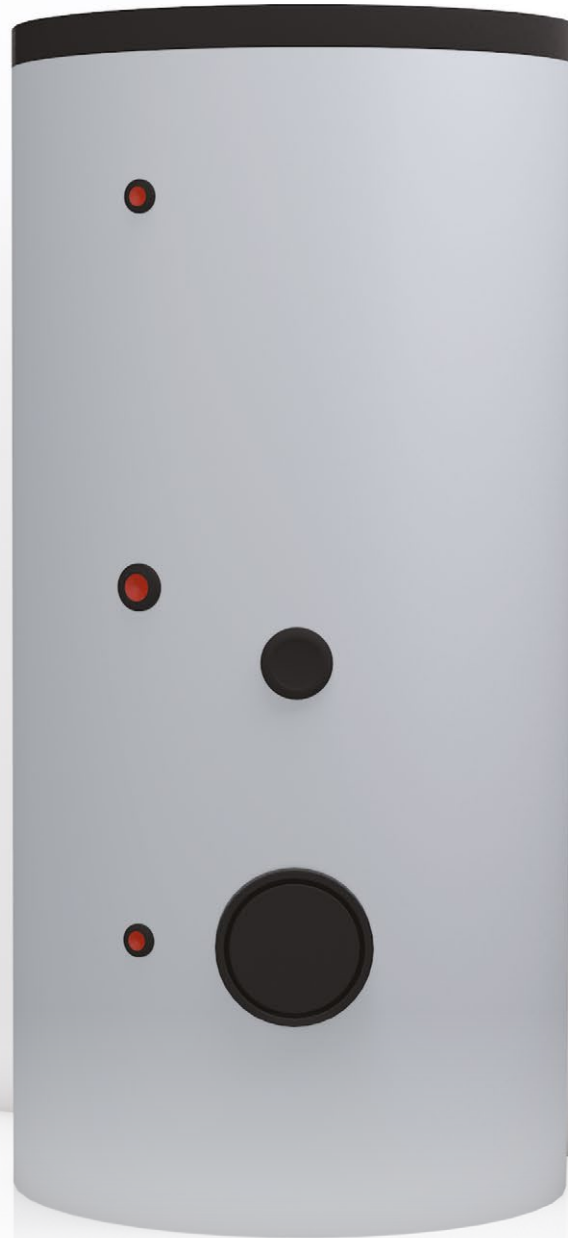


Polywarm PWC1 Calorifiers



- Cost effective
- Extremely low standby heat losses
- Large coil surface area

- Large connections
- Large inspection hatch

- Up to 1500 litres storage capacity
- Continuous delivery at 50°C rise up to 1264 l/h

Technical data - Polywarm PWC1 Calorifiers

Large connections

Large connections on the cylinder coil which reduces the pressure drop within the unit.

Extremely low standby heat losses

Increasing system efficiency due to the extremely low standby heat loss as low as 2.5 kW/24hr.

Unique coil design

Unique coil design to reduce cold spots and to assist with maintenance.

Large coil surface area

The specially designed coil has a larger surface area providing better and faster heat transfer.

Immersion heater option

Availability of an optional immersion element

Economic

One of the most cost effective products on the market.

Unvented kits

Matched optional/additional unvented kits are available to assist with installation.



Unique design

The Polywarm PWC1 calorifiers are manufactured from carbon steel with a patented WRAS approved internal liner. The units are in compliance with ErP-Eco Design Requirements for Energy Related Products

Compliance

Certified to KIWA UK Regulation 4

A range of sizes

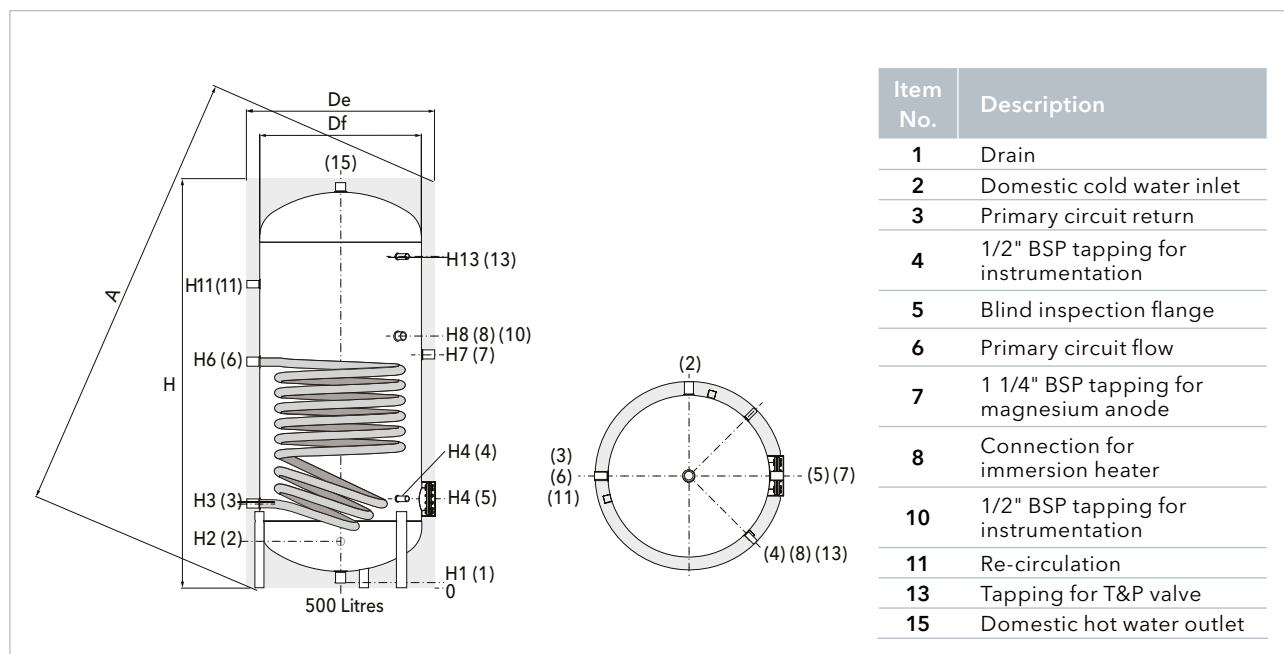
Four models providing storage capacities ranging from 500 to 1500 litres and heat transfer of between 34.4 and 73.5kW with primary flow temperature at 80°C.

Insulation

All models are supplied with insulation and a removable jacket.

External control

The stored DHW temperature can be monitored and controlled externally.



Dimensions

Polywarm PWC1	Df	De	H	A	H1	H2	H3	H4	H6	H7	H8	H11	H13
	(mm)												
500	650	750	1780	1932	71	271	346	411	1036	1076	1144	1331	1476
800	750	900	2163	2343	101	493	428	483	1181	1243	1308	1598	1858
1000	850	1070	2217	2281	89	524	439	499	1279	1309	1364	1584	1819
1500	950	1170	2415	2485	109	450	425	575	1403	1450	1515	1825	2065

Technical data - Polywarm PWC1 Calorifiers

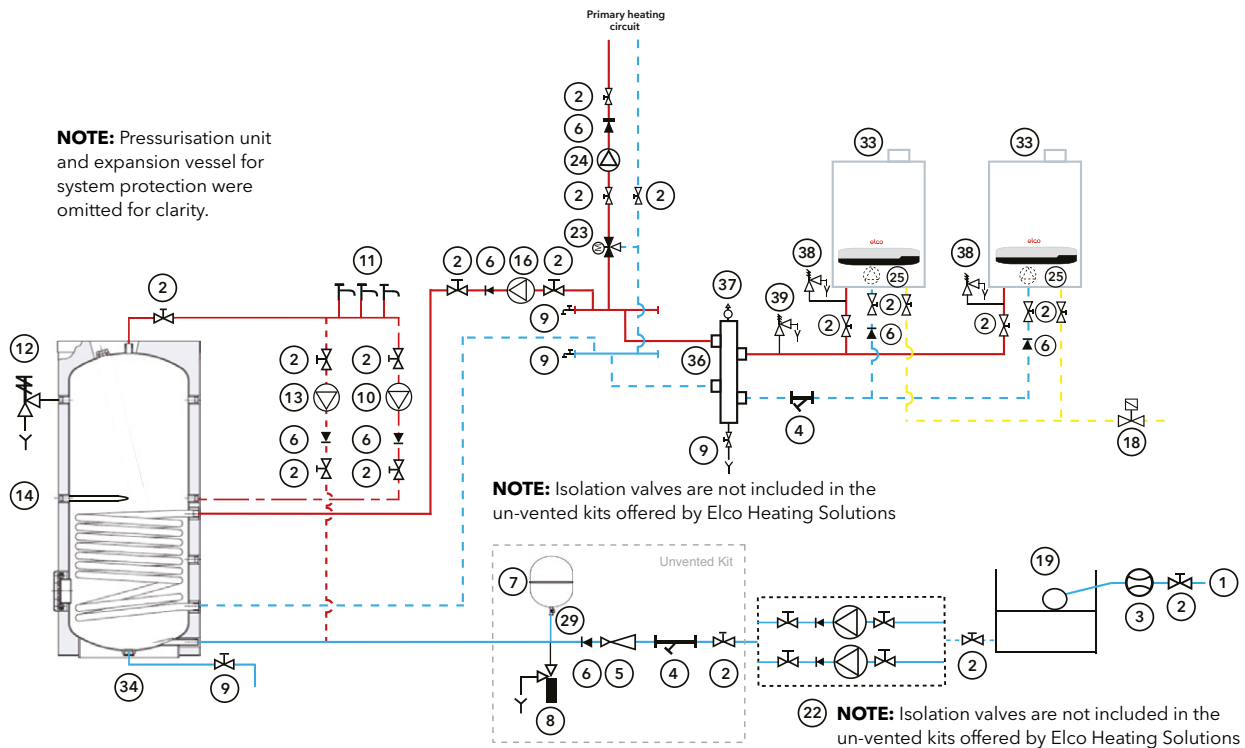
Polywarm PWC1		500	800	1000	1500	
Water	Cylinder capacity	litres	489	789	1038	1443
	Performance data when Primary flow 80°C and return 60°C					
	Output at primary temp 80/60°C	kW	34.4	50.6	67.2	73.5
	Coil nominal primary flow rate at primary temp 80/60°C	litres/sec	0.42	0.62	0.82	0.90
	Pressure loss via coil at the nominal primary flow rate	Kpa	3.7	2.1	4.3	5.4
	Peak 10 minute DHW delivery at ΔT 50°C with primary temp 80/60°C	litres	601	904	1095	1609
	Continuous DHW delivery ΔT 50°C with primary temp 80/60°C	litres/hour	591	870	1156	1264
	Cylinder capacity recovery time DHW ΔT 50°C, with primary temp 80°C and nominal flow rate	minutes	62	68	67	86
	Performance data when Primary flow 80°C and return 70°C					
	Output at primary temp 80/70°C	kW	38.3	57.0	74.8	81.5
	Coil nominal primary flow rate at primary temp 80/70°C	litres/sec	0.94	1.40	1.83	2.00
	Pressure loss via coil at the nominal primary flow rate	Kpa	15.2	8.6	17.7	22.3
	Peak 10 minute DHW delivery at ΔT 50°C with primary temp 80/70°C	litres	613	922	1116	1632
	Continuous DHW delivery ΔT 50°C with primary temp 80/70°C	litres/hour	659	980	1286	1402
	Cylinder capacity recovery time DHW ΔT 50°C, with primary temp 80°C and nominal flow rate	minutes	52	56	56	72
	Primary/secondary operating pressure (maximum)	bar	12/6			
Primary/secondary operating temperature (maximum)	°C	110/95				
Energy	Standby heat loss (DHW temperature 65°C)	kW/24hr	2.5	2.8	3.3	3.9
	Energy class		C	C	C	C
Electrical	Optional electric elements	kW/phase	3/1	3/1	12/3	12/3
Miscellaneous	Coil connections sizes		1 1/4"			
	Coil surface area	m ²	2.5	2.8	3.3	3.9
	Weight empty	kg	108	188	223	318
	Weight full	kg	597	977	1261	1761
	Width of cylinder (DE)	mm	750	900	1070	1170
	Height of cylinder (H)	mm	1780	2163	2217	2415

Connections

Polywarm PWC1	1	2	3, 6 & 7	4 & 10	5	8	11	13	15
	Gas F								
500	1 1/4"	1"	1 1/4"	1/2"	Øi 180mm	1 1/2"	1"	1/2"	1 1/4"
800	3/4"	1"	1 1/4"	1/2"	Øi 240mm	2"	1"	3/4"	1 1/4"
1000	3/4"	1 1/4"	1 1/4"	1/2"	Øi 240mm	2"	1"	3/4"	1 1/2"
1500	1"	1 1/2"	1 1/4"	1/2"	Øi 380mm	2"	1"	3/4"	2"

Examples of hydraulic schemes - Polywarm PWC1

Typical DHW schematic with a single coil calorifier PWC1 and 2 THISION® L ECO gas fired boilers and 1 heating circuit with 3 way mixing valve



- | | | |
|----------------------------|---|---------------------------------|
| 1. Cold water supply | 10. DHW secondary re-circulation pump | 23. 3 Way motorised valve |
| 2. Isolation valve | 11. Hot water outlets | 24. Heating circuit pump |
| 3. Water meter | 12. Temperature and pressure relief valve | 25. Boiler primary pump |
| 4. Strainer | 13. De-stratification pump | 29. Lockshield valve |
| 5. Pressure limiting valve | 14. Immersion heater | 33. THISION® L ECO Boiler |
| 6. Non-return valve | 16. DHW primary circulation pump | 34. PWC1 single coil calorifier |
| 7. Expansion vessel | 18. Gas shut-off valve | 36. Low loss header |
| 8. Expansion relief valve | 19. Cold water storage tank | 37. Automatic air vent |
| 9. Drain | 22. Cold water booster pump set | 38. Safety valve |
| | | 39. System safety valve |

For more schematics please refer to the Installation and Operation manual or contact ELCO Heating Solutions

These illustrations are designed to provide general guidance on the hydraulic scheme and should not be considered as an installation drawing.

Clearances

