

Technical Information Sheet

Buffer Vessels

Features and Benefits

- Designed for Heat Pump Applications
- Avoids Short Cycling of the Heat Pump while Maintaining the Heat Pump Efficiency
- Enables Full Control of all Underfloor Zones.
- Ease of Installation
- UK Manufacture
- 25 Year Guarantee for the Shell (For Duplex Stainless Steel models)



Product Description

Kensa has partnered with a leading Cylinder Manufacturer (Advance Appliances) to design and produce buffer vessel designed for use with heat pumps.

Buffer vessels are designed to avoid short cycling within heat pump applications. Kensa would normally recommend that 25% of the underfloor zones are left hydraulically open and in these cases a buffer vessel is not required. However there are applications where full temperature control is

required for all underfloor zones. In these cases, a buffer vessel will enable full control without the heat pump short cycling.

To avoid a drop in efficiency at the heat pump which normally occurs with buffer vessels, Kensa recommend that buffer vessels should be used in a two connection piping configuration.

The units meet current Building Regulations and are manufactured in the UK.

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Certificate Number MCS1216
Heat Pumps

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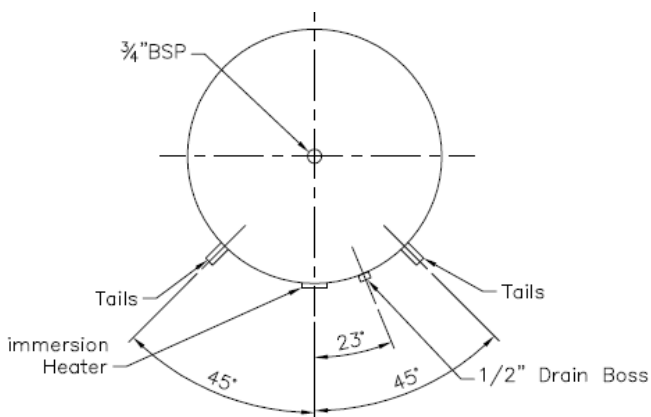
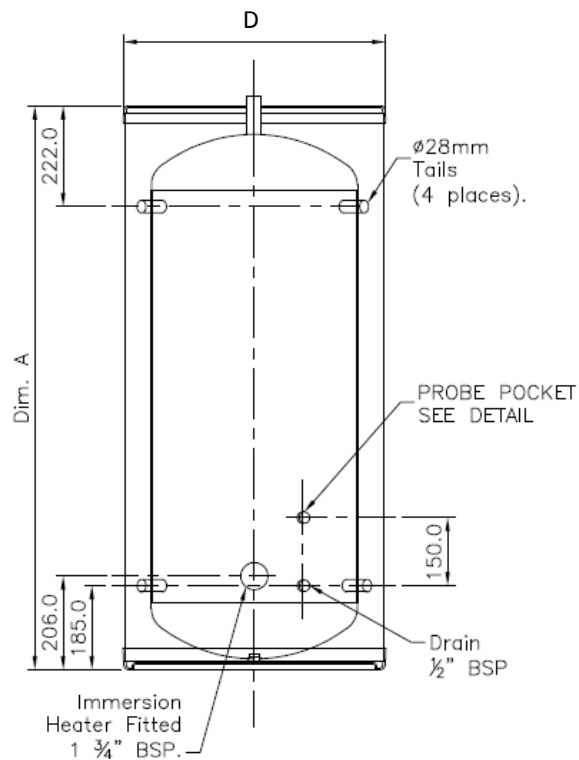
Company Registered in England and Wales: 03739805



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Buffer Vessel

Tappings	4 x 28mm BSP Male Above 150 litres 4 x 2" BSP
Material	Duplex Stainless Steel Except * Mild Steel
Max Operating Pressure and Temperature	3 Bar—95°C
Hydraulic Test Pressure	9 Bar
Insulation	Polyurethane Foam Injection
Insulation 50 & 100 Litre Tank	Rigid Polyurethane and Mineral Wool
Thermostat Probe Pocket	Fitted to cylinders, 1/2" Boss on 100 litre tank
Air Vent	3/4" BSP tapping—cylinders 1/2" Vent (100 litre Tank)



Note: Shell and Domes are designed generally in accordance to BS5500

Note: Although the buffer vessel is provided with a 3kW immersion heater this should not be electrically connected unless approved by Kensa Engineering. The use of an immersion heater will reduce the efficiency of the system and increase carbon emissions.

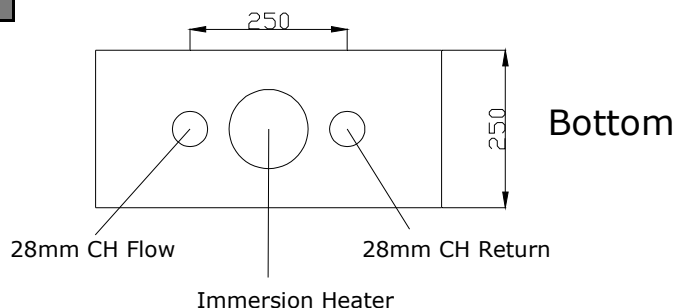
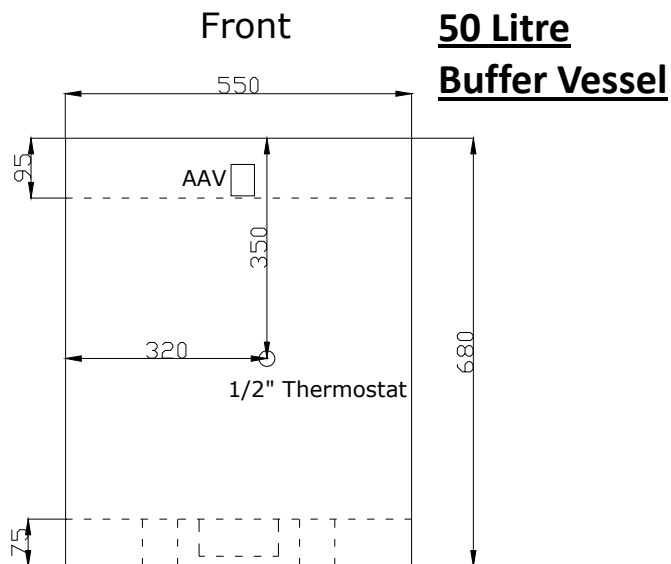
Note: Although 4 tappings are provided only 2 should be connected via a t-piece to the flow and return to maintain the heat pump efficiency.

Model	95-010A	95-012A	95-013A	95-014A	95-015A	95-018A	95-020A	95-025A	95-030A
Volume (l)	80	150	215	255	305	500	1000	2000	3000
Weight Full (kg)	105	180	260	305	355	600	1190	2385	3580
Heat Loss kWh/24hrs@ 50°C	1.29	1.83	2.19	2.31	2.51	3.98	N/A	N/A	N/A
Immersion Heaters	1 x 3kW	1 x 3kW	1 x 3kW	1 x 3kW	1 x 3kW	1 x 3kW	1 x 3kW	1 x 3kW	1 x 3kW
Dimension A	645	1086	1485	1753	2030	1780	1800	2288	3040
Diameter D	577	577	577	577	577	750	990	1290	1290

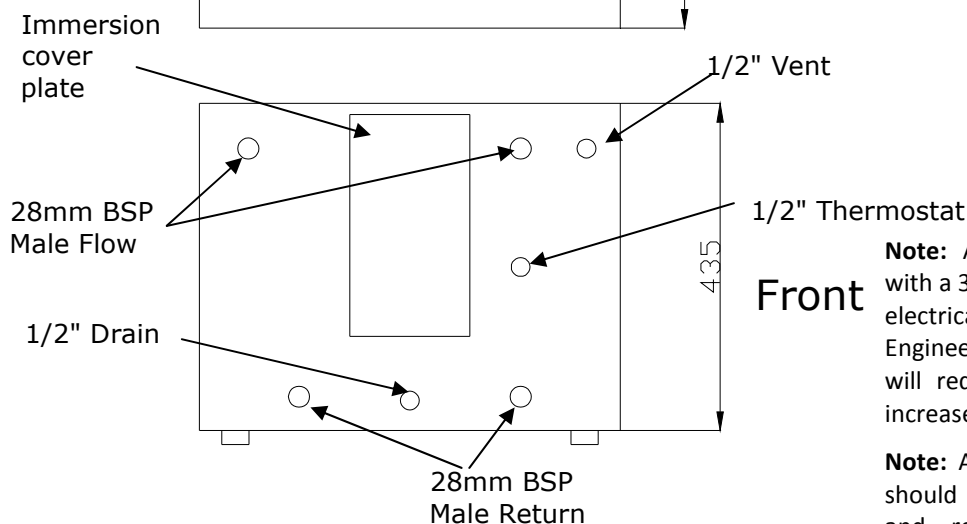
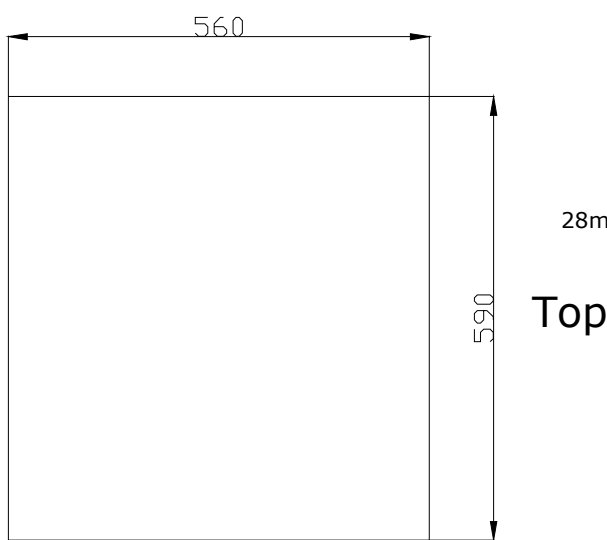
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Buffer Vessel

Tappings	4 x 28mm BSP Male (100litre) 2 x 28mm BSP Male (50litre)
Material	Mild Steel
Max Operating Pressure and Temperature	3 Bar—95°C
Hydraulic Test Pressure	9 Bar
Insulation	Rigid Polyurethane and Mineral Wool
Thermostat Probe Pocket	1/2" BSP Tapping
Air Vent	1/2" BSP tapping (100litre) —50 litre fitted with Automatic Air Vent



100 litre Buffer Vessel



Model	95-009A	95-011A
Volume (l)	50	100
Weight Full (kg)	80	145
Heat Loss kWh/24hrs@ 50°C	N/A	2.05
Immersion Heaters	1 x 3kW	2 x 3kW

Note: Although the buffer vessel is provided with a 3kW immersion heater this should not be electrically connected unless approved by Kensa Engineering. The use of an immersion heater will reduce the efficiency of the system and increase carbon emissions.

Note: Although 4 tappings are provided only 2 should be connected via a t-piece to the flow and return to maintain the heat pump efficiency.