

# AquaTech Pressmain

HEATING & CHILLED SYSTEM PRESSURISATION UNITS



## AQUAPRESS 'MP41' SERIES

**GENERAL**

The 'Aquapress MP41' Series system pressurisation unit is designed to maintain a minimum set pressure in a sealed heating or chilled water system. Once the system has been initially filled via a quick filling loop or other suitable means, should the pressure fall below the cold fill pressure the 'MP41' unit operates automatically to restore that pressure. If high or low pressure conditions should occur the boiler / chiller operation can be interrupted via the volt-free contact provided. The unit is used in conjunction with a suitably sized expansion vessel from the 'Aquatank' range of replaceable-diaphragm vessels tested to BS6144. All packaged equipment is manufactured in accordance with ISO9001 quality assurance procedures.

- Cold fill pressures from 1.0 bar upto 3.5 bar
- Suitable for boiler ratings upto 300kW
- Single piston pump
- Microprocessor Control, with Visual Display
- Compact wall mounted design
- Suitable for temperatures upto 90°C
- High & Low pressure alarm with boiler / chiller Interlock
- CE marked and Compliant with all Applicable Directives

**SPECIFICATION**

AquaTech Pressmain 'Aquapress MP41' Series, heating or chilled water pressurisation unit is of a wall mounted design, complete with single pump with thermal overload. Suitable for cold fill pressures from 1.0 bar up to 3.5 bar (50 psi), incorporating: Microprocessor control with digital display of current system pressure, High and Low Pressure alarms and Low Water in feedtank alarm with 'volt-free' contact; 5-litre mains water break-tank with 15mm float valve having a type 'AA' air gap to Water Supply (Water Fittings) Regulations 1999 Fluid Cat.5. Powder coated sheet steel wall mounting assembly which incorporates lid for break tank. Interconnecting pipework and wiring is included.

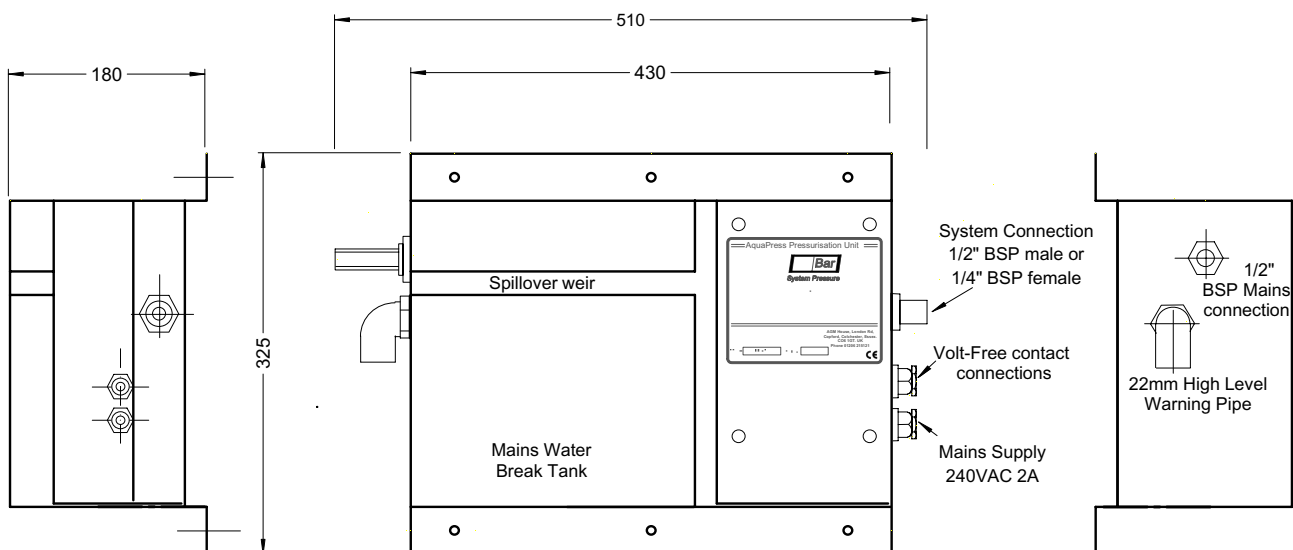
**KEY FEATURES**

- Electrical supply: Single Phase, 240 Volt AC, 50Hz, 2 Amp; Max power: 0.07kW
- Microprocessor Control for long term accuracy and reliability.
- Volt free terminal for High and Low pressure signal
- High and Low pressure protection for boiler / chiller
- Mains water break tank with type 'AA' air gap to Water Supply (Water Fittings) Regulations 1999, Fluid Cat. 5
- Compact wall mounted unit (510mm wide x 325mm high x 180mm deep) Saves floor space

**OPTIONAL EXTRAS**

- Aquatank Series of Diaphragm Expansion Vessels 25 to 500 litres capacity (tested to BS6144, 10 bar rated).
- FIBV Quick Filling Loop

**DIMENSIONS**

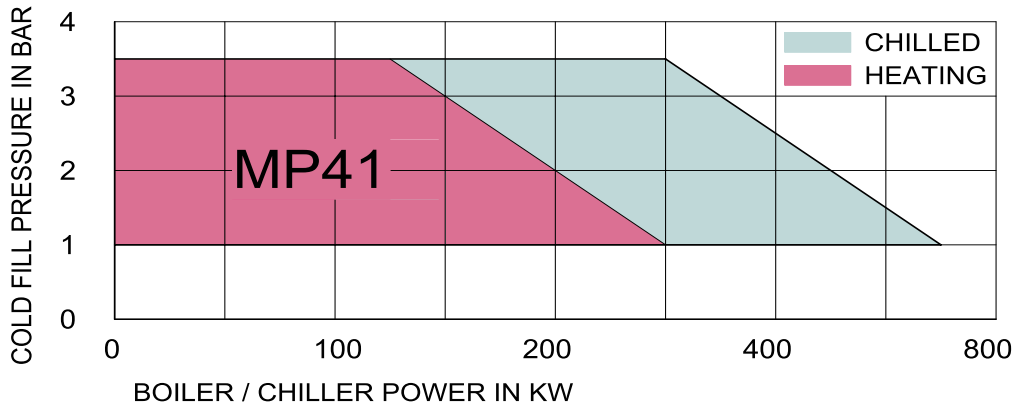


R.H. Side view

All Dimensions in mm unless otherwise stated - Not to Scale

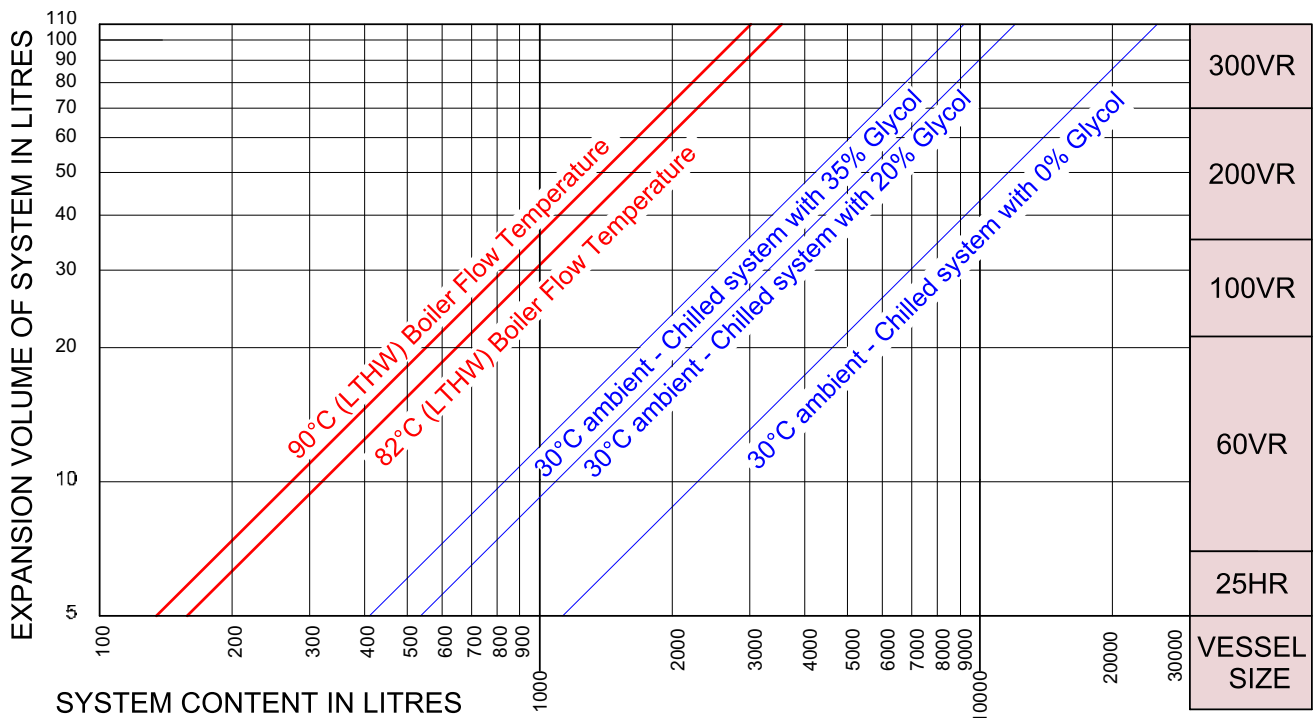
L. H. Side view

## MP41 OPERATIONAL RANGE



PLEASE NOTE THIS GRAPH IS BASED ON:  
 1, A COOL DOWN RATE OF 1°C PER MINUTE BETWEEN 90°C AND 80°C WITH BOILER SHUT DOWN AND ALL CIRCULATORS RUNNING  
 2, MINIMUM BREAKTANK WATER SUPPLY PRESSURE OF 1.0 BAR  
 3, THE AQUAPRESS PUMP HAS BEEN SELECTED TO MAKE-UP A SYSTEM WATER LOSS (DUE TO LEAKAGE) OF 1% OF THE TOTAL SYSTEM VOLUME IN ANY 24 HOURS PERIOD. LEAKAGE GREATER THAN THIS MAY RESULT IN LOW SYSTEM PRESSURE  
 4, ASSUMING 0% GLYCOL IN CHILLED SYSTEMS WITH 30°C AMBIENT TEMP AND COOL DOWN TIME: 30 MINUTES,

## EXPANSION VESSEL SELECTION CHART

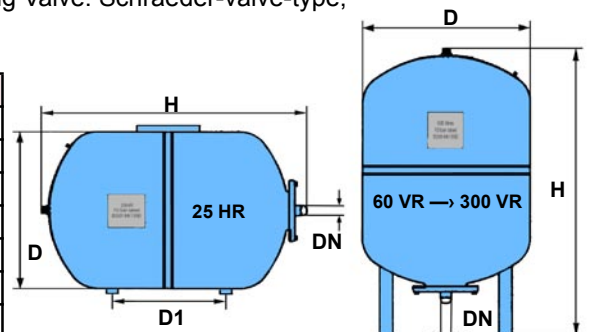


## OPTIONAL DIAPHRAGM VESSELS

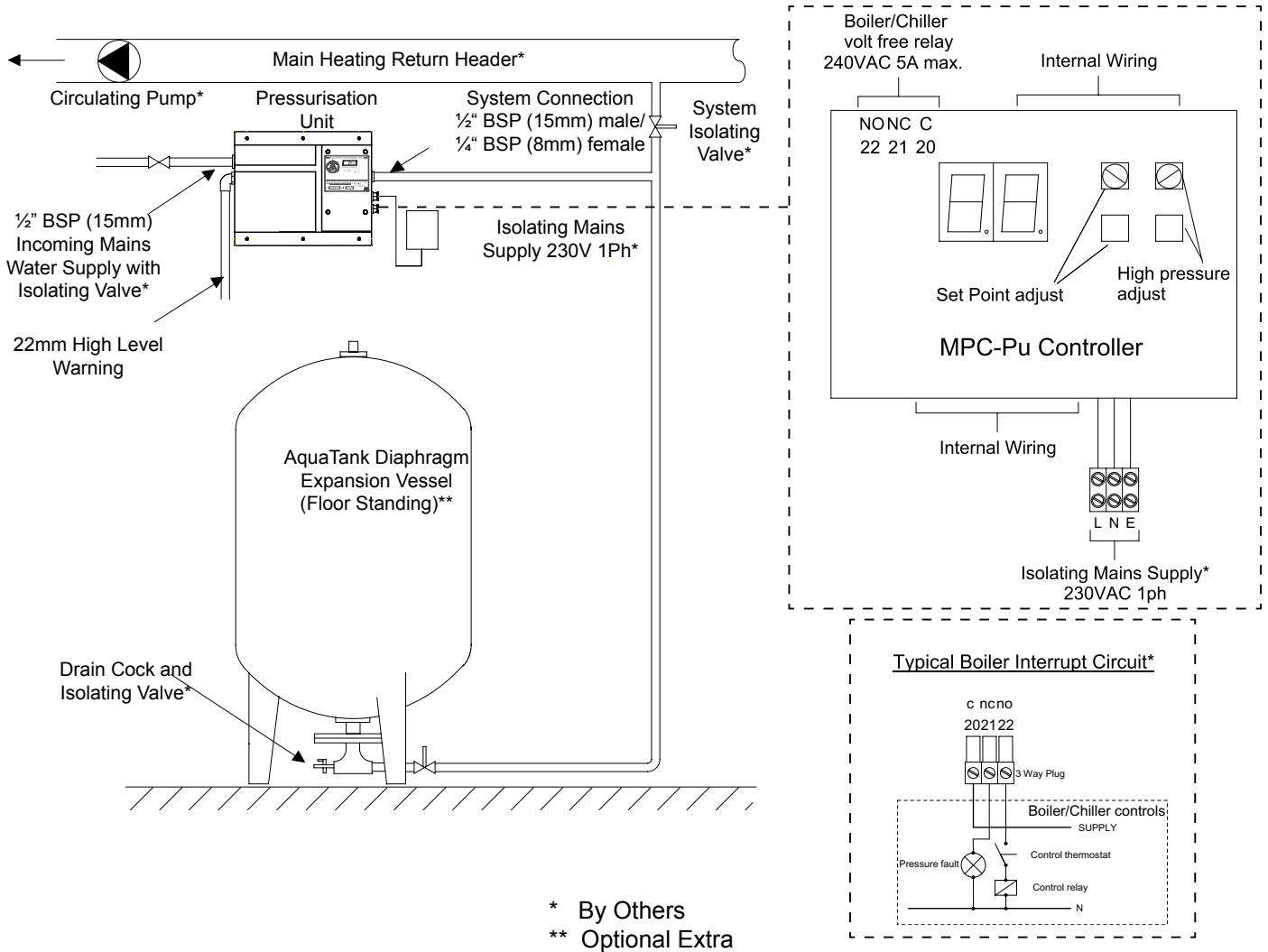
### AQUATANK 'VR' Series:

The diaphragm vessels for special applications; Meets or exceeds EC norms for pressure vessels 97/23/EC; Max working pressure: 10 bar; Vessel Material: Steel RSt 37-2.; All vessel parts in contact with water are coated against corrosion; Diaphragm: Made of special high quality rubber material; Filling Valve: Schraeder-valve-type; Surface Treatment: Blue, durable powder coating finish.

Type	25 HR	60 VR	100 VR	200 VR	300 VR
Nominal Content –litres	25	60	100	200	300
D mm	295	409	480	634	634
D1 mm	228	-	-	-	-
H mm	485	740	840	980	1280
Water Connection DN BSP	1"	1"	1"	1 ¼"	1 ¼"
Dry Weight Kg	5.6	25	32	50	55
Max. working Pressure-bar	10	10	10	10	10



# TYPICAL PIPEWORK & ELECTRICAL CONNECTIONS



CONSTRUCTION STANDARDS FOR 'AQUAPRESS MP41 SERIES			
ITEM		STANDARD/CLASS	REMARKS
Quality System	Manufacturing	ISO 9001	Cert. No. FM33090
Micro Controller	MPC-Pu		Designed In House
Wiring Standards		BSEN 60204 part 1	
Mains Water Breaktank	5 Litres Nominal Capacity	Type 'AA'	Fluid CAT 5
Mains Water Floatvalve	Equilibrium Type	WRAS Approved	
Pipework	Polyurethane Type TU		
Pumps	ET 508	IMQ & VDE Standards	Integral Non-Return Valve
Pump Motors	T.E. Encapsulated	IP55, Class F Insulation	Thermal Overload Protected
CE Marked		PED, EMC Directives, Safety of Machinery	PED Notified Body - BSI

The information in this specification is correct at time of issue; as AquaTech Pressmain design and development programmes are continuous, we reserve the right to make any changes to this specification without prior notice.

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Leaders in the design, manufacture and assembly of packaged fluid pumping equipment and control systems.  
 Applications: Cold Water Supply; Fire Fighting; Heating & Chilled System Pressurisation; Tank Level Monitoring.