



Flomaster Unvented Hot Water Cylinders



Total Hot Water Solutions



Mains Pressure Unvented Cylinders

Flomaster... is Copperform's new range of unvented hot water storage cylinders. Based on the company's experience in giving the trade the products they ask for, the new Flomaster is a high quality vessel employing the best in technology. Copperform Unvented cylinders are meeting the needs of the builder, installer and consumer by providing fast, safe, mains pressure hot water around the home.

High performance has been Copperform's objective from day one. Fast flow rates, energy efficient insulation, quick recovery coils and the use of an external expansion vessel to reduce maintenance are just a few of the features of Flomaster. At 3 bar operation the unit meets all modern criteria for fast flow applications.

Copperform is part of Kingspan Renewables, the largest manufacturer of cylinders in the UK. We understand the needs of the merchant and his customer, providing a 25-year guarantee and investing in product, people and promotion.

- Duplex stainless steel for ultimate peace of mind
- 25-year guarantee on stainless shell
- High flow-rate controls - ideal for multiple bathrooms and powerful showers
- Fast reheat and high insulation values resulting in high efficiency
- A complete package - just add pipework
- Direct and Indirect models
- 6 sizes: 120-300 litres
- Solar models also available

Choose Copperform Flomaster

Mains Pressure Hot Water - Powerful Showers

High Flow Rates - Baths fill very quickly
- Ideal for multiple bathrooms

Fast Reheat - Hot water quickly available

Very Well Insulated - Low heat loss
- Economical to run

Attractive Steel Finish Case - Smart, tough and wipe clean

Low Maintenance - No hidden costs

25-Year Guarantee - Peace of mind

Duplex Stainless Steel - Superior corrosion resistance and long life

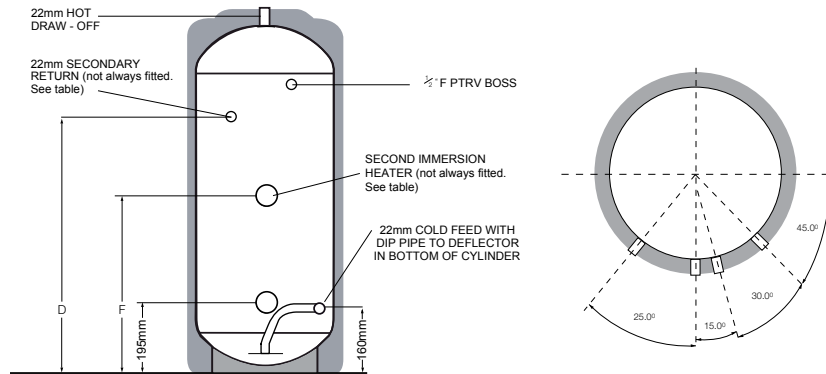
- 100% recyclable



technical specifications



Flomaster direct (Electric)

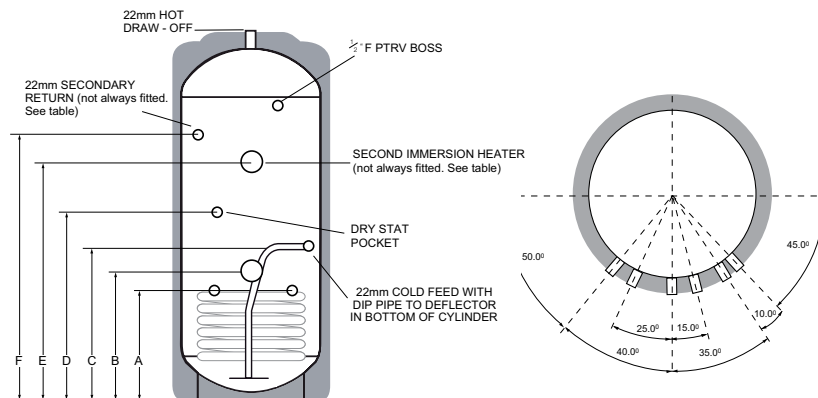


Product Code	Capacity (Litres)	Height	Diameter	D	F	Weight (Kg-empty)	Weight (Kg-full)
CUD 120	120	906	550	N/F	510	30	150
CUD 150	150	1093	550	N/F	610	35	185
CUD 180	180	1281	550	N/F	710	40	220
CUD 210	210	1469	550	1000	810	45	255
CUD 250	250	1719	550	1250	950	50	300
CUD 300	300	2032	550	1500	1100	55	355

All dimensions are in mm and are of the cased unit. N/F = Not Fitted.



Flomaster indirect (Gas/Oil)



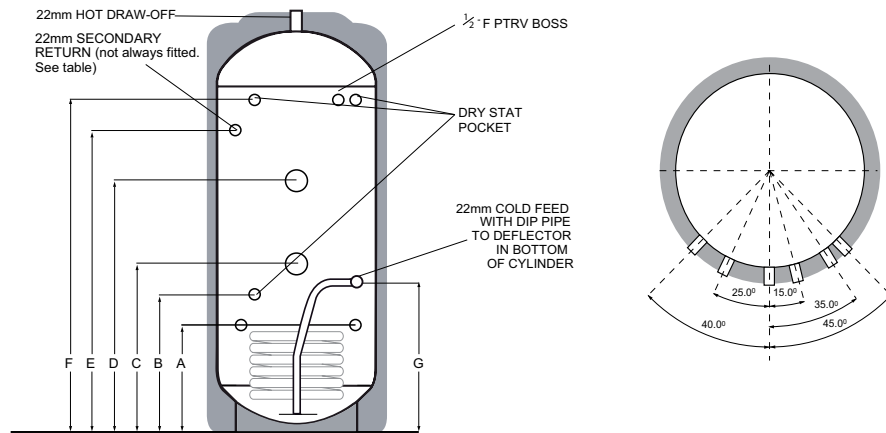
Product Code	Capacity (Litres)	Height	Diameter	A	B	C	D	E	F	Weight (Kg-empty)	Weight (Kg-full)
CUI 120	120	906	550	290	330	390	345	N/F	N/F	35	155
CUI 150	150	1093	550	330	370	465	385	N/F	N/F	40	190
CUI 180	180	1281	550	330	370	465	385	N/F	N/F	45	225
CUI 210	210	1469	550	365	405	465	465	N/F	1150	50	260
CUI 250	250	1719	550	365	405	465	560	950	1400	55	305
CUI 300	300	2032	550	365	405	465	660	1100	1600	60	360

All dimensions are in mm and are of the cased unit. N/F = Not Fitted.

technical specifications



Flomaster Solar direct (Electric)

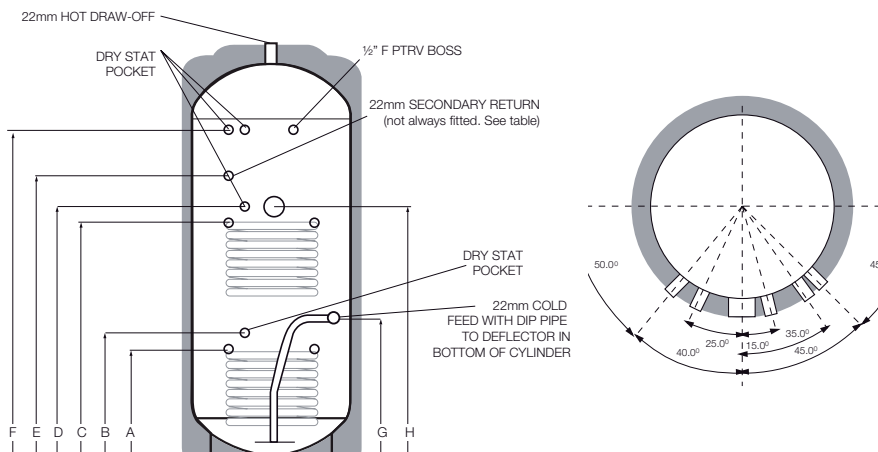


Product Code	Capacity (Litres)	Height	Diameter	A	B	C	D	E	F	G	Weight (Kg-empty)	Weight (Kg-full)
CUSD 180	180	1281	550	290	345	445	710	N/F	1080	390	45	225
CUSD 210	210	1469	550	365	420	500	810	1150	1268	465	50	260
CUSD 250	250	1719	550	365	420	670	1045	1400	1518	465	55	305
CUSD 300	300	2032	550	365	420	670	1100	1600	1831	465	60	360

All dimensions are in mm and are of the cased unit. N/F = Not Fitted.



Flomaster Solar indirect (Gas/Oil)



Product Code	Capacity (Litres)	Height	Diameter	A	B	C	D	E	F	G	H	Weight (Kg-empty)	Weight (Kg-full)
CUSI 180	180	1281	550	290	345	674	729	N/F	1080	390	725	50	230
CUSI 210	210	1469	550	365	420	779	834	1150	1268	465	830	55	265
CUSI 250	250	1719	550	365	420	950	1005	1400	1518	465	1000	60	310
CUSI 300	300	2032	550	365	420	979	1034	1600	1832	465	1030	65	365

All dimensions are in mm and are of the cased unit. N/F = Not Fitted.

selection guide

Domestic selection guide

These recommendations are based on the guidelines in BS 6700. Guidance should be sought for unusual applications, e.g. high flow-rate showers, large baths etc.

Hot water demand	Bedrooms	Indirect units	Direct units
1 Standard bath or shower	Bedsit/1 bed	120	150
	2-3 bed	120	180
	3-4 bed	150	210
1 Standard bath	2-3 bed	120	180
	3-4 bed	150	210
1 Bath and En-suite	2-3 bed	150	210
	3-4 bed	150	210
	4-5 bed	180	250
2 Standard baths	2-3 bed	180	210
	3-4 bed	180	210
	4-5 bed	210	250
3 Bathrooms	3-4 bed	250	300
	4-5 bed	250	300
	5-6 bed	300	300

Commercial selection guide

These recommendations are based on the guidelines in BS 6700. Guidance should be sought for unusual applications, e.g. high flow-rate showers, large baths etc.

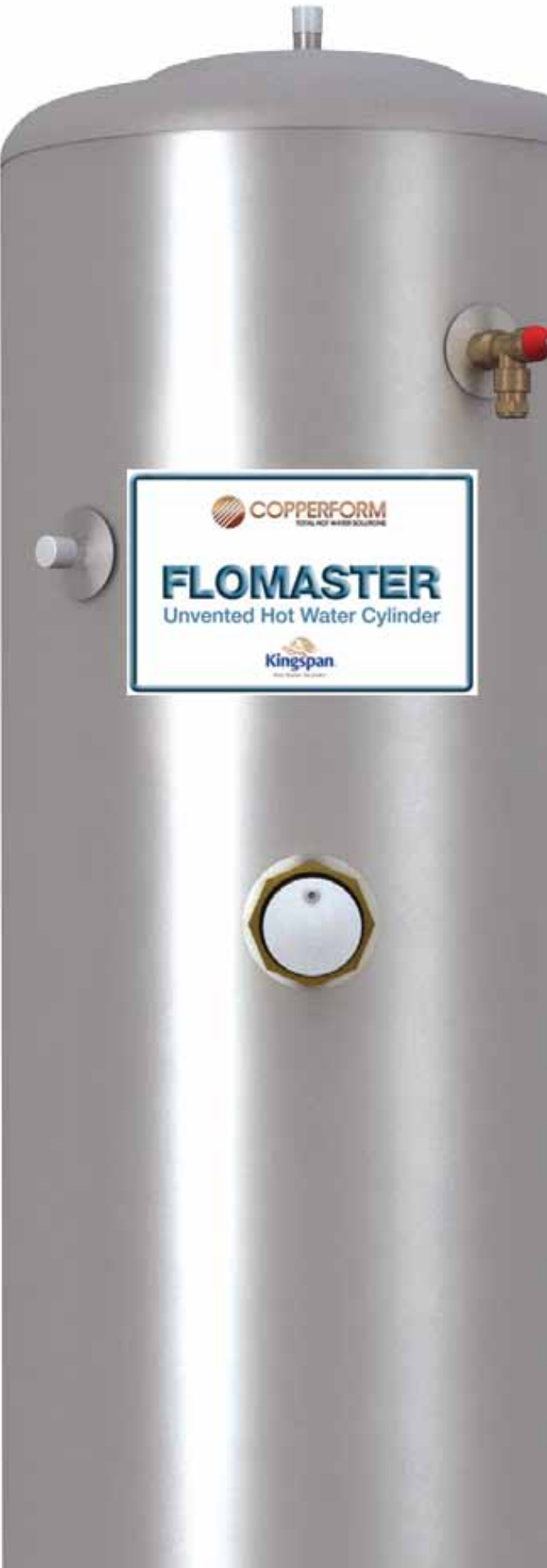
Typical commercial application	Indirect units
Large house - 6 bed/4 bathrooms	2 x 210
Guest house - 8 bed/4 bathrooms	2 x 300
Small hotel - 8 bed/8 bathrooms	3 x 210
Sports pavilion (25 people/4 showers)	2 x 300
Sports pavilion (25 people/6 showers)	3 x 210
Student house (25 people/3 bathrooms)	3 x 300
Old people's home (60 beds/10 bathrooms)	5 x 300 each supplying 2 bathrooms

Immersion heaters

Size	Direct	Indirect
120 litre	2 x 3 kW Immersion heaters	1 x 3 kW Immersion heater
150 litre	2 x 3 kW Immersion heaters	1 x 3 kW Immersion heater
180/210 litre	2 x 3 kW Immersion heaters	1 x 3 kW Immersion heater
250/300 litre	2 x 3 kW Immersion heaters	2 x 3 kW Immersion heaters

Example illustration.

A school swimming pool has 5 showers in each of two changing rooms. The shower heads are flow-restricted to 9 litres per minute (2/3 of this will be hot water). Usually there are 3 one hour lessons each morning and three each afternoon. Assuming a class size of 30 children.
 Maximum demand = 10 shower heads x 9 litres/min = 90 litres/min. This is more than one Flomaster can supply. At least two Flomasters will be needed to provide this.
 Total demand = 30 children x 6 litres/minute x 5 minute shower each = 900 litres
 3x300 litre units will be required.
 Reheat time has to be a maximum of one hour so it is reheated in time for the next lesson. A CU 300 can reheat its entire contents in 60 minutes with a boiler power of 15kW. So total boiler power required = 45kW.
 If direct units were used they would have to be fitted with immersion heaters rated at 15kW (typically 1 x 9kW + 1 x 6 kW).



Products List

Kingspan offer a complete range of renewable energy and related products for both domestic and commercial applications. Our complete solar package solutions include initial advice, professional design specifications and technical assistance through to a network of fully trained Kingspan Solar Accredited Installers who are kept up-to-date with the latest regulations and available grants.

Our range of products consists of:



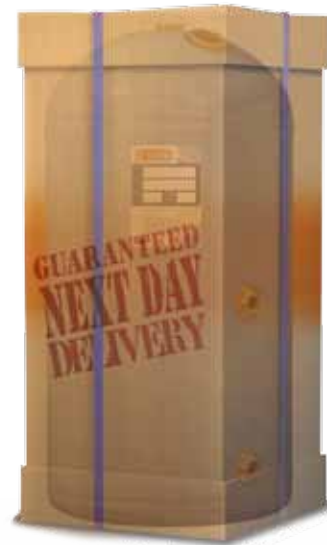
Copperform manufactures a variety of water heating products for domestic and commercial hot water storage, for use in open vented systems. The units are available in a wide range of sizes and patterns, in direct, indirect and combination versions.

Designed to heat up quickly and to retain their heat for long periods, the cylinders are built to the highest possible standards with a focus on being both highly efficient and environmentally friendly. This is part of the philosophy on which the brand has grown, and it forms the basis of our mission statement for the future.



Kwikcyl 24 is the UK's most tried, tested and proven 'next day' service. It provides customers with custom-made copper cylinders within 24 hours. The service is extremely simple to use – just fill in the fax-back form, ticking the right cylinder type boxes and sketching boss positions, then fax it back to Kwikcyl before 1.00 p.m. The cylinder, made to your exact specification, will be delivered to you the next working day.

Fax-back forms are available from local Area Sales Managers and selected builders merchants. You can also download them from the website: www.kwikcyl24.com.



Albion Water Heaters and Manchester Calorifiers design and manufacture a large range of open vented and unvented calorifiers for commercial and industrial use in copper, stainless steel and mild steel. They also offer marine calorifiers and hot water provision for light commercial vehicles. All products feature high quality, durability and exceptional performance.

For maximum efficiency, units can be custom-designed for each specific application. A renewable heat source, e.g. solar panels, can also be incorporated into the system and sized to meet the heating and hot water requirements of the property.



Albion AEROCYL

Albion Aerocyl is the new range of copper unvented hot water cylinders and buffer tanks. The cylinders have been designed specifically to be installed in conjunction with a heat pump only or a solar thermal system and additional input from a heat pump. Manufactured from high grade copper, Aerocyl unvented cylinders feature energy efficient, CFC and HCFC-free foam insulation for low standing heat loss and are environmentally friendly way of providing Domestic Hot Water.

Aerocyl buffer tank is integrated into the space heating system when additional volume of hot water is required to provide smooth and uninterrupted operation of a heat pump and prevent the radiators or underfloor heating from cooling during the heat pump defrost cycle. They are available for both open vented and sealed systems in a range of capacities to suit different size heat pumps available in the UK.



Kingspan AEROMAX PLUS

Aeromax Plus heat pumps use natural heat from the air outside to provide central heating (underfloor heating or traditional radiators) and/or hot water for your home. Highly efficient, the units are compact and easy to install. Incredibly quiet, they require virtually no maintenance. Offered with complete package solutions and can be coupled with the highly efficient Albion Aerocyl renewable energy cylinder to maximise efficiency benefits.



Kingspan SOLAR

Kingspan Solar provides the commercial and domestic markets with an ultimate solar package, custom-designed to suit requirements of each individual application.

The Package incorporates high quality flat plate solar thermal panels or high performance Thermomax evacuated tube solar collectors. The system can incorporate the latest condensing boiler technology, underfloor heating or the traditional radiator system. It is then coupled to a high performance Copperform Flomaster Duplex stainless steel solar cylinder. The package includes all components required to complete the installation.



Specification Summary



WRAS
Approved

Materials

Inner shell - Duplex Stainless Steel
Coil - 22mm Diameter Stainless Steel
Bosses - Stainless Steel
Every Flomaster cylinder is water tested to a pressure of 15 bar.



Insulation

Fire retardant polyurethane foam, nominal thickness 50mm.
The foam is CFC-Free and HCFC-Free.
The foam has an Ozone Depletion Potential of ZERO and a Global Warming Potential of One.



Casework

Zintec corrosion proofed steels throughout
Durable, metallic finish outer casing.



Anode

None fitted/none required.



Expansion Vessel

12 Litre size with 120 and 150 Litre models
19 Litre size with 180, 210 and 250 Litre models
24 Litre size with 300 Litre model.



Control Settings

Pressure Reducing Valve - 3 Bar
Expansion Relief Valve - 6 Bar
Pressure and Temperature Relief Valve - 7 Bar/90°C
High Limit Thermostat in Dual Thermostat - 85°C
High Limit Thermostat in Immersion Heater - 85°C



Immersion Heater

1 3/4" BSP Parallel Threaded Head
Long Life Incoloy Sheathed Low Noise Element 14" Long
Long Life Incoloy Sheathed Thermostat Pocket 11" Long
Brazed Construction
Combined Thermostat and Safety Cut-Out
Element Rating 3kW at 240V A/C



Approvals

WRAS Approved to the Water Regulations
WRc-NSF Approved to Building Regulations G3 & L
CE Compliant and fitted with a BEAB Approved Immersion Heater

OHSAS 18001

Guarantee Terms

The Flomaster's stainless steel vessel carries a 25-year guarantee against faulty materials or manufacture provided that:
It has been correctly installed as per the Installation Instructions and all the relevant standards, regulations and codes of practice in force at the time.
It has not been modified in any way, other than by Copperform.
It has not been misused, tampered with or subjected to neglect.
The system is fed from the public mains water supply.
It has only been used for the storage of potable water.
It has not been subjected to frost damage.
The unit has been serviced annually.
The Benchmark Log Book has been filled in after each annual service.
The guarantee period starts from the date of purchase and no registration is required.
Please note that invoices for servicing may be requested to prove that the unit has been serviced annually.
All the components fitted to/or supplied with the Flomaster carry a 2-year guarantee.

Exclusions –The Guarantee does not cover:
The effects of scale build up.
Any labour charges associated with replacing the unit or its parts.
Any consequential losses caused by the failure or malfunction of the unit.

Kingspan Renewables have a policy of continuous product development and may introduce product modifications from time to time.
As a consequence details given in this brochure are subject to alteration without notice.



Copperform

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