thermaQ

EXCELLENCE IN HOT WATER TECHNOLOGY

evocyl AIR

PRODUCT GUIDE

Internal expansion unvented cylinders, engineered for maximum efficency for the professional heating and plumbing engineer.

MANUFACTURED IN THE UNITED KINGDOM

CONTENTS

Introducing ThermaQ

Our Quest in Hot Water Technology.

We are a world class United Kingdom manufacturing company focused on the relationships with our customers in the delivery of the highest quality hot water products. Utilising the latest innovative technologies whilst providing excellence in customer service.

QUALITY

Everything we do at ThermaQ is about being committed to excellence providing the very best quality products and customer service. We have invested significantly in the latest manufacturing technology and systems to develop robust and automated processes that ensure we produce the best product at the best value.

QUICK

In today's challenging consumer driven market place we aim to respond rapidly to all the demands asked of our business, anything from customer care support, quotations or a technical or delivery query, we have a same day reply policy. If we cannot provide a full response on the day of the enquiry, we will contact you to let you know that your query is being dealt with and a time that we will come back to you.

We also aim to set a high standard with our logistical partners by holding enough stock that will be available for next day delivery as standard*. As a distributor this means you are able to supply the full range of ThermaQ products promptly and as an engineer you can quickly respond to your customer's requirements.

QUEST

Our customer focused policies have set us on a quest to achieving and maintaining world class service. We appreciate that in today's society consumer demands and expectations are very high so we will continually strive to improve our service to meet these demands. In choosing to work with ThermaQ, you can be satisfied and confident that you are investing in a brand that will deliver on its promises.

Hot Water Association Charter Member

hot water association
CHARTER MEMBER

Therma Q is proud to be an independently audited Hot Water Association (HWA) charter member. The HWA Charter's Code of Practice ensures that all members adhere to supplying fit for purpose products that are clearly and honestly described, and meet all required building and water regulations & standards. In addition, members have a responsibility to provide support to installers and customers in the supply and after-sales service related to their product.

Evocyl **AIR**: Big Idea, Better Execution.

Masterfully crafted and sold at a competitive price within the marketplace, the new Evocyl AIR promises to be the premier brand in the ThermaQ cylinder range. Thanks to its distinctive floating baffle technology, futuristic optional extras and reliable construction. It has been designed and manufactured to exceed market expectations.

Delivering Quality

Ensuring excellence throughout our process.

The Evocyl **AIR** range is the first choice for value while providing superior performance.

How do we guarantee our customers the best possible performance, quality and reliability, whilst ensuring our products provide powerful mains pressure showers and faster-filling baths, with maximum reliability and efficiency?

The answer is in our process. When developing the ThermaQ range of products we set about using the most advanced water heating technology available. When this doesn't meet the high standards of performance, efficiency and reliability we insist upon, we develop innovative new technology of our own.

These advances come in many forms; Sophisticated Duplex stainless steel cylinder construction for maximum strength and corrosion resistance, manufacturing the cylinder with robots for efficiency and technical accuracy, CFC and HCFC free injected foam, encasing the entire system for the best possible heat retention. To prove our confidence in this process, we provide every new Evocyl **AIR** cylinder with a 25 year guarantee* against manufacturing defects.

Manufacturing our Cylinders

ThermaQ manufacture all our domestic cylinders using Duplex stainless steel. Duplex has been selected against other materials such as copper, glass lined mild steel and lesser grades of stainless steel due to its substantially higher tensile strength and because it is a low carbon, high chromium content alloy. It allows units to be produced using thinner walls resulting in a lighter unit and offers a superior resistance to all forms of corrosion including, pitting, crevice corrosion and stress corrosion cracking.

When welding our cylinders a backing gas is used to ensure deep welding penetration and a clean internal weld surface. This ensures the welded area has the same corrosion resistance and mechanical strength as the parent metal.

Once the welding process has been completed the cylinder is 'pickled and passivated', this involves coating all internal surfaces of the cylinder with a chemical solution followed by water flushing, restoring the chromium surface finish. This process restores the passive film to all welded areas providing protection against premature corrosion, ensuring the longest possible working life for every cylinder.

Our coil-in-coil heat exchanger is a technical triumph. Manufactured in-house from one single piece of stainless steel tube, this high efficiency heat exchanger allows the cylinder to heat further down the vessel than ever before.

Installer friendly design.

Extended vertical hot water drawoff inside the cylinder allows for easy installation of the Evocyl **AIR** in the same fashion as a regular unvented vessel.

Standard models available in size 120, 150, 180, 210, 250 and 300.

Full range of **Slim** units available, sizes 120 to 210, featuring a diameter of only 475mm – one of the slimmest on the market.

High performance coil-in-coil heat exchanger manufactured by ThermaQ.

New internal expansion saves space and time on installation.

Duplex stainless steel cylinder body allows for a lightweight construction whilst ensuring product strength and resistance to corrosion.

Totally insulated with HCFC & CFC free foam.

Comprehensive controls and fixing kit from leading brands.

Digital cylinder stat for optimum control of domestic hot water temperature.

Compression fittings supplied on all Evocyl **AIR** cylinders.

Minimum water supply 1.5 bar, 20 litres/min.

Stainless steel stat pocket resistant to corrosion.

All units are pickled and passivated to ensure longer life.

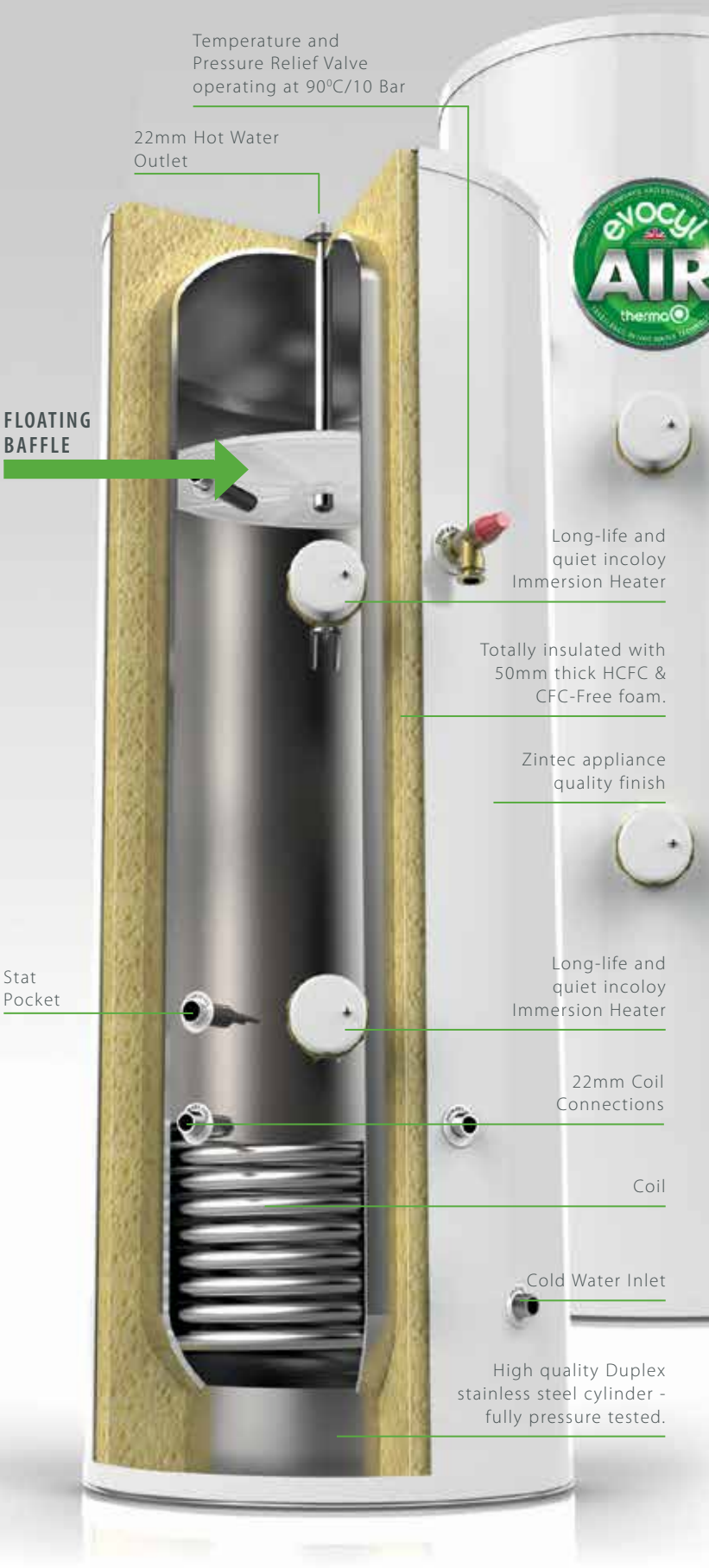
25 year fully transferrable warranty.

All other cylinder componenets guaranteed for 2 years.

Evocyl **AIR**: The New Standard in Cylinder Design.

The latest product line to be released from ThermaQ – the Evocyl **AIR** - guarantees to be the next big step forward for our business, and promises to be the new standard for energy efficiency. The unique design of the new cylinder, which includes an internal expansion air bubble and floating baffle means we can proudly display fantastic ErP bandings on our new range – *some of the best available.*

- The new internal expansion chamber allows us to do away with the expansion vessel that comes as standard with unvented cylinders, but still allows the product to work above and beyond expectations.
- Excellent flowrates from all of our unvented cylinders ensures that hot water from showers and taps are kept powerful in any size house or apartment.
- Good hot water retention from the cylinder is key to keeping customers satisfied and ensuring a happy home.
- **Extended vertical hot water drawoff inside the cylinder allows for the floating baffle to move up and down with the expanding water level, whilst still allowing plumbers to install the Evocyl AIR in the same fashion as regular unvented cylinders and draw water from the top of the cylinder. Drawing from the cylinder top allows us to maximise the hot water available to the end user.**
- Combine this with the quick reheat times in all of our Evocyl range due to our patented coil-in-coil heat exchanger and you have a competitive hot water cylinder that keeps on giving.



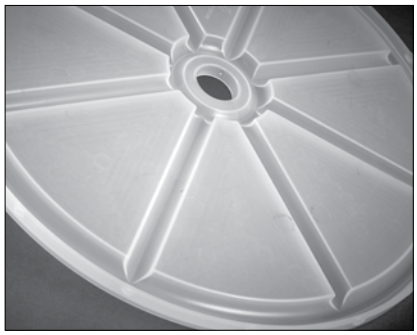
New Levels of Efficiency

Providing superior performance.

Built in thermal expansion: Reducing space requirements and installation time.

The crowning achievement of the new cylinder is our unique floating baffle that creates an air bubble which allows for the thermal expansion of water.

This composite water to air interface disc is manufactured from composite material fully compliant with BS6920 and is deemed by WRAS as suitable for internal thermal expansion. In addition to our own in-house test regime, the cylinder has been independently and successfully tested to WRAS 121117:1999.



This level of approval provides increased levels of confidence in our product design and peace of mind for installers and householders alike.

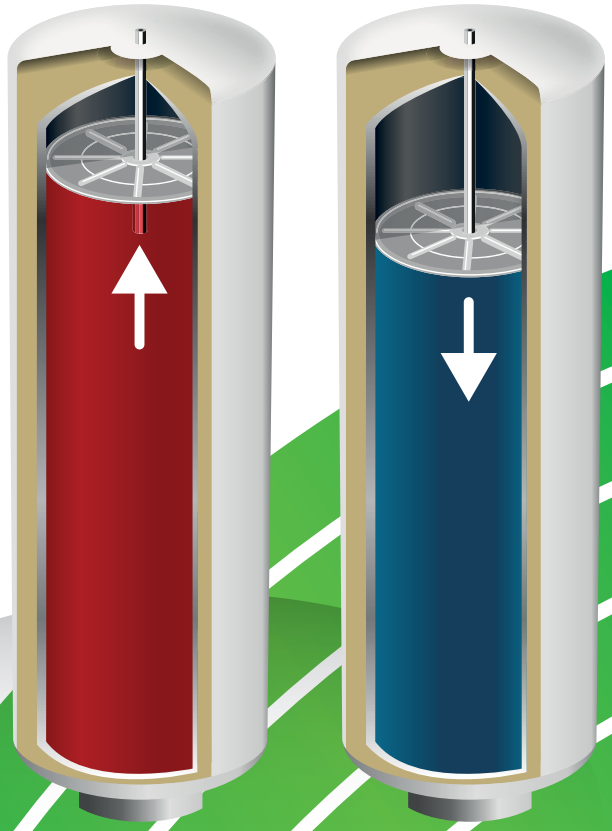
Why does a regular unvented cylinder require a vessel for expansion?

As water is heated its volume increases and therefore the pressure will rise. Most unvented cylinders will come with an expansion vessel to be installed into pipework to account for this. The new Evocyl **AIR** however accommodates for the water expansion within the cylinder itself.

So how does the new cylinder's internal expansion work?

We have extended the internal pipe connected to the hot water drawoff, and installed our movable water to air interface disc down the pipe. This will keep an air bubble in the cylinder separate from the water being heated inside. By manufacturing the baffle to keep a near-perfect air tight seal at the top of the cylinder, the air bubble inside expands and compresses and allows the system to work as normal without any waste hot water.

As the water in the vessel heats and expands, the air bubble contracts to absorb the excess pressure created. The bubble then slightly expands when called upon to deliver good quality, consistently pressurised hot water as it is drawn from the cylinder to taps, showers or other outlets.



AS THE WATER HEATS UP, THE FLOATING BAFFLE RISES TO ABSORB THE INCREASE IN PRESSURE.

Only with an Evocyl AIR by ThermaQ can you truly experience a high efficiency, top quality product that ensures superb comfort of living.

Evocyl
AIR Standard

The number one choice. Designed for performance and reliability along with environmental care and responsibility.

Our standard range of superior quality Evocyl **AIR** cylinders are built using high grade Duplex stainless steel and designed to provide fast flowing hot water to single or multiple outlets. Manufactured to the highest standards and supplied with innovative components to ensure quick recovery, low heat loss and economic use of energy.

For your peace of mind, they come with a 25 year cylinder and 2 years parts guarantee, so we believe it will be a great investment you make in your hot water.

- 25-year cylinder and 2 year parts warranty.
- Sizes 120 to 300 in 545mm diameter.
- Cylinder manufactured from high grade Duplex stainless steel.
- Totally insulated with 50mm 100% CFC and HCFC free polyurethane foam to minimise heat loss.
- Lightweight construction with white goods finish.
- Flat base for additional stability.
- Supplied with high quality unvented installation components.
- Indirect units supplied with modern fuel-saving stat that includes optional anti-legionella function.
- All plumbing connections are clearly identified and accessible from the front of the cylinder.
- 22mm threaded connections.
- Efficient patented coil-in-coil used in all indirect cylinders.
- Solar version available.
- Long life 3kW incoloy immersion heater supplied as standard. Upgrade to titanium and/or 6kW immersion at request.
- Supplied with all safety controls as required by UK Building Regulations and Water Regulations.
- Product fully WRAS and building regulations approved.

EVOCYL **AIR** STANDARD DIRECT

CODE		AGDIR 0120	AGDIR 0150	AGDIR 0180	AGDIR 0210	AGDIR 0250	AGDIR 0300
CAPACITY AT 3 BAR (L)		107	138	169	191	235	264
HEIGHT	E	950	1140	1324	1511	1762	1986
DIAMETER		545	545	545	545	545	545
COLD INLET	A	190	190	190	190	190	190
IMMERSION	B	210	210	210	210	210	210
IMMERSION	C	400	580	670	755	875	980
T&P VALVE	D	528	715	848	982	1160	1323

EVOCYL **AIR** STANDARD INDIRECT

CODE		AGIND 0120	AGIND 0150	AGIND 0180	AGIND 0210	AGIND 0250	AGIND 0300
CAPACITY AT 3 BAR (L)		105	134	165	187	230	259
HEIGHT	H	950	1140	1324	1511	1762	1986
DIAMETER		545	545	545	545	545	545
COLD INLET	A	190	1909	190	190	190	1909
BOTTOM COIL	B	298	298	338	373	373	373
STAT POCKET	C	368	368	408	443	443	443
IMMERSION	D	348	348	388	423	423	423
IMMERSION	E	-	-	-	-	968	1065
SEC. RETURN	F	-	-	-	882	1060	1223
T&P VALVE	G	528	715	848	982	1160	1323

EVOCYL **AIR** STANDARD SOLAR INDIRECT TWIN COIL

CODE		AGSIN 0180	AGSIN 0210	AGSIN 0250	AGSIN 0300
CAPACITY AT 3 BAR (L)		161	184	226	254
HEIGHT	I	1324	1511	1762	1986
DIAMETER		545	545	545	545
COLD INLET	A	190	190	190	190
BOTTOM COIL	B	298	338	373	373
STAT POCKET	C	353	393	428	428
TOP COIL	D	633	688	862	932
STAT POCKET	E	703	738	932	963
IMMERSION	F	683	738	912	943
SEC. RETURN	G	-	882	1060	1223
T&P VALVE/STATS	H	848	982	1160	1323

EVOCYL **AIR** STANDARD SOLAR INDIRECT SINGLE COIL

CODE		AGSDI 0180	AGSDI 0210	AGSDI 0250	AGSDI 0300
CAPACITY AT 3 BAR (L)		165	187	230	259
HEIGHT	G	1324	1511	1762	1986
DIAMETER		545	545	545	545
COLD INLET	A	190	190	190	190
BOTTOM COIL	B	298	338	373	373
STAT POCKET	C	353	393	428	428
IMMERSION	D	440	504	580	649
IMMERSION	E	771	890	1045	1183
T&P VALVE/STAT	F	848	982	1160	1323

Evocyl **AIR** Slimline

When installation space is at a premium, we offer the same great product but with a much smaller footprint.

In addition to removing the expansion vessel, the Evocyl **AIR** Slimline becomes even more of a space saver thanks to its 475mm diameter, allowing home owners to fit an unvented cylinder in those smaller awkward spaces. This means many older dwellings with smaller airing cupboards can now enjoy the benefits of mains pressure hot water with fast filling baths and modern showers.

For your peace of mind, all our cylinders come with a 25-year cylinder and 2 year parts guarantee. It just might be the best small investment you make in your hot water.

Evocyl AIR Slimline

475 MM WIDTH

EVOCYL **AIR** SLIMLINE DIRECT

CODE		AGNDI 0120	AGNDI 0150	AGNDI 0180	AGNDI 0210
CAPACITY AY 3 BAR (L)		107	131	159	183
HEIGHT	E	1205	1478	1743	1955
DIAMETER		475	475	475	475
COLD INLET	A	162	162	162	162
IMMERSION	B	182	182	182	182
IMMERSION	C	597	727	845	947
T&P VALVE	D	772	970	1158	1292

EVOCYL **AIR** SLIMLINE INDIRECT

CODE		AGNIN 0120	AGNIN 0150	AGNIN 0180	AGNIN 0210
CAPACITY AT 3 BAR (L)		104	128	156	180
HEIGHT	G	1205	1478	1743	1955
DIAMETER		475	475	475	475
COLD INLET	A	162	162	162	162
BOTTOM COIL	B	288	328	328	328
STAT POCKET	C	388	428	428	428
IMMERSION	D	368	408	408	408
SEC. RETURN	E	-	-	-	1165
T&P VALVE	F	772	970	1158	1292

SPECIFICATION

- 25-year cylinder and 2 year parts warranty.
- Sizes 120 to 210 in 475mm diameter.
- Cylinder manufactured from high grade Duplex stainless steel.
- Totally insulated with 50mm 100% CFC and HCFC free polyurethane foam to minimise heat loss.
- Lightweight construction with white goods finish.
- Flat base for additional stability.
- Supplied with high quality unvented installation components.
- Indirect units supplied with modern fuel-saving stat that includes optional anti-legionella function.
- All plumbing connections are clearly identified and accessible at the front of the cylinder.
- 22mm threaded connections.
- Efficient prmary coil.
- Solar versions available.
- Long-life 3kW incoloy immersion heater supplied as standard. Upgrade to titanium and/or 6kW immersion heater on request.
- Supplied with all safety controls as required by UK Building Regulations and Water Regulations.
- Product fully WRAS and building regulations approved.

Evocyl
AIR Super ECO

The Evocyl AIR Super ECO is manufactured to the same high quality standards but with additional insulation to reduce heat loss.

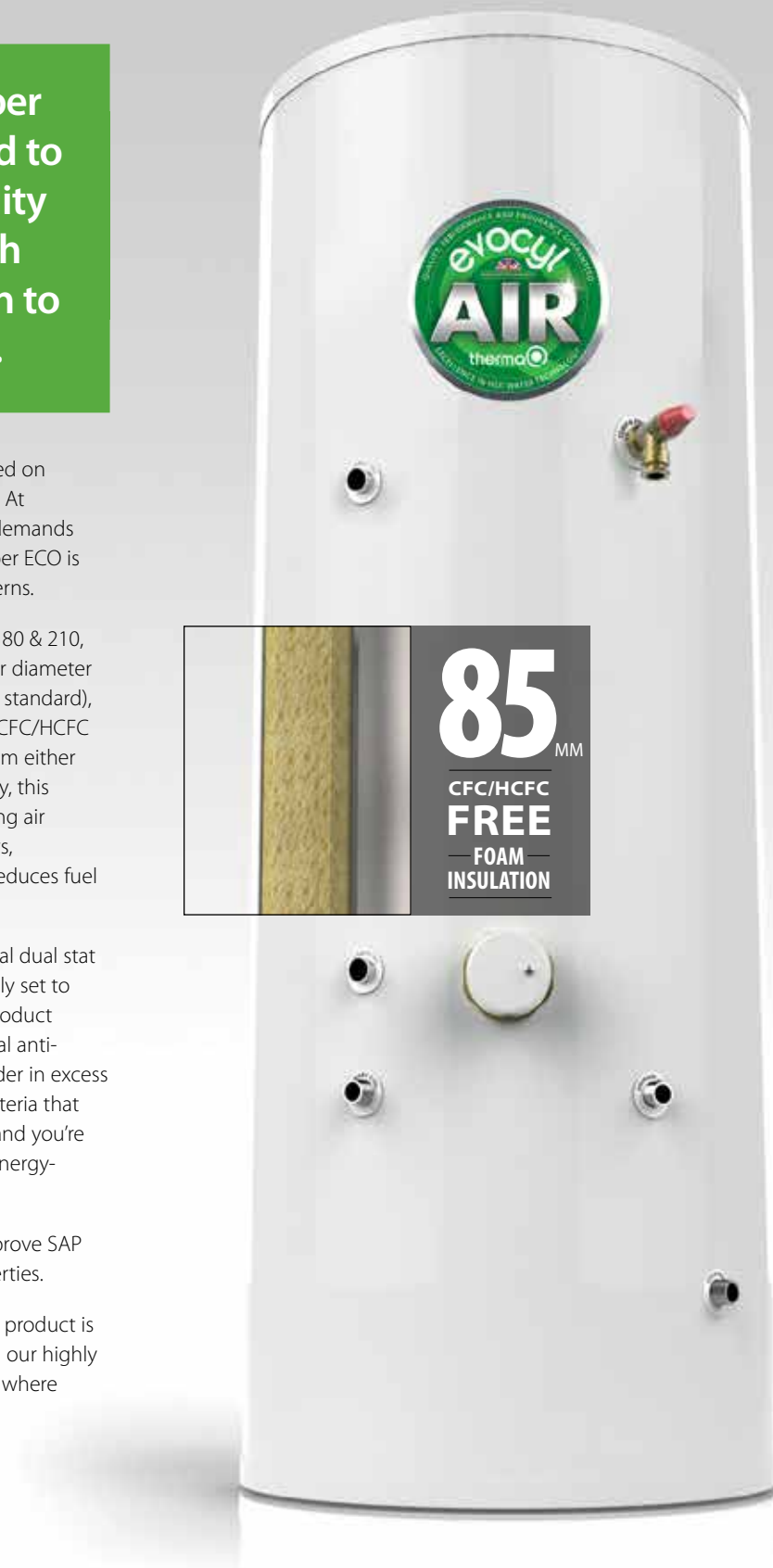
In the modern age, a great emphasis is placed on reducing environmental impact of products. At ThermaQ we strive to keep in line with the demands made by customers, and the Evocyl **AIR** Super ECO is our answer to growing environmental concerns.

Available in sizes 120, 150, 180 & 210, the cylinder boasts a regular diameter of 545mm (the same as the standard), but we have increased the CFC/HCFC free foam insulation to 85mm either side of the inner vessel body, this combined with the insulating air bubble used in all of the Evocyl **AIR** cylinders, significantly lowers heat loss and therefore reduces fuel bills for the homeowner.

All Evocyl **AIR** units are supplied with a digital dual stat so the cylinder temperature can be accurately set to meet the customer demands and run the product efficiently. The dual stat has a built in optional anti-legionella function which will heat the cylinder in excess of 61°C once weekly to ensure potential bacteria that develops in any stagnant water is killed off. and you're looking at one of the most well-made and energy-efficient cylinders available

The Evocyl **AIR** Super ECO can also help improve SAP ratings and performance in new build properties.

As with the rest of the Evocyl **AIR** range, the product is manufactured to the highest standards from our highly invested factory using the latest technology where possible.



EVOCYL **AIR** SUPER ECO DIRECT

CODE		AGEDX 0120	AGEDX 0150	AGEDX 0180	AGEDX 0210
CAPACITY AT 3 BAR (L)		107	131	159	183
HEIGHT	F	1205	1478	1743	1955
DIAMETER		545	545	545	545
COLD INLET	A	162	162	162	162
IMMERSION	B	182	182	182	182
IMMERSION	C	597	727	845	947
SEC. RETURN	D	772	970	1158	1292
T&P VALVE	E	987	1262	1527	1739

EVOCYL **AIR** SUPER ECO INDIRECT

CODE		AGIEX 0120	AGIEX 0150	AGIEX 0180	AGIEX 0210
CAPACITY AT 3 BAR (L)		104	128	156	180
HEIGHT	H	1205	1478	1743	1955
DIAMETER		545	545	545	545
COLD INLET	A	162	162	162	162
BOTTOM COIL	B	288	328	328	328
IMMERSION	C	388	428	428	428
STAT POCKET	D	368	408	408	408
SEC. RETURN	E	-	-	-	1165
T&P VALVE	F	772	970	1158	1292

SPECIFICATION

- Sizes 120L to 210L in 545mm diameter.
- Cylinder manufactured from high grade Duplex Stainless Steel.
- **Totally insulated with 85mm 100% CFC and HCFC free polyurethane to minimise heat loss.**
- Super low heat loss to reduce fuel bills and improve SAP ratings.
- Lightweight construction with white goods finish.
- Flat base for additional stability.
- Supplied with high quality unvented installation components.
- Indirect units supplied with fuel saving anti-Legionella dual stat.
- All plumbing connections are clearly identified and accessible at the front of the cylinder.
- 22mm threaded connections.
- Efficient primary coil.
- Long-life 3kW Incoloy immersion heater supplied as standard. Upgrade to Titanium and or 6kw immersion heater on request.
- Supplied with all safety controls as required by UK Building Regulations and Water Regulations.
- 25 year cylinder warranty and 2 years parts warranty.
- Product fully WRAS and building regulations approved.

Selection Guide

Choosing the right cylinder for your home.

HOT WATER DEMAND	BEDROOMS	INDIRECT	DIRECT
1 Standard Bath or Shower	Bedsit / 1 2 - 3 3 - 4	120 120 150	120 150 150
1 Standard Bath	2 - 3 3 - 4	150 150	180 180
1 Standard Bath and En-Suite	2 - 3 3 - 4 4 - 5	150 150 150	210 210 210
2 Standard Baths	2 - 3 3 - 4 4 - 5	180 180 210	250 250 300
3 Bathrooms	3 - 4 4 - 5 5 - 6	250 300 300	300 300 300

Actual usage calculations should be used for cylinder sizing, details above for guidance only. Please contact ThermaQ for technical support.

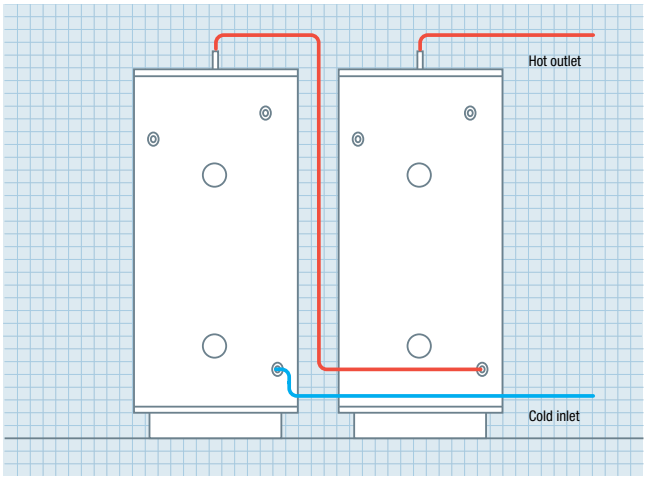
Using Evocyl **AIR** units in Series or Parallel

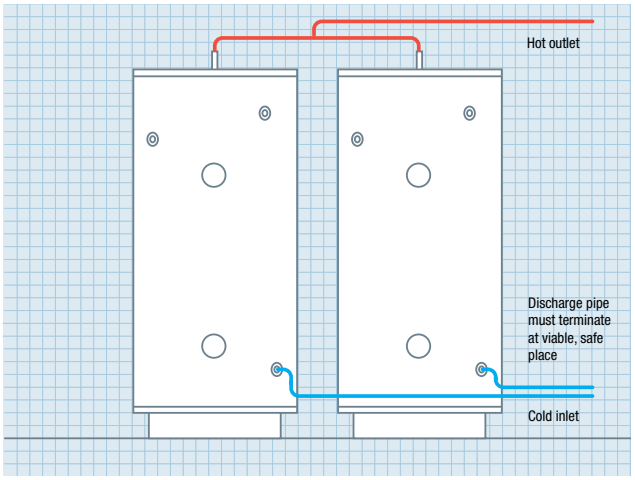
Whilst an unusual option, it is entirely possible to connect Evocyl **AIR** units together in series or parallel where applicable if the hot water demand is large enough. We would however, normally recommend a calorifier from our regular Evocyl range to accommodate any larger domestic or commercial capacities should the demand exist. This reduces installation time and ensures that problems are less likely to occur via setup or running of the system due to only one vessel being used instead of several.

For connecting cylinders in series or parallel, they must be of identical capacity so that the system can function properly.

Connecting cylinders in series means that the cold mains will feed the first Evocyl **AIR**, and the hot drawoff from that cylinder, will be utilised as the cold feed in the 2nd vessel. The hot draw off from the 2nd Evocyl **AIR** will then provide hot water to the property as normal.

Cylinders in parallel means higher flow rates are possible, as you can connect 2 or more vessels together to work simultaneously. Here individual cold feeds are taken to each cylinder and then hot drawoffs are connected together to form one large flowrate pipe to provide hot water to the property. Subject to the size of the incoming cold mains, the flow rate effectively doubles when using 2 cylinders in parallel instead of 1.





It is imperative that cylinders combined in parallel are of equal capacity/size.

Trouble free installation

Several great pieces come together to create one superb installation.

Evocyl **AIR** has been designed to facilitate trouble free installation. Compact and round in design, with all connections accessible at the front of the unit. The Evocyl **AIR** range comes complete with all the fittings you will need for a complete trouble free installation. Evocyl **AIR**'s light weight construction means it's easy to handle and convenient to site almost anywhere in a building.

	DIRECT	INDIRECT	INDIRECT SOLAR TWIN	INDIRECT SOLAR SINGLE COIL
Cold Water Inlet Set	■	■	■	■
15 x 22mm Tundish	■	■	■	■
Fitted Temperature and Pressure Relief	■	■	■	■
Immersion Heater(s)	■	■	■	■
2 Port Zone Valve		■	■	
Dual Thermostat		■	■	
Energy Cut-Out Thermostat			■	■
Instruction Manual	■	■	■	■

Immersion heater options

Immersion heater performance times may vary between manufacturers products of identical overall capacity due to variations in positioning the immersion heater affecting the volume of water heated.

Evocyl **AIR** units are fitted with immersion heaters as shown in the table below.

IMMERSION HEATERS

SIZE	DIRECT	INDIRECT
120/150	2 x 3kW	1 x 3kW
180/210	2 x 3kW	1 x 3kW
250/300	2 x 3kW	2 x 3kW

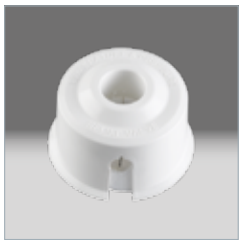
Long-life Titanium immersion heaters are also available on request. These are recommended in non-domestic or high use, multiple accommodation applications. 6kW & 9kW immersions can be specified on cylinders above 210 litres.

6kw and 12kw Incoloy or 3kw, 6kw and 12kw titanium immersions heaters are supplied as optional extras.
Please contact us to discuss your requirements.

COLD WATER INLET SET
TQX0017

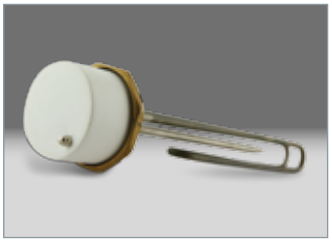
TWO PORT ZONE VALVE
TQX0047

DUAL THERMOSTAT
TQX0010

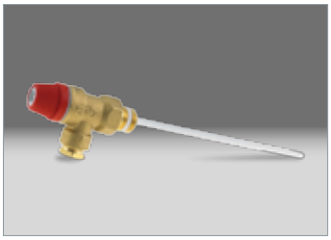


T&P INSULATION COVER
TQX0044

INSTALLATION MANUAL
TQX0000



3KW IMMERSION HEATER
TQX0002



T&P RELIEF VALVE
TQX0063

TUNDISH
TQX0024

ENERGY CUT-OUT THERMOSTAT
TQX0037

ThermaQ Cylinders reserve the right to change the design and style of the components supplied at any time. When ordering spare parts to ensure consistency and compatibility please contact our technical department who will be pleased to help you with your enquiry.


evocyl
AIR
therma

Evocyl **AIR** Specification

PRODUCT		WEIGHT EMPTY (KG)	WEIGHT FULL (KG)	FULL COLD CAPACITY (Litres)	HEAT EXCHANGE*** kW	DEDICATED SOLAR (Litres)	STANDING LOSS CYLINDER		ERP ENERGY RATING	ERP LOAD PROFILE	ERP ENERGY EFFICENCY ηwh%	ANNUAL ENERGY USAGE kWh/Year
							kWh/24h	Watts				
Evocyl AIR 120	Direct	26	133	107	-	-	1.04	43	D	M	35	1554
	Indirect	30	135	105	12.02	-	1.04	43	B	-	-	-
	Direct Super Eco	26	133	107	-	-	0.92	38	D	M	36	1426
	Indirect Super Eco	30	134	104	14.94	-	0.92	38	B	-	-	-
Evocyl AIR 150	Direct	33	171	138	-	-	1.19	50	D	M	35	1605
	Indirect	38	172	134	12.45	-	1.19	50	B	-	-	-
	Direct Super Eco	33	164	131	-	-	1.06	44	D	M	36	1463
	Indirect Super Eco	38	166	128	16.45	-	1.06	44	B	-	-	-
Evocyl AIR 180	Direct	38	207	169	-	-	1.33	55	D	L	36	2784
	Indirect	42	207	165	14.27	-	1.33	55	B	-	-	-
	Indirect Solar Single Coil	42	207	165	13.80	60	1.33	55	B	-	-	-
	Solar Twin	42	203	161	13.80/12.91	51	1.33	55	B	-	-	-
	Direct Super Eco	38	197	159	-	-	1.20	50	D	M	36	1486
	Indirect Super Eco	42	198	156	18.06	-	1.20	50	B	-	-	-
Evocyl AIR 210	Direct	41	232	191	-	-	1.40	58	D	L	36	2796
	Indirect	45	232	187	14.91	-	1.40	58	B	-	-	-
	Indirect Solar Single Coil	45	232	187	15.34	70	1.40	58	B	-	-	-
	Solar Twin	48	232	184	15.34/13.68	60	1.40	58	B	-	-	-
	Direct Super Eco	41	224	183	-	-	1.35	56	D	M	36	1512
	Indirect Super Eco	45	225	180	19.15	-	1.35	56	B	-	-	-
Evocyl AIR 250	Direct	46	281	235	-	-	1.44	60	D	XL	37	4577
	Indirect	51	281	230	14.91	-	1.44	60	B	-	-	-
	Indirect Solar Single Coil	51	281	230	17.41	80	1.44	60	B	-	-	-
	Solar Twin	53	279	226	17.41/14.78	80	1.44	60	B	-	-	-
Evocyl AIR 300	Direct	55	319	264	-	-	1.81	75	D	XL	37	4677
	Indirect	60	319	259	17.70	-	1.81	75	C	-	-	-
	Indirect Solar Single Coil	60	319	259	19.15	90	1.81	75	C	-	-	-
	Solar Twin	63	317	254	19.15/16.73	90	1.81	75	C	-	-	-
Evocyl AIR Slimline 120	Direct	26	133	107	-	-	1.13	47	D	M	33	1589
	Indirect	30	134	104	14.94	-	1.13	47	B	-	-	-
Evocyl AIR Slimline 150	Direct	33	164	131	-	-	1.36	57	D	M	33	1651
	Indirect	38	166	128	16.45	-	1.36	57	B	-	-	-
Evocyl AIR Slimline 180	Direct	38	197	159	-	-	1.51	63	D	L	36	2815
	Indirect	42	198	156	18.06	-	1.51	63	C	-	-	-
Evocyl AIR Slimline 210	Direct	41	224	183	-	-	1.66	69	D	L	36	2840
	Indirect	45	225	180	19.15	-	1.66	69	C	-	-	-

All performance testing in accordance with BS EN 12897:2006. Heat up 15°C to 60°C. Primary flow 80°C @ 15Lpm.

* Solar Twin Coil heat-up times are for boiler coil.

** Where cylinders is fitted with multiple immersion heaters, performance is for lower 3kW heater.

*** Upper Coil/Lower Coil.

SC: Single Coil

Evocyl **AIR** Pre-Plumbed

The AIR plug and go pre-plumbed unit is available right across our full range of Evocyl Standard, Twin Coil and Slimline units.

Introducing the latest addition to the ThermaQ range

EVOCYL AIR PRE-PLUMBED SYSTEM

SPECIFICATION

- 25 year cylinder warranty and 2 years parts warranty.
- Cylinder manufactured from high grade Duplex Stainless Steel specially selected for its high strength and resistance to stress and crevice corrosion.
- Lightweight construction with white goods finish.
- Flat base for additional stability.
- All plumbing connections are clearly identified and accessible at the front of the cylinder.
- Pre-fitted pipework.
- Primary heating coil for use with indirect systems.
- Solar input coil for use with solar thermal panel systems
- Totally insulated with 100% CFC-Free (ODP zero) polyurethane to minimise heat loss (50mm thick).
- Long-life 3kW Incoloy immersion heater with integral thermostat and thermal cut-out.
- "1/2" temperature and pressure relief valve operating at 90°C/10 bar.
- Indirect thermal controls.

Our Pre-Plumbed Package Solution

In addition to supplying the components for all Evocyl **AIR** Pre-Plumbed units, ThermaQ also provide the following from the standard unvented kit:

Cold Water Inlet Set	T&P Relief Valve
Tundish	3kW Immersion Heater(s)

FEATURES

- Available in indirect models sizes 120, 150, 180, 210, 250 and 300. All sizes available in twin and single zone configuration.
- Solar indirect models: 180, 210, 250 and 300 sizes available in twin and single zone configuration.
- Also available in Slimline models: 120, 150, 180 and 210 sizes.
- The Evocyl **AIR** Pre-Plumbed is also available in a system variant for use with a system boier in all sizes from 120 to 300 (supplied without pump and valves).
- Advanced 7-day programmer and room thermostat hot water (dhw) control.
- Control system provides separate control of heating and hot water zones.
- Delayed start thermostat offers SAP benefits.
- Automatic bypass valve fitted for system efficiency.
- Pressure gauge and filling loop provided.
- Factory fitted pipework.
- Manufactured in the United Kingdom.

BENEFITS

- Intuitive controls for ease of use for home owners.
- A cost effective and simplified installation for a professional, neat and tidy layout and reduced labour time.
- Installations are consistent across the range for uniformity and greater customer satisfaction.
- Factory fitted components and control assists in reducing expensive customer care visits to site.
- Stringent quality control through manufacture and assembly to ensure the units are leak free and ready to install on arrival on site.
- No requirement for fill and expansion tanks or water storage in loft spaces.
- Plug in connections for easy maintenance.

AUTOMATIC BYPASS VALVE
TQX0022

PLUG & GO DUAL STAT
TQX0015

PLUG & GO WIRING CENTER
TQX0023

7 DAY PROGRAMMER
TQX0026 (2 channel)
TQX0027 (3 channel)

PLUG & GO 2 PORT VALVE
TQX0013

AUTOMATIC AIR-VENT
TQX0020

FILLING LOOP
TQX0031

PLUG & GO PUMP
TQX0011

T&P INSULATION COVER
TQX0044

DIGITAL THERMOSTAT
TQX0070

HEATING EXPANSION VESSEL
TQX0034 (12L)
TQX0035 (18L)
TQX0036 (24L)

INSTALLATION MANUAL
TQX0000

Pre plumbed pipework and components adds approx 160mm to front of cylinder. See cylinder dimensions on page 11 and 13.

Evocyl **AIR** Pre-Plumbed Specification

PRODUCT		WEIGHT EMPTY (KG)	WEIGHT FULL (KG)	FULL COLD CAPACITY (Litres)	HEAT EXCHANGE*** kW	DEDICATED SOLAR (Litres)	STANDING LOSS CYLINDER		ERP ENERGY RATING
							kWh/24h	Watts	
Evocyl AIR Pre Plumbed 120	Standard	42	147	105	12.02	-	1.04	43	B
	System	42	146	105	12.02	-	1.04	43	B
	Super Eco	42	146	104	14.94	-	0.92	38	B
	Slimline	42	146	104	14.94	-	1.13	47	B
Evocyl AIR Pre Plumbed 150	Standard	50	184	134	12.45	-	1.19	50	B
	System	49	183	134	12.45	-	1.19	50	B
	Super Eco	50	178	128	16.45	-	0.99	41	B
	Slimline	50	178	128	16.45	-	1.36	57	C
Evocyl AIR Pre Plumbed 180	Standard	54	219	165	14.27	-	1.33	55	B
	System	53	218	165	14.27	-	1.33	55	B
	Super Eco	54	210	156	18.06	-	1.05	44	B
	Slimline	54	210	156	18.06	-	1.51	63	C
	Solar Twin	57	218	161	13.80/12.91	51	1.33	55	B
Evocyl AIR Pre Plumbed 210	Standard	57	244	187	14.91	-	1.40	58	B
	System	56	243	187	14.91	-	1.40	58	B
	Super Eco	57	237	180	19.15	-	1.38	57	B
	Slimline	57	237	180	19.15	-	1.66	69	C
	Solar Twin	60	244	184	15.34/13.68	60	1.40	58	B
Evocyl AIR Pre Plumbed 250	Standard	63	293	230	14.91	-	1.44	60	B
	System	62	292	230	14.91	-	1.44	60	B
	Solar Twin	66	292	226	17.41/14.78	80	1.44	60	B
Evocyl AIR Pre Plumbed 300	Standard	72	331	259	17.70	-	2.81	75	C
	System	71	330	259	17.70	-	2.81	75	C
	Solar Twin	75	329	254	19.15/16.73	80	2.81	75	C

All data applies to both single and twin zone cylinders.

All performance testing in accordance with BS EN 12897:2006. Heat up 15ºC to 60ºC. Primary flow 80ºC @ 15Lpm.

* Solar Twin Coil heat-up times are for boiler coil.

** Where cylinders are fitted with multiple immersion heaters, performance is for lower 3kW heater.

*** Upper Coil/Lower Coil.

EVOCYL **AIR** PRE-PLUMBED SINGLE ZONE

PRODUCT	CAPACITY (L)					
	120	150	180	210	250	300
EVOCYL AIR STANDARD	AGPPS0120	AGPPS0150	AGPPS0180	AGPPS0210	AGPPS0250	AGPPS0300
EVOCYL AIR SUPER ECO	AGSES0120ECO	AGSES0150ECO	AGSES0180ECO	AGSES0210ECO	-	-
EVOCYL AIR SLIMLINE	AGSLP0120	AGSLP0150	AGSLP0180	AGSLP0210	-	-
EVOCYL AIR SOLAR TWIN	-	-	AGPSS0180	AGPSS0210	AGPSS0250	AGPSS0300
EVOCYL AIR SYSTEM BOILER	AGSBS0120	AGSBS0150	AGSBS0180	AGSBS0210	AGSBS0250	AGSBS0300

EVOCYL **AIR** PRE-PLUMBED TWIN ZONE

PRODUCT	CAPACITY (L)					
	120	150	180	210	250	300
EVOCYL AIR STANDARD	AGPPT0120	AGPPT0150	AGPPT0180	AGPPT0210	AGPPT0250	AGPPT0300
EVOCYL AIR SUPER ECO	AGSET0120ECO	AGSET0150ECO	AGSET0180ECO	AGSET0210ECO	-	-
EVOCYL AIR SLIMLINE	AGTPS0120	AGTPS0150	AGTPS0180	AGTPS0210	-	-
EVOCYL AIR SOLAR TWIN	-	-	AGPST0180	AGPST0210	AGPST0250	AGPST0300
EVOCYL AIR SYSTEM BOILER	AGSBT0120	AGSBT0150	AGSBT0180	AGSBT0210	AGSBT0250	AGSBT0300

The Timer Switch

Designed with the home owner in mind.

The ES124716A is a 16 Amp 1 Channel Timeswitch, making it ideal for use with immersion heaters and electric boilers, controlling up to 3kW of heating at one time. It has been designed with the homeowner in mind with easy-to-use function buttons, simple overrides and a clear backlit LCD display. The programmer can be configured for 24 hour, 5/2 day or 7 day operation with preset programs for each mode, and comes with automatic BST/GMT time change clock.

The ES124716A is packed full of features, including system protection, holiday mode, optional landlord service and a 1 to 3 hour heating boost function available as a top up from the automatic running settings, perfect for social housing.

- **Holiday Mode**: Programmable from 1-99 days, holiday mode keeps the hot water system on low activity while you're away, and resumes regular activity upon your return.
- **System Protection**: In periods of low heating activity, the time switch will regularly activate to ensure that the heating system does not drop below freezing in order to protect pipes and valve from freezing damage.
- **Landlord Feature**: Useful for any properties being rented, the landlord feature allows for home owners to demonstrate to tenants via the room stat when the hot water cylinder and boiler require servicing (for up 31 days before the due date), allowing them to make sure their property is kept in correct and safe working order. Should the system not be serviced in time due to tenant non-cooperation, the landlord is able to pre-program the time switch to reduce the amount of heating the tenant receives (to a maximum of 1 hour per day) until serviced and reset by a competent engineer.

AIR WiFi Connectivity

Upgrading your pre-plumbed cylinder.

Another element that allows the Evocyl **AIR** to break the conventional boundaries of a hot water cylinder is its futuristic extras available for both the regular and pre-plumbed cylinders.

ESRTP5

This new click-on stat with large digital display has simple features to make life easier for the user. Stylish and easy to work, this variant of stat can come in many forms, dependent on what is required for the property and homeowner.

- The additional RTP5RF upgrade allows the user to connect the Programmable Room Thermostat anywhere in the house. The original unit is replaced with an RF receiver, allowing the upgraded Programmable Room Thermostat to be stand mounted and located at the homeowner's choice.

ESRTP5 WiFi

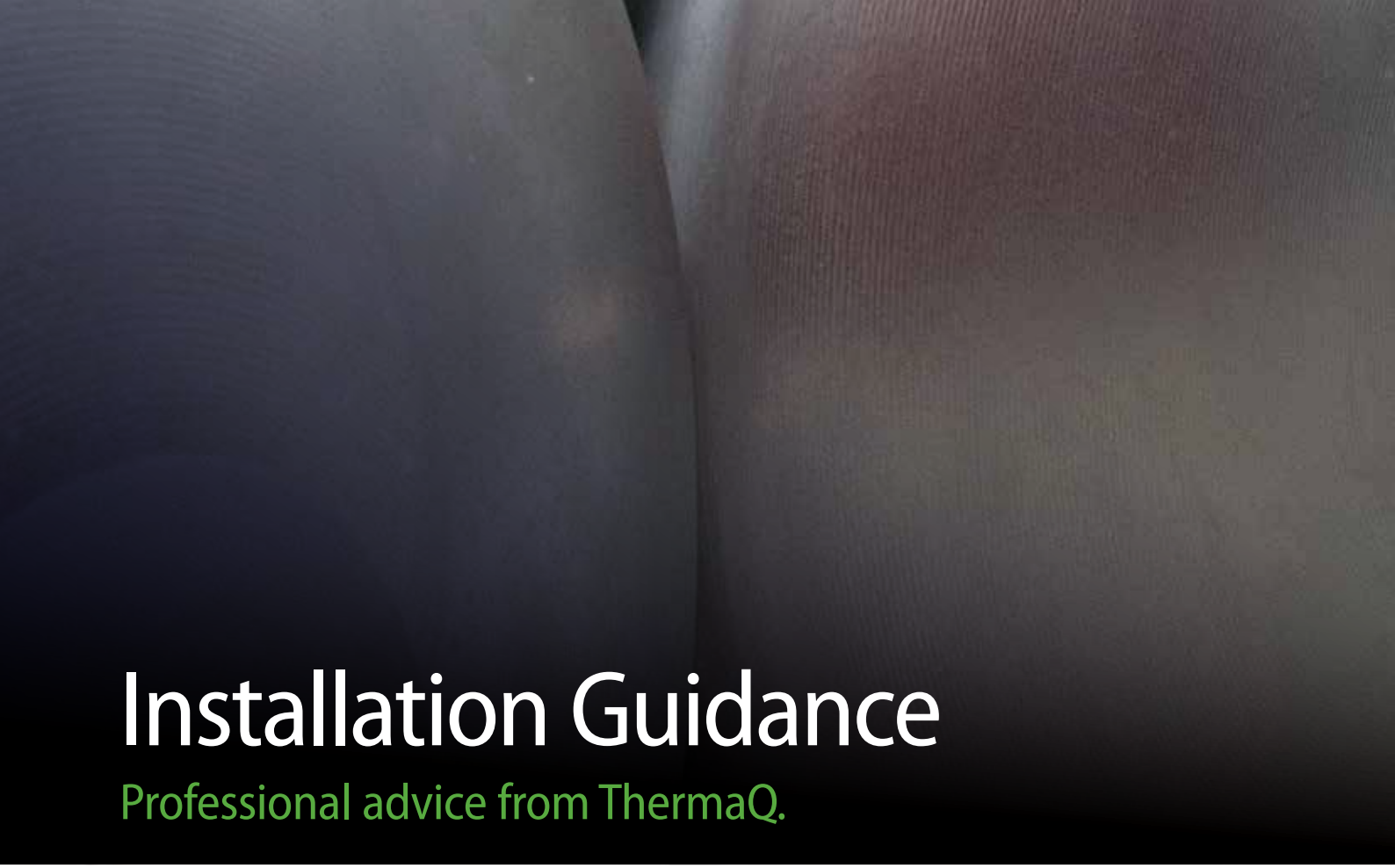
- Bringing your heating into the modern age, this upgraded unit comes as a one piece WiFi- enabled stat which can be controlled via a downloadable app onto your smartphone, allowing you to control your home's heating on the go. For use in 2 heating zones, the WiFi-enabled ESRTP5 can be used in combination with the RTP5 RF radio frequency model to allow for even further flexibility.

ESRTP6

COMING SOON

In keeping with the hands-on trend of the 21st century, the latest upgrade to the range - ESRTP6, has a touch screen panel.

A touch screen makes the stat even easier to work and brings your home well and truly into the modern age. Available incombination with Wifi and Radio Frequency compatibilities.



Installation Guidance

Professional advice from ThermaQ.

All our stainless steel cylinder range is manufactured from the very latest high specification grade of Duplex stainless steel, to resist all forms of corrosion, including crevice and stress, whilst its high mechanical strength gives it fantastic durability.

Materials

Internal cylinder - Duplex Stainless Steel.
HE Coil - 22mm Stainless Steel.
Bosses - Stainless Steel.

Totally insulated with 100% CFC-Free (ODP zero) polyurethane to minimise heat loss. White pre-coated, corrosion resistant, Zintec case work.

Control Settings

Inlet Control valve (3 bar). Temperature (90^{0}C) and pressure relief valve (7 bar). Dual thermostat high limit (85^{0}C). Immersion heater high limit (85^{0}C).

Immersion Heater

1¾" BSP, long life incoloy sheathed low noise element. Long life thermostat pocket. Element rating 3kW at 240 A/C.

Guarantee Terms Overview

The Evocyl **AIR** stainless steel inner vessel carries a fully transferable 25 year guarantee applicable from the date of purchase. The guarantee covers material defect or manufacturing faults in domestic use only, of products up to the capacity of 300 litres. Please refer to installation guide for guarantee terms for calorifiers and non-domestic installations

All components supplied with the Evocyl **AIR** cylinder are guaranteed against material defects or manufacturing defects faults for two years from date of purchase.

Full details of guarantee terms, conditions and exclusions can be found in the installation guide which is provided with the cylinder.

All unvented units with a capacity over 15 Litres must be installed by a competent installer in accordance with local and national building regulations.

Mains Supply

The Evocyl **AIR** unvented cylinder needs a minimum of 1.5 bar mains pressure and 20 litres a minute flow rate to ensure that the cylinder meets its minimum capabilities. Higher mains pressure and flow rates will result in a higher performance from the cylinder. A cold inlet set is provided with every cylinder to ensure that the maximum pressure is not exceeded upon installation.

Cylinder Siting

With no header tanks or expansion vessels to consider, the Evocyl **AIR** can be sited almost anywhere in a domestic house. Evocyl **AIR** can supply outlets both above and below its location and must be fitted on a flat surface capable of holding its full weight. It is worth noting that hydraulic resistance within pipework must be accounted for when siting the unit in a property with several floors (as per G3 regulations). For further details on siting refer to installation instructions supplied with cylinder.

Boiler Compatibility

Evocyl **AIR** is compatible with any appliance that is fitted with an integral control thermostat and its own energy cut-out (these include natural gas, lpg, electric and oil boilers). Solid fuel appliances such as Aga, Rayburn, etc. without full thermostatic control cannot usually be installed with an unvented unit. Please consult the Evocyl **AIR** installation guide for further information.

Secondary Return Connection

As standard, sizes 210, 250 and 300 of indirect boiler models are fitted with a secondary hot water tapping. Other sizes can be fitted with a secondary return if required upon request.

Wiring

All electrical wiring should be carried out by competent electrician and be in accordance with the control scheme being used and the latest IEE regulations. The controls provided with the Evocyl **AIR** will ensure the safe operation of the unit within a central heating system. The Evocyl **AIR** is compatible with Y, S and S plan plus layouts.

External wiring to the immersion heaters must comply with the relevant IEE wiring regulations and the circuit must be protected by a suitable fuse and a double pole isolating switch

Connection Sizes

Cold Inlet	22mm Compression
Hot Outlet	22mm Compression
Coil Connections	22mm Compression
Safety Valves	15mm Compression Outlet
Inlet Control Set	22mm Compression Inlet and Outlet
Tundish	15mm Compression Inlet / 22mm Compression Outlet

MANUFACTURED IN THE UNITED KINGDOM

Manufactured in the UK

Standards we consistently follow.

All our cylinders are proudly made in the UK, keeping a famous world standard, British manufacturing industry thriving. We utilise a locally skilled workforce whenever possible and the highest quality machinery to ensure accuracy wherever necessary. The perfect mix of the two provides maximum flexibility in our process to accommodate for high volume demand whilst maintaining the outstanding quality we strive for.

Every part of the cylinder manufacturing process, from foaming the cylinder with CFC-free insulation to welding the individual fittings, to punching the stainless-steel casing, is done in-house. Why? We keep manufacturing in the United Kingdom from start to finish because it allows us to take pride in our final product and keep lead times as short as possible .

NSF-WRc

CE

bsi. ISO 9001 Quality Management
FM 532921
THE MANUFACTURE AND SUPPLY OF BOTH VENTED COPPER AND STAINLESS, AND UNVENTED STAINLESS HOT WATER STORAGE CYLINDERS

benchmark
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

hot water association
CHARTER MEMBER

WRAS APPROVED PRODUCT

- **NSF-WRc** – Having NSF-WRc approval means our cylinders have been tested to national standards by an independent body focused on public health and safety.
- **BS EN 12897:2006** – All of our cylinders where possible are universally tested for heat loss, performance, product safety & durability according to, and consequently gain their ErP ratings from the BSI standard 12897:2006.
- **UK BUILDING REGULATIONS G3** – The UK building regulations relating to hot water delivery, disposal & storage. Whilst the majority of G3 responsibilities lie with the installer, we strive to provide assistance where possible, providing a competent installation manual and by using reliable suppliers for valves, fittings and other devices external to the cylinder itself.
- **BS EN ISO 9001:2015** – ThermaQ's manufacturing process and supply chain where possible are managed according to the BS EN ISO 9001:2015 standard, which is designed to streamline processes and ensure a quality end product on our behalf.
- **BENCHMARK** – The benchmark scheme designed on behalf of the HHIC ensures that responsibilities of correct commissioning and servicing lie with both the installer and manufacturer, who must follow benchmark checklists where necessary.
- **HWA** – Charter Member Audited
- **WRAS APPROVED** – Granted by representatives of water suppliers, WRAS approval is the universal UK standard to ensure that a product meets the requirements of all regulations and byelaws when installed correctly.
  - Scotland Building regulations (2004) & Technical Standard P3.
  - Northern Ireland Building regulations P5 (2000).
  - Compliant with UK Building regulations part L.
  - The UK Water Supply regulations.
  - The Scottish Water Byelaws.
  - Components CE marked to EN Standards as applicable.

About your Evocyl **AIR**

Answering the questions before you need to ask them.

Who can install my Evocyl **AIR**?

You will need a competent plumber or heating engineer who is fully qualified to install unvented hot water units. In England and Wales, an installer requires a G3 unvented qualification, or be a member of a competent person's scheme - they will have a registration card to prove they have obtained this certification. The equivalent for Scotland is P3 and for Northern Ireland it is P5.

When should I get my Evocyl **AIR** serviced?

To ensure the 25 year transferrable cylinder warranty remains valid, the vessel must be serviced annually and the log (found in the back of the installation manual) filled in. For ease to the homeowner we recommend booking a cylinder service at the same time and date as the boiler's annual service.

My Evocyl **AIR** isn't working correctly, who do I contact?

To avoid confusion between engineer setups, we recommend contacting the original installer of the cylinder should you encounter any problems. Our technical team will be more than happy to assist over the phone to solve any problems, and if needs be, we also have a team of fully qualified engineers in house that can visit your property in the event of a significant problem or emergency.

I need a new replacement part for my Evocyl **AIR**, who can I buy them from?

To avoid confusion and to avoid any safety defects from using wrong parts, we recommend buying from a listed plumbers merchant who can order parts from us directly via the product codes stated in this brochure.

Why is water dripping from my tundish?

All unvented water systems require a tundish to provide an air gap into the system that allows running water from the emergency discharge to be seen by the homeowner as per G3 UK regulations.

Dripping water in the tundish may be indicative of a problem within the hot water system, and consequently one of the safety devices may be opening. We advise having a competent and qualified unvented engineer look at the system to diagnose and rectify any problems.

Should you have any other questions about our products or their installation, please do not hesitate to call our technical team.

TECHNICAL TEAM
01924 270847

Our Products

Ongoing Investment in Quality.

ThermaQ constantly invests in the latest manufacturing technology and systems to develop robust and automated processes. This ensures we produce the best product at the best value and consistently set the standards others aspire too.

The key to our success has been our ability to produce the majority of components in house giving us 100% control over a wide range of products we are able to manufacture all under one roof. This flexibility allows us to meet customers needs and deadlines even if there is a change in specification requirements.

You may have a need for a Slimiline, Pre-Plumbed or Super Eco and we pride ourselves on using experienced local skills to operate the machinery to offer prompt and flexible service to satisfy these requirements.

Our range of copper cylinders are manufactured in accordance with British Standards. We offer a vast selection, including made to order, bespoke types using our Therma Quick service. See from page 29.

All our stainless steel products are manufactured from a high specification grade of Duplex stainless steel to resist all forms of corrosion, including crevice and stress, whilst its high mechanical strength gives it fantastic durability.

Apart from our significant capability to produce large volumes of standard products, we have also developed a reputation as the go-to business when our customer needs a bespoke or special product.

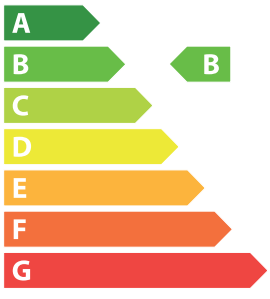
All the component parts we supply are from leading manufacturers and are fully compliant with current regulations & standards and are certified BS, CE or BEAB approved.

We aim to set the benchmark when it comes to quality, performance and endurance. Our products are fully tested and compliant with the latest standards and regulations and supplied with a field service engineer backed manufacturers guarantee.

Our Environment

Working towards a Sustainable Future.

At ThermaQ we strive to ensure that waste is kept low throughout our high efficiency manufacturing process, and proudly endorse the ErP scheme on all cylinders to minimise our environmental impact on the planet.



ENERGY EFFICIENT LABELS

What is the ErP directive?

The EU have introduced the ERP (Energy related products) directive to help reduce energy consumption and set minimum standards for product performance. The ERP energy labelling system is now applicable to hot water storage products and ThermaQ products are supplied with an appropriate label similar to the example shown.

OBJECTIVES

- Manage all processes in a responsible manner.
- Comply with all relevant environmental standards, laws, and guidelines.
- Prevention of pollution or waste at source with the use of an effective management system.
- Involvement of all our staff in support of our Environmental Policy.
- Continual improvement of environmental performance.
- Continual product development through design to reduce environmental impact in both manufacture and operation.
- Aim to comply with the environmental and ethical policies of our customers.

Our Partnerships

Building better Relationships.

Through our relationships with our suppliers and stockists, ThermaQ have formed an understanding and appreciation of your requirements to enable us to best support your needs.

Suppliers

Our world class international suppliers play an integral part to the success of ThermaQ so we ensure we select companies to work with that share our customer values and a desire to innovate the products they supply to us. They appreciate our reputation can be influenced by the performance and reliability of their products, so we maintain strong and committed relationships and continually review all aspects of our business together. We have a mix of market leaders and lesser known but very innovative companies that we work with which gives us an unrivalled offer to our customers.

Nationwide Stockists

ThermaQ products are available from hundreds of outlets across the UK and with our prompt delivery service you are only ever a short time away from receiving your product. We believe in long term relationships with our Blue Chip distributor networks and we continually strive to improve our service with these stockists helping them to add value to the supply chain.

Please contact us on **01924 270847** or sales@thermaq.co.uk if you require details of local stockists.

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Customer Care

Looking after our Customers.

Rest assured that if you need customer care support with any ThermaQ product, we have the service engineers and sales support to help you at any step along the way.

Customer Care

All cylinders come with a 25-year vessel and 2-year parts warranty for customer peace of mind. If you have a breakdown or fault with your ThermaQ product, then we can provide you with a prompt response and competitive price to repair your product.

All cylinder returns are tested in-house to replicate faults that have been problematic out in the field. This allows us to prevent future problems through changing the manufacturing process and advance our reputation as a business – a problem with our products matters as much to us as it does to you!

Simply contact us on **01924 270847** or email customercare@thermaq.co.uk and one of our team will be on hand to assist you. We will ask for your contact information and the full details of the fault so we can book you a slot with our highly skilled engineers.

OUR SERVICES

- Breakdown Repair.
- Preventive Maintenance Plans.
- Installation and Commissioning.
- Consultancy and Advice.

Design Services

Systems for you or your Customers.

ThermaQ offer heating & plumbing design services through our partner DHD (Domestic Heating Design Ltd). Providing design packages to the new-build domestic market and all types of properties; from the self-build up to large sites for the major house builders throughout the UK, involving all types of heating systems including solar and heatpumps.

Domestic Heating Design - from ThermaQ

ThermaQ is proud to have worked on a large number of developments throughout the UK with our partner Domestic Heating Design Ltd. With core skills and services in place, they ensure that all our building services designs are energy efficient and incorporate world class design practice. From the outset they work closely with our clients to achieve the lowest carbon footprint with cost effective, integrated and energy efficient building solutions.

DHD work with our clients to get the best out of their buildings, from the initial design and the ongoing life of the building to ensure that it will perform for the end user. They'll consider ease of installation, maintenance, performance and the energy efficiency of the services.

Our people

Our customers benefit from DHD skilled engineers, who are able to provide practical designs gained from an unrivaled understanding of the construction industry.

DHD design software

DHD use a range of industry approved engineering software. AutoCAD is used for all our 2D and 3D designs. Domestic Heating Design Ltd is a BIM ready consultancy; we are fully committed to the use of Building Information Modelling (BIM) on future projects.

Our objective is to minimise where possible any environmental impact arising from our building services designs.

AREAS OF EXPERTISE

- Building Information Modelling (BIM)
- Mechanical and Electrical Design Services.
- Standard Assessment Procedure (SAP).
- Sustainable and Low Energy Design

Commitment to sustainable building

DHD have experience of designing to 'The Code for Sustainable Homes' standard, BREEAM, the 'Passivhaus' standard and all current building regulations.

To support our designs and energy solutions we have accredited SAP assessors within our team. This allows us to produce designs and SAPs hand in hand within one team

Whether you want to reduce the energy consumption of a building to comply with building regulations, meet a standard, manage your carbon reduction commitment, reduce your energy bills or reduce your carbon emissions, our partner DHD has the knowledge to guide you, based upon years of experience of low or zero carbon technology.

Standard Assessment Procedure (SAP) Services

Standard Assessment Procedure has been adopted by the UK Government as a methodology for estimating the energy performance of planned domestic buildings.

The calculation takes into account a range of factors that contribute to energy efficiency such as:

- Materials used for construction of the dwelling
- Thermal insulation of the building fabric
- Ventilation characteristics of the dwelling and ventilation equipment
- Efficiency and control of the heating system
- Solar gains through openings of the dwelling
- Fuel used to provide space and water heating, ventilation and lighting and renewable energy technologies.

The calculation determines a number of indicators of energy performance these being, an energy cost rating (the SAP rating), an Environmental Impact rating based on CO2 emissions (the EI rating) and a Dwelling CO2 Emission Rate (DER).

The SAP and Environmental Impact rating are based on the energy costs and annual CO2 emissions associated with space heating, water heating, ventilation and lighting, less cost savings from energy generation technologies. They are adjusted for floor area therefore independent of dwelling size for a given built form. The ratings are expressed on a scale of 1 to 100, the higher the number the lower the running costs and better the standard.

The Dwelling CO2 Emission Rate is a similar indicator to the Environmental Impact rating, which is used for the purposes of compliance with building regulations. It is equal to the annual CO2 emissions per unit floor area for space heating, water heating, ventilation and lighting, less the emissions saved by energy generation technologies, expressed in kg/m^2/year. It is this measurement that compliance for building control is measured against.

The SAP tool is also used to generate Energy Performance Certificates for on-construction domestic buildings.

When is a SAP rating required?

If you are planning to construct any new building that will be used as a residence, obtaining a SAP Rating and a Dwelling Emission Rating is generally required prior to starting the construction phase

Although relatively straightforward to produce, striking the right balance of improvement is not simple. Whilst the SAP should never be used as a design tool, it is highly recommended dealing with an assessor who will be able to spot easy to remedy problems and offer sensible advice to ensure compliance. DHD have a huge span of experience in challenging, tricky building developments and always take a client - first perspective when approaching compliance.

Getting Started

To arrange a SAP calculation, or for expert advice contact DHD to see how they can help.

Domestic Heating Design

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THE MANUFACTURE AND SUPPLY OF BOTH VENTED COPPER AND STAINLESS, AND UNVENTED STAINLESS HOT WATER STORAGE CYLINDERS

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