

Albion AEROCYL

Unvented Copper Hot Water Cylinders for Heat Pump
and Solar Input



Exceeding the Standard





Unvented Copper Hot Water Cylinder solutions for Heat Pump and Solar Input

The new Albion Aerocyl

Aerocyl is the new unvented copper hot water storage system from Albion. Based on the company's experience in giving the trade the products they ask for, the new Aerocyl is a high quality vessel employing the best in technology.

Safe for your pocket, safe for the Environment

The range of Albion Aerocyl cylinders meets the needs of the builder, installer and consumer by providing fast and safe mains pressure hot water around the home in both an environmentally and pocket friendly way.

Albion Aerocyl has 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.

Choose Albion Aerocyl:

Mains Pressure Hot Water

- Powerful showers

High Flow Rates

- Ideal for multiple bathrooms
- Baths fill very quickly

Fast Reheat

- High efficiency
- Hot water always available

Very Well Insulated

- Low heat loss
- Economical to run

Attractive White Glossy Finish Case

- Smart, tough and wipe clean

Exceptional performance

Fast flow rates, quick recovery coils and the use of an external expansion vessel to reduce maintenance are just a few of the features of Aerocyl.

At 2.1 bar operation the units meet all modern criteria for fast flow applications. Manufactured from high grade copper for excellent corrosion resistance, Aerocyl also feature energy efficient and environmentally friendly foam insulation for low heat loss and are encased in a tough, rustproofed, stove enamelled casing with white glossy finish, which can be wiped clean.

Albion Aerocyl cylinders carry 5-year guarantee against faulty materials and manufacture. The components fitted to or supplied with the unit carry a 2-year guarantee.

Low Maintenance

- No hidden costs

5-Year Guarantee

- Peace of mind

High Grade Copper

- Excellent corrosion resistance and long life

Available in Two Versions

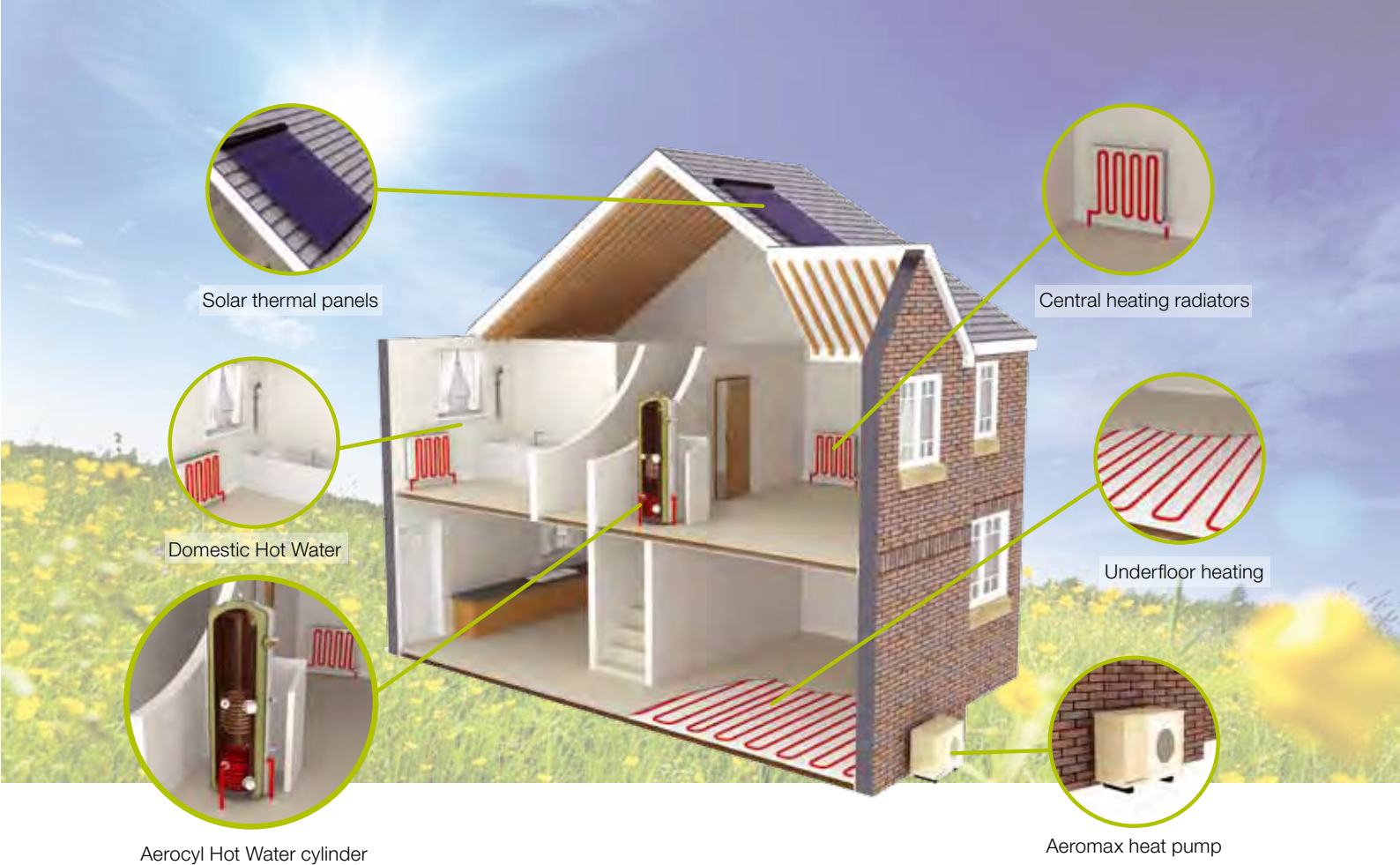
- For use with a heat pump only
- For use with a solar thermal system with additional input from a heat pump

5 sizes

- From 150-300 litres

A complete package

- Just add pipework



PERFORMANCE DETAILS

Foam insulation and heat loss

Albion Aerocyl cylinders have 50mm (nominal) thickness of fire retardant polyurethane foam, giving significant gains in standing heat loss values.

The foam has an Ozone Depletion Potential (ODP) of 0 and a Global Warming Potential (GWP) of 1.

CAPACITY (litres)	STANDING HEAT LOSS (kW/24hrs)
150	1.38
180	1.63
210	1.90
250	2.21
300	2.43

Immersion heaters

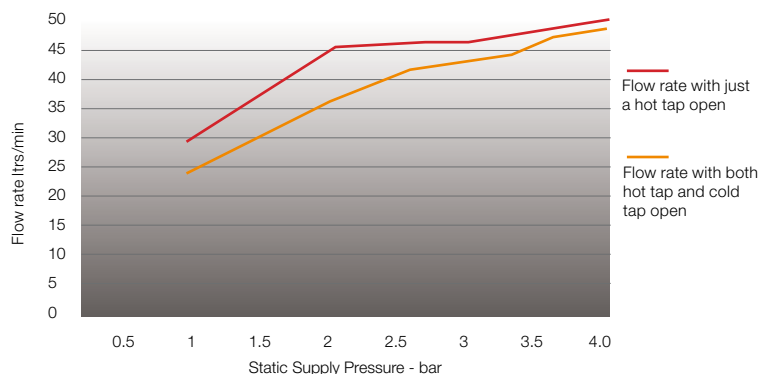
All Albion Aerocyl cylinders feature electric immersion heater(s) for backup heating, when the input from the renewable energy source – heat pump and/or solar – is not sufficient to supply all hot water demand.

The units are fitted with immersion heaters as follows:

CAPACITY (litres)	HEAT PUMP ONLY	HEAT PUMP AND SOLAR INPUT
150	1 x 3kW	-
180/210	1 x 3kW	1 x 3kW
250/300	2 x 3kW	1 x 3kW

Flow rates

Exceptional performance of the new Aerocyl has been Albion's objective from day one. As a result, operating at the pressure of 2.1 bar Aerocyl is capable of delivering over 45 litres of hot water per minute.



ALBION AEROCYL

HEAT PUMP ONLY CYLINDERS

Albion Aerocyl Heat Pump Only cylinders have been specifically designed for use in conjunction with a heat pump as the main source of energy. Featuring a purpose-designed coil, which allows maximum heat transfer of renewable energy into the stored water, the cylinders are suitable for use with a wide range of heat pumps available in the UK and are the perfect partners for the Aeromax Air Source Heat Pumps from Kingspan Solar.

Aerocyl Heat Pump Only cylinders are an efficient and environmentally friendly way of providing Domestic Hot Water. Where the input from a heat pump is not sufficient to heat the water to desired temperature, an electric immersion heater can be used to top it up.

Manufactured from high grade copper, they come with a 5-year guarantee on the inner container and are available in a range of capacities from 150 to 300 litres.

Coil Specification

Model	Surface Area (m ²)	Fluid Content (litres)
AAU150C	2.00	1.81
AAU180C	3.00	2.72
AAU210C	3.00	2.72
AAU250C	3.00	2.72
AAU300C	3.00	2.72

NB: The total detail of the Domestic Heating Compliance Guide document should be consulted prior to specifying product or commencing design.



ALBION AEROCYL

HEAT PUMP AND SOLAR INPUT CYLINDERS

Albion Aerocyl Heat Pump and Solar Input cylinders have been designed specifically for use with solar thermal applications complementing the heat pump. Featuring a purpose-designed solar coil, which allows maximum heat transfer of solar energy into the stored water, the cylinders are suitable for use with a wide range of solar systems now available in the UK and are an efficient and environmentally friendly way of providing Domestic Hot Water. Aerocyl Heat Pump and Solar Input cylinders also offer the benefits of mains pressure hot water – powerful showers and fast filling baths.

Aerocyl Heat Pump and Solar Input cylinders are available in a range of capacities from 180 to 300 litres. They are manufactured from high grade copper and come with a 5-year guarantee on the inner container.

Aerocyl Heat Pump and Solar Input cylinders are designed to accept heat input from a solar thermal system as a primary source of heat. Where this input does not fully meet the desired temperature a guaranteed quantity of water can be heated to an acceptable temperature by the heat pump and/or immersion heater. Connection to any other form of heat appliance or boiler is not acceptable and will result in your guarantee becoming void.

The Domestic Heating Compliance Guide document L1A and L1B provides excellent advice in sizing both cylinder designated solar areas and heat exchangers to the surface area of the solar collectors. Using this guide Albion are able to offer sizing advice for specification.

Coil Specification

Model	SOLAR INPUT		HEAT PUMP INPUT	
	Surface Area (m ²)	Fluid Content (litres)	Surface Area (m ²)	Fluid Content (litres)
AAUS180C	0.963	2.355	3.0	2.72
AAUS210C	0.963	2.355	3.0	2.72
AAUS250C	0.963	2.355	3.0	2.72
AAUS300C	0.963	2.355	3.0	2.72

Water Capacities (Litres)

Model	Designated Solar Volume	Heat Pump Volume	Total Capacity
AAUS180C	55	125	180
AAUS210C	65	145	210
AAUS250C	90	160	250
AAUS300C	100	200	300

Maximum Nett Surface Area of Collector Panel (m²)

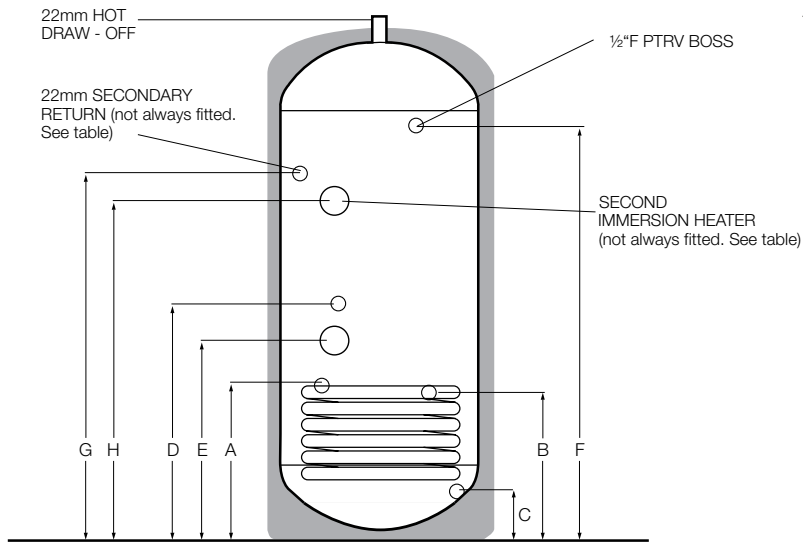
As detailed in the Domestic Heating Compliance Guide.

Model	Solar Pump Speed	
	< 0.5LPM	> 0.5LPM
AAUS180C	3.35	6.70
AAUS210C	4.39	8.78
AAUS250C	4.39	8.78
AAUS300C	4.39	8.78

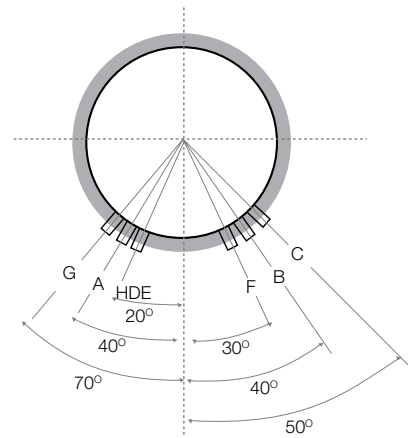
NB: The total detail of the Domestic Heating Compliance Guide document should be consulted prior to specifying product or commencing design.



Technical Specifications

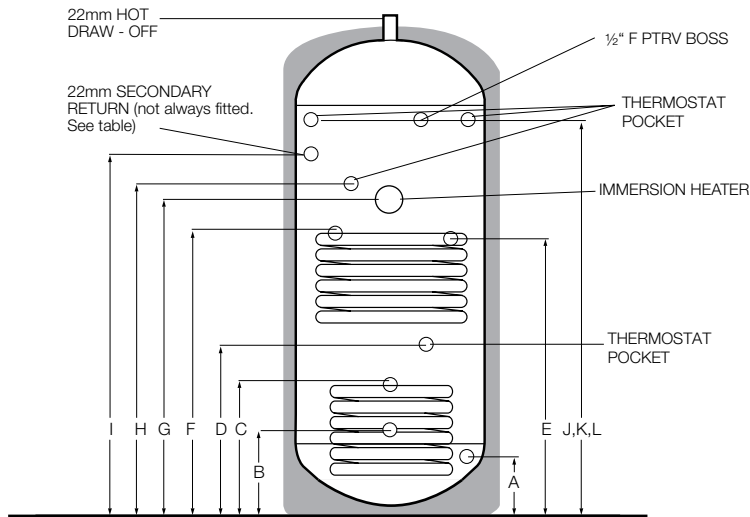


Aerocyl Heat Pump Only

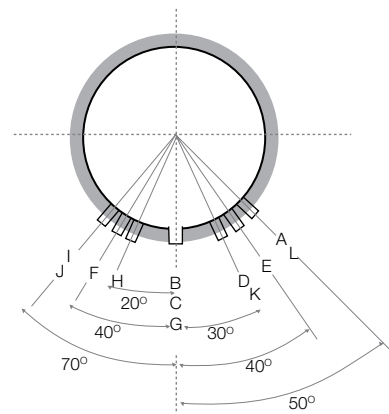


PRODUCT CODE	CAPACITY (Litres)	HEIGHT	DIAMETER	A	B	C	D	E	F	G	H	WEIGHT (Kg - EMPTY)	WEIGHT (Kg-FULL)	kW RATING*
AAU150C	150	1128	550	450	425	135	650	515	863	N/F	N/F	57	207	23.3
AAU180C	180	1322	550	450	425	135	650	515	1057	N/F	N/F	61	241	28.3
AAU210C	210	1515	550	450	425	135	650	515	1250	1100	N/F	64	274	28.1
AAU250C	250	1772	550	450	425	135	650	515	1508	1350	1195	77	327	27.4
AAU300C	300	2096	550	450	425	135	650	515	1831	1706	1515	93	393	26.7

All dimensions are in mm and are of the cased unit. N/F = not fitted
 *kW rating of coil when tested in accordance with BS EN 12897



Aerocyl Heat Pump and Solar Input



PRODUCT CODE	CAPACITY (Litres)	HEIGHT	DIAMETER	A	B	C	D	E	F	G	H	I	JKL	WEIGHT (Kg - EMPTY)	WEIGHT (Kg-FULL)	kW RATING* LOWER COIL	kW RATING* UPPER COIL
AAUS180C	180	1322	550	135	225	335	355	840	865	915	955	N/F	1057	65	245	22.7	34.1
AAUS210C	210	1515	550	135	225	335	355	905	930	980	1020	1150	1250	68	278	21.5	31.9
AAUS250C	250	1772	550	135	225	335	355	1065	1090	1140	1180	1400	1507	81	331	21.1	33.0
AAUS300C	300	2096	550	135	225	335	355	1130	1155	1205	1245	1600	1830	97	397	20.5	33.6

All dimensions are in mm and are of the cased unit. N/F = not fitted
 *kW rating of coil when tested in accordance with BS EN 12897

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	Heat Pump Only	Heat Pump and Solar Input
		Cylinder	Cylinder
1 Standard Bath or Shower	Bedsit/1 Bed	150	180
	2-3 Bed	150	210
	3-4 Bed	180	250
1 Standard Bath	2-3 Bed	150	210
	3-4 Bed	180	250
1 Bath and En-suite	2-3 Bed	180	250
	3-4 Bed	180	250
	4-5 Bed	210	300
2 Standard Baths	2-3 Bed	210	250
	3-4 Bed	210	250
	4-5 Bed	250	300
3 Bathrooms	3-4 Bed	300	300
	4-5 Bed	300	300
	5-6 Bed	300	300

COMPONENT LIST

Albion Aerocyl cylinders come with all the fittings you need to complete the installation:

HEAT PUMP ONLY MODELS

- Inlet control set
- Expansion Vessel (12ltr on 150ltr models, 19ltr on 180, 210 & 250ltr models, 24ltr on 300ltr models)
- Expansion vessel hose
- Wall mounting bracket
- Temperature & pressure relief valve
- Tundish
- 1 x 3kW Immersion heater (2 x 3kW on 250 & 300L models)
- Dual control/high limit thermostat
- Two port valve
- Thermostat pocket
- Installation Instructions
- Benchmark Log Book

HEAT PUMP AND SOLAR INPUT MODELS

- Inlet control set
- Expansion Vessel (19ltr on 180, 210 & 250ltr models, 24ltr on 300ltr models)
- Expansion vessel hose
- Wall mounting bracket
- Temperature & pressure relief valve
- Tundish
- 1 x 3kW Immersion heater
- Dual control/high limit thermostat
- Two port valve
- 3 x Thermostat pockets
- Single high limit thermostat
- 2 x Thermostat pocket cable retaining bungs
- Installation Instructions
- Benchmark Log Book





Buffer Tanks



A buffer tank is integrated into the system when additional volume of hot water is required to provide smoother and uninterrupted operation of a heat pump.

Incorporated into a space heating system, the buffer tank increases the volume of water a heat pump has to heat, allowing excess heat to be stored until it is required and reducing the short cycling during normal operation of the heat pump. It also provides a thermal store to aid defrost of the heat pump and protect the water within the system from cooling. As a result it prevents the radiators or underfloor heating from getting colder during the heat pump defrost cycles.

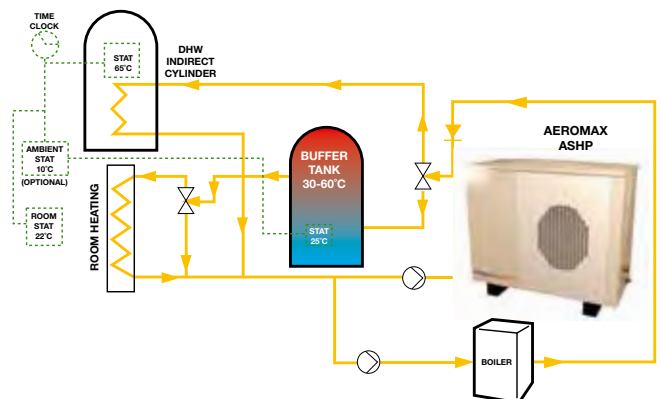
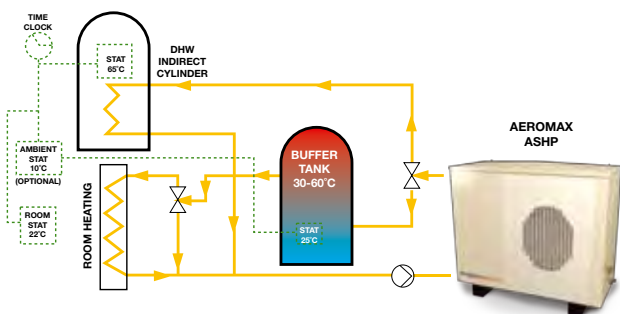
The size of the buffer tank required varies with the size of the heat pump being used. Albion provides a wide range of models in a variety of capacities to suit different size heat pumps available in the UK.

Albion Aerocyl Buffer Tanks are available for both open vented and sealed systems, in a range of capacities from 50 to 150 litres. They all can be supplied with an electric immersion heater for back-up heating on request.

Vented units are insulated with 50mm thickness of environmentally friendly foam lagging, giving low standing heat loss. Sealed system models also have 50mm thickness of environmentally friendly foam lagging and are encased in zintec corrosion proofed, durable, stove enamelled, gloss white, steel outer casing.

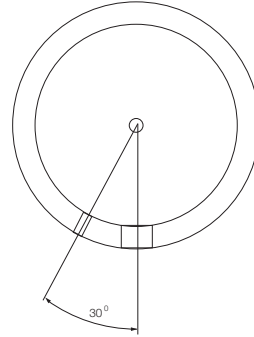
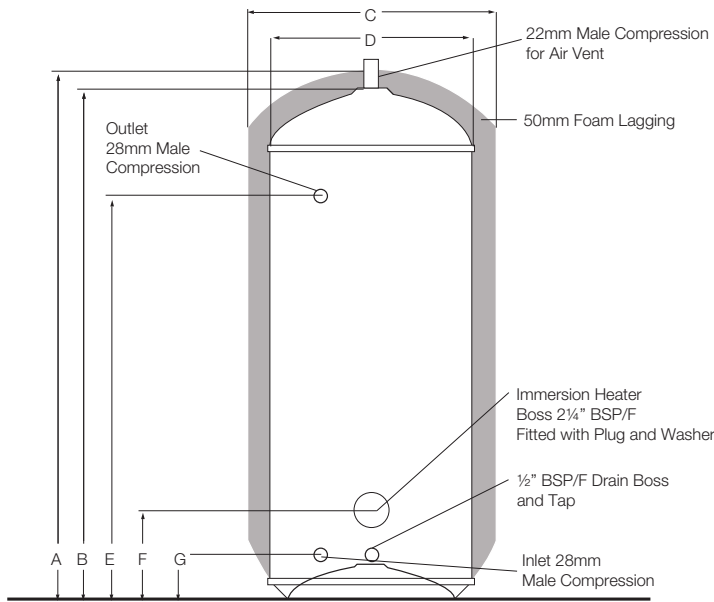
Monovalent Heating Systems

Bivalent & Integrated Heating Systems



Technical Specifications

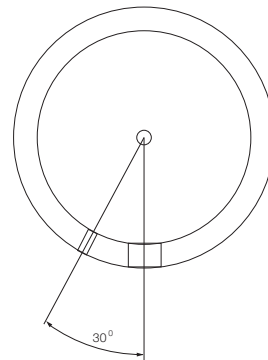
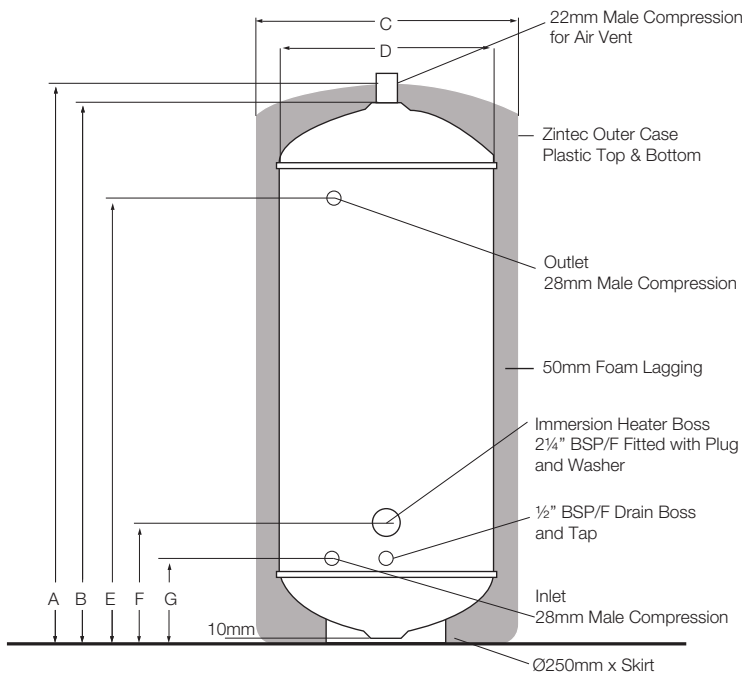
Aerocyl Buffer Tanks-Vented



PRODUCT CODE	CAPACITY (Litres)	A FULL HEIGHT	B CYLINDER HEIGHT	C FULL DIAMETER	D CYLINDER DIAMETER	E OUTLET	F IMMERSION HEATER BOSS	G INLET
AAVB50F	50	560	510	500	400	320	185	95
AAVB95F	95	800	750	550	450	550	195	95
AAVB150F	150	1150	1100	550	450	900	195	95

All dimensions are in mm. Immersion heater supplied on request.

Aerocyl Buffer Tanks - Sealed system



PRODUCT CODE	CAPACITY (Litres)	A FULL HEIGHT	B CYLINDER HEIGHT	C FULL DIAMETER	D CYLINDER DIAMETER	E OUTLET	F IMMERSION HEATER BOSS	G INLET
AAUB50C	50	560	510	478	400	355	255	170
AAUB95C	95	800	750	550	450	535	300	200
AAUB150C	150	1150	1100	550	450	900	300	200

All dimensions are in mm. Immersion heater supplied on request.

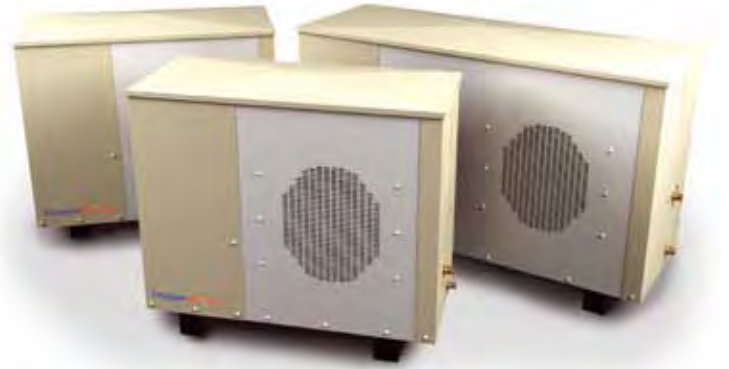
Products List

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:

Kingspan AEROMAX

Aeromax 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 Albion Ultrasteel Duplex stainless steel solar cylinder. The package includes all components required to complete the installation.



Albion

Exceeding the Standard

Albion Ultrasteel unvented cylinders are manufactured from Duplex stainless steel, featuring superior corrosion resistance. They offer high flow rates for powerful showers and fast filling baths. As a result they provide mains pressure hot water around the home, which makes them suitable for use in buildings with multiple bathrooms. They offer fast reheat times and minimal heat loss from the stored water.

The range comprises Direct and Indirect models in a variety of sizes, as well as solar units to use with renewable energy sources.



Kingspan Climate^{❄️}

This silent solar powered cooling/heating system is perfect for hotter Mediterranean-style climates. The Kingspan Climate package includes the ClimateWell, premium quality Thermomax vacuum tube collectors, controllers and a Kingspan cylinder.

Compact and incredibly cheap to run, the Kingspan Climate can also provide heating for domestic hot water and swimming pools.



Albion

Exceeding the Standard

Albion Water Heaters manufacture copper cylinders for Domestic Hot Water storage in a variety of sizes and patterns. Primarily a business-to-business company, it supplies its products to plumbers and builders merchants around the country.

Albion copper cylinders are specially designed for use in open vented hot water systems. They are designed to heat up quickly and to retain their heat for long periods. They are available in various combinations of connections to suit individual requirements. Range of products includes Centurion Eco and Superduty HE Eco – indirect twin coil cylinders designed for use with renewable energy sources, such as solar. Installation of Albion Eco cylinders can now be grant assisted.



FERHAM

WATER STORAGE PRODUCTS

The Ferham Cold Water Tanks range represents the most comprehensive and robust range of cisterns available anywhere in the United Kingdom. Designed and built to provide heating contractors with a premium product, Ferham Cold Water Tanks remain the most popular product range within the industry.

Available in a wide range of storage sizes from 18 litres (4 gallons) to 795 litres (175 gallons), the extensive Ferham range makes them the ideal solution for new builds or those involved in replacing, maintaining or improving facilities. Designed with built-in strengthening ribs that have a high impact threshold, the cisterns are virtually indestructible.

Dedicated to meeting the precise needs of customers, Ferham offers a range of accessories and fittings, available separately or as one combined Total Tank Kit.



Albion is a market leader in the manufacture and supply of quality hot water systems.

Specification summary...



OHSAS 18001

Materials

Inner shell - Copper
Coil - 22mm Diameter Copper
Bosses - Copper
Every Aerocyl cylinder is water tested to a pressure of 4.5 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 (Unvented Units Only)

Zintec corrosion proofed steels throughout
Durable, stove enamelled gloss white paint finish outer casing.

Anode

None fitted/none required

Expansion Vessel

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

Control Settings

Pressure Reducing Valve - 2.1 Bar
Expansion Relief Valve - 3 Bar
Pressure and Temperature Relief Valve - 4 Bar/90°C
High Limit Thermostat in Dual Thermostat - 85°C
High Limit Thermostat in Immersion Heater - 85°C

Immersion Heater

2¼" 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
KIWA Approval pending
CE Compliant and fitted with a BEAB Approved
Immersion Heater

Guarantee Terms

The Aerocyl Unvented Copper Hot Water cylinder carries a 5-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 Albion.
- 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 components fitted to/or supplied with the Aerocyl cylinders carry a 2-year guarantee.

Aerocyl Buffer Tanks and all components fitted to/or supplied with the units carry a 2-year guarantee against faulty materials or manufacture, subject to the conditions detailed above.

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.

Albion Water Heaters, part of Kingspan Group, is a major manufacturer of Domestic Hot Water storage systems in the UK and offers the trade products backed by the service and technical development skills that only a company of its size can.

All sites are licensed to British Standards quality assurance BS EN ISO 9001 : 2000 and Albion is a BSI registered firm. This means that all manufacturing plants are monitored by an independent inspectorate and the quality systems employed by Albion meet the stringent requirements set down.

Specifiers, stockists and users can depend on Albion for consistent quality and supply. Albion continues to develop energy saving and innovative hot water products for domestic and commercial applications.

Kingspan Hot Water Systems Ltd 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.



Hot Water Systems

Albion Water Heaters

Station Road, Caythorpe, Nr. Grantham, Lincolnshire NG32 3EW

T: 01400 272726 F: 01400 273508

Technical Helpline: 0845 260 7260 Technical Faxline: 0845 260 7261

www.albionwaterheaters.com

www.kingspanhws.com