



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 manufactured.
- 25 year guarantee for the shell (duplex stainless steel models).



Product Description

Kensa has partnered with a leading cylinder manufacturer (Advance Appliances) to design and produce buffer vessels specifically 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 recommends that buffer vessels should be used in a two connection piping configuration.

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



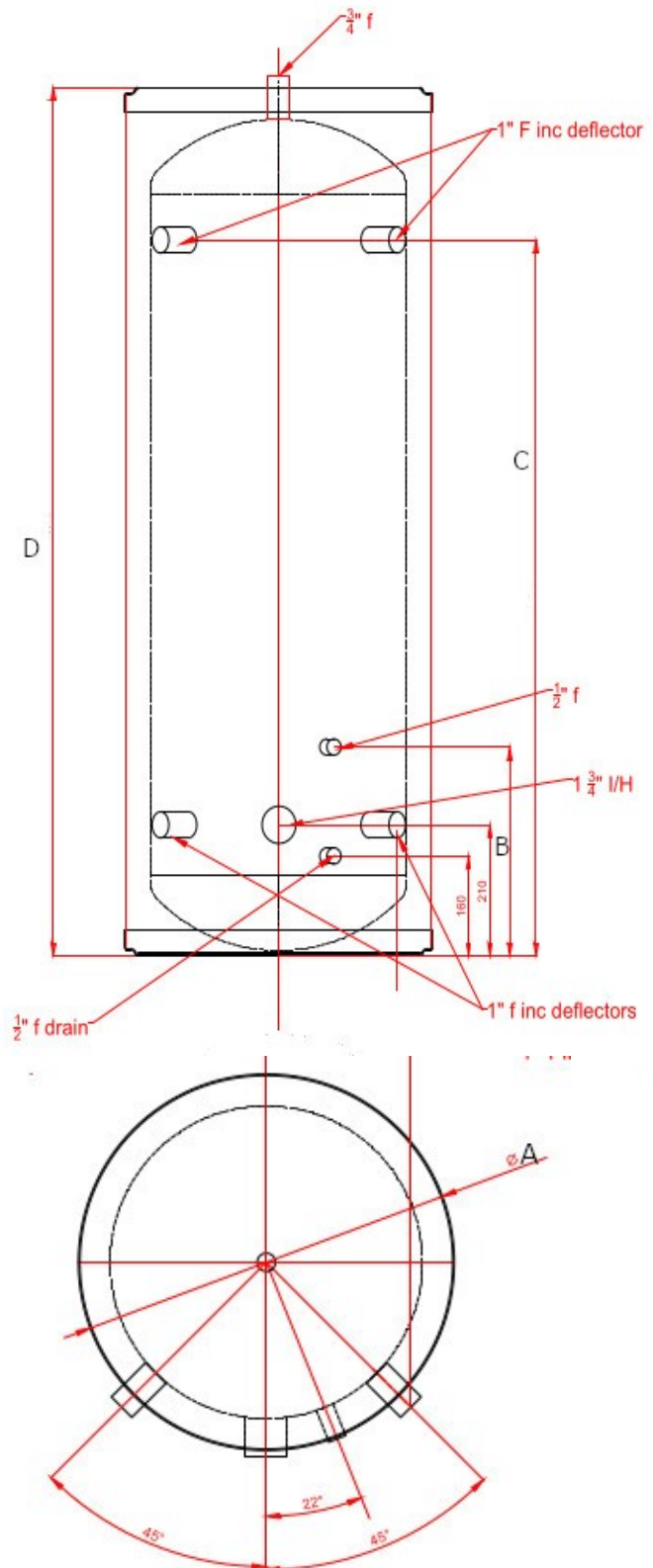
Buffer Vessels

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)

Model	95-045A	95-046A	95-047A
Volume (l)	80	150	200
Weight Full (kg)	95	170	225
Heat Loss kWh/24hrs@50°C	38	55	68
Immersion Heaters	1 x 3kW	1 x 3kW	1 x 3kW
Dimension A	545	545	545
Dimension B	300	335	335
Dimension C	410	845	1150
Dimension D	651	1081	1399
Energy Class	B	B	C

Note: Although the buffer vessel is provided with a 3kW immersion heater this should not be electrically connected unless approved by Kensa Heat Pumps. 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.



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

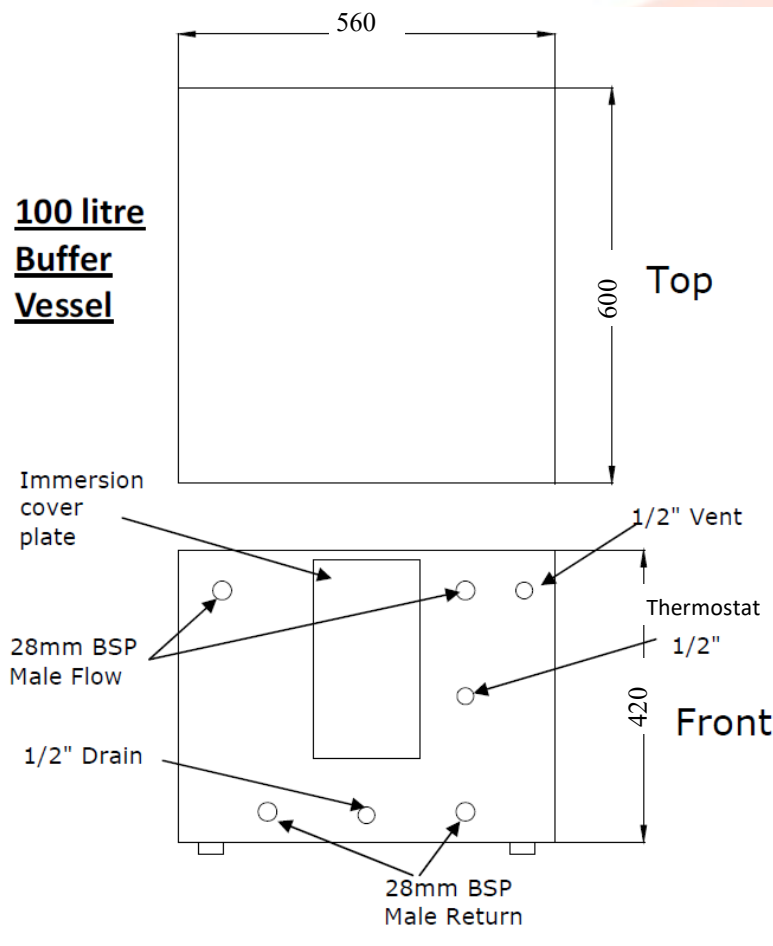


Buffer Vessels

Tappings	4 x 28mm Male Stub (100 litre)
Material	Mild Steel
Max Operating Pressure and Temperature	2.5 Bar—95°C
Hydraulic Test Pressure	3.5 Bar
Insulation 50 & 100 Litre Tank	Rigid Polyurethane and Mineral Wool
Thermostat Probe Pocket	1/2" Boss
Air Vent	1/2" BSP tapping (100 litre)

Please note: the 100 litre buffer vessel does not include an immersion heater as standard. This can be ordered separately if required.

100 litre Buffer Vessel



Model	95-011A
Volume (l)	100
Weight Full (kg)	145
Heat Loss kWh/24hrs@50°C	2.05
Immersion Heaters	Can be ordered
ErP Rating	C

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