



PROTANK INDIRECT HOT WATER CYLINDERS

250L, 300L, 350L and 500L

Protank indirect hot water cylinders are designed for high capacity, mains pressure, domestic hot water systems using an indirect heat source such as a gas, diesel or wood fired boilers and or solar energy.

Protanks internal tank and fittings are crafted from the highest possible spec 'Duplex' 2304 stainless steel and performance matched to Caleffi's latest high flow valve set.



MODEL RANGE

Single Coil with Solar

For an indirect heat source and direct solar

Cylinder Only	Including Valve Set	Description (mm)	Height x Ø
PT250I	PTC250I	250L, 1x22kW coil, 3kW element	1690 x 545

Dual Coil

For an indirect heat source and indirect solar

Cylinder Only	Including Valve Set	Description (mm)	Height x Ø
PT300I	PTC300I	300L, 2x22kW coils, 3kW element	1940 x 545
PT350I	PTC350I	350L, 2x22kW coils, 3kW element	1350 x 720
PT500I	PTC500I	500L, 2x22kW coils, 3kW element	1830 x 720

Quad Coil Thermal Store

For thermal buffering of a semi controlled heat source with up to 60kW of instantaneous domestic hot water production using the top 3 coils and a lower coil for indirect solar


Including Valve Set	Cylinder Only	Description (mm)	Height x Ø
N.A.	CYSS500T	500L, 1x16kW, 3x20kW coils	1830 x 720

SPECIFICATIONS

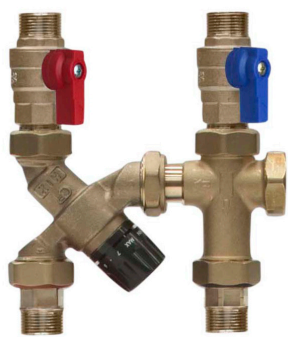
General Specification		Shell Construction	
Manufactured by	RM Cylinders	Shell type	Single skin
Country of origin	UK	Shell material	2304 Duplex SS
		Thickness	1 mm
		Circumferential joint	Tig butt weld
		Longitudinal joint	Tig butt weld
Pressure Ratings		Case Construction	
TPR Setting	700 kPa	End material	Polypropylene
Cold water expansion setting	600 kPa	End thickness	2 mm
Maximum supply setting	500 kPa	Wall material	Painted Galvanized steel
Factory supply set point	300 kPa	Wall thickness	0.45 mm
		End joint	Press fit
		Wall joint	Lock form joint
Electrical		Thermal Insulation	
Cable / Sheath size	3x1.5mm / 8mm	Insulation specification	EPC/IsoPMDI
Terminals	Screw type, 4 mm	Wall thickness	50 mm
Thermostat supplier	Thermowatt	Base thickness	10 mm
Thermostat model	RTS 3 20A 70/95	Top thickness	50 mm
Thermostat approval number	EQ739-DAT9900155		
Thermostat set point range	30 °C-70 °C		
Thermostat factory set point	62 °C		
Thermal cutout set point	90 °C		
Thermal cutout reset	Manual		
Heating element supplier	Thermowatt		
Heating element mount	1&1/4" Female threaded		
Heating element sheath material	Incoloy		
Heating element resistance	19.2 ohm		
Heating element power density	9.6 w/cm ²		

Optional Caleffi Direct Mount Combo Set


Protanks (excluding CYSST500 Thermal store) are available with or without the Caleffi 'direct mount mono-block' combo set which includes every primary valve required to complete an installation;




Pressure Reducing
PR533056 20mm (250 and 300L)
PR533565 25mm (350 and 500L)




Tempering
TV520150 20mm (250 and 300L)
TV520160 25mm (350 and 500L)



Cold Water Expansion
DSV311560 20mm (250, 300, 350 and 500L)



Isolator
BV20M 20mm (250 and 300L)
BV25 25mm (350 and 500L)



Temp/Press. Relief
TPR309570 20mm (Supplied with every Protank)

Recirculating Systems

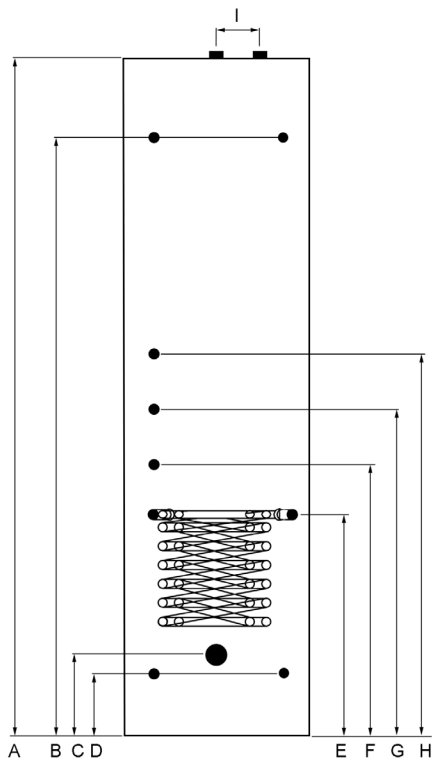
The mono-block manifold has a blanking cap which when removed acts as a return port for a recirculating ring main. Contact us for ring main set up or design advice.

Direct Mounting of the Tempering Valve

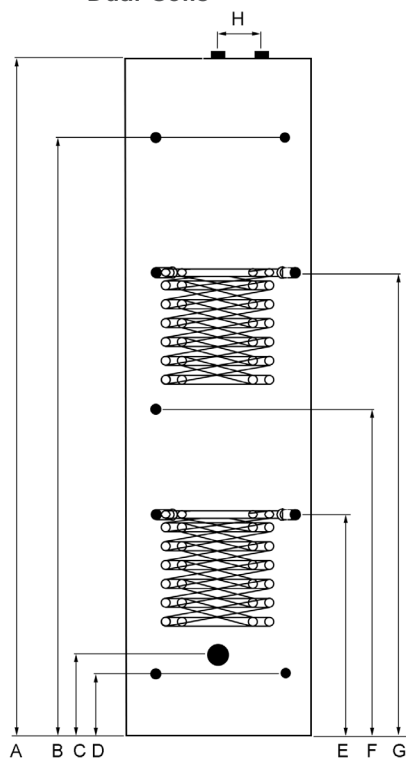
Not withstanding acceptable methods detailed in G12, the manufacturer Caleffi have specifically engineered this tempering control valve to directly mount onto the hot water cylinder with no minimum pipe length isolation requirement as an 'acceptable solution' and alternative method of achieving compliance.

PORT LAYOUT

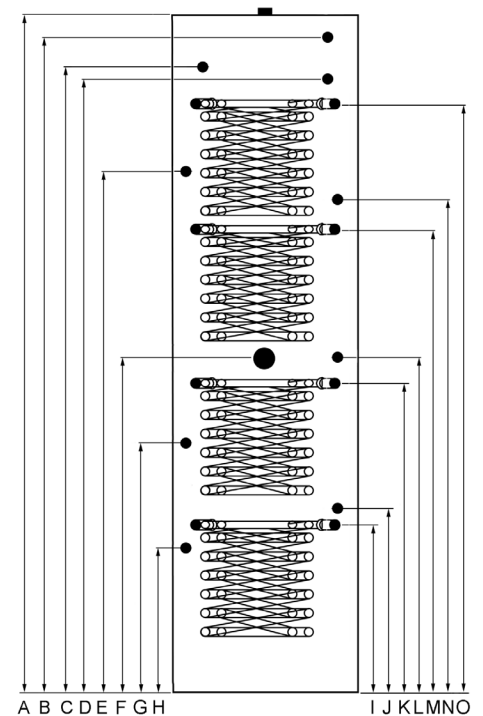
250L Single Coil



300, 350 and 500L Dual Coils



500L Thermal Store



Single Coil

250L

A. Inlet/Outlet height	1690mm
B. Upper Stat / TPR	1490mm
C. Element	225mm
D. Lower Stat / CWE	175mm
E. Coil	575mm
F. Lower Solar	725mm
G. Middle Stat	825mm
H. Upper Solar	925mm
I. Inlet / Outlet centers	110mm

Dual Coil

300L

350L

500L

A. Inlet/Outlet height	1940mm	1350mm	1830mm
B. Upper Stat / TPR	1715mm	1080mm	1580mm
C. Element	230mm	230mm	230mm
D. Lower Stat / CWE	190mm	180mm	180mm
E. Lower Coil	575mm	580mm	580mm
F. Middle Stat	825mm	630mm	630mm
G. Upper Coil	1150mm	955mm	1000mm
H. Inlet / Outlet centers	110mm	135mm	135mm

Thermal Store

500L

A. Outlet height	1830mm
B. TPR	1600mm
C. Boiler flow	1380mm
D. Radiator flow	1360mm
E. Upper Stat	1180mm
F. Element	670mm
G. Lower Stat	580mm
H. Boiler Return	250mm
I. Solar Coil	290mm
J. U/Floor Return	370mm
K. DHW Coil #1	585mm
L. U/Floor Flow	670mm
M. DHW Coil #2	985mm
N. Radiator Return	1070mm
O. DHW Coil #3	1320mm

Technical Specification

250L

300L

350L

500L

500L (Thermal store)

Inlet / Outlet ports	20mm	20mm	25mm	25mm	25mm
TPR / CWE ports	20mm	20mm	20mm	20mm	20mm
Solar ports (qty x Ø)	2x20mm	none	none	none	none
Dry stat pockets (qty x Ø)	3x22mm	3x22mm	3x22mm	3x22mm	2 x 22mm
Heating element	3kW	3kW	3kW	3kW	3kW
Overall (Height x Ø)	1690x545mm	1940x545mm	1350x720mm	1830x720mm	1830x720mm
Weight full	287kg	341kg	408kg	590kg	590kg
Weight empty	37kg	44kg	59kg	90kg	90kg
Insulation quantity	139cm ²	159cm ²	145cm ²	211cm ²	211cm ²
Standing heat loss @45°C Δ t	1.76kW/day	2.03kW/day	1.71kW/day	2.05kW/day	2.05kW/day
Reheat time	131mins	158mins	184mins	263mins	263mins

Protank 20 Year Limited Warranty

All terms of the warranty, subject to the conditions below, are effective from the date of installation if proof of installation date can be provided. Where the date of installation is not known or cannot be proven, the warranty will commence one month after proof of purchase date.

Single Residential Domestic Warranty

A single residential domestic installation is defined as an installation where the hot water cylinder with a factory set thermostat delivers hot water to a privately owned single family residential dwelling which is not used for commercial purposes.

Protank Excluding Valves and Element

5 YEARS FREE PARTS and LABOUR costs to replace or repair the cylinder if it fails due to manufacturing defect.
Followed by;

5 YEARS FREE PARTS ONLY costs (excluding labour) to replace or repair the cylinder if it fails due to manufacturing defect. Followed by;
10 YEARS *PRO-RATA PARTS ONLY reducing costs (excluding labour) according to the below formula, to replace or repair the cylinder if it fails due to manufacturing defect.

*Pro-Rata Formula = Original purchase price x remaining warranty in years ÷ total warranty period of the cylinder.

Caleffi Valves (excluding any 3rd party valves)

5 YEARS FREE PARTS and LABOUR costs to replace or repair any valve that fails due to manufacturing defect.

Protank Element Only;

12 MONTHS FREE PARTS and LABOUR costs to replace or repair the element if it fails due to manufacturing defect.

Commercial Applications Warranty

Any installation not considered to be a single residential domestic type.

Protank and Caleffi Valves Excluding Element

5 YEARS FREE PARTS and LABOUR costs to replace or repair the cylinder or valves if failure is due to a manufacturing defect.

Protank Element Only;

12 MONTHS FREE PARTS and LABOUR costs to replace or repair the element if it fails due to manufacturing defect.

Refer to full terms, conditions and exclusions in the installation/owners manual

