

Transport Boxes

Biomedical Refrigeration | MT



**Active
&
Passive**

Transport Boxes (active & passive systems)

The model range MT consists of four passive transport systems supplemented efficiently by a fast freezer for cooling elements and six active transport boxes, working with Pelletier system or with compressor.

The special transport boxes, made from rotationally moulded polypropylene or polyethylene (a literally indestructible synthetic), feature an extraordinarily sturdy casing that is almost impervious to external forces, e.g. caused by bumps and falls, whose sturdiness has been proven in drop tests. The transport systems are corrosion-resistant.

The polyurethane foam injected into the double walls of these transport systems is free of CFC and HCFC and ensures the optimum insulation and the protection of the quality of the transported goods, especially with longer transport times. Due to the outer casing's self-insulation against the environment, the Dometic transport systems maintain a stable temperature even at higher ambient temperatures. When configured correctly, the transport

system's passive design makes them completely impervious to operating errors and power failures under all environmental conditions. This makes Dometic transport systems ideal for intensive use with many transport applications, even under difficult climatic conditions. Most of the lids are equipped with a silicone seal. The clasps can be sealed or equipped with locks and are therefore protected against unauthorised access during transport. If necessary, the transport systems MT 8 B, MT 12 E and MT 25 E can safely be stacked one on top of the other. All transport systems can easily and thoroughly be cleaned and disinfected with conventional disinfectants. There are no inaccessible corners or areas inside the transport systems.

During transport, complete evidence of the observance of the cold chain during transport and the associated continuous monitoring with complete records and documentation of the values can be achieved using an optional Data Logger.

Discover the world of Dometic Medical Systems



CFC & HCFC free

Depending on the product

ADR RID (2008/68/EC)

IMDG (2002/84/EC)

ICAO-TI / IATA-DGR

Declaration of Conformity (in accordance with ADR / RID /IMDG / ICAO-TI / IATA-DGR)

- European agreement concerning the international carriage of dangerous goods by road (ADR) and by railway (RID), directive 2008 / 68 / EC.
- European agreement concerning the international carriage of dangerous goods by sea transport (IMDG), directive 2002 / 84 / EC.
- International agreement for air transport (ICAO-TI / IATA-DGR).

MT 4 B and MT 12 E may contain goods of packing groups I, II and III.

MT 8 B, MT 25 E and MT 42 P may contain goods of packing groups II and III.

Basis :

MT 4 B : Certificate Nr. 080152
MT 8 B : Certificate Nr. 080153
MT 12 E : Certificate Nr. 080154
MT 25 E : Certificate Nr. 080155
MT 42 P : Certificate Nr. 080155

Test reports of the accredited test laboratory IBE-BVI, Belgium.

External validation, (1) (2) of the passive systems MT 8 B, MT 12 E and MT 25 E incl. Standard Operating Procedures (SOPs)

Available SOPs :

- Process description and standards operating procedures for the transport of blood preparations using the transport systems mentioned above
- Conditioning of cooling elements
- Visual inspection
- Technical inspection
- Charging with cooling elements

(1) Externally validated ambient temperature ranges : +10°C and +32°C

As minimum or maximum limits, these temperature ranges cover more than 90% of the transport scenarios imaginable. The lower limits of the typical number of blood bags for the respective container sizes were chosen as charges. These low charge levels are more unstable and the resulting test readings are significantly more telling in respect to critical temperature ranges. With increasing charges the preparation's temperatures in the secondary (inner) container become increasingly stable.

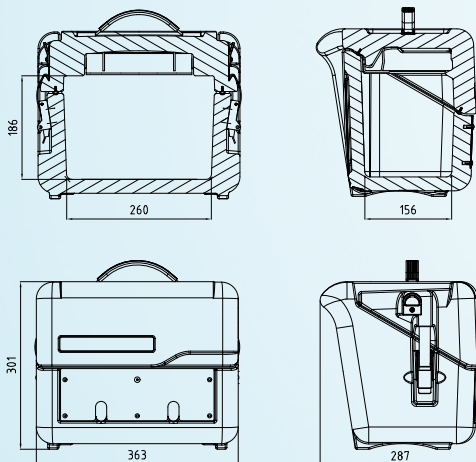
(2) External validation of "Maximum Cold Life" for the ambient temperature ranges of +32°C and +43°C

These ambient temperature ranges were chosen according to the validation parameters set by the WHO. As maximum limits including a safety margin, these temperature ranges cover all imaginable transport scenarios. Because it is the objective of the validation to determine the maximum operating time, the upper limits of the typical number of blood bags for the respective container sizes were chosen as charges. With decreasing charges, the reliable operating time is slowly decreasing.

PASSIVE



Cold Life at +32°C up to 46 h
Cold Life at +43°C up to 32.5 h



Model

Cooling
Gross volume
Storage capacity, blood bags / approx.

External dimensions (H x W x D)
Inner dimensions (H x W x D)
Dimensions of interior container (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Outer material / Interior material
Material of interior container
Color
Insulation
Insulation thickness

Accessories (standard)

Accessories (optional)

MT 4 B

Passive
8 l
4 at 450 ml each
6 at 270 ml each
301 x 363 x 287 mm
186 x 260 x 156 mm
130 x 240 x 90 mm
3.1 kg
7.4 kg
Polyethylene
Polystyrene
RAL 5015
Polyurethane
25 mm

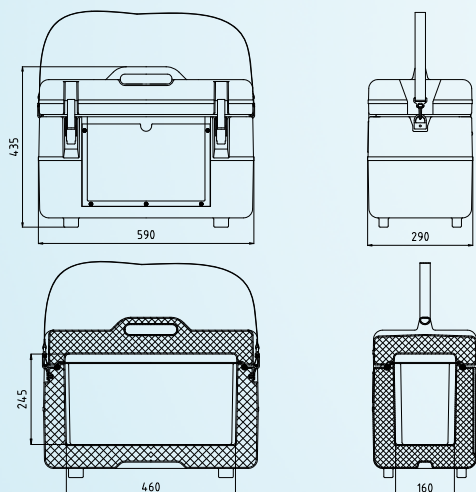
3 cooling elements at 0.3 l each
2 cooling elements at 0.6 l each
1 polystyrene interior container
2 document compartments (front)
1 document compartment (back)
1 Carrying strap (adjustable)

SU (40u.) cooling elements at 0.3 l
SU (24u.) cooling elements at 0.6 l
Polystyrene interior container
Mini temperature data logger
Software & connection cable for RS 232 or USB
Eutectic cooling system (tests available upon request)

PASSIVE



Cold Life at +32°C up to 57 h
Cold Life at +43°C up to 16.39 h



Model

Cooling
Gross volume
Storage capacity, blood bags / approx.

External dimensions (H x W x D)
Inner dimensions (H x W x D)
Dimensions of interior container (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Outer material / Interior material
Material of interior container
Color
Insulation
Insulation thickness

Accessories (standard)

Accessories (optional)

MT 8 B

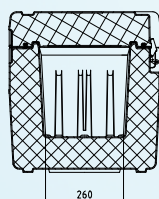
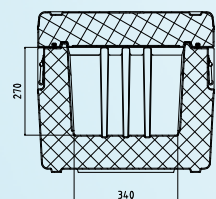
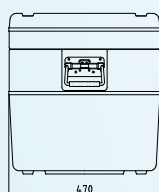
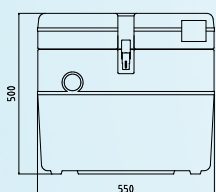
Passive
18 l
8 at 450 ml each
14 at 270 ml each
435 x 590 x 290 mm
245 x 460 x 160 mm
207 x 375 x 162 mm
7 kg
16 kg
Polyethylene
Polystyrene
RAL 5015
Polyurethane
60 mm

4 cooling elements at 0.6 l each
1 polystyrene interior container (with LID)
1 document compartment (front)
1 Carrying strap (adjustable)

SU (24u.) cooling elements at 0.6 l
Polystyrene interior container (with LID)
Mini temperature data logger
Software & connection cable for RS 232 or USB
Eutectic cooling system (tests available upon request)



Cold Life at +32°C up to 96.14 h
Cold Life at +43°C up to 56.5 h



Model

Cooling
 Gross volume
 Storage capacity, blood bags / approx.

External dimensions (H x W x D)
 Inner dimensions (H x W x D)
 Dimensions of interior container (H x W x D)
 Net weight (empty)
 Gross weight (fully stocked)
 Outer material / Interior material
 Material of interior container
 Color
 Insulation
 Insulation thickness

Accessories (standard)

Accessories (optional)

MT 12 E

Passive
 24 l
 15 at 450 ml each
 25 at 270 ml each
 500 x 550 x 470 mm
 270 x 340 x 260 mm
 192 x 310 x 237 mm
 11.7 kg
 21 kg
 Polyethylene
 Stainless steel
 RAL 5015
 Polyurethane
 105 mm

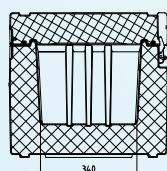
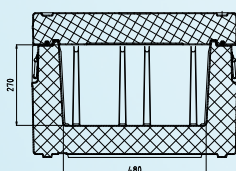
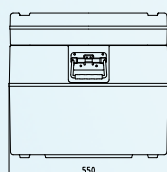
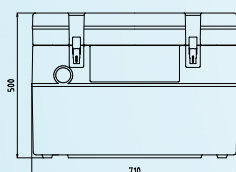
12 cooling elements at 0.6 l each
 1 stainless steel interior container (with LID)

SU (24u.) cooling elements at 0.6 l
 Mini temperature data logger
 Software & connection cable for RS 232 or USB
 Eutectic cooling system (tests available upon request)

PASSIVE



Cold Life at +32°C up to 109 h
Cold Life at +43°C up to 74 h



Model

Cooling
 Gross volume
 Storage capacity, blood bags / approx.

External dimensions (H x W x D)
 Inner dimensions (H x W x D)
 Dimensions of interior container (H x W x D)
 Net weight (empty)
 Gross weight (fully stocked)
 Outer material / Interior material
 Material of interior container
 Color
 Insulation
 Insulation thickness

Accessories (standard)

Accessories (optional)

MT 25 E

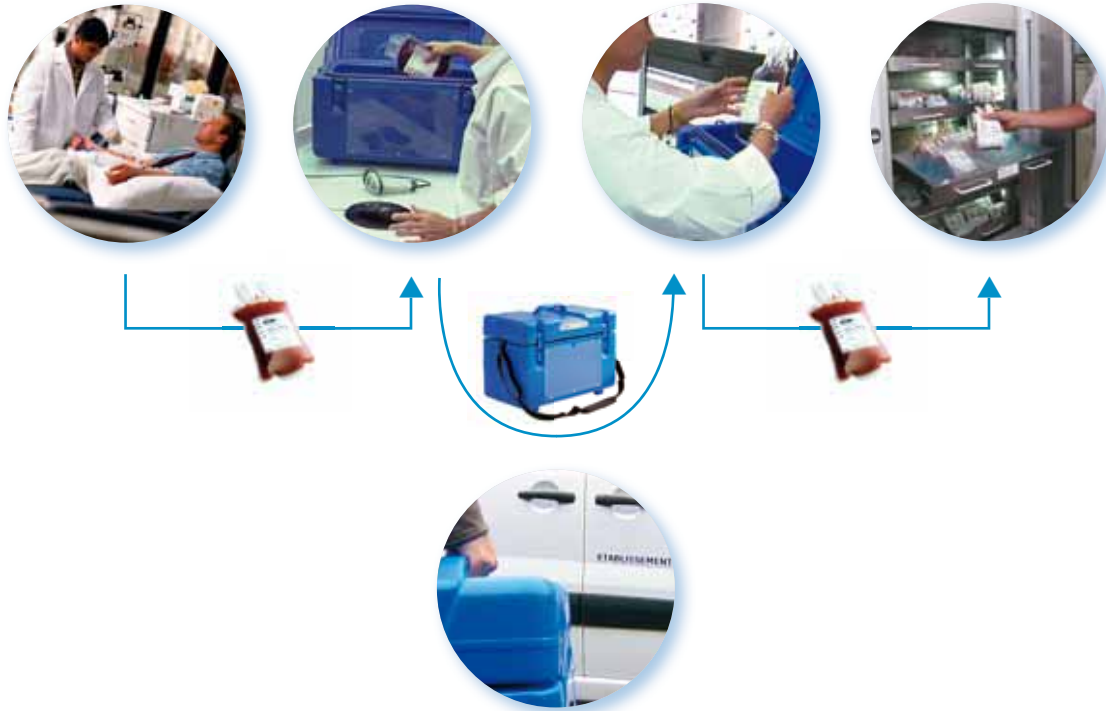
Passive
 44 l
 26 at 450 ml each
 40 at 270 ml each
 500 x 710 x 550 mm
 270 x 480 x 340 mm
 192 x 390 x 237 mm
 17 kg
 44 kg
 Polyethylene
 Stainless steel
 RAL 5015
 Polyurethane
 105 mm

24 cooling elements at 0.6 l each
 1 stainless steel interior container (with LID)
 Securing frame for interior container

SU (24u.) cooling elements at 0.6 l
 Mini temperature data logger
 Software & connection cable for RS 232 or USB
 Eutectic cooling system (tests available upon request)

PASSIVE

Transport Boxes | MT



Model

Gross volume	
Net volume	
External dimensions (H x W x D)	
Inner dimensions (H x W x D)	
Operating temperature	
Alarm	
Defrosting	
Insulation (casing) polyurethane	
Insulation (door) polyurethane	
Hold over time	
Refrigerant type	
Climate class (ambient temperature range)	
Relative humidity (at +32°C ambient temperature)	
Voltage	
Power	
Energy consumption	
Heat emission	
Compressor running time	
Noise level (at 1m height and 1m distance)	
Safety class	
EMV Directive	
Low voltage directive	
Material inner body	
Material outer casing and door	
Color outer casing	
Color contrasts	

Options

Door hinge right	
Door hinge left	
Wooden packaging for ocean transport / export	

MT 900

247 l
228 l
1805 x 595 x 720 mm
1440 x 445 x 413 mm
-18°C
-13°C
Manual
75 - 80 mm
70 mm
840 min (from -18°C to 0°C)
R134a
T (+16°C to +43°C)
≤ 70%
220-240V / 50Hz (10A)
215 W
5.77 kWh/24h
210 Kcal/ h
48%
45 dB(A)
I
2004 / 108 / EEC
2006 / 95 / EEC
Styrene (SAN)
Galvanized sheet steel (ST02Z-AZ150)
White (similar to RAL9010)
Blue (similar to RAL5002)

●
○
●

Freezing capacity : 56 cooling elements at 0.6 l each within 24 hrs at +43°C ambient temperature

Storage capacity : 179 cooling elements at 0.6 l each

The model MT 900 has been specifically developed for the freezing of cooling elements. The appliance can accommodate up to 179 cooling elements at 0.6 l each.

The model MT 900 can freeze up to 56 cooling elements within 24 hours at an ambient temperature of +43°C. Due to its low energy consumption,

the use is very economical. Simple and intuitive operation is ensured by the user-friendly operation and control panel, which is equipped with a red alarm control light for the monitoring of the interior temperature. The appliance features a visual and an acoustic alarm signal. The interior is automatically illuminated when the front door is opened.

An integrated rapid freeze button allows the quick freezing of larger batches



Model

Cooling
Gross volume
Operating temperature
Storage capacity, blood bags / approx.
External dimensions (H x W x D)
Inner dimensions (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Outer material / Interior material
Color
Insulation
Insulation thickness
Application range (ambient temperature)
Hold over time / Cold life, without power supply
Power supply AC / mains voltage :
DC / battery voltage :

MT 42 P (ThermoSTABILIZER)

Active (Pelletier)
43 l
+4°C ± - 2°C
30 at 450 ml each
50 at 270 ml each
500 x 840 x 550 mm
240 x 460 x 335 mm
29 kg
44 kg
Polyethylene
RAL 5015
Polyurethane
100 mm
-32°C to +43°C
10h (at +32°C)
90 V to 264 V (48Hz - 62 Hz)
115 V / 400 Hz
11 V to 42 V

Accessories (standard)

2 plastic-coated wire baskets
Fault indicator port
AC connection cable
DC connection cable
Fault indicator connection cable

Accessories (optional)

Temperature Data Logger "177-T3" with additional external sensor ports
Handheld rapid printer
Data gatherer for RS 232 or USB
Software & connection cable for RS 232 or USB

Numerous applications are possible :

Cars, HGVs, ships, helicopters and planes (with conditions). Integrated alarm system (visual/acoustic) with fault indicator port.

Depending on the temperature, the thermoelectric unit automatically switches from cooling to heating.

Long "Hold over time / Cold Life" times (10 h at ambient temperature of +32°C) even without power supply, due to optimum insulation capabilities.



Model

Cooling
Gross volume
Operating temperature
Storage capacity, blood bags / approx.
External dimensions (H x W x D)
Inner dimensions (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Outer material / Interior material
Color
Insulation
Insulation thickness
Application range (ambient temperature)
Voltage AC (mains)
Voltage DC (battery)
Power consumption
Average running time at +4°C interior t° (ambient temperature)
Low voltage directive
Electromagnetic Interference Directive

MT 100

Active - Compressor
95 l
+4°C or +22°C
48 at 450 ml each
1000 x 800 x 550 mm
450 x 545 x 305 mm
44 kg
66 kg
Polyethylene
RAL 5015
Polyurethane
50 mm
-2°C to 43°C
100 V to 240 V (50/60 Hz)
12 V and 24 V
app. 100 W
28% at +25°C
40% at +43°C
2006 / 95 / EEC
2004 / 108 / EEC & 2004 / 104 / EEC

Quality features

Castors
Digital temperature display (0.1 digit)
Automatic AC/DC power supply selection
Automatic cooling / heating operation
Temperature alarm
Power failure alarm
Contact remote alarm temperature
Car fixation kit
Temperature traceability system

● standard / ○ optional

●
●
●
●
●
●
●
○
○



Model

Cooling
Gross volume
Operating temperature
Storage capacity, blood bags / approx.
External dimensions (H x W x D)
Inner dimensions (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Packaging dimensions (H x W x D)
Application range (ambient temperature)
Box material
Lid material
Color
Insulation
Insulation thickness
Voltage DC (battery)
Power consumption
Average running time at +4°C interior t° (ambient temperature)

Certification

Accessories (standard)

Accessories (optional)

MT 18

Active - Compressor
18 l
+4°C or +22°C
6 at 450 ml each
8 at 270 ml each
414 x 465 x 300 mm
140 x 270 x 165 mm
12.6 kg
15.6 kg
450 x 480 x 330 mm
+5°C to +32°C
Polypropylene
Polyethylene
Pale grey / dark grey
Polyurethane
40 mm
12 / 24 V
app. 35 W
25% at +25°C
30% at +32°C

GS / CE

DC connection cable
Internal basket made of PP

Cable + AC transformer
Eutectic pack / +4°C
Eutectic pack / +22°C
Temperature data logger "Testo 175-T1"
Handheld rapid printer "Testo 575"
Data gatherer
ComSoft 3 - CFR 21 Part 11
Insulating protective cover



Model

Cooling
Gross volume
Operating temperature
Storage capacity, blood bags / approx.
External dimensions (H x W x D)
Inner dimensions (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Packaging dimensions (H x W x D)
Application range (ambient temperature)
Box material
Lid material
Innenbehältermaterial
Color
Insulation
Insulation thickness
Voltage AC (mains)
Voltage DC (battery)
Power consumption
Average running time at +4°C interior t° (ambient temperature)

Certification

Accessories (standard)

Accessories (optional)

MT 50

Active - Compressor
49 l
+4°C or +22°C
14 at 450 ml each
18 at 270 ml each
480 x 630 x 360 mm
318 x 260 x 200 mm
19.2 kg
26.2 kg
525 x 685 x 390 mm
+5°C to +32°C
Polypropylene
Polyethylene
Eloxiertes Aluminium
Pale grey / dark grey
Polyurethane
40 mm
100 V to 240 V (50/60 Hz)
12 / 24 V
app. 45 W
22% at +25°C
30% at +32°C

GS / CE

DC connection cable
Internal basket made of Stainless steel

Cable + AC transformer
Eutectic pack / +4°C
Eutectic pack / +22°C
Temperature data logger "Testo 175-T1"
Handheld rapid printer "Testo 575"
Data gatherer
ComSoft 3 - CFR 21 Part 11
Insulating protective cover
Fridge slides
Universal fixing kit



Model

Cooling
Gross volume
Operating temperature
Storage capacity, blood bags / approx.
External dimensions (H x W x D)
Inner dimensions (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Packaging dimensions (H x W x D)
Application range (ambient temperature)
Box material
Lid material
Material of the inner container
Color
Insulation
Insulation thickness
Voltage AC (mains)
Voltage DC (battery)
Power consumption
Average running time at +4°C interior t° (ambient temperature)

Certification

Accessories (standard)

Accessories (optional)

MT 80

Active - Compressor
80 l
+4°C or +22°C
27 at 450 ml each
36 at 270 ml each
455 x 790 x 500 mm
288 x 395 x 328 mm
29.8 kg
43.3 kg
500 x 840 x 550 mm
+5°C to +32°C
Polypropylene
Polyethylene
Anodized aluminium
Pale grey / dark grey
Polyurethane
48 mm
100 V to 240 V (50/60 Hz)
12 / 24 V
app. 65 W
18% at +25°C
27% at +32°C

GS / CE

AC / DC connection cable
Internal basket made of Stainless steel

Eutectic pack / +4°C
Eutectic pack / +22°C
Temperature data logger "Testo 175-T1"
Handheld rapid printer "Testo 575"
Data gatherer
ComSoft 3 - CFR 21 Part 11
Insulating protective cover
Fridge slides



Model

Cooling
Gross volume
Operating temperature
Storage capacity, blood bags / approx.
External dimensions (H x W x D)
Inner dimensions (H x W x D)
Net weight (empty)
Gross weight (fully stocked)
Packaging dimensions (H x W x D)
Application range (ambient temperature)
Box material
Lid material
Innenbehältermaterial
Color
Insulation
Insulation thickness
Voltage AC (mains)
Voltage DC (battery)
Power consumption
Average running time at +4°C interior t° (ambient temperature)

Certification

Accessories (standard)

Accessories (optional)

MT 110

Active - Compressor
106 l
+4°C or +22°C
36 at 450 ml each
48 at 270 ml each
555 x 790 x 500 mm
383 x 395 x 328 mm
33.1 kg
51.1 kg
600 x 840 x 550 mm
+5°C to +32°C
Polypropylene
Polyethylene
Eloxiertes Aluminium
Pale grey / dark grey
Polyurethane
48 mm
100 V to 240 V (50/60 Hz)
12 / 24 V
app. 65 W
34% at +25°C
43% at +32°C

GS / CE

AC / DC connection cable
Internal basket made of Stainless steel

Eutectic pack / +4°C
Eutectic pack / +22°C
Temperature data logger "Testo 175-T1"
Handheld rapid printer "Testo 575"
Data gatherer
ComSoft 3 - CFR 21 Part 11
Insulating protective cover
Fridge slides

Accessories / Options

		PASSIVE				ACTIVE					
		MT 4 B	MT 8 B	MT 12 E	MT 25 E	MT 42 P	MT 100	MT 18	MT 50	MT 80	MT 110
1	Mini temperature data logger "Testo 174"	●	●	●	●						
2	Temperature data logger "Testo 175-T1"							●	●	●	●
3	Temperature data logger "Testo 177-T3"					●	●				
4	Handheld rapid printer "Testo 575"					●		●	●	●	●
5	Data gatherer					●		●	●	●	●
6	Software & connection cable	●	●	●	●	●					
7	Data logger & software							●	●	●	●
8	Digital temperature readout							●	●	●	●
9	Interior fan							●	●	●	●
10	Two factory preset temperatures							●	●	●	●
11	Heater with three-point-controller							●	●	●	●
12	Eutectic cooling system	●	●	●	●			●	●	●	●
13	Fridge Slides								●	●	●
14	Insulating protective cover							●	●	●	●
15	Universal fixing kit								●		
16	Car fixation kit						●				



1. Mini temperature data logger "Testo 174"

Data logger for continuous, tamper-proof temperature recording.



2. Temperature data logger "Testo 175-T1"

Permanently installed data logger for continuous, tamper-proof temperature recording.



3. Temperature data logger "Testo 177-T3"

Permanently installed data logger for continuous, tamper-proof temperature recording.



4. Handheld rapid printer "Testo 575"

Attachable mini-printer for real time, on-site documentation.



5. Data gatherer



6. Software & connection cable

Data-cable with infra-red interface for logger programming and data storage on laptop or desktop PCs. Software included in the delivery kit.



7. Data logger & software

For continuous recording of the temperature. Removable USB stick with software for safe data storage on laptop or desktop PCs.



8. Digital temperature readout

Digital readout of the current temperature inside the box.



9. Interior fan

High-performance fan for fast cooling or heating and uniform air circulation in the box.

10. Two factory preset temperatures

The two preset temperatures are +4°C and +22°C. The key switch allows an easy change from one value to the other. Tolerance : $\pm 2^{\circ}\text{C}$ (independent of the outside, temperature ; closer tolerance upon request). Test log supplied as standard.

11. Heater with three-point-controller

Extra heater for fast heat-up (reduces wear on the Pelletier element). Safer operation at extreme outside temperatures. With automatic three-point-controller (heat / OFF / cool).

12. Eutectic cooling system

For long-term, temperature controlled transport without power supply, e.g transport by air or rail.

For MT 50

For MT 80 and 110

For MT 50



13. Fridge Slides

For fastening of Dometic coolers in vehicles and for convenient slide-out access.



14. Insulating protective cover

Insulating protective cover with detachable lid and base. Outside pockets to store small items. Four fixing rings to lash the box safely down in the vehicle.



15. Universal fixing kit

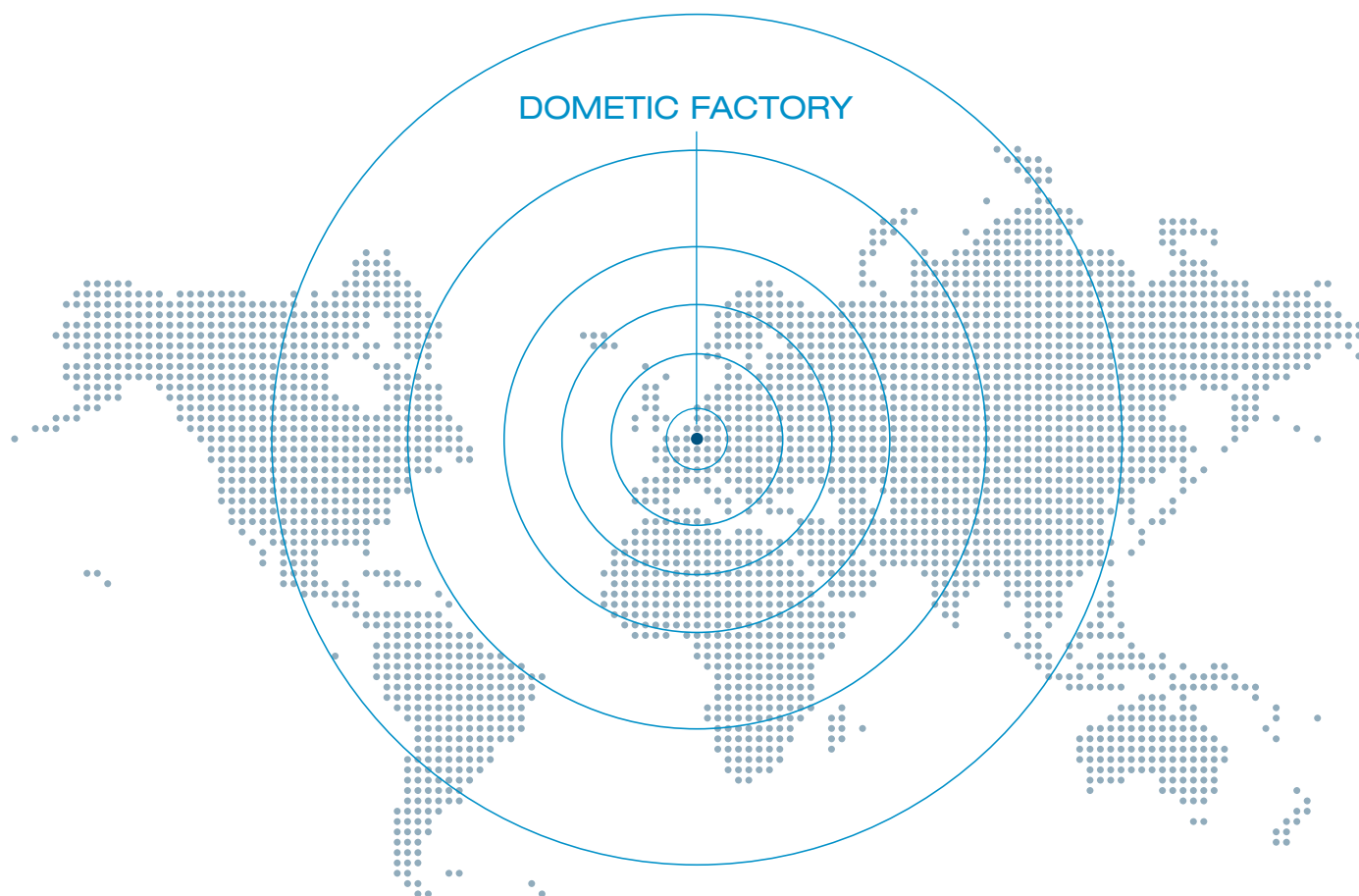
For firm and secure hold of Dometic coolers in vehicles.



16. Car fixation kit

THE WORLD OF DOMETIC MEDICAL SYSTEMS

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Technology for life

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