



# flowstore

## **Element Hot Water Cylinders**

## DATA SHEET

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# PRODUCT OVERVIEW

**flow**tech Element Hot Water Cylinders

The Element ultra-high performance range of hot water cylinders has been specifically developed for properties that have a greater demand for high pressure and high flow. All Cylinders include a 28 mm inlet and outlet connection and are available in a wide variety of capacities to suit the demands of range of applications.

- 28 mm connections for high flow rates
- 4.5 bar and 6.0 bar versions for high-pressure installations
- Expansion vessel and two-port motorised zone valve included
- 3 kW electric immersion heater in addition to the primary coil
- 1/2" hot-water secondary return as standard
- High-performance insulation minimises energy loss
- High-grade duplex stainless steel construction for excellent durability
- 22 mm or 28 mm diameter stainless steel heating coil for fast reheating times
- Durable plastisol casing
- Factory-fitted pressure and temperature relief valve

# PRODUCT DETAILED OVERVIEW

**flow**tech Element Hot Water Cylinders

#### **Element Pro**

For installations requiring faster recovery times, the Element Pro range features an up-rated primary coil and 6 kW immersion heater. Reheat times for this range are as fast as seven minutes.

### **Horizontal Version**

Hot water cylinders are also available for air source & ground source heat pumps.



Performace								
Flow Rate	Up to 77 litres/minute							
Inlet and Outlet Size	28 mm							
Immersion Heater kW	3 kW or 6 kW							
Operating Pressure	4.5 bar or 6.0 bar							
Relief Valve Pressure	6.0 bar or 8.0 bar							

#### **Element Direct**

Where no external heat source is available, the Element Direct range features a  $2 \times 3 \text{ kW}$  immersion heater as standard.

#### **Element Solar**

With an additional secondary coil, the Element Solar range is ideal for renewable energy sources, including solar panels.

#### **Additional Features**

- Building Standards: BS 853-1-1996 & BS-12-897 Approved
- Building Regulations: Part G & L Approved
- Internal cylinder includes 25 year guarantee
- Ancillary components include a 1 year guarantee
- Wide range of capacities from 80 500 Litres
- Twin thermostat with independent reset (30-70°C)

## **Optional Extras**

- Uprated primary coil for faster recovery times (available on 175-litre and larger models)
- 6 kW immersion heater (standard on Pro versions)
- Twin immersion heaters
- 1" hot-water secondary return
- Non-standard sizes
- Direct cylinders (immersion heater only)

## flowtech Element Hot Water Cylinders



## ELEMENT DATA flowtech Element Hot Water Cylinders

MODEL	Capacity (litres)	Max Operating Pressure (bar)	Expansion Vessel (litres)	Coil Rating (kW)*	Heat Loss (kWh/24hrs @65°C)	Reheat time (mins)**	Height (mm)	Width (mm)	ERP Rating	Dry Weight (kg)	
Element vertical cylinders (4.5 bar)											
EUHPC08045V	80	4.5	18	14	0.9	14	665	576	В	30	
EUHPC15045V	150	4.5	24	20	1.3	18	1085	576	В	40	
EUHPC17545V	175	4.5	24	20	1.5	21	1242	576	С	45	
EUHPC21545V	215	4.5	35	20	1.6	26	1484	576	С	50	
EUHPC25045V	250	4.5	35	20	1.8	30	1752	576	С	55	
EUHPC30045V	300	4.5	50	20	2	36	2028	576	С	60	
			Element	vertical cy	linders (6 bar)						
EUHPC08060V	80	6	18	14	0.9	14	665	576	В	30	
EUHPC15060V	150	6	24	20	1.3	18	1085	576	В	40	
EUHPC17560V	175	6	35	20	1.5	21	1242	576	С	45	
EUHPC21560V	215	6	35	20	1.6	26	1484	576	С	50	
EUHPC25060V	250	6	50	20	1.8	30	1752	576	С	55	
EUHPC30060V	300	6	50	20	2	36	2028	576	С	60	
	1	Eleme	ent vertical c	ylinders - ı	educed heigh	t (4.5 bar)					
EUHPC30045V-RH	300	4.5	50	20	1.6	36	1320	756	В	57	
EUHPC40045V-RH	400	4.5	80	30	2.5	32	1405	756	С	68	
EUHPC50045V-RH	500	4.5	100	30	2.8	40	1690	756	С	78	
		Elem	ent vertical o	cylinders -	reduced heig	ht (6 bar)					
EUHPC30060V-RH	300	6	50	20	1.6	36	1320	756	В	57	
EUHPC40060V-RH	400	6	80	30	2.5	32	1405	756	С	68	
EUHPC50060V-RH	500	6	100	30	2.8	40	1690	756	С	78	
			Element ho	orizontal cy	/linders (4.5 ba	ar)					
EUHPC15045H	150	4.5	24	20	1.3	18	725	1085	В	40	
EUHPC17545H	175	4.5	24	20	1.5	21	725	1242	В	40	
EUHPC21545H	215	4.5	35	20	1.6	26	725	1484	С	50	
EUHPC25045H	255	4.5	35	20	1.8	30	725	1752	С	55	
EUHPC30045H	305	4.5	50	20	2	36	725	2028	С	60	
EUHPC40045H	400	4.5	80	30	1.7	32	905	1690	В	78	
EUHPC50045H	500	4.5	100	30	2	40	905	2020	В	90	

\*Based on primary flow/return temp. of 80/60°C. \*\*Based on 70% draw-off.  $\Delta$  T 45°C.

MODEL	Capacity (litres)	Max Operating Pressure (bar)	Expansion Vessel (litres)	Coil Rating (kW)*	Heat Loss (kWh/24hrs @65°C)	Reheat time (mins)**	Height (mm)	Width (mm)	ERP Rating	Dry Weight (kg)		
Element horizontal cylinders (6 bar)												
EUHPC15060H	150	6	24	20	1.3	18	725	1085	В	40		
EUHPC17560H	175	6	35	20	1.5	21	725	1242	С	45		
EUHPC21560H	215	6	35	20	1.6	26	725	1484	С	50		
EUHPC25060H	255	6	50	20	1.8	30	725	1752	С	55		
EUHPC30060H	305	6	50	20	2	36	725	2028	С	60		
EUHPC40060H	400	6	80	30	1.7	32	905	1690	В	78		
EUHPC50060H	500	6	100	30	2	40	905	2020	В	90		
		Elemen	t Pro fast rec	overy ver	tical cylinders	(4.5 bar)						
EUHPC17545V-FR	175	4.5	24	54	1.5	8	1242	576	С	45		
EUHPC21545V-FR	215	4.5	35	54	1.6	9	1484	576	С	50		
EUHPC25045V-FR	250	4.5	35	54	1.8	11	1752	576	С	55		
EUHPC30045V-FR	300	4.5	50	54	2	13	2028	576	С	60		
		Elemer	nt Pro fast re	covery vei	rtical cylinders	; (6 bar)						
EUHPC17560V-FR	175	6	35	54	1.5	8	1242	576	С	45		
EUHPC21560V-FR	215	6	35	54	1.6	9	1484	576	С	50		
EUHPC25060V-FR	250	6	50	54	1.8	11	1752	576	С	55		
EUHPC30060V-FR	300	6	50	54	2	13	2028	576	С	60		
	Elen	nent Pro fast	recovery ve	rtical cylir	iders - reduce	d height (4	5 bar)					
EUHPC30045V-FR-RH	300	4.5	50	54	1.6	13	1320	756	В	57		
EUHPC40045V-FR-RH	400	4.5	80	54	2.5	18	1405	756	С	68		
EUHPC50045V-FR-RH	500	4.5	100	54	2.8	22	1690	756	С	78		
Element Pro fast recovery vertical cylinders - reduced height (6 bar)												
EUHPC30060V-FR-RH	300	6	50	54	1.6	13	1320	756	В	57		
EUHPC40060V-FR-RH	400	6	80	54	2.5	18	1405	756	С	68		
EUHPC50060V-FR-RH	500	6	100	54	2.8	22	1690	756	С	78		

\*Based on primary flow/return temp. of 80/60°C. \*\*Based on 70% draw-off.  $\Delta$  T 45°C.

## **Coil Resistance Information**

Coil data is based on a maximum primary flow temperature of 80°C and return temperature of 60°C.

Recommended Flow Rates Through Coil (l/sec)	Coil Pressure Drop at Recommended Flow (kPa)	Maximum Coil Output (kW)	Coil Diameter	Approximate Coil Surface Area (m2)	Approximate Coil Volume (litres)
0.40	30	14	DN20	0.54	2
0.32	30	20	DN20	0.75	3
0.28	30	30	DN20	1.1	4
0.47	30	54	DN25	2	9.5

## flowtech Element Hot Water Cylinders



MODEL	Capacity (litres)	Max Operating Pressure (bar)	Expansion Vessel (litres)	Immersion Heater (kW)	Heat Loss (kWh/24hrs @65°C)	Reheat time (mins)*	Height (mm)	Width (mm)	ERP Rating	Dry Weight (kg)	
Element Direct vertical cylinders (4.5 bar)											
EUHPC08045V-DR	80	4.5	18	1x3	0.9	63	665	576	В	25	
EUHPC15045V-DR	150	4.5	24	2 x 3	1.2	60	1085	576	В	35	
EUHPC17545V-DR	175	4.5	24	2 x 3	1.5	70	1242	576	С	40	
EUHPC21545V-DR	215	4.5	35	2 x 3	1.6	85	1484	576	С	45	
EUHPC25045V-DR	250	4.5	35	2 x 3	1.8	99	1752	576	С	50	
EUHPC30045V-DR	300	4.5	50	2 x 3	2	119	2028	576	С	55	
EUHPC40045V-DR	400	4.5	80	2 x 3	1.7	159	1690	756	С	78	
EUHPC50045V-DR	500	4.5	100	2 x 3	2	199	2020	756	С	90	
			Element Di	rect vertical o	ylinders (6 ba	ar)			•		
EUHPC08060V-DR	80	6	18	1x3	0.9	63	665	576	В	25	
EUHPC15060V-DR	150	6	24	2 x 3	1.3	60	1085	576	В	35	
EUHPC17560V-DR	175	6	35	2 x 3	1.5	70	1242	576	С	40	
EUHPC21560V-DR	215	6	35	2 x 3	1.6	85	1484	576	С	45	
EUHPC25060V-DR	250	6	50	2 x 3	1.8	99	1752	576	С	50	
EUHPC30060V-DR	300	6	50	2 x 3	2	119	2028	576	С	55	
EUHPC40060V-DR	400	6	80	2 x 3	1.7	159	1690	756	С	78	
EUHPC50060V-DR	500	6	100	2 x 3	2	199	2020	756	С	90	

\*Based on 70% draw-off.  $\Delta$  T 45°C.

## AUTOMATIC AIR REPLENISHMENT CYLINDERS

**flow**tech Element Hot Water Cylinders

This device is a key part of a new and revolutionary approach to unvented water heating installations.

Manufactured in accordance with BS 7206: 1990 to accommodate the water's expansion as it is heated inside the water tank; an external pressurised expansion vessel is coupled to the tank. The expansion vessel will lose its charge and have to be repressurised over time.

An alternative to fitting an expansion vessel is to provide a volume of air above the water level inside the water heater (internal expansion). This process will eliminate the need for the external expansion vessel and reduce installation time. However, the air is absorbed by the water with internal expansion. When this happens, a procedure needs to be carried out to replace the air in the vessel manually; this means regular recharging.

The revolutionary new technology incorporated into the Flowtech automatic expansion range automatically recharges the air in the vessel every time water is drawn off by the user, creating a low-maintenance, fully automated and self-sustaining system.



MODEL	Capacity (litres)	Max Operating Pressure (bar)	Coil Rating (kW)*	Heat Loss (kWh/24hrs @65°C)	Reheat time (mins)**	Height (mm)	Outer Width (mm)	ERP Rating	Dry Weight (kg)		
Element Auto - automatic expansion cylinder - indirect (3 bar)											
EUHPC08030V-AE	80	3	14	0.8	14	703	576	А	30		
EUHPC15030V-AE	150	3	14	1.1	26	1235	576	В	40		
EUHPC17530V-AE	175	3	20	1.2	21	1370	576	В	45		
EUHPC21530V-AE	215	3	20	1.4	26	1666	576	В	50		
EUHPC25030V-AE	250	3	20	1.5	30	1884	576	В	55		
EUHPC30030V-AE	300	3	20	1.8	36	2150	576	С	60		
EUHPC40030V-AE	400	3	30	2.4	32	1522	750	С	68		
EUHPC50030V-AE	500	3	30	2.7	40	1896	750	С	78		
	Ele	ement Auto	- automatio	c expansion cy	linder - direct	(3 bar)					
EUHPC08030V-DR-AE	80	3	3	0.8	64	703	576	С	25		
EUHPC15030V-DR-AE	150	3	6	1.1	60	1235	576	С	35		
EUHPC17530V-DR-AE	175	3	6	1.2	70	1370	576	С	40		
EUHPC21530V-DR-AE	215	3	6	1.4	85	1666	576	С	45		
EUHPC25030V-DR-AE	250	3	6	1.5	99	1884	576	С	50		
EUHPC30030V-DR-AE	300	3	6	1.8	119	2150	576	С	55		
EUHPC40030V-DR-AE	400	3	6	2.4	159	1522	750	С	65		
EUHPC50030V-DR-AE	500	3	6	2.7	199	1896	750	С	75		

\*Based on primary flow/return temp. of 80/60°C. \*\*Based on 70% draw-off. Δ T 45°C - Upper coil operation.

## flowtech Element Hot Water Cylinders



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Our member's will be granted exclusive access to our **flow**view<sup>®</sup> technical resource library. Within this resource is a wide range of product information including data sheets, technical drawings, O&M Manuals and training videos



# flowcare<sup>®</sup>

At **flow**tech<sup>®</sup> we operate a network of Service Engineers located throughout the UK who are supported by our offices located in Greater Manchester. The distribution of engineers means that in the majority of cases we are less than 4 hours away from attending a customer call out.

We place great emphasis on providing technical back up to support our Service Engineers in resolving some difficult operational and technical issues. We pride ourselves on completing a project on time, within budget and never leaving a problem unresolved, or a customer waiting. This quality of service has made us the first choice for our customers.

#### FOR FURTHER INFORMATION OR ASSISTANCE

## contact us

Flowtech Water Solutions are experts in water services and water booster sets. We have continuously supplied a wide range of standard and custom products since being founded in 1996.

#### **MANUFACTURE & SUPPLY**

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