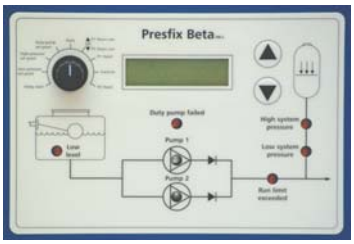
PRESFIX Packaged Pressurisation Sets

AUTOMATIC MAKE-UP UNITS FOR SEALED HEATING AND CHILLED WATER SYSTEMS.

LOWARA
a xylem brand

Presfix Beta MK 2 microprocessor single & twin pump unit

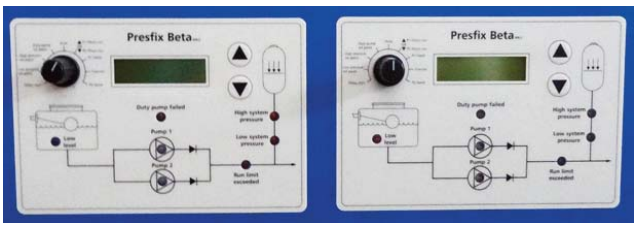


Display panel details.

Heating system

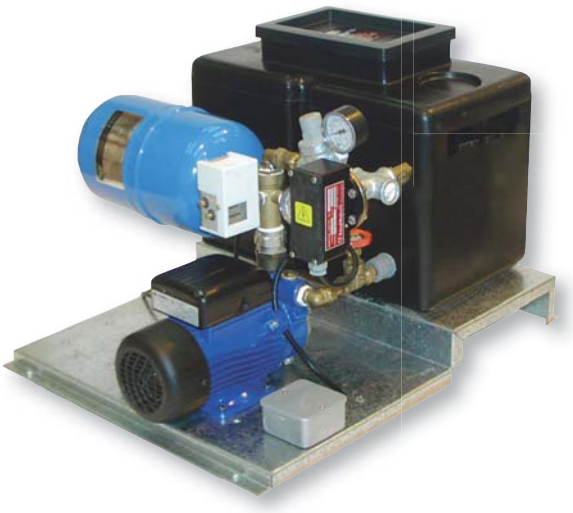
Chilled water system

Presfix Beta MK 2 dual system



Dual display panel details.

Combined Heating and Chilled water systems



Presfix Alpha single pump unit

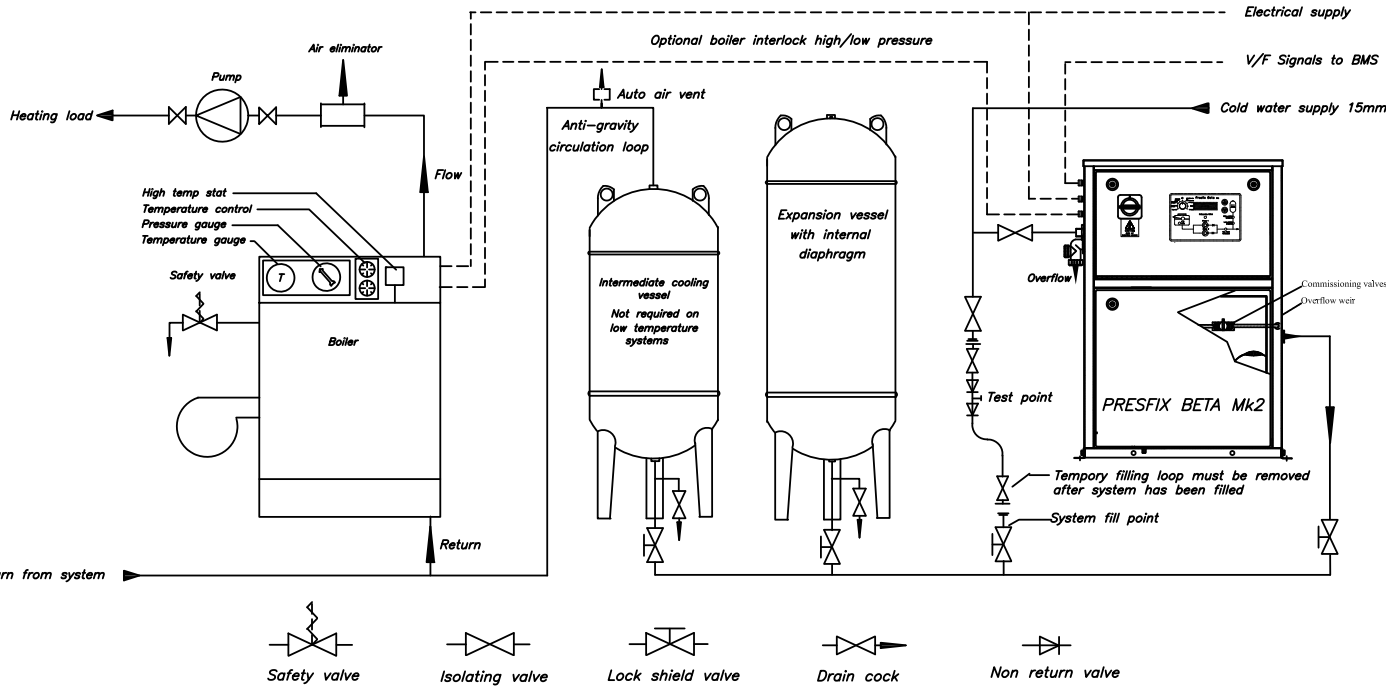
Sealed system benefits

In today's demanding environment nearly all heating and chilled water circulating systems are designed to operate in sealed networks.

The main benefits over previous systems which used feed and expansion tanks to accommodate expanded water are many, large volumes of water are no longer required to be stored at the top of the building. Expansion vessels can now be used in place of the storage tanks and these can be placed anywhere in the building, usually in the basement where the weight is not such a problem. The Feed and expansion tank being open to atmosphere allowed water to evaporate making unnecessary demands on this precious resource.

Sealed systems reduce corrosion to an absolute minimum by sealing the system content from atmosphere, and only adding fresh water to replace loses through leakage.
Sealed systems also offer the possibility of operating at higher temperatures if required (Max 120°C) which permits lower circulation rates, smaller pumps and reduced pipe work dimension with obvious cost savings.

Pressurisation system guide Low-Medium temperature typical layout



Presfix Beta dual unit

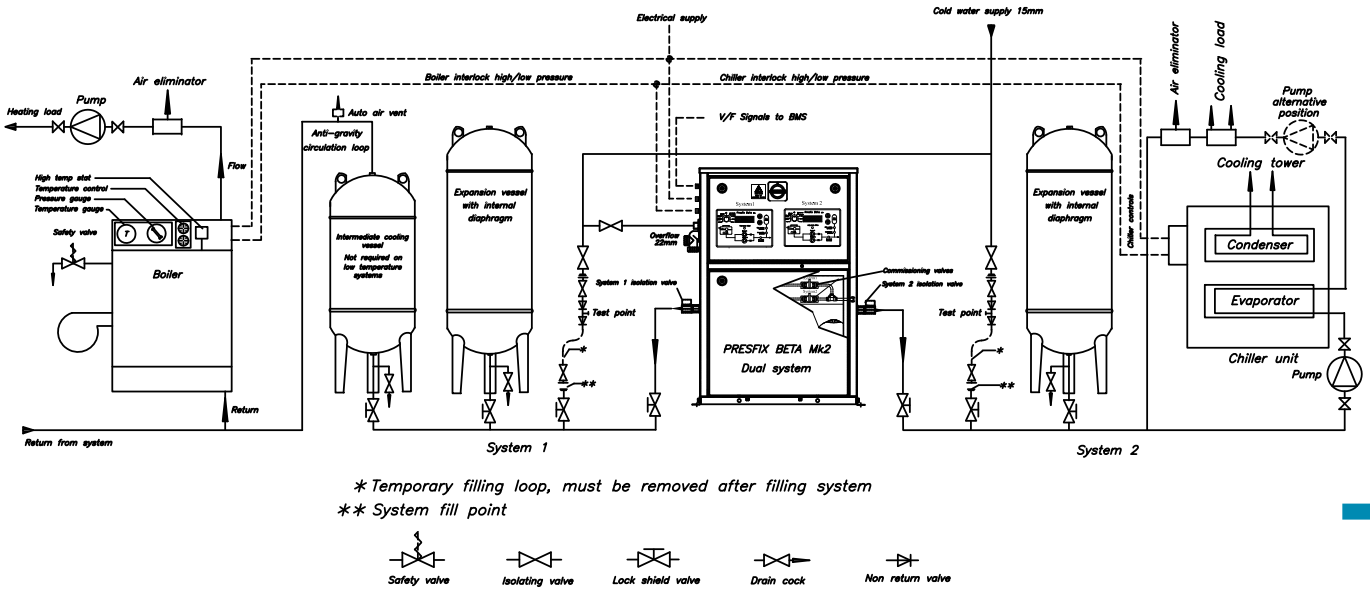
Presfix Beta dual pressurisation sets bring the benefits of managing two independent systems from a single unit. The unit contains two individual display screens so each system can be controlled and monitored separately providing both systems operate at the same fill pressure which should generally be the case as the fill pressure is based on the building static height.
All other set points can be independently set for each system.

All Presfix Beta Dual system units are supplied as twin pump sets and are available in three pressure ranges 2.8-5.5-8.0 bar.

Each pump is available to both systems so each system has a duty and standby pump available to it. If one pump fails then the standby pump will be available to both systems.

All the control features and specification are the same as the standard two pump Presfix Beta details.

Pressurisation dual system guide Low-Medium temperature typical layout for heating and chilled water systems



Application

Presfix pressurisation units are designed to replace water that has been lost through system leakage and to maintain the system design fill pressure in sealed heating and chilled water systems in accordance with BS7074 parts 1, 2 and 3.

Presfix units also provide safety circuits locking out the boiler / chiller in the advent of high/ low pressures occurring. Expanded water is accommodated in membrane vessel/s that are supplied separately and normally installed alongside the Presfix unit.

Presfix units are perfect for either domestic or industrial environments. Two levels of sophistication are offered along with three pressure ranges.

Both levels provide volt free contacts that can be used to interface with either a Business Management System or any other type of monitoring system.

Presfix units have flow limiting devices to help prevent plant rooms from flooding in the advent of system pipe/fitting failure.

Control features

Presfix Beta MK 2 microprocessor (enclosed)

- Mains door interlocked disconnect switch.
- Auto/Manual/Off selector switch.
- Back lit digital display.
- Control panel section IP 54.
- MCB protected motors.
- Simple set point adjustment.
- Parameter lock.
- Remote inhibit.
- Delay start.
- Exercise regime.
- Break tank low water monitoring.
- Transducer controlled.
- High/Low pressure contacts for boiler/chiller interlock.
- Anti-bounce internal vessel 2lt electronically assisted.
- Isolating valves on each pump.
- Hours run for each pump.

Additionally twin pump units have:

- Automatic duty pump rotation with omission of tripped or failed pumps.
- Duty pump fail with auto change over to stand by pump.

LED indicators for:

- Pump run each pump.
- Pump trip each pump.
- Low pressure.
- High pressure.
- Duty pump failed.
- Excessive run time.
- Break tank Low water.
- Back lit display provides indication of power on.

Volt free contact for:

- Pump run each pump.
- Pump trip each pump.
- High pressure.
- Low pressure.
- Excessive run time.
- Break tank low level.
- Duty pump failed (two pump units).

Presfix Alpha (open frame)

- Switched mains isolator with neon indicator
- Fuse protected motors.
- System pressure controlled by PRV.
- Pump pressure controlled by pressure switch.
- Optional High/Low pressure switch for boiler/chiller interlock.
- Anti-bounce internal vessel 5lt.

Expansion vessel sizing

Vessel sizing calculations should be carried out in accordance with BS7074.
Details of calculating method can be obtained from Lowara UK or we will be happy to calculate the required vessel size for you if you can provide the following data.

1. Static height above pressurisation unit.
2. System content (volume) if unknown boiler power (Kw) can be used to estimate system content.
3. Flow and return temperatures.
4. Glycol content (%).
5. Final working pressure.

Applied standards

- Safety Directive. 2006/42/EC.
- UK Health and Safety Requirements. 2008No.1597
- Water supply (water fittings) regulations.1999.
- Simple pressure vessel directive 87/404/EEC.
- Code of practice for heating and chilled water systems. BS7074 Parts 1, 2 and 3.

Specification

Base/enclosure
Open frame units have base plates manufactured from 14SWG galvanised steel and are suitable for floor mounting.
Enclosed units are manufactured from powder coated steel and have individual sections for electrical equipment and hydraulic equipment.
These units are suitable for either floor or wall mounting.

Pumps
Various pump types are used across the range, 2.8 bar units use Diaphragm pumps with Polypropylene heads and EDPM diaphragms and valves.
All other ranges use Horizontal Peripheral types with Bronze/composite bodies and impellors with self priming seals.

Break tank
Manufactured from Polyethylene with an 18lt active capacity complete with weir and clip tight lid.
Ball valve 15mm to BS1212 part 2 constructed to give a type AB air gap in accordance with the water regulations 1999.
Overflow 22mm (plastic).

Pipework
Copper 15mm (Presfix Alpha)
Nylon 4 -10mm (Presfix Beta)

Internal vessel
Fixed diaphragm 2/5lt steel construction complying with BS4814

Electrical specification

Supply voltage: 230V 50Hz 1Ph
For other supply voltages contact our sales office.
Volt free contact rating: 50V AC 3A

Standard range

Presfix Beta MK 2 (Cabinet)

Maximum fill pressure	Single pump Unit	Twin pump Unit	Kg	Motor Size	Input Current	Pre-fuse
2.8 bar	UKBETA100HL28/B		36Kg	0.20kW	1.0A	10A
2.8 bar		UKBETA200HL28/B	45Kg	0.20kW	1.0A	10A
2.8 bar Dual System		UKBETA200DS28/B	45Kg	0.20kW	1.0A	10A
5.5 bar	UKBETA100HL55/A		37Kg	0.37kW	3.2A	10A
5.5 bar		UKBETA200HL55/A	46Kg	0.37kW	3.2A	10A
5.5 bar Dual System		UKBETA200DS55/A	46Kg	0.37kW	3.2A	10A
8.0 bar	UKBETA100HL80/A		39Kg	0.75kW	6A	10A
8.0 bar		UKBETA200HL80/A	50Kg	0.75kW	6A	10A
8.0 bar Dual System		UKBETA200DS80/A	52Kg	0.75kW	6A	10A

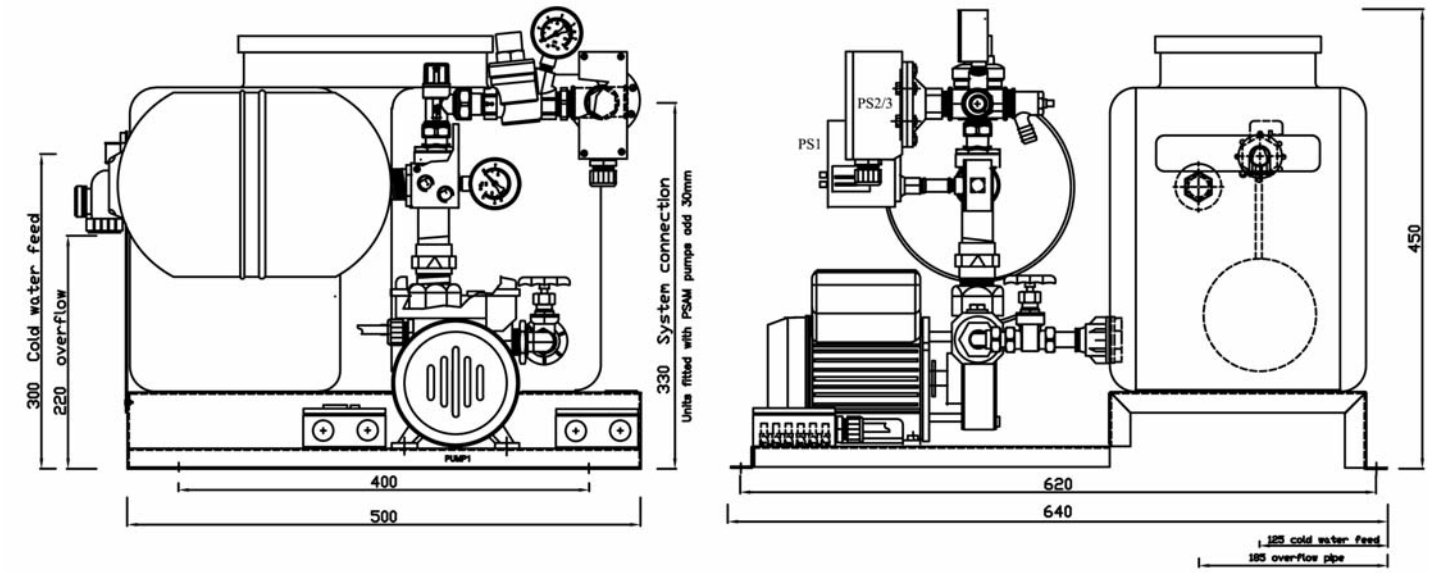
Presfix Alpha (Open frame)

Maximum fill pressure	Single pump Unit	Twin pump Unit	Kg	Motor Size	Input Current	Pre-fuse
5.5 bar		UKALPHA100HL55	29Kg	0.37kW	3.2A	10A
5.5 bar*		UKALPHA100BS55	28Kg	0.37kW	3.2A	10A

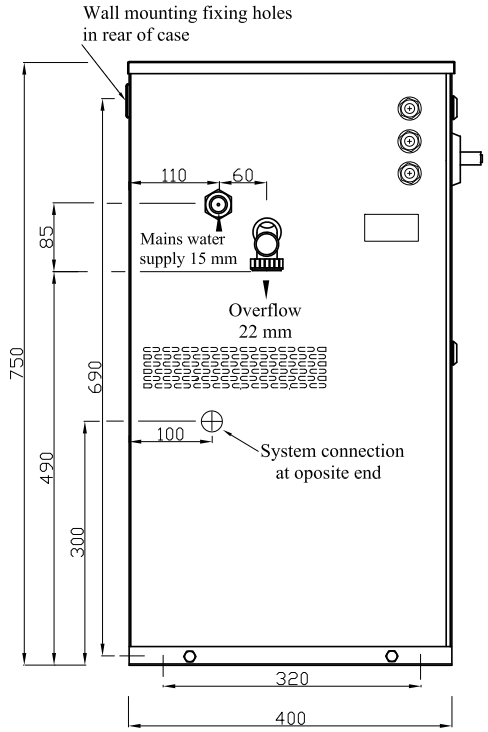
All the above units contain high quality bronze/composite head pumps to help eliminate seizure due to infrequent operation.
All the above units include High/Low pressure contacts to interlock with the boiler/chiller unit except those marked with an * .
Other options include: microprocessor/transducer controlled units and specialised systems for large volume storage.

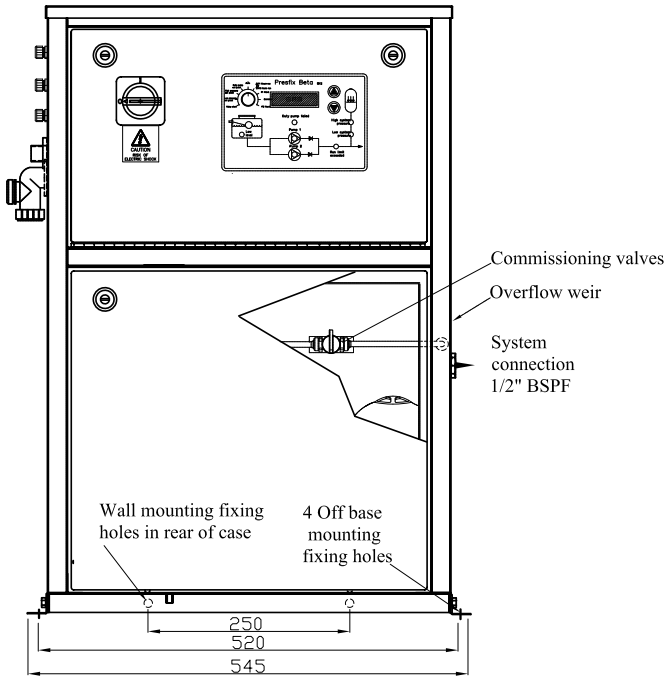
Dimension specifications

Presfix Alpha single pump unit 5.5 bar



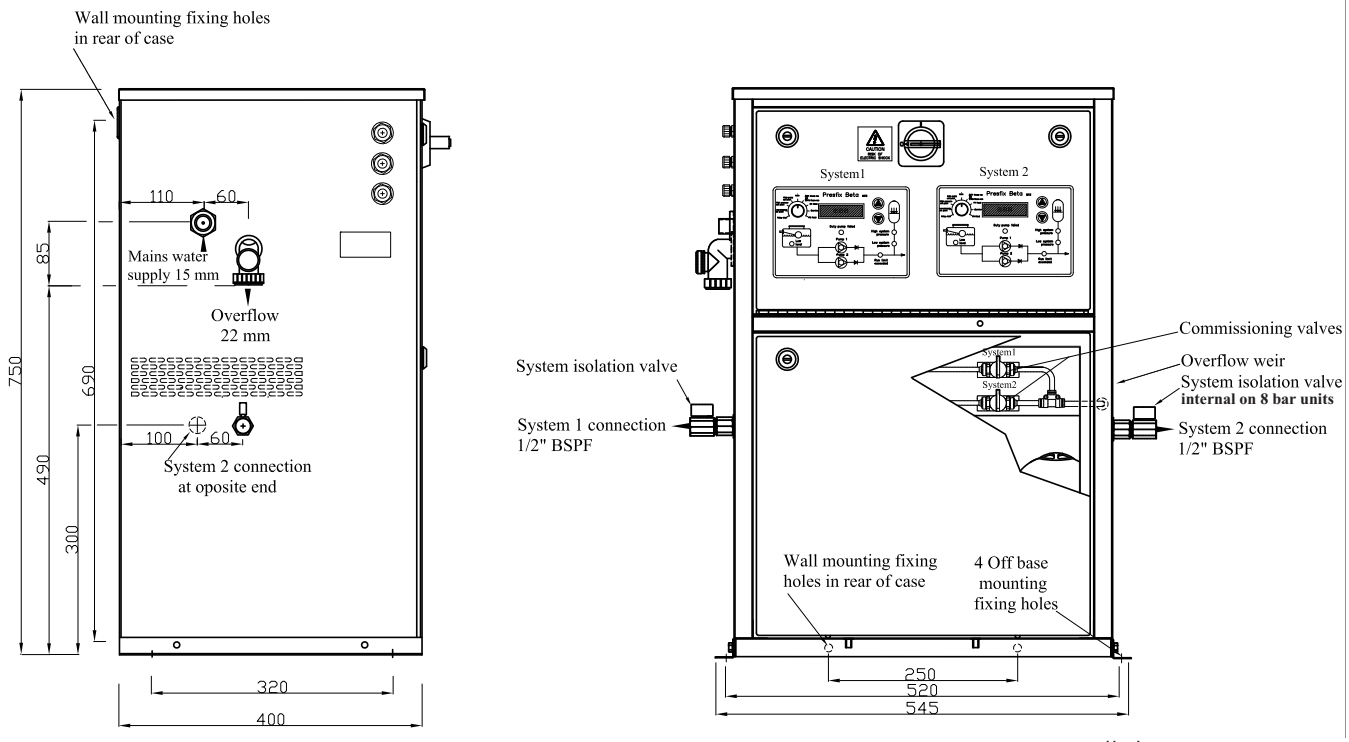
Presfix Beta MK 2 single & twin pump unit 2.8-5.5-8.0 bar





All dimensions in mm

Presfix Beta MK 2 dual system twin pump unit 2.8-5.5-8.0 bar

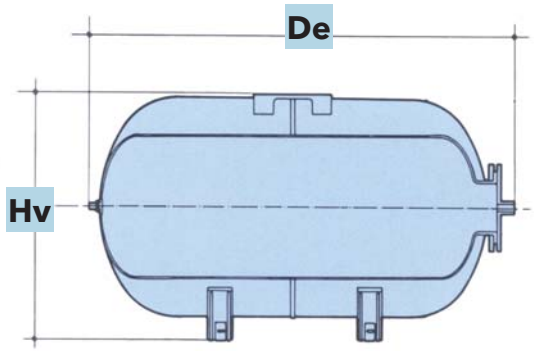


All dimensions in mm

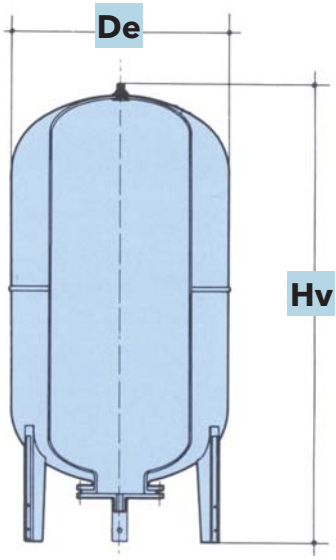
Standard vessel details

Maximum continuous operating temperature 70°C.

All vessels have replaceable diaphragms.
Other vessels available on request.



Horizontal



Vertical

Vessel volume litres	Pressure rating bar	Mounting type	Dimensions De mm	Dimensions Hv mm	Product code No.	Connection size	Weight Kg
24	10	Horizontal	480	290	UK1100002498	1″	8
60	10	Vertical	380	860	UK1100006043	1″	19
80	10	Vertical	450	800	UK1100008024	1″	21
100	10	Vertical	450	960	UK1100010037	1″	23
200	10	Vertical	550	1280	UK1100020039	1½″	62
300	10	Vertical	630	1430	UK1100030031	1½″	65
500	10	Vertical	750	1610	UK1100050027	1½″	97
750	10	Vertical	750	2267	UK1100050028	1½″	222
1000	8	Vertical	850	2100	UK1100100026	1½″	296
24	16	Horizontal	480	290	UK1100002495	1″	15
100	16	Vertical	450	960	UK1100010039	1½″	39
200	16	Vertical	550	1280	UK1100020041	1½″	69
300	16	Vertical	630	1430	UK1100030033	1½″	89
500	16	Vertical	750	1610	UK110005028	1½″	135

WHISPER PUMPS LTD
Leen Court, Boughton, Newark, Nottinghamshire, NG22 9ZD
Registered in England No 4548322