Specifications

Content

10

TEMPSTORE

General specification

Capacity
6 Euro pallets capacity

Scalability
Currently only one unit can be used. Future development will allow for 3 units to be linked together

Interior temperature range
+2°C to +8°C

Ambient Storage
-2°C to +50°C

Deployment Time
1 hour

Internal dimensions
3.05m (w) x 3.61 (d) x 2.58m (h)

External dimensions
4.0m (w) x 3.61 (d) x 3.10 (h)

Weights
Just Inflatable: 220kg | Inflatable with Floor: 470kg
*Cooling Unit Weights not included

Inflation system
Inflation kit included with package that compromises of:
2 x side channel blowers | 2 x pressure control units |
2 x inflation 5m inflation hoses

Flooring
Thermal insulated floor that doubles as the inflatables transport case

Suitability
Storage, ambient, chilled, packing, shelter, food, vaccine storage, medicine storage, temporary warehouse

Cooling units compatible with
Zanotti MAS135T | Hubbard Ductable Unit

Inflatable structure

The inflatable is made from three sections as shown on the left and side:

1. Main inflatable structure
2. Insulated Front Doors
3. Insulated Rear Wall

Main features and benefits of inflatable

• Made with premium, fire retardant, composite textiles which have high durability and strength

• Unique welding techniques result in virtually airtight structures that operate at high pressures allowing for optimum rigidity

• Insulation consists of multiple mineral layers with high flexibility

• Highly mobile, transportable from one location to the next

• No requirements for expert technicians during installation

• Pressure is controlled via dual side channel blowers to provide a backup

• Repair kit provided that includes tear-aid tape and patches. Adhesive to be sourced by customer

• Maintenance free during functioning

• No tools required to assemble it

• Full inflation device and backup included in kit

Inflatable inventory list

1x   Insulated inflatable structure
      (4m W x 3.61m L x 3.10m H)

1x   Insulated Flooring System

1x   Insulated Front Wall

1x   Insulated Rear Wall

1x   Strip curtains

2x   Combined pressure control unit and side channel blower

2x   50mm bore spiral wound inflation hose assembly, 3m long

1x   Product Repair Kit

Internal floor space drawing
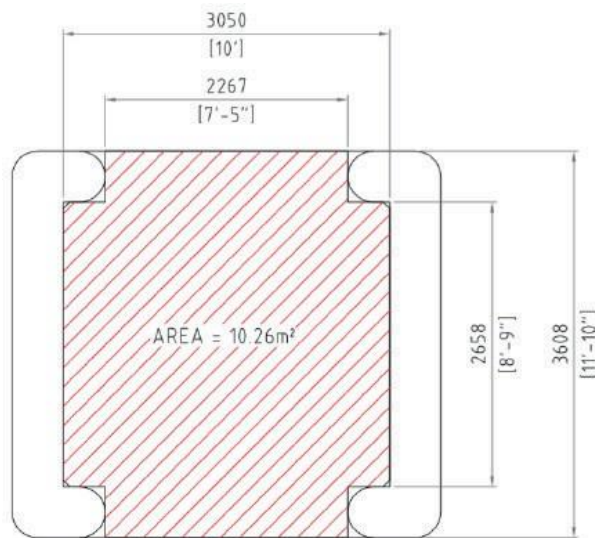
CAD drawings of inflatable structure
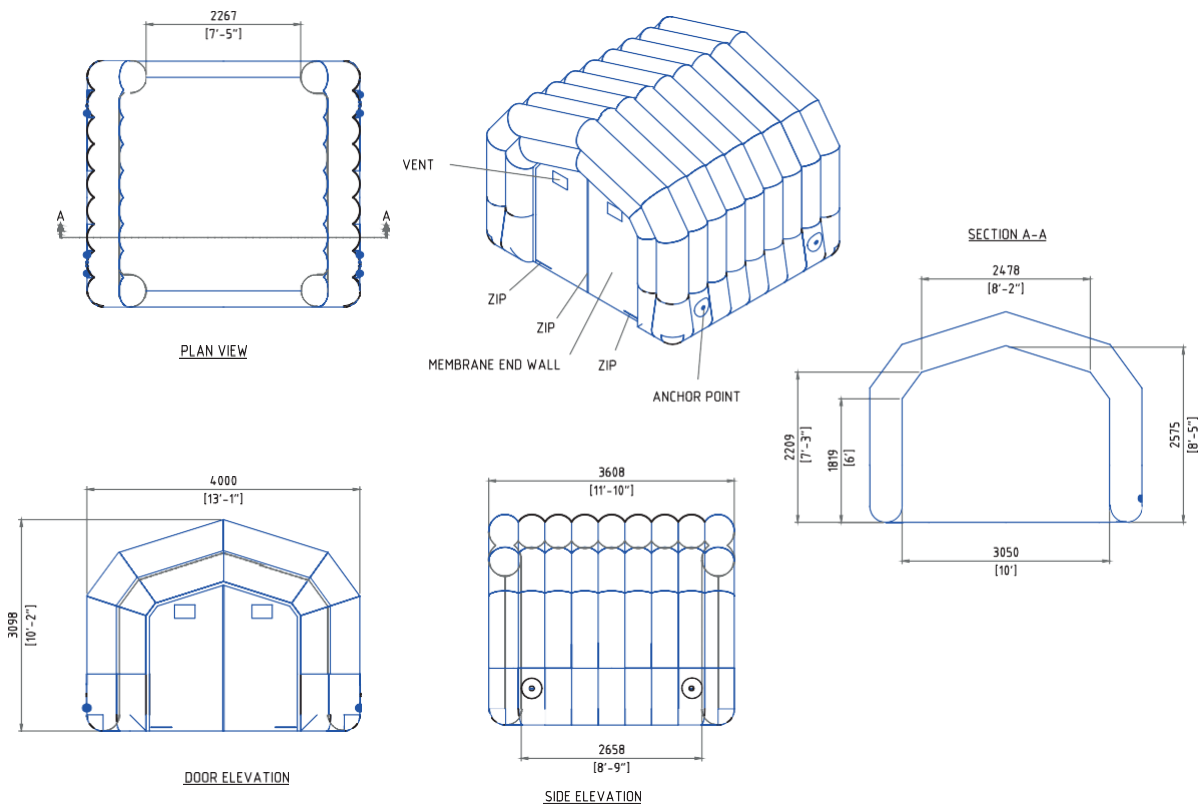
Flooring system / packaging

The inflatable is packaged within a specially designed un-foldable insulated flooring system as shown below, that allows for the unit to be easily deployed within 60 minutes:

1. Floor arrives in "crated" unit
2. Box unfolds to become thermally insulated floor
3. Inflatable is un-folded and hooked onto 4 corners
4. Inflation system is connected and unit is inflated

Main features and benefits of flooring system

- Packaged the floor and inflatable measures

  - Width 1554mm
  - Length 2118mm
  - Height 1100mm

- No additional packaging required for inflatable structure, flooring system doubles as packaging and is covered by a canvas sheet

- Forklift access points beneath the box allows for easy manoeuvrability

- Easy to transport by road, air or sea

- Includes handles for moving by hand

*Images of floor are prototype

Cooling units specifications

The following cooling units have been tested with the Temp°store 10 and have varying operating parameters and specifications as per below descriptions.

Full fridge manuals can be provided on request.

Option 1 - **Zanotti MAS135T**

Basic Information

• Dimensions:

• Width = 1120mm

• Lenghth = 1200mm

• Height = 1885mm

• Weigh: Approx 155Kg

• Power supply: 230V / 1ph OR 3ph / 50Hz / 32amp

• Cooling capacity +2°C in +35°C ambient: 4.5Kw

• Condensing unit: Zanotti MAS135T

• Evaporator: Zanotti MAS135T

• Refrigerant: R134a / HFC-134a (1,1,1,2-Tetrafluoroethane)

• Ambient operating range: +2°C to +32°C

• Interior temperature range: +2° to +8°C

Summary

Our most versatile and affordable unit. Used across Dawsongroup within the UK and EU, they are a monobloc system and are suitable for chilling in ambient up to +35°C. They can come in 1ph or 3ph power options as well.

The Inflation fans and Pressure control box are house in the metal box below the fridge on the frame. And feed through a small hole in the side. The inflation fans are connected to the power separately and run from a 750W 230V 50Hz 1ph power supply.

Option 2 - Hubbard Portable Unit

Basic Information

• Dimensions:
> Width = 900mm
> Length = 1350mm
> Height = 1602mm

• Weigh: Approx. 310Kg

• Power supply: 220V / 1ph / 50hz / 32amp

• Condensing unit: Bespoke Hubbard Condenser

• Evaporator: Bespoke Hubbard Evaporator

• Refrigerant: R4448

• Ambient operating range: -2°C to +45°C

• Interior temperature range: +2° to +15°C

The System

The Hubbard Ductable is a true temperature control system, with cooling and heating fitted. The equipment is floor mounted which comprises of a condensing section, connected to an efficient evaporator all connected so that the unit can be factory tested and charged with refrigerant.

The unit is built in a double deck arrangement. The lower deck is the condenser section and the upper deck is the evaporator section. The unit is supplied on six wheels with brakes on two of the wheels for ease of manoeuvring.

Condenser Section

The condensing section consists of the floor mounted L-shaped condenser coil. It has removable panels allow easy service access. The unit houses a scroll compressor, condenser coil with axial sickle bladed fan. Liquid receiver filter drier and sight-glass are fitted as standard, together with a pressure switch for pump-down operation. Fan selected is an AC fan for simplicity.

Condensing section consists of:

• Copeland ZB26 single phase Scroll Compressor
• Soft start on compressor
• Compressor contactor with over-current protection.
• Crankcase Heater.
• Fin and tube condenser coil with vinyl coated fins and
  copper tubes
• AC axial Condenser Fan mounted in recess
• Liquid Receiver, Filter Drier, Sight glass
• HP Safety Switch (Manual Reset).
• LP Safety Switch (Auto Reset).

Evaporator Section

The evaporator section consists of a cooling coil fitted with a thermostatic expansion valve and electric air heater (with overheat protection). A backward curved fan is fitted to the evaporator which supplies the cold air to the cold room and sucks the hot air from the cold room. Unit must be connected to the cold room with circular ducts. Supply and return flanges are provided on the unit.

The unit also houses a tamperproof digital temperature controller and solenoid valve for pump down operation. Backward curved fan is fitted and wired which is easily removable from the access panels, providing good accessibility for coil block cleaning. The side covers are also easily detachable for complete access to the inside of the unit.

Evaporator section consists of:

- Fin and tube evaporator coil with uncoated Aluminium fins and copper tubes
- Thermostatic expansion valve.
- External resistance heater fitted with overheating protection.
- Liquid line Solenoid valve for pump down operation.
- Backward curved fan to circulate cold air into the cold room
- Drain outlet with P-trap
- Flanges provided for supply and return ducts
- Supply duct 200mm diameter. Return duct 250mm diameter
- Flanges colour coded with Blue colour on supply, red on return ducts

Control Panel

The control panel is integral to the unit located in theupper section; panel section consists of:

- Eliwell Digital Temperature Controller with temperature display.

- Deflator isolator with handle mounted on the panel door

- Control panel mounted in recess with a transparent front door.

- Panel door to have fault lights showing compressor fault, fan faults, pressure trips.

- Control Panel to have a switch for heat and cool modes.

- Controller programmed to have evaporator fan turned off in defrost

- Power and Control of the inflatable blowers is from the control panel. Red and green neon panel indicators for blowers mounted on control panel door

- Wiring for 2 off inflatable blower wiring in the panel

- Mains incomer socket mounted in recess.

- Recess panel to have mains incomer connection, connections for lighting and probes.

- Solar powered Orbcomm monitoring system mountedon the panel door behind the transparent door to allow sunlight. No external power supply for Orbcommsystem.

- Orbcomm GT11100 system to monitor and log room temperature and door switch

Unit Capacity (kW)

		Evaporating temp (°C)						
		-8	-6	-4	-2	0	2	4
Ambient (°C)	15	7.02	7.66	8.35	9.07	9.85	10.65	11.50
	20	6.63	7.25	7.90	8.60	9.33	10.10	10.95
	25	6.23	6.82	7.44	8.11	8.81	9.55	10.35
	30	5.82	6.38	6.97	7.60	8.28	8.99	9.75
	35	5.39	5.92	6.48	7.08	7.72	8.40	9.12
	40	4.94	5.44	5.98	6.54	7.15	7.79	8.48
	45	4.49	4.95	5.46	5.99	6.56	7.17	7.81
	50	4.01	4.45	4.92	5.42	5.95	6.52	7.13

Option 3 – Zanotti MAS140

Basic Information

- Dimensions:
  Width = 950mm
  Length = 1350mm
  Height = 18002mm

- Weigh: Approx. 450Kg

- Power supply: 400V / 3ph / 50hz / 32amp

- Refrigerant: R134a

- Ambient operating range: -2°C to +50°C

- Interior temperature range: +2° to +8°C*

*Heating option available up to +15°C

Summary:

Like Option 1, this is a monobloc system mounted onto a steel frame. However, this unit has been designed and tested for higher ambient temperatures up to +50°C. The air out section is through mounted into the inflatable and the inflation systems are contained within a box below the fridge. Also included is a power outlet for the inflation fans so you don't need to connect this separately.
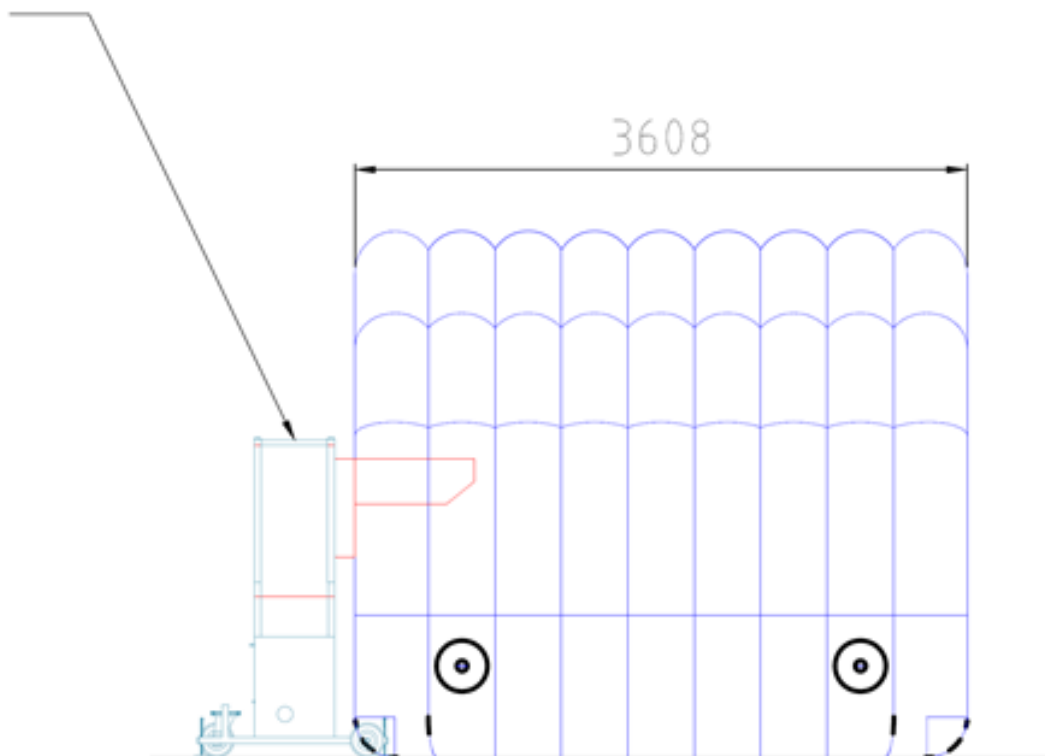
Temperature monitoring systems

The below system has been tested with the Temp°store 10 and is available to be integrated with any of the cooling units described above.

Full product manual will be provided upon purchase.

**Obrcomm PT6000**

System Description

ORBCOMM's PT 6000 is a rugged, easy-to-install device with a low profile, making it ideal for remote applications. The PT 6000 is sensor-compatible and self-powered and designed for long service life, which eliminates theneed for frequent battery changes.

It comes with GSM & Satellite Coverage as standard, and has its own web application that delivers near-real-time alerts on inflatable status, location, history,as well as arrival and departure, door openings providing greater visibilityfor cold chain managers.

System benefits include:

• View Power supply Voltage delivered by the solar panels/ battery packs.

• Monitors interior temperature

• Includes 2 x temperature probes

• Temperature Notifications / Alarms can be set

• Wireless door sensor to record door openings

• Provides GPS position

• Satellite communication in case of no cell coverage(connected to battery pack as backup power)

TEMP°
STORE 10
THE AGILE SOLUTION
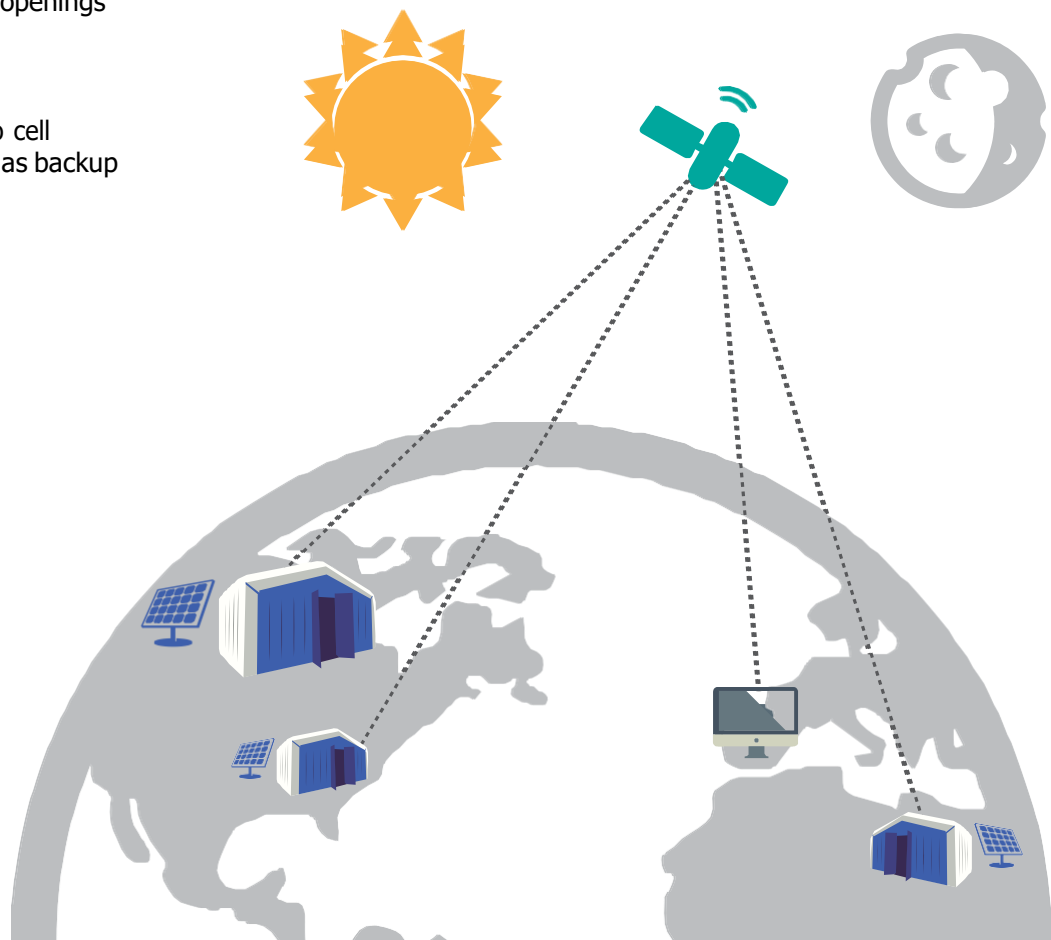
Dawsongroup | global

+44 (0) 345 0344 14
info@dgglobal.org
dgglobal.org

Dawsongroup