003</b>
<b>Description:</b>	Cold rooms and freezer rooms
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Address:</b>	
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	wanggs@haier.com
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

**Temperature zones:** Hot Temperate Moderate

### ENCLOSURE CONSTRUCTION OPTIONS

<b>Cold room sizes:</b>	>10m <sup>3</sup>	<b>Freezer room sizes:</b>	>10 m <sup>3</sup>
<b>Wall&amp;ceiling panel finish</b>	Zinc polyester powdered coated	<b>Panel insulation material:</b>	Polyurethane
<b>Floor panel finish</b>	Rubber corrugated	<b>Panel thickness options:</b>	100 - 150 mm
<b>Mounting options:</b>	Wall Ceiling	<b>Panel jointing system:</b>	Tongue and groove, cam lock
<b>Shelving system:</b>	Adjustable shelves only	<b>Shelving material:</b>	Steel

### EQUIPMENT OPTIONS

<b>Refrige. units options:</b>	- Monoblock -	<b>Refrigerant:</b>	R 404a
<b>Duty sharing:</b>	- Manual changeover -	<b>Foaming agent:</b>	Polyurethane
<b>Plume guard:</b>	Yes	<b>Cold climate protection:</b>	No
<b>Door seal heater:</b>	Yes	<b>Auto-defrost:</b>	Yes
<b>Pressure valve:</b>	Yes	<b>Floor panel heater:</b>	Yes
<b>Voltage regulator:</b>	No	<b>Strip curtain:</b>	Yes
<b>Voltage options:</b>	Yes	<b>IEC 60335:</b>	Yes
<b>Cut-out system:</b>	Yes	<b>Surge protection:</b>	No

### TEMPERATURE MONITORING & ALARM OPTIONS:

<b>Temperature recording:</b>	- Event logger -	<b>Alarm system:</b>	Yes
<b>Comments:</b>	Upon request: AVR; Surge protection; split units - Cold climate protection not yet available. Event logger: Haier Intelligent Recorder		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -	<b>ISO 14001:</b>	Yes
<b>Supplied regions:</b>	All regions	<b>Installation service:</b>	- Advisory service -
<b>Warranty period:</b>		<b>Maintenance service:</b>	- Advisory service -
<b>Current PQS status:</b>	pre-qualified 25 Oct 2011	<b>Valid until :</b>	May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E001: Cold rooms and freezer rooms

**PQS code:** E001/004  
**Description:** Cold Rooms & Freezer Rooms  
**Manufactured in:** United Kingdom  
**Company:** FOSTER Refrigerator  
 Old Medow Road,  
 King's Lynn, Norfolk  
 PE 30 4JU  
 United Kingdom  
**Address:**  
**Telephone:** +44 1553 691122  
**Email:** [export@foster-uk.com](mailto:export@foster-uk.com)  
**Web address:** [www.fosterrefrigerator.co.uk](http://www.fosterrefrigerator.co.uk)

## Specifications

**Temperature zones:** Hot Temperate Cold

### ENCLOSURE CONSTRUCTION OPTIONS

<b>Cold room sizes:</b>	10m3	<b>Freezer room sizes:</b>	>10 m3
<b>Wall&amp;ceiling panel finish</b>	White foodsafe laminate on galvanised steel substrate	<b>Panel insulation material:</b>	High density CFC free polyurethane
<b>Floor panel finish</b>	Rigidised galvanised steel	<b>Panel thickness options:</b>	75 to 100 mm
<b>Mounting options:</b>	Wall Ceiling	<b>Panel jointing system:</b>	Cam locks at regular interval with factory cut corners
<b>Shelving system:</b>	Fixed shelves only	<b>Shelving material:</b>	Steel

### EQUIPMENT OPTIONS

<b>Refrige. units options:</b>	- Monoblock - Split system -	<b>Refrigerant:</b>	R404a
<b>Duty sharing:</b>	- Timed changeover - Manual changeover -	<b>Foaming agent:</b>	High density polyurethane
<b>Plume guard:</b>	Yes	<b>Cold climate protection:</b>	Yes
<b>Door seal heater:</b>	Yes	<b>Auto-defrost:</b>	Yes
<b>Pressure valve:</b>	Yes	<b>Floor panel heater:</b>	Yes
<b>Voltage regulator:</b>	Yes	<b>Strip curtain:</b>	Yes
<b>Voltage options:</b>	Yes	<b>IEC 60335:</b>	Yes
<b>Cut-out system:</b>	Yes	<b>Surge protection:</b>	Yes

### TEMPERATURE MONITORING & ALARM OPTIONS:

<b>Temperature recording:</b>	- Dial thermometer - Event logger -	<b>Alarm system:</b>	Yes
<b>Comments:</b>			
<b>Quality standard:</b>	- ISO 9001 -	<b>ISO 14001:</b>	Yes
<b>Supplied regions:</b>	All regions	<b>Installation service:</b>	- Advisory service - Installer network -
<b>Warranty period:</b>	1 Year	<b>Maintenance service:</b>	- Advisory service - Maintenance network -
<b>Current PQS status:</b>	pre-qualified 26 May 2015	<b>Valid until :</b>	May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.

# E003

## Refrigerators and freezers

The PQS specifications require better temperature control than was previously the case. These changes are mainly intended to reduce the risk of accidental freezing of vaccines stored in refrigerators and to eliminate the need for thermostat adjustment on electric compression cycle appliances. These and other changes from the earlier PIS specifications are detailed below.

### E003.1 Refrigerator and freezer technologies

Refrigerators and freezers can operate on electricity or on heat derived from the burning a liquid fuel or gas.

Electricity may be supplied from the mains, from an electric generator or from renewable energy sources; typically solar power supplied from a photovoltaic array (with or without storage batteries). Most electric refrigerators are vapour-compression cycle units, of which the ice lined refrigerator (ILR) is a special type.

Absorption cycle refrigerators use heat to produce refrigeration. Most absorption units burn LP gas or kerosene. Some operate with electric resistance heating and combination units can use fuel or electricity in the same refrigerator.

The table below summarizes the advantages and disadvantages of each refrigeration technology and energy source.

#### Refrigeration options

Refrigeration cycle and energy source	Thermostatic control	Routine maintenance	Overall cost	Other remarks
Compression cycle with reliable electricity	Good	Very little required.	Low	Voltage regulator required when voltage varies widely.
Compression cycle ILR with intermittent electricity	Good	Very little required	Low	Voltage regulator required when voltage varies widely.
Solar electricity/ direct drive compression cycle	Good	Routine solar module maintenance	Medium	Requires an established solar service network and good solar site evaluation.
Solar electricity/ battery powered compression cycle	Good	Routine battery and solar module maintenance	High	Requires an established solar service network and good solar site evaluation. Essential to plan for and provide funding

Refrigeration cycle and energy source	Thermostatic control	Routine maintenance	Overall cost	Other remarks
				for battery replacement.
Absorption cycle/ electric	Good	Little required	Medium	Requires frequent replacement of heating element when voltage varies widely, unless a voltage regulator is used. Consumes significantly more electricity than compression cycle equivalents.
Absorption cycle/ LP gas	Partial	Little required	Medium	Pilot flame can cause excessive cooling in low ambient temperatures.
Absorption cycle/ kerosene	None*	Frequent cleaning and adjustment of wick and flue	High	Kerosene needs to be filtered before use.

\* No thermostat control. Wick must be manually adjusted day and night to control internal temperature when external temperatures vary or when icepacks are being frozen. WHO prequalification for this type of refrigerator is phased out.

### E003.2 PQS compression refrigerators and freezers

Compression refrigerators and freezers are powered by electricity; they cannot operate on gas or kerosene. The electrical supply may come from the mains, a generator or from a renewable energy source such as solar power, with or without a battery pack. Compared to absorption options their great advantage is that compression refrigeration provides powerful and more energy efficient cooling. In addition, compression units have better temperature control in most conditions and less refrigerator maintenance is required.

All new PQS pre-qualified\* compression refrigerators listed in the data sheets in this section have vaccine storage compartments that are designed not to freeze if used in accordance with manufacturers' instructions. In addition they now have non-adjustable thermostats. However, if vaccines are placed against the internal lining without baskets there is still a risk of freezing. In 2016 PQS has introduced a grading scale A, B and C where appliances graded A are certified as low vaccine freezing risk even if baskets are not used (see paragraph on freeze-protection). This new approach should eliminate accidental freezing due to improper users' interventions such as thermostat adjustment or misplacement of vaccines in the refrigerator compartment.

**Low-energy chest freezers:** These units are used to store OPV in bulk. Typically they are used in smaller primary stores, where a freezer room is not justified, and at intermediate level. They can also be used to freeze water-packs and/or to store frozen icepacks.

**WARNING:** A freezer containing vaccine should never be used to freeze water-packs at the same time.

**Rapid water-pack freezers:** There are two types of rapid waterpacks freezer; front loading upright units and chest freezers with fast freeze sections – the fast-freeze section is used to freeze the waterpacks and the remainder of the cabinet is used to store them when frozen. These units are particularly useful when large quantities of icepacks are needed in a short time.

### *E003.2.1 mains powered refrigerators and freezers*

#### *E003.2.1.1 Compression refrigerators and freezers with no additional lining*

These are standard refrigerators that have been tested to ensure that acceptable vaccine storage temperatures between +2°C and +8°C are maintained in the vaccine storage areas. No freezing (i.e. temperature of 0°C or less) is accepted. If power is interrupted, these refrigerators will remain below +10°C for at least 4 hours.

#### *E003.2.1.2 Ice-lined refrigerators (ILR)*

Most ILRs can maintain acceptable temperatures below +10°C on as little as 8 hours of electricity per 24 hours, day after day. Ice-lined refrigerators are the best choice wherever there is at least 8 hours electricity a day, but no standby power supply.

Cooling during power cuts is maintained by an internal lining surrounding the vaccine storage compartment. The lining is made up of ice or cold water-filled compartments or frozen icepacks. When the electricity supply fails, this ice or cold water store keeps the vaccine cool for at least 20 hours. When the power is restored, the compressor runs until the lining is re-frozen or re-cooled.

Other new ILR-like products make novel use of chilled water and ice combined. These refrigerators can operate on fewer hours of power per day and provides over 10 days of acceptable temperature control without electricity, when fully charged. Temperature control is inherently stable and potentially extends the reach of the ILR approach to areas with as little as 28 hours of power per week or an average of 4 hours per day.

**WARNING:** During the re-freezing process, some areas of an ILR can fall below 0°C – for example, the bottom of the compartment. For non-grade A appliances freeze-sensitive vaccines should NEVER be stored within 150 mm of the base of these models. Always respect the manufacturer's storage limit lines inside the cabinet, indicating the extent of the hazardous zone and always use the vaccine storage baskets provided by the manufacturer.

In order to avoid the freezing problem, some programmes adjust the thermostats on older ILRs so that the water-filled lining remains liquid. This strategy reduces the appliance's cold-life but does eliminate the freezing risk. It should be adopted only after a carefully conducted study using data loggers to monitor vaccine temperature in the cold chain. Refer to: [WHO/IVB/05.01](#): *WHO Study Protocol for Temperature Monitoring in the Vaccine Cold Chain*.

#### *E003.2.2 Solar refrigerators and freezers<sup>1</sup>*

Solar powered vaccine refrigeration systems are now widely used. They are sometimes the only available solution in areas where no reliable conventional energy supply is available. WHO, PATH and others have conducted several in depth reviews of solar vaccine refrigeration programmes launched in Africa, the Americas and in South-East Asia. These have shown that:

- The technology can be reliable and improve the quality of the vaccine cold chain when compared with the use of absorption refrigerators.
- The 10 year life cycle cost of solar direct drive systems is estimated to be equal or lower than gas-powered refrigeration systems in settings where bottled gas is readily available and its supply is reliable.

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<sup>1</sup> For more information on solar refrigeration consult the WHO/UNICEF Guide: Introducing solar-powered vaccine refrigerator and freezer systems, a guide for managers in national immunization programmes

- The 10 year life cycle cost of solar battery powered systems remains relatively high in comparison with gas-powered refrigeration systems. Maintenance and replacement of batteries and regulators remains the major problem. Field reports historically indicate that on average, replacement is necessary after five years and these systems are often located in remote isolated areas making maintenance and battery replacement challenging.
- Solar modules must be physically secure because theft of solar modules and batteries is a growing problem.
- It is essential to ensure that a qualified servicing network is in place to make an on/site assessment, install the systems and provide long-term system maintenance. Replacement of parts such as batteries, battery charge regulators and refrigerator components must be anticipated and fully funded.

Both direct-drive and battery powered models currently provide vaccine storage at +2°C to +8°C. The flow chart under section E003.5 provides guidance on when to select solar refrigeration. It is essential to ensure that there is adequate sunlight throughout the year at all the proposed sites and a solar site evaluation must be conducted before the equipment is ordered.

There are now two types of solar refrigeration. The first type consists of a compression-cycle refrigerator or freezer or combined refrigerator/freezer powered by a battery pack which is charged by a photovoltaic array. The second type is a compression-cycle refrigerator or freezer or combined refrigerator/freezer directly driven by the solar array. No batteries are needed to operate the compressor. A sub-category of this type uses an ancillary battery to operate a fan.

Field reports indicated that battery-powered solar refrigeration systems can sometimes achieve a 10+ year service life. This is only possible if the installation is properly planned, correctly designed, competently installed and then supported by a regular maintenance program with adequate, ongoing funding.

Solar refrigeration is now a mature technology that can be used with confidence provided certain fundamental conditions are met. These conditions are:

1. *Maintenance and repair:* All solar equipment requires maintenance or it will fail, especially power systems with a battery. Plan for maintenance in accordance with maintenance tools for users and technicians; provide adequate funding in advance and carry out the work in a timely manner. Only install solar refrigerators at sites which can consistently be reached by a qualified service network throughout the year and in a reasonable time.
2. *Equipment selection:* A purchase should not be committed until the solar site evaluation has been completed. Then only refrigeration equipment that has been pre-qualified under PQS and which is suitable for the climatic conditions at the selected site(s) should be considered. Qualified Suppliers should provide a solar power system that is matched to the refrigeration equipment, meets PQS equipment specifications and is suitable for the site specific climate. Before buying a large quantity of equipment, a pilot study with one or few systems is to be conducted in order to assess the installation feasibility and the good working conditions in country.
3. *Solar direct drive installations:* Close attention to the warning given below should be paid.
4. *Solar site evaluation:* Subject to condition 1, the system supplier/installer must carry out a site evaluation and must confirm in writing that:
  - The refrigerator can be located in a level, secure and safe position out of direct sunlight and moisture.



- The proposed site has sufficient solar radiation throughout the year to power the chosen equipment (verified by officially-sourced regional multi-year weather data) and that system performance will not be compromised as a result of persistent dust storms, fog, air pollution or other more localized atmospheric effects.
- A solar site analysis has quantified the times of and the amount of shading on the proposed solar array location.
- The system autonomy (amount of energy stored for periods of low solar radiation) has been assessed and is matched to the site specific autonomy requirement as determined by specification PQS E003 PV01.
- The site for the solar array is not shaded by trees, vegetation, poles, cables, adjoining structures or buildings. Even something as small as an overhanging cable can seriously affect the efficiency of some solar modules.
- There is a suitable place to mount the solar array so that it cannot easily be vandalized, stolen, or accidentally damaged.
- Safe access can be provided to clean and maintain the solar array. Note: this is especially important where snow or dust storms are common.
- Details are specified for any roof strengthening required and clear guidance is provided on the installation of access ladders and/or safety ropes.
- All cable lengths are estimated as accurately as possible in advance.
- if batteries are used, advice is provided on a suitable and secure location for a battery enclosure (a locking, ventilated box) close to the vaccine refrigerator/freezer

ONLY proceed if all of these conditions can be met.

5. *Site preparation:* The solar site evaluation may show that preparatory building works are required to make the site safe and suitable. If this is so, make arrangements to carry out this work before the equipment is delivered.
6. *Servicing network:* There must be a competent, trained and affordable solar servicing network in the country. This service network must offer installation and long-term support with a reliable supply of spare parts for the refrigerator, the solar array and battery system (if used).
7. *Installation:* It is essential that the equipment be installed and commissioned in accordance with the relevant PQS Quality Assurance protocol: PQS PV01-VP2 *Solar power system for compression-cycle refrigerator or combined refrigerator/water-pack freezer.*
8. *User training:* Users must be trained in the operation and maintenance of the system. They should also be provided with clear instructions on whom to inform in case of maintenance requests or system failure.

**WARNING:** The freezer compartments of PQS pre-qualified solar refrigerators are not suitable for storing or freezing vaccines. Freezer compartments should only be used to freeze water-packs.

**WARNING:** Some single compressor solar refrigerators may not be able to freeze icepacks when the ambient temperature is permanently below +15°C to +20°C. If you plan to use a solar refrigerator in a mountainous area, or an area where the ambient

temperature is permanently or seasonally low, you should select a system with two independent compressors or a model that has shown good performance at low temperatures.

**WARNING:** The photovoltaic panels and battery packs which power the vaccine refrigerator must be used for this purpose alone. If there is a need for additional photovoltaic power on the site – for example for health facility lighting, for small-scale laboratory equipment and the like – this must be supplied from a separate system. If other equipment is supplied from the refrigerator battery pack, its use may be difficult to control and this will drain power and could compromise the vaccine.

PQS is currently working on Solar Energy Harvest Controller specifications. These devices will provide the possibility to use some extra energy supplied by solar arrays, while securing the power to the appliance.

**SOLAR DIRECT DRIVE WARNING:** PQS pre-qualified equipment may only be used within the limits stated on the relevant PQS sheet. Manufacturers are required to nominate a solar array size at the time of testing. The output from that solar array is used to determine the performance of the refrigerators. Only the nominated array size that is stated on the PQS sheet, or a larger array, may safely be used.

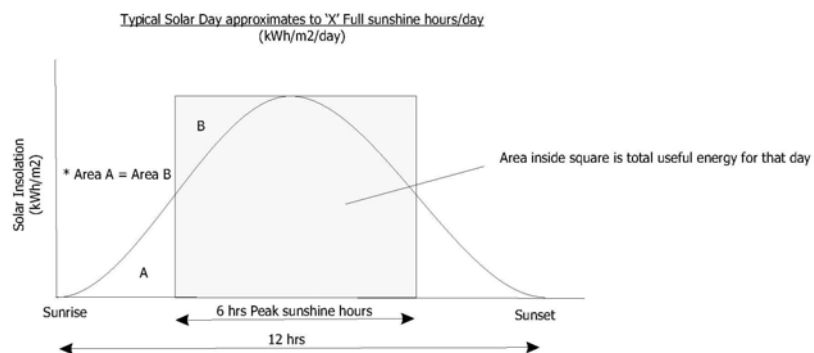
The solar direct drive refrigerators listed in this catalogue are laboratory tested over a specific ambient temperature range using a specific solar diurnal power cycle.

Establishing the correct size of the photovoltaic array for a solar direct drive refrigerator installation **cannot** be done by the purchasing agency. Both ambient temperature and solar power interact in complex ways and correct site-specific sizing requires a high level of technical expertise. The diagrams below illustrate this point.

Any changes to array components **must always** be done by the photovoltaic power system supplier working closely with the manufacturer of the direct drive refrigerator and checked and approved by WHO.

The diagram below illustrates a typical power curve for a solar refrigerator with batteries. In this example, all the solar energy under the curve is useful energy and can be used to charge the battery pack; the shaded area approximates this useful energy, and the curve represents the varying sunshine levels over the whole day.

### Typical power curve for solar refrigerator with batteries



Typically solar energy is expressed as Peak Sunshine Hours often ranging from 3.5 hrs to 6 hrs. The units for this are kWh/m<sup>2</sup>/day. So although there may be 12 hours of 'daylight' the energy from all of this is the same as 6 hours of midday sunshine.

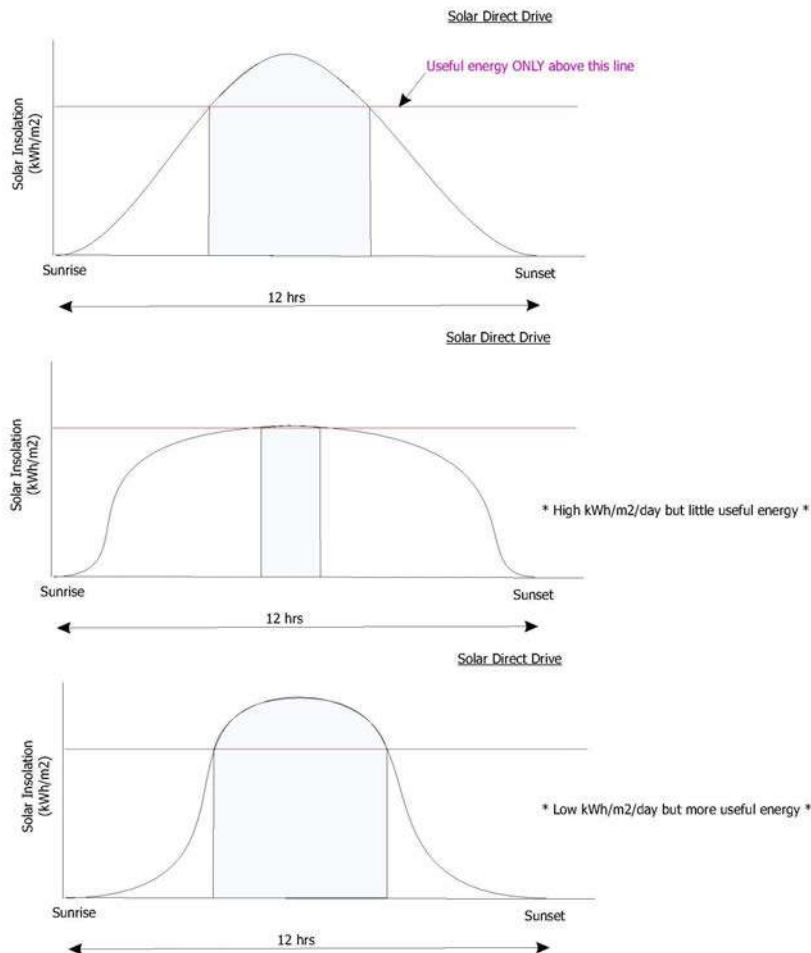
This approximation is so commonly used for solar refrigerators with batteries that it may be confusing when considering a direct drive solar refrigerator.

With a direct drive unit, a certain minimum power is needed to start the compressor motor. The three diagrams below illustrate how a direct drive refrigerator can only operate when the available power from the solar arrays is above the horizontal line which represents this starting load – this is usually a shorter period than for a battery operated unit. Below this minimum power threshold, the refrigerator cannot operate.

In the second example, although solar energy is well distributed over most of the day, only a tiny fraction exceeds the required minimum threshold. In this case a significantly larger solar panel would be needed to power the refrigerator.

In addition, because the power output of the solar panel and the performance of the refrigerator are both affected by ambient temperature<sup>2</sup>, there are many complex interactions which have to be considered in the overall design for a particular site.

### Power curves for solar direct drive



Source: True Energy Ltd

<sup>2</sup> Power output reduces as the temperature of the photovoltaic panel increases. Some solar direct drive units do not reliably maintain +2°C to +8°C at lower room temperatures.

### **E003.3 PQS absorption refrigerators and freezers**

Absorption refrigerators and water-pack freezers do not perform as well as their compressor-driven equivalents. They may require constant attention to ensure adequate performance for the vaccine cold chain. There is no justification for selecting absorption equipment which runs on electricity alone.

Absorption refrigerators are driven by heat, either from an electric element, a gas flame or a kerosene wick burner. Some models combine an electrical element with either gas or kerosene which allows alternative energy sources to be used. The temperature inside an electric or gas unit is controlled automatically by a thermostat. Although the height of the gas flame is controlled by a thermostat device, the minimum 'pilot' flame can still generate storage temperatures low enough to damage freeze-sensitive vaccines when the outside ambient temperature falls below +20 °C.

Kerosene units have no thermostat; instead the temperature is controlled manually by adjusting the wick of the kerosene burner up or down.

Models that combine vaccine storage with water-pack freezing within the same insulated chamber do not control temperatures or freeze water-packs as well as models that have separate freezing and vaccine storage areas. Separate systems consisting of a refrigerator and a freezer use more fuel, but can freeze the greatest quantities of icepacks and they do provide more reliable temperature control for vaccines.

**WARNING:** LP gas refrigerator pilot lights can freeze vaccines when used in cooler temperatures.

**WARNING:** Kerosene refrigerators have no automatic temperature control requiring vigilant attention in order to provide acceptable vaccine storage temperatures and avoid freezing. They require regular maintenance, including filtering the fuel.

**WARNING:** Incorrect use of kerosene refrigerators can lead to fire hazards and explosions. It is absolutely essential that the manufacturer's instructions are strictly followed. Users must receive adequate training before they are allowed to operate these refrigerators.

**WARNING:** Absorption refrigerators must always stand firm and level otherwise they will not operate correctly.

**WARNING:** Operating costs can be higher with absorption refrigeration than with most other options.

### **E003.4 Domestic refrigerators and freezers**

**WARNING:** Domestic compression refrigerators and freezers should never be used to store vaccines unless they have been tested against the relevant PQS verification protocol and found to be satisfactory for the setting in which they are intended to be used.

#### *E003.4.1 Domestic refrigerators*

Many countries purchase locally manufactured standard front-opening domestic refrigerators for storing EPI vaccines. This has procurement and maintenance advantages, but a number of serious performance shortcomings can compromise the cold chain and cause loss of vaccine.

**WARNING:** *'Multi-flow' models:* Models of this type are completely unsuitable because they are known to freeze vaccine. Multi-flow units always have a double door freezer/refrigerator combination with the freezer compartment at the top. The

refrigerator compartment is cooled with sub-zero air ducted down from the freezing compartment. They have two controls: a thermostat that controls the temperature in the freezer and a 'Thermo' control that adjusts the volume of freezing air that enters the refrigerator cabinet. If vaccine is placed in this air stream, it will freeze.

**WARNING:** *Single door models with internal freezer compartments:* These models may be adequate for use in moderate climates where there is a permanent electricity supply. However, they do have some serious disadvantages.

- Temperatures often fall below freezing in the zone close to the freezing compartment and/or at the bottom.
- Cabinets and doors are usually poorly insulated and are not designed to maintain the temperature range recommended for vaccine storage. Doors are fitted with shelves as well as egg and butter compartments and food drawers may be located at or near the bottom. These subsidiary storage areas are convenient to use, but are totally unsuitable for vaccines.
- Temperatures quickly rise above +8 °C when the electricity fails, and during water-pack freezing.
- Non-tropicalized models will not operate well in high ambient temperatures.

#### *E003.4.2 Domestic freezers*

When icepack freezing capacity alone is required, domestic freezers have advantages when compared to PQS prequalified equipment: they usually cost less to purchase, can be procured locally without foreign currency, are delivered more quickly, spares are stocked nationally or even locally, and technical expertise is more readily available. In addition, domestic freezers located in non-health service facilities such as restaurants, shops, etc., can be used to supply ice for outreach, mobile sessions and mass immunization activities.

#### **E003.5 Choosing a refrigerator or freezer**

When you choose a refrigerator or freezer, consider the following points (see glossary for definitions):

1. **Temperature zone:** Assess climate-specific and location-specific factors:
  - *Climate:* Identify the appropriate temperature zone by checking the mean maximum temperature during the hottest month and the mean minimum during the coldest month. Bear in mind that some parts of the country – for example, mountain regions – may require equipment with a different temperature rating than other parts<sup>3</sup>.
  - *Setting:* Choose potential appliance types to suit the setting using the table below. There are two factors to consider.
    - The mean maximum temperature in the hottest month in the area where the appliance will be located. Ignore air-conditioning because it is very likely to be off at weekends and during power cuts and cold chain equipment is often located in store rooms and the like .
    - The lowest winter temperature in the room where the appliance will be located. In cold climates, the winter temperature inside a health facility can drop below freezing – for example, where heating is absent, unreliable, or is turned off at night and/or at weekends. In such cases, choose equipment that is able to operate at low ambient

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<sup>3</sup> City-level climate data are available at: <http://www.weatherbase.com> or [www.wolframalpha.com](http://www.wolframalpha.com)

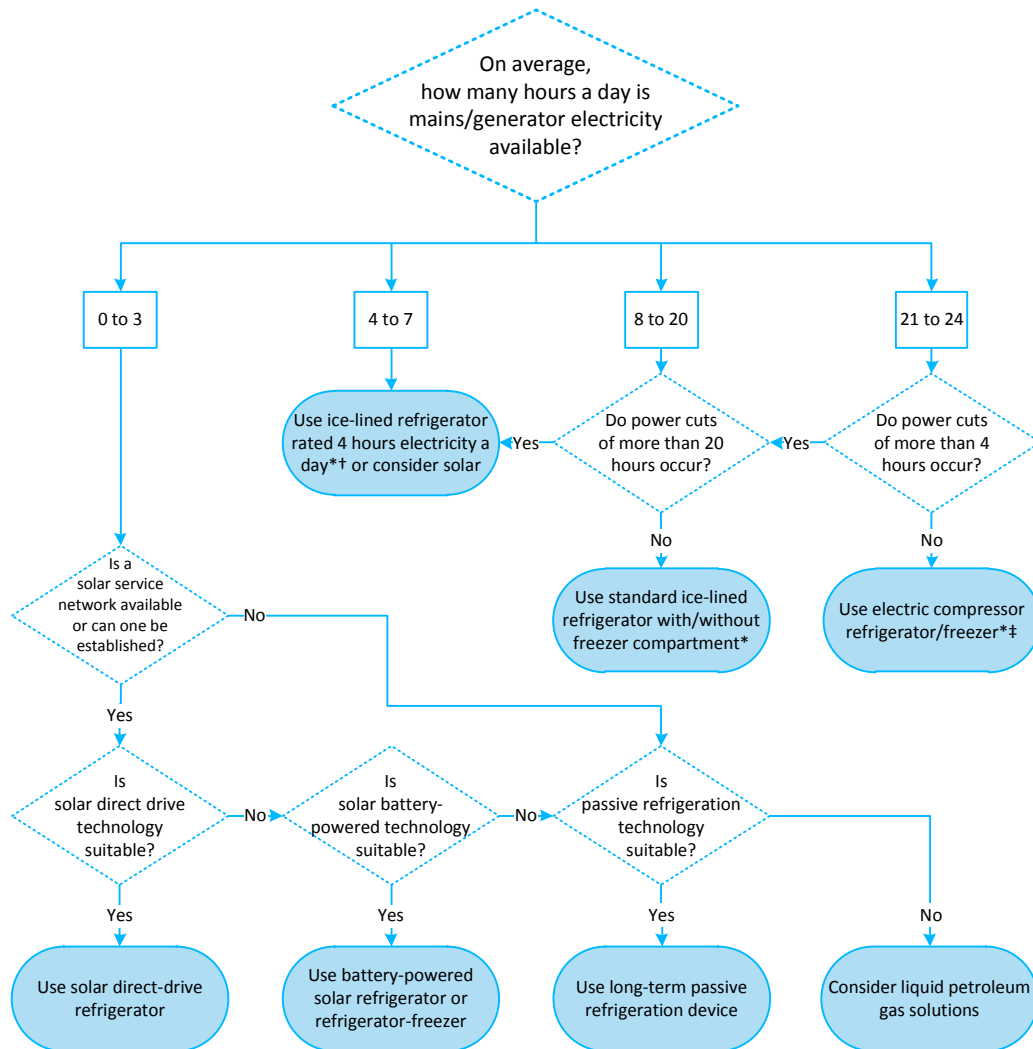
temperatures. Currently there are no models available with active low-temperature protection which can operate at temperatures below +5 °C.

### Temperature zone selection

Appliance type LAT = Low Ambient Temperature rating	Mean maximum temperature in hottest month			Lowest winter room temperature	
	<= +27 °C	<= +32 °C	>+32 °C	>= +10 °C to +25 °C	< +10 °C
Hot zone			X	X	
Temperate zone		X		X	
Moderate zone	X			X	
Hot zone + LAT			X		X
Temperate zone + LAT		X			X
Moderate zone + LAT	X				X

2. **Vaccine storage capacity:** In each setting – primary store, sub-national store or health facility – assess how much vaccine must be stored at +2 °C to +8 °C and how much at -20 °C.
3. **Water-pack freezing capacity:** If icepacks are required assess how many water-packs need to be frozen per 24 hours in each setting. Choose rapid waterpack freezers when large quantities of packs need to be frozen quickly. Once frozen, the icepacks can be stored in any locally available chest freezer with low power consumption. If high throughput is not a major concern, chest freezers can be used on their own. Where cold waterpacks are used, lower cost, locally available refrigerators are perfectly adequate, so long as they are never used to store vaccine.
4. **Energy source:** Continuous refrigeration is required for vaccine storage and this requires a reliable source of power. In each setting, assess which power sources are available and which type of refrigeration is most suitable. The available sources are mains electricity, generator produced electricity, renewable energy (e.g. solar electricity), and bottled gas. Solar and gas are currently the only alternatives where mains electricity absent, or is available for less than eight hours per day. The flowchart below outlines the decision process:

## Selecting a suitable energy source



\* With voltage regulator

† With adequate holdover time (the time in hours during which all points in the vaccine compartment remain between +2°C and +10°C, at the maximum ambient temperature of the climate zone for which the appliance is rated, after the fuel supply has been disconnected). Refer to PQS Catalogue datasheets for holdover times of ice-lined refrigerators

‡ Do not use domestic refrigerators unless lab tested to PQS standards

5. **Associated supplies:** Make sure you order the necessary associated supplies at the same time as the refrigerator or freezer. These include:

- *Spare parts:* The data sheets in this section list the spare parts recommended for the first five years' use. To avoid shortages later, order these spares with the equipment. Before purchasing equipment check that repair facilities and spare parts are available, whether from a competent local service agent, or in-house.
- *Voltage regulator:* Unless mains electricity is highly reliable, order a voltage regulator for all mains or generator powered equipment – see section E001. Note that some suppliers include a voltage regulator either integrated in the device or bundled with the device.



- *Temperature monitoring equipment:* PQS specifications require all vaccine refrigerators and freezers, whatever the power source, to be supplied with an external reading thermometer. In addition, for reliable continuous temperature monitoring, every vaccine refrigerator should preferably be equipped with a 30-day electronic refrigerator temperature logger. See section E006. Alternatively, use a freeze indicator device to detect freezing temperatures. Note that freeze indicators need to be replaced each time an alarm is triggered and refrigerator temperature logger will need to be replaced approximately every two years when the battery runs out. Ensure that adequate recurrent funding is available to purchase these consumable items in future years. It is to be noted that future appliances will have integrated remote temperature monitoring devices as an option.
  - *Manuals:* Order user and service manuals in the appropriate language.
6. **Training:** Ensure that users and maintenance technicians are properly trained to use the specific equipment that you order. All photovoltaic systems require on-site installation by a competent technician specifically trained in solar installation work. It is also essential that adequate servicing facilities are available after the equipment has been installed. The importance of training is often underestimated and under-budgeted. A cold chain with good equipment, but inadequately trained staff, can seriously hamper an immunization programme.
7. **Cost:** Select the best available refrigerator from the point of view of reliable temperature control and low maintenance. Do not buy solely on the basis of purchase cost. This can lead to expensive loss of vaccine and/or higher lifetime costs due to greater running and maintenance costs. Remember that, at any one time, a refrigerator may be storing vaccine worth several times the cost of the equipment. For example, a 100 litre refrigerator filled with pentavalent vaccine could be storing vaccine worth \$30-40,000. Over a 10 year life, with three-monthly deliveries, the total value of vaccine passing through the appliance could amount to more than one million dollars.

### **E003.6 PQS specification changes**

The new PQS specifications have introduced a number of technical changes. The following are the most significant.

#### *E003.6.1 General*

PQS now allows the appliance to be either a refrigerator only or a combined refrigerator/waterpack freezer.

#### *E003.6.2 Temperature control*

**Vaccine compartment temperature range:** The acceptable temperature range for storing vaccine is +2°C to +8°C. However, transient excursions outside this range will be tolerated, within the following limits:

- No excursion must exceed +20°C ( $\pm 0.5^\circ\text{C}$ ) for any amount of time.
- No excursion must drop below -0.5°C for any amount of time.
- No excursion must drop below 0°C for longer than 1 hour.
- Following an excursion below 0°C, the appliance must return to acceptable temperature range (i.e., consistently between +2°C and +8°C) within 2 hours. This duration will be measured from the moment the temperature drops below 0°C and up until it returns to +2°C.

For refrigerator testing the cumulative effect of any excursions within the above range will be assessed by calculating the mean kinetic temperature (MKT), a calculation method to account for the impact of both temperature excursions and the amount of time of each temperature excursion. This is measured over the 5 day period of day/night tests.

#### **Freeze-protection:**

PQS defines limits for internal lining temperature range as follows:

**Temperature range on walls/lining of vaccine compartment:** For sensors placed in direct contact with the walls/lining of the vaccine compartment, freezing temperature is defined as any of the following conditions:

- Excursion between -0.5°C and 0°C for longer than 1 hour.
- Excursion equal to or below -0.5°C for any amount of time.
- Inability to return to acceptable temperature range (i.e., consistently between +2°C and +8°C) within 2 hours following an excursion equal to or below 0°C.

#### **Freeze-protection classification:**

Devices are classified with Grade A, B or C as follows:

- **Grade A**, user-independent freeze protection (UIFP): When the appliance is used within its nominated temperature range (temperature zone +43°C, +32°C or +27°C and minimum rated ambient temperature) there is no user-intervention required to ensure that the vaccines will not be exposed to temperatures below 0°C whatever the position of the vaccine in the vaccine storage compartment.
- **Grade B**, user-dependent freeze protection (UDFP): Even if the appliance is used within its nominated temperature range, the user must comply with a procedure provided by the manufacturer and requiring one level of user-intervention (e.g., the requirement to use baskets or other items) in order to avoid vaccine freezing.
- **Grade C**, user-dependent freeze protection (UDFP): Even if the appliance is used within its nominated temperature range, the user must comply with a procedure provided by the manufacturer requiring more than one level of user-intervention in order to avoid vaccine freezing. (e.g., the requirement to use baskets and insulation barriers or covers).

**Temperature control in refrigerators:** Only non-adjustable thermostats are now permitted in compression refrigerators. These must be factory-set to prevent freezing in any part of the refrigerator. Incorrect thermostat adjustment is a common cause of vaccine freezing and the new electronic thermostats eliminate the need to change the setting.

#### *E003.6.3 Temperature zones*

**Hot zone:** Hot zone appliances must operate at a steady +43°C ambient temperature and over a +43°C/+25°C day/night cycling temperature range. Hot zone equipment may be used in a moderate and/or temperate zone. All PQS appliances are now first tested at +43°C and optionally at other temperatures.

**Temperate zone:** Temperate zone appliances must operate at a steady +32°C ambient temperature and over a +32°C/+15°C day/night cycling temperature range (unchanged). Temperate zone equipment may be used in a moderate zone.

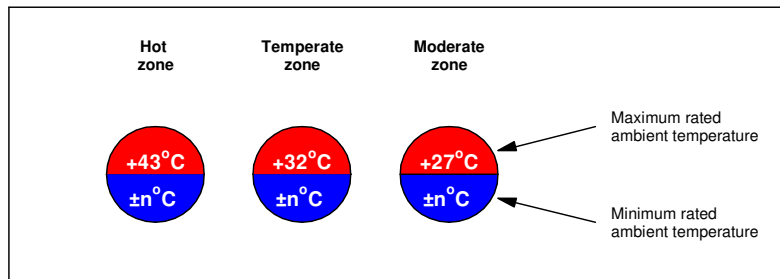
**Moderate zone:** There is a new category of ‘moderate zone’ appliances which must operate at a steady +27°C ambient temperature and over a +27°C/+10°C day/night cycling temperature range.

**Minimum rated ambient temperature:** Note that the previous cold zone (+32°C/-5°C) category has been omitted. Instead, all hot, temperate and moderate zone refrigerators or combined refrigerator/water-pack freezers are tested to determine their *minimum rated ambient temperature*. The lowest possible rating is an ambient temperature of -10°C and appliances without an active low temperature protection features cannot be rated below +5°C.

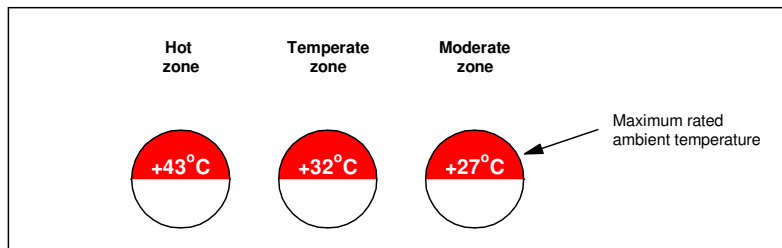
**E003.6.4 Refrigerator temperature zone symbols**

New symbols have been introduced to identify six general combinations of temperature zone and low temperature protection. For refrigerators, the upper semi-circle shows the maximum rated ambient temperature. If exposed to temperatures above this, the equipment will not maintain the vaccine at +2°C to +8°C. The lower semi-circle shows the minimum rated ambient operating temperature established by testing. If the equipment is exposed to temperatures below this figure, the vaccine will be at risk of freezing. The freezer symbols have a blank lower semi circle because minimum rated ambient temperature is not relevant.

**Temperature zone symbols for vaccine refrigerators**



**Temperature zone symbols for vaccine freezers**



**E003.7 Recent and future developments**

A number of interesting new developments have been pursued by WHO and its partners.

Solar direct drive freezers are now available.

Eutectic packs (phase change materials) that freeze at positive temperatures (e.g. +5°C) may be used instead of an ice-lining to prevent vaccine freezing. This technology will provide more cooling capacity than a lining consisting of unfrozen cool water-packs. PQS will publish a list of potential usable PCMs.

Passive refrigeration option is now available for stationary use (see E004 section). This may require some form of coolant to be added periodically (e.g. weekly or monthly replenishment of ice).

Countries that wish to use locally made domestic vapour-compression refrigerators and freezers are now encouraged to laboratory test these products against the relevant PQS standards. This will help to identify potential problems before deployment takes place.

**E003 data sheets follow**



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/001</b>
<b>Type of appliance:</b>	Battery solar powered combined refrigerator and freezer
<b>Manufacturer's reference:</b>	TCW 2000 DC
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Solar charged battery;#1;#Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	91 x 127 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: Grade A**

<b>Vaccine storage capacity: (Litres)</b>	76		
<b>Gross volume (Litres):</b>	118	<b>Gross volume:</b>	42
<b>Holdover time (hours):</b>	13 hours 35 mn	<b>Waterpack freezing capacity:</b>	3.4 kg/24h
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.58 kWh / 24 h		15.6 kg
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	1.23 kWh/24h	<b>Energy consumption during freezing:</b>	0.99 kWh/24h

Solar power system not included - contact manufacturer  
 Shipped upon request with the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS position through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no proper display since the refrigerators do have digital display. This RTM device is exclusively bundled to B Medical Systems refrigerators / freezers. For more information, please contact B Medical Systems.

**Comments:**

**Accessories:** 4 baskets; 24 water-packs - 0.6 L; 4 Keys; Documentation

**Spare parts (ref, price):**  
 Compressor Danfoss BD35F, 296.9702.07, 107.70 €  
 E.Box BD35F, 296.9705.12, 105.38 €  
 Electronic thermostat TCW/DC, 292.2009.01, 94.48 €  
 Sensor for e-thermostat, 296.9804.20, 6.51 €  
 Electronic control panel, 296.3602.82, 15.15 €  
 Fan compressor, 296.9710.12, 52.06 €  
 Voltage regulator 12 v, 296.9769.71, 45.45 €  
 Fuse 15A, 296.9243.15, 0.09 €  
 Main switch DC, 292.2044.16, 3.85 €

<b>Shipping volume:</b>	1.05 m3	<b>Shipping weight:</b>	125 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: 2770€	40-99 units: 2630€	>100 units: 2500€
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other -	<b>Specification ref.</b>	
<b>Verification report:</b>	A65440 - February 2009	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 17 Mar 2009</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/002</b>
<b>Type of appliance:</b>	Vaccine/waterpacks freezer
<b>Manufacturer's reference:</b>	HBD 116
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	N/A
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	82 x 67 x 63 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: N/A</b>
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<b>Vaccine storage capacity: (Litres)</b>	none		
<b>Gross volume (Litres):</b>	none	<b>Gross volume:</b>	121 L
<b>Holdover time (hours):</b>	2 hours 29 mn	<b>Waterpack freezing capacity:</b>	12 kg/24 h
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.38 kWh / 24 h		136 x 0.6 L
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>		<b>Energy consumption during freezing:</b>	3.77 kWh/24h

### Comments:

<b>Accessories:</b>	Instruction manual; Keys; Tray		
<b>Spare parts (ref, price):</b>	Compressor Danfoss, 0070701332, 60 USD Thermostat, 0074090880, 6.8 USD Starter, 0070701332D, 7.4 USD Starter relay, 0070701331F, 7.4 USD Baskets (2), 0071090001, 7.2 USD		
<b>Shipping volume:</b>	0.5 m3	<b>Shipping weight:</b>	79 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	410 US\$		
<b>Quality standard:</b>	- ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-09-145	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 24 Sep 2009</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/003</b>
<b>Type of appliance:</b>	Vaccine/waterpacks freezer
<b>Manufacturer's reference:</b>	HBD 286
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	N/A
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	80 x 124 x 63 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: N/A</b>
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<b>Vaccine storage capacity: (Litres)</b>	---	<b>Gross volume:</b>	298 L
<b>Gross volume (Litres):</b>	---	<b>Waterpack freezing capacity:</b>	16.8 kg/24 h
<b>Holdover time (hours):</b>	4 hours 9 mn		310 x 0.6 L
<b>Energy consumption, stable running (kWh/24 hours):</b>	4.36 kWh / 24 h	<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	3.77 kWh/24h	<b>Energy consumption during freezing:</b>	---

### Comments:

<b>Accessories:</b>	Instruction manual; Keys; Tray		
<b>Spare parts (ref, price):</b>	Compressor danfoss, 0070701332, 70.2 USD Thermostat, 0074090880, 6.8 USD Starter, 0070701332D, 7.4 USD Starter relay, 0070701331G, 7.4 USD Baskets (3), 0071090001, 7.2 USD		
<b>Shipping volume:</b>	0.88 m3	<b>Shipping weight:</b>	79 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	521 US\$		
<b>Quality standard:</b>	- ISO 13485 - ISO 14001 - Other -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-09-145	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 24 Sep 2009</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/004</b>
<b>Type of appliance:</b>	Waterpacks freezer
<b>Manufacturer's reference:</b>	TFW 800
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Multi-zone	<b>Min rated ambient temp:</b>	N/A
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C; +32°C; +27°C	<b>Ext dimensions (HxLxD)</b>	183.0 x 59.5 x 72.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: N/A</b>
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<b>Vaccine storage capacity: (Litres)</b>	none	<b>Gross volume:</b>	290 L
<b>Gross volume (Litres):</b>	none	<b>Waterpack freezing capacity:</b>	36 kg/24 h
<b>Holdover time (hours):</b>	N/A		187 x 0.6 L
<b>Energy consumption, stable running (kWh/24 hours):</b>	3.35 kWh/24 h	<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	3.98 kWh/24 h	<b>Energy consumption during freezing:</b>	6.35 kWh/24h

**Comments:** Also available in 115V 60Hz

**Accessories:** Temperature zone indicator

**Spare parts (ref, price):** Thermostat (2), 296.9764.09, 123.00 €  
Compressor, 296.9701.33, 139.47 €

<b>Shipping volume:</b>	1.255 m3	<b>Shipping weight:</b>	109 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: 2579€	40-99 units: 2451 €	>100 units: 2330€

<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other -	<b>Specification ref.</b>
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<b>Verification report:</b>	A65808	<b>Verification laboratory:</b>	Intertek UK
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<b>Current PQS status:</b>	<i>pre-qualified: 29 Sep 2009</i>	<b>Validity until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/005</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	HBC 70
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	81.8 x 67.3 x 66.3 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: Not tested</b>
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<b>Vaccine storage capacity: (Litres)</b>	45 L		
<b>Gross volume (Litres):</b>	71 L	<b>Gross volume:</b>	none
<b>Holdover time (hours):</b>	27 hours 18 mn	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.64 kWh/24h		N/A
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.4 kWh/24h	<b>Energy consumption during freezing:</b>	N/A

**Comments:** Energy consumption intermittent power to be provided

**Accessories:** Instruction manual; Keys; Tray

**Spare parts (ref, price):** Thermostat, 0074091494; 27.6 USD  
Compressor, 0070701331; 94.9 USD

**Shipping volume:** 0.56 m3 **Shipping weight:** 64 kg

**Price year** 2016 **Incoterms** EXW

**Price** 510 US\$

**Quality standard:** - ISO 13485 - ISO 14001 - Other - **Specification ref.**

**Verification report:** WB-09-848 **Verification laboratory:** CHEARI

**Current PQS status:** *pre-qualified: 10 Oct 2009* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/006</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	HBC 200
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	81.8 x 124.3 x 63 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	90 L		
<b>Gross volume (Litres):</b>	198 L	<b>Gross volume:</b>	none
<b>Holdover time (hours):</b>	31 hours 23 mn	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.34 kWh/24h		N/A
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	4.01 kWh/24h	<b>Energy consumption during freezing:</b>	N/A

<b>Comments:</b>	Energy consumption intermittent power to be provided		
<b>Accessories:</b>	Instruction manual; Keys; Tray		
<b>Spare parts (ref, price):</b>	Thermostat, 0074091494; 27.6 USD Compressor, 0070701332; 98.9 USD		
<b>Shipping volume:</b>	0.91 m3	<b>Shipping weight:</b>	108 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	688 US\$		
<b>Quality standard:</b>	- ISO 13485 - ISO 14001 - Other -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-09-847	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 10 Oct 2009</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

**PQS code:** E003/007  
**Type of appliance:** Icelined refrigerator  
**Manufacturer's reference:** MK 304  
**Manufactured in:** Denmark  
**Company:** Vestfrost Solutions  
**Address:** A/S Vestfrost  
 Falkevej 12  
 DK-6705 Esbjerg Ø  
 Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Multi-zone	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C; +32°C	<b>Ext dimensions (HxLxD)</b>	84 x 69 x 126 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	105 L		
<b>Gross volume (Litres):</b>	218 L	<b>Gross volume:</b>	N/A
<b>Holdover time (hours):</b>	25.6	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	3.2 kWh/24h	<b>Waterpack storage capacity:</b>	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	5.10 kWh/24h	<b>Energy consumption during freezing:</b>	N/A

**Comments:** Data 32°C to be provided

**Accessories:** 7 baskets; Temperature controller; Locking lid + Keys; Manual in 6 languages; Plywood packing

**Spare parts (ref, price):** Thermostat, 7020293; 30.46 €  
 Compressor, 8-03.6038480; 107,13 €

**Shipping volume:** 1.02 m3 **Shipping weight:** 126 kg

**Price year** 2016 **Incoterms** FCA

**Price** 1-99 units: 817€ 100-199 units: 803€ 200 or more units: 793€

**Quality standard:** - ISO 9001:2008 - ISO 14001 **Specification ref.**  
 - Other - DS/OHSAS  
 18001:2008 -

**Verification report:** 300-KLAB-09-142 **Verification laboratory:** Danish Technological Institute

**Current PQS status:** *pre-qualified: 25 Nov 2009* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/008</b>
<b>Type of appliance:</b>	Two mode battery solar refrigerator OR freezer
<b>Manufacturer's reference:</b>	TCW 3000 DC
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Solar charged battery
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	90.5 x 126 x 82.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	109.5	
<b>Gross volume (Litres):</b>	204	<b>Gross volume:</b> 204
<b>Holdover time (hours):</b>	23.4 hours	<b>Waterpack freezing capacity:</b> 17 kg/24h
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.01 kWh/24h	48 kg
	<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.15 kWh/24h	<b>Energy consumption during freezing:</b> 2.35 kWh/24h

Two-mode appliance: it works either as a refrigerator or waterpacks freezer; power source 12/24V for solar powered battery - Prices do not include the solar power system.

Solar power system not included - contact manufacturer

Power source: battery 12/24V DC

Shipped upon request with the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS position through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no proper display since the refrigerators do have digital display. This RTM device is exclusively bundled to B Medical Systems refrigerators / freezers. For more information, please contact B Medical Systems.

### Comments:

**Accessories:** 5 baskets - 36 x 0.6 L water-packs - Keys - Instructions

**Spare parts (ref, price):** Compressor Danfoss BD80F - 296.9702.11 - 176.66 €; E-Box BD80F - 296.9705.22 - 165.82 €; Electronic thermostat TCW/DC 292.2009.01 - 94.48 €; Sensor for electronic thermostat - 296.9804.20 - 6.51 €; Control panel electronic - 296.3602.83 - 11.66 €; Fan compressor - 296.9710.71 - 65.21 €; Voltage regulator 12V - 296.9769.71 - 77.48 €; Fuse 15A - 296.9243.15 - 0.09 €; Main switch DC - 292.2044.16 - 3.85 €

<b>Shipping volume:</b>	1.05 m3	<b>Shipping weight:</b>	125 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: 2719€	40-99 units: 2584€	>100 units: 2455€
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other -	<b>Specification ref.</b>	
<b>Verification report:</b>	A65440b and A65440c	<b>Verification laboratory:</b>	Intertek UK

**Current PQS status:** *pre-qualified: 15 Dec 2009*

**Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/009</b>
<b>Type of appliance:</b>	Solar direct drive, ancillary battery refrigerator
<b>Manufacturer's reference:</b>	MKS 044
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostolutions.com](mailto:clc@vestfrostolutions.com);  
[bjn@vestfrostolutions.com](mailto:bjn@vestfrostolutions.com)

**Web address:** <http://vestfrostolutions.com/>

## Specifications

<b>Climate zone:</b>	Temperate	<b>Min rated ambient temp:</b>	+20°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive with ancillary battery
<b>Appliance tested at:</b>	+32°C	<b>Ext dimensions (HxLxD)</b>	87.6 x 72.7 x 69.7 cm
<b>Performance at:</b>	<b>+32°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Not tested</b>
<b>Vaccine storage capacity: (Liters)</b>	19.5 L	<b>Gross volume (Liters):</b>	none
<b>Gross volume (Liters):</b>	48 L	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	147 hours	<b>At a solar radiation reference period of:</b>	6.0 kWh/m <sup>2</sup> /day
<b>Warning !</b>	<i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>		
<b>Comments:</b>	Energy requirements: nominal 12 Vdc solar electric array. Minimum power 160 Watts at solar radiation reference period 6.0 kWh/m <sup>2</sup> /day Prices include the solar panel kit of 3x90Wp, roof adjustable, plug & play		
<b>Accessories:</b>	3 baskets; Self regulating temperature control. External electronic temperature reading; Locking lid + keys. Manual in 6 languages. Plywood packing.		
<b>Spare parts (ref, price):</b>	Thermostat Danfoss: 19.12 € Compressor Incl. E-Box 245 €		
<b>Shipping volume:</b>	0.65 m <sup>3</sup>	<b>Shipping weight:</b>	88 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 2434 €	100-199 units: 2399 €	200 or more units: 2363 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-09-213	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 18 Mar 2010</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/010</b>
<b>Type of appliance:</b>	Combined icelined refrigerator/waterpacks freezer
<b>Manufacturer's reference:</b>	MKF 074
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Temperate	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+32°C	<b>Ext dimensions (HxLxD)</b>	84 x 70 x 72 cm
<b>Performance at:</b>	<b>+32°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	16 L	
<b>Gross volume (Litres):</b>	54 L	<b>Gross volume:</b> 10 L
<b>Holdover time (hours):</b>	52 hours 54 mn	<b>Waterpack freezing capacity:</b> 1.6 kg/24h 9 x 0.6 L
<b>Energy consumption, stable running (kWh/24 hours):</b>	3.46 kWh/24h	<b>Waterpack storage capacity:</b>
<b>Energy consumption, cool down test (kWh/24 hours):</b>	3.18 kWh/24h	<b>Energy consumption during freezing:</b>

### Comments:

**Accessories:** 2 baskets; Self regulating temperature control; External temperature reading; Locking lid + keys; Manual in 6 languages; Plywood packing

**Spare parts (ref, price):** Thermostat, 7020109-01; 19.12 €  
Compressor, Secop 8-03.6038602, 90.19 €

<b>Shipping volume:</b>	0.65 m3	<b>Shipping weight:</b>	90 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 761 €	100-199 units: 751 €	200 or more units: 739 €

<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
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<b>Verification report:</b>	300-KLAB-09-214	<b>Verification laboratory:</b>	Danish Technological Institute
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**Current PQS status:** *pre-qualified: 14 Jul 2010* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/011</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	MK 204
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	84 x 70 x 92 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: Not tested**

**Vaccine storage capacity:** 75 L  
(Litres)

**Gross volume (Litres):** 136 L

**Holdover time (hours):** 20.1 hours

**Energy consumption, stable running (kWh/24 hours):** 1.89 kWh/24h

**Energy consumption, cool down test (kWh/24 hours):** 3.58 kWh/24h

**Gross volume:** none

**Waterpack freezing capacity:** N/A

N/A

**Waterpack storage capacity:**

**Energy consumption during freezing:** N/A

### Comments:

**Accessories:** 5 baskets; Self regulating temperature control; External electronic temperature reading; Locking lid + keys; Manual in 6 languages; Plywood packing

**Spare parts (ref, price):** Thermostat, Danfoss 7020109-01, 19.12 €  
Compressor, 8-03.6038754, 90.05 €

<b>Shipping volume:</b>	0.752 m3	<b>Shipping weight:</b>	102 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 694 €	100-199 units: 686 €	200 or more units: 677 €

**Quality standard:** - ISO 9001:2008 - ISO 14001  
- DS/OHSAS 18001:2008 - **Specification ref.**

**Verification report:** 300-KLAB-09-141 **Verification laboratory:** Danish Technological Institute

**Current PQS status:** *pre-qualified: 14 Jul 2010* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/012</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	MK 404
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+25°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	84 x 70 x 156 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	135 L	
<b>Gross volume (Litres):</b>	240 L	<b>Gross volume:</b> none
<b>Holdover time (hours):</b>	23.23 hours	<b>Waterpack freezing capacity:</b> none
<b>Energy consumption, stable running (kWh/24 hours):</b>	3.08 kWh/24h	N/A
		<b>Waterpack storage capacity:</b>
<b>Energy consumption, cool down test (kWh/24 hours):</b>	6.37 kWh/24h	<b>Energy consumption during freezing:</b> none

### Comments:

**Accessories:** 7 Baskets; Self regulating temperature control; Locking lid with keys; Instructions; Plywood packing

**Spare parts (ref, price):** Thermostat, Danfoss 7020294, 30.42 €  
 Compressor, Danfoss 8-03.6038754, 107.13 €

<b>Shipping volume:</b>	1.264 m3	<b>Shipping weight:</b>	
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 945 €	100-199 units: 932 €	200 or more units: 919 €

<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-10-122	<b>Verification laboratory:</b>	Danish Technological Institute

**Current PQS status:** *pre-qualified: 14 Jul 2010* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/014</b>
<b>Type of appliance:</b>	Combined icelined refrigerator/waterpacks freezer
<b>Manufacturer's reference:</b>	TCW 2000 AC
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsystems.com">info@bmedicalsystems.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsystems.com">www.bmedicalsystems.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+15°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	90 x 127 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: Grade A**

<b>Vaccine storage capacity: (Litres)</b>	60		
<b>Gross volume (Litres):</b>	118	<b>Gross volume:</b>	42
<b>Holdover time (hours):</b>	39.4 hours	<b>Waterpack freezing capacity:</b>	10 kg /24h 12 kg
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.87 kWh/24h	<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	4.34 kWh/24h	<b>Energy consumption during freezing:</b>	1.95 kWh/h

Electricity source for 115V-60Hz is optional  
 Shipped upon request with the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS position through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no proper display since the refrigerators do have digital display. This RTM device is exclusively bundled to B Medical Systems refrigerators / freezers. For more information, please contact B Medical Systems.

### Comments:

**Accessories:** 4 baskets; 24 waterpacks 0.6L; 4 keys; Documentation

**Spare parts (ref, price):** Electronic Thermostat - 292.2009.00 - 89.36 €  
 Drier - 294.1853.02 - 1.90 €;  
 Fan - 296.9759.17 - 28.30 €;  
 Compressor - 296.9701.41 - 130.32 €;  
 Starting capacitor - 296.9706.48 - 11.54 €

<b>Shipping volume:</b>	1.05 m3	<b>Shipping weight:</b>	125 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: 2509 €	40-99 units: 2382 €	100 or more units: 2565 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other -	<b>Specification ref.</b>	
<b>Verification report:</b>	A65998	<b>Verification laboratory:</b>	Intertek UK

**Current PQS status:** *pre-qualified: 14 Dec 2010*

**Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/017</b>
<b>Type of appliance:</b>	Two-mode vaccine refrigerator OR waterpacks freezer
<b>Manufacturer's reference:</b>	TCW 3000 AC
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+15°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	91 x 127 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER		Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	150			
<b>Gross volume (Litres):</b>	204	<b>Gross volume:</b>	204	
<b>Holdover time (hours):</b>	53 hours 10 min; 3 hours 55 min	<b>Waterpack freezing capacity:</b>	N/A	
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.37 kWh/24h; 3.83 kWh/24h	<b>Waterpack storage capacity:</b>	112.2 kg	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	1.32 kWh/24h; 3.91 kWh/24h	<b>Energy consumption during freezing:</b>	-----	

Power source option: 115V 60Hz- This appliance can be set as a refrigerator or a freezer. Double data indicates as refrigerator and as freezer.  
 Shipped upon request with the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS position through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no proper display since the refrigerators do have digital display. This RTM device is exclusively bundled to B Medical Systems refrigerators / freezers. For more information, please contact B Medical Systems.

**Comments:**

**Accessories:** 5 baskets; 36 waterpacks of 0.6 litre; 2 keys; documentation

**Spare parts (ref, price):**  
 Compressor, 296.9701.33 - 167.55 €  
 Electronic thermostat TCW3000, 292.2009.03 - 104.22 €  
 Fan compressor, 296.9759.51 - 26.79 €  
 Drier 13,5G R134A, 296.0945.04 - 1.89 €  
 Starting capacitor 80 uf, 296.9706.10 - 11.13 €  
 Starting relay, 296.9706.08 - 5.38 €

<b>Shipping volume:</b>	1.071 m3	<b>Shipping weight:</b>	125 kgs
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: 2615 €	40-99 units: 2484 €	More than 100 units: 2361 €

<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other -	<b>Specification ref.</b>
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<b>Verification report:</b>	WHO-11-015 & WHO-11-016	<b>Verification laboratory:</b>	CEMAFROID SAS
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<b>Current PQS status:</b>	<i>pre-qualified: 09 May 2011</i>	<b>Validity until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/020</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	BFRV 55
<b>Manufactured in:</b>	United States
<b>Company:</b>	SunDanzer Refrigeration Inc.
<b>Address:</b>	420 E Aviation Dr #110 Tucson, AZ 85714 USA
<b>Telephone:</b>	+1 (520) 882 9100
<b>Email:</b>	<a href="mailto:medical@sundanzer.com">medical@sundanzer.com</a>
<b>Web address:</b>	<a href="http://www.sundanzer.com/">http://www.sundanzer.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	88.0 x 96.5 x 71.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	54.5 L	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	60.1 L	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	83 hours 29 mn	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

### Comments:

Dossier amended 24 June 2014 - upgraded model with internal aluminum lining; Shipping information: 20 units fit onto a 20' container and 48 units into a 40' container.

### Accessories:

Four 85 watt solar panels (2 East and 2 West Facing); compass; 12V nominal; 23m PV wiring; universal solar panel mounting kit for ground, pole or roof with required tools and instructions for assembly; grounding kit (3.5" outer diameter (OD) pole not included); 2 baskets; lock; temperature display; User's Manual; Installation Manual; export crate

### Spare parts (ref, price):

Electronic Control Unit: 101N0230, 120 USD  
Electronic Thermostat: SDZR-PCB 3.4, 100 USD  
ECU Fan and Condenser Fan set: 11SD001, 30 USD  
Compressor: 101Z0203, 120 USD

<b>Shipping volume:</b>	1.27 m <sup>3</sup>	<b>Shipping weight:</b>	218 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-49 Units: 3,399USD	50-99 Units: 3,199USD	100+ Units: 2,999USD

<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-11-109	<b>Verification laboratory:</b>	Danish Technological Institute

**Current PQS status:** *pre-qualified: 13 Sep 2011* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/021</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VLS 400 Greenline
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	86.0 X 127.0 X 70.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	216 L	
<b>Gross volume (Litres):</b>	235 L	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	30 hours	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.82 kWh/24 hours	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.85 kWh/24 hours	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A

### Comments:

**Accessories:** 7 vaccine storage baskets. Self regulating temperature control. External electronic temperature reading. Locking lid + keys. Manual in 6 languages. Plywood packing.

**Spare parts (ref, price):** Thermostat - Danfoss; 7020276; 22.60 €  
 Compressor - Secop; 8-036038255; 108.78 €

<b>Shipping volume:</b>	1.02 m <sup>3</sup>	<b>Shipping weight:</b>	126 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 867 €	100-199 units: 851 €	200 or more units: 834 €

**Quality standard:** - ISO 9001:2008 - ISO 14001  
 - DS/OHSAS 18001:2008 - **Specification ref.**

**Verification report:** A66543 **Verification laboratory:** Intertek UK

**Current PQS status:** *pre-qualified: 03 Nov 2011* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/022</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	MK 144
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+25°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	88.0 x 96.5 x 71.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	48 L	
<b>Gross volume (Litres):</b>	63.7 L	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	43 hours 8 min	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	2.30 kWh/24hours	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.27 kWh/24hours	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A

### Comments:

**Accessories:** 3 vaccine storage baskets. Self regulating temperature control. External electronic temperature reading. Locking lid + keys. Manual in 6 languages. Plywood packing.

<b>Spare parts (ref, price):</b>	Thermostat - Danfoss;7020291; 30,46 € Compressor - Danfoss; 03.6038602; 90,19 €		
<b>Shipping volume:</b>	0,58 m3	<b>Shipping weight:</b>	70 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 645 €	100-199 units: 594 €	200 or more units: 586 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-11-112	<b>Verification laboratory:</b>	Danish Technological Institute

**Current PQS status:** *pre-qualified: 03 Nov 2011*

**Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/023</b>
<b>Type of appliance:</b>	Vaccine/waterpacks freezer
<b>Manufacturer's reference:</b>	MF 314
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	N/A
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	84 x 156 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

Freeze protection: N/A

<b>Vaccine storage capacity: (Litres)</b>	N/A	<b>Gross volume:</b>	281 L
<b>Gross volume (Litres):</b>	N/A	<b>Waterpack freezing capacity:</b>	7.2 kg/24h
<b>Holdover time (hours):</b>	4.0 hours		256 x 0.6 L
<b>Energy consumption, stable running (kWh/24 hours):</b>	4.23 kWh/24h	<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	4.29 kWh/24h	<b>Energy consumption during freezing:</b>	4.24 kWh/24h

<b>Comments:</b>	Vaccine/waterpacks freezer MF314; option electric mains 115V 60Hz		
<b>Accessories:</b>	3 Baskets External electronic temperature reading. Locking lid + keys. Manual in 6 languages. Plywood packing.		
<b>Spare parts (ref, price):</b>	Thermostat Danfoss 7020109-01; 19.12€ Compressor Danfoss O/C 03.6038858; 113.26€		
<b>Shipping volume:</b>	1.161m3	<b>Shipping weight:</b>	108.5 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 584 €	100-199 units: 576 €	200 or more units: 568 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	A66542-3 issue 1	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 01 Dec 2011</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/024</b>
<b>Type of appliance:</b>	Vaccine/waterpacks freezer
<b>Manufacturer's reference:</b>	MF 114
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	N/A
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	84 x 72 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: N/A
<b>Vaccine storage capacity: (Litres)</b>	N/A	
<b>Gross volume (Litres):</b>	N/A	<b>Gross volume:</b> 105 L
<b>Holdover time (hours):</b>	2.8 hrs	<b>Waterpack freezing capacity:</b> 7.2 kg/24h
<b>Energy consumption, stable running (kWh/24 hours):</b>	2.24 kWh/24hrs	64 x 0.6 L
		<b>Waterpack storage capacity:</b>
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.41 kWh/24hrs	<b>Energy consumption during freezing:</b> 3.33 kWh/24hrs
<b>Comments:</b>	Vaccine waterpacks freezer MF114 option electric mains 115V 60Hz	
<b>Accessories:</b>	2 baskets; external electronic temperature reading; locking lid + keys; Manual in 6 languages; Plywood packing.	
<b>Spare parts (ref, price):</b>	Thermostat Danfoss, 7020109-01, 19,12€ Compressor Secop, 6038325, 113,26€	
<b>Shipping volume:</b>	0.58 m3	<b>Shipping weight:</b> 70 kg
<b>Price year</b>	2016	<b>Incoterms</b> FCA
<b>Price</b>	1-99 units: 429 €	100-199 units: 422 €      200 or more units: 416 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>
<b>Verification report:</b>	A66542-1	<b>Verification laboratory:</b> Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 01 Dec 2011</i>	<b>Validity until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/025</b>
<b>Type of appliance:</b>	Vaccine/waterpacks freezer
<b>Manufacturer's reference:</b>	MF 214
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	N/A
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	84 x 113 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: N/A
<b>Vaccine storage capacity: (Litres)</b>	N/A	
<b>Gross volume (Litres):</b>	N/A	<b>Gross volume:</b> 171 L
<b>Holdover time (hours):</b>	2.9 hours	<b>Waterpack freezing capacity:</b> 7.2 kg/24h
<b>Energy consumption, stable running (kWh/24 hours):</b>	3.0 kWh/24h	160 x 0.6 L
		<b>Waterpack storage capacity:</b>
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.96 kWh/24h	<b>Energy consumption during freezing:</b> 3.56 kWh/24h
<b>Comments:</b>	Vaccine waterpack freezer option for 115V 60Hz mains	
<b>Accessories:</b>	2 Baskets External electronic temperature reading, Locking lid + keys, Manual in 6 languages. Plywood packing.	
<b>Spare parts (ref, price):</b>	Thermostat Danfoss 7020109-01, 19.12 € Compressor Secop, 03-6038325, 113.26€	
<b>Shipping volume:</b>	0.846 m3	<b>Shipping weight:</b> 96.3 kg
<b>Price year</b>	2016	<b>Incoterms</b> FCA
<b>Price</b>	1-99 units: 499 €	100-199 units: 493 €      200 or more units: 486 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>
<b>Verification report:</b>	A66542-2 issue 1	<b>Verification laboratory:</b> Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 01 Dec 2011</i>	<b>Validity until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/026</b>
<b>Type of appliance:</b>	Battery solar powered combined refrigerator and freezer
<b>Manufacturer's reference:</b>	VC 65-2
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Solar charged battery
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	93.6 x 92.9 x 77.7 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	37.5 L		
<b>Gross volume (Litres):</b>	48.3 L	<b>Gross volume:</b>	24.3 L
<b>Holdover time (hours):</b>	3 hours 8 min	<b>Waterpack freezing capacity:</b>	2.4 kg/24 h
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.55 kWh/24h		18 x 0.6 L
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.54 kWh/24h	<b>Energy consumption during freezing:</b>	0.90 kWh/24h

**Comments:** Power consumption at +32°C=0.29 kWh/24h  
 Power consumption at +27°C=0.21 kWh/24h  
 The appliance is supplied as a kit including solar system. Price might depend on location.

**Accessories:** Locking door; external temperature indicator; storage baskets; instruction manual

**Spare parts (ref, price):** Compressor, Danfoss BD35F, 125.00€  
 Compressor controller, Danfoss 101N0210; 95.00€  
 Thermostat AT-5BQ8L-1PS, 50.00€

**Shipping volume:** 0.887 m3 **Shipping weight:** 92 kg

**Price year:** 2016 **Incoterms:** FCA

**Price:** 3275 € per unit

**Quality standard:** - ISO 9001:2008 - **Specification ref.**

**Verification report:** 300-KLAB-11-150 **Verification laboratory:** Danish Technological Institute

**Current PQS status:** *pre-qualified: 20 Jan 2012* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

**PQS code:** E003/029  
**Type of appliance:** Solar direct drive, ancillary battery refrigerator  
**Manufacturer's reference:** HTC-60  
**Manufactured in:** China; People's Republic of  
**Company:** Haier Medical and Laboratory Products Co., Ltd  
**Address:** Room 703D, Brand Building,  
 Haier Industry Park,  
 No. 1 Haier Road, 266101 Qingdao,  
 China; People's Republic of

**Telephone:** +86-532-88937169  
**Email:** [wanggs@haier.com](mailto:wanggs@haier.com)  
**Web address:** <http://www.haiermedical.com>

## Specifications

<b>Climate zone:</b>	Temperate	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive with ancillary battery
<b>Appliance tested at:</b>	+32°C	<b>Ext dimensions (HxLxD)</b>	78.8 x 65.4 x 87.5 cm
<b>Performance at:</b>	<b>+32°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
<b>Vaccine storage capacity: (Liters)</b>	21 L	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	60 L	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	135 hours 30 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Recommended panels: 12 v, 3 x 120W Prices include solar system		
<b>Accessories:</b>	Baskets - set of keys - instruction manual		
<b>Spare parts (ref, price):</b>	Handle - 0070814623; 3 USD Thermostat - 0074000154; 3 USD Switch - 0074091465; 2 USD Electric controller - 0274000185; 30 USD Hinge cover - 0070204349; 1 USD Dryer filter - 0074180006; 2 USD Hinge - 0070816334; 3 USD Fan DC 12V - 0074000329; 4 USD Compressor Danfoss - 0274000118; 180 USD Rechargeable battery (12V 10Ah) - 0274000119; 85 USD		
<b>Shipping volume:</b>	0.7 m <sup>3</sup>	<b>Shipping weight:</b>	98 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 2500 USD	100-199 units: 2450 USD	>200 units: 2400 USD
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-11-2005	<b>Verification laboratory:</b>	CHEARI

**Current PQS status:** pre-qualified: 09 Jul 2012 **Validity until:** May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/030</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	TCW 3000 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Temperate	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+32°C	<b>Ext dimensions (HxLxD)</b>	91 x 127 x 78 cm
<b>Performance at:</b>	<b>+32°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	156	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	187	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	86 hours 56 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

Prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable; Generator 3 = ground packed casing. Nominal 12V DC solar array, minimum power 250Watts at solar radiation reference period 3.5 kWh/m2/day  
 Solar power system not included - contact manufacturer  
 Power source: battery 12/24V DC  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:**

Baskets, Instruction manual, set of keys

**Spare parts (ref, price):**

Compressor 296.9702.09: 125.50€  
 E-Box 296.9705.24: 128.79€  
 Electronic thermostat 292.2009.05: 117.72€  
 Sensor for e-thermostat 296.9804.20: 8.86€  
 Electronic control panel 296.3602.83: 7.52€  
 Fan compressor 292.9960.06: 72.48€  
 Main switch 292.2044.18: 6.17€

<b>Shipping volume:</b>	1.07 m3	<b>Shipping weight:</b>	114 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1 - 39 units: 5198€ G1; 5749€ G2    40 - 99 units: 4951€ G1; 5474€ G2    > 100 units: 4714€ G1; 5214€ G2		
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - Other -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO 12-018	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 25 Jun 2012</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/031</b>
<b>Type of appliance:</b>	Two-mode vaccine refrigerator OR waterpacks freezer
<b>Manufacturer's reference:</b>	VLS 200 Green line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostolutions.com](mailto:clc@vestfrostolutions.com);  
[bjn@vestfrostolutions.com](mailto:bjn@vestfrostolutions.com)

**Web address:** <http://vestfrostolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	85 x 73 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	60 L with baskets		
<b>Gross volume (Litres):</b>	113L	<b>Gross volume:</b>	39L
<b>Holdover time (hours):</b>	24.4 hours	<b>Waterpack freezing capacity:</b>	5 x 0.6L / 24 hours 64 x 0.6L
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.71 kWh	<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.80 kWh	<b>Energy consumption during freezing:</b>	2.3kWh/24h

<b>Comments:</b>	Report amended for addition of freezer mode March 2014		
<b>Accessories:</b>	3 Baskets Self regulating temperature control. Electronic temperature reading. Locking lid + keys, Manual in 6 languages. Plywood packing.		
<b>Spare parts (ref, price):</b>	Thermostat Danfoss 7020127; 22.60€ Compressor Secop 8-036038297; 101.20€		
<b>Shipping volume:</b>	0.58m3	<b>Shipping weight:</b>	70kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 611 €	100-199 units: 601 €	200 or more units: 588 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	1205711OMKS-001a Issue 2	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 25 Jun 2012</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/032</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VLS 300 Green Line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	85 x 92 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	98 L in baskets		
<b>Gross volume (Litres):</b>	157 L	<b>Gross volume:</b>	N/A
<b>Holdover time (hours):</b>	23.5 hours	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.66 kWh/24h		N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.69 kWh/24h	<b>Waterpack storage capacity:</b>	
		<b>Energy consumption during freezing:</b>	N/A

### Comments:

**Accessories:** 5 vaccine storage baskets. self-regulating temperature control; electronic temperature reading; Locking lid + keys, Manual in 6 languages. Plywood packing.

**Spare parts (ref, price):** Thermostat, Danfoss 7020127: 22.60€  
Compressor, Secop 8-036038297; 101.20€

<b>Shipping volume:</b>	0.75 m3	<b>Shipping weight:</b>	93 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 733 €	100-199 units: 721 €	200 or more units: 708 €

**Quality standard:** - ISO 9001:2008 - ISO 14001  
- DS/OHSAS 18001:2008 - **Specification ref.**

**Verification report:** 120571100MKS-002a **Verification laboratory:** Intertek UK

**Current PQS status:** *pre-qualified: 08 Oct 2012* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/033</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VLS 350 Green Line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	85 x 113 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER		Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	127 L in baskets			
<b>Gross volume (Litres):</b>	209 L	<b>Gross volume:</b>	N/A	
<b>Holdover time (hours):</b>	31.5 hours	<b>Waterpack freezing capacity:</b>	N/A	
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.61 kWh/24h		N/A	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.64 kWh/24h (13.4 hours)	<b>Waterpack storage capacity:</b>		
		<b>Energy consumption during freezing:</b>	N/A	

### Comments:

**Accessories:** 7 vaccine storage baskets; self-regulating temperature control; electronic temperature reading; locking lid + keys; manual in 6 languages; plywood packing.

**Spare parts (ref, price):** Thermostat 7020276: 22.60€  
Compressor 8-036038255: 108.78€

<b>Shipping volume:</b>	0.85 m3	<b>Shipping weight:</b>	110 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 819 €	100-199 units: 803 €	200 or more units: 788 €

**Quality standard:** - ISO 9001:2008 - ISO 14001  
- DS/OHSAS 18001:2008 - **Specification ref.**

**Verification report:** 12057110OMKS-003a **Verification laboratory:** Intertek UK

**Current PQS status:** *pre-qualified: 08 Oct 2012* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/034</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	HBC-110
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	86 x 63 x 81.8 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	52.5 L	
<b>Gross volume (Litres):</b>	110 L	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	36 hours 17 min	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.20 kWh/24h	N/A
		<b>Waterpack storage capacity:</b>
<b>Energy consumption, cool down test (kWh/24 hours):</b>	1.28 kWh/24h	<b>Energy consumption during freezing:</b> N/A

### Comments:

<b>Accessories:</b>	2 keys; instructions manual; baskets; stem thermometer		
<b>Spare parts (ref, price):</b>	Temperature controller, 0074091494: 42.15 USD Handle, 0070804793: 3.38USD Electrical wiring, 0070402374: 4.55USD Waterpacks, 0070204756 and 0070204757: 1.00USD Lower baskets, 0070107509: 2.00USD Upper baskets, 0070107508: 2.05USD Compressor, 0070701331: 121.49USD Fan, 0075030020: 14.00USD Condenser, 0070701369: 5.22USD		
<b>Shipping volume:</b>	0.636 m3	<b>Shipping weight:</b>	93Kg
<b>Price year</b>	2016	<b>Incoterms</b>	FOB
<b>Price</b>	590USD		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-12-1343	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 17 Dec 2012</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/035</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	TCW 2000 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Temperate	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+32°C	<b>Ext dimensions (HxLxD)</b>	127 x 78 x 91 cm
<b>Performance at:</b>	<b>+32°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
<b>Vaccine storage capacity: (Liters)</b>	99	<b>Gross volume (Liters):</b>	42
<b>Gross volume (Liters):</b>	118	<b>Waterpack freezing capacity:</b>	2.4 kg per 24 h
		<b>Waterpack storage capacity:</b>	14.4 kg
<b>Autonomy as per WHO/PQS protocols</b>	85 hours 24 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

Prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable; Generator 3 = ground packed casing. Nominal 12V DC solar array, minimum power 500Watts at solar radiation reference period 3.5 kWh/m<sup>2</sup>/day  
 Solar power system not included - contact manufacturer  
 Power source: battery 12/24V DC  
 Includes free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:** 4 baskets; 24 waterpacks 0.6L; 4 keys; documentation and instructions

**Spare parts (ref, price):**  
 Compressor: 296.9702.09; 125.50€  
 Ebox: 296.9705.24; 128.79€  
 Electronic thermostat: 292.2009.05; 117.72€  
 Sensor for e-thermostat: 2969804.20; 8.86€  
 E control panel: 296.3602.82; 15.97€  
 Fan compressor: 292.9960.06; 72.48€  
 Main switch: 292.2044.18; 6.17€

<b>Shipping volume:</b>	1.07 m3	<b>Shipping weight:</b>	125 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: G1, 7484€; G2, 8580€	40-99 units: G1, 7126€; G2, 8172€	>100 units: G1, 6789€; G2, 7782€
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001	<b>Specification ref.</b>	-
<b>Verification report:</b>	WHO- 12-017	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 17 Dec 2012</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/036</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	ZLF 100 AC (SureChill ®)
<b>Manufactured in:</b>	South Africa
<b>Company:</b>	Zero Appliances (Pty) Ltd
<b>Address:</b>	P.O. Box 426 Edenvale 1610 Gauteng Province South Africa
<b>Telephone:</b>	(010) 207 1600
<b>Email:</b>	<a href="mailto:gareth@zeroappliances.co.za">gareth@zeroappliances.co.za</a> ; <a href="mailto:enquiries@zeroappliances.co.za">enquiries@zeroappliances.co.za</a>
<b>Web address:</b>	<a href="http://www.zeroappliances.co.za">www.zeroappliances.co.za</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	178 x 85 x 71 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	99L (one shelf) 93 L (all shelves)	
<b>Gross volume (Litres):</b>	124 L	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	113.7 hours	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.96 kWh/24h	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	4.09 kWh/24h	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A
<b>Comments:</b>	Unit uses Sure Chill® technology Holdover time has been carried out while not fully charged.	
<b>Accessories:</b>	3 shelves; liquid PCM to mix with water. Optional: extra shelves, drawers, plywood packaging, 2 padlocks	
<b>Spare parts (ref, price):</b>	External solar thermometer, IMP60: 35.00USD Compressor, IMPC20: 166.00USD Condenser and fan, IMP65: 196.00USD Electronic controller (thermostat), IMP70: 84.00USD Voltage stabilizer ASP04 IMPA10 133.00 USD	
<b>Shipping volume:</b>	1.132 m3	<b>Shipping weight:</b> 100kg
<b>Price year</b>	2016	<b>Incoterms</b> EXW
<b>Price</b>	1-49 units: 2,015 USD	50-99 units: 1,965 USD 100 and more: 1,914 USD
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>
<b>Verification report:</b>	100889510MKS-001	<b>Verification laboratory:</b> Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 14 Feb 2013</i>	<b>Validity until:</b> May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/037</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	ZLF 100 DC (SureChill ®)
<b>Manufactured in:</b>	South Africa
<b>Company:</b>	Zero Appliances (Pty) Ltd
<b>Address:</b>	P.O. Box 426 Edenvale 1610 Gauteng Province South Africa
<b>Telephone:</b>	(010) 207 1600
<b>Email:</b>	<a href="mailto:gareth@zeroappliances.co.za">gareth@zeroappliances.co.za</a> ; <a href="mailto:enquiries@zeroappliances.co.za">enquiries@zeroappliances.co.za</a>
<b>Web address:</b>	<a href="http://www.zeroappliances.co.za">www.zeroappliances.co.za</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	180 x 85 x 73 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	99L (one shelf); 93L (all shelves)	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	124L	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	170.1 hours	<b>At a solar radiation reference period of:</b>	3.5 kWh/m2/day
<b>Warning !</b>	<i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>		
<b>Comments:</b>	Price do not include solar system (1,350 USD); Energy source: 370 Wp array at 3.5 kWh/m2/day at 43°C Entire system is plug and play with MC4 (MIC) connectors, on board isolator and surge protector. The array frame is roof adjustable. Unit uses SureChill ® technology		
<b>Accessories:</b>	3 shelves; Liquid PCM to mix with water. Optional: Extra shelves; drawers; Plywood packaging; 1 padlock		
<b>Spare parts (ref, price):</b>	Compressor IMPC 151: 214.00USD Compressor controller IMP 152: 164.00USD Condenser IMP 145: 53.00USD Fan IMP 144: 33.00USD Thermostat IMP 012: 92.00USD 24V surge protector ELSP: 110.00USD		
<b>Shipping volume:</b>	1.132m3	<b>Shipping weight:</b>	115kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	up to 49units: 3,933.00 USD	50 to 99 units: 3,834.00 USD	100 or more: 3,736.00 USD
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	100963912MKS-001a Issue 2	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 25 Apr 2013</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/038</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	HBC-340
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	165 x 65 x 85.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR		FREEZER	Freeze protection: Not tested
<b>Vaccine storage capacity: (Litres)</b>	211L		
<b>Gross volume (Litres):</b>	340L	<b>Gross volume:</b>	N/A
<b>Holdover time (hours):</b>	53 hrs	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	2.06kWh/24h		N/A
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.13kWh/24h	<b>Energy consumption during freezing:</b>	N/A

<b>Comments:</b>	Amendments September 2015		
<b>Accessories:</b>	Instruction manual; set of keys; baskets		
<b>Spare parts (ref, price):</b>	3 Hinge covers Up, 0070203941: 0.51USD; 3 Hinge covers Down, 0070203942: 0.13USD; Handle, 0070814623: 3.70USD Control pannel, 0072040234: 1.55USD, Dry filter, 0074180002A: 2.00USD; Thermometre, 0271400001: 3.00USD; Temperature controller, 0074091494: 41.20USD; Compressor-/NL10MF, 0070701307: 98.30USD; Ice Pack up, 0070204756: 2.80USD; Ice Pack down, 0270200225: 5.30USD; Indicator lamp, 0075050003: 1.20USD; Basket up, 0270100218B: 3.20USD; Basket down, 0270100218A: 6.50USD; Condensor, 0070803664: 17.41USD; Fan, 0075030020: 21.20USD; Power line, 0070400252A: 6.50USD; Thermostat 0074091494: 27.6USD		
<b>Shipping volume:</b>	1.42 m3	<b>Shipping weight:</b>	165kg
<b>Price year</b>	2016	<b>Incoterms</b>	FOB
<b>Price</b>	1180 US\$		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-13-361 amended WB-15-099	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 24 Jan 2014</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/039</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	BFRV 15
<b>Manufactured in:</b>	United States
<b>Company:</b>	SunDanzer Refrigeration Inc.
<b>Address:</b>	420 E Aviation Dr #110 Tucson, AZ 85714 USA
<b>Telephone:</b>	+1 (520) 882 9100
<b>Email:</b>	<a href="mailto:medical@sundanzer.com">medical@sundanzer.com</a>
<b>Web address:</b>	<a href="http://www.sundanzer.com/">http://www.sundanzer.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	77.0 x 69.0 x 59.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	15L	<b>Gross volume (Liters):</b>	NA
<b>Gross volume (Liters):</b>	20.27L	<b>Waterpack freezing capacity:</b>	NA
		<b>Waterpack storage capacity:</b>	NA
<b>Autonomy as per WHO/PQS protocols</b>	101h 19min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Shipping information: 20 units fit into a 20' container, 48 units fit into a 40' container Shipping dimensions include crate with solar power kit.		
<b>Accessories:</b>	Four 75 watt (or greater) solar panels (2 East and 2 West Facing); compass; 12V nominal; 23m PV wiring; universal solar panel mounting kit for ground, pole or roof with required tools and instructions for assembly; grounding kit (3.5" outer diameter (OD) pole not included); 2 baskets; lock; temperature display; User's Manual; Installation Manual; export crate		
<b>Spare parts (ref, price):</b>	Electronic Control Unit: 101N0230, 120 USD Electronic Thermostat: SDZR-PCB 7.4, 70 USD ECU Fan: 11SD001, 15 USD		
<b>Shipping volume:</b>	1.27m <sup>3</sup>	<b>Shipping weight:</b>	147kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-49 Units: 2,295USD	50-99 Units: 2,249USD	100+ Units: 2,195USD
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-13-193	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 13 Mar 2014</i>	<b>Validity until:</b> May, 2018	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/040</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VC200SDD
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	94.5 x 128.5 x 73.1 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	132 L	<b>Gross volume (Liters):</b>	NA
<b>Gross volume (Liters):</b>	205.2 L	<b>Waterpack freezing capacity:</b>	
		<b>Waterpack storage capacity:</b>	
<b>Autonomy as per WHO/PQS protocols</b>	79h 29 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Incorporates Freeze Free technology. Price includes plug and play roof mounted adjustable 400W solar array		
<b>Accessories:</b>	Handle with in-built lock; External temperature display; Instruction manual; Baskets: 47.0 x 30.5 x 21.5 cm = 22L		
<b>Spare parts (ref, price):</b>	Compressor Danfoss BD35K: €178.00 - Controller Danfoss 101N0410: €140.00 SDD controller: €191.00 Solar thermometer: €38.10 - MCB fridge/Isolation switch: €19.05 - Temperature probe: €5.00		
<b>Shipping volume:</b>	1.2m <sup>3</sup>	<b>Shipping weight:</b>	129kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	€3800 including solar system		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-13-194	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 13 Mar 2014</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/041</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VLS 054 SDD Green line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	85 x 72 x 60 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	55.5L	<b>Gross volume (Liters):</b>	NA
<b>Gross volume (Liters):</b>	108l	<b>Waterpack freezing capacity:</b>	NA
		<b>Waterpack storage capacity:</b>	NA
<b>Autonomy as per WHO/PQS protocols</b>	72.4 hours	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b>	<i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>		
<b>Comments:</b>	Energy requirements: 12V dc solar electric array. 360W radiation reference period 3.5 kWh/m <sup>2</sup> /day. Starting load at 2000rpm 4.13A Solar array not included- contact manufacturer. Prices include the solar panel kit of 4x90Wp, roof adjustable, plug & play		
<b>Accessories:</b>	Vaccine storage top basket; Self regulating temperature control; Electronic temperature reading; Locking lid + keys; Manual in 6 languages; Plywood packing		
<b>Spare parts (ref, price):</b>	Electronic temperature controller: 41.20€ Compressor including E-box: 245.00€		
<b>Shipping volume:</b>	0.65m <sup>3</sup>	<b>Shipping weight:</b>	85kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 2.924 €	100-199 units: 2.882 €	200 or more units: 2.840 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	100918190MKS-001 issue 2	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 01 May 2014</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/042</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	TCW 40 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<i>Telephone:</i>	+ 35 2 92 07 311
<i>Email:</i>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<i>Web address:</i>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	90 x 103 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	36	<b>Gross volume (Liters):</b>	4.8
<b>Gross volume (Liters):</b>	46.6	<b>Waterpack freezing capacity:</b>	1.8 kg
		<b>Waterpack storage capacity:</b>	5.2kg
<b>Autonomy as per WHO/PQS protocols</b>	81 hours 54 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*



prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable; Generator 3 = ground packed casing nominal 12 V DC solar electric array. Minimum power 250 watts at solar radiation reference period 3.5 kWh/m<sup>2</sup>/day.  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:**

1 basket; 8 waterpacks 0.6 L; 8 waterpack holders; 2 keys; 1 brush; 1 pan for drain; documentation

**Spare parts (ref, price):**

Compressor: 296.9702.09: 84.48 €  
 E Box: 296.9705.24: 84.42 €  
 Controller board: 296.9769.82: 107.21 €  
 Sensor cooler: 296.9804.73: 28 €  
 Sensor heater: 296.9804.72: 17.55 €  
 Fan compressor; 292.9960.06: 50,92 €  
 Main switch: 292.2044.11  
 Display board: 296.9769.81: 25.46 €

**Shipping volume:**

0.88m<sup>3</sup>

**Shipping weight:**

120kg

**Price year**

2016

**Incoterms**

EXW

**Price**

1-39 units: G1: 4798 €, G2: 5279 €      40-99 units: G1:4569 €, G2: 5030 €      > 100 units: G1: 4351 €, G2: 4791 €

**Quality standard:**

- ISO 9001:2008 - ISO 13485  
 - ISO 14001 -

**Specification ref.**

**Verification report:**

WHO 13-024

**Verification laboratory:**

CEMAFROID SAS

**Current PQS status:**

*pre-qualified: 27 Mar 2014*

**Validity until:**

*May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/043</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	TCW 2043 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsystems.com">info@bmedicalsystems.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsystems.com">www.bmedicalsystems.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	91 x 127 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	70	<b>Gross volume (Liters):</b>	42
<b>Gross volume (Liters):</b>	79	<b>Waterpack freezing capacity:</b>	2.5kg
		<b>Waterpack storage capacity:</b>	10.5 kg
<b>Autonomy as per WHO/PQS protocols</b>	73 hours 54 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable; Generator 3 = ground packed casing; nominal 12 V DC solar electric array. Minimum power 500 watts at solar radiation reference period 3.5 kWh/m<sup>2</sup>/day  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:** 2 baskets; 16 waterpacks 0.6 L; 4 keys; documentation; 1 pan for drain

**Spare parts (ref, price):**

Compressor: 296.9702.09: 84.42 €  
 E Box: 296.9705.24: 84.42 €  
 Electronic thermostat: 292.2009.05: 81.75 €  
 Sensor for e-thermostat: 296.9804.20: 6.15 €  
 Electronic control panel: 296.3602.82: 11.10 €  
 Fan compressor: 292.9960.06: 50.92 €  
 Main switch: 292.2044.18: 5.89 €

<b>Shipping volume:</b>	1.07m3	<b>Shipping weight:</b>	160kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: G1: 7266 €; G2: 8158 €	40-99 units: G1: 6920 €; G2: 7769 €	> 100 units: G1: 6590 €; G2: 7399 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO 13-025	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 27 Mar 2014</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/044</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	ZLF 150 AC (SureChill ®)
<b>Manufactured in:</b>	South Africa
<b>Company:</b>	Zero Appliances (Pty) Ltd
<b>Address:</b>	P.O. Box 426 Edenvale 1610 Gauteng Province South Africa
<b>Telephone:</b>	(010) 207 1600
<b>Email:</b>	<a href="mailto:gareth@zeroappliances.co.za">gareth@zeroappliances.co.za</a> ; <a href="mailto:enquiries@zeroappliances.co.za">enquiries@zeroappliances.co.za</a>
<b>Web address:</b>	<a href="http://www.zeroappliances.co.za">www.zeroappliances.co.za</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	190 x 85 x 72
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	128	
<b>Gross volume (Litres):</b>	161	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	128.2	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.98	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.03	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A
<b>Comments:</b>	Unit uses Sure Chill® technology; holdover time has been carried out while not fully charged; Net volume 128L with all shelves and 150L if used with only one shelf	
<b>Accessories:</b>	3 shelves; liquid PCM to mix with water. Optional: extra shelves, drawers, plywood packaging, 2 padlocks	
<b>Spare parts (ref, price):</b>	External solar thermometer, IMP60: 35.00USD Compressor, IMPC20: 166.00USD Condenser and fan, IMP65: 196.00USD Electronic controller (thermostat), IMP70: 84.00USD Voltage stabilizer ASP04 IMPA10 133.00 USD	
<b>Shipping volume:</b>	1.22m3	<b>Shipping weight:</b> 116 kg
<b>Price year</b>	2016	<b>Incoterms</b> EXW
<b>Price</b>	1-49 units: 2429 USD	50-99 units: 2368 USD 100 and more: 2308 USD
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>
<b>Verification report:</b>	101568371MKS-001	<b>Verification laboratory:</b> Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 01 Sep 2014</i>	<b>Validity until:</b> May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/045</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	TCW 3043 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<i>Telephone:</i>	+ 35 2 92 07 311
<i>Email:</i>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<i>Web address:</i>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	91 X 127 X 78
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	89	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	111	<b>Waterpack freezing capacity:</b>	0
		<b>Waterpack storage capacity:</b>	0
<b>Autonomy as per WHO/PQS protocols</b>	116 hours 41 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable; Generator 3 = ground packed casing.  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:** 5 baskets; 33 waterpacks 0.6 L; 2 keys; documentation

**Spare parts (ref, price):**  
 Compressor: 296.9702.09: 120.63 €  
 E Box: 296.9705.24: 120.63 €  
 Electronic thermostat: 292.2009.05: 116.80 €  
 Sensor for e-thermostat: 296.9804.20: 8.81 €  
 Electronic control panel: 296.3602.83: 7.47 €  
 Fan compressor: 292.9960.06: 72,76 €  
 Main switch: 292.2044.18: 8.42 €

<b>Shipping volume:</b>	1.07 m3	<b>Shipping weight:</b>	169 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units G1:5626€; G2: 6110€	40-99 units G1: 5359€; G2: 5829€	>100 units G1: 5103€; G2: 5542€
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO 13-026 V2	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 01 Sep 2014</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/046</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	GVR 50 AC (Sure Chill®)
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances./medical">http://www.godrejappliances./medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	122 x 79.5 x 75
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	46.5	
<b>Gross volume (Litres):</b>	57.7	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	182	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.56	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.64	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A

- (i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK)
- (ii) Refrigerator operates on only 2.5 hrs/day power at 43°C ambient, post stabilization
- (iii) Has a built in intelligent temperature control, early warning and energy management system
- (iv) Unit requires addition of clean drinking water during installation, contact manufacturer for information

### Comments:

<b>Accessories:</b>	Included in price: 4 wire shelves ; 1 Padlock; 1 Funnel Optional (charged extra): Extra wire shelves, plywood packaging, Voltage Stabilizer		
<b>Spare parts (ref, price):</b>	Compressor i8 50L TR AC; RCM97749257:57.00USD Fan MTR 50L TR100L TRAC; RFN97749259:12.00USD Fan IMPELLER; RFM97749278: 1.50USD Voltage Stabilizer; RCM97749357: 25.00USD ELEC CNTRL CARD; RCC97749260: 30.00USD		
<b>Shipping volume:</b>	0.916	<b>Shipping weight:</b>	125
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1500USD per unit	1470USD per unit, 10 to 99 units	1425USD per unit, 100 and more units
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	CE-JOB-DEL-14-000503-GVR50AC	<b>Verification laboratory:</b>	Intertek India
<b>Current PQS status:</b>	<i>pre-qualified: 22 Dec 2014</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/047</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	GVR 100 AC (Sure Chill®)
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances./medical">http://www.godrejappliances./medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	182 x 79.5 x 75
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: Grade A**

<b>Vaccine storage capacity: (Litres)</b>	99		
<b>Gross volume (Litres):</b>	121	<b>Gross volume:</b>	N/A
<b>Holdover time (hours):</b>	300.3	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.75		N/A
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	1.90	<b>Energy consumption during freezing:</b>	N/A

- (i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK)
- (ii) Refrigerator operates on only 2.5 hrs/day power at 43°C ambient, post stabilization
- (iii) Has a built in intelligent temperature control, early warning and energy management system
- (iv) Unit requires addition of clean drinking water during installation, contact manufacturer for information

### Comments:

<b>Accessories:</b>	Included in price: 4 wire shelves ; 1 Padlock; 1 Funnel Optional (charged extra): Extra wire shelves, plywood packaging, Voltage Stabilizer		
<b>Spare parts (ref, price):</b>	Compressor i11 100TR AC; RCM97749256:57.00USD Fan MTR 50LTR 100LTRAC; RFN97749259: 12.00USD Fan IMPELLER; RFM97749278:1.50USD Voltage Stabilizer; RCM97749357: 25.00USD Elec.CNTRL Card 50LTR100LTRAC; RCC97749260:30.00USD		
<b>Shipping volume:</b>	1.3	<b>Shipping weight:</b>	160
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	2300USD per unit	2250USD per 10 units	2150 per 100 units
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	CE-JOB-DEL-14-000503-GVR100AC	<b>Verification laboratory:</b>	Intertek India
<b>Current PQS status:</b>	<i>pre-qualified: 22 Dec 2014</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/048</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	VC150SDD
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C; +32°C	<b>Ext dimensions (HxLxD)</b>	99.2 x 128.3 x 73.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	102	<b>Gross volume (Liters):</b>	42.9
<b>Gross volume (Liters):</b>	158.1	<b>Waterpack freezing capacity:</b>	2.04
		<b>Waterpack storage capacity:</b>	8.1 kg
<b>Autonomy as per WHO/PQS protocols</b>	77.99	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b> <i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>			
<p>Main performance 32°C: Cool down, 120 hours, 0.72kWh/day; Stable running: 0.72kWh/day;          Waterpacks freezing: 2.4kg, 0.81kWh/24h; Waterpacks storage: 12kg; Autonomy: 118.9 hours;          Holdover: 122.5hours          Photovoltaic array: &gt;24Vdc and &lt;45Vdc          Incorporates Freeze Free technology          Price includes a plug and play roof mounted adjustable 600W solar array</p>			
<b>Comments:</b>			
<b>Accessories:</b>	Handle with in built lock, stacking baskets: 37.0 x 30.5 x 21.5cm = 17L; external temperature display, instruction manual.		
<b>Spare parts (ref, price):</b>	Compressor Danfoss BD35K: €178.00 - controller Danfoss 101N0410: €140.00 SDD controller: €191.00 - Temperature probe: €12.70 (per pair) MCB fridge / isolation switch: €19.05 - MCB freezer (isolation switch): €12.69 Solar thermometer: €38.10 - Freezer foam lid: €38.10 - Freezer fan: €24.00		
<b>Shipping volume:</b>	1.2m <sup>3</sup>	<b>Shipping weight:</b>	171kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	5600 € per unit including solar system		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-14-148	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 06 Jan 2015</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/049</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	GVR 50DC SDD
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances.com/medical">http://www.godrejappliances.com/medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	121.5 X 79.5 X 75
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	46.5	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	59.6	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	134.8	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

**Comments:** (i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK)  
(ii) Has a built in intelligent temperature control, early warning and energy management system  
(iii) Unit requires addition of clean drinking water during installation, contact manufacturer for information  
(iv) Price includes solar array (2 x 235 Wp, 24V solar panels) and 'plug & play' system/structure

**Accessories:** Included in price: 2 wire shelves, 1 Padlock, 1 Funnel (for installation)  
Optional (charged extra): Extra wire shelves, Plywood Packing

**Spare parts (ref, price):** Compressor & Controller :RCM9774923; 280\$  
Fan :RFN97749232; 8 \$ ( Including Impeller)  
Condenser :RFN97749232; 55 \$  
Electronic control Card: RCC97749237; 45\$

<b>Shipping volume:</b>	0.9m <sup>3</sup> ref + 0.4m <sup>3</sup> ss	<b>Shipping weight:</b>	125kg ref + 115kg ss
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	3450 USD per unit, including solar system	3400 USD per unit: 10 to 99 units with solar system	3325 USD per unit: 100 and more with solar system
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	CE-JOB-DEL-14-000503-GVR50DC	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 06 May 2015</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/050</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	GVR 100 DC (SureChill®)
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances.com/medical">http://www.godrejappliances.com/medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	182 x 79.5 x 75 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	99	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	121	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	175.95	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

- (i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK)
- (ii) Has a built in intelligent temperature control, early warning and energy management system
- (iii) Unit requires addition of clean drinking water during installation, contact manufacturer for information
- (iv) Price includes solar array (2 x 235 Wp, 24V solar panels) and 'plug & play' system/structure

### Comments:

<b>Accessories:</b>	Included in price: 4 wire shelves, 1 Padlock, 1 Funnel (for installation) Optional (charged extra): Extra wire shelves, Plywood Packing		
<b>Spare parts (ref, price):</b>	Compressor & Controller :RCM9774923; 280\$ Fan :RFN97749232; 8 \$ ( Including Impeller) Condenser :RFN97749232; 55 \$ Electronic control Card: RCC97749237; 45\$		
<b>Shipping volume:</b>	1.3m <sup>3</sup> ref + 0.4m <sup>3</sup> ss	<b>Shipping weight:</b>	160kg ref + 115kg ss
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	4815 USD with including solar system	4710 USD for 10 to 99 units with solar system	4615 USD for 100 units or more with solar system
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	CE-JOB-DEL-14-000503-GVR 100 DC	<b>Verification laboratory:</b>	Intertek India
<b>Current PQS status:</b>	<i>pre-qualified: 07 May 2015</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/051</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	ZLF30 AC (SureChill ®)
<b>Manufactured in:</b>	South Africa
<b>Company:</b>	Zero Appliances (Pty) Ltd
<b>Address:</b>	P.O. Box 426 Edenvale 1610 Gauteng Province South Africa
<b>Telephone:</b>	(010) 207 1600
<b>Email:</b>	<a href="mailto:gareth@zeroappliances.co.za">gareth@zeroappliances.co.za</a> ; <a href="mailto:enquiries@zeroappliances.co.za">enquiries@zeroappliances.co.za</a>
<b>Web address:</b>	<a href="http://www.zeroappliances.co.za">www.zeroappliances.co.za</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>		<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	102.8 x 61.9 x 56.3
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	27	
<b>Gross volume (Litres):</b>	30	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	77.2	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.682	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.556	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A

<b>Comments:</b>	Fitted with automatic voltage stabilised protector. Unit uses Sure Chill ® technology
<b>Accessories:</b>	3 shelves; liquid PCM to mix with water Optional: Extra shelves; drawers; waterpacks; plywood packaging, 2 padlocks (There are 2 lockable latches per unit)
<b>Spare parts (ref, price):</b>	External solar thermometer: IMP60; 35.00 USD Compressor: IMPC1Ø; 166.00 USD Condenser and fan: IMP65; 196.00 USD Electronic controller (thermostat): IMP70; 84.00 USD Voltage stabilizer ASP04 IMPA10: 133.00 USD

<b>Shipping volume:</b>	0.372 m³	<b>Shipping weight:</b>	65 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-49 units: 1,192 USD	50-99 units: 1,162 USD	100 or more units: 1,132 USD
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	101911483MKS-001	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 05 Jun 2015</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/052</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	ZLF 150 DC (SureChill ®)
<b>Manufactured in:</b>	South Africa
<b>Company:</b>	Zero Appliances (Pty) Ltd
<b>Address:</b>	P.O. Box 426 Edenvale 1610 Gauteng Province South Africa
<b>Telephone:</b>	(010) 207 1600
<b>Email:</b>	<a href="mailto:gareth@zeroappliances.co.za">gareth@zeroappliances.co.za</a> ; <a href="mailto:enquiries@zeroappliances.co.za">enquiries@zeroappliances.co.za</a>
<b>Web address:</b>	<a href="http://www.zeroappliances.co.za">www.zeroappliances.co.za</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	189 x 83 x 71
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity (Liters)</b>	128	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	161	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	131 h 38 mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b> For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.			
<b>Comments:</b> Unit uses Sure Chill ® technology. Entire system is plug and play with MC4 (MIC) connectors, on board isolator and surge protector. The array frame is roof adjustable. Price does not include solar system: 1,350 USD;			
<b>Accessories:</b> Additional shelves; Liquid to mix with water; Optional: extra shelves, drawers, waterpacks, plywood packaging, 2 padlocks			
<b>Spare parts (ref, price):</b> Compressor IMPC 07: 257.00 USD Compressor Controller IMP 152: 164.00 USD Condenser IMP145: 53.00 USD Fan IMP 144: 33.00 USD Thermostat IMP 012: 92.00 USD 24V Surge Protector ELSP15: 110.00 USD			
<b>Shipping volume:</b>	1.22 m <sup>3</sup>	<b>Shipping weight:</b>	120 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-49 units: 4,355 USD	50-99 units: 4,246 USD	100 or more units: 4,137 USD
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	101861736MKS-001	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	pre-qualified: 05 Jun 2015	<b>Validity until:</b> May, 2018	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/053</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VLS 094 SDD Greenline
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostolutions.com">clc@vestfrostolutions.com</a> ; <a href="mailto:bjn@vestfrostolutions.com">bjn@vestfrostolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostolutions.com/">http://vestfrostolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	86.0 x 93.0 x 70.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	92	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	151	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	72.5 hours	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Energy requirements: 12V dc solar electric array. 360W radiation reference period 3.5 kWh/m <sup>2</sup> /day. Starting load at 2000rpm 4.13A Prices include the solar panel kit of 4x90Wp, roof adjustable, plug & play		
<b>Accessories:</b>	Mandatory vaccine storage top- basket. Self regulating temperature control. Electronic temperature reading. Locking lid + keys. Manual in 6 languages. Plywood packing.		
<b>Spare parts (ref, price):</b>	Electronic temperature controller: 41,20€ Compressor, inclusive E-box: 245,00€		
<b>Shipping volume:</b>	0.83 m <sup>3</sup>	<b>Shipping weight:</b>	108 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 3.264 €	100-199 units: 3.217 €	200 or more units: 3.170 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	101809330MKS-001 Issue 1	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 19 Jun 2015</i>	<b>Validity until:</b> May, 2018	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/054</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VLS 154 SDD Greenline
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	86.0 x 127.0 x 70.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	170	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	248	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	73.4 hours	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

Energy requirements: 12V dc solar electric array. 360W radiation reference period 3.5 kWh/m<sup>2</sup>/day. Starting load at 2000rpm 4.13A  
Solar array not included- contact manufacturer.  
Prices include the solar panel kit of 4x90Wp, roof adjustable, plug & play

### Comments:

<b>Accessories:</b>	Mandatory vaccine storage top- basket. Self regulating temperature control; Electronic temperature reading. Locking lid + keys; Manual in 6 languages; Plywood packing		
<b>Spare parts (ref, price):</b>	Electronic temperature controller: 41,20€ Compressor, inclusive E-box: 245,00€		
<b>Shipping volume:</b>	0.83m <sup>3</sup>	<b>Shipping weight:</b>	108kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 4.103 €	100-199 units: 4044 €	200 or more units: 3.985 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-15-115	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 19 Jun 2015</i>		<b>Validity until:</b> May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/055</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	ZLF 30DC SDD (SureChill ®)
<b>Manufactured in:</b>	South Africa
<b>Company:</b>	Zero Appliances (Pty) Ltd
<b>Address:</b>	P.O. Box 426 Edenvale 1610 Gauteng Province South Africa
<b>Telephone:</b>	(010) 207 1600
<b>Email:</b>	<a href="mailto:gareth@zeroappliances.co.za">gareth@zeroappliances.co.za</a> ; <a href="mailto:enquiries@zeroappliances.co.za">enquiries@zeroappliances.co.za</a>
<b>Web address:</b>	<a href="http://www.zeroappliances.co.za">www.zeroappliances.co.za</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	102.5 x 56 x 60 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity (Liters)</b>	27 L	<b>Gross volume (Liters):</b>	n/a
<b>Gross volume (Liters):</b>	30 L	<b>Waterpack freezing capacity:</b>	n/a
		<b>Waterpack storage capacity:</b>	n/a
<b>Autonomy as per WHO/PQS protocols</b>	77h 03 mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

Unit uses Sure Chill ® technology. Entire system is plug and play with MC4 (MIC) connectors, on board isolator and surge protector. The array frame is roof adjustable.  
 Price does not include solar system: 900 USD

### Comments:

<b>Accessories:</b>	Additional, Shelves, Liquid to dilute with water, Optional: extra shelves, drawers, waterpacks, plywood packaging, 1 padlock		
<b>Spare parts (ref, price):</b>	Compressor IMPC07: 257.00 USD Compressor controller IMP152: 164.00 USD Condenser IMP145: 53.00 USD Fan IMP144: 33.00 USD Thermostat IMP012: 92.00 USD 24V Surge protector ELSP15: 110.00 USD		
<b>Shipping volume:</b>	0.372 m <sup>3</sup>	<b>Shipping weight:</b>	65 KG
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-49 units: 2,064 USD	50-99 units: 2,013 USD	100 or more units: 1,961 USD
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-15-132	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 09 Sep 2015</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/056</b>
<b>Type of appliance:</b>	Solar direct drive, ancillary battery refrigerator
<b>Manufacturer's reference:</b>	HTC-60H
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of

<i>Telephone:</i>	+86-532-88937169
<i>Email:</i>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<i>Web address:</i>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive with ancillary battery
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	78.8 x 65.4 x 87.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: Not tested</b>
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<b>Vaccine storage capacity: (Litres)</b>	21		
<b>Gross volume (Litres):</b>	60	<b>Gross volume:</b>	N/A
<b>Holdover time (hours):</b>	109 hours 21 min	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.776		N/A
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.671	<b>Energy consumption during freezing:</b>	N/A

<b>Comments:</b>	Prices include solar system
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<b>Accessories:</b>	Baskets Set of keys Instruction manual
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<b>Spare parts (ref, price):</b>	Thermostat Main switch Electric controller Fan DC 12V Compressor scope Rechargeable battery (12V 10Ah)
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<b>Shipping volume:</b>	0.7 m3	<b>Shipping weight:</b>	110 kg
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<b>Price year</b>	2016	<b>Incoterms</b>	FCA
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<b>Price</b>	1-99 units: 2600 USD	100-199 units: 2550 USD	>200 units: 2500 USD
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<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
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<b>Verification report:</b>	WB-15-226	<b>Verification laboratory:</b>	CHEARI
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<b>Current PQS status:</b>	<i>pre-qualified: 17 Sep 2015</i>	<b>Validity until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/057</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	HTCD-160
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	169.5 x 86.5 x 82.5
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	100L	<b>Gross volume (Liters):</b>	40L
<b>Gross volume (Liters):</b>	120L	<b>Waterpack freezing capacity:</b>	2.08 Kg/24h
		<b>Waterpack storage capacity:</b>	10.68 Kg
<b>Autonomy as per WHO/PQS protocols</b>	121 hrs 27 mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b>			
<i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>			
<b>Comments:</b>	Prices include solar system		
<b>Accessories:</b>	2 shelves; 2 padlocks; Instruction manual; Water injection device; Water preservative		
<b>Spare parts (ref, price):</b>	Main switch: 0274000354 - 15 USD Electric controller: 0274000352 - 70 USD Fan DC 24V: 0274000351- 12 USD Compressor scope: 0274000118A- 180 USD Solar Display: 0274000357- 11 USD		
<b>Shipping volume:</b>	1.6 m <sup>3</sup>	<b>Shipping weight:</b>	186 Kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 6300 USD	100-199 units: 6200 USD	>200 units: 6100 USD
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-15-227	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 17 Sep 2015</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/058</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	Dulas VC110SDD
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	95.9 x 128.2 x 74.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	110L	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	205L	<b>Waterpack freezing capacity:</b>	
		<b>Waterpack storage capacity:</b>	
<b>Autonomy as per WHO/PQS protocols</b>	78h 09 mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b>	<i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>		
<b>Comments:</b>	Incorporates Freeze Free technology. Price includes plug and play roof mounted adjustable 400W solar array		
<b>Accessories:</b>	Handle with in built lock; external temperature display; instruction manual; Baskets: 47.0 x 30.5 x 21.5 cm = 22L		
<b>Spare parts (ref, price):</b>	Compressor Danfoss BD35K: €178.00 - Controller Danfoss 101N0410: €140.00 SDD controller: €191.00 - Solar thermometer: €38.10 - MCB fridge / isolation switch: €19.05 Temperature probe: € 5.00		
<b>Shipping volume:</b>	1.2 m <sup>3</sup>	<b>Shipping weight:</b>	129 Kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	from €3700 includes solar system		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-13-194-3	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 18 Sep 2015</i>	<b>Validity until:</b> <i>May, 2018</i>	
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/059</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VC88SDD
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	95.9 x 128.2 x 74.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	88L	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	205L	<b>Waterpack freezing capacity:</b>	
		<b>Waterpack storage capacity:</b>	
<b>Autonomy as per WHO/PQS protocols</b>	78h 09 mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m2/day
<b>Warning !</b>	<i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>		
<b>Comments:</b>	Incorporates Freeze Free technology. Price includes plug and play roof mounted adjustable 400W solar array		
<b>Accessories:</b>	Handle with in built lock; external temperature display; instruction manual; Baskets (4): 47.0 x 30.5 x 21.5 cm = 22L		
<b>Spare parts (ref, price):</b>	Compressor Danfoss BD35K: €178.00 - Controller Danfoss 101N0410: €140.00 SDD controller: €191.00 - Solar thermometer: €38.10 - MCB fridge / isolation switch: €19.05 Temperature probe: € 5.00		
<b>Shipping volume:</b>	1.2 m3	<b>Shipping weight:</b>	129 Kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	from €3600 per complete system		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-13-194-2	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 23 Sep 2015</i>	<b>Validity until:</b>	<i>May, 2018</i>
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/060</b>
<b>Type of appliance:</b>	Vaccine/waterpacks freezer
<b>Manufacturer's reference:</b>	DW-25W147
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	AUCMA CO. Ltd.
<b>Address:</b>	315 Qianwangang Road, Economic & Technological Development Zone, Qingdao, China
<b>Telephone:</b>	+86 532 88965799
<b>Email:</b>	<a href="mailto:info@aucma.com.cn">info@aucma.com.cn</a>
<b>Web address:</b>	<a href="http://www.aucma.com.cn">http://www.aucma.com.cn</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	790x595x880 mm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: N/A</b>
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<b>Vaccine storage capacity: (Litres)</b>	96		
<b>Gross volume (Litres):</b>	N/A	<b>Gross volume:</b>	147L
<b>Holdover time (hours):</b>	6hr 44mins	<b>Waterpack freezing capacity:</b>	14.5kg/24h
<b>Energy consumption, stable running (kWh/24 hours):</b>	3.31kWh/24h		19.4kg
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.81kWh/24h	<b>Energy consumption during freezing:</b>	Not done

### Comments:

### Accessories:

**Spare parts (ref, price):** Dry filter (1); Compressor parts (1); process pipe (1); wire pressing block (1); screw M5X10 (1); Nut M5 (1); Washer 5 (1); Nameplate circuit diagram (1); self tapping screws ST4.8X16-C-H (1); compressor chamber cover (1); self tapping screws ST4.0X14 (1)

<b>Shipping volume:</b>	0.41m3	<b>Shipping weight:</b>	45kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-99 units, USD 450	100-199 units, USD 430	>200 units, USD 400

<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
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<b>Verification report:</b>	WB-14-039	<b>Verification laboratory:</b>	CHEARI
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<b>Current PQS status:</b>	<i>pre-qualified: 02 Nov 2015</i>	<b>Validity until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/061</b>
<b>Type of appliance:</b>	Vaccine/waterpacks freezer
<b>Manufacturer's reference:</b>	DW-25W300
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	AUCMA CO. Ltd.
<b>Address:</b>	315 Qianwangang Road, Economic & Technological Development Zone, Qingdao, China
<b>Telephone:</b>	+86 532 88965799
<b>Email:</b>	<a href="mailto:info@aucma.com.cn">info@aucma.com.cn</a>
<b>Web address:</b>	<a href="http://www.aucma.com.cn">http://www.aucma.com.cn</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	1226x790x945 mm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: N/A</b>
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<b>Vaccine storage capacity: (Litres)</b>	240L		
<b>Gross volume (Litres):</b>		<b>Gross volume:</b>	300L
<b>Holdover time (hours):</b>	58hr 36Mins	<b>Waterpack freezing capacity:</b>	38.3kg/24h
<b>Energy consumption, stable running (kWh/24 hours):</b>	3.37kWh/24h		44.3kg
<b>Energy consumption, cool down test (kWh/24 hours):</b>	3.54kWh/24h	<b>Waterpack storage capacity:</b>	
		<b>Energy consumption during freezing:</b>	

### Comments:

### Accessories:

**Spare parts (ref, price):** Dry filter (1); Compressor parts (1); process pipe (1); wire pressing block (1); screw M5X10 (1); Nut M5 (1); Washer 5 (1); Nameplate circuit diagram (1); self tapping screws ST4.8X16-C-H (1); compressor chamber cover (1); self tapping screws ST4.0X14 (1)

<b>Shipping volume:</b>	0.92 m3	<b>Shipping weight:</b>	75kg
<b>Price year</b>	2016	<b>Incoterms</b>	
<b>Price</b>	1-99 units, USD 540	100-199 units, USD 520	>200 units, USD 490

<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
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<b>Verification report:</b>	WB-14-041	<b>Verification laboratory:</b>	CHEARI
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<b>Current PQS status:</b>	<i>pre-qualified: 02 Nov 2015</i>	<b>Validity until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/062</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VLS 200A Green Line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>		<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	85 x 73 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A	
<b>Vaccine storage capacity: (Litres)</b>	60L		
<b>Gross volume (Litres):</b>	113L	<b>Gross volume:</b>	N/A
<b>Holdover time (hours):</b>	54	<b>Waterpack freezing capacity:</b>	N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.57		N/A
		<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.58	<b>Energy consumption during freezing:</b>	N/A
<b>Comments:</b>	New version of VLS200 upgraded for freeze protection Appliance requires only 4 hours electricity per 24 hours at +43°C		
<b>Accessories:</b>	3 vaccine storage baskets. Self regulating temperature control. Electronic temperature reading. Locking lid + keys. Manual in 6 languages, Plywood packing.		
<b>Spare parts (ref, price):</b>	Thermostat Danfoss 7020276; 22.60€ Compressor Secop 8-036038297; 101.20€		
<b>Shipping volume:</b>	0.58m3	<b>Shipping weight:</b>	70kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 709 €	100-199 units: 699 €	200 or more units: 689 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -		<b>Specification ref.</b>
<b>Verification report:</b>	BOM No: 1-n113	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 08 Mar 2016</i>		<b>Validity until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/063</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VLS 300A Green Line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	85 x 92 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	98	
<b>Gross volume (Litres):</b>	157	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	55.5 hours	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.60 kWh/24h	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.69 kWh/24h	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A
<b>Comments:</b>	New version of VLS300 upgraded for freeze protection	
<b>Accessories:</b>	5 vaccine storage baskets. self-regulating temperature control; electronic temperature reading; Locking lid + keys; Manual in 6 languages; Plywood packing	
<b>Spare parts (ref, price):</b>	Thermostat, Danfoss 7020276; 22.60€ Compressor, Secop 8-036038297; 101.20€	
<b>Shipping volume:</b>	0.75 m3	<b>Shipping weight:</b> 93 kg
<b>Price year</b>	2016	<b>Incoterms</b> FCA
<b>Price</b>	1-99 units: 862 €	100-199 units: 850 €      200 or more units: 838 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>
<b>Verification report:</b>	120571100MKS-002a amended	<b>Verification laboratory:</b> Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 08 Mar 2016</i>	<b>Validity until:</b> May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/064</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VLS 350A Green Line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	85 x 113 x 70 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	127 L in baskets	
<b>Gross volume (Litres):</b>	209 L	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	54.7 hours	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.62kWh/24h	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.64 kWh/24h	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A
<b>Comments:</b>	New version of the VLS 350 for freeze-protection; This appliance requires only 4 hours electricity per 24 hours at +43°C	
<b>Accessories:</b>	7 vaccine storage baskets; self-regulating temperature control; electronic temperature reading; locking lid + keys; manual in 6 languages; plywood packing.	
<b>Spare parts (ref, price):</b>	Thermostat Danfoss 7020276; 22.60€ Compressor Secop 8-036038255; 108.78€	
<b>Shipping volume:</b>	0.85 m3	<b>Shipping weight:</b> 110 kg
<b>Price year</b>	2016	<b>Incoterms</b> FCA
<b>Price</b>	1-99 units: 964 €	100-199 units: 950 €      200 or more units: 937 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>
<b>Verification report:</b>	12057110OMKS-003a amended	<b>Verification laboratory:</b> Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 08 Mar 2016</i>	<b>Validity until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/065</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VLS 400A Greenline
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostsolutions.com">clc@vestfrostsolutions.com</a> ; <a href="mailto:bjn@vestfrostsolutions.com">bjn@vestfrostsolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostsolutions.com/">http://vestfrostsolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	86.0 X 127.0 X 70.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	145	
<b>Gross volume (Litres):</b>	235	<b>Gross volume:</b>
<b>Holdover time (hours):</b>	55 hours	<b>Waterpack freezing capacity:</b>
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.67	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.69	<b>Waterpack storage capacity:</b>
		N/A
<b>Energy consumption during freezing:</b>		N/A
<b>Comments:</b>	New version of VLS400 upgraded for freeze protection Appliance requires only 4 hours electricity per 24 hours at +43°C	
<b>Accessories:</b>	7 vaccine storage baskets; self-regulating temperature control; external electronic temperature reading; locking lid + keys; manuals; plywood packing	
<b>Spare parts (ref, price):</b>	Thermostat Danfoss; 7020276; 22.60€ Compressor Secop 8-036038255; 108.78€	
<b>Shipping volume:</b>	1.02 m3	<b>Shipping weight:</b>
		126 Kg
<b>Price year</b>	2016	<b>Incoterms</b>
		FCA
<b>Price</b>	1-99 units: 1045 €	100-199 units: 1030 €
		200 or more units: 1016 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>
<b>Verification report:</b>	A66543 - amended	<b>Verification laboratory:</b>
		Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified: 08 Mar 2016</i>	<b>Validity until:</b>
		May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/066</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	TCW 4000 AC
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<i>Telephone:</i>	+ 35 2 92 07 311
<i>Email:</i>	<a href="mailto:info@bmedicalsystems.com">info@bmedicalsystems.com</a>
<i>Web address:</i>	<a href="http://www.bmedicalsystems.com">www.bmedicalsystems.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	91.5 x 162.5 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: Grade A**

**Vaccine storage capacity:** 240  
(Litres)

**Gross volume (Litres):** 249

**Holdover time (hours):** 77.3 hours

**Energy consumption, stable running (kWh/24 hours):** 0.85

**Energy consumption, cool down test (kWh/24 hours):** 1.24

**Gross volume:** N/A

**Waterpack freezing capacity:** N/A

**Waterpack storage capacity:** N/A

**Energy consumption during freezing:** N/A

<b>Comments:</b>	Shipped upon request with the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS position through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no proper display since the refrigerators do have digital display. This RTM device is exclusively bundled to B Medical Systems refrigerators / freezers. For more information, please contact B Medical Systems.		
<b>Accessories:</b>	6 baskets; 2 keys; 1 brush; 2 spacers; documentation		
<b>Spare parts (ref, price):</b>	Compressor: 296.9701.63: 164,69 € Controller board: 296.9769.93: 143,39 € Sensor cooler: 296.9804.48: 15,64 € Fan compressor; 292.9960.06: 66,05 € Main switch: 292.2044.20: 7,67 € Display board: 296.9769.81: 38,39 € Switching power supply: 32,37 €		
<b>Shipping volume:</b>	0,88 m3	<b>Shipping weight:</b>	174 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: 3307 €	40-99 units: 3141 €	> 100 units: 2984 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO 15-034 corr 2	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 08 Mar 2016</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/067</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	TCW 15R SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	95.0 x 73.0 x 73.0
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	16 L	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	26.5 L	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	81.8	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable  
 nominal 12 V DC solar electric array. Minimum power 250 watts at solar radiation reference period  
 3,5 kWh/m2/day

Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide  
 communication, real time alarm service for temperature and open door events through SMS/Email,  
 GPS positioning through Google Maps, access to the webserver, performance monitoring and  
 compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated  
 display however the refrigerators all have digital display. This RTM device is exclusively bundled to  
 B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical  
 Systems

**Comments:**

**Accessories:** 2 baskets; 2 keys; 1 brush; 2 spacers; documentation

**Spare parts (ref, price):**  
 Compressor: 296.9702.09: 116,94 €  
 E Box: 296.9705.12: 104,96 €  
 Controller board: 296.9769.82: 138,28 €  
 Sensor cooler: 296.9804.73: 46,14 €  
 Sensor heater: 296.9804.72: 35,17 €  
 Fan compressor: 292.9960.06: 72,82 €  
 Main switch: 292.2044.11: 2,76 €  
 Display board: 296.9769.81: 38,32 €

<b>Shipping volume:</b>	0,65 m3	<b>Shipping weight:</b>	85 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: G1: 3969 €; G2: 4244 €	40-99 units: G1: 3771 €; G2: 4032 €	> 100 units: G1: 3582 €; G2: 3830 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO-16-002	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 25 May 2016</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/068</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	TCW 40R SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<i>Telephone:</i>	+ 35 2 92 07 311
<i>Email:</i>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<i>Web address:</i>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	90 x 103 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	36	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	46.6	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	81 hours 54 min	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

This appliance is a modified model of E003/042; nominal 12 V DC solar electric array. Minimum power 250 watts at solar radiation reference period 3.5 kWh/m2/day  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:** 1 basket; 2 keys; 1 brush; 1 pan for drain; documentation

**Spare parts (ref, price):**  
 Compressor: 296.9702.09: 116,94 €  
 E Box: 296.9705.24: 114,99 €  
 Controller board: 296.9769.82: 138,28 €  
 Sensor cooler: 296.9804.73: 46,14 €  
 Sensor heater: 296.9804.72: 35,17 €  
 Fan compressor: 292.9960.06: 72,82 €  
 Main switch: 292.2044.11: 2,76 € £  
 Display board: 296.9769.81: 38,32 €

<b>Shipping volume:</b>	0.88m3	<b>Shipping weight:</b>	120kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: G1: 4532 €; G2: 4840 €	40-99 units: G1:4305 €; G2: 4597 €	> 100 units: G1: 4091 €; G2: 4368
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO-13-024	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 16 Mar 2016</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/069</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VLS 024 SDD Green Line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark
<b>Telephone:</b>	+45 7914 2555; +45 7914 2248
<b>Email:</b>	<a href="mailto:clc@vestfrostolutions.com">clc@vestfrostolutions.com</a> ; <a href="mailto:bjn@vestfrostolutions.com">bjn@vestfrostolutions.com</a>
<b>Web address:</b>	<a href="http://vestfrostolutions.com/">http://vestfrostolutions.com/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	83.0 x55.5 x 64.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	25.5	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	36	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	81.7 hours	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b>	<i>For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.</i>		
<b>Comments:</b>	Energy requirements: 12V DC solar electric array. 360W radiation reference period 3.5kWh/m <sup>2</sup> /day. Starting load at 2000RPM 4,13A Prices include the solar panel kit of 4x90Wp, roof adjustable, plug & play.		
<b>Accessories:</b>	Mandatory vaccine storage top- basket. Self regulating temperature control. Electronic temperature reading. Locking lid + keys. Manual in 6 languages. Plywood packing.		
<b>Spare parts (ref, price):</b>	Electronic temperature controller: 7020274 41,20€ Compressor, inclusive E-box : 8-036510214 245,00€		
<b>Shipping volume:</b>	0,63 m <sup>3</sup>	<b>Shipping weight:</b>	75 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 2635 €	100-199 units:2598 €	200 or more units: 2560 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-15-174	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 08 Apr 2016</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/070</b>
<b>Type of appliance:</b>	Combined icelined refrigerator/waterpacks freezer
<b>Manufacturer's reference:</b>	VLS 064 RF
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	84.5 x 72.5x 71.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

Freeze protection: Grade A

<b>Vaccine storage capacity: (Litres)</b>	52.5L	<b>Gross volume:</b>	5.1L
<b>Gross volume (Litres):</b>	75L	<b>Waterpack freezing capacity:</b>	1.6Kg
<b>Holdover time (hours):</b>	20.2		6 x 0.6L
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.50	<b>Waterpack storage capacity:</b>	
<b>Energy consumption, cool down test (kWh/24 hours):</b>	1.51	<b>Energy consumption during freezing:</b>	1.80

### Comments:

**Accessories:** Mandatory vaccine storage top- basket. Self regulating temperature control. Electronic temperature reading. 6 water-packs. Locking lid + keys. Manual in 6 languages. Plywood packing.

**Spare parts (ref, price):** Thermostat: 7095034; 40,58€  
Compressor: 8-036038987; 120,59€

<b>Shipping volume:</b>	0,58 m3	<b>Shipping weight:</b>	98 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 1104 €	100-199 units: 1090 €	200 or more units: 1075 €

<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-15-181	<b>Verification laboratory:</b>	Danish Technological Institute

**Current PQS status:** *pre-qualified: 08 Apr 2016* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/071</b>
<b>Type of appliance:</b>	Waterpacks freezer
<b>Manufacturer's reference:</b>	TFW 3000 AC
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<i>Telephone:</i>	+ 35 2 92 07 311
<i>Email:</i>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<i>Web address:</i>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	
<b>Refrigerant:</b>	#R290	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	91.0 x 127.0 x 78.0
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: N/A**

<b>Vaccine storage capacity: (Litres)</b>	N/A
<b>Gross volume (Litres):</b>	N/A
<b>Holdover time (hours):</b>	
<b>Energy consumption, stable running (kWh/24 hours):</b>	2.15
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.20

<b>Gross volume:</b>	204 L
<b>Waterpack freezing capacity:</b>	54 x 0.6L - 32kg/24h 162 x 0.6 L
<b>Waterpack storage capacity:</b>	
<b>Energy consumption during freezing:</b>	

This appliance is a waterpacks fast freezer - it uses propane as a coolant. Shipped upon request with the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS position through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no proper display since the refrigerators do have digital display. This RTM device is exclusively bundled to B Medical Systems refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:**

6 baskets; 54 waterpacks 0.6 L; 2 keys; 1 brush; 2 spacers, documentation

**Spare parts (ref, price):**

Compressor: 296.9701.72: 179,09 €  
 Controller board: 296.9769.95: 139,09 €  
 Sensor cooler: 296.9804.48: 15,64 €  
 Fan compressor: 296.9759.51: 31,67 €  
 Main switch: 292.2044.20: 7,67 € £  
 Display board: 296.9769.81: 38,39 €  
 Switch power supply: 294.2943.75: 87,03 €

<b>Shipping volume:</b>	1,07 m3	<b>Shipping weight:</b>	126 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: 2789 €	40-99 units: 2649 €	> 100 units: 2517 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO 16-001	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 25 May 2016</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/072</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	VC225ILR
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	98.6 x 128.7 x 74.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	184 L	
<b>Gross volume (Litres):</b>	203 L	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	94	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.803	<b>Waterpack storage capacity:</b> N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.764	<b>Energy consumption during freezing:</b> N/A

**Comments:** Include external voltage regulator

**Accessories:** Include external voltage regulator

**Spare parts (ref, price):**  
 Dulas PS-ILR-001 power supply unit: €260.00  
 Compressor Danfoss BD35K: €178.00  
 Controller Danfoss 101N0410: €140.00  
 Dulas refrigerator controller: €191.00  
 Temperature probe: €12.70 (per pair)  
 Solar thermometer: €38.10  
 MCB fridge/Isolation switch: €19.05

**Shipping volume:** 1.29 m3      **Shipping weight:** 172 kg

**Price year:** 2016      **Incoterms:** FCA

**Price:** €2600 per unit

**Quality standard:** - ISO 9001:2008 -      **Specification ref.**

**Verification report:** 300-KLAB-16-110      **Verification laboratory:** Danish Technological Institute

**Current PQS status:** *pre-qualified: 25 May 2016*      **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/073</b>
<b>Type of appliance:</b>	Solar direct drive freezer
<b>Manufacturer's reference:</b>	TFW 40 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<i>Telephone:</i>	+ 35 2 92 07 311
<i>Email:</i>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<i>Web address:</i>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	N/A
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	90 x 103 x 78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: N/A</b>	
<b>Vaccine storage capacity: (Liters)</b>	N/A	<b>Gross volume (Liters):</b>	64 L
<b>Gross volume (Liters):</b>	N/A	<b>Waterpack freezing capacity:</b>	2.16 kg/24h (4 packs of 0.6L)
		<b>Waterpack storage capacity:</b>	11.24 kg (20 waterpacks)
<b>Autonomy as per WHO/PQS protocols</b>	5 days	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*



prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable  
 Energy sources: nominal 12 V DC solar electric array. Minimum power 250 watts at solar radiation  
 reference period 3.5 kWh/m<sup>2</sup>/day  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide  
 communication, real time alarm service for temperature and open door events through SMS/Email,  
 GPS positioning through Google Maps, access to the webserver, performance monitoring and  
 compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated  
 display however the refrigerators all have digital display. This RTM device is exclusively bundled to  
 B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical  
 Systems

**Comments:**

**Accessories:** 8 waterpaks 0.6 L; 8 waterpaks holders; 2 keys; 1 brush; 2 spacers; documentation

**Spare parts (ref, price):**

Compressor: 296.9702.09: 116,19 €  
 E Box: 296.9705.24: 114,32 €  
 Controller board: 296.9769.92: 141,97 €  
 Sensor cooler: 296.9804.48: 15,64 €  
 Fan compressor: 292.9960.06: 66,05 €  
 Main switch: 292.2044.11: 2,73 € £  
 Display board: 296.9769.81: 38,39 €

<b>Shipping volume:</b>	0,88 m <sup>3</sup>	<b>Shipping weight:</b>	119 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	1-39 units: G1: 4798 €; G2: 5279 €	40-99 units: G1: 4569 €; G2: 5030 €	> 100 units: G1: 4351 €; G2: 4791 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO-15036 corr 1	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 26 May 2016</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/074</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	HTCD 90 SDD
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	112 x 65.4 x 87.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	37.5	<b>Gross volume (Liters):</b>	32
<b>Gross volume (Liters):</b>	58	<b>Waterpack freezing capacity:</b>	2.08 Kg/24h
		<b>Waterpack storage capacity:</b>	12
<b>Autonomy as per WHO/PQS protocols</b>	114.9	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b> For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.			
<b>Comments:</b> Voltage of Solar Panel 24V; Power of Solar Panel 180W *4			
<b>Accessories:</b> Baskets; manuals; keys			
<b>Spare parts (ref, price):</b> Main switch: 274000354; USD 12.00 Electric controller: 274000352; USD 45.00 Fan: 274000351; USD 8.00 Compressor scope: 0274000118A; USD 230.00 Solar Display: 274000357; USD 8.00			
<b>Shipping volume:</b>	0.98 m <sup>3</sup>	<b>Shipping weight:</b>	108 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 4500 USD	100-199 units: 4450 USD	>200 units: 4400 USD
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-16-153	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	pre-qualified: 06 Jun 2016	<b>Validity until:</b> May, 2018	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/075</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	HTC 40 SDD
<b>Manufactured in:</b>	
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	78.8×65.4×87.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity (Liters)</b>	22.5	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	40	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	117	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day
<b>Warning !</b> For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.			
<b>Comments:</b> Prices include solar system; 24V solar Panel; 180W *2 Solar Panel power			
<b>Accessories:</b>	2 baskets; manuals; keys		
<b>Spare parts (ref, price):</b>	Main switch: 274000354; USD 12.00 Electric controller: 274000352; USD 45.00 Fan: 274000351; USD 8.00 Compressor SECOP: 0274000118A; USD 230.00 Solar Display: 274000357; USD 8.00		
<b>Shipping volume:</b>	0.70m <sup>3</sup>	<b>Shipping weight:</b>	75Kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 2700 USD	100 - 199 units: 2650 USD	>200 units: 2600 USD
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-16-151	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	pre-qualified: 06 Jun 2016	<b>Validity until:</b> May, 2018	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/076</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	HTC 110 SDD
<b>Manufactured in:</b>	
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	78.8 × 65.4 × 112.8 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity (Liters)</b>	59	<b>Gross volume (Liters):</b>	N/A
<b>Gross volume (Liters):</b>	110	<b>Waterpack freezing capacity:</b>	N/A
		<b>Waterpack storage capacity:</b>	N/A
<b>Autonomy as per WHO/PQS protocols</b>	96	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Prices include solar system; 24V Solar Panel s, Power of Solar Panel 180W *2		
<b>Accessories:</b>	4 baskets; manuals; keys		
<b>Spare parts (ref, price):</b>	Main switch: 274000354; USD 12.00 Electric controller: 274000352; USD 45.00 Fan: 274000351; USD 8.00 Compressor SECOP: 0274000118A; USD 230.00 Solar Display: 274000357; USD 8.00		
<b>Shipping volume:</b>	0.98m <sup>3</sup>	<b>Shipping weight:</b>	94Kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	1-99 units: 3000 USD	100-199 units: 2950 USD	>200 units: 2900 USD
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WB-16-152	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 06 Jun 2016</i>	<b>Validity until:</b> May, 2018	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/077</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	TCW15 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	95x73x73cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Grade A</b>	
<b>Vaccine storage capacity: (Liters)</b>	16 Litres	<b>Gross volume (Liters):</b>	2.4 Litres
<b>Gross volume (Liters):</b>	26.5 Litres	<b>Waterpack freezing capacity:</b>	1.97 kg
		<b>Waterpack storage capacity:</b>	4 x 0.6L waterpacks
<b>Autonomy as per WHO/PQS protocols</b>	84 hours	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

Prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:**

2 baskets; 4 water-packs 0.6 L; 4 water-pack holders; 2 keys; 1 brush; 2 spacers; documentation

**Spare parts (ref, price):**

Compressor: 296.9702.09: 116,19 €  
 E Box: 296.9705.12: 104,96 €  
 Controller board: 296.9769.82: 138,27 €  
 Sensor cooler: 296.9804.73: 41,54 €  
 Sensor heater: 296.9804.72: 34,99 €  
 Fan compressor: 292.9960.06: 66,05 €  
 Main switch: 292.2044.11: 2,73 €  
 Display board: 296.9769.81: 38,39 €

**Shipping volume:**

0.65 m3

**Shipping weight:**

87 kg

**Price year**

2016

**Incoterms**

EXW

**Price**

1-39 units: G1: 4002 €; G2: 4277 €  
 40-99 units: G1: 3802 €; G2: 4063 €  
 > 100 units: G1: 3612 €; G2: 3860 €

**Quality standard:**

- ISO 9001:2008 - ISO 13485  
 - Other - ISO/TS 16949:2009 -

**Specification ref.**

**Verification report:**

WHO 16-014 and WHO 16-015

**Verification laboratory:**

CEMAFROID SAS

**Current PQS status:**

*pre-qualified: 13 Sep 2016*

**Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/078</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VC50SDD
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	960mm x 1000mm x 740mm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	52.5 litres	<b>Gross volume (Liters):</b>	
<b>Gross volume (Liters):</b>	82 litres	<b>Waterpack freezing capacity:</b>	
		<b>Waterpack storage capacity:</b>	
<b>Autonomy as per WHO/PQS protocols</b>	74hrs 15mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

Incorporates Freeze Free technology. Price includes plug and play roof mounted adjustable 260 Wp solar array

**Comments:**

**Accessories:** Handle with in-built lock; External temperature display; Instruction manual; Basket; replaceable lid gaskets

**Spare parts (ref, price):** "Compressor Danfoss BD35K: €178.00 - Controller Danfoss 101N0420: €140.00 Dulas SDD controller: €191.00 - Temperature probe: €12.70 (per pair) Solar thermometer: €38.10 - MCB fridge/Isolation switch: €19.05 - Lid gaskets: €45.00

<b>Shipping volume:</b>	1.02 m3	<b>Shipping weight:</b>	129 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	From €2750 per complete system		
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001	<b>Specification ref.</b>	-
<b>Verification report:</b>	300-KLAB-16-147	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 04 Oct 2016</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/079</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	CFD-50
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	AUCMA CO. Ltd.
<b>Address:</b>	315 Qianwangang Road, Economic & Technological Development Zone, Qingdao, China
<b>Telephone:</b>	+86 532 88965799
<b>Email:</b>	<a href="mailto:info@aucma.com.cn">info@aucma.com.cn</a>
<b>Web address:</b>	<a href="http://www.aucma.com.cn">http://www.aucma.com.cn</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R134a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional;#2;#Electric Mains 115/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	158.8 x 54.5 x 65.5 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	50	
<b>Gross volume (Litres):</b>	68	<b>Gross volume:</b> N/A
<b>Holdover time (hours):</b>	135	<b>Waterpack freezing capacity:</b> N/A
<b>Energy consumption, stable running (kWh/24 hours):</b>	0.76	N/A
<b>Energy consumption, cool down test (kWh/24 hours):</b>	0.77	<b>Waterpack storage capacity:</b>
		<b>Energy consumption during freezing:</b> N/A
<b>Comments:</b>	Unit requires addition of 32 litres of clean drinking water during installation	
<b>Accessories:</b>	3 vaccine storage trays; 3 wire shelves; 2 sets of locks & keys; 1 funnel; documentation; voltage stabilizer included	
<b>Spare parts (ref, price):</b>	Compressor, 3000000353: \$108 DC fan, 3000001115: \$25	
<b>Shipping volume:</b>	0.77m3	<b>Shipping weight:</b> 100Kg
<b>Price year</b>	2016	<b>Incoterms</b> EXW
<b>Price</b>	1 – 99 units: 1,400USD	100 or more units: 1,300USD
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - OHSAS 18001 -	<b>Specification ref.</b>
<b>Verification report:</b>	WB-16-217	<b>Verification laboratory:</b> CHEARI
<b>Current PQS status:</b>	<i>pre-qualified: 04 Nov 2016</i>	<b>Validity until:</b> May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/080</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	GVR 51 LITE AC
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances./medical">http://www.godrejappliances./medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional;#2;#Electric Mains 115/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	62cm x 73.5cm x 151.5cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

REFRIGERATOR	FREEZER	Freeze protection: Grade A
<b>Vaccine storage capacity: (Litres)</b>	51 Litres	
<b>Gross volume (Litres):</b>	69 Litres	<b>Gross volume:</b>
<b>Holdover time (hours):</b>	89 hours 43 mins	<b>Waterpack freezing capacity:</b>
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.63	<b>Waterpack storage capacity:</b>
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.04	<b>Energy consumption during freezing:</b>

**Comments:**  
(i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK)  
(ii) Has a built in intelligent temperature control, early warning and energy management system  
(iii) Unit requires addition of clean drinking water during installation, contact manufacturer for information

**Accessories:** "Included in price: 4 wire shelves ; 1 Padlock; 1 Funnel  
Optional (charged extra): Extra wire shelves, plywood packaging, Voltage Stabilizer"

**Spare parts (ref, price):**  
Compressor  
Electronic Controller Card  
Voltage Stabilizer

<b>Shipping volume:</b>	0.86 m3	<b>Shipping weight:</b>	115 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	USD 900	USD 880	USD 865
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	CE-JOB-DEL-16-000501-GVR 51 Lite	<b>Verification laboratory:</b>	Intertek India

**Current PQS status:** *pre-qualified: 21 Nov 2016* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/081</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	GVR 75 Lite
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances.com/medical">http://www.godrejappliances.com/medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 115/60Hz;#1;#Electric Mains 220- 240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	151.5cm x 62cm x 73.5cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: Grade A**

<b>Vaccine storage capacity: (Litres)</b>	72.5 litres
<b>Gross volume (Litres):</b>	99 litres
<b>Holdover time (hours):</b>	81 hrs
<b>Energy consumption, stable running (kWh/24 hours):</b>	1.47 kWh/24 h
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.77 kWh/24 h

<b>Gross volume:</b>	
<b>Waterpack freezing capacity:</b>	
<b>Waterpack storage capacity:</b>	
<b>Energy consumption during freezing:</b>	

- "(i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK) guarantees never to freeze vaccines
- (ii) Data loggers records up to 30 days temperature reading with 5 customizable temperature alarm settings
- (iii) Has a built in intelligent temperature control, early warning and energy management system
- (iv) Unit requires addition of clean drinking water during installation,"

**Comments:**

**Accessories:** "Included in price: 4 wire shelves ; 1 Padlock; 1 Funnel  
 Optional (charged extra): Extra wire shelves, plywood packaging, Voltage Stabilizer"

**Spare parts (ref, price):** Compressor  
 Electronic Controller Card  
 Voltage Stabilizer

<b>Shipping volume:</b>	0.86m3	<b>Shipping weight:</b>	115 Kg
<b>Price year</b>	2016	<b>Incoterms</b>	
<b>Price</b>	Price 1 (1-10 Units) - USD 972	Price 2 (10-99 Units) - USD 950	Price 3 (100+ Units) - USD 935

**Quality standard:** - ISO 9001:2008 - **Specification ref.**

<b>Verification report:</b>	CE-JOB-DEL-16-000501-GVR 75 Lite	<b>Verification laboratory:</b>	Intertek India
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**Current PQS status:** *pre-qualified: 21 Nov 2016* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/082</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	GVR 99 Lite
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances.com/medical">http://www.godrejappliances.com/medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 115/60Hz;#1;#Electric Mains 220- 240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	62.0 X 73.5 X 170.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

**Freeze protection: Grade A**

**Vaccine storage capacity:** 98.5 L  
(Litres)

**Gross volume (Litres):** 124 L

**Holdover time (hours):** 59 Hrs 34 minutes

**Energy consumption, stable running (kWh/24 hours):** 1.23 kWh/24 h

**Energy consumption, cool down test (kWh/24 hours):** 1.73 kWh/24 h

**Gross volume:**

**Waterpack freezing capacity:**

**Waterpack storage capacity:**

**Energy consumption during freezing:**

- "(i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK) guarantees never to freeze vaccines
- (ii) Data loggers records up-to 30 days temperature reading with 5 customizable temperature alarm settings
- (iii) Has a built in intelligent temperature control, early warning and energy management system
- (iv) Unit requires addition of clean drinking water during installation,"

**Comments:**

**Accessories:**

"Included in price: 4 wire shelves ; 1 Padlock; 1 Funnel  
 Optional (charged extra): Extra wire shelves, plywood packaging, Voltage Stabilizer"

**Spare parts (ref, price):**

Compressor  
 Electronic Controller Card  
 Voltage Stabilizer

<b>Shipping volume:</b>	0.95m3	<b>Shipping weight:</b>	125 Kg
<b>Price year</b>	2016	<b>Incoterms</b>	
<b>Price</b>	Price 1 (1-10 Units) - USD 1050	Price 2 (10-99 Units) - USD 1030	Price 3 (100+ Units) - USD 1010
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	CE-JOB-DEL-16-000501-GVR 99 Lite	<b>Verification laboratory:</b>	Intertek India
<b>Current PQS status:</b>	<i>pre-qualified: 21 Nov 2016</i>		<b>Validity until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/083</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	GVR 225 AC
<b>Manufactured in:</b>	India
<b>Company:</b>	Godrej & Boyce MFG. Co. Ltd.
<b>Address:</b>	Plant 01, Pirojshanagar, Vikhroli West Mumbai 400 079 India
<b>Telephone:</b>	+91 22 67966201
<b>Email:</b>	<a href="mailto:medicalref@godrej.com">medicalref@godrej.com</a> ; <a href="mailto:hello@surechill.com">hello@surechill.com</a>
<b>Web address:</b>	<a href="http://www.godrejappliances./medical">http://www.godrejappliances./medical</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+10°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 115/60Hz;#8;#Electric Mains 220-240V 50/60Hz or Electric Mains 115/60Hz optional
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	79.5 x 75.0 x 182.0 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

<b>REFRIGERATOR</b>	<b>FREEZER</b>	<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Litres)</b>	225 Litres	
<b>Gross volume (Litres):</b>	278 Litres	<b>Gross volume:</b>
<b>Holdover time (hours):</b>	55 hours	<b>Waterpack freezing capacity:</b>
<b>Energy consumption, stable running (kWh/24 hours):</b>	2.04 kWh/24 h	<b>Waterpack storage capacity:</b>
<b>Energy consumption, cool down test (kWh/24 hours):</b>	2.38 kWh/24 h	<b>Energy consumption during freezing:</b>

**Comments:** "(i) Sure Chill is a patented technology licensed by The Sure Chill Company (UK)  
 (ii) Refrigerator operates on only 2.5 hrs/day power at 37°C ambient, post stabilization  
 (iii) Has a built in intelligent temperature control, early warning and energy management system  
 (iv) Unit requires addition of clean drinking water during installation, contact manufacturer for information"

**Accessories:** "Included in price: 4 wire shelves ; 1 Padlock; 1 Funnel  
 Optional (charged extra): Extra wire shelves, plywood packaging, Voltage Stabilizer"

**Spare parts (ref, price):** Compressor  
 Fan Motor  
 Electronic Controller Card  
 Fan Impeller  
 Voltage Stabilizer

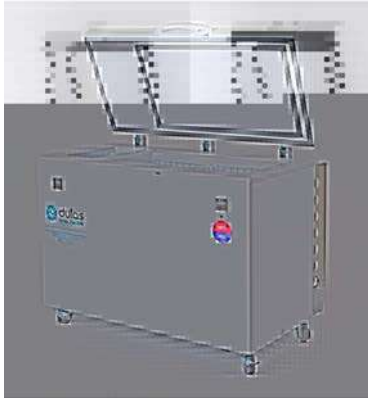
<b>Shipping volume:</b>	1.3 m3	<b>Shipping weight:</b>	160 kg
<b>Price year</b>	2016	<b>Incoterms</b>	EXW
<b>Price</b>	Price 1 (1-10 Units) - USD 1800	Price 2 (10-99 Units) - USD 1765	Price 3 (100+ Units) - USD 1730
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	CE-JOB-DEL-16-000501-GVR 225AC	<b>Verification laboratory:</b>	Intertek India

**Current PQS status:** *pre-qualified: 21 Nov 2016* **Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/084</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	VC60SDD-1
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	95.9cm x 128.2cm x 74.0cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	57 Litres	<b>Gross volume (Liters):</b>	24 Litres
<b>Gross volume (Liters):</b>	124 Litres	<b>Waterpack freezing capacity:</b>	2.4kg or 4x 0.6L packs
		<b>Waterpack storage capacity:</b>	13.8kg or 23 x 0.6L packs
<b>Autonomy as per WHO/PQS protocols</b>	82hrs 48 mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*



<b>Comments:</b>	Incorporates Freeze Free technology. Price includes plug and play roof mounted adjustable 600Wp solar array
<b>Accessories:</b>	Handle with in-built lock; External temperature display; Instruction manual; Stacking baskets; replacable lid gaskets
<b>Spare parts (ref, price):</b>	Compressor Danfoss BD35K: €178.00 - Controller Danfoss Compressor Danfoss BD35K: €178.00 - controller Danfoss 101N0410: €140.00 SDD controller: €191.00 - Temperature probe: €12.70 (per pair) MCB fridge / isolation switch: €19.05 - MCB freezer (isolation switch): €12.69 Solar thermometer: €38.10 - Freezer foam lid: €38.10 - Freezer fan: €24.00

<b>Shipping volume:</b>	1.2 m3	<b>Shipping weight:</b>	170 kg
<b>Price year</b>	2016	<b>Incoterms</b>	FCA
<b>Price</b>	From €4750 per complete system		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-16-164	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 16 Jan 2017</i>	<b>Validity until:</b> <i>May, 2018</i>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/085</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	VC30SDD
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Dulas Ltd
<b>Address:</b>	Dyfi Eco Parc Machynlleth Powys SY20 8AX United Kingdom
<b>Telephone:</b>	+ 44 (0)1654 705055
<b>Email:</b>	<a href="mailto:solar@dulas.org.uk">solar@dulas.org.uk</a>
<b>Web address:</b>	<a href="http://www.dulassolar.org/">http://www.dulassolar.org/</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	98.7cm x 89.0cm x 75.5cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>

<b>Vaccine storage capacity: (Liters)</b>	25.5l	<b>Gross volume (Liters):</b>	
<b>Gross volume (Liters):</b>	39l	<b>Waterpack freezing capacity:</b>	
		<b>Waterpack storage capacity:</b>	
<b>Autonomy as per WHO/PQS protocols</b>	72hrs 09mins	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Incorporates Freeze Free technology. Price includes plug and play roof mounted adjustable 260Wp solar array		
<b>Accessories:</b>	Handle with in-built lock; External temperature display; Instruction manual; Basket; replaceable lid gaskets		
<b>Spare parts (ref, price):</b>	Compressor Danfoss BD35K: €178.00 - Controller Danfoss 101N0420: €140.00 Dulas SDD-SC controller: €56.00 Temperature probe: €5.00 Solar thermometer: €38.10 - MCB fridge/Isolation switch: €19.05 - Lid gaskets: €45.00		
<b>Shipping volume:</b>	1.02 m <sup>3</sup>	<b>Shipping weight:</b>	129 kg
<b>Price year</b>	2017	<b>Incoterms</b>	FCA
<b>Price</b>	From €2500 per complete system		
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-17-117	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 01 Jun 2017</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/086</b>
<b>Type of appliance:</b>	Solar direct drive freezer
<b>Manufacturer's reference:</b>	HTD-40
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	78.8 × 65.4 × 87.5 mm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR</b>		<b>AND / OR FREEZER</b>	
		<b>Freeze protection: Not tested</b>	
<b>Vaccine storage capacity: (Liters)</b>	N/A	<b>Gross volume (Liters):</b>	48 L
<b>Gross volume (Liters):</b>		<b>Waterpack freezing capacity:</b>	2.4kg/24h
		<b>Waterpack storage capacity:</b>	20 kg
<b>Autonomy as per WHO/PQS protocols</b>	120 hours	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*

**Comments:**

**Accessories:** 1.Instructions  
 2.Key  
 3.Handle component  
 4.Defrosting shovel  
 5.Waterpack holder  
 6.0.4L Water-pack

**Spare parts (ref, price):** 1. Solar display screen: 0274000357  
 2. Power switch: 0274000354  
 3. Electrolysis capacitor: 0274000393  
 4. Temperature controller: 0274000352  
 5. Dry Filter: 0074180001  
 6. Condenser: 0060702951A  
 7. Fan: 0274000351  
 8. Indicator light: 0074000574

<b>Shipping volume:</b>	0.70m3	<b>Shipping weight:</b>	65 Kg
<b>Price year</b>	2017	<b>Incoterms</b>	FCA
<b>Price</b>	1-20 Units - \$2900	21-100 Units - \$2800	>100 - \$2650

<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>
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<b>Verification report:</b>	WB-16-600	<b>Verification laboratory:</b>	CHEARI
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<b>Current PQS status:</b>	<i>pre-qualified: 09 Jun 2017</i>	<b>Validity until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/087</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	HBC-260
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	165.0 x 65.4 x 78.8 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

Freeze protection: Grade A

**Vaccine storage capacity: (Litres)** 211 Litres

**Gross volume (Litres):** 260 Litres

**Holdover time (hours):** 34 hrs 40 mins

**Energy consumption, stable running (kWh/24 hours):** 1.62 kWh/24h

**Energy consumption, cool down test (kWh/24 hours):** 1.47 kWh/24h

**Gross volume:**

**Waterpack freezing capacity:**

**Waterpack storage capacity:**

**Energy consumption during freezing:**

### Comments:

**Accessories:** Accessory : 1. Instructions 2. Key 3. Handle component 4. Basket 5. Data logger

**Spare parts (ref, price):** Thermostat,  
Compressor,  
Basket up.;  
Basket down,  
Indicator lamp,  
Fan,  
Filter

**Shipping volume:** 0.91m3

**Shipping weight:** 132KG

**Price year** 2017

**Incoterms**

**Price** 1 - 20 Units: \$1050

21 - 100 Units: \$1030

>100 Units: \$990

**Quality standard:** - ISO 9001:2008 - ISO 13485  
- ISO 14001 -

**Specification ref.**

**Verification report:** WB-17-165

**Verification laboratory:** CHEARI

**Current PQS status:** *pre-qualified: 09 Jun 2017*

**Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/088</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	HBC-150
<b>Manufactured in:</b>	
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>		<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	112.8 x 65.4 x 78.8 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

Freeze protection: Grade A

**Vaccine storage capacity:** 122 Litres  
(Litres)

**Gross volume (Litres):** 150 Litres

**Holdover time (hours):** 30 hrs 16 mins

**Energy consumption, stable running (kWh/24 hours):** 0.53kWh/24h

**Energy consumption, cool down test (kWh/24 hours):** 0.61 kWh/24h

**Gross volume:**

**Waterpack freezing capacity:**

**Waterpack storage capacity:**

**Energy consumption during freezing:**

### Comments:

**Accessories:** Accessory : 1. Instructions 2. Key 3. Handle component 4. Basket 5. Data logger

**Spare parts (ref, price):** Thermostat,  
Compressor,  
Basket up.;  
Basket down,  
Indicator lamp,  
Fan,  
Filter

**Shipping volume:** 0.61m3

**Shipping weight:** 85kg

**Price year** 2017

**Incoterms**

**Price** 1 - 20 Units: \$900

21 - 100 Units: \$870

>100 - \$840

**Quality standard:** - ISO 9001:2008 - ISO 13485  
- ISO 14001 -

**Specification ref.**

**Verification report:**

**Verification laboratory:** CHEARI

**Current PQS status:** *pre-qualified: 09 Jun 2017*

**Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/089</b>
<b>Type of appliance:</b>	Icelined refrigerator
<b>Manufacturer's reference:</b>	HBC-80
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Haier Medical and Laboratory Products Co., Ltd
<b>Address:</b>	Room 703D, Brand Building, Haier Industry Park, No. 1 Haier Road, 266101 Qingdao, China; People's Republic of
<b>Telephone:</b>	+86-532-88937169
<b>Email:</b>	<a href="mailto:wanggs@haier.com">wanggs@haier.com</a>
<b>Web address:</b>	<a href="http://www.haiermedical.com">http://www.haiermedical.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Electric Mains 220-240V 50/60Hz
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	87.5 x 65.4 x 78.8 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

### REFRIGERATOR

### FREEZER

Freeze protection: Grade A

**Vaccine storage capacity:** 61 Litres  
(Litres)

**Gross volume (Litres):** 80 Litres

**Holdover time (hours):** 31 hrs 50 mins

**Energy consumption, stable running (kWh/24 hours):** 0.57kWh/24h

**Energy consumption, cool down test (kWh/24 hours):** 0.63kWh/24h

**Gross volume:**

**Waterpack freezing capacity:**

**Waterpack storage capacity:**

**Energy consumption during freezing:**

### Comments:

**Accessories:** 1. Instructions 2. Key 3. Handle component 4. Basket 5. Data logger

**Spare parts (ref, price):** Thermostat,  
Compressor,  
Basket up,;  
Basket down,  
Indicator lamp,  
Fan,  
Filter

**Shipping volume:** 0.45m3

**Shipping weight:** 73kg

**Price year** 2017

**Incoterms**

**Price** 1 - 20 Units: \$720

21 - 100 Units: \$680

> 100 units: \$650

**Quality standard:** - ISO 9001:2008 - ISO 13485  
- ISO 14001 -

**Specification ref.**

**Verification report:** WB-17-166

**Verification laboratory:** CHEARI

**Current PQS status:** *pre-qualified: 09 Jun 2017*

**Validity until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/090</b>
<b>Type of appliance:</b>	Solar direct drive refrigerator
<b>Manufacturer's reference:</b>	Ultra 16 SDD
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	113x85x78 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression
<b>SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER</b>			<b>Freeze protection: Grade A</b>
<b>Vaccine storage capacity: (Liters)</b>	16 L	<b>Gross volume (Liters):</b>	
<b>Gross volume (Liters):</b>	24.5 L	<b>Waterpack freezing capacity:</b>	
		<b>Waterpack storage capacity:</b>	
<b>Autonomy as per WHO/PQS protocols</b>	477 hours 56 minutes	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

### Warning !

*For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.*



Prices include the solar system: Generator 1 = roof fixed; Generator 2 = roof adjustable  
 Include free of charge the B Medical Systems RTM datalogger, including 10 years of worldwide communication, real time alarm service for temperature and open door events through SMS/Email, GPS positioning through Google Maps, access to the webserver, performance monitoring and compliant to WHO PQS E006/TR03.2 with one deviation as this data logger has no integrated display however the refrigerators all have digital display. This RTM device is exclusively bundled to B Medical Systems SDD refrigerators / freezers. For more information, please contact B Medical Systems

**Comments:**

**Accessories:** compass; 2 baskets; 2+3 keys; brush; documentation

**Spare parts (ref, price):**  
 296.9769.81 Display board 38,39 €  
 296.9804.73 Sensor cooler 41,54 €  
 296.9804.85 Sensor heater, Sensor ambient 15,64 €  
 292.9960.06 Fan compressor 66,05 €  
 296.9702.09 Compressor 116,19 €  
 296.9705.32 E Box 104,96 €  
 296.9769.98 Controller board 138,27 €  
 292.2044.11 Main switch 2,73 €

<b>Shipping volume:</b>	1.04 m3	<b>Shipping weight:</b>	200 kg
<b>Price year</b>	2017	<b>Incoterms</b>	EXW
<b>Price</b>	(1-39 units): G1: 5521 €; G2: 5898 €	(40-99 units): G1: 5245 €; G2: 5602 €	(> 100 units): G1: 4983 €; G2: 5323 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 13485 - ISO 14001 -	<b>Specification ref.</b>	
<b>Verification report:</b>	WHO 17-002 cor_1	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified: 04 Oct 2017</i>	<b>Validity until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/091</b>
<b>Type of appliance:</b>	Combined icelined refrigerator/waterpacks freezer
<b>Manufacturer's reference:</b>	VLS 026 RF Green Line
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	88 cm x 111 cm x 65 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - compression

SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER		Freeze protection: Grade A	
<b>Vaccine storage capacity: (Liters)</b>	20 L	<b>Gross volume (Liters):</b>	34.3 L
<b>Gross volume (Liters):</b>	35 L	<b>Waterpack freezing capacity:</b>	1.8 kg/24h
		<b>Waterpack storage capacity:</b>	29 x 0.6L waterpacks
<b>Autonomy as per WHO/PQS protocols</b>	73.22 hrs	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Prices include Vestfrost Solutions SDD PV energy system, roof adjustable, plug & play; Unit equipped with unique QR code, that can be used along Vestfrost Solutions Unit tracker APP, containing various installation/service features.		
<b>Accessories:</b>	Vaccine storage top basket; Bottom grating; 30 day electronic temperature logger; Holder for temperature logger; Self regulating temperature control; Electronic temperature reading; 2 x Keys; Instruction manual in 6 UN languages; Technical manual in 6 UN languages		
<b>Spare parts (ref, price):</b>	Electronic temperature controller Compressor including E-box Compressor fan refrigerator Compressor fan freezer Thermostat freezer Sensor refrigerator		
<b>Shipping volume:</b>	0.920 m3	<b>Shipping weight:</b>	141 kgs
<b>Price year</b>	2017	<b>Incoterms</b>	EXW
<b>Price</b>	1-99 units - 4,550 €	100-199 units - 4,482 €	200 or more units: 4,414 €
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-17-118	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 08 Dec 2017</i>		<b>Validity until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E003:

## Refrigerators and freezers

<b>PQS code:</b>	<b>E003/092</b>
<b>Type of appliance:</b>	Solar direct drive combined refrigerator/freezer
<b>Manufacturer's reference:</b>	VLS 056 RF SDD
<b>Manufactured in:</b>	Denmark
<b>Company:</b>	Vestfrost Solutions
<b>Address:</b>	A/S Vestfrost Falkevej 12 DK-6705 Esbjerg Ø Denmark

**Telephone:** +45 7914 2555; +45 7914 2248

**Email:** [clc@vestfrostsolutions.com](mailto:clc@vestfrostsolutions.com);  
[bjn@vestfrostsolutions.com](mailto:bjn@vestfrostsolutions.com)

**Web address:** <http://vestfrostsolutions.com/>

## Specifications

<b>Climate zone:</b>	Hot	<b>Min rated ambient temp:</b>	+5°C
<b>Refrigerant:</b>	R600a	<b>Energy source:</b>	Solar direct drive
<b>Appliance tested at:</b>	+43°C	<b>Ext dimensions (HxLxD)</b>	88 cm x 111 cm x 65 cm
<b>Performance at:</b>	<b>+43°C</b>	<b>Fuel and cycle type:</b>	Electric - absorption

SOLAR DIRECT DRIVE REFRIGERATOR AND / OR FREEZER		Freeze protection: Grade A	
<b>Vaccine storage capacity: (Liters)</b>	36 L	<b>Gross volume (Liters):</b>	34.3 L
<b>Gross volume (Liters):</b>	49.3 L	<b>Waterpack freezing capacity:</b>	1.8 kg/24h
		<b>Waterpack storage capacity:</b>	29 x 0.6L waterpacks
<b>Autonomy as per WHO/PQS protocols</b>	72hrs	<b>At a solar radiation reference period of:</b>	3.5 kWh/m <sup>2</sup> /day

**Warning !** For solar direct drive units, the correct sizing of the solar panel array for a specific site is complex and critical. It must be agreed with both the appliance manufacturer and with the Qualified Supplier of the solar energy system at the time of ordering.

<b>Comments:</b>	Prices include Vestfrost Solutions SDD PV energy system, roof adjustable, plug & play; Unit equipped with unique QR code, that can be used along Vestfrost Solutions Unit tracker APP, containing various installation/service features		
<b>Accessories:</b>	Vaccine storage top basket; Bottom grating; 30 day electronic temperature logger; Holder for temperature logger; Self regulating temperature control; Electronic temperature reading; 2 x Keys; Instruction manual in 6 UN languages; Technical manual in 6 UN languages		
<b>Spare parts (ref, price):</b>	Electronic temperature controller Compressor including E-box Compressor fan refrigerator Compressor fan freezer Thermostat freezer Sensor refrigerator		
<b>Shipping volume:</b>	0.920 m <sup>3</sup>	<b>Shipping weight:</b>	140 kgs
<b>Price year</b>	2017	<b>Incoterms</b>	EXW
<b>Price</b>	1-99 units - 4,835 €	100-199 units: 4,762 €	200 or more: 4,690 €
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Specification ref.</b>	
<b>Verification report:</b>	300-KLAB-17-119	<b>Verification laboratory:</b>	Danish Technological Institute
<b>Current PQS status:</b>	<i>pre-qualified: 08 Dec 2017</i>	<b>Validity until:</b> May, 2018	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.

# E004

## Insulated containers

This section covers cold boxes, vaccine carriers and other insulated containers used for the transport of vaccines.

### E004.1 Choosing a cold box or vaccine carrier

Consider the following points when choosing equipment:

- Vaccine storage capacity:** Vaccine storage capacity is given on the individual product data sheets. The quantity and type of vaccine that needs to be transported depends upon the use to which the cold box or vaccine carrier is being put. For example:
  - *Large scale routine distribution:* In most countries, distributions from primary to sub-national store, and between sub-national stores, generally require a number of cold boxes. For this purpose it is good practice to separate OPV and the single antigen lyophilized vaccines from the freeze-sensitive and multi-valent vaccines. The former can safely be packed with frozen icepacks. The latter should preferably be packed with cool water-packs so as to eliminate the risk of freezing during transport. Freeze indicators will also be needed where the ambient temperatures may drop below 0°C.
  - *Small scale routine distribution:* A single cold box is typically used to transport vaccine from a sub-national store to a health facility. When all the vaccines have to be packed in a single cold box, cool water-packs should be used.
  - *Routine outreach:* Vaccine carrier will be packed with a mix of vaccines, and possibly supplements, appropriate to the local schedule.
  - *Campaigns:* A limited range of vaccines and/or supplements will be distributed between the primary and sub-national stores and the same limited range will be taken on outreach.
- Cold/warm life:** Three types of cold/warm life are given on the product data sheets.
  - Cold life with frozen icepacks.
  - Cool life with cool water-packs.
  - Warm life with warm water-packsAll three tests are carried out with the lid closed. To take account of cold box opening and transport delays, double the estimated cold/warm life requirement. For example; if a proposed activity is estimated to require a 24 hour cold life, purchase equipment that has a 48 hour cold life.
- Weight:** The maximum acceptable fully loaded weight depends upon how the box will be transported: by vehicle; by pack animal; by bicycle or by hand. For health and safety reasons a worker should not be asked to lift a load greater than 25 kgs and female workers may find this excessive. Larger cold boxes require two people to lift them.

4. **Durability:** Consider the conditions to which the cold box or vaccine carrier will be exposed. For example, durability is more important than weight for a box transported by vehicles over rough roads, so, it should have a good rating in the drop test. The reverse applies to hand-carried boxes where weight and carrying comfort is more important. The durability of vaccine carriers is only partly represented by the 'robustness' rating obtained during laboratory drop tests. Vaccine carriers are either constructed with a hard plastic exterior, or with a soft canvas/PVC bag around the insulated walls. Experience has shown that the soft, canvas type carriers do not last long. They are liable to tear and the catches and straps tend to break away. A warning about their short working life is included in the data sheets. Back-pack vaccine carriers are now available and these have ergonomic advantages.
5. **Foaming agent:** Products which use cyclopentane as the insulation foaming agent are environmentally preferable to products that use R141b. Vaccine carriers with inflatable liners are also available and these have no environmental impact. Products containing CFCs are no longer acceptable under PQS.
6. **Water-packs:** Before placing an order, check that water-packs are included. If they are not included, select water-packs that will fit the chosen box and order them at the same time. The product data sheets specify how many water-packs are required. Always order two sets so that one set can be frozen, or cooled, while the other set is in use.
7. **Water-pack standardization:** Wherever possible, try to purchase cold boxes and vaccine carriers which use just one size of water-pack and use these across the entire programme. This simplifies distribution management and prevents the use of water-packs which are not designed to fit the available cold boxes and vaccine carriers.

**Cost:** Insulated boxes are bulky and shipping costs can often represent a high proportion of the total delivered price. Consider both the purchase (EXW) price and the shipping cost before making a final decision. Choose a product that fulfils programme requirements at the lowest cost.

#### **E004.2 Cool water-packs and warm water-packs**

Refer to the vaccine distribution guidelines in the General information section for advice on the use of cool and warm water-packs. When used correctly, cool water-packs completely eliminate the risk of freezing freeze-sensitive vaccines. Correctly used, they do not cause a significant loss of potency due to heat exposure.

#### **E004.3 Keeping vaccines cool during immunization sessions**

Since 1997 vaccine carriers have been supplied with a foam pad insert. This serves as a temporary lid to keep vaccines cool whilst at the same time providing a surface to hold and protect vaccine vials during immunization sessions. The insert is a simple piece of soft foam, minimum 30 mm thickness, which fits tightly inside the "neck" of the carrier on top of the icepacks, and below the lid.

The old practice of removing an icepack from the carrier and placing the reconstituted vial in the hole moulded into its surface is no longer recommended. This practice has been shown to cause a significant loss of potency.

#### **E004.4 Calculating requirements**

To calculate the quantity of vaccine that must be transported, use data on vaccine volume per dose taken from Table 7 of [WHO/IVB/05.23](http://www.who.int/ivb/05.23). *Guideline on the international packaging and shipping of vaccines* or use the EVM Assistant tool which can be downloaded from the EVM website at:

[http://www.who.int/immunization\\_delivery/systems\\_policy/logistics/en/index6.html](http://www.who.int/immunization_delivery/systems_policy/logistics/en/index6.html)

#### **E004.5 Future developments**

Field trials of large capacity insulated containers are underway. The vaccine storage capacity of these units is many times that of the largest current cold boxes. The units are either pallet-based or wheeled and they offer the possibility of simpler and more secure transport for large quantities of vaccine from primary to sub-national level.

There is an increasing need for larger capacity products at this point in the supply chain now that vaccine volumes are increasing dramatically. If the trials are successful, WHO will develop a suitable PQS specification.

**E004 data sheets follow**



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/002</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	RCW 4
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	21.1 x 10.9 x 15.7 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	3 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	7.3 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	3.1 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	36.2 x 28.3 x 29.9 cm	<b>Insulation thickness:</b>	23 - 27 mm
<b>Internal dimensions: (LxWxH cm)</b>	26.0 x 15.6 x 18.6 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	30.3 hours	<b>Model coolant-pack</b>	6 x 0.3 L + 2 x 0.3 L
<b>Warm life at -20°C:</b>	12.9 hours	<b>Number coolantpacks required:</b>	8 units
<b>Cool life at +43°C:</b>	6.7 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	4.2 kg	<b>Prices:</b>	1-39 units: 257 €
<b>Volume per carton (m3):</b>	0.035 m3		40-99 units: 244 €
			100 or more units: 233 €
<b>Test report reference:</b>	A65524a	<b>Laboratory:</b>	Intertek UK
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 22 Mar 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/003</b>	
<b>Description:</b>	Cold box	Short range
<b>Manufacturer's reference:</b>	RCW 8	
<b>Manufactured in:</b>	Luxembourg	
<b>Company:</b>	B Medical Systems Sarl	
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg	
<b>Telephone:</b>	+ 35 2 92 07 311	
<b>Email:</b>	<a href="mailto:info@bmedicalsyste.ms.com">info@bmedicalsyste.ms.com</a>	
<b>Web address:</b>	<a href="http://www.bmedicalsyste.ms.com">www.bmedicalsyste.ms.com</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	32.6 x 10.7 x 20.2 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	6 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	16.4 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	6.8 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	58.8 x 28.8 x 43.7 cm	<b>Insulation thickness:</b>	50 - 60 mm
<b>Internal dimensions: (LxWxH cm)</b>	46.0 x 18.0 x 24.5 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	57.9 hours	<b>Model coolant-pack</b>	10 x 0.6 L + 2 x 0.3 L
<b>Warm life at -20°C:</b>	21.6 hours	<b>Number coolantpacks required:</b>	12 units
<b>Cool life at +43°C:</b>	12.0 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	10 kg	<b>Prices:</b>	1-39 units: 301 €
<b>Volume per carton (m3):</b>	0.089 m3		40-99 units: 285 €
			100 or more units: 272 €
<b>Test report reference:</b>	A65524b	<b>Laboratory:</b>	Intertek UK
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 22 Mar 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/004</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	RCW 12	
<b>Manufactured in:</b>	Luxembourg	
<b>Company:</b>	B Medical Systems Sarl	
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg	
<b>Telephone:</b>	+ 35 2 92 07 311	
<b>Email:</b>	<a href="mailto:info@bmedicalsyste.ms.com">info@bmedicalsyste.ms.com</a>	
<b>Web address:</b>	<a href="http://www.bmedicalsyste.ms.com">www.bmedicalsyste.ms.com</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	25.1 x 17.6 x 20.9 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	7 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	23.3 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	11.7 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	55.0 X 47.5 X 49.9 cm	<b>Insulation thickness:</b>	90 - 105 mm
<b>Internal dimensions: (LxWxH cm)</b>	34.0 x 26.0 x 27.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	114.9 hours	<b>Model coolant-pack</b>	0.6 L
<b>Warm life at -20°C:</b>	40.9 hours	<b>Number coolantpacks required:</b>	14 units
<b>Cool life at +43°C:</b>	26.4 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	15 kg	<b>Prices:</b>	1-39 units: 579 €
<b>Volume per carton (m3):</b>	0.148 m3		40-99 units: 548 €
			100 or more units: 523 €
<b>Test report reference:</b>	A65524c	<b>Laboratory:</b>	Intertek UK
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 22 Mar 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/005</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	RCW 25	
<b>Manufactured in:</b>	Luxembourg	
<b>Company:</b>	B Medical Systems Sarl	
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg	
<b>Telephone:</b>	+ 35 2 92 07 311	
<b>Email:</b>	<a href="mailto:info@bmedicalsyste.ms.com">info@bmedicalsyste.ms.com</a>	
<b>Web address:</b>	<a href="http://www.bmedicalsyste.ms.com">www.bmedicalsyste.ms.com</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	40.6 x 25.2 x 20.2 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	20 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	38.9 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	15.9 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	71.0 x 55.0 x 49.9 cm	<b>Insulation thickness:</b>	90 - 105 mm
<b>Internal dimensions: (LxWxH cm)</b>	49.6 x 33.4 x 26.4 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	134.6 hours	<b>Model coolant-pack</b>	0.6 L
<b>Warm life at -20°C:</b>	49.5 hours	<b>Number coolantpacks required:</b>	24 units
<b>Cool life at +43°C:</b>	34.4 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	25 kg	<b>Prices:</b>	1-39 units: 735 €
<b>Volume per carton (m3):</b>	0.236 m3		40-99 units: 698 €
			100 or more units: 644 €
<b>Test report reference:</b>	A65524d	<b>Laboratory:</b>	Intertek UK
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 22 Mar 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/007</b>
<b>Description:</b>	Vaccine carrier Short range
<b>Manufacturer's reference:</b>	ADVC 24
<b>Manufactured in:</b>	India
<b>Company:</b>	AOV International LLP
<b>Address:</b>	C-22/25, Sector 57, Noida 201301 [U.P.], India
<b>Telephone:</b>	+91-9820895063, +91-8377009144
<b>Email:</b>	<a href="mailto:rakesh.gautam@aovinternational.net">rakesh.gautam@aovinternational.net</a> , <a href="mailto:info@aovinternational.net">info@aovinternational.net</a>
<b>Web address:</b>	<a href="http://www.aovinternational.net">www.aovinternational.net</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	17.3 x 10.3 x 4.5 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	0.8 Litre	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	2.18 kg	<b>Internal lining material:</b>	Polystyrene
<b>Weight empty (Kg):</b>	1.34 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	25 x 18 x 21 cm	<b>Insulation thickness:</b>	32-36 mm
<b>Internal dimensions: (LxWxH cm)</b>	17.3 x 10.3 x 12.1 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	20 hours 16 mn	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	7 hours 55 mn	<b>Number coolantpacks required:</b>	2 units
<b>Cool life at +43°C:</b>	3 hours 53 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	12 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	12 units	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	21 kg	<b>Prices:</b>	7.5 USD per unit
<b>Volume per carton (m3):</b>	0.15 m3		
<b>Test report reference:</b>	S09EEC01924/AT/JT	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 26 Apr 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

**PQS code:** E004/009  
**Description:** Vaccine carrier Long range  
**Manufacturer's reference:** AVC 46  
**Manufactured in:** India  
**Company:** AOV International LLP  
**Address:** C-22/25, Sector 57, Noida 201301 [U.P.], India  
**Telephone:** +91-9820895063, +91-8377009144  
**Email:** [rakesh.gautam@aovinternational.net](mailto:rakesh.gautam@aovinternational.net),  
[info@aovinternational.net](mailto:info@aovinternational.net)  
**Web address:** [www.aovinternational.net](http://www.aovinternational.net)

## Specifications

<b>Vaccine storage dimensions (cm):</b>	11.38 x 11.38 x 19.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	2.5 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	6.36 kg	<b>Internal lining material:</b>	Polystyrene
<b>Weight empty (Kg):</b>	2.98 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	27.0 x 27.0 x 32.0 cm	<b>Insulation thickness:</b>	32-35 mm
<b>Internal dimensions: (LxWxH cm)</b>	12.2 x 12.2 x 19.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	50 hours 12 mn	<b>Model coolant-pack</b>	0.6 L
<b>Warm life at -20°C:</b>	15 hours 57 mn	<b>Number coolantpacks required:</b>	4 units
<b>Cool life at +43°C:</b>	09 hours 47 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	4 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	4 units	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	14 kg	<b>Prices:</b>	12.00 USD
<b>Volume per carton (m3):</b>	0.11 m3		
<b>Test report reference:</b>	719164356EEC09/KGT	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 26 Apr 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/010</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	AICB 444 L	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Apex International	
<b>Address:</b>	G47, Sector 39 Noida 201301 India	
<b>Telephone:</b>	+91-120-2574851	
<b>Email:</b>	<a href="mailto:mail@apexint.org">mail@apexint.org</a>	
<b>Web address:</b>	<a href="http://www.apex-international.org/">http://www.apex-international.org/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	44.8 x 30.0 x 16.7 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	18 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	48.87 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	19.93 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	76.1 x 61.1 x 51.3 cm	<b>Insulation thickness:</b>	100 mm
<b>Internal dimensions: (LxWxH cm)</b>	52.0 x 37.0 x 28.2 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	140 hours	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	51 hours	<b>Number coolantpacks required:</b>	44 units
<b>Cool life at +43°C:</b>	25 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	10 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	50 kg	<b>Prices:</b>	10 or more units: 122 USD
<b>Volume per carton (m3):</b>	0.24 m3		
<b>Test report reference:</b>	719171845/EEC10	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 03 May 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/011</b>
<b>Description:</b>	Vaccine carrier Short range
<b>Manufacturer's reference:</b>	AIDVC 24
<b>Manufactured in:</b>	India
<b>Company:</b>	Apex International
<b>Address:</b>	G47, Sector 39 Noida 201301 India
<b>Telephone:</b>	+91-120-2574851
<b>Email:</b>	<a href="mailto:mail@apexint.org">mail@apexint.org</a>
<b>Web address:</b>	<a href="http://www.apex-international.org/">http://www.apex-international.org/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	16.5 x 10.0 x 5.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	0.9 Litre	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	2.27 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	1.31 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	25.0 x 18.0 x 21.4 cm	<b>Insulation thickness:</b>	32 mm
<b>Internal dimensions: (LxWxH cm)</b>	16.5 x 10.0 x 12.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	21 hours 30 mn	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	8 hours	<b>Number coolantpacks required:</b>	2 units
<b>Cool life at +43°C:</b>	4 hours 30 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	24 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	12 units	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	30 kg	<b>Prices:</b>	7.50 US\$
<b>Volume per carton (m3):</b>	0.12 m3		
<b>Test report reference:</b>	719164808-EEC09/01	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 03 May 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/012</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	AIVC 44
<b>Manufactured in:</b>	India
<b>Company:</b>	Apex International
<b>Address:</b>	G47, Sector 39 Noida 201301 India
<b>Telephone:</b>	+91-120-2574851
<b>Email:</b>	<a href="mailto:mail@apexint.org">mail@apexint.org</a>
<b>Web address:</b>	<a href="http://www.apex-international.org/">http://www.apex-international.org/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	9.0 x 9.0 x 16.7 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	1.6 Litre	<b>External materials:</b>	High Density Polyethylene
<b>weight fully loaded (Kg):</b>	4.33 kg	<b>Internal lining material:</b>	High Impact Polystyrene
<b>Weight empty (Kg):</b>	1.93 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	25.0 x 25.0 x 30.0 cm	<b>Insulation thickness:</b>	35 mm
<b>Internal dimensions: (LxWxH cm)</b>	9.96 x 9.96 x 16.7 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	39 hours	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	13 hours	<b>Number coolantpacks required:</b>	4 units
<b>Cool life at +43°C:</b>	6 hours 20 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	24 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	4 units	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	17.32 kg	<b>Prices:</b>	11.50 US\$
<b>Volume per carton (m3):</b>	0.075 m3		
<b>Test report reference:</b>	719164808-EEC09/02	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 03 May 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/013</b>
<b>Description:</b>	Cold box Long range
<b>Manufacturer's reference:</b>	RCB 444 L
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	45.0 x 30.0 x 17.0 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	23 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	38 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	17 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	77.4 x 61.6 x 53.0 cm	<b>Insulation thickness:</b>	111 mm
<b>Internal dimensions: (LxWxH cm)</b>	52.8 x 38.2 x 28.2 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	130 hours 08 mn	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	20 hours 25 mn	<b>Number coolantpacks required:</b>	44 units
<b>Cool life at +43°C:</b>	26 hours 57 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	23.60	<b>Prices:</b>	1 or more units: 130 USD
<b>Volume per carton (m3):</b>	0.26 m3		
<b>Test report reference:</b>	WHO 10-001	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 11 May 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



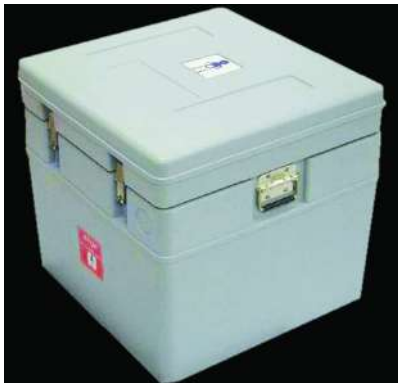
## E004: Insulated containers

<b>PQS code:</b>	<b>E004/015</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	ACB 503 L	
<b>Manufactured in:</b>	India	
<b>Company:</b>	AOV International LLP	
<b>Address:</b>	C-22/25, Sector 57, Nolda 201301 [U.P.], India	
<b>Telephone:</b>	+91-9820895063, +91-8377009144	
<b>Email:</b>	<a href="mailto:rakesh.gautam@aovinternational.net">rakesh.gautam@aovinternational.net</a> , <a href="mailto:info@aovinternational.net">info@aovinternational.net</a>	
<b>Web address:</b>	<a href="http://www.aovinternational.net">www.aovinternational.net</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	45.5 x 30.5 x 16.0 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	18 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	45.86 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	21.78 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	77.0 x 61.0 x 51.0 cm	<b>Insulation thickness:</b>	100 mm
<b>Internal dimensions: (LxWxH cm)</b>	53.0 x 37.5 x 30.5 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	126 hours 32 mn	<b>Model coolant-pack</b>	0.3 L
<b>Warm life at -20°C:</b>	44 hours 48 mn	<b>Number coolantpacks required:</b>	50 units
<b>Cool life at +43°C:</b>	28 hours 05 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	25.5 kg	<b>Prices:</b>	115 USD per unit
<b>Volume per carton (m3):</b>	0.27 m3		
<b>Test report reference:</b>	719154910-EEC09	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 13 May 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A		<b>Date field validation:</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/018</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	CB-12-CF	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Blowkings	
<b>Address:</b>	53-C Mittal Court Nariman Point Mumbai 400021 India	
<b>Telephone:</b>	+91-(0)22-22840120	
<b>Email:</b>	<a href="mailto:blowkings@vsnl.com">blowkings@vsnl.com</a>	
<b>Web address:</b>	<a href="http://www.blowkings.co.in/">http://www.blowkings.co.in/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	30 x 22 x 21 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	12 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	45 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	20.4 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	61 x 60 x 56 cm	<b>Insulation thickness:</b>	110 mm
<b>Internal dimensions: (LxWxH cm)</b>	34 x 33 x 34.8 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	156 hours	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	53 hours	<b>Number coolantpacks required:</b>	42 units
<b>Cool life at +43°C:</b>	33 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	25 kg	<b>Prices:</b>	120 USD per unit
<b>Volume per carton (m3):</b>	0.22 m3		
<b>Test report reference:</b>	719169974-EEC10	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 02 Sep 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/019</b>
<b>Description:</b>	Cold box                      Short range
<b>Manufacturer's reference:</b>	CB-55-CF
<b>Manufactured in:</b>	India
<b>Company:</b>	Blowkings
<b>Address:</b>	53-C Mittal Court Nariman Point Mumbai 400021 India
<b>Telephone:</b>	+91-(0)22-22840120
<b>Email:</b>	<a href="mailto:blowkings@vsnl.com">blowkings@vsnl.com</a>
<b>Web address:</b>	<a href="http://www.blowkings.co.in/">http://www.blowkings.co.in/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	28 x 21 x 16.5 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	7 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	23 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	8.7 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	49 x 44 x 39.5 cm	<b>Insulation thickness:</b>	55 mm
<b>Internal dimensions: (LxWxH cm)</b>	35 x 28.5 x 27 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	89 hours	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	31 hours	<b>Number coolantpacks required:</b>	24 units
<b>Cool life at +43°C:</b>	20 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	12 kg	<b>Prices:</b>	100 USD per unit
<b>Volume per carton (m3):</b>	0.09 m3		
<b>Test report reference:</b>	719164472EEC09	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 02 Sep 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/020</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	BK - VC 2.6 - CF
<b>Manufactured in:</b>	India
<b>Company:</b>	Blowkings
<b>Address:</b>	53-C Mittal Court Nariman Point Mumbai 400021 India
<b>Telephone:</b>	+91-(0)22-22840120
<b>Email:</b>	<a href="mailto:blowkings@vsnl.com">blowkings@vsnl.com</a>
<b>Web address:</b>	<a href="http://www.blowkings.co.in/">http://www.blowkings.co.in/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	11.5 x 11.5 x 19.5 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	2.6 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	4.5 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	1.9 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	26 x 26 x 32 cm	<b>Insulation thickness:</b>	40 mm
<b>Internal dimensions: (LxWxH cm)</b>	19 x 19 x 22.5 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	43 hours	<b>Model coolant-pack</b>	0.6 L
<b>Warm life at -20°C:</b>	18 hours	<b>Number coolantpacks required:</b>	4 units
<b>Cool life at +43°C:</b>	7 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	8 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	4 units	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	12 kg	<b>Prices:</b>	8 or more units: 16.00 US\$
<b>Volume per carton (m3):</b>	0.11 m3		
<b>Test report reference:</b>	S08EEC01362/AT/JT	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 02 Sep 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/021</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	BK - VC 1.7 - CF
<b>Manufactured in:</b>	India
<b>Company:</b>	Blowkings
<b>Address:</b>	53-C Mittal Court Nariman Point Mumbai 400021 India
<b>Telephone:</b>	+91-(0)22-22840120
<b>Email:</b>	<a href="mailto:blowkings@vsnl.com">blowkings@vsnl.com</a>
<b>Web address:</b>	<a href="http://www.blowkings.co.in/">http://www.blowkings.co.in/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	10 x 10 x 17 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	1.7 Litre	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	4 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	1.6 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	26 x 25 x 28.5 cm	<b>Insulation thickness:</b>	40 mm
<b>Internal dimensions: (LxWxH cm)</b>	17 x 17 x 18.5 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	38 hours	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	13 hours	<b>Number coolantpacks required:</b>	4 units
<b>Cool life at +43°C:</b>	6 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	8 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	8 units	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	20 kg	<b>Prices:</b>	8 or more units: 14 USD
<b>Volume per carton (m3):</b>	0.17 m3		
<b>Test report reference:</b>	719171438EEC10	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 02 Sep 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/022</b>
<b>Description:</b>	Vaccine carrier Short range
<b>Manufacturer's reference:</b>	VDC-24-CF
<b>Manufactured in:</b>	India
<b>Company:</b>	Blowkings
<b>Address:</b>	53-C Mittal Court Nariman Point Mumbai 400021 India
<b>Telephone:</b>	+91-(0)22-22840120
<b>Email:</b>	<a href="mailto:blowkings@vsnl.com">blowkings@vsnl.com</a>
<b>Web address:</b>	<a href="http://www.blowkings.co.in/">http://www.blowkings.co.in/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	6 x 10 x 16.5 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	0.9 Litre	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	2.2 kg	<b>Internal lining material:</b>	Polypropylene
<b>Weight empty (Kg):</b>	1 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	22.5 x 16 x 25 cm	<b>Insulation thickness:</b>	28 mm
<b>Internal dimensions: (LxWxH cm)</b>	13 x 10 x 16.5 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	20 hours	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	6 hours	<b>Number coolantpacks required:</b>	2 units
<b>Cool life at +43°C:</b>	3 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	12 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	12 units	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	12 kg	<b>Prices:</b>	9.00 USD per unit
<b>Volume per carton (m3):</b>	0.12 m3		
<b>Test report reference:</b>	719169972-EEC10/01	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 02 Sep 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/023</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	ACB 264 SL	
<b>Manufactured in:</b>	India	
<b>Company:</b>	AOV International LLP	
<b>Address:</b>	C-22/25, Sector 57, Nolda 201301 [U.P.], India	
<b>Telephone:</b>	+91-9820895063, +91-8377009144	
<b>Email:</b>	<a href="mailto:rakesh.gautam@aovinternational.net">rakesh.gautam@aovinternational.net</a> , <a href="mailto:info@aovinternational.net">info@aovinternational.net</a>	
<b>Web address:</b>	<a href="http://www.aovinternational.net">www.aovinternational.net</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	33.00 x 21.20 x 16.60 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	6 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	25.4 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	12.82 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	62.40 x 50.20 x 42.60 cm	<b>Insulation thickness:</b>	100 mm
<b>Internal dimensions: (LxWxH cm)</b>	40.30 x 28.20 x 21.10 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	132 hours 18 mn	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	48 hours 41 mn	<b>Number coolantpacks required:</b>	26 units
<b>Cool life at +43°C:</b>	29 hours 47 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	16 kg	<b>Prices:</b>	85 USD per unit
<b>Volume per carton (m3):</b>	0.16 m3		
<b>Test report reference:</b>	719154908-EEC09 TUV SUD	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 13 Sep 2010</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





## E004: Insulated containers

<b>PQS code:</b>	<b>E004/025</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	CB-20-CF	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Blowkings	
<b>Address:</b>	53-C Mittal Court Nariman Point Mumbai 400021 India	
<b>Telephone:</b>	+91-(0)22-22840120	
<b>Email:</b>	<a href="mailto:blowkings@vsnl.com">blowkings@vsnl.com</a>	
<b>Web address:</b>	<a href="http://www.blowkings.co.in/">http://www.blowkings.co.in/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	53.0 x 23.0 x 20.0 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	20 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	49.5 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	22 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	79.5 x 56.2 x 56.5 cm	<b>Insulation thickness:</b>	110 mm
<b>Internal dimensions: (LxWxH cm)</b>	53.0 x 30.0 x 32.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	138 hours	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	46 hours	<b>Number coolantpacks required:</b>	39 units
<b>Cool life at +43°C:</b>	31 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	27 kg	<b>Prices:</b>	160 USD per unit
<b>Volume per carton (m3):</b>	0.26 m3		
<b>Test report reference:</b>	719184761-EEC10	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 28 Sep 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/026</b>	
<b>Description:</b>	Cold box	Short range
<b>Manufacturer's reference:</b>	RCB 246 LS	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Nilkamal Limited	
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India	
<b>Telephone:</b>	+91 9833 140603	
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>	
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	40.00 x 40.00 x 11.00 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	16 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	34.8 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	12.1 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	65.00 x 65.00 x 37.00 cm	<b>Insulation thickness:</b>	65 to 115 mm
<b>Internal dimensions: (LxWxH cm)</b>	48.00 x 48.00 x 21.00 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	73 hours 32 mn	<b>Model coolant-pack</b>	0.6 L
<b>Warm life at -20°C:</b>	19 hours 26 mn	<b>Number coolantpacks required:</b>	24 units
<b>Cool life at +43°C:</b>	26 hours 06 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	16	<b>Prices:</b>	1 or more units: 100 US\$
<b>Volume per carton (m3):</b>	0.16 m3		
<b>Test report reference:</b>	WHO 10-011	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 01 Oct 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/027</b>	
<b>Description:</b>	Cold box	Short range
<b>Manufacturer's reference:</b>	RCB 324 SS	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Nilkamal Limited	
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India	
<b>Telephone:</b>	+91 9833 140603	
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>	
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	41.00 x 41.00 x 9.00	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	15 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	33.85 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	12.2 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	65.00 x 65.00 x 37.00 cm	<b>Insulation thickness:</b>	65 to 115 mm
<b>Internal dimensions: (LxWxH cm)</b>	48.00 x 48.00 x 20.00 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	53 hours 36 mn	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	16 hours 23 mn	<b>Number coolantpacks required:</b>	32 units
<b>Cool life at +43°C:</b>	21 hours 03 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	16	<b>Prices:</b>	1 or more units: 100 US\$
<b>Volume per carton (m3):</b>	0.16 m3		
<b>Test report reference:</b>	WHO 10-009	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 01 Oct 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/028</b>
<b>Description:</b>	Vaccine carrier Short range
<b>Manufacturer's reference:</b>	BBVC 23
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	17.4 x 10.5 x 5.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	0.9 Litre	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	2.4 kg	<b>Internal lining material:</b>	Polystyrene
<b>Weight empty (Kg):</b>	1.3 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	24.6 x 18.0 x 21.5 cm	<b>Insulation thickness:</b>	35 to 45 mm
<b>Internal dimensions: (LxWxH cm)</b>	17.4 x 10.5 x 12.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	17 hours 50 mn	<b>Model coolant-pack</b>	0.3 L
<b>Warm life at -20°C:</b>	4 hours 26 mn	<b>Number coolantpacks required:</b>	2 units
<b>Cool life at +43°C:</b>	4 hours 32 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	1.74 kg	<b>Prices:</b>	1 or more units: 8.7 US\$
<b>Volume per carton (m3):</b>	0.01 m3		
<b>Test report reference:</b>	WHO 10-007	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 13 Oct 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/029</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	BCVC 43
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	9.5 x 9.5 x 17.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	1.5 Litre	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	4.9 kg	<b>Internal lining material:</b>	Polystyrene
<b>Weight empty (Kg):</b>	2.6 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	28.0 x 28.0 x 31.5 cm	<b>Insulation thickness:</b>	45 to 105 mm
<b>Internal dimensions: (LxWxH cm)</b>	16.5 x 16.5 x 20.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	41 hours 2 mn	<b>Model coolant-pack</b>	0.3 L
<b>Warm life at -20°C:</b>	15 hours 43 mn	<b>Number coolantpacks required:</b>	4 units
<b>Cool life at +43°C:</b>	9 hours 30 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	3 kg	<b>Prices:</b>	1 or more units: 12.7 US\$
<b>Volume per carton (m3):</b>	0.02 m3		
<b>Test report reference:</b>	WHO 10-008	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 13 Oct 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/030</b>	
<b>Description:</b>	Cold box	Short range
<b>Manufacturer's reference:</b>	AICB 243 S	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Apex International	
<b>Address:</b>	G47, Sector 39 Noida 201301 India	
<b>Telephone:</b>	+91-120-2574851	
<b>Email:</b>	<a href="mailto:mail@apexint.org">mail@apexint.org</a>	
<b>Web address:</b>	<a href="http://www.apex-international.org/">http://www.apex-international.org/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	27.0 x 20.4 x 15.0 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	8 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	22.41 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	11.57 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	54.4 x 44.5 x 42.0 cm	<b>Insulation thickness:</b>	65 mm
<b>Internal dimensions: (LxWxH cm)</b>	34.6 x 28.0 x 24.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	84 hours 7 mn	<b>Model coolant-pack</b>	0.3 L
<b>Warm life at -20°C:</b>	27 hours 51 mn	<b>Number coolantpacks required:</b>	24 units
<b>Cool life at +43°C:</b>	17 hours 1 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	10 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	23 kg	<b>Prices:</b>	10 or more units: 130 US\$
<b>Volume per carton (m3):</b>	0.101 m3		
<b>Test report reference:</b>	719184756-EEC10	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 27 Oct 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/031</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	AICB 503 L	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Apex International	
<b>Address:</b>	G47, Sector 39 Noida 201301 India	
<b>Telephone:</b>	+91-120-2574851	
<b>Email:</b>	<a href="mailto:mail@apexint.org">mail@apexint.org</a>	
<b>Web address:</b>	<a href="http://www.apex-international.org/">http://www.apex-international.org/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	45.5 x 31.0 x 16.0 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	22.5 Litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	48.02 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	19.73 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	76.5 x 61.2 x 51.5 cm	<b>Insulation thickness:</b>	100 mm
<b>Internal dimensions: (LxWxH cm)</b>	51.8 x 37.0 x 27.7 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	128 hours 16 mn	<b>Model coolant-pack</b>	0.3 L
<b>Warm life at -20°C:</b>	50 hours 4 mn	<b>Number coolantpacks required:</b>	50 units
<b>Cool life at +43°C:</b>	31 hours 8 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	10 units	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	50 kg	<b>Prices:</b>	115 US\$
<b>Volume per carton (m3):</b>	0.24 m3		
<b>Test report reference:</b>	719180700-EEC10	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 27 Oct 2010</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

**PQS code:** E004/032  
**Description:** Vaccine carrier Long range  
**Manufacturer's reference:** Gio'Style VC 2.6 L  
**Manufactured in:** Italy  
**Company:** Giostyle SpA  
**Address:** Giostyle SpA  
 Via Battaina 393  
 24059 Urganano (BG) Italy

**Telephone:** +39 035 4188531  
**Email:** [laura.avanzi@giostyle.com](mailto:laura.avanzi@giostyle.com)  
**Web address:** [www.giostyle.com/](http://www.giostyle.com/)

## Specifications

<b>Vaccine storage dimensions (cm):</b>	14.5 x 11.5 x 16.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	2.6 Litres	<b>External materials:</b>	Polypropylene
<b>weight fully loaded (Kg):</b>	6.5 kg	<b>Internal lining material:</b>	Polypropylene
<b>Weight empty (Kg):</b>	1.8 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	29.0 x 24.0 x 32.0 cm	<b>Insulation thickness:</b>	25 - 35 mm
<b>Internal dimensions: (LxWxH cm)</b>	22.0 x 18.0 x 24.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	41 hours 29 mn	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	11 hours 36 mn	<b>Number coolantpacks required:</b>	8 units
<b>Cool life at +43°C:</b>	12 hours 10 mn	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	8 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	8 units	<b>Price base year:</b>	2011
<b>Weight per carton (kg):</b>	18.5 kg	<b>Prices:</b>	8 or more units: 25.90 US\$
<b>Volume per carton (m3):</b>	0.18 m3		
<b>Test report reference:</b>	WHO-10-003	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 20 Jan 2011</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



Denco LCX-6L

## E004: Insulated containers

<b>PQS code:</b>	<b>E004/033</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	DENCO LCX-6L
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Xinxiang Dengke cold chain equipment Co., Ltd
<b>Address:</b>	Crossing of Xihuan Road and Beigan Road, Xinxiang City, Henan
<b>Telephone:</b>	+86 13462228981
<b>Email:</b>	<a href="mailto:qdcre_trust@126.com">qdcre_trust@126.com</a> ; <a href="mailto:13462228981@126.com">13462228981@126.com</a>
<b>Web address:</b>	<a href="http://www.denco.com.cn">www.denco.com.cn</a> ; <a href="http://www.xxlc.com">www.xxlc.com</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	15.8 x 6.70 x 16.8 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	1.6 L	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	4.7 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	2.4 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	34.0 x 23.4 x 27.5 cm	<b>Insulation thickness:</b>	38 mm
<b>Internal dimensions: (LxWxH cm)</b>	23.5 x 14.5 x 17.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	39 hours 24 min	<b>Model coolant-pack</b>	WP 0.4L
<b>Warm life at -20°C:</b>	13 hours 28 min	<b>Number coolantpacks required:</b>	6 units
<b>Cool life at +43°C:</b>	10 hours 50 min	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	100 units	<b>Incoterms:</b>	FOB
<b>Pieces per carton:</b>	4 units	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	13 kg	<b>Prices:</b>	17 US\$
<b>Volume per carton (m3):</b>	0.086 m3		
<b>Test report reference:</b>	WB-12-731	<b>Laboratory:</b>	CHEARI
<b>Quality standard:</b>	-ISO 9001:2008-ISO 13485-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 30 Jul 2012</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/034</b>
<b>Description:</b>	Cold box Long range
<b>Manufacturer's reference:</b>	RCB 264 SL
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	32 x 21 x 10 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	6L	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	27.54 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	13.25 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	65 x 53 x 46 cm	<b>Insulation thickness:</b>	100mm
<b>Internal dimensions: (LxWxH cm)</b>	40 x 27.8 x 20 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	106 hours	<b>Model coolant-pack</b>	0.4L
<b>Warm life at -20°C:</b>	31 hours	<b>Number coolantpacks required:</b>	26
<b>Cool life at +43°C:</b>	30 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	16	<b>Prices:</b>	99 USD per unit
<b>Volume per carton (m3):</b>	0.17 m3		
<b>Test report reference:</b>	WHO-12-021	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 11 Dec 2012</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/035</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	BCVC 44-A
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	9.5 x 9.5 x 16.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	1.44 L	<b>External materials:</b>	HDPE
<b>weight fully loaded (Kg):</b>	4.9 kg	<b>Internal lining material:</b>	HIPS
<b>Weight empty (Kg):</b>	1.95 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	25.2 x 25.2 x 30.5 cm	<b>Insulation thickness:</b>	45 to 105 mm
<b>Internal dimensions: (LxWxH cm)</b>	16.5 x 16.5 x 16.5 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	39 hours 31	<b>Model coolant-pack</b>	Type 3, 0.4L
<b>Warm life at -20°C:</b>	13 hours 51	<b>Number coolantpacks required:</b>	4 x 0.4L
<b>Cool life at +43°C:</b>	8 hours 43	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 units	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	2.20 kgs	<b>Prices:</b>	11.50 USD per unit
<b>Volume per carton (m3):</b>	0.02 m3		
<b>Test report reference:</b>	WHO-12-019	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 29 Jan 2013</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/036</b>
<b>Description:</b>	Cold box Long range
<b>Manufacturer's reference:</b>	RCB 444L-A
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	45.00 x 30.00 x 15.00 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	20.25 L	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	49.70 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	20.525 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	77.00 x 62.00 x 53.50 cm	<b>Insulation thickness:</b>	110 mm
<b>Internal dimensions: (LxWxH cm)</b>	51.00 x 36.00 x 27.50 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	152 hours 28min	<b>Model coolant-pack</b>	Type 3, 0.4L
<b>Warm life at -20°C:</b>	27 hours 35 min	<b>Number coolantpacks required:</b>	44 x 0.4L
<b>Cool life at +43°C:</b>	51 hours 17 min	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	25.21 kg	<b>Prices:</b>	132.00 USD per unit
<b>Volume per carton (m3):</b>	0.25 m3		
<b>Test report reference:</b>	WHO 12-022	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 30 Jan 2013</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/037</b>
<b>Description:</b>	Cold box                      Short range
<b>Manufacturer's reference:</b>	RCB 264 SS
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	33.2 x 21.0 x 9.0 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	6.3 L	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	29.1 kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	14.7 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	64.0 x 51.0 x 46.0 cm	<b>Insulation thickness:</b>	105 to 165 mm
<b>Internal dimensions: (LxWxH cm)</b>	40.0 x 27.5 x 20.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	79 hours 43 min	<b>Model coolant-pack</b>	waterpacks
<b>Warm life at -20°C:</b>	29 hours 20 min	<b>Number coolantpacks required:</b>	26 x 0.4L
<b>Cool life at +43°C:</b>	20 hours 42 min	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1	<b>Price base year:</b>	2013
<b>Weight per carton (kg):</b>	15 kg	<b>Prices:</b>	97USD per unit
<b>Volume per carton (m3):</b>	0.14 m3		
<b>Test report reference:</b>	WHO 10-013 corr1	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 13 Mar 2013</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/038</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	DENCO LCX-3.6L
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Xinxiang Dengke cold chain equipment Co., Ltd
<b>Address:</b>	Crossing of Xihuan Road and Beigan Road, Xinxiang City, Henan
<b>Telephone:</b>	+86 13462228981
<b>Email:</b>	<a href="mailto:qdcre_trust@126.com">qdcre_trust@126.com</a> ; <a href="mailto:13462228981@126.com">13462228981@126.com</a>
<b>Web address:</b>	<a href="http://www.denco.com.cn">www.denco.com.cn</a> ; <a href="http://www.xxlc.com">www.xxlc.com</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	16.3 x 16.3 x 17.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	1.4L	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	3.22kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	1.78kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	25.0 x 25.0 x 28.0 cm	<b>Insulation thickness:</b>	40mm
<b>Internal dimensions: (LxWxH cm)</b>	16.3 x 16.3 x 17.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	39h19min	<b>Model coolant-pack</b>	0.3L
<b>Warm life at -20°C:</b>	12h44min	<b>Number coolantpacks required:</b>	4
<b>Cool life at +43°C:</b>	8h15min	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	300	<b>Incoterms:</b>	FOB
<b>Pieces per carton:</b>	6 units per carton	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	13.5kg	<b>Prices:</b>	12 US\$
<b>Volume per carton (m3):</b>	0.127m3		
<b>Test report reference:</b>	CTIHEA-WT01E	<b>Laboratory:</b>	CHEARI
<b>Quality standard:</b>	-ISO 13485-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 21 Jan 2014</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/040</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	BCVC46
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	12.0 x 12.0 x 19.0 cm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	2.7 L	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	6.4kg	<b>Internal lining material:</b>	Polystyrene
<b>Weight empty (Kg):</b>	2.32kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	27.0 x 27.0 x 32.0 cm	<b>Insulation thickness:</b>	28 to 58 mm
<b>Internal dimensions: (LxWxH cm)</b>	19.0 x 19.0 x 19.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	46 hours 23 min	<b>Model coolant-pack</b>	Type 4: 0.6L
<b>Warm life at -20°C:</b>	17 hours 12 min	<b>Number coolantpacks required:</b>	4 units
<b>Cool life at +43°C:</b>	13 hours 43 min	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	N/A		
<b>Minimum order:</b>	1 units	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2014
<b>Weight per carton (kg):</b>	2.85 kg per unit	<b>Prices:</b>	15.80 USD per unit
<b>Volume per carton (m3):</b>	0.02m3 per unit		
<b>Test report reference:</b>	WHO 14-027 V2	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 22 Apr 2014</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/041</b>
<b>Description:</b>	Cold box Long Term Storage
<b>Manufacturer's reference:</b>	ARKTEK-YBC-5
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	AUCMA CO. Ltd.
<b>Address:</b>	315 Qianwangang Road, Economic & Technological Development Zone, Qingdao, China
<b>Telephone:</b>	+86 532 88965799
<b>Email:</b>	<a href="mailto:info@aucma.com.cn">info@aucma.com.cn</a>
<b>Web address:</b>	<a href="http://www.aucma.com.cn">http://www.aucma.com.cn</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	28.3 x 9.8 x 28.5	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	7.9	<b>External materials:</b>	HDPE
<b>weight fully loaded (Kg):</b>	39.5	<b>Internal lining material:</b>	Aluminum Alloy
<b>Weight empty (Kg):</b>	22	<b>Insulation materials:</b>	Dewar
<b>External dimensions: (LxW H cm)</b>	Diam 52.8 x 74.7 cm	<b>Insulation thickness:</b>	40
<b>Internal dimensions: (LxWxH cm)</b>	Diam 31.1 x 33.2 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	35 days	<b>Model coolant-pack</b>	Unique for device
<b>Warm life at -20°C:</b>	6.1 days (test 8)	<b>Number coolantpacks required:</b>	8 units x 1L
<b>Cool life at +43°C:</b>	N/A	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	+5°C		
<b>Minimum order:</b>	5 units	<b>Incoterms:</b>	FCA
<b>Pieces per carton:</b>	1 piece	<b>Price base year:</b>	2015
<b>Weight per carton (kg):</b>	32.5 kg	<b>Prices:</b>	up to 99 units: 2393 USD per unit 100 units and more: 2193 USD
<b>Volume per carton (m3):</b>	0.376 m3		
<b>Test report reference:</b>	WB-14-644	<b>Laboratory:</b>	CHEARI
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>	This device is intended to be used as a stationary passive container to store vaccines for a period of minimum 35 days before recharge with icepacks		
<b>Current PQS status:</b>	<i>pre-qualified; 15 Jan 2015</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	<i>In process</i>	<b>Date field validation:</b>	
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased			





PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/042</b>	
<b>Description:</b>	Cold box	Short range
<b>Manufacturer's reference:</b>	EBT-30	
<b>Manufactured in:</b>	Japan	
<b>Company:</b>	EBARA CO. Ltd.	
<b>Address:</b>	1-6-5 Yakumo, Meguro-Ku 152-0023 Tokyo Japan	
<b>Telephone:</b>	+81 3 3724 3681; +82 70 8654 1049	
<b>Email:</b>	<a href="mailto:ebara@ebac.co.jp">ebara@ebac.co.jp</a> ; <a href="mailto:k.jongwon@ebac.co.jp">k.jongwon@ebac.co.jp</a>	
<b>Web address:</b>	<a href="http://www.ebac.co.jp">www.ebac.co.jp</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	36.8 x 18.0 x 25.0	<b>Lid type and fixing</b>	Gripping strips
<b>Vaccine storage volume (L):</b>	16.5	<b>External materials:</b>	Aluminum film
<b>weight fully loaded (Kg):</b>	14.7	<b>Internal lining material:</b>	Aluminum film
<b>Weight empty (Kg):</b>	2.24	<b>Insulation materials:</b>	phenolic foam
<b>External dimensions: (LxW H cm)</b>	50 x 37 x 38	<b>Insulation thickness:</b>	40
<b>Internal dimensions: (LxWxH cm)</b>	40.0 x 28.0 x 27.0	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	60.5	<b>Model coolant-pack</b>	0.4L
<b>Warm life at -20°C:</b>	38.26	<b>Number coolantpacks required:</b>	16
<b>Cool life at +43°C:</b>	18.45	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>	1 unit	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1 unit	<b>Price base year:</b>	2015
<b>Weight per carton (kg):</b>	3	<b>Prices:</b>	400 USD per unit
<b>Volume per carton (m3):</b>	0.07 m3		
<b>Test report reference:</b>	WB-14-301	<b>Laboratory:</b>	CHEARI
<b>Quality standard:</b>	-ISO 9001:2008-ISO 13485-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 14 Apr 2015</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A		<b>Date field validation:</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





## E004: Insulated containers

<b>PQS code:</b>	<b>E004/043</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	BK-VC 3.4-CF
<b>Manufactured in:</b>	India
<b>Company:</b>	Blowkings
<b>Address:</b>	53-C Mittal Court Nariman Point Mumbai 400021 India
<b>Telephone:</b>	+91-(0)22-22840120
<b>Email:</b>	<a href="mailto:blowkings@vsnl.com">blowkings@vsnl.com</a>
<b>Web address:</b>	<a href="http://www.blowkings.co.in/">http://www.blowkings.co.in/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	13.3 x1 3.3 x 19 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	3.4L	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	4.9Kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	2.26Kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	28.8 x 28.9 x 33.7 cms	<b>Insulation thickness:</b>	40 mm
<b>Internal dimensions: (LxWxH cm)</b>	13.3 x1 3.3 x 19 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	43.43 hours	<b>Model coolant-pack</b>	0.6 L
<b>Warm life at -20°C:</b>	16 hours	<b>Number coolantpacks required:</b>	4
<b>Cool life at +43°C:</b>	8 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>	4	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	4	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	13 Kg	<b>Prices:</b>	\$21 per unit for 4 or more units
<b>Volume per carton (m3):</b>	0.12 m3		
<b>Test report reference:</b>	7191118692□EEC15/KGT	<b>Laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 23 May 2016</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

**PQS code:** E004/044  
**Description:** Vaccine carrier Long range  
**Manufacturer's reference:** AIVC 44 LR  
**Manufactured in:** India  
**Company:** Apex International  
**Address:** G47, Sector 39  
 Noida 201301  
 India  
**Telephone:** +91-120-2574851  
**Email:** [mail@apexint.org](mailto:mail@apexint.org)  
**Web address:** <http://www.apex-international.org/>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	10.02 x 10.02 x 1.67 cm	<b>Lid type and fixing</b>	Gripping strips
<b>Vaccine storage volume (L):</b>	1.67	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	4.34	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	1.99	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	25.0 x 25.0 x 30.0 cm	<b>Insulation thickness:</b>	35 mm
<b>Internal dimensions: (LxWxH cm)</b>	10.45 x 10.45 x 1.67 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	35.7	<b>Model coolant-pack</b>	0.4 L
<b>Warm life at -20°C:</b>	17.3	<b>Number coolantpacks required:</b>	4
<b>Cool life at +43°C:</b>	3.25	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>	1000	<b>Incoterms:</b>	FOB
<b>Pieces per carton:</b>	8	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	18	<b>Prices:</b>	11.50 USD per unit
<b>Volume per carton (m3):</b>	0.18 m3		
<b>Test report reference:</b>	CE-JOB-DEL-16-000426-005	<b>Laboratory:</b>	Intertek India
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 04 Jul 2016</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/045</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	AICB-156L	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Apex International	
<b>Address:</b>	G47, Sector 39 Noida 201301 India	
<b>Telephone:</b>	+91-120-2574851	
<b>Email:</b>	<a href="mailto:mail@apexint.org">mail@apexint.org</a>	
<b>Web address:</b>	<a href="http://www.apex-international.org/">http://www.apex-international.org/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	27.0 x 20.0 x 10.3 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	5.5	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	22.33	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	9.4	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	54.0 x 44.5 x 41.5 cm	<b>Insulation thickness:</b>	65 - 75 mm
<b>Internal dimensions: (LxWxH cm)</b>	35.0 x 28.0 x 24.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	107.5	<b>Model coolant-pack</b>	0.6L
<b>Warm life at -20°C:</b>	33.7	<b>Number coolantpacks required:</b>	15
<b>Cool life at +43°C:</b>	22.9	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>	10	<b>Incoterms:</b>	FOB
<b>Pieces per carton:</b>	1 piece	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	13.7	<b>Prices:</b>	130.0 USD per unit
<b>Volume per carton (m3):</b>	0.11 m3		
<b>Test report reference:</b>	CE-JOB-DEL-16-000426-006	<b>Laboratory:</b>	Intertek India
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 04 Jul 2016</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/046</b>	
<b>Description:</b>	Cold box	Long range
<b>Manufacturer's reference:</b>	AICB-316L	
<b>Manufactured in:</b>	India	
<b>Company:</b>	Apex International	
<b>Address:</b>	G47, Sector 39 Noida 201301 India	
<b>Telephone:</b>	+91-120-2574851	
<b>Email:</b>	<a href="mailto:mail@apexint.org">mail@apexint.org</a>	
<b>Web address:</b>	<a href="http://www.apex-international.org/">http://www.apex-international.org/</a>	

## Specifications

<b>Vaccine storage dimensions (cm):</b>	44.8 x 29.8 x 16.8 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	22.4	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	49.2	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	18.15	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	77.0 x 61.5 x 51.5 cm	<b>Insulation thickness:</b>	100 mm
<b>Internal dimensions: (LxWxH cm)</b>	52.0 x 37.0 x 28.2 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	153.5	<b>Model coolant-pack</b>	0.6L
<b>Warm life at -20°C:</b>	69	<b>Number coolantpacks required:</b>	31 X 0.6L
<b>Cool life at +43°C:</b>	41.7	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>	10	<b>Incoterms:</b>	FOB
<b>Pieces per carton:</b>	1 piece	<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>	25	<b>Prices:</b>	122.0 USD per unit
<b>Volume per carton (m3):</b>	0.27 m3		
<b>Test report reference:</b>	CE-JOB-DEL-16-000426-004	<b>Laboratory:</b>	Intertek India
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 04 Jul 2016</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

**PQS code:** E004/047

**Description:**

**Manufacturer's reference:** AIVC - 46

**Manufactured in:** India

**Company:** Apex International

**Address:** G47, Sector 39  
Noida 201301  
India

**Telephone:** +91-120-2574851

**Email:** [mail@apexint.org](mailto:mail@apexint.org)

**Web address:** <http://www.apex-international.org/>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	12.4 cm x 12.4 cm x 19 cm	<b>Lid type and fixing</b>	
<b>Vaccine storage volume (L):</b>	2.9 litres	<b>External materials:</b>	Polyethylene
<b>weight fully loaded (Kg):</b>	5.36 Kg	<b>Internal lining material:</b>	Polyethylene
<b>Weight empty (Kg):</b>	2.63 Kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	29 cm x 29 cm x 32.7 cm	<b>Insulation thickness:</b>	41 mm
<b>Internal dimensions: (LxWxH cm)</b>	19.9 cm x 19.9 cm x 19cm	<b>Type of coolantpacks required:</b>	
<b>Cold life at +43°C:</b>	51 hours 8 minutes	<b>Model coolant-pack</b>	
<b>Warm life at -20°C:</b>	25 hrs 11 minutes	<b>Number coolantpacks required:</b>	4
<b>Cool life at +43°C:</b>	12 hrs 55 mintutes	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>		<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>		<b>Price base year:</b>	2016
<b>Weight per carton (kg):</b>		<b>Prices:</b>	
<b>Volume per carton (m3):</b>			
<b>Test report reference:</b>		<b>Laboratory:</b>	Intertek India
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 16 Jan 2017</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	1/16/2017 12:00:00 AM

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/048</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	RCW1
<b>Manufactured in:</b>	Luxembourg
<b>Company:</b>	B Medical Systems Sarl
<b>Address:</b>	17 Op der Hei L-9809 Hosingen Luxembourg
<b>Telephone:</b>	+ 35 2 92 07 311
<b>Email:</b>	<a href="mailto:info@bmedicalsistemas.com">info@bmedicalsistemas.com</a>
<b>Web address:</b>	<a href="http://www.bmedicalsistemas.com">www.bmedicalsistemas.com</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	10.2 (diameter) x 14.5 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	1.18 Litres	<b>External materials:</b>	Polyethelene & POM
<b>weight fully loaded (Kg):</b>	7.1 kg	<b>Internal lining material:</b>	Polythelene & POM
<b>Weight empty (Kg):</b>	4.7 kg	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	34.0 x 28.5 x 44.0 cm	<b>Insulation thickness:</b>	51 - 116 mm
<b>Internal dimensions: (LxWxH cm)</b>	22.0 x 14.0 x 20.0 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	34.65 hours	<b>Model coolant-pack</b>	0.6 L
<b>Warm life at -20°C:</b>	15.1 hours	<b>Number coolantpacks required:</b>	3
<b>Cool life at +43°C:</b>	8.14 hours	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>	1	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1	<b>Price base year:</b>	2017
<b>Weight per carton (kg):</b>	9 kg	<b>Prices:</b>	1-39 units: €110
<b>Volume per carton (m3):</b>	0.047 m3		40-99 units: €104
			100 and more: €99
<b>Test report reference:</b>	WHO-16-016	<b>Laboratory:</b>	CEMAFROID SAS
<b>Quality standard:</b>	-ISO 9001:2008-Other-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 06 Feb 2017</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E004: Insulated containers

<b>PQS code:</b>	<b>E004/049</b>
<b>Description:</b>	
<b>Manufacturer's reference:</b>	BCVC43A
<b>Manufactured in:</b>	India
<b>Company:</b>	Nilkamal Limited
<b>Address:</b>	Street No 14, MIDC - Andheri (East) Mumbai-400093 India
<b>Telephone:</b>	+91 9833 140603
<b>Email:</b>	<a href="mailto:rajesh.patwardhan@nilkamal.com">rajesh.patwardhan@nilkamal.com</a> ; <a href="mailto:vaishali.gaikwad@nilkamal.com">vaishali.gaikwad@nilkamal.com</a> ; <a href="mailto:nayan.parekh@nilkamal.com">nayan.parekh@nilkamal.com</a>
<b>Web address:</b>	<a href="http://www.nilkamal.com/">http://www.nilkamal.com/</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	95mm x 95mm x 160mm	<b>Lid type and fixing</b>	Removable lid
<b>Vaccine storage volume (L):</b>	1.44 L	<b>External materials:</b>	HDPE
<b>weight fully loaded (Kg):</b>	3.8 Kg	<b>Internal lining material:</b>	HIPS
<b>Weight empty (Kg):</b>	1.625 kgs	<b>Insulation materials:</b>	Polyurethane
<b>External dimensions: (LxW H cm)</b>	25.2 x 25.2 x 30.5 cm	<b>Insulation thickness:</b>	40 - 100 mm
<b>Internal dimensions: (LxWxH cm)</b>	16.5 x 16.5 x 16.5 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	40 hrs	<b>Model coolant-pack</b>	BIP-3
<b>Warm life at -20°C:</b>	16 hrs 51 min	<b>Number coolantpacks required:</b>	4
<b>Cool life at +43°C:</b>	10 hrs 49 min	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>			
<b>Minimum order:</b>	1	<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>	1	<b>Price base year:</b>	2017
<b>Weight per carton (kg):</b>	2.14 kgs	<b>Prices:</b>	11.00 USD per unit
<b>Volume per carton (m3):</b>	0.02 m3		
<b>Test report reference:</b>	CE-Job-Del-17-000026-001	<b>Laboratory:</b>	
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 02 Oct 2017</i>		<b>Valid until:</b> May 2018
<b>Subject to Field validation:</b>	N/A		<b>Date field validation:</b> 8/25/2017 12:00:00 AM

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





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## E004: Insulated containers

<b>PQS code:</b>	<b>E004/050</b>
<b>Description:</b>	Vaccine carrier Long range
<b>Manufacturer's reference:</b>	AFVC46
<b>Manufactured in:</b>	India
<b>Company:</b>	AOV International LLP
<b>Address:</b>	C-22/25, Sector 57, Nolda 201301 [U.P.], India
<b>Telephone:</b>	+91-9820895063, +91-8377009144
<b>Email:</b>	<a href="mailto:rakesh.gautam@aovinternational.net">rakesh.gautam@aovinternational.net</a> , <a href="mailto:info@aovinternational.net">info@aovinternational.net</a>
<b>Web address:</b>	<a href="http://www.aovinternational.net">www.aovinternational.net</a>

## Specifications

<b>Vaccine storage dimensions (cm):</b>	9.40 cm x 9.40 cm x 17.00 cm	<b>Lid type and fixing</b>	Fixed hinges
<b>Vaccine storage volume (L):</b>	1.5 litres	<b>External materials:</b>	HDPE
<b>weight fully loaded (Kg):</b>	6.8 kg	<b>Internal lining material:</b>	HIPS
<b>Weight empty (Kg):</b>	4.2 kg	<b>Insulation materials:</b>	CFC free Polyurethane
<b>External dimensions: (LxW H cm)</b>	31cm x 31cm x 30cm	<b>Insulation thickness:</b>	30 mm
<b>Internal dimensions: (LxWxH cm)</b>	9.40 cm x 9.40 cm x 17.00 cm	<b>Type of coolantpacks required:</b>	Waterpacks
<b>Cold life at +43°C:</b>	34 hours	<b>Model coolant-pack</b>	
<b>Warm life at -20°C:</b>	17 hours 15 minutes	<b>Number coolantpacks required:</b>	4 x 0.6L
<b>Cool life at +43°C:</b>	-	<b>Coolantpacks supplied:</b>	Yes
<b>Minimum Rated Ambient:</b>	+15°C		
<b>Minimum order:</b>		<b>Incoterms:</b>	EXW
<b>Pieces per carton:</b>		<b>Price base year:</b>	2017
<b>Weight per carton (kg):</b>		<b>Prices:</b>	1 - 10 unit: US \$ 51.00
<b>Volume per carton (m3):</b>			11 - 100 units: US \$ 48
			> 100 units: US \$ 45
<b>Test report reference:</b>		<b>Laboratory:</b>	Intertek India
<b>Quality standard:</b>	-ISO 9001:2008-		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 08 Dec 2017</i>	<b>Valid until:</b>	May 2018
<b>Subject to Field validation:</b>	N/A	<b>Date field validation:</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



# E005

## Water-packs

This section covers water-packs which are used as the temperature control medium in the insulated containers described in Section E004.

### **E005.1**      **Choosing water-packs**

The water-packs listed in the E005 product data sheets are all suitable for use in the transport of vaccines. They can all be used as conventional frozen icepacks, as cool water-packs or as warm water-packs in cold climates. When selecting water-packs for a programme, consider the following points:

- PQS allows three standard water-packs sizes - 0.3 litre, 0.4 litre and 0.6 litre. Make sure you order the correct size for each type of cold box or vaccine carrier. Try to select cold boxes and vaccine carriers which use just one size of water-pack.
- Most cold boxes and vaccine carriers are supplied with a single set of water-packs. It is good practice to order an extra set so that one set can be frozen or cooled while the other set is in use. The additional set also covers the inevitable losses that occur over the lifetime of the box.
- DO NOT purchase pre-filled water-packs. These often contain an additive, which may lower the freezing point to below 0°C. Their use can endanger freeze-sensitive vaccines.

### **E005.2**      **Future developments**

WHO will continue to review the use of eutectic-based coolant products which change phase above 0°C. At present the simplicity and low transport costs associated with water-based products which are filled in-country are considered to outweigh the possible performance benefits of eutectics.

**E005 data sheets follow**



## E005: Coolant packs for insulated containers

**PQS code:** E005/001  
**Description:** Water-pack 0.6L  
**Manufacturer's reference:** Bmedical WP 0.6L  
**Manufactured in:** Luxembourg  
**Company:** B Medical Systems Sarl  
**Address:** 17 Op der Hei  
 L-9809 Hosingen  
 Luxembourg  
**Telephone:** + 35 2 92 07 311  
**Email:** [info@bmedicalsistemas.com](mailto:info@bmedicalsistemas.com)  
**Web address:** [www.bmedicalsistemas.com](http://www.bmedicalsistemas.com)

## Specifications

<b>Nominal capacity (Liter):</b>	0.6 L	<b>Weight empty (g):</b>	79 g
<b>Rated water content (Liter)</b>	0.58 L	<b>Weight filled (g):</b>	655 g
<b>External dimensions (mm):</b>	190 x 120 x 35 mm		
<b>Minimum order:</b>	1 unit	<b>Pieces per carton:</b>	24 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	1-39 sets of 24 units: 40€ 40-99 sets of 24 units: 38€ 100 or more sets of 24 units: 36 €	<b>Volume per carton (m3):</b>	0.025 m3
		<b>Weight per carton (kg):</b>	3 kg
<b>Test report:</b>	A65899b	<b>Verification laboratory:</b>	Intertek India
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 08 Dec 2009</i>		<b>Valid until :</b> May, 2018
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



## E005: Coolant packs for insulated containers

**PQS code:** E005/002  
**Description:** Water-pack 0.3L  
**Manufacturer's reference:** Bmedical WP 0.3L  
**Manufactured in:** Luxembourg  
**Company:** B Medical Systems Sarl  
**Address:** 17 Op der Hei  
 L-9809 Hosingen  
 Luxembourg  
**Telephone:** + 35 2 92 07 311  
**Email:** [info@bmedicalsystems.com](mailto:info@bmedicalsystems.com)  
**Web address:** [www.bmedicalsystems.com](http://www.bmedicalsystems.com)

## Specifications

<b>Nominal capacity (Liter):</b>	0.3 L	<b>Weight empty (g):</b>	69 g
<b>Rated water content (Liter)</b>	0.35 L	<b>Weight filled (g):</b>	418 g
<b>External dimensions (mm):</b>	170 x 120 x 25 mm		
<b>Minimum order:</b>	1 unit	<b>Pieces per carton:</b>	40 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	1-39 sets of 40 units: 53 € 40-99 sets of 40 units: 50 € 100 or more sets: 49 €	<b>Volume per carton (m3):</b>	0.025 m3
		<b>Weight per carton (kg):</b>	3 kg
<b>Test report:</b>	A65899a	<b>Verification laboratory:</b>	Intertek India
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 22 Mar 2010</i>		<b>Valid until :</b> May, 2018
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



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## E005: Coolant packs for insulated containers

**PQS code:** E005/004  
**Description:** Water-pack 0.3 L  
**Manufacturer's reference:** AIP-3  
**Manufactured in:** India  
**Company:** AOV International LLP  
**Address:** C-22/25, Sector 57, Noida 201301 [U.P.], India  
**Telephone:** +91-9820895063, +91-8377009144  
**Email:** [rakesh.gautam@aovinternational.net](mailto:rakesh.gautam@aovinternational.net),  
[info@aovinternational.net](mailto:info@aovinternational.net)  
**Web address:** [www.aovinternational.net](http://www.aovinternational.net)

## Specifications

<b>Nominal capacity (Liter):</b>	0.3 L	<b>Weight empty (g):</b>	76 g
<b>Rated water content (Liter)</b>	0.35 L	<b>Weight filled (g):</b>	363 g
<b>External dimensions (mm):</b>	160 x 91 x 34 mm		
<b>Minimum order:</b>	240 units	<b>Pieces per carton:</b>	240 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	0.35 USD per unit	<b>Volume per carton (m3):</b>	0.16 m3
		<b>Weight per carton (kg):</b>	22 kg
<b>Test report:</b>	S09EEC02224/AT/JT	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 26 Apr 2010</i>		<b>Valid until :</b> May, 2018
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



PERFORMANCE QUALITY SAFETY



## E005: Coolant packs for insulated containers

**PQS code:** E005/005  
**Description:** Water-pack 0.4 L  
**Manufacturer's reference:** AIP-4  
**Manufactured in:** India  
**Company:** AOV International LLP  
**Address:** C-22/25, Sector 57, Noida 201301 [U.P.], India  
**Telephone:** +91-9820895063, +91-8377009144  
**Email:** [rakesh.gautam@aovinternational.net](mailto:rakesh.gautam@aovinternational.net),  
[info@aovinternational.net](mailto:info@aovinternational.net)  
**Web address:** [www.aovinternational.net](http://www.aovinternational.net)

## Specifications

<b>Nominal capacity (Liter):</b>	0.4 L	<b>Weight empty (g):</b>	78 g
<b>Rated water content (Liter)</b>	0.35 L	<b>Weight filled (g):</b>	432 g
<b>External dimensions (mm):</b>	164 x 95 x 34 mm		
<b>Minimum order:</b>	230 units	<b>Pieces per carton:</b>	230 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	0.40 USD per unit	<b>Volume per carton (m3):</b>	0.16 m3
		<b>Weight per carton (kg):</b>	21 kg
<b>Test report:</b>	S09EEC02224/ATJT	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 26 Apr 2010</i>		<b>Valid until :</b> May, 2018
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



PERFORMANCE QUALITY SAFETY



## E005: Coolant packs for insulated containers

**PQS code:** E005/006  
**Description:** Water-pack 0.6L  
**Manufacturer's reference:** AIP-6  
**Manufactured in:** India  
**Company:** AOV International LLP  
**Address:** C-22/25, Sector 57, Noida 201301 [U.P.], India  
**Telephone:** +91-9820895063, +91-8377009144  
**Email:** [rakesh.gautam@aovinternational.net](mailto:rakesh.gautam@aovinternational.net),  
[info@aovinternational.net](mailto:info@aovinternational.net)  
**Web address:** [www.aovinternational.net](http://www.aovinternational.net)

## Specifications

<b>Nominal capacity (Liter):</b>	0.6 L	<b>Weight empty (g):</b>	110 g
<b>Rated water content (Liter)</b>	0.55 L	<b>Weight filled (g):</b>	664 g
<b>External dimensions (mm):</b>	190 x 119 x 35 mm		
<b>Minimum order:</b>	150 units	<b>Pieces per carton:</b>	150 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	0.60 USD per unit	<b>Volume per carton (m3):</b>	0.16 m3
		<b>Weight per carton (kg):</b>	20 kg
<b>Test report:</b>	EEC09/719162291	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 26 Apr 2010</i>		<b>Valid until :</b> May, 2018
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



PERFORMANCE QUALITY SAFETY



## E005: Coolant packs for insulated containers

**PQS code:** E005/007  
**Description:** Water-pack 0.3L  
**Manufacturer's reference:** AIIP-03  
**Manufactured in:** India  
**Company:** Apex International  
 G47, Sector 39  
 Noida 201301  
 India  
**Address:**  
**Telephone:** +91-120-2574851  
**Email:** [mail@apexint.org](mailto:mail@apexint.org)  
**Web address:** <http://www.apex-international.org/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.3 L	<b>Weight empty (g):</b>	77 g
<b>Rated water content (Liter)</b>	0.29 L	<b>Weight filled (g):</b>	363 g
<b>External dimensions (mm):</b>	161 x 89 x 31.5 mm		

<b>Minimum order:</b>	100 units	<b>Pieces per carton:</b>	100 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	100 units or more: 0.45 USD	<b>Volume per carton (m3):</b>	0.045 m3
		<b>Weight per carton (kg):</b>	8 kg

**Test report:** 719164810EEC09/03      **Verification laboratory:** TUV SUD PSB Pte Ltd

### Comments:

**Current PQS status:** *pre-qualified ; 03 May 2010*      **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



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## E005: Coolant packs for insulated containers

**PQS code:** E005/008  
**Description:** Water-pack 0.4L  
**Manufacturer's reference:** AIIIP-0.4  
**Manufactured in:** India  
**Company:** Apex International  
 G47, Sector 39  
 Noida 201301  
 India  
**Address:**  
**Telephone:** +91-120-2574851  
**Email:** [mail@apexint.org](mailto:mail@apexint.org)  
**Web address:** <http://www.apex-international.org/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.4 L	<b>Weight empty (g):</b>	77 g
<b>Rated water content (Liter)</b>	0.35 L	<b>Weight filled (g):</b>	428 g
<b>External dimensions (mm):</b>	163.25 x 95.6 x 34.35 mm		

<b>Minimum order:</b>	100 units	<b>Pieces per carton:</b>	100 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	100 units or more: 0.50 USD	<b>Volume per carton (m3):</b>	0.054 m3
		<b>Weight per carton (kg):</b>	8 kg

**Test report:** 719164808EEC09/02      **Verification laboratory:** TUV SUD PSB Pte Ltd

### Comments:

**Current PQS status:** *pre-qualified ; 03 May 2010*      **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E005: Coolant packs for insulated containers

**PQS code:** E005/009  
**Description:** Water-pack 0.6 L  
**Manufacturer's reference:** AIIIP-06  
**Manufactured in:** India  
**Company:** Apex International  
 G47, Sector 39  
 Noida 201301  
 India  
**Address:**  
**Telephone:** +91-120-2574851  
**Email:** [mail@apexint.org](mailto:mail@apexint.org)  
**Web address:** <http://www.apex-international.org/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.6 L	<b>Weight empty (g):</b>	111 g
<b>Rated water content (Liter)</b>	0.56 L	<b>Weight filled (g):</b>	666 g
<b>External dimensions (mm):</b>	189.55 x 121.20 x 34.34 mm		
<b>Minimum order:</b>	100 units	<b>Pieces per carton:</b>	100 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	100 units or more: 0.65 USD	<b>Volume per carton (m3):</b>	0.079 m3
		<b>Weight per carton (kg):</b>	11.5 kg
<b>Test report:</b>	719164808EEC09/01	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 03 May 2010</i>		<b>Valid until :</b> <i>May, 2018</i>
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



## E005: Coolant packs for insulated containers

**PQS code:** E005/010  
**Description:** Water-pack 0.3 L  
**Manufacturer's reference:** BK-V4H  
**Manufactured in:** India  
**Company:** Blowkings  
 53-C Mittal Court  
 Nariman Point  
 Mumbai 400021  
 India  
**Address:**  
**Telephone:** +91-(0)22-22840120  
**Email:** [blowkings@vsnl.com](mailto:blowkings@vsnl.com)  
**Web address:** <http://www.blowkings.co.in/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.3L	<b>Weight empty (g):</b>	69 g
<b>Rated water content (Liter)</b>	0.3 L	<b>Weight filled (g):</b>	374 g
<b>External dimensions (mm):</b>	162.4 x 89.9 x 34.3 mm		

<b>Minimum order:</b>	225 units	<b>Pieces per carton:</b>	225 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	225 units or more: 0.45 USD	<b>Volume per carton (m3):</b>	0.12 m3
		<b>Weight per carton (kg):</b>	22 kg

**Test report:** 719170704-EEC10 **Verification laboratory:** TUV SUD PSB Pte Ltd

### Comments:

**Current PQS status:** *pre-qualified ; 02 Sep 2010* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E005: Coolant packs for insulated containers

**PQS code:** E005/011  
**Description:** water-pack 0.4L  
**Manufacturer's reference:** BK-4  
**Manufactured in:** India  
**Company:** Blowkings  
 53-C Mittal Court  
 Nariman Point  
 Mumbai 400021  
 India  
**Address:**  
**Telephone:** +91-(0)22-22840120  
**Email:** [blowkings@vsnl.com](mailto:blowkings@vsnl.com)  
**Web address:** <http://www.blowkings.co.in/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.4 L	<b>Weight empty (g):</b>	70 g
<b>Rated water content (Liter)</b>	0.39 L	<b>Weight filled (g):</b>	430 g
<b>External dimensions (mm):</b>	165 x 93 x 35 mm		
<b>Minimum order:</b>	225 units	<b>Pieces per carton:</b>	225 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	225 units or more: 0.50 USD	<b>Volume per carton (m3):</b>	0.13 m3
		<b>Weight per carton (kg):</b>	22 kg
<b>Test report:</b>	EEC09-719162420-B	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 02 Sep 2010</i>		<b>Valid until :</b> <i>May, 2018</i>
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



## E005: Coolant packs for insulated containers

**PQS code:** E005/012  
**Description:** Water-pack 0.6L  
**Manufacturer's reference:** BK-6  
**Manufactured in:** India  
**Company:** Blowkings  
 53-C Mittal Court  
 Nariman Point  
 Mumbai 400021  
 India  
**Address:**  
**Telephone:** +91-(0)22-22840120  
**Email:** [blowkings@vsnl.com](mailto:blowkings@vsnl.com)  
**Web address:** <http://www.blowkings.co.in/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.6 L	<b>Weight empty (g):</b>	110 g
<b>Rated water content (Liter)</b>	0.55 L	<b>Weight filled (g):</b>	655 g
<b>External dimensions (mm):</b>	190 x 120 x 35 mm		

<b>Minimum order:</b>	144 units	<b>Pieces per carton:</b>	144 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	144 units or more: 0.65 USD	<b>Volume per carton (m3):</b>	0.13 m3
		<b>Weight per carton (kg):</b>	22 kg

**Test report:** EEC09-719162420 A **Verification laboratory:** TUV SUD PSB Pte Ltd

### Comments:

**Current PQS status:** *pre-qualified ; 02 Sep 2010* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E005: Coolant packs for insulated containers

**PQS code:** E005/013  
**Description:** Water-pack 0.3L T2  
**Manufacturer's reference:** BIP-3  
**Manufactured in:** India  
**Company:** Nilkamal Limited  
 Street No 14,  
 MIDC - Andheri (East)  
 Mumbai-400093  
 India  
**Address:**  
**Telephone:** +91 9833 140603  
**Email:** [rajesh.patwardhan@nilkamal.com](mailto:rajesh.patwardhan@nilkamal.com);  
[vaishali.gaikwad@nilkamal.com](mailto:vaishali.gaikwad@nilkamal.com);  
[nayan.parekh@nilkamal.com](mailto:nayan.parekh@nilkamal.com)  
**Web address:** <http://www.nilkamal.com/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.3 L	<b>Weight empty (g):</b>	75 g
<b>Rated water content (Liter)</b>	0.29 L	<b>Weight filled (g):</b>	370 g
<b>External dimensions (mm):</b>	163 x 90.5 x 33 mm		
<b>Minimum order:</b>	380 units	<b>Pieces per carton:</b>	380 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	380 units or more: 0.47 USD	<b>Volume per carton (m3):</b>	0.20 m3
		<b>Weight per carton (kg):</b>	30.5 kg
<b>Test report:</b>	WHO 10-004	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 15 Oct 2010</i>		<b>Valid until :</b> <i>May, 2018</i>
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



PERFORMANCE QUALITY SAFETY



## E005: Coolant packs for insulated containers

**PQS code:** E005/014  
**Description:** Water-pack 0.4L  
**Manufacturer's reference:** BIP-4  
**Manufactured in:** India  
**Company:** Nilkamal Limited  
 Street No 14,  
 MIDC - Andheri (East)  
 Mumbai-400093  
 India  
**Address:**  
**Telephone:** +91 9833 140603  
**Email:** [rajesh.patwardhan@nilkamal.com](mailto:rajesh.patwardhan@nilkamal.com);  
[vaishali.gaikwad@nilkamal.com](mailto:vaishali.gaikwad@nilkamal.com);  
[nayan.parekh@nilkamal.com](mailto:nayan.parekh@nilkamal.com)  
**Web address:** <http://www.nilkamal.com/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.4 L	<b>Weight empty (g):</b>	76 g
<b>Rated water content (Liter)</b>	0.35 L	<b>Weight filled (g):</b>	431 g
<b>External dimensions (mm):</b>	165 x 95 x 33 mm		
<b>Minimum order:</b>	380 units	<b>Pieces per carton:</b>	380 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	380 units or more: 0.49 USD	<b>Volume per carton (m3):</b>	0.20 m3
		<b>Weight per carton (kg):</b>	30.88 kg
<b>Test report:</b>	WHO 10-005	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 15 Oct 2010</i>		<b>Valid until :</b> May, 2018
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



PERFORMANCE QUALITY SAFETY



## E005: Coolant packs for insulated containers

**PQS code:** E005/015  
**Description:** Water-pack 0.6L  
**Manufacturer's reference:** BIP-6  
**Manufactured in:** India  
**Company:** Nilkamal Limited  
 Street No 14,  
 MIDC - Andheri (East)  
 Mumbai-400093  
 India  
**Address:**  
**Telephone:** +91 9833 140603  
**Email:** [rajesh.patwardhan@nilkamal.com](mailto:rajesh.patwardhan@nilkamal.com);  
[vaishali.gaikwad@nilkamal.com](mailto:vaishali.gaikwad@nilkamal.com);  
[nayan.parekh@nilkamal.com](mailto:nayan.parekh@nilkamal.com)  
**Web address:** <http://www.nilkamal.com/>

## Specifications

<b>Nominal capacity (Liter):</b>	0.6 L	<b>Weight empty (g):</b>	114 g
<b>Rated water content (Liter)</b>	0.56 L	<b>Weight filled (g):</b>	650 g
<b>External dimensions (mm):</b>	190 x 121 x 35 mm		
<b>Minimum order:</b>	240 units	<b>Pieces per carton:</b>	150 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	240 units or more: 0.63 USD	<b>Volume per carton (m3):</b>	0.20 m3
		<b>Weight per carton (kg):</b>	29.36 kg
<b>Test report:</b>	WHO 10-006	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified ; 15 Oct 2010</i>		<b>Valid until :</b> May, 2018
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			



E005/017 XD 0.3L

## E005: Coolant packs for insulated containers

<b>PQS code:</b>	<b>E005/017</b>
<b>Description:</b>	Waterpack 0.3L
<b>Manufacturer's reference:</b>	Denco Waterpack 0.3L
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Xinxiang Dengke cold chain equipment Co., Ltd
<b>Address:</b>	Crossing of Xihuan Road and Beigan Road, Xinxiang City, Henan
<b>Telephone:</b>	+86 13462228981
<b>Email:</b>	<a href="mailto:qdcrc_trust@126.com">qdcrc_trust@126.com</a> ; <a href="mailto:13462228981@126.com">13462228981@126.com</a>
<b>Web address:</b>	<a href="http://www.denco.com.cn">www.denco.com.cn</a> ; <a href="http://www.xxlc.com">www.xxlc.com</a>

## Specifications

<b>Nominal capacity (Liter):</b>	0.3 L	<b>Weight empty (g):</b>	75 g
<b>Rated water content (Liter)</b>	0.3 L	<b>Weight filled (g):</b>	380 g
<b>External dimensions (mm):</b>	163 x 90 x 34 mm		
<hr/>			
<b>Minimum order:</b>	300 units	<b>Pieces per carton:</b>	300
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FOB
<b>Price / unit:</b>	300 units and more: 0.429USD per unit	<b>Volume per carton (m3):</b>	0.164m3
		<b>Weight per carton (kg):</b>	23.5 kg
<hr/>			
<b>Test report:</b>	WB-11-740	<b>Verification laboratory:</b>	CHEARI
<hr/>			
<b>Comments:</b>			
<hr/>			
<b>Current PQS status:</b>	<i>pre-qualified ; 30 Jul 2012</i>		<b>Valid until :</b> <i>May, 2018</i>
<hr/>			
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			
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## E005: Coolant packs for insulated containers

<b>PQS code:</b>	<b>E005/018</b>
<b>Description:</b>	Waterpack 0.4L
<b>Manufacturer's reference:</b>	Denco Waterpack 0.4L
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Xinxiang Dengke cold chain equipment Co., Ltd
<b>Address:</b>	Crossing of Xihuan Road and Beigan Road, Xinxiang City, Henan
<b>Telephone:</b>	+86 13462228981
<b>Email:</b>	<a href="mailto:qdcrc_trust@126.com">qdcrc_trust@126.com</a> ; <a href="mailto:13462228981@126.com">13462228981@126.com</a>
<b>Web address:</b>	<a href="http://www.denco.com.cn">www.denco.com.cn</a> ; <a href="http://www.xxlcb.com">www.xxlcb.com</a>

## Specifications

<b>Nominal capacity (Liter):</b>	0.4 L	<b>Weight empty (g):</b>	65 g
<b>Rated water content (Liter)</b>	0.36 L	<b>Weight filled (g):</b>	420 g
<b>External dimensions (mm):</b>	163 x 94 x 34 mm		
<hr/>			
<b>Minimum order:</b>	300 units	<b>Pieces per carton:</b>	300
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FOB
<b>Price / unit:</b>	300 units and more: 0.47 USD per unit	<b>Volume per carton (m3):</b>	0.175m3
		<b>Weight per carton (kg):</b>	24 kg
<hr/>			
<b>Test report:</b>	WB-11-739	<b>Verification laboratory:</b>	CHEARI
<hr/>			
<b>Comments:</b>			
<hr/>			
<b>Current PQS status:</b>	<i>pre-qualified ; 30 Jul 2012</i>		<b>Valid until :</b> <i>May, 2018</i>
<hr/>			
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			
<hr/>			



## E005: Coolant packs for insulated containers

**PQS code:** E005/019  
**Description:** Water-pack 0.4 L  
**Manufacturer's reference:** Water-pack 0.4 L  
**Manufactured in:** Italy  
**Company:** Giostyle SpA  
 Giostyle SpA  
 Via Battaina 393  
 24059 Urganano (BG) Italy  
**Address:**  
  
**Telephone:** +39 035 4188531  
**Email:** [laura.avanzi@giostyle.com](mailto:laura.avanzi@giostyle.com)  
**Web address:** [www.giostyle.com/](http://www.giostyle.com/)

## Specifications

<b>Nominal capacity (Liter):</b>	0.4 L	<b>Weight empty (g):</b>	50 g
<b>Rated water content (Liter)</b>	0.38 L	<b>Weight filled (g):</b>	420 g
<b>External dimensions (mm):</b>	165 x 93 x 33 mm		

<b>Minimum order:</b>	64 units	<b>Pieces per carton:</b>	60 units
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price / unit:</b>	60 units or more: 0.80 USD per unit	<b>Volume per carton (m3):</b>	0.040 m3
		<b>Weight per carton (kg):</b>	4 kg

**Test report:** WHO-10-014 **Verification laboratory:** CEMAFROID SAS

### Comments:

**Current PQS status:** *pre-qualified ; 29 May 2014* **Valid until :** *May, 2016*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



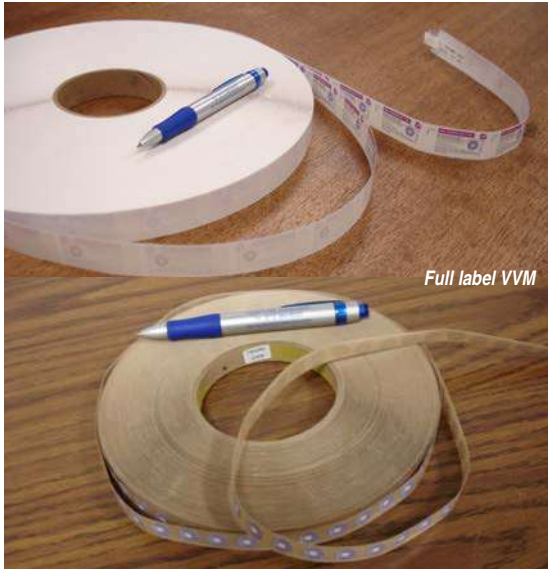
## E006: Temperature monitoring devices

**PQS code: E006/001**

**HEATmarker® Vaccine Vial Monitor (VVM)**

**Manufactured in: USA**

**Company name:**  
 TEMPTIME Corporation  
 116 American Road  
 Morris Plains, NJ 07950  
 USA  
 Tel: 001-973-984-6009  
 Fax: 001-973-984-1835  
 Email: [info@temptimecorp.com](mailto:info@temptimecorp.com)  
[chris@temptimecorp.com](mailto:chris@temptimecorp.com)



### Standard Specifications:

Specification	Full Label VVM	Dot VVM
Minimum Order For One (1) Shipment	500,000	50,000
Standard Label Sizes	20mm X 44mm 57mm X 15mm 48mm X 18mm	10mm dot (circle) or 16mm X 10mm Rectangle
Indicators Per Roll	10,000	10,000
Core size	76mm	76mm
Core Size	76mm	76mm
Shipped by Container	LD3 (in one shipment) or Insulated Coolers Depending on Volume	LD3 (in one shipment) or Insulated Coolers Depending on Volume
Number of Label Colors	2	N/A

### Standard Material Specifications:

Full Labels are made on a 38#, semi-gloss white, lightweight, calendered, wood free printing paper face sheet. The adhesive of the face sheet can be a rubber based solvent adhesive with a service temperature range of -40°F to +175°F or a rubber based hot melt adhesive with a service temperature range of -50°F to +120°F. The face sheet with adhesive is removed from either a 44# bleached glassine liner or #40 bleached kraft liner.

Dots are made on corona-treated, flexible, opaque white polyolefin film. The adhesive is clear, permanent and designed for prime labeling applications with a service temperature range -40°F to +200°F. The minimum application temperature is +10°F. The face sheet is removed from a 44#, poly-coated natural kraft (brown) paper stock for roll-to-roll applications. This liner is specifically designed for high speed automatic label dispensing applications. The face sheet has a 1mil, polypropylene, clear self-wound overlamine with a permanent acrylic adhesive. This film is not designed for printing.

### Method of Application:

The rolls of VVM are suitable for use with high speed automatic labeling equipment.



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/002</b>
<b>Description:</b>	Electronic shipping indicator Q-tag2 plus
<b>Manufacturer's ref:</b>	Q-tag 2 plus
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	Berlinger & Co. AG
<b>Address:</b>	Mitteldorfstrasse 2, CH-9608 Ganterschwil, Switzerland
<b>Telephone:</b>	+41 (71) 982 88 11
<b>Email:</b>	<a href="mailto:info@berlinger.com">info@berlinger.com</a>
<b>Web address:</b>	<a href="http://www.berlinger.com">http://www.berlinger.com</a>

## Specifications

<b>Product type:</b>	20-day electronic shipping indicator	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight:</b>	0.028 kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	5.7 x 5.8 x 1.1 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.5°C	<b>Min logging interval:</b>	pre-set at 1 mn interval
<b>Power source:</b>	Passive device	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium non-replaceable battery	<b>User interface:</b>	LCD - Start/Stop button
<b>Battery shelf life:</b>	2 years	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	6 months	<b>IP rating:</b>	IP 67
<b>Memory capacity:</b>	---		

**Comments:** Q-Tag2 plus is an irreversible electronic temperature indicator that show if a product has been exposed to temperatures beyond assigned alarm settings. There are three types of Q-tag2 plus:  
 1. Type 1 for freeze sensitive vaccines  
 2. Type 2 for non-freeze sensitive vaccines  
 3. Type prevenar 7-valent conjugated vaccine  
 Each type has its own alarm settings  
 Check the specific page in the catalogue for more information

<b>Minimum order:</b>	50	<b>Year base price:</b>	2015
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	50
<b>Price per unit:</b>	50 - 99 units: 15 € 100 - 999 units: 12 €	<b>Volume per carton:</b>	
		<b>Weight per carton:</b>	1.8 kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	151-04740	<b>Verification laboratory:</b>	METAS
<b>Current PQS status:</b>	<i>pre-qualified ; 30 Sep 2007</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## CODE E06/02, Electronic temperature monitor Model Q-tag 2 plus

### ADDITIONAL COMMENTS

#### Alarm setting:

Type	<b>TYPE 2: for vaccines:</b> OPV, freeze-dried BCG, measles, MR, MMR, Hib, yellow fever and, Meningitis vaccine	<b>TYPE 1: for vaccines:</b> DTP, DT, TT, Td, Hep B, IPV, liquid Hib and combination vaccines	<b>Type Prevenar:</b> Only for Prevenar 7-valent conjugated vaccine
<b>Alarm settings</b>	>= +45°C 1 hour single >= +30°C 10 hours cumulative >= +10°C 20 hours cumulative	>= +45°C 1 hour single >= +30°C 10 hours cumulative <= -0.5°C 1 hour single	>= +40°C 1 hour single >= +30°C 10 hours cum. <= -0.5°C 1 hour single

**Function:** Q-tag 2 plus is an irreversible electronic temperature indicator that shows if a product, such as vaccine, has been exposed to temperatures beyond assigned alarm settings described above. It consists of an electronic temperature measuring circuit with associated LCD-display. As long as the temperature is within the allowed range, the OK-sign is shown on the display. If the indicator is exposed to an out-of-range temperature the ALARM-sign appears on the display. Some examples of information that can be displayed are:

1. Actual elapsed transport time with ALARM-sign and violated alarm condition
2. Actual elapsed transport time since start with OK-sign.
3. Extreme temperatures can be read out by every time segment.
4. Exact time since START until the alarm occurrence.

The Q-tag 2 plus device is attached onto a card which provides instructions for senders and receivers. This device has an initial start delay of 1 hour.

For more information please contact the supplier.

**Use:** This electronic temperature indicator is used to monitor all kind of shipments of vaccines and other perishable goods.

Following languages are available (except Type Prevenar): English (Standard), French, Spanish, Arabic, Russian, Mandarin Chinese



1



2



3



4



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/004

**Description:** Cold chain monitor

**Manufacturer's ref:** Vaccine cold chain monitor shipment record

**Manufactured in:** Switzerland

**Company:** Berlinger & Co. AG

**Address:** Mitteldorfstrasse 2,  
CH-9608 Ganterschwil,  
Switzerland

**Telephone:** +41 (71) 982 88 11

**Email:** [info@berlinger.com](mailto:info@berlinger.com)

**Web address:** <http://www.berlinger.com>

## Specifications

<b>Product type:</b>	Cold chain monitor	<b>Display medium:</b>	---
<b>Mode of operation:</b>	Chemical	<b>Weight</b>	0.006 kg
<b>Minimum temperature:</b>		<b>Main material:</b>	Card
<b>Maximum temperature:</b>		<b>Dimensions:</b>	12 x 15 cm
<b>MECHANICAL AND ELECTRONIC DEVICES ONLY</b>			
<b>Accuracy:</b>	N/A	<b>Min logging interval:</b>	N/A
<b>Power source:</b>	Passive device	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	N/A	<b>User interface:</b>	N/A
<b>Battery shelf life:</b>	N/A	<b>Programmability:</b>	Not applicable
<b>Activated life:</b>	N/A	<b>IP rating:</b>	N/A
<b>Memory capacity:</b>	N/A		
<b>Comments:</b>	This indicator is made of a porous wick track strip with 3 windows (A, B, and C) changing colour to blue when temperature exceeds +10°C. In addition it has a high temperature dot activated at +34°C This device is to be used only in international shipments when there is no other choice than having dry ice as the passive coolant		
<b>Minimum order:</b>	500	<b>Year base price:</b>	2007
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	250
<b>Price per unit:</b>	Per unit: 4.30 CHF	<b>Volume per carton:</b>	0.0055 m3
		<b>Weight per carton:</b>	1.7 kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	Wolff Laboratory (1988)	<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 30 Sep 2007</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/006

**Description:** User prg temperature data logger

**Manufacturer's ref:** Logtag TRIX-8

**Manufactured in:** China; People's Republic of

**Company:** LogTag Recorders Limited

**Address:** PO Box 362-95, Northcote, Auckland, New Zealand

**Telephone:** +64 9 444 5881

**Email:** [sales@logtagrecorders.com](mailto:sales@logtagrecorders.com)

**Web address:** [www.logtagrecorders.com](http://www.logtagrecorders.com)

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LED
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.035 kg
<b>Minimum temperature:</b>	-40°C	<b>Main material:</b>	Polycarbonate
<b>Maximum temperature:</b>	+85°C	<b>Dimensions:</b>	8.5 x 5.4 x 0.85 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.5°C	<b>Min logging interval:</b>	30 seconds
<b>Power source:</b>	Battery 3V	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium 3V	<b>User interface:</b>	Logtag interface + software
<b>Battery shelf life:</b>	up to 10 years	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	36 months	<b>IP rating:</b>	IP65
<b>Memory capacity:</b>	8000 point		

**Comments:** The LogTag TRIX18 Temperature Logger is a battery powered stand-alone measurement system for digital time-temperature monitoring. It incorporates a temperature sensor arranged in a recess in the case. This design protects the sensor from damage but still provides a fast reaction time. Using the LogTag interface and LogTag's free available companion software LogTag Analyser, it is easily set up for recording conditions including delayed start, sampling interval, continuous or fixed number of readings and configuration of conditions to activate the ALERT indicator. Readings are downloaded using LogTag Analyser which provides facilities for chart, zoom, and listing data statistics and allows exporting the data to other applications such as Excel. The data downloading requires an external USB based docking station (Logtag interface) not included in the price.

<b>Minimum order:</b>	20	<b>Year base price:</b>	2013
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	50
<b>Price per unit:</b>	20-99 units: 27.40 €	<b>Volume per carton:</b>	0.0051m3
	100+ units: on request to manufacturer	<b>Weight per carton:</b>	1.9 kg
		<b>Incoterms:</b>	EXW

**Verification report:** TUV 21123235\_001 **Verification laboratory:** TUV SUD PSB Pte Ltd

**Current PQS status:** *pre-qualified ; 22 Jan 2008* **Valid until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/007

**Description:** Electronic freeze indicator

**Manufacturer's ref:** Freeze-tag®

**Manufactured in:** Malaysia

**Company:** Berlinger & Co. AG

**Address:** Mitteldorfstrasse 2,  
CH-9608 Ganterschwil,  
Switzerland

**Telephone:** +41 (71) 982 88 11

**Email:** [info@berlinger.com](mailto:info@berlinger.com)

**Web address:** <http://www.berlinger.com>

## Specifications

<b>Product type:</b>	Irreversible freeze indicator	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.012
<b>Minimum temperature:</b>	-20°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+50°C	<b>Dimensions:</b>	5.0 x 3.1 x 1.05 cm
<b>MECHANICAL AND ELECTRONIC DEVICES ONLY</b>			
<b>Accuracy:</b>	+/- 0.5°C	<b>Min logging interval:</b>	---
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	non-replaceable battery	<b>User interface:</b>	LCD screen
<b>Battery shelf life:</b>	5 years	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	Device always active	<b>IP rating:</b>	IP67
<b>Memory capacity:</b>	---		
<b>Comments:</b>	Freeze-Tag is an irreversible temperature indicator that shows if a product, such as vaccine has been exposed to freezing temperatures. It consists of an electronic temperature measuring circuit with associated LCD-display. If the indicator is exposed to a temperature below -0.5°C ±0.5°C for more then 60min ± 3min the display will change from the "good" status into the "alarm" status. A small blinking dot in the right hand corner of the LED display indicates that the device is functioning.		
<b>Minimum order:</b>	500	<b>Year base price:</b>	2009
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	500
<b>Price per unit:</b>	500 units: 5.30 CHF; 1500 units: 4.60 CHF up to 5000 units: 4.30 CHF 10 000 and more units: 4.00 CHF	<b>Volume per carton:</b>	0.03 m3
		<b>Weight per carton:</b>	7.8 kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	151-04141	<b>Verification laboratory:</b>	METAS
<b>Current PQS status:</b>	<i>pre-qualified ; 27 May 2008</i>		<b>Valid until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/009</b>
<b>Description:</b>	Electronic freeze indicator
<b>Manufacturer's ref:</b>	FreezeAlert TM
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Sensitech Inc.
<b>Address:</b>	A Business Unit of Carrier Corporation, Suite 258X, 800 Cummings Center. Beverly, MA 01915 United States
<b>Telephone:</b>	+1 978 - 927- 7033
<b>Email:</b>	<a href="http://www.sensitech.com/contactus">http://www.sensitech.com/contactus</a>
<b>Web address:</b>	<a href="http://www.sensitech.com">http://www.sensitech.com</a>

## Specifications

<b>Product type:</b>	Irreversible freeze indicator	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.014 kg
<b>Minimum temperature:</b>	---	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	5.15 x 3.5 x 1.0 cm

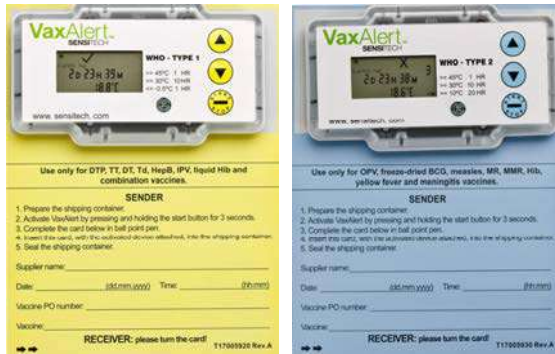
### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	+/-0.5°C	<b>Min logging interval:</b>	N/A
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium coin-cell	<b>User interface:</b>	Start button switch
<b>Battery shelf life:</b>	can be stored inactivated for 12 months	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	36 months (if stored for maximum 12 months)	<b>IP rating:</b>	IP64
<b>Memory capacity:</b>	N/A		

**Comments:** The FreezeAlert™ is a single alarm electronic temperature indicator providing an irreversible display of temperature exposure relative to the alarm setting of < -0.5 °C for a continuous period of 60 minutes. If the indicator is exposed to conditions exceeding the alarm setting, the display changes from a "√" to an "X", informing the user of the triggered alarm state. The device contains an integrated push-button switch for field activation and a dynamic "dot" icon which affirms active monitoring.  
carton of 1000 units

<b>Minimum order:</b>	500	<b>Year base price:</b>	2009
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	1000
<b>Price per unit:</b>	500 units: 4.53 US\$; 1000 units: 3.89 US\$	<b>Volume per carton:</b>	0.066 m3
	5000 units: 3.64 US\$	<b>Weight per carton:</b>	15.3 kg
	10 000 units: 3.40 US\$	<b>Incoterms:</b>	EXW
<b>Verification report:</b>	S09EEC00004/C/BL/CEG Feb 2009	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Current PQS status:</b>	<i>pre-qualified ; 03 Mar 2009</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## E006: Temperature monitoring devices

**PQS Code: E006/010**

**Description:** Electronic temperature indicator  
**Manufacturer's reference:** VaxAlert™  
**Manufactured in:** China; People's Republic of  
**Company:** Sensitech, Inc.  
**Address:** 800 Cummings Ctr, Suite 258X  
 Beverly, MA 01915-6197  
 USA  
**Telephone:** +1-978-927-7033  
**Fax:** +1-978-921-2112  
**Website:** [www.sensitech.com](http://www.sensitech.com)  
**E-Mail:** [info@sensitech.com](mailto:info@sensitech.com)

### SPECIFICATIONS

Type	<u>Type 1: Vaccines</u> DTP, DT,TT, Td, Hep B, IPV, liquid Hib, and combination vaccines	<u>Type 2: Vaccines</u> OPV, Freeze-dried BCG, measles, MR, MMR, yellow fever, and meningitis vaccines	<u>RotaTeq® from Merck</u>
<b>Alarm settings</b>	≥ +45°C 1 hr single event ≥ +30°C 10 hr cumulative ≤ - 0.5°C 1 hr single event	≥ +45°C 1 hr single event ≥ +30°C 10 hr cumulative ≥ +10°C 20 hr cumulative	≥ +27°C 1 min single event ≥ +17°C 2 hr cumulative ≤ - 25°C 1 min single event

**Initial Start Delay:** 60 min  
**Temperature Accuracy:** ±0.5 °C  
**External Dimensions:** 98.9 x 58.0 x 17.5 mm (without card)

**External Material:** ABS  
**Weight:** 68 g/piece  
**Number per Package:** 20

### COMMENTS

*Test Report: TUV PSB Singapore Test Reports (S09EEC00004/A/1/BL/CEG, S09EEC00004/B/1/BL/CEG)  
 Meets performance requirements for WHO PQS/E06/TR07VP.1  
 TUV SUD America IAO9001:2000, Registration No. 951 05 3305*

**Function:** VaxAlert™ is an irreversible electronic temperature indicator designed to monitor temperature exposure of vaccines and other perishable products during transit. The indicator provides alarm status and alarm excursion histories for up to three single event or cumulative time-temperature alarms as listed in the table above. The device contains an advanced LCD that presents: comprehensive alarm status (✓ or X), operation mode (ready/run/stop/delay start), elapsed time from start and last temperature reading. Alarm excursion histories (up to nine events) are presented via the LCD with an alarm history event number, alarm indicator, alarm time (elapsed since start), and max or min temperature during the alarm time period.

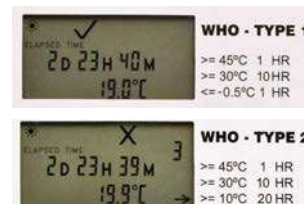
**Main purpose of the device:** Temperature monitoring vaccine shipments.

### 2009 PRICES

#### (Type 1 and Type 2)

20-100 pieces	\$ 17.50 / piece
101-1000 pieces	\$ 14.00 / piece
1001- 3000 pieces	\$ 11.75 / piece
>3000 pieces	on request

**Shipping volume** 0.0044 m<sup>3</sup> (254 x 153 x 114 mm)  
**Shipping weight 20 pcs** 6.8 kg  
**Minimum order:** 20 pc



Typical VaxAlert Display

Prequalified on 08 May 2009, revision 10 May 2011



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/013</b>
<b>Description:</b>	30-day electronic temperature logger
<b>Manufacturer's ref:</b>	VaxTag 30-day electronic temperature logger
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	LogTag Recorders Limited
<b>Address:</b>	PO Box 362-95, Northcote, Auckland, New Zealand
<b>Telephone:</b>	+64 9 444 5881
<b>Email:</b>	<a href="mailto:sales@logtagrecorders.com">sales@logtagrecorders.com</a>
<b>Web address:</b>	<a href="http://www.logtagrecorders.com">www.logtagrecorders.com</a>

## Specifications

<b>Product type:</b>	30-day electronic refrigerator temperature logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.043 kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	Polycarbonate
<b>Maximum temperature:</b>	+60°C	<b>Dimensions:</b>	9.30 x 5.45 x 0.86 cm
<b>MECHANICAL AND ELECTRONIC DEVICES ONLY</b>			
<b>Accuracy:</b>	+/- 0.5°C	<b>Min logging interval:</b>	30 seconds
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium	<b>User interface:</b>	Standard Logtag interface cradle
<b>Battery shelf life:</b>		<b>Programmability:</b>	Not applicable
<b>Activated life:</b>	2-3 years	<b>IP rating:</b>	IP 65
<b>Memory capacity:</b>	7770 data points		
<b>Comments:</b>	Accessories: Standard Logtag Interface (docking station not included in the price) and the Logtag Analyser Software Details of any excursions can be checked directly by inspecting the statistics history on the recorder's display or in more detail by downloading the logged data via a LogTag USB interface to a PC running LogTag Analyzer.		
<b>Minimum order:</b>	20	<b>Year base price:</b>	2013
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	50
<b>Price per unit:</b>	20 - 99 units: 40.80 USD 100+ units: on request	<b>Volume per carton:</b>	0.0051m3
		<b>Weight per carton:</b>	2.5 kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	A66604	<b>Verification laboratory:</b>	Intertek UK
<b>Current PQS status:</b>	<i>pre-qualified ; 19 May 2011</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



**CODE E006/014**

**Electronic temperature monitor  
Model Q-tag® CLm**

**COMPANY NAME AND ADDRESS**

Berlinger & Co AG  
Mitteldorfstrasse 2  
CH-9608 Ganterschwil  
Switzerland  
Telephone: 41 (71) 982 88 11  
Fax: 41 (71) 982 88 39  
E-mail: [info@berlinger.ch](mailto:info@berlinger.ch)  
Internet : [www.berlinger.com](http://www.berlinger.com)



**SPECIFICATIONS**

**TYPE 2: for vaccines:**

**OPV, freeze-dried BCG, measles, MR, MMR, Hib, yellow fever and, Meningitis vaccines**

- >= +45°C 1 hour single
- >= +30°C 10 hours cumulative
- >= +10°C 20 hours cumulative

**TYPE Rotateq:**

**Only for Rotateq**

- >= +27°C 1 minute single
- >= +17°C 2 hours cumulative
- <= -25°C 1 minute single

**TYPE 1: for vaccines:**

**DTP, DT, TT, Td, Hep B, IPV, liquid Hib and combination vaccines**

- >= +45°C 1 hour single
- >= +30°C 10 hours cumulative
- <= -0.5°C 1 hour single

**Type Prevenar:**

**Only for Prevenar  
7-valent conjugated vaccines**

- >= +40°C 1 hour single
- >= +30°C 10 hours cum.
- <= -0.5°C 1 hour single



OK display



Alarm display



Read out display with exact alarm date, time and duration

<b>Initial start delay</b>	1 hour
<b>Accuracy of temperature threshold</b>	+/- 0.5°C
<b>External dimensions</b>	55 x 95 x 10 mm (without card)
<b>Number per package</b>	50

<b>Material</b>	ABS
<b>Weight</b>	35 gr.

**COMMENTS**

*Test report: Roth & Co., official accredited laboratory from Metas (Measurement report No VA11-02742 B / 19<sup>th</sup> March 2012) Meets Performance – WHO/PQS/E06/TR07. ISGS-ISO 9001:2008 Certification since May 1999, last audit 5th May 2011*

**Function:** Q-tag® CLm is an irreversible electronic temperature indicator that shows if a product, such as vaccine, has been exposed to temperatures beyond assigned alarm settings described above. It consists of an electronic temperature measuring circuit with associated LCD-display. As long as the temperature is within the allowed range, the OK-sign (✓) is shown on the display. If the indicator is exposed to an out-of-range temperature the ALARM-sign (X) appears on the display.

The Q-tag® CLm device is attached onto a card which provides instructions for senders and receivers. The following languages are available (except Type Prevenar and Rotateq): English (Standard), French, Spanish, Arabic, Russian, Mandarin Chinese

**Use:** This electronic temperature indicator is used to monitor all kind of shipments of vaccines and other perishable goods.

**2012 PRICES (Ex Works)**

**Type 1 and Type 2**

50 to 99 pieces	EURO 13.50 / piece
100 to 999 pieces	EURO 11.00 / piece
1000 to 2500 pieces	EURO 9.50 / piece
Above 2500 pieces	on request

**Type Prevenar and Rotateq**  
on request



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/015</b>
<b>Description:</b>	Electronic freeze indicator Q-Tag Quad
<b>Manufacturer's ref:</b>	Q-Tag Quad
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	Berlinger & Co. AG
<b>Address:</b>	Mitteldorfstrasse 2, CH-9608 Ganterschwil, Switzerland
<b>Telephone:</b>	+41 (71) 982 88 11
<b>Email:</b>	<a href="mailto:info@berlinger.com">info@berlinger.com</a>
<b>Web address:</b>	<a href="http://www.berlinger.com">http://www.berlinger.com</a>

## Specifications

<b>Product type:</b>	Irreversible freeze indicator	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.018 kg
<b>Minimum temperature:</b>	- 30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+ 55°C	<b>Dimensions:</b>	5.3 x 3.9 x 1.1 cm
<b>MECHANICAL AND ELECTRONIC DEVICES ONLY</b>			
<b>Accuracy:</b>	+/- 0.5 °C	<b>Min logging interval:</b>	Preset 1 minute
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	CR Lithium	<b>User interface:</b>	LCD stop/Start button
<b>Battery shelf life:</b>	60 mths (5 years)	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	60 mths (5 years)	<b>IP rating:</b>	IP 67
<b>Memory capacity:</b>	N/A		
<b>Comments:</b>	Function: This irreversible temperature indicator consists of an electronic temperature measuring circuit with associated LCD-display. If the indicator is exposed to temperature below - 0.5°C for more than 60min ±3 min the display will change from the "good" status symbol (✓) into the "alarm" status symbol (x). A small blinking dot in the right hand corner of the LED display indicates that the device is functioning. The Q-Tag® Quad can also be programmed with up to 4 different alarm events for upper and lower temperatures.		
<b>Minimum order:</b>	500	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	100
<b>Price per unit:</b>	9.80 USD per unit for 500 units	<b>Volume per carton:</b>	0.04 m3
	7.20 USD per unit for 1000 units	<b>Weight per carton:</b>	10.8 kg
	above 1000 units on request	<b>Incoterms:</b>	EXW
<b>Verification report:</b>	VA11-02742 A	<b>Verification laboratory:</b>	METAS
<b>Current PQS status:</b>	<i>pre-qualified ; 29 Jun 2012</i>	<b>Valid until:</b>	<i>May, 2018</i>
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			





**CODE E006/016**

**Electronic temperature monitor  
Model Q-tag® CLm doc**

**COMPANY NAME AND ADDRESS**

Berlinger & Co AG  
Mitteldorfstrasse 2  
CH-9608 Ganterschwil  
Switzerland  
Telephone: 41 (71) 982 88 11  
Fax: 41 (71) 982 88 39  
E-mail: [info@berlinger.ch](mailto:info@berlinger.ch)  
Internet: [www.berlinger.com](http://www.berlinger.com)



**SPECIFICATIONS**

**TYPE 2: for vaccines:**  
**OPV, freeze-dried BCG, measles,  
MR, MMR, Hib, yellow fever and,  
Meningitis vaccine**

$\geq +45^{\circ}\text{C}$  1 hour single  
 $\geq +30^{\circ}\text{C}$  10 hours cumulative  
 $\geq +10^{\circ}\text{C}$  20 hours cumulative

**TYPE Rotateq:**  
**Only for Rotateq**

$\geq +27^{\circ}\text{C}$  1 minute single  
 $\geq +17^{\circ}\text{C}$  2 hours cumulative  
 $\leq -25^{\circ}\text{C}$  1 minute single

**TYPE 1: for vaccines:**  
**DTP, DT, TT, Td, Hep B, IPV,  
liquid Hib and combination  
vaccines**

$\geq +45^{\circ}\text{C}$  1 hour single  
 $\geq +30^{\circ}\text{C}$  10 hours cumulative  
 $\leq -0.5^{\circ}\text{C}$  1 hour single

**Type Prevenar:**  
**Only for Prevenar**  
**7-valent conjugated vaccines**

$\geq +40^{\circ}\text{C}$  1 hour single  
 $\geq +30^{\circ}\text{C}$  10 hours cum.  
 $\leq -0.5^{\circ}\text{C}$  1 hour single



OK display



Alarm display



Stopped device  
with USB interface

<b>Initial start delay</b>	1 hour	<b>Material</b>	ABS
<b>Accuracy of temperature threshold</b>	+/- 0.5°C	<b>Weight</b>	40 gr.
<b>External dimensions</b>	55 x 95 x 10 mm (without card)		
<b>Number per package</b>	50		

**COMMENTS**

Test report: Roth & Co., official accredited laboratory from Metas. (Measurement report No VA11-02742 C / 19<sup>th</sup> March 2012)  
Meets Performances – WHO/PQS/E06/TR07.1- SGS-ISO 9001:2008 - prequalification valid until May 2015

Q-tag® CLm doc is an irreversible electronic temperature indicator that shows if a product, such as vaccine, has been exposed to temperatures beyond assigned alarm settings described above. It consists of an electronic temperature measuring circuit with associated LCD-display. As long as the temperature is within the allowed range, the OK-sign (✓) is shown on the display. If the indicator is exposed to an out-of-range temperature the ALARM-sign (X) appears on the display. Further more you have a **USB interface and the device will create a PDF document with all relevant temperature data including temperature graph. No additional software needed. The version Q-tag® CLm VAR of this same device, capable of providing the vaccine arrival form, is under development.**

The Q-tag® CLm doc device is attached onto a card which provides instructions for senders and receivers. The following languages are available (except Type Prevenar and Rotateq): English (Standard), French, Spanish, Arabic, Russian, Mandarin Chinese

**Use:** This electronic temperature indicator is used to monitor all kind of shipments of vaccines and other perishable goods.

**2012 PRICES (Ex Works)**

**Type 1 and Type 2**

100 to 599 pieces EURO 23.60 / piece  
600 to 1199 pieces EURO 20.00 / piece  
Upon 1200 pieces on request

**Type Prevenar and Rotateq**  
on request



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/019</b>
<b>Description:</b>	Remote Temperature Monitoring Device
<b>Manufacturer's ref:</b>	SmartView
<b>Manufactured in:</b>	Netherlands
<b>Company:</b>	Berlinger & Co. AG
<b>Address:</b>	Mitteldorfstrasse 2, CH-9608 Ganterschwil, Switzerland
<b>Telephone:</b>	+41 (71) 982 88 11
<b>Email:</b>	<a href="mailto:info@berlinger.com">info@berlinger.com</a>
<b>Web address:</b>	<a href="http://www.berlinger.com">http://www.berlinger.com</a>

## Specifications

<b>Product type:</b>	Remote Temperature Monitoring System	<b>Display medium:</b>	computer online
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	
<b>Minimum temperature:</b>	-40°C	<b>Main material:</b>	Metals and ABS
<b>Maximum temperature:</b>	+85°C	<b>Dimensions:</b>	

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C	<b>Min logging interval:</b>	2 sec
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium	<b>User interface:</b>	web based system
<b>Battery shelf life:</b>	3 years	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	36 mths	<b>IP rating:</b>	IP 67
<b>Memory capacity:</b>	8192 data points		

**Comments:** Request for a quotation. Delivery lead time: 16 to 20 weeks subjected to changes  
 RF receiver and GPRS internet gateway  
 Use: Real time cold room or facility temperature monitoring  
 Function: Wireless monitoring network: An easy to install wireless network provides the wireless communication for continuous monitoring. This network communicates with battery operated wireless temperature sensors that will be placed in storage facilities. These sensors contain a temperature and/or humidity sensor, but also function as wireless data loggers. The measured data is uploaded to and analyzed by a secured central data base. In case of a temperature excursion or a door left open in your cold room or facility, a flashing light turns on as well as automated e-mail and or SMS alert are going to be send out to user configurable addresses.  
 SmartView web application: A flexible web-based software platform that collects data from various locations into an integrated real-time view. The software platform creates real-time visibility, alerts, history reports, analysis and is accessible via Login and Password through your web browser without installation of any software.  
 Indicative prices include the use of online Smartview software, all hardware and SMS and GPRS data for 3 years, without installation, training and travel expenses nor local maintenance and services.

<b>Minimum order:</b>		<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	
<b>Price per unit:</b>	Small (1 cold room 10m3): 8245.00 USD	<b>Volume per carton:</b>	
	Medium (4 cold rooms 10m3): 12,213.00 USD	<b>Weight per carton:</b>	
	Large (10 cold rooms 10m3): 23,149.00 USD	<b>Incoterms:</b>	EXW

<b>Verification report:</b>		<b>Verification laboratory:</b>	METAS
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<b>Current PQS status:</b>	<i>pre-qualified ; 24 Jan 2013</i>	<b>Valid until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/020

**Description:** 30 day electronic temperature logger

**Manufacturer's ref:** Fridge-tag 2®

**Manufactured in:** Switzerland

**Company:** Berlinger & Co. AG

**Address:** Mitteldorfstrasse 2,  
CH-9608 Ganterschwil,  
Switzerland

**Telephone:** +41 (71) 982 88 11

**Email:** [info@berlinger.com](mailto:info@berlinger.com)

**Web address:** <http://www.berlinger.com>

## Specifications

<b>Product type:</b>	30-day electronic refrigerator temperature logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.096 kg
<b>Minimum temperature:</b>	-20°C	<b>Main material:</b>	Non-corrodible plastic (ABS)
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	12.8 x 7.5 x 1.6 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C	<b>Min logging interval:</b>	1 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium non-replaceable	<b>User interface:</b>	LCD
<b>Battery shelf life:</b>	up to 3 years	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	42	<b>IP rating:</b>	64
<b>Memory capacity:</b>	N/A		

**Comments:**

Function: An irreversible temperature indicator for refrigerators that shows if a product, such as vaccine, has been exposed to temperatures beyond assigned alarm settings described above. As long as the temperature is within the allowed range, the OK sign is shown on the display. If the indicator is exposed to an out-of-range temperature the ALARM sign appears on the display. The device shows the actual temperature in degrees Celsius or Fahrenheit, all alarm violations over the previous 30 days (on a rolling basis), the daily minimum and maximum temperature of the last 30 days, and the time duration of any violation. Useful life is 3 years approx. Furthermore, the Fridge-tag® 2 has a USB interface and can be connected to every PC, Laptop or Mac. Without any installation of software, the Fridge-tag® 2 will generate a PDF document with a 60 days report which includes all relevant information per day such as Min./Max. and average temperatures, time out of range, alarm history etc.

Use: This electronic temperature indicator is used to monitor the correct storage temperature of vaccines and other perishable goods. The fridge-tag 2 can operate with either the built in sensor or with an external sensor with or without a glycol filled bottle

<b>Minimum order:</b>	20	<b>Year base price:</b>	2013
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	32
<b>Price per unit:</b>	20 - 49 units: 44.00USD; 50 - 99 units:38.00USD; 100 - 999 units: 31.00USD; 1000 - 9999 units: 25.50USD; more units: 23.000USD	<b>Volume per carton:</b>	0.009 m3
		<b>Weight per carton:</b>	4.63 kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	VA 13-00120	<b>Verification laboratory:</b>	METAS
<b>Current PQS status:</b>	<i>pre-qualified ; 31 Jan 2013</i>		<b>Valid until:</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/021</b>
<b>Description:</b>	20 day electronic shipping indicator
<b>Manufacturer's ref:</b>	TIC20
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	LogTag Recorders Limited
<b>Address:</b>	PO Box 362-95, Northcote, Auckland, New Zealand
<b>Telephone:</b>	+64 9 444 5881
<b>Email:</b>	<a href="mailto:sales@logtagrecorders.com">sales@logtagrecorders.com</a>
<b>Web address:</b>	<a href="http://www.logtagrecorders.com">www.logtagrecorders.com</a>

## Specifications

<b>Product type:</b>	20-day electronic shipping indicator	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight:</b>	0.0293 kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	Polycarbonate
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	7.33 x 5.45 x 0.83 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C ((-5 to 25°C)	<b>Min logging interval:</b>	6 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	LiMg non replaceable	<b>User interface:</b>	LCD
<b>Battery shelf life:</b>	1 1/2 year	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	stops after 20 days	<b>IP rating:</b>	65
<b>Memory capacity:</b>	N/A		

### Comments:

The LogTag TIC20 is a irreversible electronic temperature indicator for use in monitoring temperature & time statistics in pharmaceutical transport applications of up to 20 days duration and is factory pre-configured to monitor a range of standard vaccines. Provides clear indication of temperature history/alarm status at all times. Push button Start and Stop. Push Review button to display daily statistics in sequence. Data can be downloaded via an interface cradle (docking station not included in price) to LogTag Analyzer software if required.

Order codes :

TIC20-W1 : WHO Type 1 alarm configuration for freeze sensitive vaccines (DTP, DT, TT, Td, HepB, IPV, liquid Hib and combination vaccines, MenAfriVac, HPV, Pneumo (other than Prevenar)).

TIC20-W2 : WHO Type 2 alarm configuration suitable for the international shipment of BCG, lyophilized Hib, measles, MR, MMR, meningitis (polysaccharide), OPV, rabies, rotavirus (other than rotateq) and yellow fever vaccines shipped with frozen icepacks.

TIC20-WR : WHO type Rotateq only

TIC20-WP : WHO type Prevenar only for Prevenar 7-valent conjugated vaccine (4 packs = 200 units, 0.031m3, 8.5kg)

<b>Minimum order:</b>	20	<b>Year base price:</b>	2013
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	50
<b>Price per unit:</b>	20-49 units: 24.00 USD 50+units: on request	<b>Volume per carton:</b>	0.006m3
		<b>Weight per carton:</b>	2kg
		<b>Incoterms:</b>	FOB
<b>Verification report:</b>	7191045935-EEC12/02	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Current PQS status:</b>	pre-qualified ; 06 Mar 2013	<b>Valid until:</b>	May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/022</b>
<b>Description:</b>	User programmable temperature data logger CB
<b>Manufacturer's ref:</b>	LIBERO CB
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	ELPRO-BUCHS AG
<b>Address:</b>	Langaulistrasse 62 9470 Buchs Suisse
<b>Telephone:</b>	+41 81 750 03 11
<b>Email:</b>	<a href="mailto:swiss@elpro.com">swiss@elpro.com</a>
<b>Web address:</b>	<a href="http://www.elpro.com/">http://www.elpro.com/</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.038 kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+80°C	<b>Dimensions:</b>	9.6 x 3.7 x 1.1 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.3°C	<b>Min logging interval:</b>	1 min, user programmable
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	CR Lithium	<b>User interface:</b>	USB for computer
<b>Battery shelf life:</b>	min 1 year (no activation)	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	12 months	<b>IP rating:</b>	65
<b>Memory capacity:</b>	8800 data points		

Accessories:  
 \* freeware  
 - liberoCONFIG - Configuration Software\*  
 - LIBERO SmartStart - Quick Configuration Tool\*  
 - liberoMANAGER - Online Cold Chain Database  
 - elproVIEWER - Analysis Software\*  
 - elproASSISTANT - Task Manager

**Comments:** The LIBERO CB PDF Logger is a single use data logger that automatically generates an evaluation report in PDF format upon connection to a USB port. No equipment and no software required to read out logger. Release products based on the OK or ALARM status on the display, retrieve the PDF report and forward it to the sender for further analysis or archive it locally. Key features: - 2 temperature thresholds with alarm delay; - Alarm on Mean Kinetic Temperature (MKT)  
 - Alarm on duration / logging time; - Customizable text area for additional information (e.g. shipment information, instructions for recipient, etc.); - Chart visualizing the temperature curve and alarm limits

<b>Minimum order:</b>	40	<b>Year base price:</b>	2013
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 17025 -	<b>Pieces per carton:</b>	40
<b>Price per unit:</b>	40+ = 30.00USD; 120+ = 28.50USD 600+ = 27.00USD; 1000+ = on request	<b>Volume per carton:</b>	0.003m3
		<b>Weight per carton:</b>	1.67kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	SAS SCS 25 March 2010	<b>Verification laboratory:</b>	METAS
<b>Current PQS status:</b>	<i>pre-qualified ; 10 Jul 2013</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/023</b>
<b>Description:</b>	User programmable temperature data logger CS
<b>Manufacturer's ref:</b>	LIBERO CS
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	ELPRO-BUCHS AG
<b>Address:</b>	Langaulistrasse 62 9470 Buchs Suisse
<b>Telephone:</b>	+41 81 750 03 11
<b>Email:</b>	<a href="mailto:swiss@elpro.com">swiss@elpro.com</a>
<b>Web address:</b>	<a href="http://www.elpro.com/">http://www.elpro.com/</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.038kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+80°C	<b>Dimensions:</b>	9.6 x 3.7 x 1.1 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.3°C	<b>Min logging interval:</b>	1 min, user programmable
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	CR Lithium	<b>User interface:</b>	USB for computer
<b>Battery shelf life:</b>	min 1 year (no activation)	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	1 year	<b>IP rating:</b>	IP 65
<b>Memory capacity:</b>	8800 data		

Accessories:  
 \* freeware  
 - liberoCONFIG - Configuration Software\*  
 - LIBERO SmartStart - Quick Configuration Tool\*  
 - liberoMANAGER - Online Cold Chain Database  
 - elproVIEWER - Analysis Software\*  
 - elproASSISTANT - Task Manager

**Comments:** The LIBERO CS PDF Logger is a single use data logger with multiple alarm levels that automatically generates an evaluation report in PDF format upon connection to a USB port. No equipment and no software required to read out logger. Release products based on the OK or ALARM status on the display, retrieve the PDF report and forward it to the sender for further analysis or archive it locally.  
 Key features: - up to 8 temperature alarm levels with single or cumulative delays; Alarm on Mean Kinetic Temperature (MKT); Alarm on duration / logging time; Customizable text area for additional information (e.g. shipment information, instructions for recipient, etc.); Chart visualizing the temperature curve and alarm limits

<b>Minimum order:</b>	40	<b>Year base price:</b>	2013
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 17025 -	<b>Pieces per carton:</b>	40
<b>Price per unit:</b>	40+ = 40.00USD; 120+ = 38.00USD	<b>Volume per carton:</b>	0.003m3
	600+ = 36.00USD	<b>Weight per carton:</b>	1.67 kg
	1000+ = on request to manufacturer	<b>Incoterms:</b>	EXW

<b>Verification report:</b>	SAS SCS 122	<b>Verification laboratory:</b>	METAS
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<b>Current PQS status:</b>	<i>pre-qualified ; 11 Jul 2013</i>	<b>Valid until:</b>	<i>May, 2018</i>
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Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/024</b>
<b>Description:</b>	User programmable temperature data logger Ti1
<b>Manufacturer's ref:</b>	LIBERO Ti1
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	ELPRO-BUCHS AG
<b>Address:</b>	Langaulistrasse 62 9470 Buchs Suisse
<b>Telephone:</b>	+41 81 750 03 11
<b>Email:</b>	<a href="mailto:swiss@elpro.com">swiss@elpro.com</a>
<b>Web address:</b>	<a href="http://www.elpro.com/">http://www.elpro.com/</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.038kg
<b>Minimum temperature:</b>	-35°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+70°C	<b>Dimensions:</b>	9.5 x 4.0 x 1.2 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.2°C core range	<b>Min logging interval:</b>	1 min, user programmable
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Li-Mn	<b>User interface:</b>	USB for computer
<b>Battery shelf life:</b>	14 months (no activation)	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	400 days	<b>IP rating:</b>	65
<b>Memory capacity:</b>	16,000 data points		

Accessories:  
 \* freeware  
 - liberoCONFIG - Configuration Software\*  
 - LIBERO SmartStart - Quick Configuration Tool\*  
 - liberoMANAGER - Online Cold Chain Database  
 - elproVIEWER - Analysis Software\*  
 - elproASSISTANT - Task Manager

**Comments:** The LIBERO Ti1 PDF Logger is a multi use data logger with multiple alarm levels that automatically generates a report in PDF format upon connection to a USB port. No equipment and no software is required to read out logger. Release products based on the OK or ALARM status on the display, retrieve the PDF report and forward it to the sender for further analysis or archive it locally.  
 Key features:  
 - up to 6 temperature alarm levels with single or cumulative delays  
 - Customizable text area for additional information (e.g. shipment information, instructions, etc.)  
 - Chart visualizing the temperature curve and alarm limits

<b>Minimum order:</b>	10	<b>Year base price:</b>	2013
<b>Quality standard:</b>	- ISO 9001:2008 - ISO 17025 -	<b>Pieces per carton:</b>	10
<b>Price per unit:</b>	10+ = 150USD; 50+ = 142.50USD; 100+ = 138.00USD	<b>Volume per carton:</b>	0.002m3
	250+ = 132.00USD; 500+ = 127.50USD; 1000+ on request	<b>Weight per carton:</b>	0.5kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	SAS 122	<b>Verification laboratory:</b>	METAS
<b>Current PQS status:</b>	<i>pre-qualified ; 11 Jul 2013</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/027</b>
<b>Description:</b>	User Programmable Data Logger
<b>Manufacturer's ref:</b>	LIBERO CI
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	ELPRO-BUCHS AG
<b>Address:</b>	Langaulistrasse 62 9470 Buchs Suisse
<b>Telephone:</b>	+41 81 750 03 11
<b>Email:</b>	<a href="mailto:swiss@elpro.com">swiss@elpro.com</a>
<b>Web address:</b>	<a href="http://www.elpro.com/">http://www.elpro.com/</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.038 kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+80°C	<b>Dimensions:</b>	9.60 x 3.70 x 1.10 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±3°C in core range	<b>Min logging interval:</b>	1min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Li-Mn	<b>User interface:</b>	LCD screen and USB
<b>Battery shelf life:</b>	At least one year no activation	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	12 mths (single-use device)	<b>IP rating:</b>	65
<b>Memory capacity:</b>	8800 data points		

**Comments:** This single-use logger can be used for in-country shipment of vaccines or route validation. It has a built-in PDF file generator. It automatically establishes an evaluation report (No graph nor raw data) on alarms upon connection to a USB port. Complies with the ISO standard 19'005-1 Document Management for the long-term preservation of electronic documents (PDF/A) and 21 CFR Part 11.

It allows:

- Customizable report title and filename
- Text area for additional information (e.g. shipment, instructions for recipient, etc.)
- Immediate release or quarantine based on alarm status
- Statistics (min / max, average, alarm)
- Detailed indicator information (ID, configuration etc.)

This single-use device is to be used in the 12 months after manufacturing.

<b>Minimum order:</b>	40	<b>Year base price:</b>	2014
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	40
<b>Price per unit:</b>	40-119 units: 20.00USD 120-599 units: 19.00USD 600-999 units: 18.00USD; 1000+ units on request	<b>Volume per carton:</b>	0.003m3
		<b>Weight per carton:</b>	1.67kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	SAS SCS 13 July 2013	<b>Verification laboratory:</b>	METAS
<b>Current PQS status:</b>	<i>pre-qualified ; 29 Jan 2014</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/028</b>
<b>Description:</b>	User programmable temperature data logger
<b>Manufacturer's ref:</b>	TT4 USB Multi-Alarm Monitor
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Sensitech Inc.
<b>Address:</b>	A Business Unit of Carrier Corporation, Suite 258X, 800 Cummings Center. Beverly, MA 01915 United States
<b>Telephone:</b>	+1 978 - 927- 7033
<b>Email:</b>	<a href="http://www.sensitech.com/contactus">http://www.sensitech.com/contactus</a>
<b>Web address:</b>	<a href="http://www.sensitech.com">http://www.sensitech.com</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	71 grams
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+70°C	<b>Dimensions:</b>	10.0cm L x 5.5cm W x 2.1cm H

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C(-20°C to 45°C); ±1.0°C(-30°C to -20°C); option ±0.2°C at 0°C	<b>Min logging interval:</b>	10 seconds
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	3.6 V lithium battery	<b>User interface:</b>	LCD + PC interfaceUSB 2.0
<b>Battery shelf life:</b>	1 year	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	12 months	<b>IP rating:</b>	IP67
<b>Memory capacity:</b>	16000 data points		

**Comments:** TT4 USB Multi-Alarm monitor (single use) offers a highly flexible alarm design that provides users the ability to program up to six (6) independent time-and-temperature alarm thresholds that can be any combination of four (4) different alarm types: 1). Single temperature limit (high or low) 2). Single Temperature Range Alarm consisting of a lower and upper temperature limit 3). Dual Temperature Range Alarm that links two temperature ranges to the same time threshold and 4). Time only Alarm. Included in the downloaded time-and-temperature data is the NIST traceable Certificate of Validation.

<b>Minimum order:</b>	20	<b>Year base price:</b>	2014
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	20
<b>Price per unit:</b>	20-100 units: 37.50 USD; 101-500 units: 35.50 USD	<b>Volume per carton:</b>	0.0044 m3
	501-1000 units: 35.25 USD	<b>Weight per carton:</b>	1.4 kg
	>1000 units: on request	<b>Incoterms:</b>	EXW

**Verification report:** PO:37450; JN: T-49508-11 **Verification laboratory:** Tektronix Service Solutions

**Current PQS status:** *pre-qualified ; 04 Jul 2014* **Valid until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/029</b>
<b>Description:</b>	20 day electronic shipping indicator
<b>Manufacturer's ref:</b>	VaxAlert™ USB
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Sensitech Inc.
<b>Address:</b>	A Business Unit of Carrier Corporation, Suite 258X, 800 Cummings Center. Beverly, MA 01915 United States
<b>Telephone:</b>	+1 978 - 927- 7033
<b>Email:</b>	<a href="http://www.sensitech.com/contactus">http://www.sensitech.com/contactus</a>
<b>Web address:</b>	<a href="http://www.sensitech.com">http://www.sensitech.com</a>

## Specifications

<b>Product type:</b>	20-day electronic shipping indicator	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	70.9g
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	10.1 x 5.6 x 1.96

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C between -5°C and +25°C	<b>Min logging interval:</b>	pre-set 2 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	3.6V Lithium	<b>User interface:</b>	LCD and PC downloadable
<b>Battery shelf life:</b>	24 mths	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	12 mths	<b>IP rating:</b>	64
<b>Memory capacity:</b>	16 000 data points		

**Comments:** Sensitech Inc.'s most advanced electronic temperature shipping indicator integrates multi-alarm cold chain monitoring with detailed time-temperature alarm excursion history information. This advanced indicator enables logistics staff, receivers and quality assurance personnel to determine if and when cold chain breaks occur in the supply chain. The user-friendly liquid crystal display (LCD) combines complete alarm status information with an alarm time-stamp record and the maximum or minimum temperature.

The indicators are factory configured with WHO established alarm profiles in support of UNICEF vaccine procurement and transport requirements. These cost-effective, single-use indicators monitor up to three time-temperature alarms, which can be tailored to specific cold chain transport monitoring requirements beyond WHO/UNICEF vaccine shipments. Its main features are: Automatic generation of Adobe® PDF cold chain data report; Integrated USB connector; Two types of alarms: (1) Single event alarms are triggered if temperature exceeds threshold for a contiguous time period, (2) Cumulative time event alarms are triggered if temperature exceeds threshold for a total sum of time. User-friendly three button interface and intuitive display enables immediate accept/reject decision making and detailed excursion history information. Alarm "time stamp" records elapsed time at point of alarm events, allowing supply chain partners to analyze variability and institute corrective actions.

<b>Minimum order:</b>	20	<b>Year base price:</b>	2014
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	20
<b>Price per unit:</b>	19.00€ per unit	<b>Volume per carton:</b>	
		<b>Weight per carton:</b>	1.04
		<b>Incoterms:</b>	EXW

<b>Verification report:</b>	ACS-E14535	<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	pre-qualified ; 18 Dec 2014	<b>Valid until:</b>	May, 2018

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/030

**Description:** Electronic Shipping Indicator

**Manufacturer's ref:** Q-Tag® CLm doc L

**Manufactured in:** Switzerland

**Company:** Berlinger & Co. AG

**Address:** Mitteldorfstrasse 2,  
CH-9608 Ganterschwil,  
Switzerland

**Telephone:** +41 (71) 982 88 11

**Email:** [info@berlinger.com](mailto:info@berlinger.com)

**Web address:** <http://www.berlinger.com>

## Specifications

<b>Product type:</b>	20-day electronic shipping indicator	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.04
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+60°C	<b>Dimensions:</b>	9.3 x 5.4 x 1.2

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C	<b>Min logging interval:</b>	1 min to 1 hour
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	CR Lithium	<b>User interface:</b>	LCD + PC downloadable
<b>Battery shelf life:</b>	3.5 years	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	2.5 year if activated after 1 year	<b>IP rating:</b>	IP65
<b>Memory capacity:</b>	38000		

**Comments:** The Q-tag @CLm doc L is an irreversible electronic temperature monitoring device for international shipments of vaccines. It shows if a vaccine has been exposed to temperatures beyond assigned alarms settings. This information can be retrieved on the visible LCD screen or in the generated PDF report. It also has a USB interface and the device will create a pdf document with all relevant temperature data including a temperature graph. The frequency of data points recorded is one minute and the memory has a capacity of 38000. No additional software is required. (For more information see in the pdf downloadable catalogue).

<b>Minimum order:</b>	100	<b>Year base price:</b>	2015
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	42
<b>Price per unit:</b>	18.50 € per unit	<b>Volume per carton:</b>	
		<b>Weight per carton:</b>	1.7kg
		<b>Incoterms:</b>	EXW

<b>Verification report:</b>	VA15-0238-10 by Roth & Co AG	<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 17 Apr 2015</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/031</b>
<b>Description:</b>	User Programmable Temperature Logger (single use)
<b>Manufacturer's ref:</b>	Q-Tag® CLm doc Logger
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	Berlinger & Co. AG
<b>Address:</b>	Mitteldorfstrasse 2, CH-9608 Ganterschwil, Switzerland
<b>Telephone:</b>	+41 (71) 982 88 11
<b>Email:</b>	<a href="mailto:info@berlinger.com">info@berlinger.com</a>
<b>Web address:</b>	<a href="http://www.berlinger.com">http://www.berlinger.com</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.040
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+60°C	<b>Dimensions:</b>	9.3 x 5.4 x 1.2

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.5°C	<b>Min logging interval:</b>	1min to 1 hour
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	CR Lithium	<b>User interface:</b>	LCD downloadable to PC via USB port
<b>Battery shelf life:</b>	2 years	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	1 year	<b>IP rating:</b>	IP 65
<b>Memory capacity:</b>	38000		

### Comments:

The Q-tag® CLm doc Logger (Single use) is a multi-alarm temperature data logger. It can be set totally individually according to customer specifications either pre- or self- configured. Temperature and time alarm conditions can be defined as cumulative or single event. Due to its easy handling the status of the device is immediately readable. This information can be retrieved on the visible LCD screen or in the generated pdf report. It also has a USB interface and the device will create a pdf document with all relevant temperature data results including a temperature graph. The frequency data points recorded can be defined from 1 to 60 minutes and the memory has the capacity of 38000 data points; with a recording time of 15 min, the device can record continuously over 1 year. No additional software is required. For more information see in the pdf downloadable catalogue.  
 All devices are delivered with a NIST/ILAC traceable certificate.

<b>Minimum order:</b>	50	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	50
<b>Price per unit:</b>	50 - 100 units: 37.3 USD 101 - 500 units: 32.40 USD 501 - 1000 units: 27.50 USD	<b>Volume per carton:</b>	
		<b>Weight per carton:</b>	2.1kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	VA15-0238-10	<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 20 Apr 2015</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/032</b>
<b>Description:</b>	User Programmable Temperature Logger (multi-use)
<b>Manufacturer's ref:</b>	Q-Tag® CLm doc LR
<b>Manufactured in:</b>	Switzerland
<b>Company:</b>	Berlinger & Co. AG
<b>Address:</b>	Mitteldorfstrasse 2, CH-9608 Ganterschwil, Switzerland
<b>Telephone:</b>	+41 (71) 982 88 11
<b>Email:</b>	<a href="mailto:info@berlinger.com">info@berlinger.com</a>
<b>Web address:</b>	<a href="http://www.berlinger.com">http://www.berlinger.com</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.040
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+60°C	<b>Dimensions:</b>	9.3 x 5.4 x 1.2

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.5°C	<b>Min logging interval:</b>	1 minute to 1 hour
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	CR Lithium	<b>User interface:</b>	LCD downloadable to PC via USB port
<b>Battery shelf life:</b>	3.5 years	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	2.5 years if activated after 1 year	<b>IP rating:</b>	IP 65
<b>Memory capacity:</b>	38000		

### Comments:

The Q-tag® CLm doc Logger R (Multi use) is a multi-alarm temperature data logger. It can be set totally individually according to customer specifications either pre- or self- configured. Temperature and time alarm conditions can be defined as cumulative or single event. Due to its easy handling the status of the device is immediately readable. This information can be retrieved on the visible LCD screen or in the generated pdf report. It also has a USB interface and the device will create a pdf document with all relevant temperature data results including a temperature graph. The frequency data points recorded can be defined from 1 to 60 minutes and the memory has the capacity of 38000 data points; with a recording time of 15 min, the device can record continuously over 1 year. No additional software is required. For more information see in the pdf downloadable catalogue.  
 All devices are delivered with a NIST/ILAC traceable certificate.

<b>Minimum order:</b>	42	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	42
<b>Price per unit:</b>	50 - 100 units: 75.45 USD 101 - 500 units: 69.20 USD 501 - 1000 units: 60.80 USD	<b>Volume per carton:</b>	
		<b>Weight per carton:</b>	2.1kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	VA-15-0238-10	<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 20 Apr 2015</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/033</b>
<b>Description:</b>	Local Temperature Monitoring System
<b>Manufacturer's ref:</b>	MULTILOG2 TM Temperature Data Logger
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Remonsys Ltd
<b>Address:</b>	The Stables, Church Hanborough Witney Oxon OX29 8AB United Kingdom
<b>Telephone:</b>	+44 (0) 1993 886996
<b>Email:</b>	<a href="mailto:info@remonsys.com">info@remonsys.com</a>
<b>Web address:</b>	<a href="http://www.remonsys.com/">http://www.remonsys.com/</a>

## Specifications

<b>Product type:</b>	Local Temperature Monitoring System	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	1
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+60°C	<b>Dimensions:</b>	20.0 x 11.0 x 6.0

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.2°C 0 to 10°C	<b>Min logging interval:</b>	1 min
<b>Power source:</b>	Rechargeable batteries	<b>Alarm type:</b>	Acoustic
<b>Battery type:</b>	NiMH battery packs	<b>User interface:</b>	Visual current T° on LCD + visual on computer
<b>Battery shelf life:</b>	3 years	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	72 hours without charge	<b>IP rating:</b>	IP54
<b>Memory capacity:</b>	1000 recording per sensor		

**Comments:** The MULTiLOG2 is a battery operated data logger that records data from up to 24 sensors that can be configured as analogue or digital sensors. It acts as a base station and data is transmits by wire to an always-on PC to which it is connected via USB and allows inspection of the data via Instant Monitor visual warning of alarms and by SMS messaging, automatic downloading of data to the PC as well as recharging the batteries to ensure recording continues in the event of a power outage. Options: Sensors – analogue; Sensors - digital door switch; Integrated GSM/GPRS Modem; Temperature sensors on 20m leads but option to extend to 200m without loss of precision

<b>Minimum order:</b>	1	<b>Year base price:</b>	2015
<b>Quality standard:</b>	- ISO 9001:2008 - Other -	<b>Pieces per carton:</b>	1
<b>Price per unit:</b>	1830€ Multilog2 control box (see price components)	<b>Volume per carton:</b>	0.012m3
		<b>Weight per carton:</b>	3kg
		<b>Incoterms:</b>	EXW

<b>Verification report:</b>	PARC-5095	<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 07 May 2015</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/034</b>
<b>Description:</b>	Dial Thermometer
<b>Manufacturer's ref:</b>	Budenberg 96FG
<b>Manufactured in:</b>	United Kingdom
<b>Company:</b>	Budenberg Gauge Company Ltd
<b>Address:</b>	4 Gilchrist Road, Northbank Ind Park Irlam, Manchester M44 5 AY United Kingdom
<b>Telephone:</b>	+44 1617777300
<b>Email:</b>	<a href="mailto:John.White@budenberg.co.uk">John.White@budenberg.co.uk</a>
<b>Web address:</b>	<a href="http://www.budenberg.co.uk">www.budenberg.co.uk</a>

## Specifications

<b>Product type:</b>	Fixed gas or vapor pressure thermometer	<b>Display medium:</b>	Dial
<b>Mode of operation:</b>	Physical	<b>Weight</b>	0.6kg
<b>Minimum temperature:</b>	-40°C	<b>Main material:</b>	Stainless steel
<b>Maximum temperature:</b>	+40°C	<b>Dimensions:</b>	0.68 x 1.10
<b>MECHANICAL AND ELECTRONIC DEVICES ONLY</b>			
<b>Accuracy:</b>	± 1% scale	<b>Min logging interval:</b>	N/A
<b>Power source:</b>	Passive device	<b>Alarm type:</b>	Not applicable
<b>Battery type:</b>	N/A	<b>User interface:</b>	Direct reading
<b>Battery shelf life:</b>	N/A	<b>Programmability:</b>	Not applicable
<b>Activated life:</b>	N/A	<b>IP rating:</b>	IP54
<b>Memory capacity:</b>	N/A		
<b>Comments:</b>	This device is a gas filled thermometer with capillary tube for wall mounting with rear fixing lugs. It has a waterproof bezel ring with bayonet lock. Head and bezel : AISI 316 Capillary length : 1.5 meters; capillary materials : AISI 316 with PVC covering. Bulb : Ø 8mm. AISI 316, length 100mm Red lazy pointer for maximum indication, optional blue lazy pointer for minimum indication		
<b>Minimum order:</b>	10	<b>Year base price:</b>	2015
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	1
<b>Price per unit:</b>	725USD per unit	<b>Volume per carton:</b>	0.0072m3
		<b>Weight per carton:</b>	1.5kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	WHO 15-032: FG 96 BUDENBERG	<b>Verification laboratory:</b>	CEMAFROID SAS
<b>Current PQS status:</b>	<i>pre-qualified ; 30 Jun 2015</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/035</b>
<b>Description:</b>	Remote Temperature Monitoring System
<b>Manufacturer's ref:</b>	Temperature@lert
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Schechter Tech LLC DBA Temperature@lert
<b>Address:</b>	108 Lincoln St., BA Boston, MA 02111 USA
<b>Telephone:</b>	+1--617--326--7300
<b>Email:</b>	<a href="mailto:sales@tempalert.com">sales@tempalert.com</a>
<b>Web address:</b>	<a href="http://www.temperaturealert.com">http://www.temperaturealert.com</a>

## Specifications

<b>Product type:</b>	Remote Temperature Monitoring System	<b>Display medium:</b>	LCD, computer, phone, tablet
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.5kg
<b>Minimum temperature:</b>	-55°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	21.6 x 6.35 x 12.7

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C	<b>Min logging interval:</b>	5 min
<b>Power source:</b>	replaceable batteries	<b>Alarm type:</b>	Acoustic
<b>Battery type:</b>	Li Ion	<b>User interface:</b>	Web based or mobile phone
<b>Battery shelf life:</b>	3 to 5 years	<b>Programmability:</b>	Remotely programmable
<b>Activated life:</b>	60 mths	<b>IP rating:</b>	IP54
<b>Memory capacity:</b>	4000		

**Comments:** Temperature@lert's Remote Temperature Monitoring System (RTMS) provides an easily to deploy solution to remotely and reliably monitor the storage of vaccines and other temperature sensitive products. The system is configurable to your specific needs. The system uses the local mobile phone network to document temperature readings and generate alerts if temperature exceeds your defined thresholds. Actionable alerts include local audible and visual alerts on wireless sensors as well as remote alerts sent by email, SMS, and phone calls. The system is remotely accessible and configurable from any internet connected mobile device or computer. A powerful compliance and reporting tool enables the tracking of incidents and corrective actions, as well as automated reports for compliance and quality control. Our patented product temperature simulator enables you to track actual product temperature in addition to ambient temperature. Each System Includes: 1 wired sensor alerts by email and text/SMS message, full use of our Sensor Cloud dashboard for remote monitoring, store level reporting and corrective action logging, back up battery, LCD display, audible alerts, power cable, and 24-hour technical support. Up to 4 wired sensors and 25 wireless sensors may be added for an extra fee. NIST/ISO calibrated sensors are available for an extra fee. Customer supplies local SIM cards.

<b>Minimum order:</b>	1	<b>Year base price:</b>	2015
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	1
<b>Price per unit:</b>	187USD per year on a 3 year agreement basis	<b>Volume per carton:</b>	0.003m3
		<b>Weight per carton:</b>	1.6kg
		<b>Incoterms:</b>	EXW

**Verification report:** **Verification laboratory:**

**Current PQS status:** *pre-qualified ; 03 Jul 2015* **Valid until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/036

**Description:** Remote Temperature Monitoring Device

**Manufacturer's ref:** ICE3 - Model BC141

**Manufactured in:** South Africa

**Company:** Beyond Wireless Technology (Pty) Ltd

**Address:** 21 Cradock avenue  
 Rosebank  
 Johannesburg  
 South Africa

**Telephone:** +27 (0)112432960/1

**Email:** [info@beyondwireless.co.za](mailto:info@beyondwireless.co.za)

**Web address:** <http://beyondwireless.co.za/how-it-works/>

## Specifications

<b>Product type:</b>	Remote Temperature Monitoring System	<b>Display medium:</b>	Onboard LCD and Online (via internet browser)
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.3 kg
<b>Minimum temperature:</b>	-50°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	150°C	<b>Dimensions:</b>	17.5 cm x 4.0 cm x 7.5 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	0.2°C	<b>Min logging interval:</b>	60 seconds
<b>Power source:</b>	Battery only	<b>Alarm type:</b>	Acoustic
<b>Battery type:</b>	1+ replaceable Li-SOCl <sub>2</sub>	<b>User interface:</b>	Membrane keypad, App, Internet browser
<b>Battery shelf life:</b>	10 years	<b>Programmability:</b>	Remotely programmable
<b>Activated life:</b>	Minimum 7 years	<b>IP rating:</b>	IP54
<b>Memory capacity:</b>	130 days on board		

### Comments:

- Inputs: 4 x temperature, 1 x ambient temperature, 1 x ambient humidity, 1 x Door, 1 x Power.
  - Magnetically mounted, DIY tool-free installation in under 5 minutes.
  - 100% IMMUNE TO DAMAGE FROM POWER SURGE (OFF THE GRID)!!!
  - Global SIM with multi-network roaming included \*
  - SMS Gateway and SMS notifications included \*
  - Portal access included \*
  - Smartphone App (Android and iOS) included \*
  - Multilayer, remotely configurable alarm parameters.
  - Real-time SMS, email, smartphone app, and online alarming with multi-recipient escalation.
  - Real-time GIS dashboard.
  - Historic online cold chain reporting & performance analysis.
  - Detailed root-cause and corrective action analytics by region, site, asset, make and model
- WATCH THE VIDEO HERE ->> <http://beyondwireless.co.za/how-it-works/>

<b>Minimum order:</b>	1	<b>Year base price:</b>	2015
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	1
<b>Price per unit:</b>	\$300 once-off and \$360 per year	<b>Volume per carton:</b>	0.0015
		<b>Weight per carton:</b>	0.350 kg
		<b>Incoterms:</b>	FCA
<b>Verification report:</b>	<b>Verification laboratory:</b>		
<b>Current PQS status:</b>	<i>pre-qualified ; 11 Nov 2015</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/037</b>
<b>Description:</b>	Remote Temperature Monitoring Device
<b>Manufacturer's ref:</b>	Ice3-Extra-BC440
<b>Manufactured in:</b>	South Africa
<b>Company:</b>	Beyond Wireless Technology (Pty) Ltd
<b>Address:</b>	21 Cradock avenue Rosebank Johannesburg South Africa
<b>Telephone:</b>	+27 (0)112432960/1
<b>Email:</b>	<a href="mailto:info@beyondwireless.co.za">info@beyondwireless.co.za</a>
<b>Web address:</b>	<a href="http://beyondwireless.co.za/how-it-works/">http://beyondwireless.co.za/how-it-works/</a>

## Specifications

<b>Product type:</b>	Remote Temperature Monitoring System	<b>Display medium:</b>	Onbaord LCD and online
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	1.5
<b>Minimum temperature:</b>	-10	<b>Main material:</b>	PS
<b>Maximum temperature:</b>	55	<b>Dimensions:</b>	23.0 x 8.0 x 26.0 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	0.5°C	<b>Min logging interval:</b>	60 seconds
<b>Power source:</b>	Mains + backup battery	<b>Alarm type:</b>	Acoustic
<b>Battery type:</b>	Panasonic 18650B	<b>User interface:</b>	Internet browser
<b>Battery shelf life:</b>		<b>Programmability:</b>	User programmed
<b>Activated life:</b>	72 hrs autonomy or 1000 cycles	<b>IP rating:</b>	IP54
<b>Memory capacity:</b>	50,000		

**Comments:** The Ice3 Remote temperature Monitoring Device (RTMD) is used to provide automatic remote logging, real-time monitoring and alarming for cold chain storage facilities and assets such as warehouses, fridges, freezers, walk-in cold rooms and vehicles. The device is capable of monitoring up-to 5 Temperature inputs and relative humidity. The device can also be configured to monitor mains power and/or door position. It Automatically logs temperature data which is then wirelessly transmitted via the local cellular network to the ColdCloud portal where the user is able to view and download historic and real-time cold chain data via a secure username and password protected website from any internet enabled device. Alarms thresholds and alarm recipients are configured remotely via the ColdCloud portal and in the event of a temperature excursion being detected, the system can automatically send the alarm to multiple recipients via both SMS and Email.

<b>Minimum order:</b>	1	<b>Year base price:</b>	2015
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	1
<b>Price per unit:</b>	\$580	<b>Volume per carton:</b>	0.011
	NTC tempeprature probes \$39	<b>Weight per carton:</b>	1.5
	Annual fee \$480 per year	<b>Incoterms:</b>	FCA

<b>Verification report:</b>		<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 11 Nov 2015</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/038</b>
<b>Description:</b>	Irreversible freeze indicator
<b>Manufacturer's ref:</b>	TICT-iS0°Tag
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	LogTag Recorders Limited
<b>Address:</b>	PO Box 362-95, Northcote, Auckland, New Zealand
<b>Telephone:</b>	+64 9 444 5881
<b>Email:</b>	<a href="mailto:sales@logtagrecorders.com">sales@logtagrecorders.com</a>
<b>Web address:</b>	<a href="http://www.logtagrecorders.com">www.logtagrecorders.com</a>

## Specifications

<b>Product type:</b>	Irreversible freeze indicator	<b>Display medium:</b>	Custom LCD display
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.019Kg
<b>Minimum temperature:</b>	-25°C	<b>Main material:</b>	Polycarbonate
<b>Maximum temperature:</b>	+60°C	<b>Dimensions:</b>	7.15 x 3.3 x 0.86 cm
<b>MECHANICAL AND ELECTRONIC DEVICES ONLY</b>			
<b>Accuracy:</b>	+/- 0.5°C	<b>Min logging interval:</b>	5 mins
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	3V Lithium Li-Mg coin cell	<b>User interface:</b>	LCD screen
<b>Battery shelf life:</b>	3 years	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	3 years	<b>IP rating:</b>	64
<b>Memory capacity:</b>	1096 MIN/MAX events, 540 real time measurements		
<b>Comments:</b>	<p>The LogTag® TICT iS0°Tag® is a single-use, electronic freeze indicator for monitoring temperature as well as recording statistics during the transportation and storage of chilled products, such as vaccines, food or specialty chemical products, designed to meet WHO PQS performance specification E06/IN03.1 for irreversible freeze indicators.</p> <p>The product is made from durable polycarbonate plastic and features an LCD display and a START/MARK button.</p> <p>The LogTag TICT iS0°Tag® can monitor and record statistics against a -0.5°C temperature limit for up to 3 years, showing OK if environmental conditions remain at or above this limit. If, however, temperatures go below -0.5°C for more than 60 minutes continuously, the LCD shows a REJECT symbol, indicating the goods require further checking. The indicator stops and cannot be reset, once an alarm has been generated.</p>		
<b>Minimum order:</b>	50	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	200
<b>Price per unit:</b>	50-999 units: 6.5 \$US more than 1000 units: POA	<b>Volume per carton:</b>	0.017 m3
		<b>Weight per carton:</b>	4.5kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>	7191129301-EEC16/NCH	<b>Verification laboratory:</b>	TUV SUD PSB Pte Ltd
<b>Current PQS status:</b>	<i>pre-qualified ; 25 Apr 2016</i>	<b>Valid until:</b>	<i>May, 2018</i>
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			





PERFORMANCE QUALITY SAFETY



## **E006:** Temperature monitoring devices

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**PQS code:** E006/039

**Description:** Remote Temperature Monitoring Device

**Manufacturer's ref:** ColdTrace 5

**Manufactured in:** India

**Company:** Nexleaf Analytics

**Address:** 2356 Pelham Avenue  
Los Angeles  
CA 90064  
USA

**Telephone:** +12139156729

**Email:** [info@nexleaf.org](mailto:info@nexleaf.org)

**Web address:** [www.nexleaf.org](http://www.nexleaf.org)

## Specifications

<b>Product type:</b>	Remote Temperature Monitoring System	<b>Display medium:</b>	LCD, Computer, Phone, Tablet
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.25
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	Polycarbonate and ABS
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	140 mm x 150 mm x 30 mm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	0.5°C	<b>Min logging interval:</b>	1 minute
<b>Power source:</b>	Rechargeable and Replaceable battery	<b>Alarm type:</b>	Acoustic
<b>Battery type:</b>	Li-ion	<b>User interface:</b>	Web Based
<b>Battery shelf life:</b>	2	<b>Programmability:</b>	Remotely programmable
<b>Activated life:</b>		<b>IP rating:</b>	
<b>Memory capacity:</b>	5 years		

**Comments:** ColdTrace is a wireless temperature monitoring system for cold chain equipment (CCE). ColdTrace transmits data and provides real-time temperature alerts through audio alarm, SMS (text message), and email. Its technical features include dual SIM capacity, long battery life, external antenna and data upload through GPRS and SMS. Dashboard features include equipment performance and power availability summary reports on any device. Alerts for each sensor can be configured remotely, allowing one ColdTrace unit to monitor up to 5 CCE per site. The unit price includes (i) 2 sensor cables, (ii) full access to the dashboard, (iii) power adapter, (iv) mounting hardware, and (v) training guides. Multiple users can access the dashboard without any software installation. Warranty is only provided on the device and not the accessories. Customer supplies SIM cards and SMS gateway services. Other components and services are available for an additional fee, including additional sensor cables (CT5 has 5 ports), solar installation kit, data analytics tools, language customization, and data integration with existing systems (e.g LMIS). Price per unit cost can be paid all at once rather than yearly payments. For solar installations, a PQS-qualified solar power kit is available for an additional cost upon request. This solar kit includes a DC-DC voltage converter and a USB cable. This kit can be used with any 10 Watt (12V or 24V) solar panel (not included).  
**SOLAR POWER KIT SPECIFICATIONS:**  
 • DC-DC Voltage Converter: 12V-24V DC  
 • USB cable: 3m (A-micro)

<b>Minimum order:</b>	1	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	1
<b>Price per unit:</b>	US\$ 77 per year on a 3 yearly agreement	<b>Volume per carton:</b>	0.002 m3
		<b>Weight per carton:</b>	0.75 kg
		<b>Incoterms:</b>	EXW
<b>Verification report:</b>		<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 20 Jul 2016</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/040</b>
<b>Description:</b>	30-day electronic temperature logger
<b>Manufacturer's ref:</b>	Fridge-tag 2 E
<b>Manufactured in:</b>	
<b>Company:</b>	Berlinger & Co. AG
<b>Address:</b>	Mitteldorfstrasse 2, CH-9608 Ganterschwil, Switzerland
<b>Telephone:</b>	+41 (71) 982 88 11
<b>Email:</b>	<a href="mailto:info@berlinger.com">info@berlinger.com</a>
<b>Web address:</b>	<a href="http://www.berlinger.com">http://www.berlinger.com</a>

## Specifications

<b>Product type:</b>	30-day electronic refrigerator temperature logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight:</b>	0.112 kg
<b>Minimum temperature:</b>	-20°C	<b>Main material:</b>	Non-corrodible plastic (ABS)
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	128 x 75 x 19 mm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	±0.5°C	<b>Min logging interval:</b>	1 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium non-replaceable	<b>User interface:</b>	LCD
<b>Battery shelf life:</b>	60 months from the manufacturing date	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	60 months from the manufacturing date	<b>IP rating:</b>	64
<b>Memory capacity:</b>			

**Comments:** Function: An irreversible temperature indicator for refrigerators that shows if a product, such as vaccine, has been exposed to temperatures beyond assigned alarm settings defined above. As long as the temperature is within the allowed range, the OK sign is shown in the display. If the indicator is exposed to an out-of-range temperature on the ALARM sign appears on the display. The device shows the actual temperature in degrees Celsius or Fahrenheit, all alarm violations over the previous 30 days (on a rolling basis), the daily minimum and maximum temperature of the last 30 days and the time duration of any violation. Useful life is 5 years approx. Furthermore, the Fridge-tag2 E has a USB interface and can be connected to every PC, Laptop or Mac. without any installation software, the Fridge-Tag 2 E will generate a PDF document with a 60 days report which includes all relevant information per day such as Min/Max and average temperatures, time out of range, alarm history etc.  
 Use: This electronic temperature indicator is used to monitor the correct storage temperature of vaccines and other perishable goods. The Fridge-Tag 2 E can operate with either the built in sensor or with an external sensor with or without a glycol filled bottle (external sensor price on request).

<b>Minimum order:</b>	20	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	50
<b>Price per unit:</b>	20 - 49 units: 73 USD ; 50 - 99 units: 63 USD	<b>Volume per carton:</b>	0.001423 m3
	100 - 999 units: 51 USD	<b>Weight per carton:</b>	8.02 Kg
	1000 - 9999 units: 39 USD; 999+ units: 35 USD	<b>Incoterms:</b>	EXW

<b>Verification report:</b>		<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 30 Oct 2016</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



## **E006:**      **Temperature monitoring devices**

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**PQS code:**                      **E006/041**

**Description:**                      Remote Temperature Monitoring Device

**Manufacturer's ref:**              Fridge-tag 3 GSM

**Manufactured in:**                Switzerland

**Company:**                        Berlinger & Co. AG

**Address:**                         Mitteldorfstrasse 2,  
CH-9608 Ganterschwil,  
Switzerland

*Telephone:*                        +41 (71) 982 88 11

*Email:*                                [info@berlinger.com](mailto:info@berlinger.com)

*Web address:*                      <http://www.berlinger.com>

## Specifications

<b>Product type:</b>	Remote Temperature Monitoring System	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.17 kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	Non-corrodible plastic (ABS)
<b>Maximum temperature:</b>	+55°C	<b>Dimensions:</b>	13.6 x 9.8 x 2.1 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.5°C	<b>Min logging interval:</b>	1 min
<b>Power source:</b>	Rechargeable and Replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Lithium Polymer Li-ion battery	<b>User interface:</b>	LCD
<b>Battery shelf life:</b>	3 years	<b>Programmability:</b>	Factory programmed/online configurable
<b>Activated life:</b>		<b>IP rating:</b>	IP50
<b>Memory capacity:</b>	60 days on device and 5 years on RTM online platform		

**Comments:** Fridge-tag 3 @ GSM is a wireless temperature monitoring system for cold chain equipment (CCE). Fridge-tag 3 @ GSM transmits data and provides real-time temperature alerts through audio alarms and SMS (text messages); Alarm are also visible on the LCD display of the device. Its technical features include sim card slot for local or international sim card use, long battery life and operation, integrated antenna, external digital sensor and temperature data and power availability information upload through GPRS and SMS. Fridge-tag 3@ GSM can be used standalone or/and it can be integrated with Remote Temperature Monitoring (RTM) system (such as Logistimo) or other LMIS online platforms through its open API. The device can be configured remotely through either SMS or online platforms. The unit price includes (i) device, (ii) external digital sensor, (iii) power adapter and cable, (iv) mounting aid and (v) training guides. Warranty is only provided for the device and not for the accessories. For an additional fee an international sim card, with worldwide coverage can be provided, which enables automated selection of the strongest local network provider, optimal transmission costs and support. For an additional fee (of USD 24 / device / year), full access to Logistimo RTM online platform can be provided which includes: (a) real-time, interactive dashboards for monitoring cold-chain equipment performance and status (from National level down to facility level), (b) out-of-the-box analytics for gaining insights into cold-chain performance and strategic decision making, (c) alerts and notifications over SMS and/or email (SMS gateway charges are separate), and (d) remote device management, including remote configuration of devices and device monitoring.

<b>Minimum order:</b>	500	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	1
<b>Price per unit:</b>	500 - 5000 units: 199.00 USD	<b>Volume per carton:</b>	0.001584 m3
	5000 - 19,999 units: 149.00 USD	<b>Weight per carton:</b>	0.25 kg
	20,000+ units: price on request	<b>Incoterms:</b>	EXW
<b>Verification report:</b>	VA16-01074	<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 30 Oct 2016</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/042

**Description:** 30-day electronic temperature logger

**Manufacturer's ref:** HETL-01

**Manufactured in:** China; People's Republic of

**Company:** Haier Medical and Laboratory Products Co., Ltd

**Address:** Room 703D, Brand Building,  
Haier Industry Park,  
No. 1 Haier Road, 266101 Qingdao,  
China; People's Republic of

**Telephone:** +86-532-88937169

**Email:** [wanggs@haier.com](mailto:wanggs@haier.com)

**Web address:** <http://www.haiermedical.com>

## Specifications

<b>Product type:</b>	30-day electronic refrigerator temperature logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>		<b>Weight:</b>	0.14 kg
<b>Minimum temperature:</b>	-20	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	+50	<b>Dimensions:</b>	13.1 x 2.4

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	± 0.5°C	<b>Min logging interval:</b>	6 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	Non-rechargeable lithium battery	<b>User interface:</b>	device itself
<b>Battery shelf life:</b>	3 years	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	2 years	<b>IP rating:</b>	IP65
<b>Memory capacity:</b>	8192 data points		

**Comments:** 30-day electronic refrigerator temperature logger, integrated sensor devices, reusable. It is used to monitor and log the vaccine and pharmacy storage environment, applied in vaccine refrigerators and cold rooms. This device can log the daily temperature data, and alarm indications displayed in the LCD display when the temperature exceeds. Data with 30 days can be viewed and downloaded by USB port to PC, and generate temperature charts

<b>Minimum order:</b>	5	<b>Year base price:</b>	2016
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	5
<b>Price per unit:</b>	1-100 units: USD 23.00 101-200 units: USD 22.00; 201-500 units: USD 21.00 >501 units: USD 20.00	<b>Volume per carton:</b>	0.001m3
		<b>Weight per carton:</b>	0.14 kg
		<b>Incoterms:</b>	FCA
<b>Verification report:</b>	WB-16-243	<b>Verification laboratory:</b>	CHEARI
<b>Current PQS status:</b>	<i>pre-qualified ; 14 Jul 2016</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/043</b>
<b>Description:</b>	User programmable temperature data logger
<b>Manufacturer's ref:</b>	Weblogger II
<b>Manufactured in:</b>	Sweden
<b>Company:</b>	Temperature Sensitive Solutions AB
<b>Address:</b>	Temperature Sensitive Solutions AB, Kammakargatan 9 A, 111 40 Stockholm, Sweden

*Telephone:* +4686300606  
*Email:* [kjell.runngren@tss.se](mailto:kjell.runngren@tss.se)  
*Web address:* <http://www.tss.se>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.036 Kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	70°C	<b>Dimensions:</b>	9.0 x 4.3 x 1.15 cm

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	+/- 0.5°C	<b>Min logging interval:</b>	1 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	CR Lithium	<b>User interface:</b>	USB for computer
<b>Battery shelf life:</b>	1 year	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	12 months	<b>IP rating:</b>	IP 65
<b>Memory capacity:</b>	40 000 data points		

**Comments:** The WebLogger II is a RoHS, CE and IATA compliant electronic temperature data logger. The logger can be individually configured and programmed or ordered preconfigured. It offers unique management of mission data, e.g. Shipping #, Origin, Destination, Carrier, and Data-Logger Location in the CCIS cloud. When the logger is plugged into a computer USB port, an HTM file is created containing the data. Clicking the file will display the result on a web dashboard and secure the mission data in the CCIS private secure cloud.

<b>Minimum order:</b>	100	<b>Year base price:</b>	2017
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	100
<b>Price per unit:</b>	100-250: €39	<b>Volume per carton:</b>	0.0104 m3
	250+: €38	<b>Weight per carton:</b>	4.0 kg
	1000+: on request to manufacturer	<b>Incoterms:</b>	FCA

**Verification report:** **Verification laboratory:**

**Current PQS status:** *pre-qualified ; 03 Mar 2017* **Valid until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/044

**Description:** User programmable temperature data logger

**Manufacturer's ref:** ITAG4

**Manufactured in:** China; People's Republic of

**Company:** TempSen Electronics Company

**Address:** 2F, Building C2, Espace  
 No. 6000 Shenzhuan Road  
 Shanghai 201619  
 China

**Telephone:** +862167685210

**Email:** [info@tempsen.com](mailto:info@tempsen.com); [issac@tempsen.com](mailto:issac@tempsen.com)

**Web address:** [www.tempsen.com](http://www.tempsen.com)

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.025 Kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	70°C	<b>Dimensions:</b>	93 mm L x 45 mm W x 7 mm H

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	+/- 0.5°C	<b>Min logging interval:</b>	1 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	3 V Lithium metal battery	<b>User interface:</b>	LCD
<b>Battery shelf life:</b>	2 years	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	2 months	<b>IP rating:</b>	IP 65
<b>Memory capacity:</b>	7200 readings		

### Comments:

<b>Minimum order:</b>	20	<b>Year base price:</b>	2017
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	20
<b>Price per unit:</b>	(10-100 units): 20.99 \$ >100 units: 19.49 \$	<b>Volume per carton:</b>	0.0000013m3
		<b>Weight per carton:</b>	0.57 kg
		<b>Incoterms:</b>	EXW

<b>Verification report:</b>		<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 04 Oct 2017</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.





PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/045

**Description:** User programmable temperature data logger

**Manufacturer's ref:** ITAG4 Bio

**Manufactured in:** China; People's Republic of

**Company:** TempSen Electronics Company

**Address:** 2F, Building C2, Espace  
 No. 6000 Shenzhuan Road  
 Shanghai 201619  
 China

**Telephone:** +862167685210

**Email:** [info@tempesen.com](mailto:info@tempesen.com); [issac@tempesen.com](mailto:issac@tempesen.com)

**Web address:** [www.tempesen.com](http://www.tempesen.com)

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.025 Kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	Polycarbonate
<b>Maximum temperature:</b>	70°C	<b>Dimensions:</b>	93mm L x 45mm W x 7mm H

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	+/- 0.5°C	<b>Min logging interval:</b>	1 min
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	3 V Lithium metal battery	<b>User interface:</b>	LCD
<b>Battery shelf life:</b>	2 years	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	2 months	<b>IP rating:</b>	IP 65
<b>Memory capacity:</b>	7200 data points		

### Comments:

<b>Minimum order:</b>	20	<b>Year base price:</b>	2017
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	20
<b>Price per unit:</b>	(10-100 units): 23.99 \$ >100 units: 21.99 \$	<b>Volume per carton:</b>	0.0000013m3
		<b>Weight per carton:</b>	0.57 kg
		<b>Incoterms:</b>	EXW

<b>Verification report:</b>		<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 04 Oct 2017</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

<b>PQS code:</b>	<b>E006/046</b>
<b>Description:</b>	User programmable temperature data logger
<b>Manufacturer's ref:</b>	TempTale® Ultra
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Sensitech Inc.
<b>Address:</b>	A Business Unit of Carrier Corporation, Suite 258X, 800 Cummings Center. Beverly, MA 01915 United States
<b>Telephone:</b>	+1 978 - 927- 7033
<b>Email:</b>	<a href="http://www.sensitech.com/contactus">http://www.sensitech.com/contactus</a>
<b>Web address:</b>	<a href="http://www.sensitech.com">http://www.sensitech.com</a>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	0.051 Kg
<b>Minimum temperature:</b>	-30°C	<b>Main material:</b>	ABS
<b>Maximum temperature:</b>	70°C	<b>Dimensions:</b>	10.8cm L x 5.0cm W x 1.25cm H

### MECHANICAL AND ELECTRONIC DEVICES ONLY

<b>Accuracy:</b>	+/- 0.5°C	<b>Min logging interval:</b>	30 seconds
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Visual
<b>Battery type:</b>	3 V coin cell lithium battery	<b>User interface:</b>	LCD
<b>Battery shelf life:</b>	1 year	<b>Programmability:</b>	User programmed
<b>Activated life:</b>	12 months	<b>IP rating:</b>	IP64
<b>Memory capacity:</b>	16000 data points		

### Comments:

<b>Minimum order:</b>	20	<b>Year base price:</b>	2017
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	20
<b>Price per unit:</b>	(20-100 units): \$ 40.00	<b>Volume per carton:</b>	0.0044 m3
	(101-500): \$38.00	<b>Weight per carton:</b>	1 kg
	501 - 1000 units: \$36.00	<b>Incoterms:</b>	EXW

<b>Verification report:</b>		<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 04 Oct 2017</i>	<b>Valid until:</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.



PERFORMANCE QUALITY SAFETY



## E006: Temperature monitoring devices

**PQS code:** E006/047

**Description:** User programmable temperature data logger

**Manufacturer's ref:** DeltaTrak Model 40527

**Manufactured in:**

**Company:** DeltaTrak Inc.

**Address:** P.O.Box 398  
 Pleasanton  
 CA 94566  
 USA

**Telephone:** +1 925 2492250

**Email:** [orderprocessing@deltatrak.com](mailto:orderprocessing@deltatrak.com)

**Web address:** <http://www.deltatrak.com/>

## Specifications

<b>Product type:</b>	User-programmable temperature data logger	<b>Display medium:</b>	LCD
<b>Mode of operation:</b>	Electronic	<b>Weight</b>	90.7 grams
<b>Minimum temperature:</b>	-50°C	<b>Main material:</b>	ABS Plastic
<b>Maximum temperature:</b>	70°C	<b>Dimensions:</b>	40 mm x 93 mm x 24 mm
<b>MECHANICAL AND ELECTRONIC DEVICES ONLY</b>			
<b>Accuracy:</b>	(±0.5°C from -50°C to 25°C)	<b>Min logging interval:</b>	5 seconds
<b>Power source:</b>	Non-replaceable battery	<b>Alarm type:</b>	Not applicable
<b>Battery type:</b>	Two AAA lithium batteries,	<b>User interface:</b>	LCD + PC downloadable
<b>Battery shelf life:</b>	2 years	<b>Programmability:</b>	Factory programmed
<b>Activated life:</b>	24 months	<b>IP rating:</b>	
<b>Memory capacity:</b>	16,000 total recording capacity		
<b>Comments:</b>			
<b>Minimum order:</b>		<b>Year base price:</b>	2017
<b>Quality standard:</b>	- ISO 9001:2008 -	<b>Pieces per carton:</b>	
<b>Price per unit:</b>		<b>Volume per carton:</b>	
		<b>Weight per carton:</b>	
		<b>Incoterms:</b>	
<b>Verification report:</b>		<b>Verification laboratory:</b>	
<b>Current PQS status:</b>	<i>pre-qualified ; 08 Dec 2017</i>	<b>Valid until:</b>	<i>May, 2018</i>
Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased.			

# E007

## Cold chain accessories

This section covers miscellaneous cold chain accessories. A PQS specification for small voltage stabilizers has now been published and manufacturers have been invited to submit products for re-qualification. Meanwhile, the PIS qualified equipment can still be obtained from UNICEF Supply Division.

### **E007.1 Voltage stabilizers for refrigerators and freezers**

Wherever voltage fluctuations exceed  $\pm 15\%$  of the rated voltage at the supply point WHO recommends that refrigerators and freezers should be connected to the mains supply via a voltage stabilizer. Any associated electronic temperature monitoring equipment and computers should, ideally, be connected to a separate voltage-regulated circuit; this type of equipment is particularly sensitive to voltage fluctuations and to lightning-induced power surges.

Tap-changing voltage stabilizers are the most suitable type of voltage stabilizer for refrigeration equipment. There are a number of different models on the market; some are more reliable than others. A common type, supplied by many manufacturers, uses electronic tap-changing technology. This type is prone to failure due to switching stresses. The most reliable devices use relays. As an example, one typical widely used unit can control output voltages between  $-8\%$  to  $+9\%$  when the input voltage varies between  $-34\%$  to  $+26\%$ .

The simplest arrangement is to supply one single-outlet unit with each refrigeration appliance. NEVER use an adaptor to connect more than one appliance to a regulator's electrical outlet and never use an adaptor to connect more than one regulator to a wall socket. Under PIS, separate models were available for compression and absorption refrigerators and freezers. Under PQS all models will be pre-qualified for both types of equipment – when using the older devices ALWAYS choose the right type and make sure that it is connected to the correct appliance.

### **E007.2 Refrigerator spare parts and kits**

Products in this category at present remain unchanged from the PIS 2000 catalogue for the time being.

**Currently there are no data sheets for this section**

# **E007:**

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## **Accessories (Not yet active)**

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# E008

## Single-use injection devices

The products listed in this section include single-use syringes and needle-free injectors used to administer vaccines. Reusable syringes are no longer listed and are no longer recommended by WHO.

### Correct use of injections for immunization

**An injection should only be given if it is necessary. Every injection given must be safe.**

- An injection for immunization is necessary (with the exception of oral vaccines).
- An immunization injection is safe when the vaccine is injected using the appropriate equipment and according to the recommended procedures<sup>1</sup> for injection and disposal.

The following equipment may, in principle, be used to administer injectable vaccines:

- Auto-disable syringes to ISO 7886-3:2005.
- Single-use auto-disable needle-free syringe injectors.

### E008.1 Auto-disable (AD) syringes with fixed needles

PQS pre-qualified syringes must now comply with ISO 7886-3:2005 - *Sterile hypodermic syringes for single use - Part 3: Auto-disable syringes for fixed-dose immunization*.

The auto-disable syringe is the preferred type of disposable equipment for the administration of vaccines in both routine and mass immunization programmes. The auto-disable syringe carries the lowest risk of person-to-person transmission of blood borne pathogens because it cannot be reused<sup>2</sup>.

### E008.2 Single-use auto-disable needle-free syringe injectors

It remains current WHO policy that this type of injector can be used only if laboratory tests show that it does not carry a risk of contamination.

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<sup>1</sup> [WHO/EPI/TRAM/98.01-11 Rev 1](#). *Immunization in practice series*.

<sup>2</sup> [WHO/V&B/99.25](#). *Safety of injections: WHO-UNICEF-UNFPA joint statement on the use of auto-disable syringes in immunization services*.

WHO has published a PQS specification and verification protocol for these devices<sup>3</sup> and recommends that only injectors which meet the requirements set out in these documents should be used. Currently there are no pre-qualified models, but when such equipment becomes available it will be included in the PQS data sheets.

### **E008.3 Standard disposable syringes**

Standard disposable syringes and needles should not be used for immunization purposes because there is no guarantee that they will be destroyed after a single use. UNICEF will not supply this type of syringe for immunization purposes.

**WARNING:** There is clear evidence that the reuse of disposable syringes is widespread globally. WHO warns governments and donor agencies that the reuse of standard disposable syringes and needles places the general public at high risk of disease and death.

### **E008.4 Disposal of injection equipment**

Additional equipment is necessary to ensure the safety of the contaminated waste stream - see section E010:

- Safety boxes for the collection of used syringes, needles and sharps.
- Needle disableers and needle safety boxes.
- Incinerators and autoclaves for final disposal of used injection equipment.

Injection equipment is only safe if users strictly follow the procedures specified for its use, and this includes safe disposal.<sup>4</sup>

**E008 data sheets follow**

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<sup>3</sup> WHO/PQS/E08/JI01.1: *Specification for single-use auto-disable needle-free syringe injectors.*

[WHO/PQS/E08/JI01-VP.1](#). *Verification protocol for single-use auto-disable needle-free syringe injectors.*

<sup>4</sup> [WHO/BCT/03.12](#). *Guiding principles to ensure injection device security..*



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/004  
**Description:** AD syringe 0.5 ml  
**Manufacturer's reference:** MEDECO® INJECT AD 0.5 ml  
**Manufactured in:** United Arab Emirates  
**Company:** Abu Dhabi Medical Devices Co. L.L.C  
**Address:** P.O.Box 30485, Abu Dhabi  
 United Arab Emirates

**Telephone:** +971-2-6199100  
**Email:** [info@admd.ae](mailto:info@admd.ae)  
**Web address:** <http://www.admd.ae>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark 0434
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	1300
<b>AD mechanism:</b>	valve in the syringe hub	<b>Volume per carton (m3):</b>	0.055 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	5.7 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	1300
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	EXW
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	100 000 units and more: 0.054 US\$ per piece
<b>Year base price:</b>	2016		

## Comments:

**Current PQS status:** pre-qualified ; 25 Sep 2005

**Valid until :** May 2018

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/007  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** Kojak Selinge 0.5ml  
**Manufactured in:** India  
**Company:** Hindustan Syringes & Medical Devices Ltd.  
**Address:** 174, Sector - 25, Ballabgarh - 121 004 (Haryana) India  
  
**Telephone:** +91 129-4061151/58  
**Email:** [hmduk@hmdhealthcare.com](mailto:hmduk@hmdhealthcare.com)  
**Web address:** [www.hmdhealthcare.com](http://www.hmdhealthcare.com)

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark 0473
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	2000
<b>AD mechanism:</b>	Locked / broken plunger	<b>Volume per carton (m3):</b>	0.09 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	14.5 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	20,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister or ribbon pack	<b>Prices per unit:</b>	Over 1 million: 0.06 USD; over 5 millions: 0.0575 USD
<b>Year base price:</b>	2011		Over 10 millions: 0.055 USD Over 50 millions: 0.0525 USD

**Comments:** Option: Two types of packs with 100 units or 200 units  
 Other needle sizes available on request

**Current PQS status:** *pre-qualified ; 22 Dec 2004*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/013  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** AD SoloShot TM IX 0.5ml  
**Manufactured in:** Spain  
**Company:** Becton Dickinson  
**Address:** 1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238  
**Telephone:** +1 201-847-5149  
**Email:** [Amardeep\\_Singh\\_Chahal@bd.com](mailto:Amardeep_Singh_Chahal@bd.com)  
**Web address:** <http://www.bd.com>

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	2400
<b>AD mechanism:</b>	Clip locking plunger at start	<b>Volume per carton (m3):</b>	0.1029 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	11.49 kg
<b>Number of components:</b>	2 pieces	<b>Minimum order:</b>	2400
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2005		

#### Comments:

**Current PQS status:** *pre-qualified ; 25 Jun 2005*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/019  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** K1 OneJect AD 0.5ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
**Address:** Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia

**Telephone:** +62 21 879 17 422  
**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)  
**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE 0044
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	1600
<b>AD mechanism:</b>	Locked / broken plunger	<b>Volume per carton (m3):</b>	0.06 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	7.7 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	16,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2005		

#### Comments:

**Current PQS status:** *pre-qualified ; 12 Oct 2005*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/020  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** Yushou® AD syringe 0.5ml  
**Manufactured in:** China; People's Republic of  
**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
**Address:** No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province

*Telephone:* +86 (510)3777555

*Email:* [mike@chinasyringe.com](mailto:mike@chinasyringe.com)

*Web address:* <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	SO 13485
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	Clip locking plunger at start	<b>Volume per carton (m3):</b>	0.088 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	11 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	3000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Per unit: 0.05 US\$</i>
<b>Year base price:</b>	2005		

### Comments:

**Current PQS status:** *pre-qualified ; 22 Sep 2005*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/025  
**Description:** Retractable AD syringe 0.5ml  
**Manufacturer's reference:** Vanishpoint® Retractable AD syringe 0.5ml  
**Manufactured in:** China; People's Republic of  
**Company:** Retractable Technologies, Inc.  
**Address:** 511 Lobo Lane, Little Elm, TX 75068  
  
**Telephone:** +1 972 294 1010  
**Email:** [rtclinical@vanishpoint.com](mailto:rtclinical@vanishpoint.com)  
**Web address:** <http://www.vanishpoint.com/>

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	800
<b>AD mechanism:</b>	Retraction of needle into barrel by spring	<b>Volume per carton (m3):</b>	0.0432 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	4.5 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	800
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2005		

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a sharp injury Protection (SIP)

**Current PQS status:** *pre-qualified ; 15 Jun 2005*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/026  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** AD syringe 0.5ml K1  
**Manufactured in:** Vietnam  
**Company:** Mediplast Medical Plastic Company  
**Address:** 89 Luong Dinh Cua Rd., Phuong mai Vietnam  
**Telephone:** +84 4 5760770  
**Email:** [mediplast@fpt.vn](mailto:mediplast@fpt.vn)  
**Web address:**

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	2400
<b>AD mechanism:</b>	locked/broken plunger	<b>Volume per carton (m3):</b>	0.107 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	9.8 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	2400
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2016		

#### Comments:

**Current PQS status:** *pre-qualified ; 14 Jul 2006*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/030  
**Description:** AD syringe 0.05 ml  
**Manufacturer's reference:** K1 Oneject 0.05 ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
**Address:** Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia

**Telephone:** +62 21 879 17 422

**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)

**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE 0044
<b>Fixed needle size:</b>	26G x 3/8" (0.45 x 10 mm)	<b>Pieces per carton:</b>	1600
<b>AD mechanism:</b>	Locked / broken plunger	<b>Volume per carton (m3):</b>	0.06 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	6.3 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	16,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2007		

## Comments:

**Current PQS status:** *pre-qualified ; 21 May 2007*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/032  
**Description:** AD syringe 0.1ml  
**Manufacturer's reference:** YUSHOU® AD syringe 0.1ml  
**Manufactured in:** China; People's Republic of  
**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
**Address:** No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province

*Telephone:* +86 (510)3777555

*Email:* [mike@chinasyringe.com](mailto:mike@chinasyringe.com)

*Web address:* <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Quality standard:</b>	SO 13485
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	locking clip, locked trapped piston	<b>Volume per carton (m3):</b>	0.088 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	11 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	3000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2008		

**Comments:**

**Current PQS status:** *pre-qualified ; 05 Jan 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/033  
**Description:** AD syringe 0.05ml  
**Manufacturer's reference:** Yushou® AD syringe 0.05ml  
**Manufactured in:** China; People's Republic of  
**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
**Address:** No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province

*Telephone:* +86 (510)3777555

*Email:* [mike@chinasyringe.com](mailto:mike@chinasyringe.com)

*Web address:* <http://www.chinasyringe.com>

## **Specifications**

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	SO 13485
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	locking clip, locked trapped piston	<b>Volume per carton (m3):</b>	0.088 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	11 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	3000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2008		

### **Comments:**

**Current PQS status:** *pre-qualified ; 05 Jan 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/034  
**Description:** AD syringe 0.5 ml  
**Manufacturer's reference:** AD syringe 0.5 ml SKIFA  
**Manufactured in:** Indonesia  
**Company:** Mitra Rajawali Banjaran, PT  
**Address:** JL. Raya Banjaran KM16  
 Bandung, Jawa Barat  
 Indonesia  
**Telephone:** +62 22 594 0151  
**Email:** [yantomaunk@yahoo.co.id](mailto:yantomaunk@yahoo.co.id); [iwans9948@gmail.com](mailto:iwans9948@gmail.com);  
[erna\\_saptawati@yahoo.com](mailto:erna_saptawati@yahoo.com)  
**Web address:** <http://www.mrb.co.id>

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	SO 13485
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	2000
<b>AD mechanism:</b>	locked middle injection -broken plunger	<b>Volume per carton (m3):</b>	0.071 m3
<b>AD location:</b>	Middle of injection	<b>Weight per carton (kg):</b>	9.64 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	10 000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Plastic ribbon	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2008		

### Comments:

**Current PQS status:** *pre-qualified ; 14 Jan 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/035  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** Auto-disable syringe 0.5ml BD SoloShot™ Mini  
**Manufactured in:** Spain  
**Company:** Becton Dickinson  
**Address:** 1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238  
**Telephone:** +1 201-847-5149  
**Email:** [Amardeep\\_Singh\\_Chahal@bd.com](mailto:Amardeep_Singh_Chahal@bd.com)  
**Web address:** <http://www.bd.com>

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	3300
<b>AD mechanism:</b>	locking clip; locked trapped piston	<b>Volume per carton (m3):</b>	0.102 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	10.45 /10.20 kg
<b>Number of components:</b>	2 pieces	<b>Minimum order:</b>	3300 / 3600
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2009		

**Comments:** Product is available in 100 pc and 200 pc per shelf pack, which results respectively in 3300 pcs and 3600 pcs per carton

**Current PQS status:** *pre-qualified ; 08 Apr 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/036  
**Description:** AD syringe 0.1ml  
**Manufacturer's reference:** AD syringe 0.1ml BD SoloShot™ Mini  
**Manufactured in:** Spain  
**Company:** Becton Dickinson  
**Address:** 1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238  
**Telephone:** +1 201-847-5149  
**Email:** [Amardeep\\_Singh\\_Chahal@bd.com](mailto:Amardeep_Singh_Chahal@bd.com)  
**Web address:** <http://www.bd.com>

### Specifications

<b>Graduations:</b>	0.1ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3300
<b>AD mechanism:</b>	locking clip; locked trapped piston	<b>Volume per carton (m3):</b>	0.102 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	10.45 kg / 10.2 kg
<b>Number of components:</b>	2 pieces	<b>Minimum order:</b>	3300 / 3600
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	On request
<b>Year base price:</b>	2009		

**Comments:** Product is available in 100 pc and 200 pc per shelf pack, which results respectively in 3300 pcs and 3600 pcs per carton

**Current PQS status:** pre-qualified ; 08 Apr 2009

**Valid until :** May 2018

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/037  
**Description:** AD syringe 0.05ml  
**Manufacturer's reference:** AD syringe 0.05ml BD SoloShot™ Mini  
**Manufactured in:** Spain  
**Company:** Becton Dickinson  
**Address:** 1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238  
**Telephone:** +1 201-847-5149  
**Email:** [Amardeep\\_Singh\\_Chahal@bd.com](mailto:Amardeep_Singh_Chahal@bd.com)  
**Web address:** <http://www.bd.com>

### Specifications

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3300
<b>AD mechanism:</b>	locking clip; locked trapped piston	<b>Volume per carton (m3):</b>	0.102 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	10.45 kg / 10.2 kg
<b>Number of components:</b>	2 pieces	<b>Minimum order:</b>	3300 / 3600
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2009		

**Comments:** Product is available in 100 pc and 200 pc per shelf pack, which results respectively in 3300 pcs and 3600 pcs per carton

**Current PQS status:** *pre-qualified ; 08 Apr 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E008: Auto-disable syringe for fixed dose immunization

<b>PQS code:</b>	<b>E008/039</b>
<b>Description:</b>	AD syringe 0.5 ml
<b>Manufacturer's reference:</b>	KOJAK SELINGE 0.5ml
<b>Manufactured in:</b>	India
<b>Company:</b>	Hindustan Syringes & Medical Devices Ltd.
<b>Address:</b>	174, Sector - 25, Ballabgarh - 121 004 (Haryana) India
<b>Telephone:</b>	+91 129-4061151/58
<b>Email:</b>	<a href="mailto:hmduk@hmdhealthcare.com">hmduk@hmdhealthcare.com</a>
<b>Web address:</b>	<a href="http://www.hmdhealthcare.com">www.hmdhealthcare.com</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	2000
<b>AD mechanism:</b>	locked / broken plunger	<b>Volume per carton (m3):</b>	0.09 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	14.5 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	20,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister or ribbon pack	<b>Prices per unit:</b>	Over 1 million: 0.06 USD; Over 5 millions: 0.0575 USD
<b>Year base price:</b>	2011		Over 10 millions: 0.055 USD Over 50 millions: 0.0525 USD

**Comments:** Two types of packs with 100 units or 200 units  
 Other needle size available upon request

**Current PQS status:** *pre-qualified ; 15 Apr 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/040  
**Description:** AD Syringe 0.5ml  
**Manufacturer's reference:** AD Syringe 0.5ml  
**Manufactured in:** Kenya  
**Company:** Revital Healthcare Ltd.  
**Address:** Pandia Street, Off Mawakilingo Road,  
 Station area, PO Box 80813  
 Code 80100  
 Mombasa  
**Telephone:** +254 41 2228962  
**Email:** [info@revitalhcare.com](mailto:info@revitalhcare.com)  
**Web address:** [www.revitalhealthcare.com](http://www.revitalhealthcare.com)

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE 1023
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	4000
<b>AD mechanism:</b>	Plunger Disable	<b>Volume per carton (m3):</b>	
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	6 kg
<b>Number of components:</b>	2 pieces	<b>Minimum order:</b>	860 000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Per unit: 0.06 €</i>
<b>Year base price:</b>	2008		

**Comments:** Shipper cartons of 8600 boxes of 100 pieces  
 Note: this syringe is to be used with caution by health care workers as per instructions of use.

**Current PQS status:** *pre-qualified ; 08 Oct 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/041  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** AD syringe 0.5ml  
**Manufactured in:** China; People's Republic of  
**Company:** Anhui Tiankang Medical Technology Co., Ltd  
**Address:** 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province  
 China; People's Republic of

**Telephone:** +86 550 7022258  
**Email:** [marshall988@163.net](mailto:marshall988@163.net)  
**Web address:** <http://www.tkmedical.com>

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	7680
<b>AD mechanism:</b>	Clip blocking plunger	<b>Volume per carton (m3):</b>	Container 28 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	Container 3840 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	768 000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	Up to 768 000 units: 0.0405 €
<b>Year base price:</b>	2008		Up to 1 590 000 units: 0.0378 €

**Comments:** Cartons of 7680 boxes of 100 pieces

**Current PQS status:** *pre-qualified ; 12 Nov 2009*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/043  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** AD syringe 0.5ml  
**Manufactured in:** China; People's Republic of  
**Company:** Jiangxi Sanxin Medtec Co.,Ltd  
**Address:** 999 Fushan Road, Xiaolan Economic Development Zone, Nanchang, Jiangxi, P.C. 330200 China; People's Republic of  
**Telephone:** +86 791 85988111  
**Email:** [sanxin-med@vip.163.com](mailto:sanxin-med@vip.163.com)  
**Web address:** [www.sanxin-med.com](http://www.sanxin-med.com)

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	25G x 3/4" (0.50 x 19 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.1 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	15 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	2000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>On request</i>
<b>Year base price:</b>	2009		

Comments:

**Current PQS status:** *pre-qualified ; 02 Sep 2010*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/045  
**Description:** AD syringe 0.1ml  
**Manufacturer's reference:** Kojak AD syringe 0.1ml  
**Manufactured in:** India  
**Company:** Hindustan Syringes & Medical Devices Ltd.  
**Address:** 174, Sector - 25, Ballabgarh - 121 004 (Haryana) India

**Telephone:** +91 129-4061151/58

**Email:** [hmduk@hmdhealthcare.com](mailto:hmduk@hmdhealthcare.com)

**Web address:** [www.hmdhealthcare.com](http://www.hmdhealthcare.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	26G x 3/8" (0.45 x 10 mm)	<b>Pieces per carton:</b>	2000
<b>AD mechanism:</b>	Locked / broken plunger	<b>Volume per carton (m3):</b>	0.071m3 or 0.069m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	8.80kgs
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	100,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	On request to manufacturer
<b>Year base price:</b>	2011		

**Comments:** Two types of packs with 100 units or 200 units  
Other needle sizes available on request

**Current PQS status:** pre-qualified ; 10 May 2011

**Valid until :** May 2018

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

<b>PQS code:</b>	<b>E008/046</b>
<b>Description:</b>	AD syringe 0.5ml
<b>Manufacturer's reference:</b>	PAHF AD syringe 0.5ml
<b>Manufactured in:</b>	Nigeria
<b>Company:</b>	Pan African Health Foundation
<b>Address:</b>	East-West road, Rumuosi Port Harcourt, Rivers State Nigeria
<b>Telephone:</b>	+234 8035954218 / 8060501316
<b>Email:</b>	<a href="mailto:awokoma@pahfadsyringe.org">awokoma@pahfadsyringe.org</a> ; <a href="mailto:info@pahfadsyringe.org">info@pahfadsyringe.org</a>
<b>Web address:</b>	<a href="http://www.pahfadsyringe.org">http://www.pahfadsyringe.org</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	1200
<b>AD mechanism:</b>	Locked / broken plunger	<b>Volume per carton (m3):</b>	0.077 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	8.6 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	1200 units
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	EXW
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	0.037 € per unit
<b>Year base price:</b>	2012		

## Comments:

**Current PQS status:** *pre-qualified ; 19 Mar 2012*

**Valid until :** *May 2017*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/048  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** Apple K1 AD syringe  
**Manufactured in:** Pakistan  
**Company:** AMSON VACCINES & PHARMA (PVT) LTD.  
**Address:** 115, Industrial Triangle, Kahuta road, Islamabad Pakistan  
**Telephone:** +92 51 4492022  
**Email:** [naveed@amson.org.pk](mailto:naveed@amson.org.pk)  
**Web address:** [www.amson.org.pk](http://www.amson.org.pk)

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	24G x 1" (0.55 x 25 mm)	<b>Pieces per carton:</b>	1200
<b>AD mechanism:</b>	Locked / broken plunger	<b>Volume per carton (m3):</b>	0.07 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	8.62 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	100,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	On request to manufacturer
<b>Year base price:</b>	2012		

#### Comments:

**Current PQS status:** pre-qualified ; 02 Nov 2012

**Valid until :** May 2018

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/049  
**Description:** AD syringe 0.1ml  
**Manufacturer's reference:** Yi Xin 0.1ml  
**Manufactured in:** China; People's Republic of  
**Company:** Jiangxi Sanxin Medtec Co.,Ltd  
**Address:** 999 Fushan Road, Xiaolan Economic Development Zone, Nanchang, Jiangxi, P.C. 330200 China; People's Republic of  
**Telephone:** +86 791 85988111  
**Email:** [sanxin-med@vip.163.com](mailto:sanxin-med@vip.163.com)  
**Web address:** [www.sanxin-med.com](http://www.sanxin-med.com)

### Specifications

<b>Graduations:</b>	0.1ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	26G x 3/8" (0.45 x 10 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.104m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	11 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	100,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2013		

Comments:

**Current PQS status:** *pre-qualified ; 29 Jan 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/050  
**Description:** single-use auto-disable needle-free jet injector  
**Manufacturer's reference:** Pharmajet Stratis®  
**Manufactured in:** United States  
**Company:** PharmaJet, Inc.  
**Address:** 400 Corporate Circle,  
Suite N  
Golden, Colorado 80401  
USA  
**Telephone:** +1 (0) (303) 526-4278 Ext. 4172  
**Email:** [michael.ryan@pharmajet.com](mailto:michael.ryan@pharmajet.com)  
**Web address:** <http://www.pharmajet.com/>

### Specifications

Reset station	Injector	Needle free syringe	Filling adapter
Reference manufacturer C501-20	Reference manufacturer: C501-10	Reference manufacturer: C501-34	Reference manufacturer: C501-43 & C501-46
Activation: manual	Administration: IM or SC	Nominal capacity and graduation: 0.5ml	Material of adaptor: Polycarbonate
Force applied:	Energy source: spring	Main materials of syringe: Polycarbonate	Compatibility only with the Stratis needle-free syringe
Life time cycles: 20,000 min	Main material: ABS, stainless steel	Prevented from reuse by: Plunger break before injection	Intended for one vial use for field-filling of syringes
Carrying case IP: 55	Inadvertent actuation prevention feature	Primary packaging: paper blister packs	Primary packaging: paper blister packs
Warranty 2 years	Warranty 2 years	Number of syringes per box: 100 units	Number of adapters per box: 75 units
The PharmaJet Stratis™ needle-free injection system is intended to deliver various medications and vaccines either intramuscularly or subcutaneously by means of narrow precise fluid stream, which penetrates body tissues.			
Quality system Standard	ISO 9001, ISO 13485,	Product standard:	ISO 7886-3; FDA 510(k); CE 556625

**Comments:** Single-use auto-disable needle-free jet injector  
 Note: Jet Injectors (single-use auto-disable needle-free syringe injectors) as medical devices (Class II) are regulated by National Regulatory Authorities. A Jet injector prequalified by the WHO PQS programme to deliver medications and vaccines is to be used according to label to deliver ONLY those medications and vaccines that have been approved by the relevant Authorities.

**Current PQS status:** *pre-qualified ; 31 Jan 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

<b>PQS code:</b>	<b>E008/051</b>
<b>Description:</b>	AD syringe 0.5ml
<b>Manufacturer's reference:</b>	JMI AD syringe 0.5ml
<b>Manufactured in:</b>	Bangladesh
<b>Company:</b>	JMI Syringes & Medical Devices Ltd.
<b>Address:</b>	7/A Shantibag Dhaka-1217 Bangladesh
<b>Telephone:</b>	+88029333102
<b>Email:</b>	<a href="mailto:cml@jmigroup-bd.com">cml@jmigroup-bd.com</a>
<b>Web address:</b>	<a href="http://www.jmisyringe.com/">http://www.jmisyringe.com/</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	2400
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.133 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	15.6 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	192,000
<b>Other needle options:</b>	No	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2013		

### Comments:

**Current PQS status:** *pre-qualified ; 29 May 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/052  
**Description:** AD syringe 0.05ml  
**Manufacturer's reference:** OnejectII 0.05ml AD syringe  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
**Address:** Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia

**Telephone:** +62 21 879 17 422

**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)

**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

### Specifications

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	1600
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.051m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	8.23kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	16,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2013		

#### Comments:

**Current PQS status:** *pre-qualified ; 05 Jun 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/053  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** OnejectII 0.5 ml AD syringe  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
**Address:** Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia

**Telephone:** +62 21 879 17 422

**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)

**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	24G x 1" (0.55 x 25 mm)	<b>Pieces per carton:</b>	1600
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.052m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	7.66kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	16,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2013		

## Comments:

**Current PQS status:** *pre-qualified ; 05 Jun 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/055  
**Description:** Retractable AD syringe 0.25ml  
**Manufacturer's reference:** Safeguard retractable safety syringe 0.25ml  
**Manufactured in:** Hungary  
**Company:** Safeguard Medical (Hungary) Kft  
**Address:** Safeguard Medical ( Hungary ) Kft  
 Farkaslyuk  
 Joszerencset terv 15  
 3608  
 Hungary  
**Telephone:** +36 48 470758  
**Email:** [filippif@safeguardmedical.hu](mailto:filippif@safeguardmedical.hu)  
**Web address:** [www.safeguardmedical.com](http://www.safeguardmedical.com)

### Specifications

<b>Graduations:</b>	0.25ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	1000
<b>AD mechanism:</b>	Needle retraction	<b>Volume per carton (m3):</b>	0.056 m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	5.4kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	1000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	100,000 units = 0.098USD per unit
<b>Year base price:</b>	2013		1,000,000 units = 0.092 USD per unit
			10,000,000 units = 0.082 USD per unit

**Comments:**

**Current PQS status:** *pre-qualified ; 25 Jun 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/056  
**Description:** Retractable AD syringe 0.5ml  
**Manufacturer's reference:** Haiou Retractable auto disable syringe 0.5ml  
**Manufactured in:** China; People's Republic of  
**Company:** Guangdong Haiou Medical Apparatus Co., Ltd  
**Address:** Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China  
**Telephone:** +86-663-2758666  
**Email:** [sales@haiou.net.cn](mailto:sales@haiou.net.cn)  
**Web address:** <http://www.haiou.net.cn>

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	Plunger lock / needle retraction	<b>Volume per carton (m3):</b>	0.087m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	13kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	100,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2013		

#### Comments:

**Current PQS status:** *pre-qualified ; 29 Jul 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E008: Auto-disable syringe for fixed dose immunization

<b>PQS code:</b>	<b>E008/057</b>
<b>Description:</b>	AD syringe 0.05ml
<b>Manufacturer's reference:</b>	AD syringe 0.05ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Anhui Tiankang Medical Technology Co., Ltd
<b>Address:</b>	228, Weiyi Road, Economic Development Zone, Tianchang City, Anhui Province China; People's Republic of
<b>Telephone:</b>	+86 550 7022258
<b>Email:</b>	<a href="mailto:marshall988@163.net">marshall988@163.net</a>
<b>Web address:</b>	<a href="http://www.tkmedical.com">http://www.tkmedical.com</a>

## Specifications

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	2000
<b>AD mechanism:</b>	Plunger lock by stainless jaw at start of injection	<b>Volume per carton (m3):</b>	0.069 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	10 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	200,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request</i>
<b>Year base price:</b>	2013		

## Comments:

**Current PQS status:** *pre-qualified ; 29 Jul 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

<b>PQS code:</b>	<b>E008/058</b>
<b>Description:</b>	AD syringe 0.25ml
<b>Manufacturer's reference:</b>	Auto-disable syringe 0.25ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Anhui Tiankang Medical Technology Co., Ltd
<b>Address:</b>	228, Weiyi Road, Economic Development Zone, Tianchang City, Anhui Province China; People's Republic of
<b>Telephone:</b>	+86 550 7022258
<b>Email:</b>	<a href="mailto:marshall988@163.net">marshall988@163.net</a>
<b>Web address:</b>	<a href="http://www.tkmedical.com">http://www.tkmedical.com</a>

## Specifications

<b>Graduations:</b>	0.25ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	2000
<b>AD mechanism:</b>	Plunger lock by stainless steel jaw at start of injection	<b>Volume per carton (m3):</b>	0.069 m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	10 kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	200,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request</i>
<b>Year base price:</b>	2013		

## Comments:

**Current PQS status:** *pre-qualified ; 29 Jul 2013* **Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/059  
**Description:** AD syringe 0.25ml  
**Manufacturer's reference:** OnejectII AD syringe 0.25ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
**Address:** Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia

**Telephone:** +62 21 879 17 422

**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)

**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.25ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	1600
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.051m3
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	8.23kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	16,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2013		

### Comments:

**Current PQS status:** *pre-qualified ; 06 Sep 2013*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## **E008:** Auto-disable syringe for fixed dose immunization

<b>PQS code:</b>	<b>E008/060</b>
<b>Description:</b>	AD syringe 0.5ml
<b>Manufacturer's reference:</b>	Destroject 0.5ml AD (1000) syringe
<b>Manufactured in:</b>	Pakistan
<b>Company:</b>	AMSON VACCINES & PHARMA (PVT) LTD.
<b>Address:</b>	115, Industrial Triangle, Kahuta road, Islamabad Pakistan
<b>Telephone:</b>	+92 51 4492022
<b>Email:</b>	<a href="mailto:naveed@amson.org.pk">naveed@amson.org.pk</a>
<b>Web address:</b>	<a href="http://www.amson.org.pk">www.amson.org.pk</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	100
<b>AD mechanism:</b>	Plunger lock by cremallere at start	<b>Volume per carton (m3):</b>	0.097m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	12.5kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	32,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	EXW
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request</i>
<b>Year base price:</b>	2014		

**Comments:** Previously E008/042 requalified by Amson

**Current PQS status:** *pre-qualified ; 01 Apr 2014*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/061  
**Description:** AD syringe 0.5 mL  
**Manufacturer's reference:** Single-jet AD syringe 0.5 mL  
**Manufactured in:** Korea; Republic of (South Korea)  
**Company:** MK Limited  
**Address:** #439-14, Gakyo-ri, Songak-Myun, Dangjin-Gun, 343-821 Chungnam  
**Telephone:** + 82 31 4988934  
**Email:** [info@monosafe.com](mailto:info@monosafe.com)  
**Web address:** <http://www.monosafe.com>

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	1600
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.048 m3
<b>AD location:</b>	Middle of injection	<b>Weight per carton (kg):</b>	
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	2 millions
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	EXW
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	On request to manufacturer
<b>Year base price:</b>	2014		

**Comments:** carton of 1600 units

**Current PQS status:** pre-qualified ; 30 May 2014

**Valid until :** May 2017

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/062  
**Description:** AD syringe 0.5mL  
**Manufacturer's reference:** Helmject® AD syringe 0.5mL  
**Manufactured in:** China; People's Republic of  
**Company:** HELM MEDICAL GMBH  
**Address:** Nordkanalstraße 28  
 D- 20097  
 Hamburg  
 Germany  
**Telephone:** +49 40 2375-2726  
**Email:** [info@helmag.com](mailto:info@helmag.com)  
**Web address:** [www.helm-medical.com](http://www.helm-medical.com)

### Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	metal clip	<b>Volume per carton (m3):</b>	0.087m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	13kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	3000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2015		

Comments:

**Current PQS status:** *pre-qualified ; 01 Jul 2015*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/063  
**Description:** AD syringe 0.05mL  
**Manufacturer's reference:** Helmject® Ad syringe 0.05mL  
**Manufactured in:** China; People's Republic of  
**Company:** HELM MEDICAL GMBH  
**Address:** Nordkanalstraße 28  
 D- 20097  
 Hamburg  
 Germany  
**Telephone:** +49 40 2375-2726  
**Email:** [info@helmag.com](mailto:info@helmag.com)  
**Web address:** [www.helm-medical.com](http://www.helm-medical.com)

### Specifications

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	metal clip	<b>Volume per carton (m3):</b>	0.087m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	13kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	3000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2015		

Comments:

**Current PQS status:** *pre-qualified ; 01 Jul 2015*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/064  
**Description:** AD syringe 0.1mL  
**Manufacturer's reference:** Helmject® AD syringe 0.1mL  
**Manufactured in:** China; People's Republic of  
**Company:** HELM MEDICAL GMBH  
**Address:** Nordkanalstraße 28  
 D- 20097  
 Hamburg  
 Germany

**Telephone:** +49 40 2375-2726

**Email:** [info@helmag.com](mailto:info@helmag.com)

**Web address:** [www.helm-medical.com](http://www.helm-medical.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3000
<b>AD mechanism:</b>	metal clip	<b>Volume per carton (m3):</b>	0.087m3
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	13kg
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	3000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FCA
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>Upon request to manufacturer</i>
<b>Year base price:</b>	2015		

**Comments:**

**Current PQS status:** *pre-qualified ; 01 Jul 2015*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/065  
**Description:** AD Syringe 0.1 mL  
**Manufacturer's reference:** Oneject II AD Syringe 0.1 mL  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
**Address:** Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia

**Telephone:** +62 21 879 17 422

**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)

**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

### Specifications

<b>Graduations:</b>	0.1ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	1600
<b>AD mechanism:</b>	Locked trapped piston	<b>Volume per carton (m3):</b>	0.09 m3/carton
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	10.6 Kg
<b>Number of components:</b>		<b>Minimum order:</b>	1600
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	<i>on request</i>
<b>Year base price:</b>	2015		<i>on request</i>
			<i>on request</i>

### Comments:

**Current PQS status:** *pre-qualified ; 12 Sep 2015*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/066  
**Description:** AD syringe 0.5ml  
**Manufacturer's reference:** Ramy AD syringe 0.5ml  
**Manufactured in:** Saudi Arabia  
**Company:** Al Shifa Medical Syringe MFG.Co.  
**Address:** 1st Industrial City P.O. Box 7917  
Dammam 31472  
Saudi Arabia  
**Telephone:** +966138474284  
**Email:** [info@alshifa.com](mailto:info@alshifa.com)  
**Web address:** [www.alshifa.com](http://www.alshifa.com)

## Specifications

<b>Graduations:</b>	0.5ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	23G x 1" (0.60 x 25 mm)	<b>Pieces per carton:</b>	1000
<b>AD mechanism:</b>	Plunger lock	<b>Volume per carton (m3):</b>	0.06 per carton
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	8.02 per carton
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	1000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	EXW
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	41 USD per carton
<b>Year base price:</b>	2015		

## Comments:

**Current PQS status:** *pre-qualified ; 22 Oct 2015*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E008: Auto-disable syringe for fixed dose immunization

**PQS code:** E008/068  
**Description:** Retractable 0.05ml Auto Disable Syringe  
**Manufacturer's reference:** Haiou Retractable auto disable syringe 0.05ml  
**Manufactured in:** China; People's Republic of  
**Company:** Guangdong Haiou Medical Apparatus Co., Ltd  
**Address:** Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China  
**Telephone:** +86-663-2758666  
**Email:** [sales@haiou.net.cn](mailto:sales@haiou.net.cn)  
**Web address:** <http://www.haiou.net.cn>

### Specifications

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	3600
<b>AD mechanism:</b>	Manual retractable	<b>Volume per carton (m3):</b>	0.094
<b>AD location:</b>	Upon completion of injection	<b>Weight per carton (kg):</b>	15
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	100,000
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	FOB
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	Over 100,000 pcs: 0.07 USD
<b>Year base price:</b>	2017		Over 1 million pcs: 0.065 USD

#### Comments:

**Current PQS status:** *pre-qualified ; 01 Jun 2017*

**Valid until :** *May 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/069  
**Description:** 0.05mlAD BCG syringe  
**Manufacturer's reference:** MEDECO INJECT AD 0.05ml BCG  
**Manufactured in:** United Arab Emirates  
**Company:** Abu Dhabi Medical Devices Co. L.L.C  
**Address:** P.O.Box 30485, Abu Dhabi  
 United Arab Emirates

**Telephone:** +971-2-6199100  
**Email:** [info@admd.ae](mailto:info@admd.ae)  
**Web address:** <http://www.admd.ae>

### Specifications

<b>Graduations:</b>	0.05ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	1400
<b>AD mechanism:</b>	One way valve auto disable mechanism	<b>Volume per carton (m3):</b>	0.053 M3 for 1400 Pcs pack. 0.112 M3 for 3000 Pcs
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	5.46 Kg for 1400 Pcs pack and 11.1 Kg for 3000 Pcs
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	1400
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	EXW
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	0.068 USD
<b>Year base price:</b>	2017		

**Comments:** Available in 1400 Pcs or 3000 Pcs per carton

**Current PQS status:** pre-qualified ; 01 Jun 2017

**Valid until :** May 2018

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## **E008:** Auto-disable syringe for fixed dose immunization

**PQS code:** E008/70  
**Description:** 0.1ml AD BCG syringe  
**Manufacturer's reference:** MEDECO INJECT AD 0.1ml BCG  
**Manufactured in:** United Arab Emirates  
**Company:** Abu Dhabi Medical Devices Co. L.L.C  
**Address:** P.O.Box 30485, Abu Dhabi  
 United Arab Emirates

**Telephone:** +971-2-6199100  
**Email:** [info@admd.ae](mailto:info@admd.ae)  
**Web address:** <http://www.admd.ae>

### Specifications

<b>Graduations:</b>	0.1ml	<b>Quality standard:</b>	ISO 9001, ISO 13485,
<b>Syringe material(s):</b>	Polypropylene	<b>Markings:</b>	CE mark
<b>Fixed needle size:</b>	27G x 3/8" (0.40 x 10 mm)	<b>Pieces per carton:</b>	1400
<b>AD mechanism:</b>	One way valve auto-disable mechanism	<b>Volume per carton (m3):</b>	0.053 M3 for 1400 Pcs pack. 0.112 M3 for 3000 Pcs
<b>AD location:</b>	Start of injection	<b>Weight per carton (kg):</b>	5.46 Kg for 1400 Pcs pack and 11.1 Kg for 3000 Pcs
<b>Number of components:</b>	3 pieces	<b>Minimum order:</b>	1400
<b>Other needle options:</b>	Yes	<b>Incoterms:</b>	EXW
<b>Primary packaging:</b>	Blister pack	<b>Prices per unit:</b>	0.068 USD
<b>Year base price:</b>	2017		

**Comments:** Available in two carton sizes 1400 Pcs or 3000 Pcs

**Current PQS status:** pre-qualified ; 01 Jun 2017

**Valid until :** May 2018

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



# E009

(not currently used)

**WARNING:** Steam sterilizers for sterilizing reusable injection equipment were listed in Section E9 of PIS 2000. This type of equipment is no longer recommended for use in immunization programmes.

# E010

## Waste management equipment

Waste disposal is a key element of any immunization programme. Poorly managed waste arising from immunization sessions exposes health workers and the community to infection and to injury. The cost of waste disposal must be incorporated into the budget and training plans of all immunization activities.

### E010.1 Safety boxes

Puncture-resistant containers for the collection and disposal of used sharps, including disposable and auto-disable syringes, needles and other injection materials, must be provided and used for all immunization activities. These containers reduce the risk posed by contaminated needles and syringes both to health staff and the general population. Containers are available in a range of sizes.

The relevant PQS specification requires safety boxes to have a minimum capacity of 20 syringes per litre. This figure should be used to estimate need. It is good practice to order more boxes than the calculated minimum to take account of inefficiencies such as the premature collection of partly filled containers and the use of containers for purposes other than immunization. WHO recommends over-ordering by 150% to 200%<sup>1</sup>.

### E010.2 Incinerator boxes

**WARNING:** Incinerator boxes for on-site burning are no longer recommended by WHO. They have been excluded from the PQS because low temperature

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<sup>1</sup> [WHO/V&B/02.11](#). *Guidelines for estimating costs of introducing new vaccines into the national immunization system.*

incineration releases toxic gases and this should be avoided. Controlled combustion above 800°C is needed to prevent this.

### **E010.3 Needle disablers**

These devices are designed to cut the needle from a used syringe and to hold the offcuts in a disposable sharps container. Use of these devices can reduce the risk of needle-stick injury to workers dealing with the waste stream and also increase the effective capacity of safety boxes. Because the needles are removed, it also allows the use of cheaper alternative syringe containers.

**WARNING:** There are hazards associated with the use of needle disablers and their adoption requires careful evaluation of risks and benefits.

### **E010.4 Incinerators and autoclaves**

Auto-combustion type incinerators, which achieve temperatures in excess of 800°C, are recommended for the final disposal of all contaminated sharps, including syringes and needles used for immunization. This equipment ensures the most complete destruction of used sharps while also causing minimal environmental pollution.

Product information on incinerators and autoclaves is available at <http://www.healthcarewaste.org> which provides reference documents and links and gives guidance on decision-making.

A PQS specification and verification protocol for waste disposal autoclaves is currently under development.

**E010 data sheets follow**



## E010: Waste management products

**PQS code:** E010/001  
**Description:** Safety box 5L  
**Manufacturer's reference:** POLYSAFE® 5L  
**Manufactured in:** Norway  
**Company:** POLYNOR AS  
**Address:** Brennerigt. 3  
 P.O. Box 1273  
 N-2806 Gjøvik  
 Norway

**Telephone:** +47 61 13 89 30  
**Email:** [post@polynor.no](mailto:post@polynor.no)  
**Web address:** <http://www.polynor.no>

## Specifications

<b>Volume (Liter):</b>	5 L	<b>Syringe hole diameter (mm):</b>	38 mm
<b>Nominal syringe capacity:</b>	155 units	<b>Material:</b>	recycled carton board
<b>Dimensions before assembly (mm):</b>	585 x 275 x 4.3 mm	<b>Colour:</b>	White
<b>Dimensions after assembly (mm):</b>	280 x 160 x 125 mm		
<b>Weight empty (g):</b>	280 g		
<b>Minimum order:</b>	25 units	<b>Pieces per carton:</b>	25 units
<b>Year base price:</b>	2008	<b>Volume per carton:</b>	0.02 m3
<b>Price per unit:</b>	On request	<b>Weight per carton:</b>	8 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	108-21912-1 (April 2008)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 10 Jul 2008</i>		<b>Valid until :</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

**PQS code:** E010/002  
**Description:** Safety box 10L  
**Manufacturer's reference:** POLYSAFE® 10L  
**Manufactured in:** Norway  
**Company:** POLYNOR AS  
**Address:** Brennerigt. 3  
 P.O. Box 1273  
 N-2806 Gjøvik  
 Norway

**Telephone:** +47 61 13 89 30  
**Email:** [post@polynor.no](mailto:post@polynor.no)  
**Web address:** <http://www.polynor.no>

## Specifications

<b>Volume (Liter):</b>	10 L	<b>Syringe hole diameter (mm):</b>	38 mm
<b>Nominal syringe capacity:</b>	306 syringes	<b>Material:</b>	Recycled carton board, water resistant
<b>Dimensions before assembly (mm):</b>	603 x 385 x 5.2 mm	<b>Colour:</b>	White
<b>Dimensions after assembly (mm):</b>	300 x 250 x 150 mm		
<b>Weight empty (g):</b>	486 g		
<b>Minimum order:</b>	15 units	<b>Pieces per carton:</b>	15 units
<b>Year base price:</b>	2008	<b>Volume per carton:</b>	0.02 m3
<b>Price per unit:</b>	On request	<b>Weight per carton:</b>	8 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	108-21912-2 (April 2008)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>	Boxes of 15 units		
<b>Current PQS status:</b>	<i>pre-qualified; 10 Apr 2008</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

**PQS code:** E010/003  
**Description:** Safety box 15L  
**Manufacturer's reference:** POLYSAFE® 15L  
**Manufactured in:** Norway  
**Company:** POLYNOR AS  
**Address:** Brennerigt. 3  
P.O. Box 1273  
N-2806 Gjøvik  
Norway

**Telephone:** +47 61 13 89 30  
**Email:** [post@polynor.no](mailto:post@polynor.no)  
**Web address:** <http://www.polynor.no>

## Specifications

<b>Volume (Liter):</b>	15 L	<b>Syringe hole diameter (mm):</b>	39 mm
<b>Nominal syringe capacity:</b>	450 units	<b>Material:</b>	Recycled carton board, water resistant
<b>Dimensions before assembly (mm):</b>	775 x 445 x 5.7 mm	<b>Colour:</b>	White
<b>Dimensions after assembly (mm):</b>	310 x 240 x 210 mm		
<b>Weight empty (g):</b>	680 g		
<b>Minimum order:</b>	10 units	<b>Pieces per carton:</b>	10 units per carton
<b>Year base price:</b>	2008	<b>Volume per carton:</b>	0.02 m3
<b>Price per unit:</b>	On request	<b>Weight per carton:</b>	8.1 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	108-21912-3 (April 2008)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>	Boxes of 10 units		
<b>Current PQS status:</b>	<i>pre-qualified; 10 Jul 2008</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

**PQS code:** E010/004  
**Description:** Safety box 5L  
**Manufacturer's reference:** Pa-Hu Oy SB 5L  
**Manufactured in:** Finland  
**Company:** Pa-Hu Oy  
**Address:** Teollisuustie 2,  
 FIN-02880 Veikkola,  
 Finland

**Telephone:** +358-20 789 1000

**Email:** [sales@pa-hu.fi](mailto:sales@pa-hu.fi)

**Web address:** <http://www.pa-hu.fi>

## Specifications

<b>Volume (Liter):</b>	5 L	<b>Syringe hole diameter (mm):</b>	38 mm
<b>Nominal syringe capacity:</b>	130 units	<b>Material:</b>	solid carton board
<b>Dimensions before assembly (mm):</b>	570 x 250 x 2.53 mm	<b>Colour:</b>	Brown
<b>Dimensions after assembly (mm):</b>	280 x 145 x 165 mm		
<b>Weight empty (g):</b>	232 g		
<b>Minimum order:</b>	25 units	<b>Pieces per carton:</b>	25 units
<b>Year base price:</b>	2016	<b>Volume per carton:</b>	0.019 m3
<b>Price per unit:</b>	2000-9999: 0.70 €	<b>Weight per carton:</b>	7.0 kg
	10000 or more units: 0.50 €	<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	108-21655-1 (May 2008)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>	Carton of 25 units		
<b>Current PQS status:</b>	<i>pre-qualified; 05 Dec 2008</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

<b>PQS code:</b>	<b>E010/006</b>
<b>Description:</b>	Safety box 5L
<b>Manufacturer's reference:</b>	Kojak safety box 5L
<b>Manufactured in:</b>	India
<b>Company:</b>	Hindustan Syringes & Medical Devices Ltd.
<b>Address:</b>	174, Sector - 25, Ballabgarh - 121 004 (Haryana) India
<b>Telephone:</b>	+91 129-4061151/58
<b>Email:</b>	<a href="mailto:hmduk@hmdhealthcare.com">hmduk@hmdhealthcare.com</a>
<b>Web address:</b>	<a href="http://www.hmdhealthcare.com">www.hmdhealthcare.com</a>

## Specifications

<b>Volume (Liter):</b>	5 L	<b>Syringe hole diameter (mm):</b>	38 mm
<b>Nominal syringe capacity:</b>	100 units	<b>Material:</b>	Yellow duplex kraft board
<b>Dimensions before assembly (mm):</b>	585 x 285 x 4 mm	<b>Colour:</b>	Yellow
<b>Dimensions after assembly (mm):</b>	285 x 160 x 125 mm		
<b>Weight empty (g):</b>	275 g		
<b>Minimum order:</b>	25 units	<b>Pieces per carton:</b>	25 units
<b>Year base price:</b>	2016	<b>Volume per carton:</b>	0.016 m3
<b>Price per unit:</b>	0.53 US\$/pc	<b>Weight per carton:</b>	8.60 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	108-32733-(20 April 2009)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 28 Apr 2009</i>		<b>Valid until :</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased





## E010: Waste management products

**PQS code:** E010/007  
**Description:** Safety box 5L  
**Manufacturer's reference:** Pa-Hu Oy SB squared 5L  
**Manufactured in:** Finland  
**Company:** Pa-Hu Oy  
**Address:** Teollisuustie 2,  
FIN-02880 Veikkola,  
Finland

**Telephone:** +358-20 789 1000

**Email:** [sales@pa-hu.fi](mailto:sales@pa-hu.fi)

**Web address:** <http://www.pa-hu.fi>

## Specifications

<b>Volume (Liter):</b>	5 L	<b>Syringe hole diameter (mm):</b>	38 mm
<b>Nominal syringe capacity:</b>	150 units	<b>Material:</b>	Solid carton board
<b>Dimensions before assembly (mm):</b>	600 x 144 x 3.98 mm	<b>Colour:</b>	Brown
<b>Dimensions after assembly (mm):</b>	315 x 128 x 145 mm		
<b>Weight empty (g):</b>	253 g		
<b>Minimum order:</b>	25 units	<b>Pieces per carton:</b>	25 units
<b>Year base price:</b>	2016	<b>Volume per carton:</b>	0.021 m3
<b>Price per unit:</b>	2000-9999: 0.70 €	<b>Weight per carton:</b>	7.7 kg
	10001 or more units: 0.50 €	<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	108-33979 (March 2009)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 26 May 2009</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

<b>PQS code:</b>	<b>E010/008</b>
<b>Description:</b>	Safety box 2.5L
<b>Manufacturer's reference:</b>	Medibest Disposafe 2.5L
<b>Manufactured in:</b>	Indonesia
<b>Company:</b>	PT.Medibest Indonesia
<b>Address:</b>	Plaza Bona Indah, Office #A2-C4 Jalan Karang Tengah Raya Lebak Bulus – Cilandak Jakarta Selatan 12440, Indonesia
<b>Telephone:</b>	+62 21 765 3248
<b>Email:</b>	<a href="mailto:info@medibestgroup.com">info@medibestgroup.com</a>
<b>Web address:</b>	<a href="http://www.medibestgroup.com">http://www.medibestgroup.com</a>

## Specifications

<b>Volume (Liter):</b>	2.5 L	<b>Syringe hole diameter (mm):</b>	40 mm with fringes
<b>Nominal syringe capacity:</b>	81 syringes	<b>Material:</b>	recycled board and virgin fiber
<b>Dimensions before assembly (mm):</b>	551 x 238 x 2.21 mm	<b>Colour:</b>	Yellow
<b>Dimensions after assembly (mm):</b>	238 x 127 x 116 mm		
<b>Weight empty (g):</b>	290 g		
<b>Minimum order:</b>	25	<b>Pieces per carton:</b>	25 units
<b>Year base price:</b>	2009	<b>Volume per carton:</b>	0.024 m3
<b>Price per unit:</b>	On request	<b>Weight per carton:</b>	7.5 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	109-24758-1 (May 2009)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>	Carton of 25 units; custom made printing on demand		
<b>Current PQS status:</b>	<i>pre-qualified; 24 Jul 2009</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

<b>PQS code:</b>	<b>E010/009</b>
<b>Description:</b>	Safety box 5L
<b>Manufacturer's reference:</b>	Medibest Disposafe 5L
<b>Manufactured in:</b>	Indonesia
<b>Company:</b>	PT.Medibest Indonesia
<b>Address:</b>	Plaza Bona Indah, Office #A2-C4 Jalan Karang Tengah Raya Lebak Bulus – Cilandak Jakarta Selatan 12440, Indonesia
<b>Telephone:</b>	+62 21 765 3248
<b>Email:</b>	<a href="mailto:info@medibestgroup.com">info@medibestgroup.com</a>
<b>Web address:</b>	<a href="http://www.medibestgroup.com">http://www.medibestgroup.com</a>

## Specifications

<b>Volume (Liter):</b>	5 L	<b>Syringe hole diameter (mm):</b>	40 mmwith fringes
<b>Nominal syringe capacity:</b>	142 syringes	<b>Material:</b>	recycled carton board and virgin fiber
<b>Dimensions before assembly (mm):</b>	660 x 238 x 2.21 mm	<b>Colour:</b>	Yellow
<b>Dimensions after assembly (mm):</b>	290 x 158 x 130 mm		
<b>Weight empty (g):</b>	376 g		
<b>Minimum order:</b>	25 units	<b>Pieces per carton:</b>	25 units
<b>Year base price:</b>	2009	<b>Volume per carton:</b>	0.029 m3
<b>Price per unit:</b>	On request	<b>Weight per carton:</b>	9 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	109-24758.b (June 2009)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>	Carton of 25 units; custom printing on demand		
<b>Current PQS status:</b>	<i>pre-qualified; 24 Jul 2009</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

<b>PQS code:</b>	<b>E010/010</b>
<b>Description:</b>	Safety box 5L
<b>Manufacturer's reference:</b>	Sol-Millennium Safety Box 5L
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Shanghai Sol-Millennium Medical Products Co. Ltd.
<b>Address:</b>	Room E, 11th Floor, East Hope Plaza, No.1777 Century Avenue, Pudong, Shanghai 200122, China
<b>Telephone:</b>	+86-21-68622586-17
<b>Email:</b>	<a href="mailto:JaneNie, Jane@sol-m.com">Jane Nie, Jane@sol-m.com</a>
<b>Web address:</b>	<a href="http://www.sol-m.com">www.sol-m.com</a>

## Specifications

<b>Volume (Liter):</b>	5	<b>Syringe hole diameter (mm):</b>	38
<b>Nominal syringe capacity:</b>	150	<b>Material:</b>	cardboard
<b>Dimensions before assembly (mm):</b>	600 x 280 x 5.0	<b>Colour:</b>	Brown
<b>Dimensions after assembly (mm):</b>	288 x 165 x 130		
<b>Weight empty (g):</b>	270		
<b>Minimum order:</b>	5000	<b>Pieces per carton:</b>	25
<b>Year base price:</b>	2010	<b>Volume per carton:</b>	0.018 m3
<b>Price per unit:</b>	On request	<b>Weight per carton:</b>	8 kg
		<b>Incoterms:</b>	EXW
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	110-29507 (August 2010)	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>	Carton of 25 units		
<b>Current PQS status:</b>	<i>pre-qualified; 01 Nov 2010</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



PERFORMANCE QUALITY SAFETY



## E010: Waste management products

**PQS code:** E010/011  
**Description:** Safety box 5L  
**Manufacturer's reference:** SB TimSafe 5L NE  
**Manufactured in:** Sweden  
**Company:** Smurfit Kappa Lagamill AB  
**Address:** Box 43,  
 SE-285 21 Markaryd,  
 Sweden

**Telephone:** +46 433 181 12  
**Email:** [solidsales@smurfitkappa.se](mailto:solidsales@smurfitkappa.se)  
**Web address:** <http://www.timboard.se>

## Specifications

<b>Volume (Liter):</b>	5 Liter	<b>Syringe hole diameter (mm):</b>	38 mm
<b>Nominal syringe capacity:</b>	150 units	<b>Material:</b>	Recycled board and virgin fiber
<b>Dimensions before assembly (mm):</b>	468 x 260 x 4 mm	<b>Colour:</b>	White
<b>Dimensions after assembly (mm):</b>	154 x 113 x 315 mm		
<b>Weight empty (g):</b>	250 g		
<b>Minimum order:</b>	1500	<b>Pieces per carton:</b>	25 units
<b>Year base price:</b>	2014	<b>Volume per carton:</b>	0.013 m3
<b>Price per unit:</b>	1500 units: 0.89€ 15000 units and more: 0.75€	<b>Weight per carton:</b>	6.54 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	113-28810	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 24 Sep 2013</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

<b>PQS code:</b>	<b>E010/012</b>
<b>Description:</b>	Safety box 5L
<b>Manufacturer's reference:</b>	Helmject Safety Box 5L
<b>Manufactured in:</b>	Germany
<b>Company:</b>	HELM MEDICAL GMBH
<b>Address:</b>	Nordkanalstraße 28 D- 20097 Hamburg Germany
<b>Telephone:</b>	+49 40 2375-2726
<b>Email:</b>	<a href="mailto:info@helmag.com">info@helmag.com</a>
<b>Web address:</b>	<a href="http://www.helm-medical.com">www.helm-medical.com</a>

## Specifications

<b>Volume (Liter):</b>	5	<b>Syringe hole diameter (mm):</b>	38.5
<b>Nominal syringe capacity:</b>	100	<b>Material:</b>	wood pulp paper
<b>Dimensions before assembly (mm):</b>	270 x 465 x 4	<b>Colour:</b>	natural brown
<b>Dimensions after assembly (mm):</b>	146 x 465 x 110		
<b>Weight empty (g):</b>	220g		
<b>Minimum order:</b>	1000	<b>Pieces per carton:</b>	25; 50; 100
<b>Year base price:</b>	2015	<b>Volume per carton:</b>	0.014m3
<b>Price per unit:</b>	Upon request	<b>Weight per carton:</b>	5.86 kg
		<b>Incoterms:</b>	FCA
		<b>Quality standard:</b>	ISO 13485
<b>Verification report:</b>	115-23735 rev.1	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 31 Jul 2015</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

**PQS code:** E10 013  
**Description:** 2.5L Safety Box  
**Manufacturer's reference:** PT. Tonnindo Eramulya 2.5L Safety Box  
**Manufactured in:** Indonesia  
**Company:** PT. Tonnindo Eramulya  
**Address:** Jl.Pembangunan III # 14E.  
 Jakarta 10130  
 Indonesia

**Telephone:** +62 216321717

**Email:** [tonnindo@cbn.net.id](mailto:tonnindo@cbn.net.id)

**Web address:** <http://tonnindo.com>

## Specifications

<b>Volume (Liter):</b>	2.5L	<b>Syringe hole diameter (mm):</b>	42mm
<b>Nominal syringe capacity:</b>	80	<b>Material:</b>	recycled board and virgin fibre, water resistant
<b>Dimensions before assembly (mm):</b>	530 x 230 x 28	<b>Colour:</b>	yellow
<b>Dimensions after assembly (mm):</b>	235 x 120 x 110		
<b>Weight empty (g):</b>	350		
<b>Minimum order:</b>	100	<b>Pieces per carton:</b>	25
<b>Year base price:</b>	2017	<b>Volume per carton:</b>	0.001m3
<b>Price per unit:</b>	> 10,000 USD 2.46	<b>Weight per carton:</b>	9kg
	>1,000 USD 2.93	<b>Incoterms:</b>	DDP
	<1,000 USD 2.98	<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>		<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 18 Aug 2017</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



## E010: Waste management products

**PQS code:** E10 015  
**Description:** 5L Safety Box  
**Manufacturer's reference:** PT. Tonnindo Eramulya 5L Safety Box  
**Manufactured in:** Indonesia  
**Company:** PT. Tonnindo Eramulya  
**Address:** Jl.Pembangunan III # 14E.  
 Jakarta 10130  
 Indonesia

**Telephone:** +62 216321717

**Email:** [tonnindo@cbn.net.id](mailto:tonnindo@cbn.net.id)

**Web address:** <http://tonnindo.com>

## Specifications

<b>Volume (Liter):</b>	5L	<b>Syringe hole diameter (mm):</b>	38mm
<b>Nominal syringe capacity:</b>	171	<b>Material:</b>	recycled board and virgin fibre, water resistant
<b>Dimensions before assembly (mm):</b>	584mmx270mmx28mm	<b>Colour:</b>	yellow
<b>Dimensions after assembly (mm):</b>	290mmx150x120mm		
<b>Weight empty (g):</b>	500g		
<b>Minimum order:</b>	100pcs	<b>Pieces per carton:</b>	25
<b>Year base price:</b>	2017	<b>Volume per carton:</b>	0.00163m3
<b>Price per unit:</b>	>10,000 USD 3.46	<b>Weight per carton:</b>	12.5kg
	>1,000 USD 3.92	<b>Incoterms:</b>	DDP
	>100 USD 3.98	<b>Quality standard:</b>	ISO 9001
<b>Verification report:</b>	117-24734.b rev.1	<b>Verification laboratory:</b>	ForceTechnology
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified;</i>	<b>Valid until :</b>	

Note: If Current PQS status is 'Suspended' or 'Withdrawn', this product is NOT to be purchased



# E011

## Specimen collection equipment

Currently there are no PQS specifications for specimen collection equipment. These will be developed in the near future in collaboration with other partners. Meanwhile, the PIS qualified equipment can still be obtained from UNICEF Supply Division.

### **E011.1 Stool specimen collection for AFP**

The full procedures describing how to collect a stool specimen are explained in [WHO/EPI/GEN/95.01 Rev.1](#). *Field guide for supplementary activities aimed at achieving polio eradication*.

### **E011.2 Sending specimens via a 'reverse cold chain'**

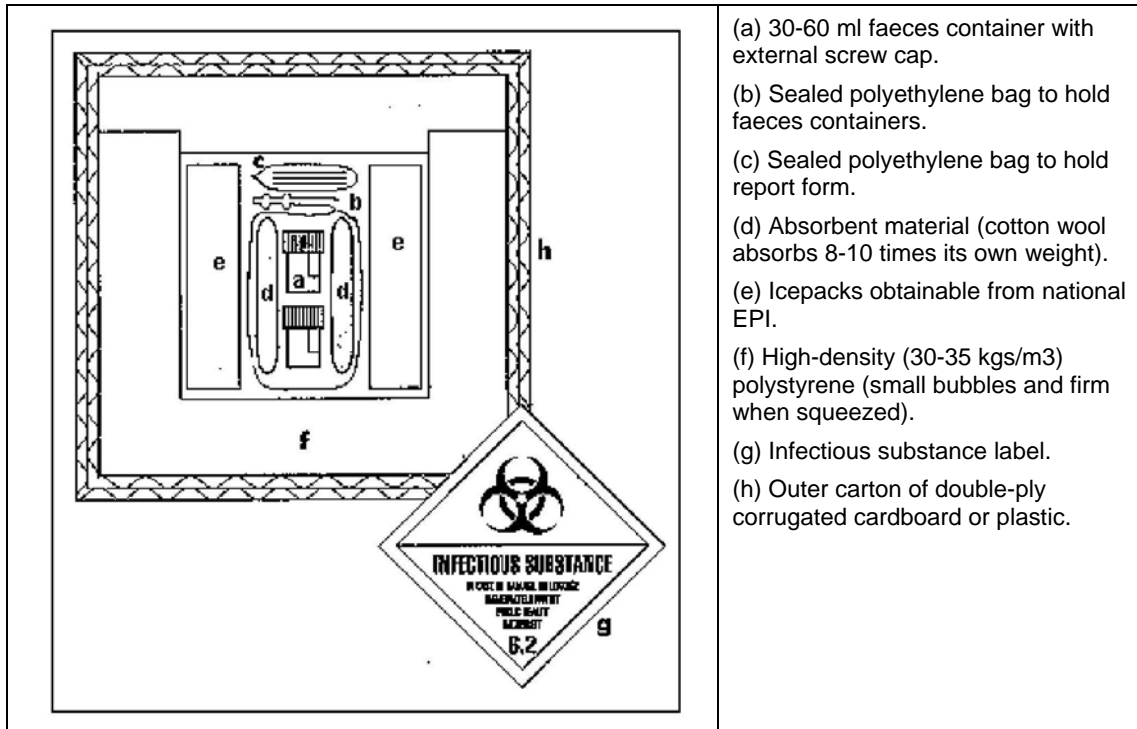
Poliovirus is sensitive to heat: the titre (virus concentration) is maintained at -20°C, but deteriorates when exposed to higher temperatures. The higher the titre, the more easily a laboratory can detect the virus. The possibility of detection therefore depends on the original titre, the duration and degree of post-collection exposure to higher temperatures and the quality of the laboratory. The first two aspects can be influenced in the field by timely collection and correct transport of stool specimens.

After collection, the specimens must be placed immediately in a refrigerator or, for shipment, in a cold box at 0°C to +8°C between frozen ice packs. Aim for the specimens to arrive at the laboratory within 72 hours of collection. If this is not possible, the specimens must be frozen at -20°C and then shipped frozen, preferably with dry ice or with cold packs that have also been frozen at -20°C. Try to limit repeated freezing and thawing to a minimum. This process of keeping the specimen refrigerated or frozen is called a 'reverse cold chain'. If a reverse cold chain is not properly maintained at all times during transport, polioviruses will not survive in the stool specimen.

### **E011.3 Basic rules for specimen storage and transport**

- **Storage at 0°C - 8°C:** 3-4 days between collection and arrival at laboratory. (Check the cold life of the carrier in the product data sheet).
- **Storage at -20°C:** Indefinitely.
- Repeatedly freezing and thawing decreases the titre of the sample.
- Avoid storing samples in refrigerators or cold boxes used for vaccines or medicines.
- If separate storage is unavoidable, seal specimens in 2-3 layers of plastic bags and separate them properly from vaccines.

- Before packing the specimen carrier, disinfect the inside of the carrier with a solution of 1 part bleach to 10 parts water.
- Inform the receiving laboratory in advance.
- If sending by air, investigate procedures in advance.



Source: WHO/V&B/00.13. *Product Information Sheets*

# E013

## Therapeutic injection devices

The products listed in this new section include single-use syringes for therapeutic use. All PQS pre-qualified syringes in this category must now comply with ISO 7886-4: 2006 - *Sterile hypodermic syringes for single use - Part 4: Syringes with re-use prevention feature*.

The recommendations on safe disposal of used injection equipment given in the guidance notes to section E010 also apply to this category.

**E013 data sheets follow**



## E013: Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/001</b>
<b>Description:</b>	RUP syringe 2ml
<b>Manufacturer's reference:</b>	Kojak Seling 2ml
<b>Manufactured in:</b>	India
<b>Company:</b>	Hindustan Syringes & Medical Devices Ltd. 174, Sector - 25, Ballabgarh - 121 004 (Haryana) India
<b>Address:</b>	
<b>Telephone:</b>	+91 129-4061151/58
<b>Email:</b>	<a href="mailto:hmduk@hmdhealthcare.com">hmduk@hmdhealthcare.com</a>
<b>Web address:</b>	<a href="http://www.hmdhealthcare.com">www.hmdhealthcare.com</a>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1" (0.60 x 25.4 mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Locked/broken plunger	<b>Primary packaging:</b>	Paper or Ribbon pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.09 m3
<b>Minimum order:</b>	18000	<b>Weight per carton (kg):</b>	14.5 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Over 1 million: 0.06 USD; Over 5 millions: 0.0575	Over 10 millions: 0.0550 USD	Over 50 millions: 0.0525 USD
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Packs of 100 units Other needle sizes with detachable option available upon request		
<b>Current PQS status:</b>	<b>pre-qualified; 24 Mar 2007</b>		<b>Valid until : May, 2018</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/002**

**Description:** RUP Retractable 3 ml

**Manufacturer's reference:** Vanishpoint® Retractable syringe 3 ml

**Manufactured in:** United States

**Company:** Retractable Technologies, Inc.

**Address:** 511 Lobo Lane, Little Elm, TX 75068

**Telephone:** +1 972 294 1010

**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)

**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23G x 1" (25mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	600	<b>Volume per carton (m3):</b>	0.0432 m3
<b>Minimum order:</b>	600	<b>Weight per carton (kg):</b>	5.9 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 15 Jun 2005* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/005**  
**Description:** RUP Retractable 1ml  
**Manufacturer's reference:** Vanishpoint® Retractable 1 ml Tuberculin  
**Manufactured in:** United States  
**Company:** Retractable Technologies, Inc.  
**Address:** 511 Lobo Lane, Little Elm, TX 75068  
**Telephone:** +1 972 294 1010  
**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)  
**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	0.01 ml	<b>Needle size:</b>	27 g x 12.7 mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.0432 m3
<b>Minimum order:</b>	800	<b>Weight per carton (kg):</b>	4.59 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	on request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 16 Jun 2005* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/006**

**Description:** RUP retractable 1ml

**Manufacturer's reference:** Vanishpoint® Retractable 1 ml

**Manufactured in:** China; People's Republic of

**Company:** Retractable Technologies, Inc.

**Address:** 511 Lobo Lane, Little Elm, TX 75068

**Telephone:** +1 972 294 1010

**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)

**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	0.01 ml	<b>Needle size:</b>	27G x 12.7 mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	800	<b>Volume per carton (m3):</b>	0.0432 m3
<b>Minimum order:</b>	800	<b>Weight per carton (kg):</b>	4.5 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a sharp injury Protection (SIP)

**Current PQS status:** *pre-qualified; 15 Jun 2005* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/007**

**Description:** RUP Retractable 10ml

**Manufacturer's reference:** Vanishpoint® Retractable 10ml

**Manufactured in:** China; People's Republic of

**Company:** Retractable Technologies, Inc.

**Address:** 511 Lobo Lane, Little Elm, TX 75068

**Telephone:** +1 972 294 1010

**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)

**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	0.2	<b>Needle size:</b>	21Gx1.5" (38mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.068 m3
<b>Minimum order:</b>	600	<b>Weight per carton (kg):</b>	9.7 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 15 Jun 2005* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/008**  
**Description:** RUP Retractable 5ml  
**Manufacturer's reference:** Vanishpoint® Retractable 5ml  
**Manufactured in:** China; People's Republic of  
**Company:** Retractable Technologies, Inc.  
**Address:** 511 Lobo Lane, Little Elm, TX 75068  
**Telephone:** +1 972 294 1010  
**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)  
**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	0.2 ml	<b>Needle size:</b>	21Gx1.5" (38mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.045 m3
<b>Minimum order:</b>	600	<b>Weight per carton (kg):</b>	8.2 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 16 Jun 2005* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/009**  
**Description:** RUP retractable 3ml  
**Manufacturer's reference:** Vanishpoint® Retractable 3ml  
**Manufactured in:** China; People's Republic of  
**Company:** Retractable Technologies, Inc.  
**Address:** 511 Lobo Lane, Little Elm, TX 75068  
**Telephone:** +1 972 294 1010  
**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)  
**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23Gx1" (25mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.0432 m3
<b>Minimum order:</b>	600	<b>Weight per carton (kg):</b>	5.9 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 16 Jun 2005*

**Valid until :** *May, 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/010</b>
<b>Description:</b>	RUP syringe 5ml
<b>Manufacturer's reference:</b>	BD SolomedTM 5ml (2 pieces)
<b>Manufactured in:</b>	Spain
<b>Company:</b>	Becton Dickinson
<b>Address:</b>	1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238
<b>Telephone:</b>	+1 201-847-5149
<b>Email:</b>	<a href="mailto:Amardeep_Singh_Chahal@bd.com">Amardeep_Singh_Chahal@bd.com</a>
<b>Web address:</b>	<a href="http://www.bd.com">http://www.bd.com</a>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 1.5"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	2 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger rod blocked and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type II B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.103 m3
<b>Minimum order:</b>	1800	<b>Weight per carton (kg):</b>	12.28 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 25 Jun 2005* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/011**  
**Description:** RUP syringe 2ml  
**Manufacturer's reference:** BD SoloMed™ 2ml (2 pieces)  
**Manufactured in:** Spain  
**Company:** Becton Dickinson  
**Address:** 1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238  
**Telephone:** +1 201-847-5149  
**Email:** [Amardeep\\_Singh\\_Chahal@bd.com](mailto:Amardeep_Singh_Chahal@bd.com)  
**Web address:** <http://www.bd.com>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	25G x 5/8"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	2 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger blocked and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type II B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.103 m3
<b>Minimum order:</b>	3000	<b>Weight per carton (kg):</b>	13.61 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 25 Jun 2005* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/012**  
**Description:** RUP syringe 10ml  
**Manufacturer's reference:** BD SoloMed™ 10ml 2 pieces  
**Manufactured in:** Spain  
**Company:** Becton Dickinson  
**Address:** 1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238  
**Telephone:** +1 201-847-5149  
**Email:** [Amardeep\\_Singh\\_Chahal@bd.com](mailto:Amardeep_Singh_Chahal@bd.com)  
**Web address:** <http://www.bd.com>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Needle size:</b>	23G x 1 1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	2 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger blocked and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type II B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.103 m3
<b>Minimum order:</b>	1200	<b>Weight per carton (kg):</b>	12.40 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 25 Jun 2005* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/014**  
**Description:** RUP retractable 1ml Insulin  
**Manufacturer's reference:** Vanishpoint® Retractable 1 ml Insulin  
**Manufactured in:** United States  
**Company:** Retractable Technologies, Inc.  
**Address:** 511 Lobo Lane, Little Elm, TX 75068  
**Telephone:** +1 972 294 1010  
**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)  
**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	unit dose	<b>Needle size:</b>	29G x 12.7 mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>		<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	800	<b>Volume per carton (m3):</b>	0.0432 m3
<b>Minimum order:</b>	800	<b>Weight per carton (kg):</b>	4.5 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 15 Jun 2005* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/015**  
**Description:** RUP retractable 1ml Insulin  
**Manufacturer's reference:** Vanishpoint® Retractable 1ml insulin  
**Manufactured in:** China; People's Republic of  
**Company:** Retractable Technologies, Inc.  
**Address:** 511 Lobo Lane, Little Elm, TX 75068  
**Telephone:** +1 972 294 1010  
**Email:** [rticlinical@vanishpoint.com](mailto:rticlinical@vanishpoint.com)  
**Web address:** <http://www.vanishpoint.com/>

## Specifications

<b>Graduations:</b>	1 unit	<b>Needle size:</b>	29G x 12.7 mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle into barrel by spring	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.0432 m3
<b>Minimum order:</b>	800	<b>Weight per carton (kg):</b>	4.5 kg
<b>Year base price:</b>	2005	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 15 Jun 2005*

**Valid until :** *May, 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/018  
**Description:** RUP syringe 5ml  
**Manufacturer's reference:** Kojak Selinge 5ml  
**Manufactured in:** India  
**Company:** Hindustan Syringes & Medical Devices Ltd.  
 174, Sector - 25, Ballabgarh - 121 004  
 (Haryana) India  
**Address:**  
  
**Telephone:** +91 129-4061151/58  
**Email:** [hmduk@hmdhealthcare.com](mailto:hmduk@hmdhealthcare.com)  
**Web address:** [www.hmdhealthcare.com](http://www.hmdhealthcare.com)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 1 1/2" (0.80 x 38 mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	locked/broken plunger	<b>Primary packaging:</b>	Paper or Ribbon pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.12 m3
<b>Minimum order:</b>	16800	<b>Weight per carton (kg):</b>	16 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Over 1 million: 0.065USD; Over 5 millions: 0.0625	Over 10 millions: 0.06 USD	Over 50 millions: 0.0575 USD
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Packs of 100 units Other needle sizes with detachable option available upon request		
<b>Current PQS status:</b>	<b>pre-qualified; 24 Feb 2008</b>		<b>Valid until : May, 2018</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** E013/019  
**Description:** RUP syringe 3ml  
**Manufacturer's reference:** Oneject K1 3ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
 Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
**Address:** Bogor 16810,  
 Indonesia

**Telephone:** +62 21 879 17 422  
**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)  
**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1 1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Locked & broken plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.11 m3
<b>Minimum order:</b>	18000	<b>Weight per carton (kg):</b>	13.6 kg
<b>Year base price:</b>	2010	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 07 May 2007* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/020</b>
<b>Description:</b>	RUP syringe 10ml
<b>Manufacturer's reference:</b>	Kojak Selinge 10 ml
<b>Manufactured in:</b>	India
<b>Company:</b>	Hindustan Syringes & Medical Devices Ltd. 174, Sector - 25, Ballabgarh - 121 004 (Haryana) India
<b>Address:</b>	
<b>Telephone:</b>	+91 129-4061151/58
<b>Email:</b>	<a href="mailto:hmduk@hmdhealthcare.com">hmduk@hmdhealthcare.com</a>
<b>Web address:</b>	<a href="http://www.hmdhealthcare.com">www.hmdhealthcare.com</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Needle size:</b>	21G x 1 1/2" (0.80 x 38mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked/broken plunger	<b>Primary packaging:</b>	Paper or Ribbon pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1000	<b>Volume per carton (m3):</b>	0.11 m3
<b>Minimum order:</b>	10000	<b>Weight per carton (kg):</b>	17.5 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Over 1 million: 0.038 USD; Over 5 millions: 0.0365	Over 10 millions: 0.035 USD	Over 50 millions: 0.0335 USD
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Packs of 50 units or 100 units Other needle sizes available upon request		
<b>Current PQS status:</b>	<b>pre-qualified; 08 Mar 2007</b>		<b>Valid until : May, 2018</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/023**  
**Description:** RUP syringe 1ml  
**Manufacturer's reference:** Oneject K1 1ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
 Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia  
**Address:**

*Telephone:* +62 21 879 17 422  
*Email:* [marketing@oneject.co.id](mailto:marketing@oneject.co.id)  
*Web address:* [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	1 ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Locked & broken plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.11 m3
<b>Minimum order:</b>	18000	<b>Weight per carton (kg):</b>	13.6 kg
<b>Year base price:</b>	2010	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 07 May 2007* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/024**  
**Description:** RUP syringe 5ml  
**Manufacturer's reference:** Oneject K1 5ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
 Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia  
**Address:**

*Telephone:* +62 21 879 17 422  
*Email:* [marketing@oneject.co.id](mailto:marketing@oneject.co.id)  
*Web address:* [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger locked and broken	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.09m3
<b>Minimum order:</b>	12000	<b>Weight per carton (kg):</b>	11.1 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 21 May 2007* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/027**  
**Description:** RUP syringe 1ml  
**Manufacturer's reference:** SoloShot™ IX 1ml syringe  
**Manufactured in:** Spain  
**Company:** Becton Dickinson  
**Address:** 1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238  
**Telephone:** +1 201-847-5149  
**Email:** [Amardeep\\_Singh\\_Chahal@bd.com](mailto:Amardeep_Singh_Chahal@bd.com)  
**Web address:** <http://www.bd.com>

## Specifications

<b>Graduations:</b>	1 ml	<b>Needle size:</b>	22G x 25mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	2 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger locking clip	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	At start of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	200	<b>Volume per carton (m3):</b>	0.102 m3
<b>Minimum order:</b>	2400	<b>Weight per carton (kg):</b>	11.49 kg
<b>Year base price:</b>	2010	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 28 May 2007* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/029  
**Description:** RUP syringe 3ml  
**Manufacturer's reference:** Yushou 3ml  
**Manufactured in:** China; People's Republic of  
**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
 No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province  
**Address:**  
  
**Telephone:** +86 (510)3777555  
**Email:** [mike@chinasyringe.com](mailto:mike@chinasyringe.com)  
**Web address:** <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1 1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock with clip	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	At start of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	200	<b>Volume per carton (m3):</b>	??
<b>Minimum order:</b>	1800	<b>Weight per carton (kg):</b>	13 kg
<b>Year base price:</b>	2007	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		
<b>Quality standard:</b>	ISO 13485		

### Comments:

**Current PQS status:** *pre-qualified; 27 May 2008* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/034**  
**Description:** RUP syringe 2ml  
**Manufacturer's reference:** Haiou syringe 2ml  
**Manufactured in:** China; People's Republic of  
**Company:** Guangdong Haiou Medical Apparatus Co., Ltd  
**Address:** Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China  
**Telephone:** +86-663-2758666  
**Email:** [sales@haiou.net.cn](mailto:sales@haiou.net.cn)  
**Web address:** <http://www.haiou.net.cn>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 25mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger locked and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2400	<b>Volume per carton (m3):</b>	0.118 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	15.5 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 30 Apr 2009* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/035</b>
<b>Description:</b>	RUP syringe 5ml
<b>Manufacturer's reference:</b>	Haiou syringe 5ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Guangdong Haiou Medical Apparatus Co., Ltd
<b>Address:</b>	Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China
<b>Telephone:</b>	+86-663-2758666
<b>Email:</b>	<a href="mailto:sales@haiou.net.cn">sales@haiou.net.cn</a>
<b>Web address:</b>	<a href="http://www.haiou.net.cn">http://www.haiou.net.cn</a>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 40mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock & break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.116 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	16 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 30 Apr 2009* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





## E013: Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/036</b>
<b>Description:</b>	RUP syringe 10ml
<b>Manufacturer's reference:</b>	Haiou syringe 10ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Guangdong Haiou Medical Apparatus Co., Ltd
<b>Address:</b>	Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China
<b>Telephone:</b>	+86-663-2758666
<b>Email:</b>	<a href="mailto:sales@haiou.net.cn">sales@haiou.net.cn</a>
<b>Web address:</b>	<a href="http://www.haiou.net.cn">http://www.haiou.net.cn</a>

## Specifications

<b>Graduations:</b>	1ml	<b>Needle size:</b>	21G x 40mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger locked & break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.11 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	15.5 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 30 Apr 2009* **Valid until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with re-use prevention feature

**PQS code:** **E013/037**

**Description:** RUP syringe 3ml

**Manufacturer's reference:** RG-Non reusable syringe 3ml

**Manufactured in:** China; People's Republic of

**Company:** RoyalGroup

**Address:** ONB-E/2, Mehar Sons Estate,  
Talpur Road, Karachi-74000, Pakistan

**Telephone:** +92-21-32400270 Ext. 234; +92-21-32470301

**Email:** [info@royalgroupweb.com](mailto:info@royalgroupweb.com)

**Web address:** <http://www.royalgroupweb.com>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.123 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	17 kg
<b>Year base price:</b>	2009	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

**Comments:** Sole distributor of this product for Changzhou Tongda Medical Appliance Co.,Ltd. Sanhekou Street, Zhenglu Town, Tianning District, Changzhou, Jiangsu, China.

**Current PQS status:** *pre-qualified; 21 May 2009* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/038**

**Description:** RUP syringe 5ml

**Manufacturer's reference:** RG Non reusable 5ml

**Manufactured in:** China; People's Republic of

**Company:** RoyalGroup

**Address:** ONB-E/2, Mehar Sons Estate,  
Talpur Road, Karachi-74000, Pakistan

**Telephone:** +92-21-32400270 Ext. 234; +92-21-32470301

**Email:** [info@royalgroupweb.com](mailto:info@royalgroupweb.com)

**Web address:** <http://www.royalgroupweb.com>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger block and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.0135 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	22 kg
<b>Year base price:</b>	2009	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

**Comments:** Sole distributor of this product for Changzhou Tongda Medical Appliance Co.,Ltd. Sanhekou Street, Zhenglu Town, Tianning District, Changzhou, Jiangsu, China.

**Current PQS status:** *pre-qualified; 21 May 2009* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/039**

**Description:** RUP syringe 20ml

**Manufacturer's reference:** Kojak Selinge 20ml

**Manufactured in:** India

**Company:** Hindustan Syringes & Medical Devices Ltd.  
 174, Sector - 25, Ballabgarh - 121 004  
 (Haryana) India

**Address:**

**Telephone:** +91 129-4061151/58

**Email:** [hmduk@hmdhealthcare.com](mailto:hmduk@hmdhealthcare.com)

**Web address:** [www.hmdhealthcare.com](http://www.hmdhealthcare.com)

## Specifications

<b>Graduations:</b>	1ml	<b>Needle size:</b>	21G x 1 1/2" (0.80 x 38 mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	locked/broken plunger	<b>Primary packaging:</b>	Paper or Ribbon pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	400	<b>Volume per carton (m3):</b>	0.103 m3
<b>Minimum order:</b>	4000	<b>Weight per carton (kg):</b>	13 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Over 1 millions: 0.0350 USD	Over 5 millions: 0.0325 USD	Over 10 millions: 0.0300 USD
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Packs of 25 units Other needle sizes available upon request		
<b>Current PQS status:</b>	<b>pre-qualified; 18 Jun 2009</b>		<b>Valid until : May, 2018</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/040**

**Description:** RUP syringe 5ml

**Manufacturer's reference:** Revital 5ml

**Manufactured in:** Kenya

**Company:** Revital Healthcare Ltd.  
 Pandia Street, Off Mwakilingo Road,  
 Station area, PO Box 80813  
 Code 80100  
 Mombasa

**Address:**

**Telephone:** +254 41 2228962

**Email:** [info@revitalhcare.com](mailto:info@revitalhcare.com)

**Web address:** [www.revitalhealthcare.com](http://www.revitalhealthcare.com)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	22Gx1 1/2' & 22Gx1'
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger (gasket) lock	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	500000	<b>Volume per carton (m3):</b>	
<b>Minimum order:</b>	500000	<b>Weight per carton (kg):</b>	21.5 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.05 US\$		
<b>Quality standard:</b>	- ISO 13485 -		
<b>Comments:</b>	Plunger gasket can be provided in black or white		
<b>Current PQS status:</b>	<i>pre-qualified; 02 Sep 2009</i>		Valid until : <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/041

**Description:** RUP syringe 1ml

**Manufacturer's reference:** Yushou Syringe 1ml

**Manufactured in:** China; People's Republic of

**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
 No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province

**Address:**

**Telephone:** +86 (510)3777555

**Email:** [mike@chinasyringe.com](mailto:mike@chinasyringe.com)

**Web address:** <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.05ml	<b>Needle size:</b>	25G x 20mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock with metallic clip	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	At start of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	200	<b>Volume per carton (m3):</b>	0.094 m3
<b>Minimum order:</b>	30000	<b>Weight per carton (kg):</b>	11 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	ISO 13485		

### Comments:

**Current PQS status:** *pre-qualified; 15 Sep 2009* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/042**

**Description:** RUP syringe 2ml

**Manufacturer's reference:** Revital syringe 2ml

**Manufactured in:** Kenya

**Company:** Revital Healthcare Ltd.  
 Pandia Street, Off Mwakilingo Road,  
 Station area, PO Box 80813  
 Code 80100  
 Mombasa

**Address:**

**Telephone:** +254 41 2228962

**Email:** [info@revitalhcare.com](mailto:info@revitalhcare.com)

**Web address:** [www.revitalhealthcare.com](http://www.revitalhealthcare.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger block and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.130 m3
<b>Minimum order:</b>	3500	<b>Weight per carton (kg):</b>	19.5 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Per unit: 0.027 US\$		
<b>Quality standard:</b>	ISO 13485		

### Comments:

**Current PQS status:** *pre-qualified; 08 Jan 2009* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/043**

**Description:** RUP syringe 5ml

**Manufacturer's reference:** Revital syringe 5ml

**Manufactured in:** Kenya

**Company:** Revital Healthcare Ltd.  
 Pandia Street, Off Mwakilingo Road,  
 Station area, PO Box 80813  
 Code 80100  
 Mombasa

**Address:**

**Telephone:** +254 41 2228962

**Email:** [info@revitalhcare.com](mailto:info@revitalhcare.com)

**Web address:** [www.revitalhealthcare.com](http://www.revitalhealthcare.com)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	22Gx1 1/2' & 22Gx1'
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	2 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.128 m3
<b>Minimum order:</b>	2500	<b>Weight per carton (kg):</b>	17.6 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Per unit: 0.0295 US\$		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 08 Jan 2009* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/044</b>
<b>Description:</b>	RUP retractable 1ml Tuberculin
<b>Manufacturer's reference:</b>	Safeguard Retractable safety syringe 1ml Tuberculin
<b>Manufactured in:</b>	Hungary
<b>Company:</b>	Safeguard Medical (Hungary) Kft Safeguard Medical ( Hungary ) Kft Farkaslyuk
<b>Address:</b>	Joszerencset terv 15 3608 Hungary
<b>Telephone:</b>	+36 48 470758
<b>Email:</b>	<a href="mailto:filippif@safeguardmedical.hu">filippif@safeguardmedical.hu</a>
<b>Web address:</b>	<a href="http://www.safeguardmedical.com">www.safeguardmedical.com</a>

## Specifications

<b>Graduations:</b>	0.01ml	<b>Needle size:</b>	27G x 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.056 m3
<b>Minimum order:</b>	1000	<b>Weight per carton (kg):</b>	5.4 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.08 US\$/pc		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 22 Feb 2010*

**Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/045**

**Description:** RUP retractable 3ml

**Manufacturer's reference:** Safeguard Retractable Safety syringe 3ml

**Manufactured in:** Hungary

**Company:** Safeguard Medical (Hungary) Kft  
 Safeguard Medical ( Hungary ) Kft  
 Farkaslyuk

**Address:** Joszerencset terv 15  
 3608  
 Hungary

**Telephone:** +36 48 470758

**Email:** [filippif@safeguardmedical.hu](mailto:filippif@safeguardmedical.hu)

**Web address:** [www.safeguardmedical.com](http://www.safeguardmedical.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.07 m3
<b>Minimum order:</b>	1000	<b>Weight per carton (kg):</b>	7.3 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.085 US\$/pc		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 22 Feb 2010*

**Valid until :** *May, 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/046**

**Description:** RUP retractable 5ml

**Manufacturer's reference:** Safeguard Retractable Safety Syringe 5ml

**Manufactured in:** Hungary

**Company:** Safeguard Medical (Hungary) Kft  
 Safeguard Medical ( Hungary ) Kft  
 Farkaslyuk

**Address:** Joszerencset terv 15  
 3608  
 Hungary

**Telephone:** +36 48 470758

**Email:** [filippif@safeguardmedical.hu](mailto:filippif@safeguardmedical.hu)

**Web address:** [www.safeguardmedical.com](http://www.safeguardmedical.com)

## Specifications

<b>Graduations:</b>	0.2 ml	<b>Needle size:</b>	21G x 1 1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction into barrel	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.12 m3
<b>Minimum order:</b>	1000	<b>Weight per carton (kg):</b>	9.68 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.09 US\$/pc		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 22 Feb 2010*

**Valid until :** *May, 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/047**

**Description:** RUP Retractable 3ml

**Manufacturer's reference:** Sol-Care™ 3ml

**Manufactured in:** China; People's Republic of

**Company:** Shanghai Sol-Millennium Medical Products Co. Ltd.

**Address:** Room E, 11th Floor,  
East Hope Plaza,  
No.1777 Century Avenue,  
Pudong, Shanghai 200122,  
China

**Telephone:** +86-21-68622586-17

**Email:** [Jane Nie, Jane@sol-m.com](mailto:JaneNie, Jane@sol-m.com)

**Web address:** [www.sol-m.com](http://www.sol-m.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	25G x 25mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock in hub, needle retraction and plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.139 m3
<b>Minimum order:</b>	9000	<b>Weight per carton (kg):</b>	15.5 kg
<b>Year base price:</b>	2009	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		

**Quality standard:** - ISO 13485 -

**Comments:** The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)

**Current PQS status:** *pre-qualified; 19 Mar 2010*

**Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/048</b>
<b>Description:</b>	RUP retractable 5ml
<b>Manufacturer's reference:</b>	Sol-Care™ 5ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Shanghai Sol-Millennium Medical Products Co. Ltd.
<b>Address:</b>	Room E, 11th Floor, East Hope Plaza, No.1777 Century Avenue, Pudong, Shanghai 200122, China
<b>Telephone:</b>	+86-21-68622586-17
<b>Email:</b>	Jane Nie, Jane@sol-m.com
<b>Web address:</b>	www.sol-m.com

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 38mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock in hub, needle retraction and plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.136 m3
<b>Minimum order:</b>	6000	<b>Weight per carton (kg):</b>	14 kg
<b>Year base price:</b>	2009	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 13485 -		
<b>Comments:</b>	The retraction of the needle is considered as a reuse prevention feature (RUP) and a Sharp Injury Protection (SIP)		
<b>Current PQS status:</b>	<i>pre-qualified; 19 Mar 2010</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/051**

**Description:** RUP syringe 2ml

**Manufacturer's reference:** Revital 2ml (2 piece)

**Manufactured in:** Kenya

**Company:** Revital Healthcare Ltd.  
 Pandia Street, Off Mwakilingo Road,  
 Station area, PO Box 80813  
 Code 80100  
 Mombasa

**Address:**

**Telephone:** +254 41 2228962

**Email:** [info@revitalhcare.com](mailto:info@revitalhcare.com)

**Web address:** [www.revitalhealthcare.com](http://www.revitalhealthcare.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	2 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	3500	<b>Volume per carton (m3):</b>	0.130 m3
<b>Minimum order:</b>	3500	<b>Weight per carton (kg):</b>	17.5 kg
<b>Year base price:</b>	2008	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Up to 5 millions: 0.028 US\$	Up to 10 millions: 0.0275 US\$	
<b>Quality standard:</b>	ISO 13485		

### Comments:

**Current PQS status:** *pre-qualified; 26 Apr 2010* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/053**

**Description:** RUP syringe 2ml

**Manufacturer's reference:** Hongda syringe 2ml

**Manufactured in:** China; People's Republic of

**Company:** Jiangxi Hongda Medical Equipment Group Ltd  
 39 South Shengi Road  
 Jinxian county, Nanchang City  
 Jiangxi province  
 China; People's Republic of

**Address:**

**Telephone:** +86 791 85628828

**Email:** [hongda008@jxhd.cn](mailto:hongda008@jxhd.cn)

**Web address:** <http://www.jxhd.cn>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	21G x 38mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger block and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1500	<b>Volume per carton (m3):</b>	0.106 m3
<b>Minimum order:</b>	525000	<b>Weight per carton (kg):</b>	17 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 13485 -		
<b>Comments:</b>	Option of 2000 pieces per cartons Other needle sizes available Fixed needle option available		
<b>Current PQS status:</b>	<b>pre-qualified; 09 Jun 2010</b>		<b>Valid until : May, 2018</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/054**

**Description:** RUP syringe 5ml

**Manufacturer's reference:** Hongda syringe 5ml

**Manufactured in:** China; People's Republic of

**Company:** Jiangxi Hongda Medical Equipment Group Ltd  
 39 South Shengi Road  
 Jinxian county, Nanchang City  
 Jiangxi province  
 China; People's Republic of

**Address:**

**Telephone:** +86 791 85628828

**Email:** [hongda008@jxhd.cn](mailto:hongda008@jxhd.cn)

**Web address:** <http://www.jxhd.cn>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 38mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger block and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1500	<b>Volume per carton (m3):</b>	0.124 m3
<b>Minimum order:</b>	525000	<b>Weight per carton (kg):</b>	19 kg
<b>Year base price:</b>	2009	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	ISO 13485		

### Comments:

**Current PQS status:** *pre-qualified; 09 Jun 2010* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/055</b>
<b>Description:</b>	RUP syringe 5ml
<b>Manufacturer's reference:</b>	Shifeng RUP syringe 5ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Chengdu Xinjin Shifeng Medical Apparatus Co, Ltd Chengdu Xinjin Shifeng Medical Apparatus & Instruments Co, Ltd
<b>Address:</b>	C-6, B Glorai Regent Garden #44 4th section South Renmin road Chengdu Sichuan China; People's Republic of
<b>Telephone:</b>	+86 2885170675
<b>Email:</b>	<a href="mailto:xjshifeng2011@163.com">xjshifeng2011@163.com</a>
<b>Web address:</b>	<a href="http://www.xjshifeng.com">www.xjshifeng.com</a>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked broken plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1600	<b>Volume per carton (m3):</b>	0.122 m3
<b>Minimum order:</b>	1600	<b>Weight per carton (kg):</b>	17 kg
<b>Year base price:</b>	2009	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.055 USD		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 30 Aug 2010* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/056</b>
<b>Description:</b>	RUP 1ml fixed dose
<b>Manufacturer's reference:</b>	Kojak Selinge 1 ml
<b>Manufactured in:</b>	India
<b>Company:</b>	Hindustan Syringes & Medical Devices Ltd. 174, Sector - 25, Ballabgarh - 121 004 (Haryana) India
<b>Address:</b>	
<b>Telephone:</b>	+91 129-4061151/58
<b>Email:</b>	<a href="mailto:hmduk@hmdhealthcare.com">hmduk@hmdhealthcare.com</a>
<b>Web address:</b>	<a href="http://www.hmdhealthcare.com">www.hmdhealthcare.com</a>

## Specifications

<b>Graduations:</b>	1 ml	<b>Needle size:</b>	24G x 25mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Locked/broken plunger	<b>Primary packaging:</b>	Paper or Ribbon pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.1 m3
<b>Minimum order:</b>	20000	<b>Weight per carton (kg):</b>	14.5 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	On request		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Packs of 100 units Needle size: 24G x 1" (0.55 x 25mm); other needle sizes available upon request		
<b>Current PQS status:</b>	<b>pre-qualified; 16 Sep 2010</b>		<b>Valid until : May, 2018</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/057**  
**Description:** RUP 1ml Sanxin  
**Manufacturer's reference:** YIXIN 1 ml  
**Manufactured in:** China; People's Republic of  
**Company:** Jiangxi Sanxin Medtec Co.,Ltd  
 999 Fushan Road, Xiaolan Economic Development Zone, Nanchang, Jiangxi, P.C. 330200 China; People's Republic of  
**Address:**  
**Telephone:** +86 791 85988111  
**Email:** [sanxin-med@vip.163.com](mailto:sanxin-med@vip.163.com)  
**Web address:** [www.sanxin-med.com](http://www.sanxin-med.com)

## Specifications

<b>Graduations:</b>	1 ml	<b>Needle size:</b>	25G x 19 mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger locked	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	3000	<b>Volume per carton (m3):</b>	0.12 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	15 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.0395 USD		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 02 Sep 2010* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/058**

**Description:** RUP syringe 5ml

**Manufacturer's reference:** Yushou® RUP 5ml

**Manufactured in:** China; People's Republic of

**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
 No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province

**Address:**

*Telephone:* +86 (510)3777555

*Email:* [mike@chinasyringe.com](mailto:mike@chinasyringe.com)

*Web address:* <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.2 ml	<b>Needle size:</b>	21G x 1 1/2'
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Locked / broken plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.103 m3
<b>Minimum order:</b>	1800	<b>Weight per carton (kg):</b>	13 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 07 Mar 2011* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/062**

**Description:** RUP 10ml (2 piece)

**Manufacturer's reference:** Revital® RUP 10ml 2 piece syringe

**Manufactured in:** Kenya

**Company:** Revital Healthcare Ltd.  
 Pandia Street, Off Mwakilingo Road,  
 Station area, PO Box 80813  
 Code 80100  
 Mombasa

**Address:**

**Telephone:** +254 41 2228962

**Email:** [info@revitalhcare.com](mailto:info@revitalhcare.com)

**Web address:** [www.revitalhealthcare.com](http://www.revitalhealthcare.com)

## Specifications

<b>Graduations:</b>	0.5 ml	<b>Needle size:</b>	21G x 1.5"
<b>Syringe material(s):</b>	PPE, Polyethylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	2 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	locked, broken plunger	<b>Primary packaging:</b>	Plastic ribbon
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.1874 m3
<b>Minimum order:</b>	18000	<b>Weight per carton (kg):</b>	19.8 kgs
<b>Year base price:</b>	2011	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	Over 1 million: 6.80 USD per pack	Over 5 millions: 6.60 USD per pack	Over 10 millions: 6.50 USD per pack
<b>Quality standard:</b>	ISO 13485		

### Comments:

**Current PQS status:** *pre-qualified; 09 May 2011* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/063</b>
<b>Description:</b>	RUP syringe 5ml
<b>Manufacturer's reference:</b>	5ml BD Emerald™ PRO RUP
<b>Manufactured in:</b>	Spain
<b>Company:</b>	Becton Dickinson
<b>Address:</b>	1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238
<b>Telephone:</b>	+1 201-847-5149
<b>Email:</b>	<a href="mailto:Amardeep_Singh_Chahal@bd.com">Amardeep_Singh_Chahal@bd.com</a>
<b>Web address:</b>	<a href="http://www.bd.com">http://www.bd.com</a>

## Specifications

<b>Graduations:</b>	0.2 ml	<b>Needle size:</b>	21G x 40 mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locking gasket upon completion	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.103 m3
<b>Minimum order:</b>	2000	<b>Weight per carton (kg):</b>	13.4 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	upon request to manufacturer		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 31 May 2011* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/064

**Description:** RUP syringe 1ml

**Manufacturer's reference:** Sanzhong® 1ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiankang Medical Technology Co., Ltd  
 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province

**Address:** China; People's Republic of

**Telephone:** +86 550 7022258

**Email:** [marshall988@163.net](mailto:marshall988@163.net)

**Web address:** <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.05 ml	<b>Needle size:</b>	27G x 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger locked at end of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.072 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	10 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Over 200 000 units: 0.0407 USD per unit	Over 1 000 000 units: 0.0399 USD per unit	Over 5 000 000 units: 0.0387 USD per unit
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 14 Sep 2011* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/065**

**Description:** RUP syringe 2ml

**Manufacturer's reference:** Sanzhong® 2ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiankang Medical Technology Co., Ltd  
 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province  
 China; People's Republic of

**Address:**

*Telephone:* +86 550 7022258

*Email:* [marshall988@163.net](mailto:marshall988@163.net)

*Web address:* <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked plunger at the end of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.0927 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	11 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Over 200000 units: 0.0407 USD per unit	Over 1000000 units: 0.0399 USD per unit	Over 5000000 units: 0.0387 USD per unit
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 14 Sep 2011*

**Valid until :** *May, 2018*

**Note:** If Current PQS status is 'Suspended' or 'Withdrawn',





## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/066**

**Description:** RUP syringe 5ml

**Manufacturer's reference:** Sanzhong® 5ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiankang Medical Technology Co., Ltd  
 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province  
 China; People's Republic of

**Address:**

*Telephone:* +86 550 7022258

*Email:* [marshall988@163.net](mailto:marshall988@163.net)

*Web address:* <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.2 ml	<b>Needle size:</b>	22G x 1 1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked plunger at end of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.075 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	11 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Over 200000 units: 0.0421 USD per unit	Over 1000000 units: 0.0412 USD per unit	Over 5000000 units: 0.0400 USD per unit
<b>Quality standard:</b>	- ISO 13485 -		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 14 Sep 2011</i>		<b>Valid until :</b> <i>May, 2018</i>
<b>Note:</b> If Current PQS status is 'Suspended' or 'Withdrawn',			



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/067**

**Description:** RUP syringe 10ml

**Manufacturer's reference:** Sanzhong® 10ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiankang Medical Technology Co., Ltd  
 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province  
 China; People's Republic of

**Address:**

*Telephone:* +86 550 7022258

*Email:* [marshall988@163.net](mailto:marshall988@163.net)

*Web address:* <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.5 ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked plunger at the end of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.075 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	14 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Over 200,000 units: 0.0556 USD per unit	Over 1,000,000 units: 0.0545 USD per unit	Over 5,000,000 units: 0.0529 USD per unit
<b>Quality standard:</b>	- ISO 13485 -		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 14 Sep 2011</i>		<b>Valid until :</b> <i>May, 2018</i>
<b>Note:</b> If Current PQS status is 'Suspended' or 'Withdrawn',			



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/068</b>
<b>Description:</b>	RUP syringe 2ml
<b>Manufacturer's reference:</b>	Emerald TM PRO 2ml
<b>Manufactured in:</b>	Spain
<b>Company:</b>	Becton Dickinson
<b>Address:</b>	1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238
<b>Telephone:</b>	+1 201-847-5149
<b>Email:</b>	<a href="mailto:Amardeep_Singh_Chahal@bd.com">Amardeep_Singh_Chahal@bd.com</a>
<b>Web address:</b>	<a href="http://www.bd.com">http://www.bd.com</a>

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	locked gasket upon completion of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	3000	<b>Volume per carton (m3):</b>	0.103 m3
<b>Minimum order:</b>	3000	<b>Weight per carton (kg):</b>	13.39 kg
<b>Year base price:</b>	2010	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	upon request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	1 carton = 30 packs = 3000 units		
<b>Current PQS status:</b>	<i>pre-qualified; 21 Oct 2011</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/069**  
**Description:** RUP syringe 3ml  
**Manufacturer's reference:** SKIFA RUP syringe 3ml  
**Manufactured in:** Indonesia  
**Company:** Mitra Rajawali Banjaran, PT  
 JL. Raya Banjaran KM16  
 Bandung, Jawa Barat  
 Indonesia  
**Address:**  
**Telephone:** +62 22 594 0151  
**Email:** [yantomaunk@yahoo.co.id](mailto:yantomaunk@yahoo.co.id); [iwans9948@gmail.com](mailto:iwans9948@gmail.com); [erna\\_saptawati@yahoo.com](mailto:erna_saptawati@yahoo.com)  
**Web address:** <http://www.mrb.co.id>

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23G x 32mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger locked at end of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	No
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.17m3
<b>Minimum order:</b>	20000	<b>Weight per carton (kg):</b>	15 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	upon request to manufacturer		

**Quality standard:** - ISO 9001 - ISO 13485 -

**Comments:** Brand name: SKIFA

**Current PQS status:** *pre-qualified; 01 Dec 2011*

Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/070</b>
<b>Description:</b>	RUP syringe 10ml
<b>Manufacturer's reference:</b>	10ml BD Emerald™ PRO
<b>Manufactured in:</b>	Spain
<b>Company:</b>	Becton Dickinson
<b>Address:</b>	1 Becton Drive, Franklin Lakes, NJ 07417 USA MC238
<b>Telephone:</b>	+1 201-847-5149
<b>Email:</b>	<a href="mailto:Amardeep_Singh_Chahal@bd.com">Amardeep_Singh_Chahal@bd.com</a>
<b>Web address:</b>	<a href="http://www.bd.com">http://www.bd.com</a>

## Specifications

<b>Graduations:</b>	0.2 ml	<b>Needle size:</b>	21G x 40mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger blocked at bottom of barrel	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.1032 m3
<b>Minimum order:</b>	1200	<b>Weight per carton (kg):</b>	12.05 kg
<b>Year base price:</b>	2011	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to mfr		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	100 units per secondary packaging		
<b>Current PQS status:</b>	<i>pre-qualified; 25 Jan 2012</i>	<b>Valid until :</b>	<i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/071</b>
<b>Description:</b>	RUP syringe 2ml
<b>Manufacturer's reference:</b>	PAHF RUP syringe 2ml
<b>Manufactured in:</b>	Nigeria
<b>Company:</b>	Pan African Health Foundation East-West road, Rumuosi Port Harcourt, Rivers State Nigeria
<b>Address:</b>	
<b>Telephone:</b>	+234 8035954218 / 8060501316
<b>Email:</b>	<a href="mailto:awokoma@pahfadsyringe.org">awokoma@pahfadsyringe.org</a> ; <a href="mailto:info@pahfadsyringe.org">info@pahfadsyringe.org</a>
<b>Web address:</b>	<a href="http://www.pahfadsyringe.org">http://www.pahfadsyringe.org</a>

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23G x 25mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked/broken plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.077 m3
<b>Minimum order:</b>	1200	<b>Weight per carton (kg):</b>	8.6 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.037 € per unit		
<b>Quality standard:</b>	- ISO 13485 -		
<b>Comments:</b>	Fixed needle upon request		
<b>Current PQS status:</b>	<i>pre-qualified; 19 Mar 2012</i>	<b>Valid until :</b>	<i>May, 2017</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



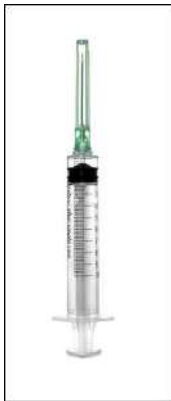
## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/072</b>
<b>Description:</b>	RUP syringe 5ml
<b>Manufacturer's reference:</b>	PAHF RUP syringe 5ml
<b>Manufactured in:</b>	Nigeria
<b>Company:</b>	Pan African Health Foundation East-West road, Rumuosi Port Harcourt, Rivers State Nigeria
<b>Address:</b>	
<b>Telephone:</b>	+234 8035954218 / 8060501316
<b>Email:</b>	<a href="mailto:awokoma@pahfadsyringe.org">awokoma@pahfadsyringe.org</a> ; <a href="mailto:info@pahfadsyringe.org">info@pahfadsyringe.org</a>
<b>Web address:</b>	<a href="http://www.pahfadsyringe.org">http://www.pahfadsyringe.org</a>

## Specifications

<b>Graduations:</b>	0.2 ml	<b>Needle size:</b>	21G x 37.5mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked/broken plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.101 m3
<b>Minimum order:</b>	1200	<b>Weight per carton (kg):</b>	10.8 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.040 € per unit		
<b>Quality standard:</b>	- ISO 13485 -		
<b>Comments:</b>	Fixed needle upon request		
<b>Current PQS status:</b>	<i>pre-qualified; 19 Mar 2012</i>	<b>Valid until :</b>	<i>May, 2017</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/073**  
**Description:** RUP syringe 10ml  
**Manufacturer's reference:** RUP 10ml  
**Manufactured in:** China; People's Republic of  
**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
 No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province  
**Address:**

**Telephone:** +86 (510)3777555  
**Email:** [mike@chinasyringe.com](mailto:mike@chinasyringe.com)  
**Web address:** <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.12 m3
<b>Minimum order:</b>	1200	<b>Weight per carton (kg):</b>	13 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 18 Jul 2012* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/074**

**Description:** RUP retractable syringe 1ml

**Manufacturer's reference:** RUP retractable syringe 1ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiankang Medical Technology Co., Ltd  
 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province  
 China; People's Republic of

**Address:**

*Telephone:* +86 550 7022258

*Email:* [marshall988@163.net](mailto:marshall988@163.net)

*Web address:* <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.05ml	<b>Needle size:</b>	27G x 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger hooked to inner hub, retraction hub and needle, plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.072 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	10 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 25 Jun 2012*

**Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/075**

**Description:** RUP retractable syringe 2ml

**Manufacturer's reference:** RUP retractable syringe 2ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiankang Medical Technology Co., Ltd  
 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province  
 China; People's Republic of

**Address:**

*Telephone:* +86 550 7022258

*Email:* [marshall988@163.net](mailto:marshall988@163.net)

*Web address:* <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger hooked to inner syringe hub, retraction inner hub and needle, plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.0927 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	11 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 25 Jun 2012*

**Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/076**

**Description:** RUP retractable syringe 5ml

**Manufacturer's reference:** RUP retractable syringe 5ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiankang Medical Technology Co., Ltd  
 228, Weiyi Road,  
 Economic Development Zone,  
 Tianchang City,  
 Anhui Province  
 China; People's Republic of

**Address:**

*Telephone:* +86 550 7022258

*Email:* [marshall988@163.net](mailto:marshall988@163.net)

*Web address:* <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	22G x 1 1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger hooked in inner hub, hub and needle retraction, plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.075 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	11 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 25 Jun 2012* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/077**

**Description:** RUP retractable syringe 10ml

**Manufacturer's reference:** RUP retractable syringe 10ml

**Manufactured in:** China; People's Republic of

**Company:** Anhui Tiangkang Medical Technology Co., Ltd  
228, Weiyi Road,  
Economic Development Zone,  
Tianchang City,  
Anhui Province  
China; People's Republic of

**Address:**

*Telephone:* +86 550 7022258

*Email:* [marshall988@163.net](mailto:marshall988@163.net)

*Web address:* <http://www.tkmedical.com>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger hooked to inner hub, hub and needle retraction, plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.075 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	14 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 25 Jun 2012* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/078**

**Description:** RUP syringe 2ml

**Manufacturer's reference:** Neoject Reuse Prevention 2ml

**Manufactured in:** China; People's Republic of

**Company:** Neomedic Limited  
 97 High Street  
 Rickmansworth  
 Hertfordshire  
 WD3 1EF,  
 United Kingdom

**Address:**

*Telephone:* +44 1923 836379

*Email:* [marketing@neomedic.co.uk](mailto:marketing@neomedic.co.uk)

*Web address:* <http://www.neomedic.co.uk/>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock and breakage	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.0927m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	11kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.04708USD per unit		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 29 Jun 2012* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/079**  
**Description:** RUP syringe 5ml  
**Manufacturer's reference:** Neoject Reuse Prevention 5ml  
**Manufactured in:** China; People's Republic of  
**Company:** Neomedic Limited  
 97 High Street  
 Rickmansworth  
 Hertfordshire  
**Address:** WD3 1EF,  
 United Kingdom

**Telephone:** +44 1923 836379  
**Email:** [marketing@neomedic.co.uk](mailto:marketing@neomedic.co.uk)  
**Web address:** <http://www.neomedic.co.uk/>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	22G x 1 1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock and breakage	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.0750 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	12 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.04972USD		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 29 Jun 2012* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/080**

**Description:** RUP syringe 10ml

**Manufacturer's reference:** Neoject Reuse Prevention 10ml

**Manufactured in:** China; People's Republic of

**Company:** Neomedic Limited  
97 High Street  
Rickmansworth  
Hertfordshire

**Address:** WD3 1EF,  
United Kingdom

**Telephone:** +44 1923 836379

**Email:** [marketing@neomedic.co.uk](mailto:marketing@neomedic.co.uk)

**Web address:** <http://www.neomedic.co.uk/>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock and breakage	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.1208 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	14 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.0678 USD per unit		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 29 Jun 2012* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/083**  
**Description:** RUP syringe 3ml  
**Manufacturer's reference:** Yeso-med 3ml  
**Manufactured in:** China; People's Republic of  
**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
 No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province  
**Address:**  
  
**Telephone:** +86 (510)3777555  
**Email:** [mike@chinasyringe.com](mailto:mike@chinasyringe.com)  
**Web address:** <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	plunger lock and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1500	<b>Volume per carton (m3):</b>	0.11m3
<b>Minimum order:</b>	1500	<b>Weight per carton (kg):</b>	12 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 08 Oct 2012* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





## E013: Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/084</b>
<b>Description:</b>	RUP syringe 2ml
<b>Manufacturer's reference:</b>	Apple K1 RUP 2ml
<b>Manufactured in:</b>	Pakistan
<b>Company:</b>	AMSON VACCINES & PHARMA (PVT) LTD. 115, Industrial Triangle, Kahuta road, Islamabad Pakistan
<b>Address:</b>	
<b>Telephone:</b>	+92 51 4492022
<b>Email:</b>	<a href="mailto:naveed@amson.org.pk">naveed@amson.org.pk</a>
<b>Web address:</b>	<a href="http://www.amson.org.pk">www.amson.org.pk</a>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock & break at completion of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.07 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	8.62 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		

**Quality standard:** - ISO 9001 -

### Comments:

**Current PQS status:** *pre-qualified; 02 Nov 2012* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/085**  
**Description:** RUP syringe 5ml  
**Manufacturer's reference:** Apple K1 RUP 5ml  
**Manufactured in:** Pakistan  
**Company:** AMSON VACCINES & PHARMA (PVT) LTD.  
 115, Industrial Triangle, Kahuta road,  
 Islamabad  
 Pakistan  
**Address:**  
**Telephone:** +92 51 4492022  
**Email:** [naveed@amson.org.pk](mailto:naveed@amson.org.pk)  
**Web address:** [www.amson.org.pk](http://www.amson.org.pk)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock at completion of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.09 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	10.47 kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request to manufacturer		

**Quality standard:** - ISO 9001 -

### Comments:

**Current PQS status:** *pre-qualified; 02 Nov 2012* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/086**

**Description:** RUP syringe 2ml

**Manufacturer's reference:** Yeso-med 2ml

**Manufactured in:** China; People's Republic of

**Company:** Wuxi Yushou Medical Appliances Co., Ltd  
 No.215 Xigang Road,  
 Dongbeitang town,  
 Wuxi city Jiangsu Province

**Address:**

*Telephone:* +86 (510)3777555

*Email:* [mike@chinasyringe.com](mailto:mike@chinasyringe.com)

*Web address:* <http://www.chinasyringe.com>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G X 25mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Piston lock upon completion	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1500	<b>Volume per carton (m3):</b>	0.11m3
<b>Minimum order:</b>	1500	<b>Weight per carton (kg):</b>	12kg
<b>Year base price:</b>	2012	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 17 Dec 2012* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/087</b>
<b>Description:</b>	RUP syringe 2ml
<b>Manufacturer's reference:</b>	Q-Safe® 2-3ml
<b>Manufactured in:</b>	Qatar
<b>Company:</b>	Qatari German Company for Medical Devices
<b>Address:</b>	P.O.Box 22556 ABU HAMOUR DOHA, STATE OF QATAR
<b>Telephone:</b>	+974 44581201
<b>Email:</b>	<a href="mailto:sales@qgmd.com">sales@qgmd.com</a>
<b>Web address:</b>	<a href="http://www.qgmd.com">www.qgmd.com</a>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Retraction of needle and plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1000	<b>Volume per carton (m3):</b>	0.08m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	4.2kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.067USD		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	100 units per pack		
<b>Current PQS status:</b>	<i>pre-qualified; 25 Apr 2013</i>		Valid until : <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/088</b>
<b>Description:</b>	RUP syringe 5ml
<b>Manufacturer's reference:</b>	Q-Safe® 5-6ml
<b>Manufactured in:</b>	Qatar
<b>Company:</b>	Qatari German Company for Medical Devices
<b>Address:</b>	P.O.Box 22556 ABU HAMOUR DOHA, STATE OF QATAR
<b>Telephone:</b>	+974 44581201
<b>Email:</b>	<a href="mailto:sales@qgmd.com">sales@qgmd.com</a>
<b>Web address:</b>	<a href="http://www.qgmd.com">www.qgmd.com</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction and plunger break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1000	<b>Volume per carton (m3):</b>	0.09m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	6.5kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.080USD		

**Quality standard:** - ISO 9001 - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 25 Apr 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/089</b>
<b>Description:</b>	RUP retractable syringe 3ml
<b>Manufacturer's reference:</b>	Haiou RUP retractable safety syringe 3ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Guangdong Haiou Medical Apparatus Co., Ltd
<b>Address:</b>	Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China
<b>Telephone:</b>	+86-663-2758666
<b>Email:</b>	<a href="mailto:sales@haiou.net.cn">sales@haiou.net.cn</a>
<b>Web address:</b>	<a href="http://www.haiou.net.cn">http://www.haiou.net.cn</a>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 25mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock and needle retraction	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2400	<b>Volume per carton (m3):</b>	0.118 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	17kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 05 Jun 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/090**

**Description:** RUP retractable 5ml

**Manufacturer's reference:** Haiou RUP retractable safety syringe 5ml

**Manufactured in:** China; People's Republic of

**Company:** Guangdong Haiou Medical Apparatus Co., Ltd

**Address:** Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China

**Telephone:** +86-663-2758666

**Email:** [sales@haiou.net.cn](mailto:sales@haiou.net.cn)

**Web address:** <http://www.haiou.net.cn>

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21G x 38mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	plunger lock and needle retraction	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.122m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	18kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 05 Jun 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/091</b>
<b>Description:</b>	RUP retractable 10ml
<b>Manufacturer's reference:</b>	Haiou RUP retractable safety syringe 10ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Guangdong Haiou Medical Apparatus Co., Ltd
<b>Address:</b>	Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China
<b>Telephone:</b>	+86-663-2758666
<b>Email:</b>	<a href="mailto:sales@haiou.net.cn">sales@haiou.net.cn</a>
<b>Web address:</b>	<a href="http://www.haiou.net.cn">http://www.haiou.net.cn</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Needle size:</b>	21G x 38mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock and needle retraction	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.110m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	17kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 05 Jun 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/092**  
**Description:** RUP Insulin 1ml  
**Manufacturer's reference:** OnejectII RUP insulin 1ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
 Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia  
**Address:**

**Telephone:** +62 21 879 17 422  
**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)  
**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.02ml	<b>Needle size:</b>	27G x 3/8"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1600	<b>Volume per carton (m3):</b>	0.051m3
<b>Minimum order:</b>	16000	<b>Weight per carton (kg):</b>	8.23kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 05 Jun 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/093  
**Description:** RUP syringe 3ml  
**Manufacturer's reference:** OnejectII RUP 3ml  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
 Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia  
**Address:**

**Telephone:** +62 21 879 17 422  
**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)  
**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1 ¼"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	plunger lock and break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1600	<b>Volume per carton (m3):</b>	0.087m3
<b>Minimum order:</b>	18000	<b>Weight per carton (kg):</b>	12.20kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request to manufacturer		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 05 Jun 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/096  
**Description:** RUP retractable 1ml  
**Manufacturer's reference:** Haiou RUP retractable safety syringe 1ml  
**Manufactured in:** China; People's Republic of  
**Company:** Guangdong Haiou Medical Apparatus Co., Ltd  
**Address:** Nanyuan Industrial Zone, North Liusha, Puning, Guangdong, China  
**Telephone:** +86-663-2758666  
**Email:** [sales@haiou.net.cn](mailto:sales@haiou.net.cn)  
**Web address:** <http://www.haiou.net.cn>

## Specifications

<b>Graduations:</b>	0.01ml	<b>Needle size:</b>	29G x 12mm
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger locked to needle hub upon completion of injection and needle retraction into barrel	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	3000	<b>Volume per carton (m3):</b>	0.101m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	16kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	Upon request		

**Quality standard:** - ISO 13485 -

### Comments:

**Current PQS status:** *pre-qualified; 10 Jul 2013*

**Valid until:** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/097**

**Description:** RUP syringe 2ml

**Manufacturer's reference:** YI XIN RUP 2ml

**Manufactured in:** China; People's Republic of

**Company:** Jiangxi Sanxin Medtec Co.,Ltd  
 999 Fushan Road, Xiaolan Economic Development Zone,  
 Nanchang, Jiangxi, P.C. 330200  
 China; People's Republic of

**Address:**

**Telephone:** +86 791 85988111

**Email:** [sanxin-med@vip.163.com](mailto:sanxin-med@vip.163.com)

**Web address:** [www.sanxin-med.com](http://www.sanxin-med.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	25G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.10 - 0.13 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	10 - 12 kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request of manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Secondary package can also contain 2400 syringes		
<b>Current PQS status:</b>	<i>pre-qualified; 11 Sep 2013</i>		Valid until : <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/098**

**Description:** RUP syringe 5ml

**Manufacturer's reference:** YI XIN RUP 5ml

**Manufactured in:** China; People's Republic of

**Company:** Jiangxi Sanxin Medtec Co.,Ltd  
 999 Fushan Road, Xiaolan Economic Development Zone,  
 Nanchang, Jiangxi, P.C. 330200  
 China; People's Republic of

**Address:**

**Telephone:** +86 791 85988111

**Email:** [sanxin-med@vip.163.com](mailto:sanxin-med@vip.163.com)

**Web address:** [www.sanxin-med.com](http://www.sanxin-med.com)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	25G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Plunger lock	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.10 m3
<b>Minimum order:</b>	200000	<b>Weight per carton (kg):</b>	7 kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 11 Sep 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/099**  
**Description:** RUP syringe 3ml  
**Manufacturer's reference:** Medeco® Inject RUP 3ml  
**Manufactured in:** United Arab Emirates  
**Company:** Abu Dhabi Medical Devices Co. L.L.C  
P.O.Box 30485, Abu Dhabi  
**Address:** United Arab Emirates

**Telephone:** +971-2-6199100

**Email:** [info@admd.ae](mailto:info@admd.ae)

**Web address:** <http://www.admd.ae>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Valve in needle hub	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	At start of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	900	<b>Volume per carton (m3):</b>	0.074m3
<b>Minimum order:</b>	1000000	<b>Weight per carton (kg):</b>	4.2kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Nominal capacity 2ml, graduations to 3ml		
<b>Current PQS status:</b>	<i>pre-qualified; 07 Nov 2013</i>		Valid until : <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/100**  
**Description:** RUP syringe 5ml  
**Manufacturer's reference:** Medeco® Inject RUP 5ml  
**Manufactured in:** United Arab Emirates  
**Company:** Abu Dhabi Medical Devices Co. L.L.C  
P.O.Box 30485, Abu Dhabi  
**Address:** United Arab Emirates

**Telephone:** +971-2-6199100

**Email:** [info@admd.ae](mailto:info@admd.ae)

**Web address:** <http://www.admd.ae>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Valve in needle hub	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	At start of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	800	<b>Volume per carton (m3):</b>	0.073m3
<b>Minimum order:</b>	1000000	<b>Weight per carton (kg):</b>	4.9kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 07 Nov 2013* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/101**

**Description:** RUP retractable 1ml

**Manufacturer's reference:** Yixin retractable 1ml

**Manufactured in:** China; People's Republic of

**Company:** Jiangxi Sanxin Medtec Co.,Ltd  
 999 Fushan Road, Xiaolan Economic Development Zone,  
 Nanchang, Jiangxi, P.C. 330200  
 China; People's Republic of

**Address:**

**Telephone:** +86 791 85988111

**Email:** [sanxin-med@vip.163.com](mailto:sanxin-med@vip.163.com)

**Web address:** [www.sanxin-med.com](http://www.sanxin-med.com)

## Specifications

<b>Graduations:</b>	0.02ml	<b>Needle size:</b>	29G x 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction into barrel	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	3000	<b>Volume per carton (m3):</b>	0.11m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	15.5 kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 03 Dec 2013* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





## **E013:** Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/102</b>
<b>Description:</b>	RUP retractable 3ml
<b>Manufacturer's reference:</b>	Yixin retractable 3ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Jiangxi Sanxin Medtec Co.,Ltd 999 Fushan Road, Xiaolan Economic Development Zone, Nanchang, Jiangxi, P.C. 330200 China; People's Republic of
<b>Address:</b>	
<b>Telephone:</b>	+86 791 85988111
<b>Email:</b>	<a href="mailto:sanxin-med@vip.163.com">sanxin-med@vip.163.com</a>
<b>Web address:</b>	<a href="http://www.sanxin-med.com">www.sanxin-med.com</a>

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	25G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction into barrel	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2400	<b>Volume per carton (m3):</b>	0.15m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	17 kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 03 Dec 2013* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/103

**Description:** RUP retractable 5ml

**Manufacturer's reference:** YIXIN® retractable 5ml

**Manufactured in:** China; People's Republic of

**Company:** Jiangxi Sanxin Medtec Co.,Ltd  
 999 Fushan Road, Xiaolan Economic Development Zone,  
 Nanchang, Jiangxi, P.C. 330200  
 China; People's Republic of

**Address:**

**Telephone:** +86 791 85988111

**Email:** [sanxin-med@vip.163.com](mailto:sanxin-med@vip.163.com)

**Web address:** [www.sanxin-med.com](http://www.sanxin-med.com)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	23G x 1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Needle retraction into barrel	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.09m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	14kg
<b>Year base price:</b>	23013	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 03 Dec 2013* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

<b>PQS code:</b>	<b>E013/104</b>
<b>Description:</b>	RUP retractable 10ml
<b>Manufacturer's reference:</b>	YIXIN® retractable 10ml
<b>Manufactured in:</b>	China; People's Republic of
<b>Company:</b>	Jiangxi Sanxin Medtec Co.,Ltd 999 Fushan Road, Xiaolan Economic Development Zone, Nanchang, Jiangxi, P.C. 330200 China; People's Republic of
<b>Address:</b>	
<b>Telephone:</b>	+86 791 85988111
<b>Email:</b>	<a href="mailto:sanxin-med@vip.163.com">sanxin-med@vip.163.com</a>
<b>Web address:</b>	<a href="http://www.sanxin-med.com">www.sanxin-med.com</a>

## Specifications

<b>Graduations:</b>	0.5ml	<b>Needle size:</b>	21G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Needle retraction into barrel	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	800	<b>Volume per carton (m3):</b>	0.11m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	13kg
<b>Year base price:</b>	2013	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 03 Dec 2013* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** E013/105  
**Description:** RUP 2mL  
**Manufacturer's reference:** Helmject® RUP syringe 2mL  
**Manufactured in:** China; People's Republic of  
**Company:** HELM MEDICAL GMBH  
 Nordkanalstraße 28  
 D- 20097  
 Hamburg  
 Germany  
**Address:**  
**Telephone:** +49 40 2375-2726  
**Email:** [info@helmag.com](mailto:info@helmag.com)  
**Web address:** [www.helm-medical.com](http://www.helm-medical.com)

## Specifications

<b>Graduations:</b>	0.2 mL	<b>Needle size:</b>	21Gx1 ½" (38mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	2400	<b>Volume per carton (m3):</b>	0.127m3
<b>Minimum order:</b>	2400	<b>Weight per carton (kg):</b>	13kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.06 US\$		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 01 Jul 2015* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** E013/106  
**Description:** RUP 5mL  
**Manufacturer's reference:** Helmject® RUP syringe 5mL  
**Manufactured in:** China; People's Republic of  
**Company:** HELM MEDICAL GMBH  
 Nordkanalstraße 28  
 D- 20097  
 Hamburg  
 Germany  
**Address:**  
**Telephone:** +49 40 2375-2726  
**Email:** [info@helmag.com](mailto:info@helmag.com)  
**Web address:** [www.helm-medical.com](http://www.helm-medical.com)

## Specifications

<b>Graduations:</b>	0.2mL	<b>Needle size:</b>	21Gx1 ½" (38mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1800	<b>Volume per carton (m3):</b>	0.137m3
<b>Minimum order:</b>	1800	<b>Weight per carton (kg):</b>	13kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	0.05 US\$		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 01 Jul 2015* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** E013/107  
**Description:** RUP 10mL  
**Manufacturer's reference:** Helmject® syringe 10mL  
**Manufactured in:** China; People's Republic of  
**Company:** HELM MEDICAL GMBH  
 Nordkanalstraße 28  
 D- 20097  
 Hamburg  
 Germany  
**Address:**  
**Telephone:** +49 40 2375-2726  
**Email:** [info@helmag.com](mailto:info@helmag.com)  
**Web address:** [www.helm-medical.com](http://www.helm-medical.com)

## Specifications

<b>Graduations:</b>	0.5mL	<b>Needle size:</b>	21Gx1 ½" (38mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger lock	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.120m3
<b>Minimum order:</b>	1200	<b>Weight per carton (kg):</b>	13kg
<b>Year base price:</b>	2015	<b>Incoterms:</b>	FCA
<b>Price per unit:</b>	Upon request to manufacturer		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 01 Jul 2015* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/108**  
**Description:** RUP Syringe 2 mL  
**Manufacturer's reference:** Oneject II RUP Syringe 2 mL  
**Manufactured in:** Indonesia  
**Company:** PT Oneject Indonesia  
 Sentul Industrial Estate  
 Jl.Olympic Raya Kav B9  
 Bogor 16810,  
 Indonesia  
**Address:**  
  
**Telephone:** +62 21 879 17 422  
**Email:** [marketing@oneject.co.id](mailto:marketing@oneject.co.id)  
**Web address:** [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.1 mL	<b>Needle size:</b>	23G x 1 ¼"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Locked trapped piston	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type II A		
<b>Pieces per carton:</b>	1600	<b>Volume per carton (m3):</b>	0.09 m3
<b>Minimum order:</b>	1600	<b>Weight per carton (kg):</b>	10.6 Kg
<b>Year base price:</b>	2015	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	on request	on request	on request
<b>Quality standard:</b>	- ----- - ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 21 Sep 2015* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/109**

**Description:** RUP syringe 5 mL

**Manufacturer's reference:** Oneject II RUP Syringe 5 mL

**Manufactured in:** Indonesia

**Company:** PT Oneject Indonesia  
Sentul Industrial Estate  
Jl.Olympic Raya Kav B9  
Bogor 16810,  
Indonesia

**Address:**

*Telephone:* +62 21 879 17 422

*Email:* [marketing@oneject.co.id](mailto:marketing@oneject.co.id)

*Web address:* [www.oneject.co.id](http://www.oneject.co.id)

## Specifications

<b>Graduations:</b>	0.1 mL	<b>Needle size:</b>	21G x 1 ½"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked trapped piston	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	At start of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type II A		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.08 m3
<b>Minimum order:</b>	1200	<b>Weight per carton (kg):</b>	12 Kg
<b>Year base price:</b>	2015	<b>Incoterms:</b>	FOB
<b>Price per unit:</b>	On request	On request	On request
<b>Quality standard:</b>	- ----- - ISO 9001 - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 21 Sep 2015* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',





PERFORMANCE QUALITY SAFETY

## E013: Hypodermic syringes with reuse prevention feature



**PQS code:** E013/110  
**Description:** RUP 1ml  
**Manufacturer's reference:** SKIFA RUP 1ml  
**Manufactured in:** Indonesia  
**Company:** Mitra Rajawali Banjaran, PT  
 JL. Raya Banjaran KM16  
 Bandung, Jawa Barat  
 Indonesia  
**Address:**  
**Telephone:** +62 22 594 0151  
**Email:** [yantomaunk@yahoo.co.id](mailto:yantomaunk@yahoo.co.id); [iwans9948@gmail.com](mailto:iwans9948@gmail.com); [erna\\_saptawati@yahoo.com](mailto:erna_saptawati@yahoo.com)  
**Web address:** <http://www.mrb.co.id>

## Specifications

<b>Graduations:</b>	0.05mL	<b>Needle size:</b>	26G x ½ "
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Hooked to hub at end of injection	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.142m3
<b>Minimum order:</b>	10000	<b>Weight per carton (kg):</b>	11.88kg
<b>Year base price:</b>	2015	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	24cts		
<b>Quality standard:</b>	- ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 07 May 2015* Valid until : *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY

## E013: Hypodermic syringes with reuse prevention feature



**PQS code:** E013/111  
**Description:** RUP 5ml  
**Manufacturer's reference:** SKIFA RUP 5ml  
**Manufactured in:** Indonesia  
**Company:** Mitra Rajawali Banjaran, PT  
 JL. Raya Banjaran KM16  
 Bandung, Jawa Barat  
 Indonesia  
**Address:**  
**Telephone:** +62 22 594 0151  
**Email:** [yantomaunk@yahoo.co.id](mailto:yantomaunk@yahoo.co.id); [iwans9948@gmail.com](mailto:iwans9948@gmail.com); [erna\\_saptawati@yahoo.com](mailto:erna_saptawati@yahoo.com)  
**Web address:** <http://www.mrb.co.id>

## Specifications

<b>Graduations:</b>	0.2mL	<b>Needle size:</b>	22G x 1 1/2"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Hooked in hub at end of injection	<b>Primary packaging:</b>	Plastic ribbon
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	No
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	100	<b>Volume per carton (m3):</b>	0.710 m3
<b>Minimum order:</b>	10000	<b>Weight per carton (kg):</b>	14.02kg
<b>Year base price:</b>	2015	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	28 cts		
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>			
<b>Current PQS status:</b>	<i>pre-qualified; 07 May 2015</i>		<b>Valid until :</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/112**

**Description:** RUP Syringe 10ml

**Manufacturer's reference:** 10 ml Alshifa RUP Syringe

**Manufactured in:** Saudi Arabia

**Company:** Al Shifa Medical Syringe MFG.Co.  
1st Industrial City P.O. Box 7917  
Dammam 31472  
Saudi Arabia

**Address:** Dammam 31472  
Saudi Arabia

**Telephone:** +966138474284

**Email:** [info@alshifa.com](mailto:info@alshifa.com)

**Web address:** [www.alshifa.com](http://www.alshifa.com)

## Specifications

<b>Graduations:</b>	1ml	<b>Needle size:</b>	21G x 1.5" (0.80 x 38mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger Lock & Break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	450	<b>Volume per carton (m3):</b>	0.061 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	7.522 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.0516		0.0516
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Pack of 50 units. Other needle sizes available upon request		
<b>Current PQS status:</b>	<i>pre-qualified; 04 Oct 2016</i>		<b>Valid until :</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/113  
**Description:** RUP Syringe 5ml  
**Manufacturer's reference:** 5 ml Alshifa RUP Syringe  
**Manufactured in:** Saudi Arabia  
**Company:** Al Shifa Medical Syringe MFG.Co.  
 1st Industrial City P.O. Box 7917  
 Dammam 31472  
 Saudi Arabia  
**Address:**  
**Telephone:** +966138474284  
**Email:** [info@alshifa.com](mailto:info@alshifa.com)  
**Web address:** [www.alshifa.com](http://www.alshifa.com)

## Specifications

<b>Graduations:</b>	0.5 ml	<b>Needle size:</b>	23G x1"(0.60 x 25.4mm)
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger Lock & Break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	800	<b>Volume per carton (m3):</b>	0.073 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	8.696 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.0415 USD	0.0415 USD	0.0415 USD
<b>Quality standard:</b>	- ----- - ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Pack of 100 units. Other needle sizes available upon request		
<b>Current PQS status:</b>	<b>pre-qualified; 04 Oct 2016</b>		<b>Valid until : May, 2018</b>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/114**  
**Description:** RUP Syringe 3ml  
**Manufacturer's reference:** 3 ml Alshifa RUP Syringe  
**Manufactured in:** Saudi Arabia  
**Company:** Al Shifa Medical Syringe MFG.Co.  
 1st Industrial City P.O. Box 7917  
 Dammam 31472  
 Saudi Arabia  
**Address:**  
**Telephone:** +966138474284  
**Email:** [info@alshifa.com](mailto:info@alshifa.com)  
**Web address:** [www.alshifa.com](http://www.alshifa.com)

## Specifications

<b>Graduations:</b>	0.1 ml	<b>Needle size:</b>	23G x1"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Fixed
<b>RUP mechanism:</b>	Plunger Lock & Break	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I B		
<b>Pieces per carton:</b>	1200	<b>Volume per carton (m3):</b>	0.061 m3
<b>Minimum order:</b>	100000	<b>Weight per carton (kg):</b>	8.02 kg
<b>Year base price:</b>	2016	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	0.395 USD		0.395 USD
<b>Quality standard:</b>	- ISO 9001 - ISO 13485 -		
<b>Comments:</b>	Pack of 100 units. Other needle sizes available upon request		
<b>Current PQS status:</b>	<i>pre-qualified; 04 Oct 2016</i>		<b>Valid until :</b> <i>May, 2018</i>

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/115  
**Description:** RUP Syringe 3ml  
**Manufacturer's reference:** Smooth Inject Re-Use Prevention Syringe 3ml  
**Manufactured in:** Egypt  
**Company:** International Company for Medical Necessities  
 Industrial Zone  
 Block No. 19&67 Abu Tig  
**Address:** Assuit  
 Egypt  
**Telephone:** +2 (088) 49 50200 - 202 - 250  
**Email:** [mak@medical-ico.com](mailto:mak@medical-ico.com)  
**Web address:** [www.medical-ico.com](http://www.medical-ico.com) & [aak@medical-ico.com](http://aak@medical-ico.com)

## Specifications

<b>Graduations:</b>	0.1ml	<b>Needle size:</b>	23G x 1 1/4
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locking plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	2200	<b>Volume per carton (m3):</b>	0.08419 M3
<b>Minimum order:</b>	500000	<b>Weight per carton (kg):</b>	11.55 kg
<b>Year base price:</b>	2017	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	100,000 US\$ 0.026	1m US\$ 0.025	10m US\$ 0.024
<b>Quality standard:</b>	- ----- - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 13 Nov 2017* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



PERFORMANCE QUALITY SAFETY



## **E013:** Hypodermic syringes with reuse prevention feature

**PQS code:** **E013/116**  
**Description:** RUP Syringe 5ml  
**Manufacturer's reference:** Smooth Inject Re-Use Prevention Syringe 5ml  
**Manufactured in:** Egypt  
**Company:** International Company for Medical Necessities  
 Industrial Zone  
 Block No. 19&67 Abu Tig  
**Address:** Assuit  
 Egypt  
**Telephone:** +2 (088) 49 50200 - 202 - 250  
**Email:** [mak@medical-ico.com](mailto:mak@medical-ico.com)  
**Web address:** [www.medical-ico.com](http://www.medical-ico.com) & [aak@medical-ico.com](http://aak@medical-ico.com)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	22 G x 1.1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	2000	<b>Volume per carton (m3):</b>	0.084m3
<b>Minimum order:</b>	500000	<b>Weight per carton (kg):</b>	13.20 kg
<b>Year base price:</b>	2017	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	100,000 US\$ 0.030	1m US\$ 0.029	10m US\$ 0.028
<b>Quality standard:</b>	- ----- - ISO 13485 -		

### Comments:

**Current PQS status:** *pre-qualified; 13 Nov 2017* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## E013: Hypodermic syringes with reuse prevention feature

**PQS code:** E013/117  
**Description:** RUP Syringe 10ml  
**Manufacturer's reference:** Smooth Inject Re-Use Prevention Syringe 10ml  
**Manufactured in:**  
**Company:** International Company for Medical Necessities  
 Industrial Zone  
 Block No. 19&67 Abu Tig  
**Address:** Assuit  
 Egypt  
**Telephone:** +2 (088) 49 50200 - 202 - 250  
**Email:** [mak@medical-ico.com](mailto:mak@medical-ico.com)  
**Web address:** [www.medical-ico.com](http://www.medical-ico.com) & [aak@medical-ico.com](mailto:aak@medical-ico.com)

## Specifications

<b>Graduations:</b>	0.2ml	<b>Needle size:</b>	21 G x 1.1/4"
<b>Syringe material(s):</b>	Polypropylene	<b>Other needle options:</b>	Yes
<b>Number of components:</b>	3 pieces	<b>Needle fixation:</b>	Detachable
<b>RUP mechanism:</b>	Locked plunger	<b>Primary packaging:</b>	Paper blister pack
<b>RUP location:</b>	Upon completion of injection	<b>CE mark:</b>	Yes
<b>RUP type:</b>	Type I A		
<b>Pieces per carton:</b>	1000	<b>Volume per carton (m3):</b>	0.084m3
<b>Minimum order:</b>	500000	<b>Weight per carton (kg):</b>	10.00kg
<b>Year base price:</b>	2017	<b>Incoterms:</b>	EXW
<b>Price per unit:</b>	100,000 US\$ 0.035	1m US\$ 0.034	10m US\$ 0.033
<b>Quality standard:</b>	- - - - -		

### Comments:

**Current PQS status:** *pre-qualified; 13 Nov 2017* **Valid until :** *May, 2018*

Note: If Current PQS status is 'Suspended' or 'Withdrawn',



## General notes

The PQS catalogue (including the data sheets contained therein and individually accessible on the PQS website) is updated regularly. Following their submission to WHO for independent verification, products are added to the PQS catalogue as and when such products are - at the time of verification - found to comply with the applicable standards and/or performance specifications and verification protocols current at the time of submission.

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The fact that certain products and manufacturers are not included in the PQS catalogue does not mean that, if independently tested, they would not be found to comply with the relevant PQS performance specifications.

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The PQS catalogue may not be used by manufacturers and suppliers for commercial or promotional purposes.

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- the products which have been found to meet the relevant PQS performance specifications will continue to do so; and/or that
- the products included in the PQS catalogue have obtained marketing authorization for their specified use or any other use in any country of the world, or that their use is otherwise in accordance with the national laws and regulations of any country, including but not limited to patent laws.

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## Procurement suggestions

- Any Member State and UN organization intending to use the PQS catalogue for procurement purposes should ensure that only products from the manufacturers mentioned in the PQS catalogue are supplied to it. However, inclusion of a product in the PQS catalogue does not constitute any guarantee for the procurement of this product.
- Procurement organizations using the PQS catalogue for procurement purposes remain solely responsible for the procurement of products included in the PQS catalogue, including for ensuring the quality of the products to be delivered to them, for performing other aspects of qualification prior to purchasing, such as ensuring the

financial stability and standing of the supplier, the ability to supply the required quantities and other related aspects, and for ensuring that the products they wish to procure have obtained the required marketing authorizations.

### Guideline revision history

Date	Change summary	Reason for change	Approved
15 April 2011	First publication		