



# POWERflow

## UNVENTED COPPER CYLINDER

### Specifications

Nominal Capacity (litres)	75	120	150	165	180	210	250	300
Height (mm)	950	950	1150	1250	1350	1550	1550	1850
Diameter (mm)	450	550	550	550	550	550	600	600
Insulation Thickness (mm)	50	50	50	50	50	50	50	50
Immersion heater rating (kW)	3	3	3	3	3	3	3	3
Weight empty (kg)	26	37	44	50	55	61	70	86
Weight full (kg)	101	157	194	215	235	271	320	386
Coil Rating (kW)	13	21	26	27	31	37	44	52
Reheat Time (min)	20	20	20	20	20	20	20	20

### Technical Specifications

Maximum incoming pressure to pressure reducing valve (supplied)	12 Bar
Minimum recommended supply pressure and flow rate	1.5 Bar – 20 litres per minute
Incoming pressure (standard)	2.1 Bar
Material	Copper
Insulation material (nominal thickness 50mm)	CFC/HCFC free, fire retardant expanded polyurethane foam ZERO ozone depletion potential (ODP) Global warming potential (GWP) = 3.1. Cased Units 1.0
Pressure relief valves fitted	3.5 Bar + PTRV 4.5 Bar
Immersion heater/s	3kW at 240V
Connections	22mm compression. Secondary return 180L and above
Domestic hot water expansion	Nitrogen filled expansion vessel appropriately sized for capacity of cylinder

### ERP / Heat Loss Data

Capacity (litres)	75	120	150	180	210	250	300
Insulation Thickness (mm)	50	50	50	50	50	50	50
Standing loss (W)	45	52	56	59	63	68	75
Standing loss (kWh/24h)	1.08	1.24	1.33	1.43	1.52	1.64	1.79
Water heating energy efficiency class	B	B	B	C	C	C	C

Heat Loss Figures based on White Case Insulation.  
Other Insulation options & thicknesses are available.

### ERP Data (Direct Units)

Capacity (litres)	75	120	150	180	210	250	300
Water heating energy efficiency class	C	C	C	C	C	C	C
Load Profile	M	M	M	L	L	L	L
Annual Elec. Consumption (kWh/annum)	1490	1450	2101	2779	2814	2908	3145
Annual Elec. Consumption (GJ/annum)	5	5	8	10	10	10	11
Sound Level (dB)	15	15	15	15	15	15	15

### Components

The following components are supplied as standard with POWERflow Cylinder

Immersion heaters	Factory fitted Immersion heater/s with combined control + limit stat
Cold Water	22mm Pressure Reducing Valve + Strainer 22mm Check Valve
Safety	Factory fitted Temperature and Pressure relief valve at 90°C & 4.5Bar Factory fitted Expansion Relief Valve set at 3.5Bar 15 x 22mm Tundish Combined control and limit stat
Electrical	22mm 2 port motorised valve

## Codes of Practice/Legislation

### Legislation

- Building Regulations Part G and Part L
- Scottish Building Standards: Section 4 and Section 6.
- Building Regulations (Northern Ireland): Part F1, F2 & P
- Water Supply (Water Fittings) Scotland Byelaws 2014
- The Water Supply (Water Fittings) Regulations 1999
- The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009

### Standards

- BS EN 12897:2006 "Water Supply. Specification for indirectly heated unvented (closed) storage water heaters."
- BS 1566-1 2002 + A1 2011 "Copper Indirect Cylinders for domestic purposes. Requirements and test methods."

### Materials chosen, adhering to:

- BS 2871-1:1971 "Specification for copper and copper alloys. Tubes. Copper tubes for water, gas and sanitation."
- BS EN 1057:2006 + A1:2010 "Copper and copper alloys. Seamless, round copper tubes for water and gas in sanitary and heating applications."
- BS EN 1254:1998 (1 - 5) "Copper and copper alloys. Plumbing fittings."

### Factory manufactured, adhering to:

- BS EN ISO 9001:2015 "Quality management systems. Requirements."

### ERP Regulations:

- Commission Delegated Regulation (EU) No 812/2013



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