

## PressDS (Dosing Pressurisation System) Unit

### Description:

Compact, totally enclosed digital pressurisation unit with electronic pressure transducer and user-friendly microprocessor for use on sealed systems in order to provide a minimum system pressure requirement. The correct fluid mix is blended on demand at the time of system top-up.

System Volume (Guide): < 60000 Litres

### Product Features:

- MODBUS communication output
- System fill mode
- Password protection for parameter entry
- Pressure settings in 0.1 bar increments
- Service reminder option (12 months).
- Pump pulse option (2 second pulse if inactive for 60 days)
- Flood protection options
- Event logging for pump start, individual pump run hours counter, electrical interruption and common alarm.
- Volt free contacts for common fault, high pressure, low pressure, pump fault, pressure transducer fault.
- 4 Litre water break tank with type AB Air Gap Fluid Cat 5
- 18 litre additive tank
- Mix ratios from 1% to 50% user configurable balancing valves
- Top-up pressurisation unit (<10.0 l/min)



### Certifications and Standards Applied:

- PED 2014/68/EU Sound Engineering Practice.
- IEE - Electrical Safety Guidance.
- EMC 2004/108/EC
- BS 7074 Parts 1 to 3
- Machine Directive 2006/42/EC.
- Electronic Components have been tested and comply with the EMC Directives
- EN 61000-6-1: Generic Standards – Immunity standard for industrial environments
- EN 61000-6-3: Generic Standards – Emission standard for residential, commercial and light industrial environment.
- CE marked components, where applicable.
- WRAS approved float valve to BS1212
- IP54 (BS EN60529) Rated Controller.

**Maximum Operating Conditions:**

- Maximum system temperature 85°C
- Ambient temperature up to 40°C
- Relative humidity 95% non-condensing

**Application of Use:**

- Commercial.
- Industrial.
- Residential.

**Selection process:**

- Static height of the building above the pressurisation unit (meters) or Cold Fill pressure (System pressure + 0.3 Bar for vent allowance)
- Systems content (litres) If unknown provide the boiler power (kW) which can be used to estimate the systems content -12 l/kW for Heating system or 18 l/kW Cooling system
- Flow and Return temperatures
- Glycol content (%) if required or Water
- Final working pressure or safety valve setting (Max)

**Material of Construction:**

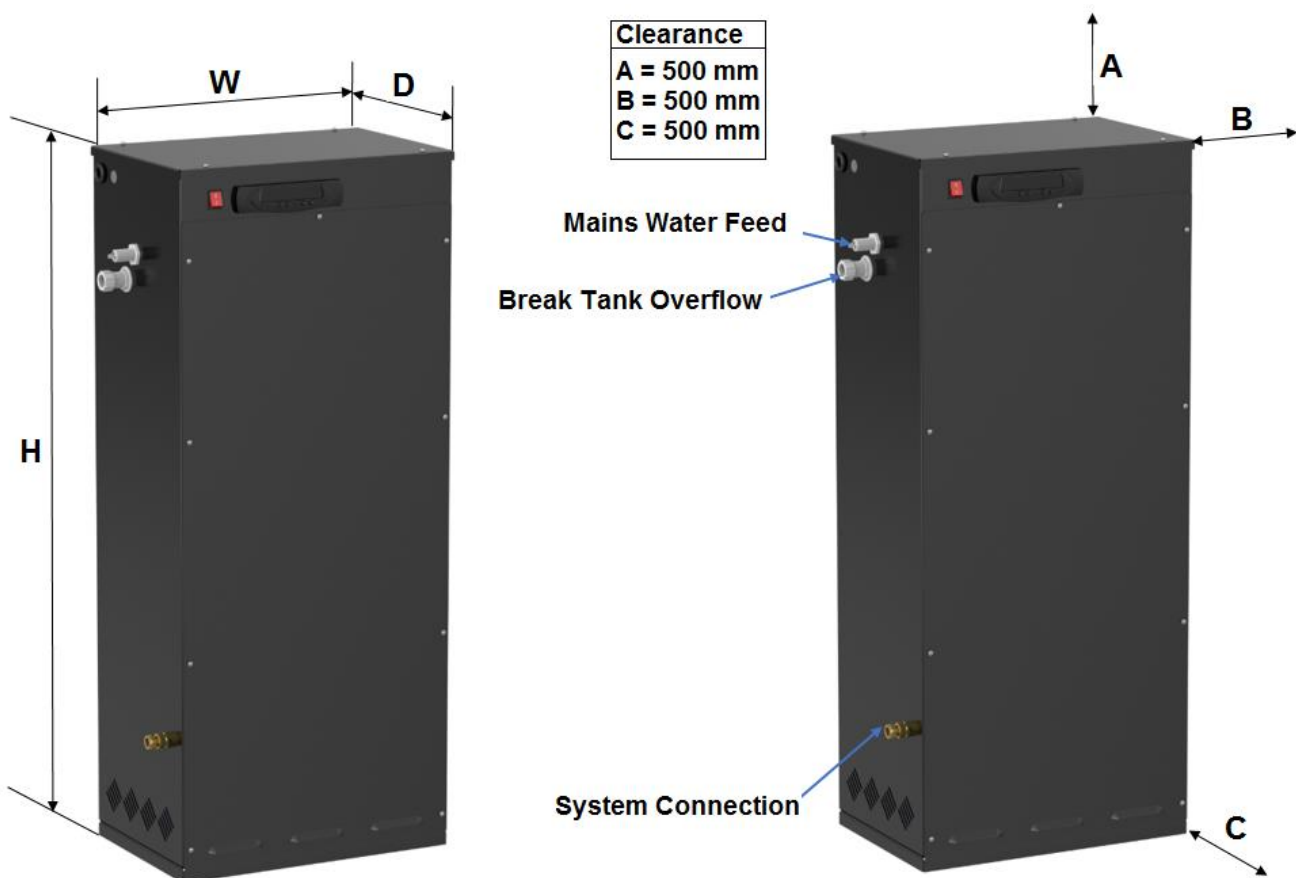
- Cabinet: Mild steel CR4
- Float: WRAS approved Beta Side entry
- Break tank: Polypropylene (White)
- Additive tank: Polypropylene (Black)
- Pump: See pump curve
- Pump: WRAS approved
- Connection: Brass / Polypropylene / rubber
- Pipework: Braided flexihose
- Colour: Powder Coated – Black (RAL 9005)

Note: Large break tank (additive) colour is black, picture illustrated for clear view of inside of unit components.

**Dimensions & Connection Details:**

| TYPE | Dimensions |       |        | Additive Tank Capacity | Connections |             |          |
|------|------------|-------|--------|------------------------|-------------|-------------|----------|
|      | Width      | Depth | Height |                        | System      | Main Supply | Overflow |
| ALL  | 480        | 325   | 1180   | 18 Litres              | 15 (½")     | 15 (½")     | 22       |

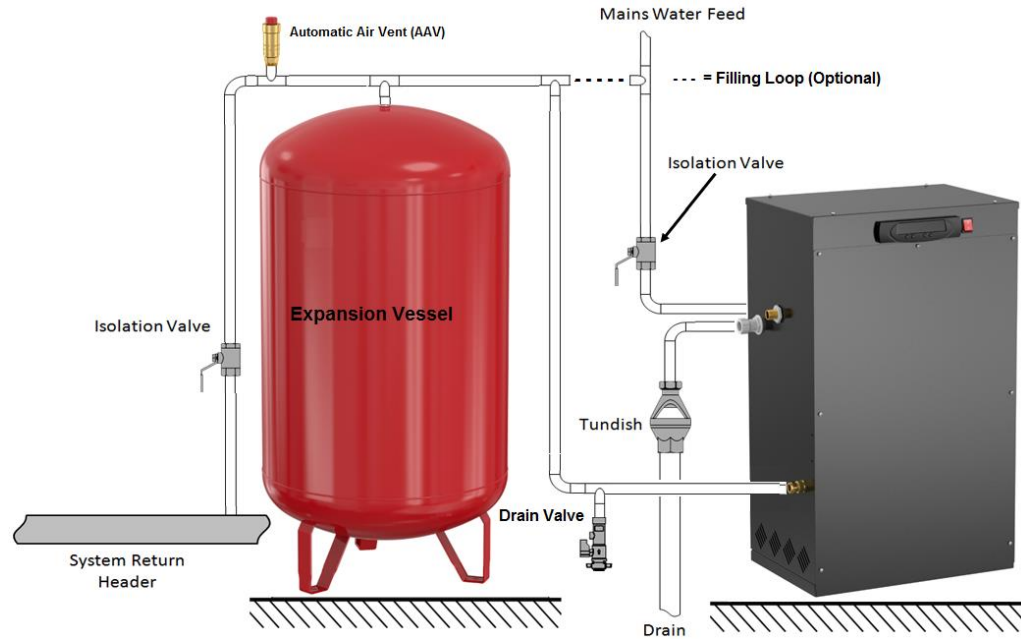
| Type        | Pump Quantity | Maximum Delivery Pressure (Bar) | Power Consumption (kW) | Full Load Current (Amps) | Nominal Weight [kg] | Order Code |
|-------------|---------------|---------------------------------|------------------------|--------------------------|---------------------|------------|
| PressDS 225 | 2             | 2.5                             | 0.37                   | 2.6                      | 35                  | 45049      |
| PressDS 250 | 2             | 5                               | 0.5                    | 3.4                      | 39                  | 45047      |
| PressDS 280 | 2             | 8                               | 0.75                   | 5.6                      | 45                  | 17392      |



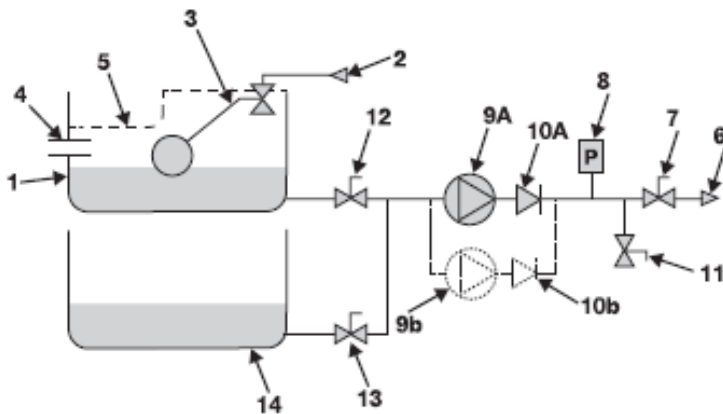
## Installation & Placement:

The pressurisation unit should be installed in a frost-free and humidity free area. Connected to the system return pipe, at the same point as the expansion vessel to provide a neutral pressure reading where the temperature of fluid does not exceed 70 °C.

Typical Installation Diagram  
(illustration purposes only)



## Schematic Layout:



### Key

- |           |                                |
|-----------|--------------------------------|
| 1         | Break Tank                     |
| 2         | Mains Water Inlet              |
| 3         | Float Operated Valve           |
| 4         | Overflow Connection            |
| 5         | AB Air Gap Backflow Protection |
| 6         | Supply to Sealed System        |
| 7         | Isolation Valve                |
| 8         | Pressure Transmitter           |
| 9a / 9b   | Pump(s)                        |
| 10a / 10b | Non-Return Valve               |
| 11        | Drain Valve                    |
| 12        | Water Balancing Valve          |
| 13        | Additive Balancing Valve       |
| 14        | Additive Tank                  |

**Pump Curve:**

| Model Type  | Pump Qty | Pump Type      | Pump Body | Impeller | Insulation Class | IP Rating |
|-------------|----------|----------------|-----------|----------|------------------|-----------|
| PressDS 225 | 2        | PEDROLLO PQA60 | Ryton     | Brass    | F                | IPX4      |
| PressDS 250 | 2        | PEDROLLO PQ81B | Brass     | Brass    | F                | IPX4      |
| PressDS 280 | 2        | PEDROLLO PQA90 | Ryton     | Brass    | F                | IPX4      |

