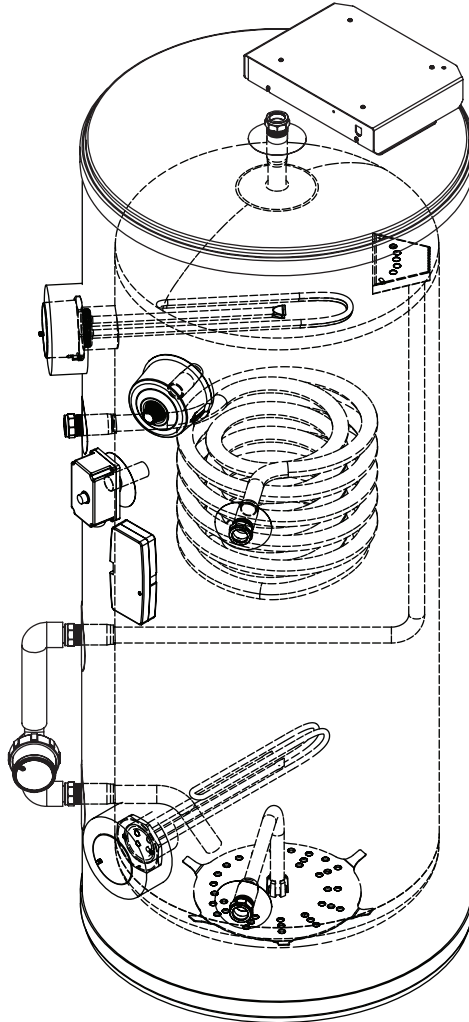


Mixergy®

Technical specifications

For stainless steel hot water cylinders



Mixergy Ltd
2 Canal View
Wharf Farm
Cassington
Oxfordshire
OX29 4DB

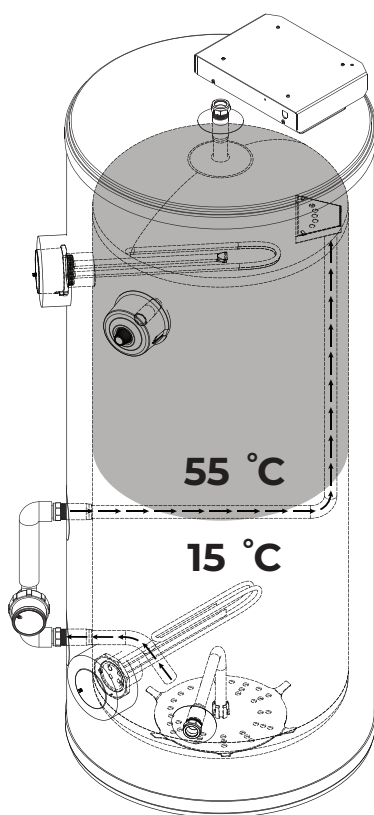
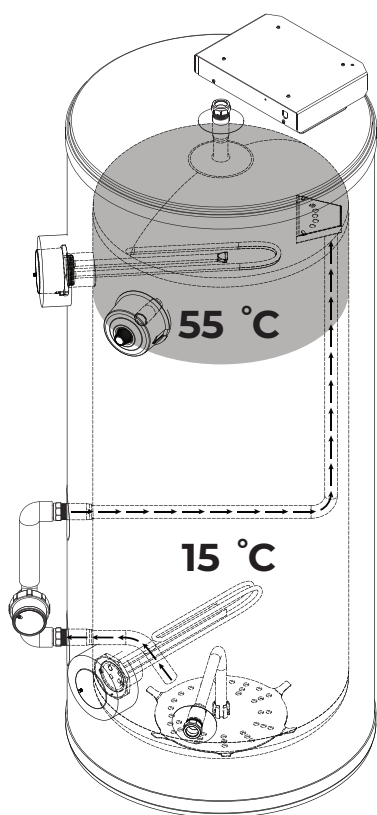
General technical data

Max. supply pressure to pressure reducing valve	1 MPa (10 bar)
Operating pressure	0.3 MPa (3 bar)
Expansion vessel charge pressure	0.3 MPa (3 bar)
Expansion relief valve setting	0.6 MPa (6 bar)
P&T relief valve setting (pressure)	0.7 MPa (7 bar)
P&T relief valve setting (temperature)	90 °C
Thermostat cut-out temperature	80 °C
Adjustable temperature range (digital)	50 - 65 °C
Coil max. working pressure (indirect)	0.35 MPa (3.5 bar)
Immersion heater(s) rating	230-240 V~ 2.7-3.0 kW
Immersion heater(s) specification	EN 60335-2-73
Immersion heater(s) type	356 mm Incoloy

About our cylinders

The Mixergy cylinder is a hot water storage cylinder which uses thermal stratification on charge (direct and indirect) and discharge (direct, indirect, lite and heat pump).

This stratification technology allows the Mixergy cylinder to partially heat (or 'charge') the water, reducing heat losses, improving available renewable capacity and allowing for exploitation of smart tariffs.



Additional components

- Monobloc kit incl. pressure reducing valve, check valve, pressure and temperature relief valve and expansion relief valve
- Tundish
- Expansion vessel incl. mounting bracket and 3/4" x 22mm adapters
- 3 kW immersion heater(s) 1.3/4" BSP (fitted)
- High limit thermostat (indirect only, fitted)
- 2-port diverter valve V4043H1056 (indirect/heat pump only)
- Powerline to ethernet adapter TL-PA4010
- Ethernet cable
- User guide

Model specifications

Cylinder model	90	120		150		180		210		300
Nominal dia. (mm)	478	478	580	478	580	478	580	478	580	580
ErP rating DIR	B	B		B		B		B		B
ErP rating IND	C	B		B		B		C		C
Standing loss* (kWh/24h)	0.54 - 1.32	0.54 - 1.08		0.54 - 1.15		0.54 - 1.27		0.54 - 1.37		0.54 - 1.75
Coil rating (IND ONLY)	20	20		22		24		24		24
Cylinder height (mm)	1141	1329	1050	1517	1236	1767	1418	2081	1608	2125
Empty weights (kg)**										
Direct	23	28	32	35	37	38	42	40	47	57
Indirect / Lite	--	32	37	40	42	44	47	47	52	62
Full weights (kg)**										
Direct	113	148	162	185	187	218	217	250	262	362
Indirect / Lite	--	152	167	190	192	224	222	257	267	367

Model specifications

Cylinder model	90	120		150		180		210		300
Nominal dia. (mm)	478	478	580	478	580	478	580	478	580	580
Minimum reheat time (15 to 65 °C) - Direct	30 min	30 min	44 min	30 min	44 min	30 min	44 min	30 min	44 min	44 min
Minimum reheat time (15 to 65 °C) - Indirect	12 min									
70% charge reheat time (15 to 65 °C) - Direct	73 min	98 min		123 min		147 min		172 min		245 min
70% charge reheat time (15 to 65 °C) - Ind / Lite	--	14 min		17 min		21 min		23 min		31 min
70% charge reheat time (15 to 65 °C) - HP	4 min	6 min		7 min		9 min		10 min		14 min
100% charge reheat time (15 to 65 °C) - Direct	105 min	140 min		176 min		210 min		246 min		350 min
100% charge reheat time (15 to 65 °C) - Ind / Lite	--	20 min		25 min		30 min		33 min		45 min
100% charge reheat time (15 to 65 °C) - HP	6 min	9 min		11 min		13 min		15 min		21 min

* Standing loss figures given at minimum and maximum charge, for SAP calculations please use the maximum heat loss value.

** For cylinders with an exchanger assembly fitted, add 5kg to the cylinder weight.

Heat pump exchanger specifications

Exchanger construction	Copper brazed 304 SS
Exchanger rating (kW)**	44
Max. operating pressure	2 MPa (20 bar)
Max. flow rate	65 L/min (3.8 m ³ /hr)
Connections	3/4" ISO-G (BSPP) M
Equivalent coil area (m²)***	3 m ²

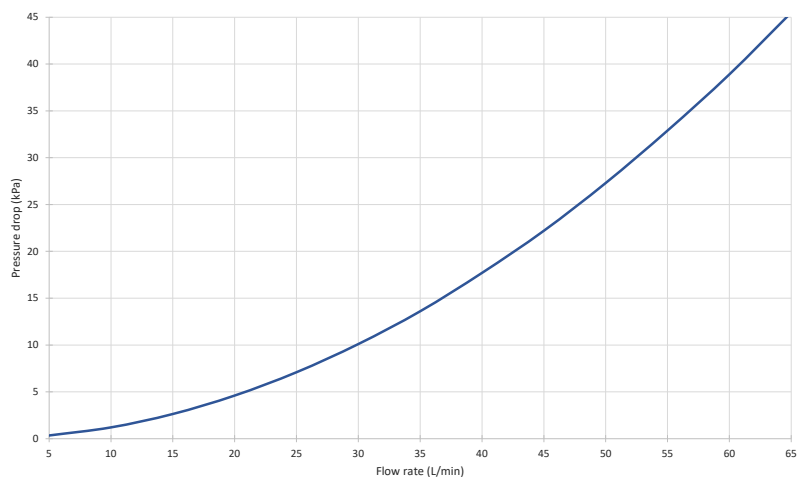
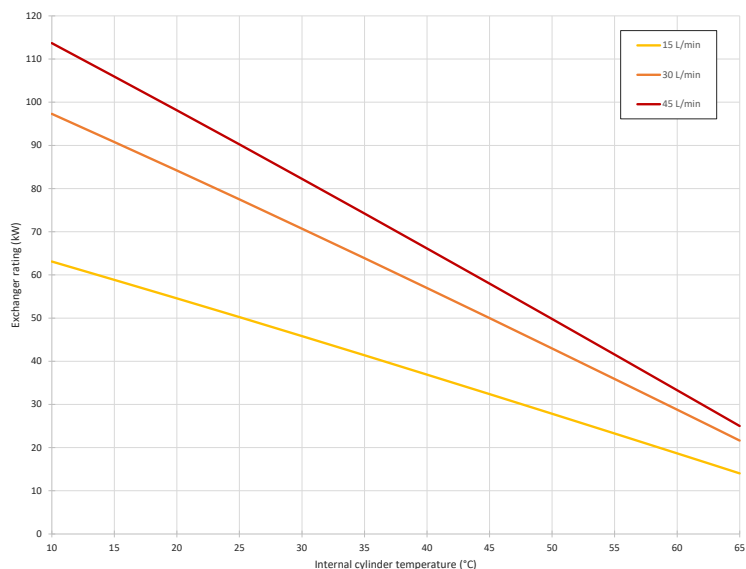
** Tested at 80 C, 15 L/min primary flow as per BS EN 12897-2016

*** Equivalently performant coil S.A for SAP 10 calculations

Included items

- Heat exchanger module complete with pipework, exchanger, AAV and pump
- 2x 22mm compression nuts and olives
- 2x 22mm isolator valves and pipe stubs
- Installation guide
- Insulating jacket for exchanger
- Wiring harness

Heat pump exchanger specifications



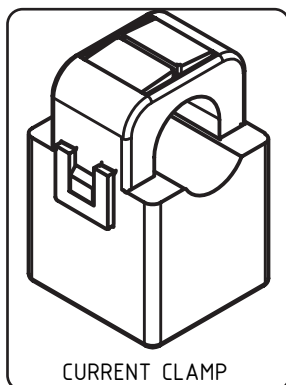
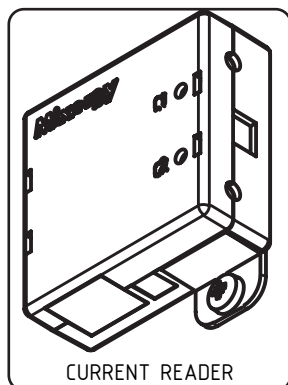
PV diverter specifications

The Mixergy solar (PV) diverter is a device which allows your hot water cylinder to redirect and absorb excess solar energy from local PV panels in the form of hot water. This absorbed energy offsets primary energy demand of the hot water system, reducing running costs and lowering the carbon footprint of your water heating.

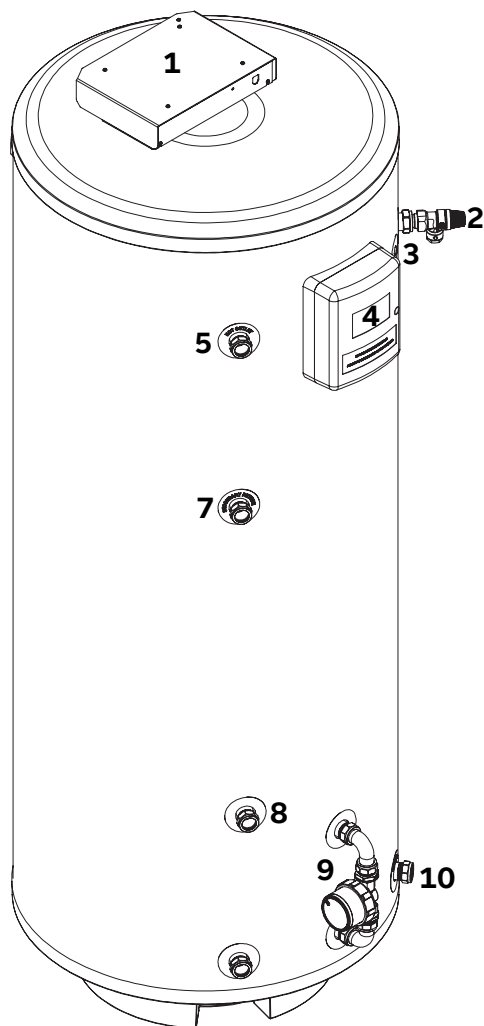
Adjustable temperature range (digital)	50 - 65 °C
Thermostat cut-out temperature	80 °C
Immersion heater(s) rating	230-240 V~ 2.7-3.0 kW
Immersion heater(s) specification	EN 60335-2-73
Immersion heater(s) type	356 mm Incoloy/Ti
Modulation range	30W - 3000W
Minimum export cut-in threshold	100W

Included parts

- Solar diverter (pre-fitted to cylinder)
- Current reader
- Current clamp
- Mounting hardware (VHB pad, screws x 2, wall plugs x 2)
- 1 m ethernet cable x1, 3m ethernet cable x1

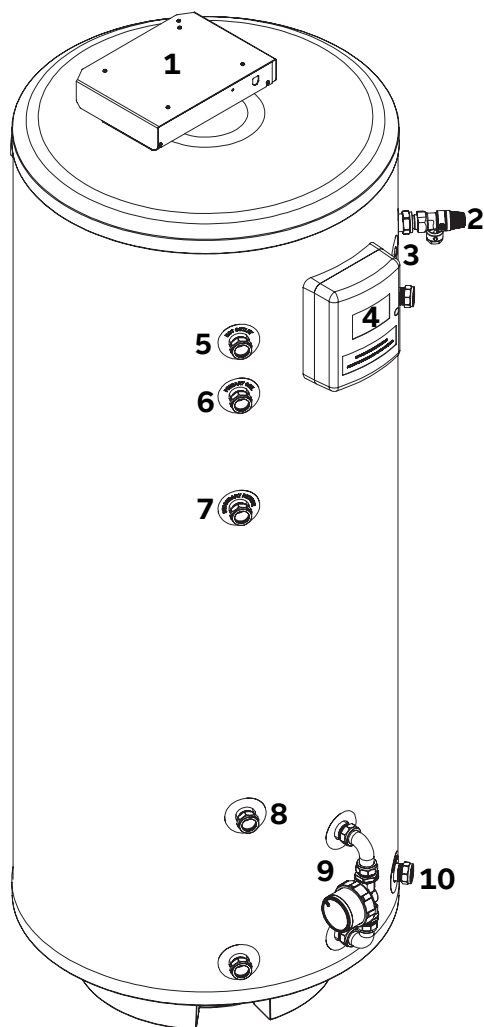


Schematic: Direct



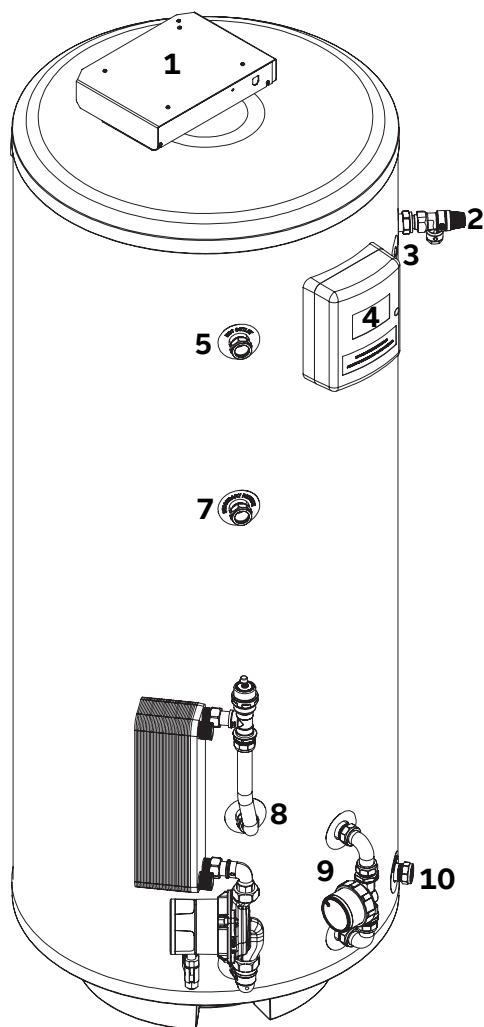
1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (210L - 300L)
3	External probe pocket	8	Heat pump exchanger ports
4	Primary immersion	9	Pump assembly
5	Hot draw	10	Cold feed

Schematic: Indirect



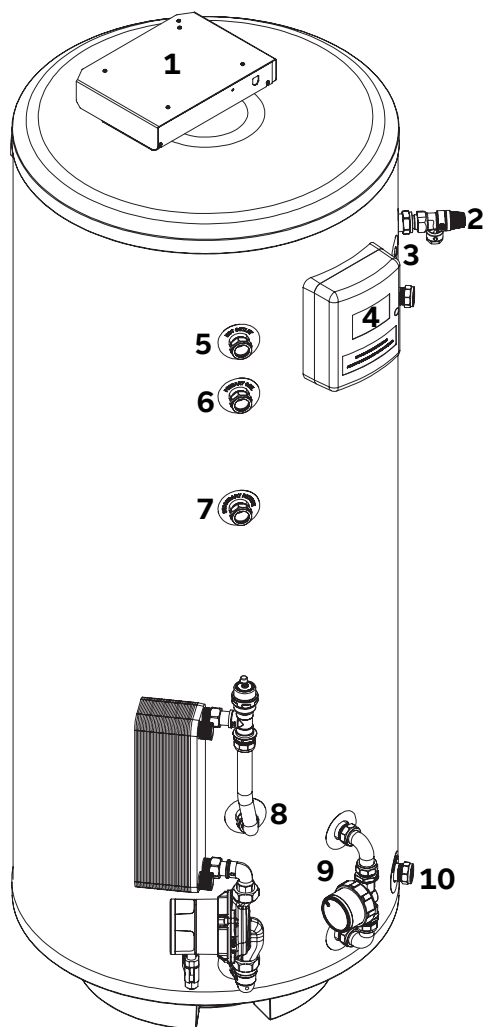
1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (210L - 300L)
3	External probe pocket	8	Heat pump exchanger ports
4	Primary immersion	9	Pump assembly
5	Hot draw	10	Cold feed

Schematic: Direct + HP exchanger



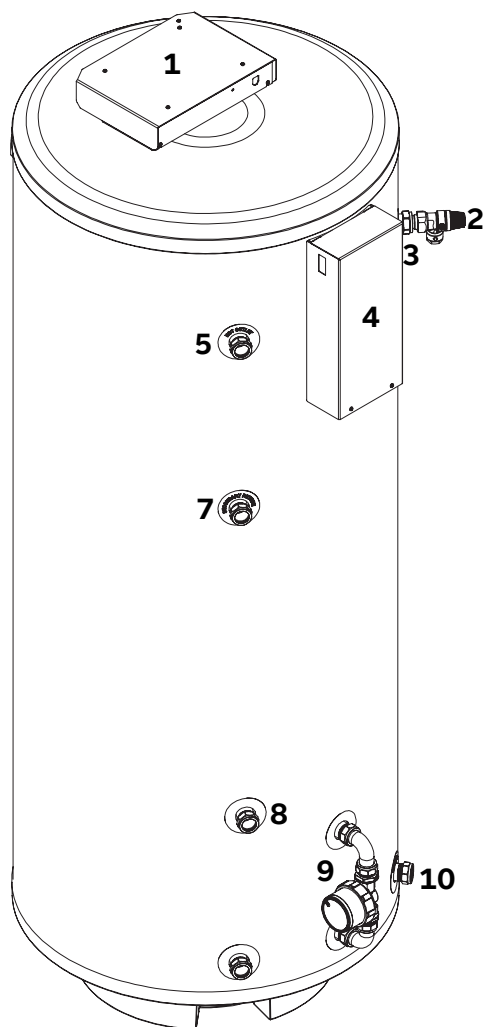
1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (210L - 300L)
3	External probe pocket	8	Heat pump exchanger assembly
4	Primary immersion	9	Pump assembly
5	Hot draw	10	Cold feed

Schematic: Indirect + HP exchanger



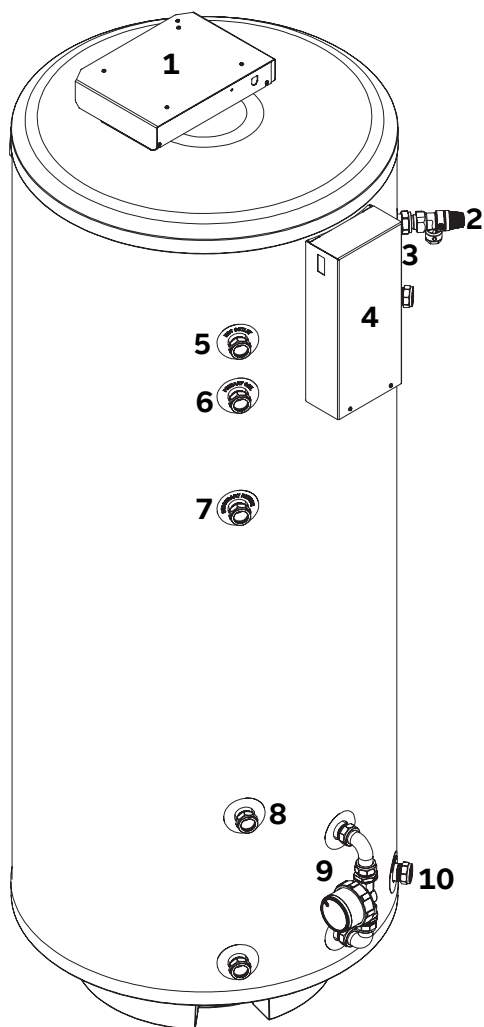
1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (210L - 300L)
3	External probe pocket	8	Heat pump exchanger assembly
4	Primary immersion	9	Pump assembly
5	Hot draw	10	Cold feed

Schematic: Direct + PV diverter



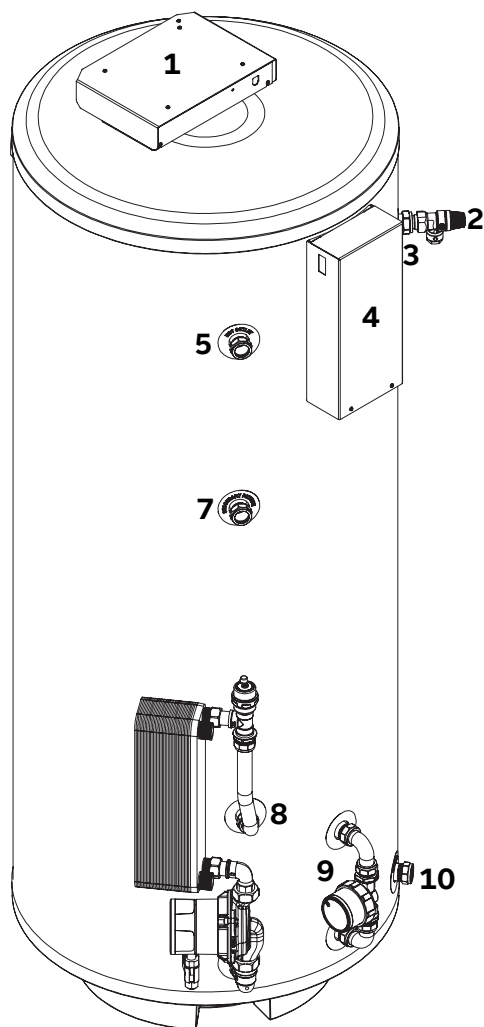
1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (210L - 300L)
3	External probe pocket	8	Heat pump exchanger ports
4	PV diverter	9	Pump assembly
5	Hot draw	10	Cold feed

Schematic: Indirect + PV diverter



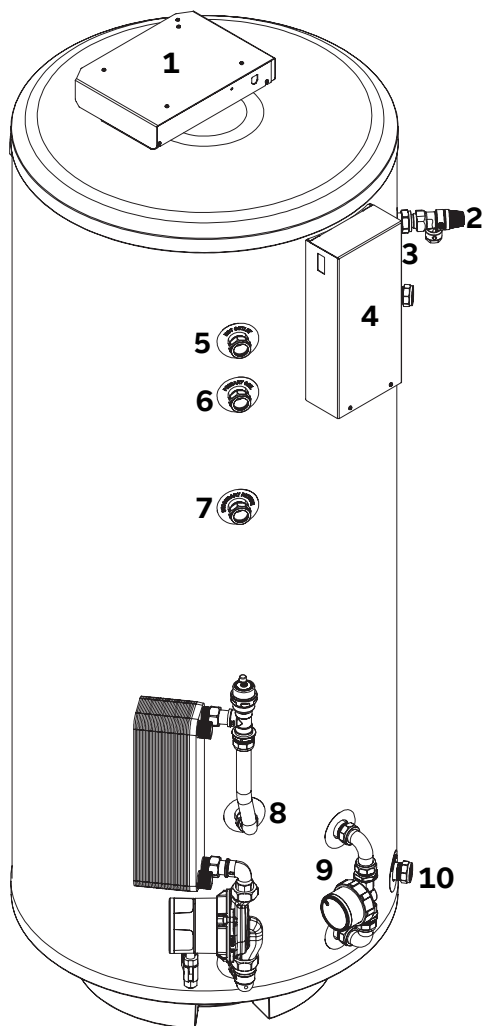
1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (210L - 300L)
3	External probe pocket	8	Heat pump exchanger ports
4	PV diverter	9	Pump assembly
5	Hot draw	10	Cold feed

Schematic: Direct + HP exchanger + PV diverter



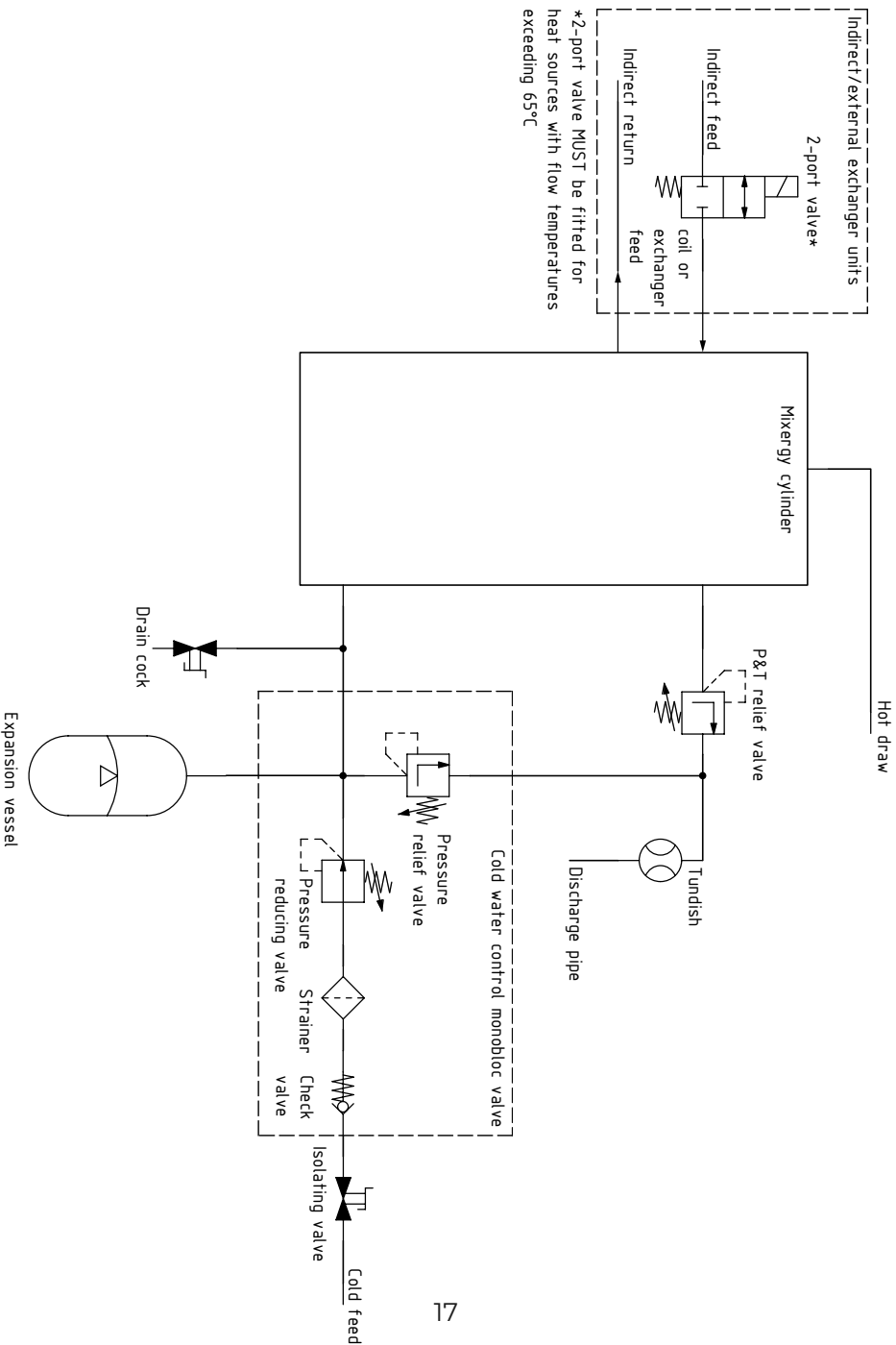
1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (if fitted)
3	External probe pocket	8	Heat pump exchanger assembly
4	Primary immersion	9	Pump assembly
5	Hot draw	10	Cold feed

Schematic: Indirect + HP exchanger + PV diverter



1	Controller	6	Indirect coil (if fitted)
2	T&P relief valve	7	Secondary return (if fitted)
3	External probe pocket	8	Heat pump exchanger assembly
4	Primary immersion	9	Pump assembly
5	Hot draw	10	Cold feed

Hydraulic installation diagram

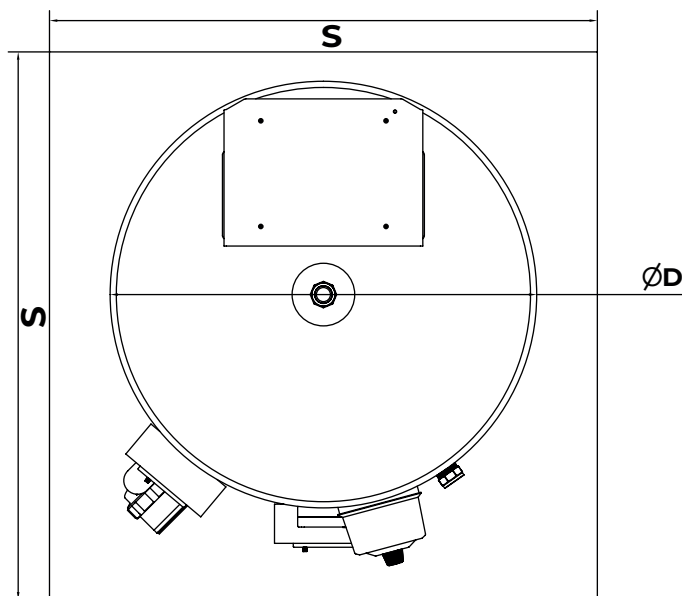


Installation space requirements

The installation area should be able to cope with the weight, incoming pipes and discharge pipe when full. Full weights are listed on page 4 of this document.

Positioning of the cylinder

Position of the cylinder should suit the installation; all connections should be to the front for ease of access. Ensure suitable space is left for access for repair and/or replacement of immersions and valves etc. **Ensure at-least 300mm of vertical clearance above the cylinder.** Refer to page 4 for cylinder heights and the diagram below for guidelines on space requirements:



Nominal diameter $\varnothing D$ (mm)	Space requirement S (mm)
478	580
580	700

Additional literature

Installation guides

- Heat pump exchanger installation guide MDC0008.
- PV diverter installation guide MDC0007.
- PV switch installation guide MDC0014.
- Cylinder installation guide MDC0001.

User guides

- Cylinder user guide MDC0002.

CAD/BIM data

CAD and BIM data available in .dwg, .rfa and .stp file formats upon request.