ITT

Lowara

PRESFIX

Packaged pressurisation sets

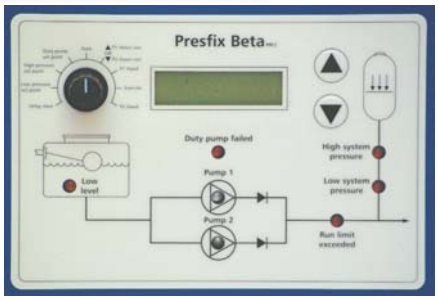
Automatic make-up units for sealed heating and chilled water systems.

Engineered for life

Presfix Beta MK 2 microprocessor single & twin pump unit

Twin pump unit pictured.

Control panel details.



Presfix Alpha single pump unit

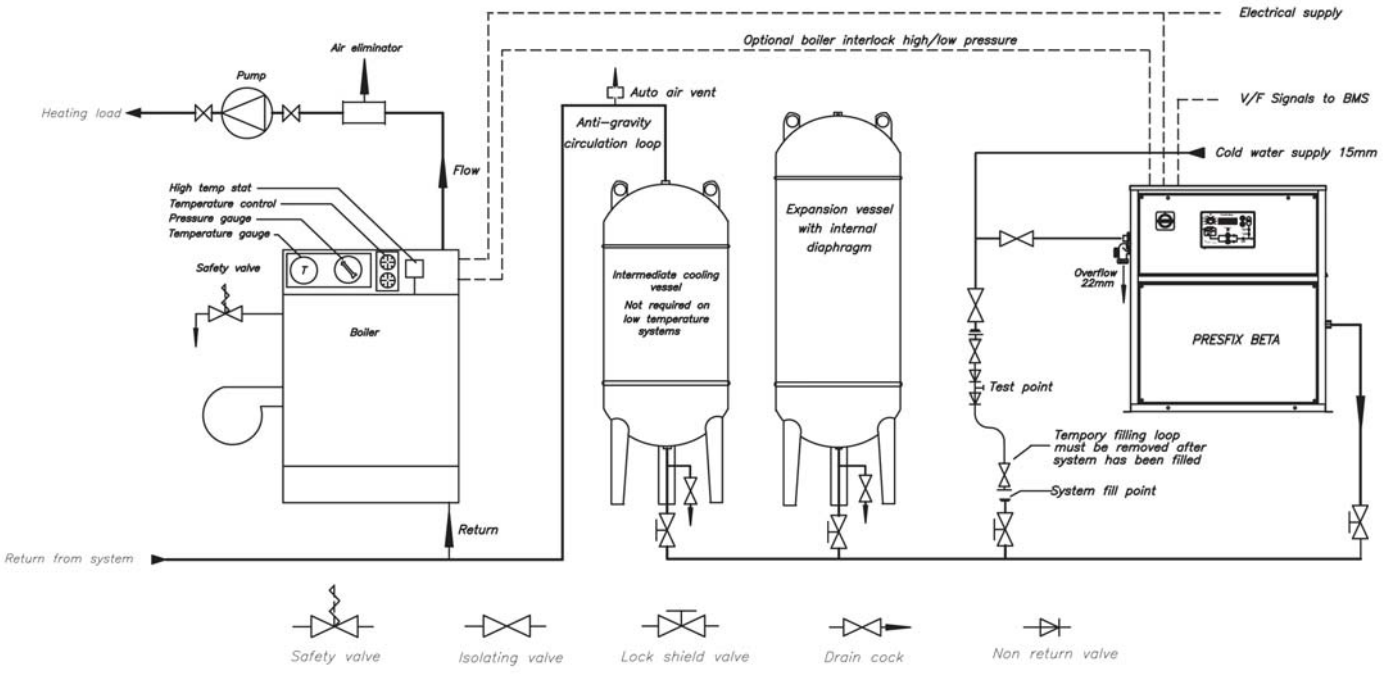
Presfix Alpha twin pump unit

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 Deg 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



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 & 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 two 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.

Additionally twin pump units have:
- Auto Off Test selector switch.
- Automatic duty pump rotation.
- Duty pump fail with lockout and auto change over to standby pump.

LED indicators for :
- Power on.
- Duty pump fail.

Volt free contact for:
- Pump run each pump.
- Duty pump fail/fault.
- High / Low pressure for boiler interlock.

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. 89/392/EEC.
- UK Health and Safety Requirements. S.I. 1992 N0 3073 S.I. 1994 No 2063
- 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 & 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
All pumps are horizontal peripheral type with bronze body and impeller and are fitted with self adjusting mechanical 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	UKBETA100HL28M2		36Kg	0.37kW	2.3A	10A
2.8 bar		UKBETA200HL28M2	45Kg	0.37kW	2.3A	10A
5.5 bar	UKBETA100HL55M2		37Kg	0.37kW	3.2A	10A
5.5 bar		UKBETA200HL55M2	46Kg	0.37kW	3.2A	10A
2.8 bar Twin system		Price on application	61Kg	0.37kW	2.3A	10A
5.5 bar Twin system		Price on application	63Kg	0.37kW	3.2A	10A

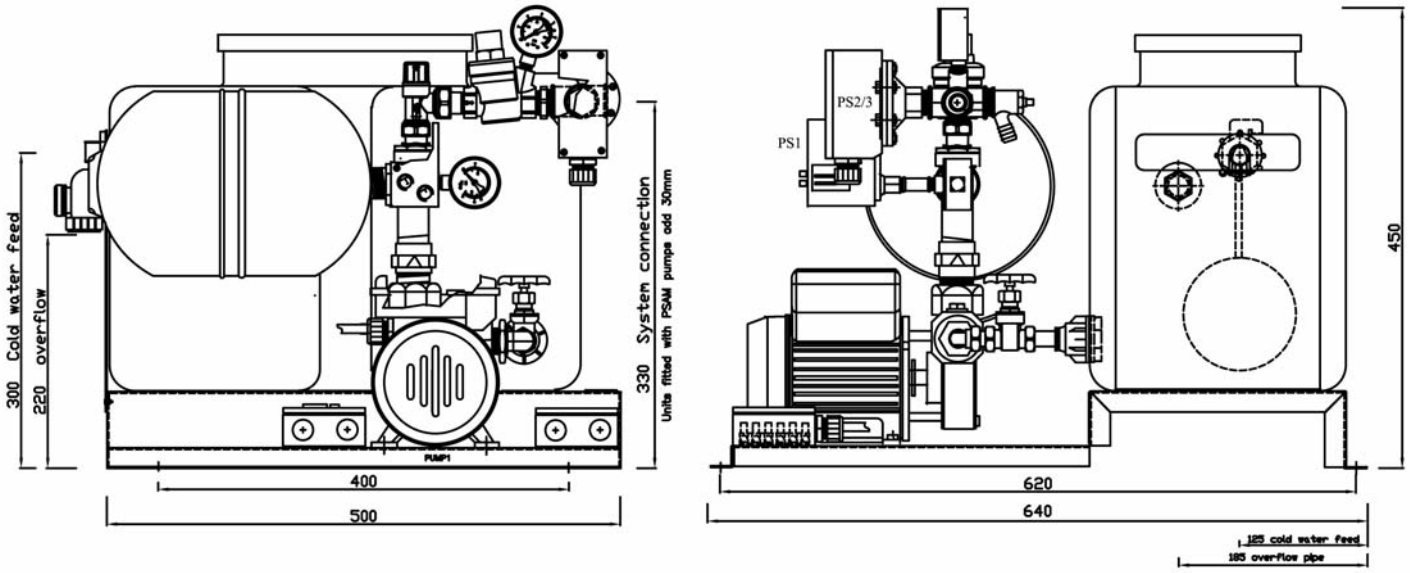
Presfix Alpha (Open frame)

Maximum fill pressure	Single pump Unit	Twin pump Unit	Kg	Motor Size	Input Current	Pre-fuse
2.8 bar	UKALPHA100HL28*		28Kg	0.37kW	2.3A	10A
2.8 bar		UKALPHA200HL28*	37Kg	0.37kW	2.3A	10A
5.5 bar	UKALPHA100HL55*		29Kg	0.37kW	3.2A	10A
5.5 bar		UKALPHA200HL55*	38Kg	0.37kW	3.2A	10A
2.8 bar	UKALPHA100BS28		28Kg	0.37kW	2.3A	10A
2.8 bar		UKALPHA200BS28	37Kg	0.37kW	2.3A	10A
5.5 bar	UKALPHA100BS55		29Kg	0.37kW	3.2A	10A
5.5 bar		UKALPHA200BS55	38Kg	0.37kW	3.2A	10A

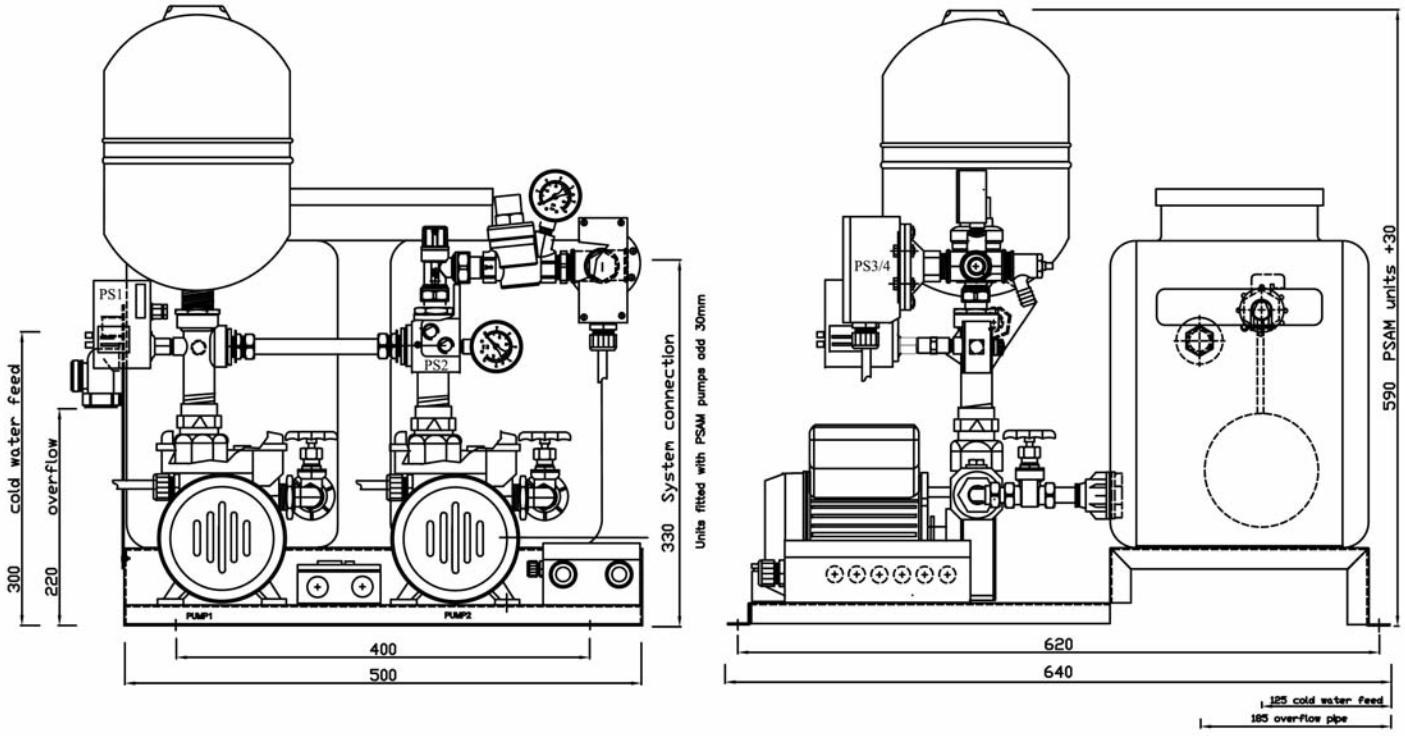
All the above units contain high quality bronze pumps to help eliminate seizure due to infrequent operation.
**Above units include High/Low pressure switches to interlock with the boiler/chiller unit.*
Other options include: microprocessor/transducer controlled units and specialised systems for large volume storage.
Please contact our sales office for details Tel. 01297 630230. Fax. 01297 630270. E-mail lowaraukenquiries@itt.com

Dimensions

Presfix Alpha single pump unit

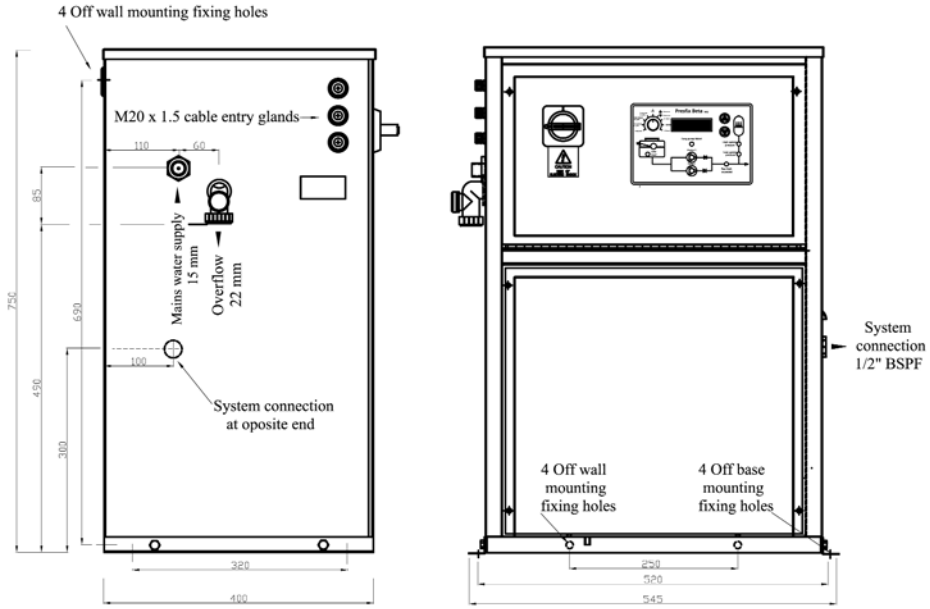


Presfix Alpha twin pump unit



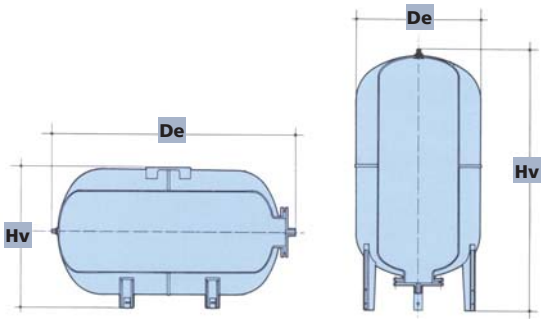
All dimensions in mm

Presfix Beta MK 2 single & twin pump unit



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

ITT

Lowara

ITT-Lowara (www.lowara.com), headquarters of "Residential and Commercial Water - EMEA" part of the ITT Corporation and located in Montecchio Maggiore, Vicenza - Italy, is a leading manufacturer of hydraulic pumps and water handling and control systems. It has 1.819 employees in Europe, 675 operating in Italy. In 2009 its consolidated sales totalled about 286 million €, or over 396 million $. ITT Corporation is a high-technology engineering and manufacturing company operating on all seven continents in three vital markets: water and fluids management, global defense and security, and motion and flow control. With a heritage of innovation, ITT partners with its customers to deliver extraordinary solutions that create more livable environments, provide protection and safety and connect our world. Headquartered in White Plains, N.Y., the company generated 2009 revenue of $10.9 billion.

ITT RESIDENTIAL AND COMMERCIAL WATER DIVISION - EMEA

Headquarters

LOWARA S.r.l. Unipersonale
Via Dott. Lombardi, 14
36075 Montecchio Maggiore
Vicenza - Italy
Tel: (+39) 0444 707111
Fax: (+39) 0444 492166
e-mail: lowara.mkt@itt.com
http: //www.lowara.com

AUSTRIA
ITT AUSTRIA GmbH
A-2000 STOCKERAU
Ernst Vogel-Straße 2
Tel: (+43) 02266 604
Fax: (+43) 02266 65311
e-mail: info.ittaustria@itt.com
http://www.ittaustria.com

FRANCE
LOWARA FRANCE S.A.S.
BP 57311
37073 Tours Cedex 2
Tel: (+33) 02 47 88 17 17
Fax: (+33) 02 47 88 17 00
e-mail: lowarafr.info@itt.com
http://www.lowara.fr

GERMANY
LOWARA DEUTSCHLAND GMBH
Biebigheimer Straße 12
D-63762 Großostheim
Tel: (+49) 0 60 26 9 43 - 0
Fax: (+49) 0 60 26 9 43 - 2 10
e-mail: lowarade.info@itt.com
http://www.lowara.de

IRELAND
ITT IRELAND
50 Broomhill Close
Airton Road - Tallaght
DUBLIN 24
Tel: (+353) 01 4524444
Fax: (+353) 01 4524795
e-mail: lowara.ireland@itt.com
http://www.lowara.ie

NEDERLAND
LOWARA NEDERLAND B.V.
Zandweistraat 22
4181 CG Waardenburg
Tel: (+31) 0418 65 50 60
Fax: (+31) 0418 65 50 61
e-mail: sales.nl@itt.com
http://www.lowara.nl

POLAND
LOWARA VOGEL POLSKA Sp. z o.o.
PL 57-100 Strzelin
ul. Kazimierza Wielkiego 5
Tel: (+48) 071 769 3900
Fax: (+48) 071 769 3909
e-mail: info.lowarapl@itt.com
http://www.lowara-vogel.pl

PORTUGAL
ITT PORTUGAL, Lda
Praçeta da Castanheira, 38
4475-019 Barca
Tel: (+351) 22 9478550
Fax: (+351) 22 9478570
e-mail: info.pt@itt.com
http://www.itt.pt

RUSSIA
LOWARA RUSSIA
Kalanchevskaya st. 11 b.2, off. 334
107078 Moscow
Tel: (+7) 495 631 55 15
Fax: (+7) 495 631 59 72
e-mail: info.lowararu@itt.com
http://www.lowara.ru

UK
LOWARA UK Limited
Millwey Rise Industrial Estate
Axminster - Devon EX13 5HU UK
Tel: 01297 630200
Fax: 01297 630270
e-mail: lowaraukenquiries@itt.com
http://www.lowara.co.uk

For additional addresses, please visit
www.lowara.com

cod. UKLIT0013 P 06/10

Engineered for life