

### **Transport Cooler for Biological Products**

157/158

# Active Cooling Solution





HZY-8Z/8ZA

HZY-15Z/15ZA

- Accurate control of the temperature between 2-6°C
- PCM ice raft
- Constant temperature
- · Complete process with cold chain monitoring
- · Replace the traditional Insulation method with haier's transport cooler for transport
- · Blood from blood transfusion department to clinical blood transfusion point



#### Low Noise

 The ultra-quiet fan is equipped with air outlets on both sides, noise level less than 34 dB providing a more comfortable environment.



Air Duct Structure



#### Easy to Clean

 The inner liner adopts aluminium oxidation process to make it smooth inside and easy to clean.



Internal Structure

### **Product Features**

Semiconductor for active cooling, energy saving and environmental protection.

• Connect to power to cool unit to temperature, during transportation (without power) the unit will hold temperature. Small and easy to carry.

 $2 \sim \! 6$  °C precise temperature control, suitable for storage of biological products such as blood, medicines and reagents etc.

• Temporary blood storage to ensure blood safety at clinical blood stations.

# Embedded with 4 °C phase change PCM ice pack for cold storage, providing long insulation after power off to ensure blood safety during the transportation.



- The PCM ice pack uses a 4°C phase change material with a freezing point greater than 2°C to ensure the low temperature preservation of blood and other biological samples.
- 4 °C PCM Ice Pack
- At 25 °C under no load, the time for temperature inside the box rises to 10 °C is more than 1 hour.
- At 25 °C under full load, the time for temperature inside the box rises to 10 °C is more than 2 hour.

#### Multiple Fault Alarms, Making It Safer to Use

· High/low temperature alarm, power failure alarm, and sensor error alarm.

### The Power Supply Is Configured with Cigarette Lighter Plug, Easy for Vehicle Transportation.

• The power supply is configured to fit the vehicles internal power plug, easy for vehicle transportation.

### Passive Cooling Solution III



- Multi-function handle with casters for easy transportation
- Multi dimensional binding of orders and blood, and whole process with cold chain monitoring
- From blood collection vehicle/blood donation house to blood center/blood station from blood center/blood station to hospital

### **Product Features**

- LCD screen, real-time display of inside temperature, battery level and other information.
- Electromagnetic lock as standard, ability to scan QR code to open the unit, safeguarding the stored items.
- 4°C ice pack ensures cool storage temperatures with zero freezing to keep blood within safe storage temperature guidelines during transportation.



HZY-5B

HZY-35B

### **Product Features**

- Real time display of inside temperature.
- Integrated cold storage ice pack box, easy to access ice pack.
- Rotational moulding shell, anti-knocking, easy to carry.
- Multifunctional handle, sided casters, easy to be transported on flat

# Transport Cooler for Biological Products















# **Specifications**

							-
	Model	HZY-5B	HZY-8Z	HZY-15Z	HZY-8ZA	HZY-15ZA	HZY-358
echnical	Storage Temperature (°C)	/	2~6	2-6	2-6	2-6	/
chnical ta Ope Net Extraction Inter (w* Pac (w* Block Colors NFC Foa Refinctions War She Batt	Operating Temperature (°C)	2~10	2~10	2~10	2~10	2~10	2~10
	Net / Gross Weight (kg)	2/3	4/5	6/8	4/5	6/8	9/12
	Exterior Dimensions (W*D*H mm)	285*186*200	320*265*260	520*300*270	320*265*260	520*300*270	550*328*370
struction	Interior Dimensions (W*D*H mm)	220*118*126	230*140*170	430*150*180	230*140*170	430*150*180	450*232*295
	Packing Dimensions (W*D*H mm) 357*277*287		393*362*367	595*375*404	393*362*367	393*362*367 595*375*404	
	Blood Bag Capacity	5	8	15	8	15	35
	Cold Chain Monitoring	/	/	/	Y	Υ	/
	NFC Unlock	/	/	/	/	Υ	/
	Foam material	High density foam	HFO-1233zde	HFO-1233zde	HFO-1233zde	HFO-1233zde	Polyurethane Cycloisopentane
	Refrigeration method	Passive cooling	Semiconductor active refrigeration	Semiconductor active refrigeration	Semiconductor active refrigeration	Semiconductor active refrigeration	Passive cooling
nctions	Warm up time	3 hours (32°C ambient temperature load situation)	2 hours (32°C ambient temperature load situation)	2 hours (32°C ambient temperature load situation)	2 hours (32°C ambient temperature load situation)	2 hours (32°C ambient temperature load situation)	6 hours (43°C ambient temperature load situation)
	Shell/liner	ABS/ABS	ABS/ aluminium plate	ABS/ aluminium plate	ABS/ aluminium plate	ABS/ aluminium plate	HDPE/HDPE
	Alarm	Low Battery	High temperature, sensor error, power off	High temperature,sensor error, power off	High temperature, sensor error, power off	High temperature,sensor error, power off	/
	Battery	Lithium Battery	Rechargeable lithium battery	Rechargeable lithium battery	Rechargeable lithium battery	Rechargeable lithium battery	Button battery
rtification	CE	/	Υ	Υ	/	/	Υ

Product appearance and specifications are subject to change without notice

### **Transport Cooler for Infectious Materials**

161/162

### **Transport Cooler for the Infectious Material**

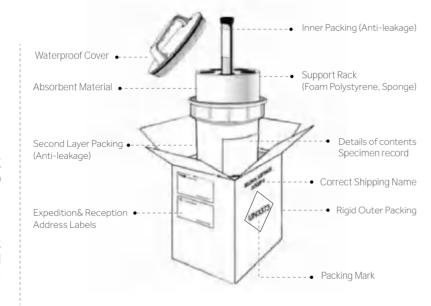
The virus is high-risk specimen, and if there is collision during the transportation or transmission, there will be a risk of leakage and re-infection. A solution is urgently needed to ensure the viability of the samples and the safety of transport personnel.

### **Packaging System**

### Three-layer packaging:

- Main container
   Test tube with cap (user configures according to business)
- Auxiliary container ≥95kPa pressure sealed tank (EPS or EPE bracket for fixing test tube, 16 hole D10 test tube and 2 hole D15 test tube)
- Outer packaging
   Transfer box (ice row, foam used to fix sealed container, activated carbon and other adsorbed substances, sample

labelina)



## Active Cooling II



HZY-8Z (Specimen)



HZY-15Z (Specimen)

### **Product Advantages**



#### Active semiconductor cooling, energy saving and environment friendly

Active semiconductor cooling, energy saving and environmental protection, built-in cooling function, cooling after power on.



#### Precise temperature control

Precise temperature control at  $2^{\circ}$ C ~  $6^{\circ}$ C is suitable for the temporary storage of biological products such as serum and blood specimens.



# Built-in, 4°C phase change PCM, ice row cooling, long-term insulation after power failure, to ensure the safety of specimen

Under the condition of no load at 25°C, the temperature of the air in the box rising to 10°C takes 1 hour; under the loading condition of 25°C, the air temperature in the box rising to 10°C takes 2 hours.



#### Multiple fault alarms, safer to use

High and low temperature alarm, power failure alarm, sensor error alarm.



# The power supply is equipped with a car cigarette lighter plug, which is convenient for vehicle transport

The power supply can support 12V and 100~240V conversion, so the container can be put into the car to plug in and transfer.

## Auxiliary Container



HZY-8Z (Specimen)



HZY-15Z (Specimen)



# Pressure sealed tank (EPS or EPE holder for fixing test tubes, 16-hole D10 test tube and 2-hole D15 test tube)

The pressure-sealed tank remains intact at the temperature of the refrigerant used, as well as the temperature and pressure that may occur after loss of refrigeration. Under the condition of no leakage, it can withstand the internal pressure of 95kPa, and can ensure that it will not be damaged in the temperature range of  $-40^{\circ}$ C to  $+55^{\circ}$ C.

# **Transport Cooler for Infectious Materials**

# Passive Cooling II



UN2814 transport cooler HZY-10B (P620)



UN3373 transport cooler HZY-10B (P650)

### **Product Advantages**



### Passive cooling, long heat preservation time, suitable for air transportation;

At 32°C ambient temperature, the temperature inside the box (pre-cooled in advance) rising to 10°C takes 7 hours (P650) and 8 hours (P620) separately.



PCM ice row, frozen at 4°C, to ensure the safety of specimen storage;



The shell is made of aluminum-magnesium alloy, with high strength; Meeting the P620 packaging requirements of Class A infectious substances(HZY-10B) and the P650 packaging requirements of Class B infectious substances(HZY-10B) separately.

### Auxiliary Container II



HZY-10B (P620)



HZY-10B (P650)



# Pressure sealed tank (EPS or EPE holder for fixing test tubes, 16-hole D10 test tube and 2-hole D15 test tube)

The pressure-sealed tank remains intact at the temperature of the refrigerant used, as well as the temperature and pressure that may occur after loss of refrigeration. Under the condition of no leakage, it can withstand the internal pressure of 95kPa, and can ensure that it will not be damaged in the temperature range of  $-40^{\circ}$ C to  $+55^{\circ}$ C.

### **Specifications**

Model	HZY-8Z	HZY-15Z
Use	Transfer of biological specimens, etc	Transfer of biological specimens, etc
Туре	Active cooling, portable	Active cooling, portable
Internal dimensions (W*D*H mm)	230*140*170	430*150*180
External dimensions (W*D*H mm)	320*265*260	520*300*270
Loading quantity	1 transport tank	2 transport tanks
Effective volume	6L, 1 built-in specimen seal can	12L, 2 built-in specimen seal cans
Specimen seal can dimension (mm)	H160*D130	H160*D130
Tube storage capacity	16 pcs D10 test tubes (small), 2 pcs D15 test	tubes (large)
Net weight (kg)	3.5	6
Controller	Microprocessor control	Microprocessor control
Temporary storage temperature (°C)	2-6	2-6
Transfer temperature (°C)	2-10	2-10
Holdover time (25°C, no load) (h)	1	1
Holdover time (25°C, full load) (h)	2	2
External material	ABS, high-density EPS foam filling	ABS, high-density EPS foam filling
Internal material	Aluminum plate	Aluminum plate
Door material	ABS, high-density EPS foam filling	ABS, high-density EPS foam filling
Cold storage	PCM ice-pack for cold storage	PCM ice-pack for cold storage
Cooling type	Optimized semiconductor cooling	Optimized semiconductor cooling
Cooling fan	ADDA fan	ADDA fan
Temperature control and display	Microprocessor control, dual sensors for cor	ntrol and display, display accuracy 0.1 °C
Alarms	Sensor failure alarm, high temperature alarm,	power failure alarm

### **Specifications**

Model	HZY-10B (P620)	HZY-10B (P650)
Purpose	Disease control centers, hospitals, etc. are used for transport of infectious substance specimens (air transportation)	Disease control centers, hospitals, etc. are used for transshipment of Class B infectious substance specimens (air transportation)
Туре	Passive cooling	Passive cooling
Internal dimensions (W*D *H mm)	345*225*182	345*225*182
External dimensions (W* D* H mm)	430*312*272	395*275*245
Loading quantity	2 transport tanks	2 transport tanks
Effective volume	14L with 2 built-in specimen sealed tanks	14L with 2 built-in specimen sealed tanks
Specimen sealed tank size (mm)	H160*D130	H160*D130
Number of test tubes (Single tank)	16 test tubes D10 (small), 2 test tubes D15 (large)	16 test tubes D10 (small), 2 test tubes D15 (large)
Net weight (kg)	8	3
Transport temperature (°C)	2-10	2-10
Thermal insulation time (32°C full load) (h)	8	7
Cabinet material	Aluminum magnesium alloy box shell	PP plastic
Thermal insulation material	EPP foam liner	EPP foam liner
Cool storage mode	PCM ice pack cold storage	PCM ice pack cold storage

### 165/166

# **MIM** Vaccine Transport Cooler



The vaccine transport cooler is superior and efficient, having dual capabilities for cold storage and temperature preservation, which is environmentally friendly and energy saving. The performance of the cooler and holdover time of temperature preservation is influenced by the temperature of the stored items.

#### 6 Liter/12 Liter/20 Liter/30 Liter

**Scope of Application** > Suitable for vaccine cold chain transportation.

### **Product Design and Advantages**

- Both inside and outside of the boxes are made of PP (high strength plastic) material, non-toxic and harmless, safe for direct food contact.
- The body of the unit is designed with handles on both sides to facilitate manual handling & is manufactured with anti-ultraviolet materials.
- The wall of the box is filled with fluorine-free polyurethane foam insulation material without adding any chemical material, environment-friendly and odor-free.
- Equipped with professional sealing ring design, with good heat insulation and refrigeration effect.

# Specifications









Model	QBLL0606	QBLL0812	QBLL0820	QBLL0830
Temperature Range (°C)	2~8	2-8	2~8	2~8
Volume (L)	6	12	20	30
Exterior Dimension (mm)	330*240*275	420*245*300	440*262*308	580*310*360
Interior Dimension (mm)	238*143*195	335*170*240	375*215*250	475*245*295
Net Weight (Kg)	1.8	2.4	3.5	4.5
Material	PP	PP	PP	PP
Cold Source Configuration	6 pieces QB004 ice boxes	6 pieces QB004 ice boxes	10 pieces QB004 ice boxes	6 pieces QB010 ice boxes

 $Remark: QB004 \ and \ QB010 \ are \ models \ of ice \ packs, the \ dimension \ of \ QB004 \ is \ 160^*90^*30 \ mm \ and \ the \ dimension \ of \ QB010 \ is \ 280^*120^*30 \ mm$ 

# **Medical Transport Cooler**



High strength material, anti-collision, non-toxic and harmless, UV resistant.



The outer-unit body is equipped with an integrated handle, which is firmly installed and durable.



Real-time display of temperature inside the cooler, making the temperature monitoring more intuitive.



Specially positioned ice packs, partitioned storage, easy to operate



Professional & innovative sealed design ensuring zero cold leakage to achieve safe, secure and reliable long-term cooling preservation.

### **Typical Application**

Cold chain transportation for samples, reagents, blood products, specimens and drugs.

### **Specifications**

Model	FS-12LS	FS-18LS	FS-35LS	FS-54LS	FS-100L	FS-110L
Temperature Range (°C)	0-10	0-10	0-10	0-10	0-10	0-10
Duration (h)	≥24	≥24	≥24	≥24	≥24	≥24
Exterior Dimensions (W*D*H)(mm)	440*262*308	440*262*308	570*305*365	615*395*450	680*500*540	832*515*524
Interior Dimensions (W*D*H)(mm)	325*170*225	363*203*244	475*245*270	520*310*355	580*400*440	732*421*425
Qty of Icepacks (Pcs)	4	4	4	4	4	6
Net Weight (kg)	6.2	6.5	9.5	18.5	22	19

 $Note: -25 \sim -15 ^{\circ} C \ and \ 15 \sim 25 ^{\circ} C \ are \ available \ with \ optional \ ice \ packs. \ The \ standard \ ice \ packs \ can \ only \ achieve \ 0 \sim 10 ^{\circ} C \ temperature \ storage.$ 

### - Transport Cooler

# **U-COOL** Portable Transport Cooler

167/168



ALG50















BCD60



Low voltage battery protection



LED lighting



Detachable temperature sensor



Widescreen LCD display



Real-time voltage display



BCD115



Low voltage battery protection



LED lighting



Detachable temperature sensor



Widescreen LCD display



Real-time voltage display

### **Specifications**

Model		ALG50	BCD60	BCD115
Capacity (L)		50	60	115
Climate Type		T, ST, SN, N	T, ST, SN, N	T, ST, SN, N
Net Weight (Kg)		16.7	24.0	28.6
Operating Temperatu	ıre (°C)	-20~+10 (at 25°C)	-18~ +10 (at 32°C)	-18~+10 (at 32°C)
Power (W)		55	70	70
Refrigerant		R134a	R134a	R134a
Insulation Material		C5H10/C-Pentane	C5H10/C-Pentane	C5H10/C-Pentane
Exterior Dimensions (W*D*H)	mm	630*404*530	621*485*569	811*482*672
Packing Dimensions (W*D*H)	mm	715*450*625	718*578*638	906*575*745
Voltage Power Supply		AC110-240V, 50/60Hz	AC110-240V, 50/60Hz	AC110-240V, 50/60Hz
voltage rower supply	1	DC 12V/24V	DC 12V/24V	DC 12V/24V
Power Consumption (kWh/24h)		0.23	0.25	0.25

# Logistics Cold Chain Transport Cooler

169/170

# Intelligent Control Cold Chain Transport Cooler

### **Product Advantages**



#### Check the insulation status at any time

Real-time upload setting parameters, operation parameters, operation curve, alarm record and event record. Monitor the operation of the transport cooler through the UCool system to visualize the complete process and traceability of information.



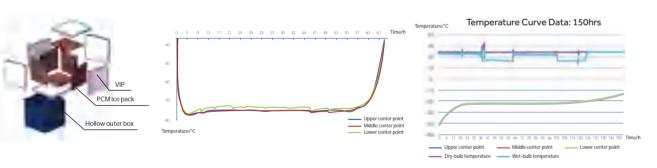
#### Stable performance, long service life

The product adopts VIP insulation technology which has an insulation performance of 5-8 times that of polyurethane foam, and significant extended time temperature control that handles the changing transportation conditions and environment; It has long service life by adopting nanometer core material.





#### Light weight, easy to carry Light product with ergonomic design is easy to carry.



### **Specifications**

Model	BW25-8A	BW25-12A	BW50-12A	BW25-18A	BW25-36A	BW50-36A	BW25-64A
Temperature Range (°C)	-25~-15/2~8/ 15~25/-90~-60	-25~-15/2~8/ 15~25/-90~-60	-25~-15/2~8/ 15~25/-90~-60	-2515/2-8/ 15-25/-9060	-25~-15/2~8/ 15~25/-90~-60	-25~-15/2~8/ 15~25/-90~-60	-2515/2-8/ 15-25/-9060
Exterior Dimensions (W*D*H)(mm)	455*295*295	410*345*355	470*400*410	510*350*355	515*450*460	575*510*510	590*525*525
Packing Dimensions (W*D*H)(mm)	546*381*389	504*436*444	560*492*500	607*439*447	609*541*549	665*597*605	679*611*619
Interior net Dimensions (W*D*H)(mm)	310*215*215	270*270*270	270*270*270	370*270*270	370*370*370	370*370*370	440*440*440
Payload Size (with ice pack)(mm)	270*175*175 (8L)	230*230*230 (12L)	230*230*230 (12L)	330*230*230 (18L)	330*330*330 (36L)	330*330*330 (36L)	400*400*400 (64L)
Net Weight (kg)	4	4.8	9.8	5.6	8.2	16.4	11
Gross Weight (kg)	6	6.8	12.5	8.2	11.2	20	14.8
Recorder Monitoring	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Heat Insulating Material	VIP	VIP	VIP	VIP	VIP	VIP	VIP
Insulation Thickness (mm)	25	25	50	25	25	50	25
Daily Consumption of Dry Ice (kg)	1.5	1.6	0.75	1.85	2.5	1.5	2.7
Safety Margin (kg)	1	1	1	1	2	2	2

Note: The safety margin is the minimum amount of dry ice required to keep the temperature in the box not higher than -70 °C.

# **Active Cooling**

### **Product Advantages**

**DC Frequency Conversion Technology** 

DC frequency conversion compressor, superior energy efficiency.

#### Tilt Protection Function

Electronic gyroscope in board, effective protection for compressors.

#### Integrated Main Body

Rotational molding body better adapted to complex transport environments.

#### Multiple Power Supply

Supports AC and DC power



HZY-40Z

### **Unique Designs**



The body and door use integrated rotomolding.



Using environmental LBA CFC-free foaming materials, thermal insulation performance is increased by up to 5%.



The body is equipped with a handle for easy carry.



Optional: Casters to facilitate transport.



Optional: Electromagnetic lock, with password lock equipped; more secure.



Forced air cooling method, the temperature is more uniform.



Built-in UVC ultraviolet lamp for regular disinfection.



3 in 1 wide temperature range , multiple functions within one unit, greater cost savings.

### **Specifications**

Model	Exterior Dimension (W*D*Hmm)	Interior Dimension (W*D*Hmm)	Capacity (L)	Door	Foam Materials	Compressor	Basket Load Bearing(KG)	_		Condenser/ Evaporator
HZY-40Z	800*550*505	338*348*285	33	Rotational moulding integrated forming foam door	LBA	DC variable frequency compressor	≤15	Forced air cooling and heating	moulding	Microchannel/ Fin type

Controller	Refrigerant	Light	UV Lamp	Net Weight (KG)	Temperature Range(°C)	Power Supply	Max power (W)	Power Consumption (Kwh/24h)	Electro- magnetic Lock	USB
Microprocessor	HFC	LED 1W	UVC 1W	42	-20 to 22	AC 110-240V 50/60Hz DC12/24V	90	1.5	Optional coded lock	Optional