

Heat Pump Solutions

2nd Edition



Manufacturing is in our DNA....

Proud of our manufacturing heritage, we value our reputation and the trust of our customers. We understand that the quality of our products underpins both our own and our customers' success. For you, our customer, this means that when you sell, specify or install our products, your reputation is in safe hands.



altecnic
CALEFFI group

Hydronic
solutions for the
plumbing and
heating industry

Committed to
delivering accredited
and compliant
products to Trade,
OEM and Specification
Customers



About us

From our 7500 m³ HQ in Stafford, Altecnic has supported the UK & Republic of Ireland plumbing industry for over 35 years. We understand that today's plumbing and heating components have to do much more than simply transport gas and water, and Altecnic's range meets every requirement for every application, from UK & EU legislation to global environmental standards.

Trade

Altecnic have supported Trade Merchants and their customers for over 35 years and we're proud to be their partner of choice. Visit altecnic.co.uk/trade to find out more.



OEM

Altecnic works hard to provide valuable partnerships with our OEM customers. Our dedicated OEM experts support our customers production requirements, through the design of bespoke product and package solutions, which are complemented by our reliable and quality service. Visit altecnic.co.uk/oem to find out more.



Specification

Whether for a plant room, a hospital, or a heat network in a 16 storey apartment block, we provide the optimum hydronic solutions for any construction project. Visit altecnic.co.uk/specification to find out more.



We understand when you need a product, you need a product you can trust and for it to be with you when you need it.

Purpose-designed components for heat pump systems

Altecnic products are:

- Available to order direct to site
- Available in a range of sizes
- Meet every requirement for every application from UK, EU & UKCA legislation to global environmental standards
- Supported by our technical team who are available to answer any questions or queries by phone or by email
- CPD training packages available
- Available on BIMObject. Find out more here: <https://bim.caleffi.com>

BIM
Ready



Developed and thoroughly proven by our parent company in Italy, Altecnic's heat pump product range is purpose-designed for use in geothermal systems. The range includes components for ground loops, heat pumps and heat distribution systems.

The Altecnic name guarantees purpose-designed products, eliminating any risk of installing fittings adapted from traditional applications which may not be able to cope with the ultra high temperatures and demands of a geothermal system.

Our quality and environmental standards are proven by our ISO 9001:2015, ISO 14001:2015, ISO 27001:2022 and 45001:2018 certification. If you have any questions about product choice or installation, we'd be happy to help.

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altecnic
CALEFFI group



iStop®



Sustainability, quality & innovation go hand in hand

Sustainability, quality & innovation are embedded into the culture at Altecnic. From designing products that last, to the production methods we use, our commitment to recyclable packaging, and in the way we power our vehicles.

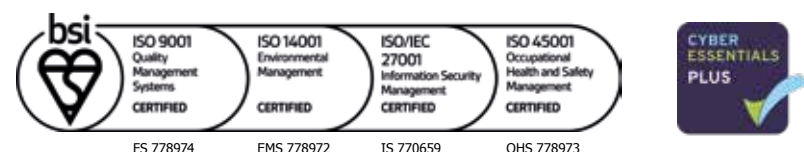
Altecnic is an environmentally responsible business, Investors in People accredited and proud to be ISO 9001:2015, ISO 14001:2015, ISO 27001:2022 and 45001:2018 certified.

UP TO
30%
ENERGY SAVING

Look out for our energy efficient products marked with up to 30% energy saving



We're reducing our environmental impact through innovative product design & packaging materials



INVESTORS IN PEOPLE
We invest in people Silver

INVESTORS IN PEOPLE
We invest in apprentices Gold



Learn more about our sustainability initiatives



Please note

WRAS Approved Products

Details of the range of products approved can be found in the Water Fittings and Materials online directory:

www.wrasapprovals.co.uk*



KIWA product approval scheme

Details of KIWA approved products can be found online at:

www.kiwa.co.uk/waterproducts*



NSF Certified Products

Details of NSF certified products to TMV2, TMV3 and CIAS (DTC) can be found online at:

www.nsf.org*



UKCA & CE products

Details of UKCA & CE range of products identified by logo*



* For full details of certified products please refer to our technical department.

Supporting our customers

Customer Service

Customers across the UK & ROI can rely on our experienced customer service team to be available when and where you need them.

We understand that when you need a product, you need it fast. We're proud to offer Guaranteed Next Day Delivery* for a small charge. Altecnic has a £100 minimum order charge with the majority of orders delivered to the customer the next day.

* Cut off times apply.

Technical Support

The Altecnic technical department are the go-to team for any technical product installation, commissioning or maintenance query you or your customers may have.

Our technical team works hard to provide you with all the answers you need about Altecnic products. From giving you advice on product specifications, problem-solving, to delivering training courses, we are always on hand to help.

Sales & Marketing Support

We have regional sales managers out on the road to support each customer across the UK.

We can help to provide support not only on the phone, but also in person, such as in-branch events like coffee mornings and sales promotions to help your customers find the right Altecnic products.

Our marketing team can provide high-res product images, product information, brochures, leaflets and POS displays.

Product Training & CPDs

Our customers can benefit from the wealth of expertise and experience the Altecnic team has as part of our training academy. Our CIBSE accredited CPDs are delivered by experts including CIBSE accredited heat network consultants.

Our product training sessions are delivered by those with practical experience of installing, commissioning, maintaining and testing all manner of hydronic products.

We are thrilled to announce the launch of Altecnic Academy, our new digital learning platform. Altecnic Academy provides on demand training, giving you access to FREE CIBSE accredited CPD's, delivered by industry experts at a time that suits you. Sign up using the QR code.

Plus, we have a wide range of technical resources, including how to videos, on our website and YouTube channel.



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here



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Visit our
website
for more
information
on training



Improve your knowledge and sign up today

altecnic
ACADEMY

Altecnic Academy is our new digital learning platform, where you can access **FREE CIBSE Accredited CPDs**, delivered by industry experts at a time that suits you!



Latest Topics Include

- Pressure Reducing Valves
- Legionella Considerations When Reactivating Buildings
- System Design For Efficiency for Using Electronic Intelligent HIUs
- Expansion Vessels
- Sealed Heating Systems
- Thermostatic Mixing Valves
- System Balancing

NEW



Sign up
to Altecnic
Academy



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General: +44(0) 1785 218200

Scan the QR code to find out more about our 5-year Warranty



Altecnic product quality & warranty

5-year Warranty

Our customers can benefit from the added peace of mind of 5-year warranty on selected products. The Caleffi 5-year warranty applies to our most trusted products to highlight their quality and reliability. Our Reflex 5-year warranty applies to our high quality, anti-corrosive, nitrogen filled expansion vessels.



OUR 5 YEAR WARRANTY INCLUDES SELECTED PRODUCTS IN THE FOLLOWING CATEGORIES:

- Thermostatic Mixing Valves
- Radiator Valves
- Silfra Commercial Washroom Products
- Pressure Reducing Valves
- Nitrogen Filled Vessels

Water Regulation 4 Compliance

It is a legal requirement in the UK that all systems connected to drinking water must be installed using products that comply with the water regulations. The Water Supply (Water Fittings) Regulations 1999 apply to England and Wales with comparable regulation for Scotland within Scottish byelaws (The Water Supply (Water Fittings) (Scotland) byelaws 2014, and in Northern Ireland the Water Supply referred to as Regulation 4 or "Reg 4".

According to The Water Supply (Water Fittings) Regulations 1999 "Every water fitting should be of an appropriate quality or standard and be suitable for the situation in which it is used". As part of this regulation the installer must demonstrate compliance to appropriate British or European standards. In order to be certified, products are tested to ensure they perform to the specification and can be approved by the following regulators:

WRAS Approved Products

Details of the range of products approved can be found in the Water Fittings and Materials online directory:

www.wrasapprovals.co.uk*



KIWA product approval scheme

Details of KIWA approved products can be found online at:

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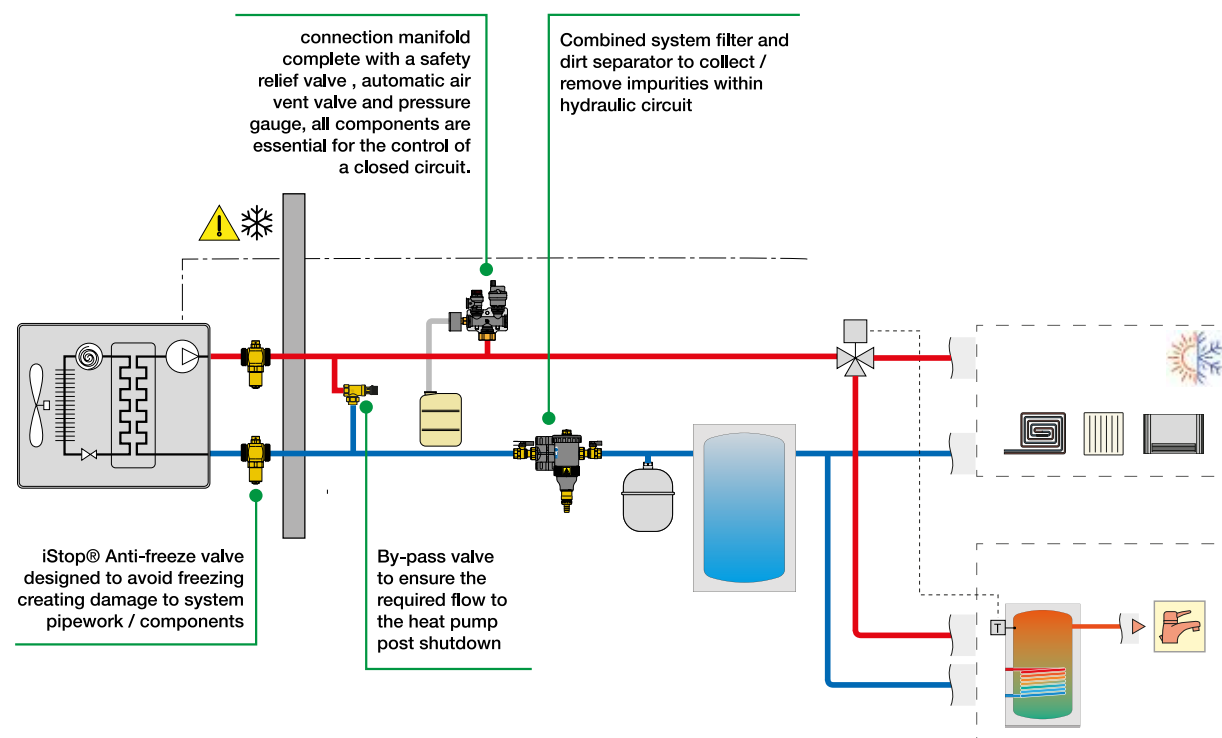
* For full details of certified products please refer to our technical department.

Heat Pump Systems

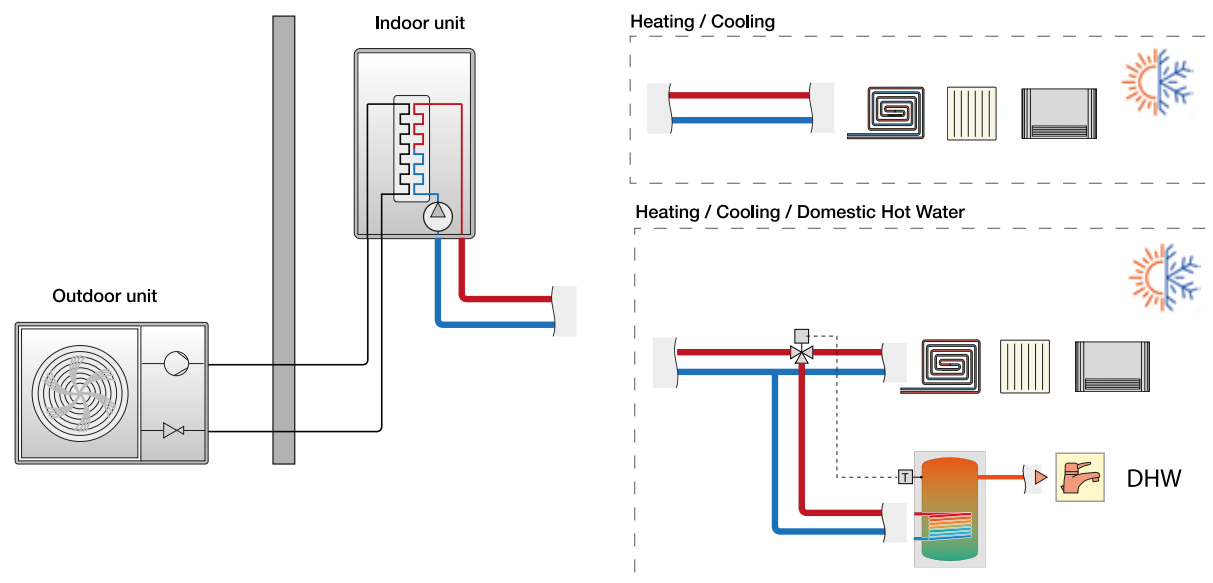
The products in the CALEFFIGEO® series have been conceived specifically for use in heat pump systems. The thermal medium in circuits with air source heat pump can reach very low temperatures; for this reason the components are made with high-performance materials and special solutions to prevent freezing are offered.

Monobloc air source heat pump

Air-source heat pump systems have numerous advantages among renewable energies: they do not require land or outdoor space, nor specific authorisations and do not require expensive excavation or installation of heat exchangers. However, they also have limits that must be adequately taken into account: these limits are related to the strong thermal variations of the outside air temperature. The external air can in fact reach very low temperatures and therefore make the heat pump work with very limited COP values, values that can make the system work with too high costs.

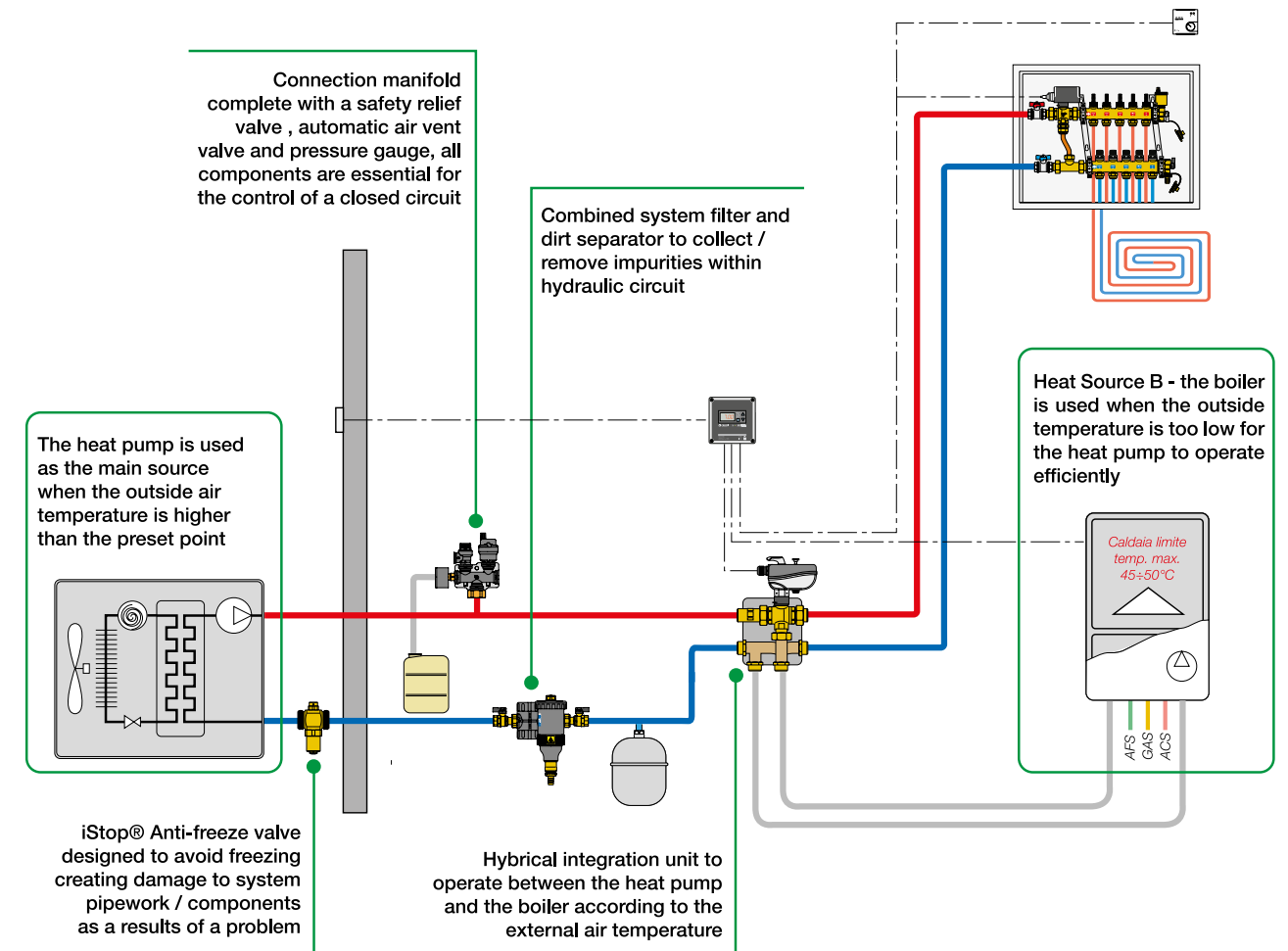


Air source heat pump with outdoor unit and indoor unit



Air source heat pump combined with condensing boiler

With low air temperatures, it is advisable to provide for the use of boilers that can intervene, as an aid or as an alternative, to the air-water PDCs. In practice, the boilers come into operation when the cost of the heat that can be produced by the PDC is no longer convenient.



When is it convenient to use the heat pump?

A PDC produces thermal energy at lower cost than a boiler only if:
 $COP > R$

COP = coefficient that expresses the performance of the PDC
 R = ratio between electric kWh and gas kWh

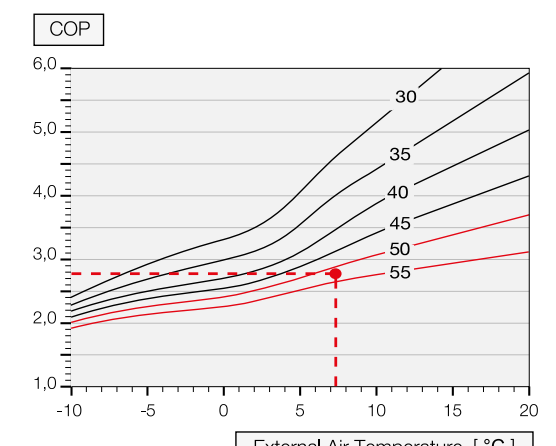
$$R = \frac{C(kWh.e) \cdot PCI \cdot \eta}{C_{gas}}$$

The cost per kW hour that gas can be calculated as:

$$C(kWh.g) = \frac{C_{gas}}{PCI \cdot \eta}$$

C_{gas} = cost Nm³ gas
 PCI = lower calorific value of gas [kWh/Nm³]
 η = combustion efficiency:
 $\eta = 0,70 \div 0,80$ old boiler
 $\eta = 0,90 \div 0,95$ new non condensing boiler
 $\eta = 0,95 \div 1,05$ new condensing boiler

The alternation temperature of the generators (or setpoint temperature) is then determined, with the COP / temperature diagram of the PDC manufacturer, based on the design temperature of the PDC and the minimum COP to be assumed equal to the value of the coefficient R .



HEAT PUMPS - ACCESSORIES

133-5102



FILTER & FROST PROTECTION PACK

Ref no	Description
133-5102	DIRTMAG® PLUS, 28mm Anti-Freeze Valves & High Flow Bypass Valve (Compression)
133-1064	DIRTMAG® PLUS, 1" Anti-Freeze Valves & High Flow Bypass Valve (Male)

PACK INCLUDES:

- DIRTMAG® PLUS (545373)
- 2 x Anti-Freeze Valves (108301/108601)
- 1 x High Flow Bypass (519002/519500)

133-5101



COMMISSIONING PACK - OUTDOOR / INDOOR MODEL

Ref no	Description
133-5101	Fill & Flush Valve & Flow Meter

PACK INCLUDES:

- 1 x 28mm Fill & Flush Valve (124-1502)
- 1 x 1" Flow Meter (132602)

133-5100



CONNECTION PACK - OUTDOOR MODEL

Ref no	Description
133-5100	Swivel Filter Isolation Valve & Swivel Isolation Valve

PACK INCLUDES:

- 1 x 28mm x 1" Swivel Filter Isolation Valve (AI 0396A062815CR)
- 1 x 28mm x 1" Swivel Isolation Valve (124-1035 CST)

133-5103



FLEXI CONNECTION PACK - OUTDOOR MODEL

Ref no	Description
133-5103	Flexible hoses

PACK INCLUDES:

- 2 x 28mm x 1" Flexible Hose (400mm long - not WRAS approved)

128-3601



AIR SOURCE HEAT PUMP HOSE C/W INSULATION

Ref no	Description
128-3601	1" x 28mm ASHP Hose c/w insulation - Straight
128-3602	1" x 28mm ASHP Hose c/w insulation - Angled

PACK INCLUDES:

- A pair of 28mm ASHP Hose c/w insulation

NEW

HEAT PUMPS - ACCESSORIES

INTERMEDIATE VESSELS

Ref. no	Cap (L)	Connection (inches)	Max pressure
PV6I	6L	¾" M BSP	10 bar
PV12I	12L	¾" M BSP	10 bar
PV20I	20L	¾" M BSP	10 bar
PV40I	40L	1" M BSP	10 bar
PV60I	60L	1" M BSP	10 bar
PV200I	200L	DN40 Flanged	10 bar
PV300I	300L	DN40 Flanged	10 bar
PV350I	350L	DN40 Flanged	10 bar



NEW

CE marked
UK
CA

SPECIFICATION

- Body: Carbon Steel, Epoxy Coated
- Max Working Temperature: 110°C



Find out more
about Heat Pump
Accessories here



HEAT PUMPS - BUFFER TANKS

569012



SERIES 569 - WALL MOUNTED BUFFER TANK FOR HEAT PUMP

Ref. no	Cap (L)	Connection (inches)	Energy Class	Max pressure	Weight Dry (kg)
569008	8	1"	B	4 bar	6.5
569012	12	1"	B	4 bar	7.5
569025	25	1"	B	4 bar	11
569050	50	1"	B	4 bar	16
569080	80	1 1/4"	C	4 bar	18
569100	100	1 1/4"	C	4 bar	24

Buffers either for hot or cold water have two main functions: they work both as hydraulic separator and buffer tank. The hydraulic separator makes the heat pump flow rates and terminals flow rates unconnected. The buffer function reduces the heat pump on/off switchings.

SPECIFICATION

- Max working pressure: 4 bar
- Temperature range: -10°C - 95°C
- Connection: 8-50 litre - 1", 80-100 litre - 1 1/4"
- Max percentage of glycol: 30%

502050



ACCESSORIES FOR SERIES 569 BUFFER TANK

Ref no	Size	Connections	Pressure	Max Temp	Description
502050	3/4"	M BSP	Discharge 2.5 bar	120°C	MINICAL® w/hygroscopic cap
502060	1"	M BSP	Discharge 2.5 bar	120°C	MINICAL® w/hygroscopic cap



SPECIFICATION

- Automatic air vent
- In hot-stamped brass
- With hygroscopic safety cap
- Max. discharge pressure: 2.5 bar
- Max. working temperature: 120°C
- Max. working pressure: 10 bar

BV1000E



NEW

SERIES BV - BUFFER TANK FOR HEAT PUMPS

Ref. no	Cap (L)	Connection (inches)	Energy Class	Max pressure
BV500C	500	1 1/2", 1/2" F BSP	C	6 bar
BV800E	800	1 1/2", 1/2" F BSP	C	6 bar
BV1000E	1000	1 1/2", 1/2" F BSP	C	6 bar
BV1500E	1500	1 1/2", 1/2" F BSP	C	6 bar
BV2000E	2000	1 1/2", 1/2" F BSP	C	6 bar
BV3000E	3000	2", 1", 1/2" F BSP	N/A	6 bar
BV5000E	5000	2", 2 1/2" F BSP	N/A	6 bar

SPECIFICATION

- Max Working Temperature: 99°C
- Body: Mild Steel
- Finish: Grey Insulation
- Gauge: No



BVS2



NEW

ACCESSORIES FOR BV SERIES BUFFER TANK

Ref no	Description
BVS1	1 1/2" M BSP 200-400mm S/Steel Extensible Hose Kit
BVS2	Thermometer for Buffer (single)
BVS3 CST	Thermometer for Buffer (Box of 5)

HEAT PUMPS - BUFFER TANKS

SERIES 548 - WALL MOUNTED BUFFER TANKS

Ref. no	Cap (L)	Connection (inches)	Max pressure	Weight Dry (kg)	ErP
548515	15	1" F	4 bar	11	A
548520	20	1" F	4 bar	12	A
548525	25	1" F	4 bar	13.5	A
548530	30	1" F	4 bar	14.5	A
548550	50	1 1/4" F	4 bar	17	A

NEW



548515

SPECIFICATION

- Working temperature range: -10 - 110°C (without the formation of ice)
- Max working pressure: 4 bar
- Finish: PPE Insulation
- Max. percentage of glycol: 30%
- Front probe holder connection 1/4" F
- Body: Stainless Steel

SERIES 548 - WALL MOUNTED BUFFER TANKS FOR HYBRID SYSTEMS

Ref. no	Cap (L)	Connection (inches)	Max pressure	Weight Dry (kg)	ErP
548551	50	1 1/4" F	4 bar	17	A

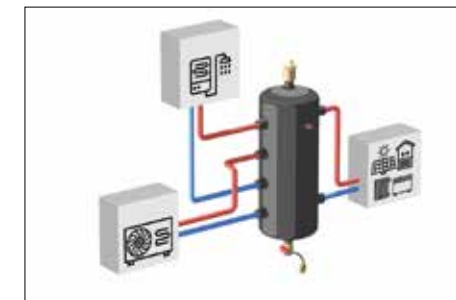
NEW



548551

SPECIFICATION

- Working temperature range: -10 - 110°C (without the formation of ice)
- Max working pressure: 4 bar
- Finish: PPE Insulation
- Max. percentage of glycol: 30%
- Front probe holder connection 1/4" F
- Body: Stainless Steel



ACCESSORIES FOR SERIES 548 WALL MOUNTED BUFFER TANKS

Ref no	Description
502067	1" M Auto Air Vent c/w Hygroscopic Cap

NEW



502067

SPECIFICATION

- Finish: Brass
- Discharge pressure 2.5 bar
- Max temp 120°C



HEAT PUMPS - ANTI-FREEZE PROTECTION

108301

iStop



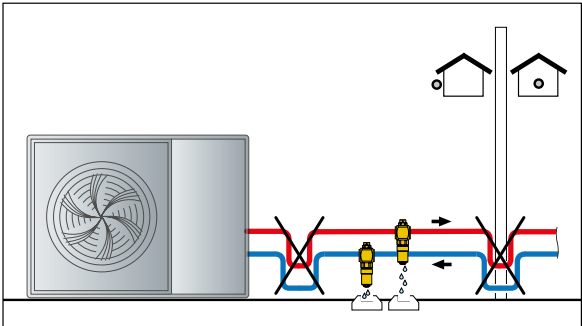
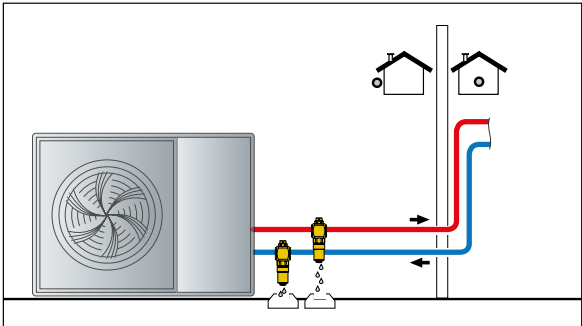
SERIES 108 - iSTOP® - ANTI-FREEZE VALVE

Ref no	Size	Body
108601	1"	Brass
108701	1 ¼"	Brass
108801	1 ½"	Brass
108301	28mm	Brass

SPECIFICATION

- Max. working pressure: 5 bar
- Temperature range: 0–65 °C
- Ambient temperature range: -30–60 °C
- Opening temperature: 3 °C
- Closing temperature: 4 °C

2023 WINNER
DESIGN PLUS
powered by: ISH



108611

iStop



SERIES 108 - iSTOP® - ANTI-FREEZE VALVE C/W AIR SENSOR

Ref no	Size	Body
108611	1"	Brass
108711	1 ¼"	Brass

SPECIFICATION

- Max. working pressure: 5 bar
- Temperature range: 0–65 °C
- Ambient temperature range: -30–60 °C
- Opening temperature: 3°C
- Closing temperature: 4°C
- Anti freeze function when external air temperature is below 5°C

2023 WINNER
DESIGN PLUS
powered by: ISH

HEAT PUMPS - ANTI-FREEZE PROTECTION

SERIES 108 - iSTOP® PLUS - COMPACT ANTI-FREEZE VALVE

Ref no	Size	Body
108322	28mm	Brass
108622	1"	Brass

SPECIFICATION

- Max. working pressure: 10 bar
- Temperature range: 0–90 °C
- Ambient temperature range: -30–60 °C
- Opening temperature: 3 °C
- Closing temperature: 4 °C

CARTRIDGES FOR SERIES 108 - iSTOP® PLUS

Ref no	Description
F0002131	Vacuum Breaker Cartridge

iStop



108322

NEW



108622

FULL FLOW DIFFERENTIAL BYPASS VALVES

518500



SERIES 518 - ECOPAS FULL FLOW DIFFERENTIAL BYPASS VALVE

Ref no	Size	Connections	Body	Delta P Range	Temp
518002	22mm	Compression	Angled	Adjustment range 10 - 60 kPa	Max 100°C
518015	¾" x ¾"	M x M BSP	Straight	Adjustment range 10 - 60 kPa	Max 110°C
518500	¾"	F x M BSP	Angled	Adjustment range 10 - 60 kPa	Max 100°C

Valves for use on heating systems where control is by zone or thermostatic radiator valves. Fitted between flow and return permitting circulation through boiler and helps prevent unnecessary cycling of boiler.

SPECIFICATION

- Temperature setting range: 0 - 110°C
- Max working pressure: 10 bar
- Medium: water, glycol solutions
- Max percentage of glycol: 30%

FULL FLOW DIFFERENTIAL BYPASS VALVES

519002



SERIES 519 - ECOPAS FULL FLOW DIFFERENTIAL BYPASS VALVE

Ref no	Size	Connections	Body	Delta P Range	Temp
519500	¾" x ¾"	F x M BSP	Angled	Adjustment range 10 - 60 kPa	Max 110°C
519700	1 ¼" x 1 ¼"	F x M BSP	Angled	Adjustment range 10 - 60 kPa	Max 110°C
519504	¾" x ¾"	F x M BSP	Angled	Adjustment range 100 - 400 kPa	Max 110°C
519703	1 ¼" x 1 ¼"	F x M BSP	Angled	Adjustment range 50-250 kPa	Max 110°C
519002	22mm x 22mm	Compression x Compression	Angled	Adjustment range 10 - 60 kPa	Max 110°C

Valves for use on heating systems where control is by zone or thermostatic radiator valves. Fitted between flow and return permitting circulation through boiler and helps prevent unnecessary cycling of boiler.

SPECIFICATION

- Temperature setting range: 0 - 110°C
- Max working pressure: 10 bar
- Medium: water, glycol solutions
- Max percentage of glycol: 30%

HEAT PUMPS - CALEFFI XF

577500



CALEFFI XF

MULTIFUNCTION DEVICE WITH DIRT SEPARATOR AND STRAINER

The CALEFFI XF dirt separator filter separates the impurities present in the system up to dimensions of 160 µm. Its large filtering surface minimises the problem of mesh clogging.

The system water is treated in three distinct steps: (1) a first separation mesh, (2) a central magnet and (3) an outlet filter.

CALEFFI XF allows continuous protection of the generator and devices from impurities that form in the hydraulic circuit. It can be oriented for installations on horizontal and vertical pipes.

No shut-off valves are required for maintenance of the device as it is equipped with a brush cleaning mechanism.

CBN 577500



Available with preformed insulation

PCT
INTERNATIONAL
APPLICATION
PENDING

SPECIFICATION

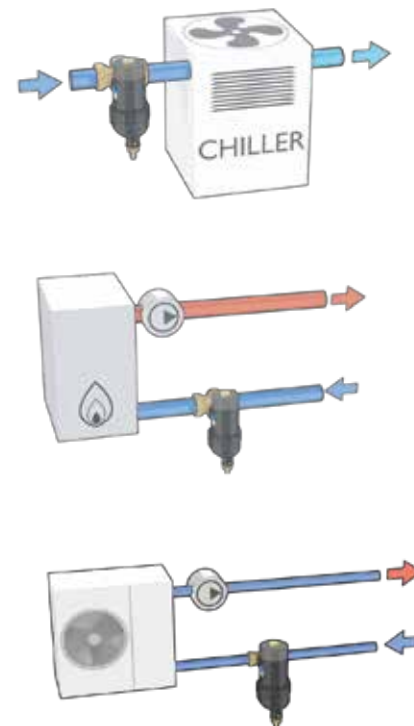
- Medium: water glycol solutions
- Max percentage of glycol: 30%
- Max working pressure: 3 bar
- Temperature range: 5 - 90°C
- Vertical/Horizontal connection
- Polyamide 66 body



Ref no	Size
577200	Ø 22mm
577300	Ø 28mm
577500	¾"
577600	1"
577700	1 ¼"
CBN577500	Preformed Insulation for: 577200/300/500/600/700



Application diagrams of CALEFFI XF



HEAT PUMPS - CALEFFI XF WITH BYPASS

577800



CALEFFI XF WITH BYPASS

MULTIFUNCTION DEVICE WITH DIRT SEPARATOR AND STRAINER

Sizes DN 40 (code 577800, 1 ½") and DN 50 (code 577900, 2") are equipped with a by-pass to restrict the flow rate passing through the device and thereby increase the Kv value.

We recommend 100% filtration during commissioning and for the first few weeks of system operation. Then, during the "constant" phase, the device can be set to operate with by-pass to achieve a higher Kv.

CBN 577500



NEW

Available with preformed insulation

PCT
INTERNATIONAL
APPLICATION
PENDING

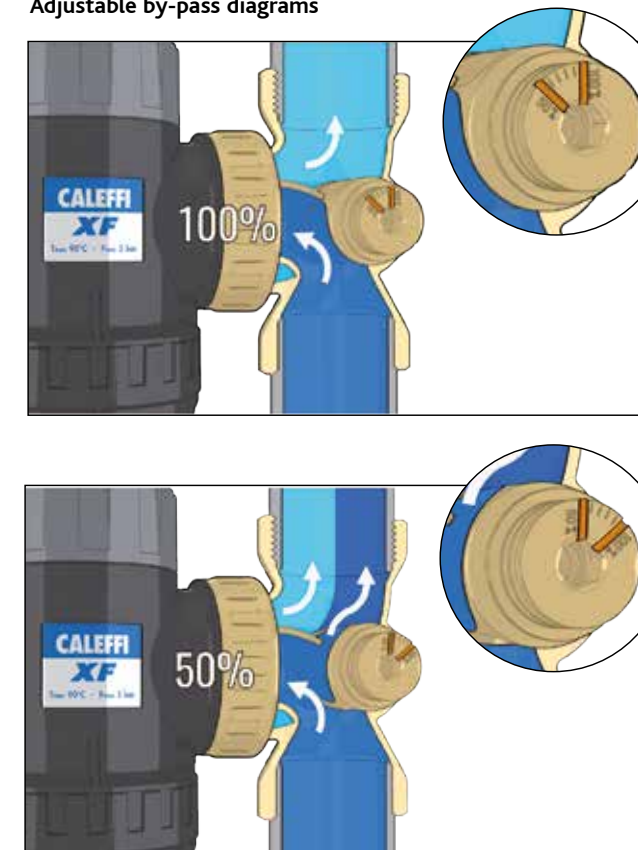
SPECIFICATION

- Working Temperature Range: 0-90°C
- Connection: F BSP
- Max working pressure: 3 bar
- Body: Technopolymer
- Finish: Technopolymer
- Max. percentage of glycol: 30%
- Vertical/Horizontal connection



Ref no	Size
577800	1 ½"
577900	2"
CBN577800	Preformed Insulation for: 577800/900

Adjustable by-pass diagrams



Find out more about the CALEFFI XF here



545375



5453 SERIES -
DIRTMAG® PLUS
MULTIFUNCTION DEVICE WITH
DIRT SEPARATOR AND STRAINER

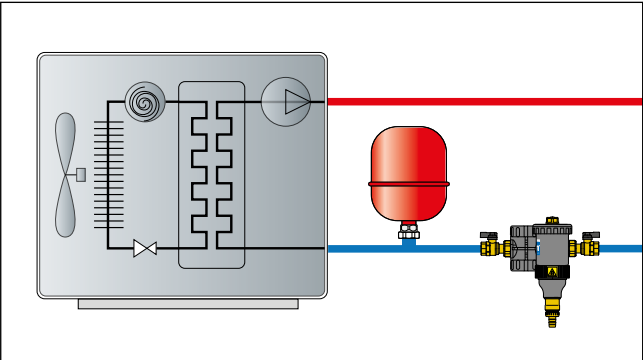
Specific for the complete cleaning of the hydraulic circuit, to protect continuously generator and components.
Technopolymer body.
Dirt separator with technopolymer internal element, **with magnet**.
Two inspectable strainers with stainless steel mesh:
1 for initial cleaning (blue colour) already installed,
1 for maintenance (grey colour) in package.
Shut-off valves with nuts, brass body.
Female connections and Ø 22 and Ø 28 mm with compression ends.
Adjustable for horizontal, vertical or 45° pipes.
Drain cock with hose connection.
Max. working pressure: 3 bar.
Temperature range: 0 - 90 °C.

Ref no	Size
545375	¾"
545376	1"
545377	1 ¼"
545372	Ø 22mm
545373	Ø 28mm

Problems caused by impurities in hydraulic circuits

The components of a heating and air conditioning system are exposed to degradation caused by the impurities contained in the system's circuit. If the impurities in the thermal medium are not removed, they can impair operation of the units or components, such as boilers or heat exchangers, especially in the commissioning stage, already from the initial passage. This latter problem must not be underestimated because boiler manufacturers will frequently reject warranty claims if their product is not adequately protected by a strainer from the time of commissioning onwards.

Application diagrams of multifunction device 5453 series

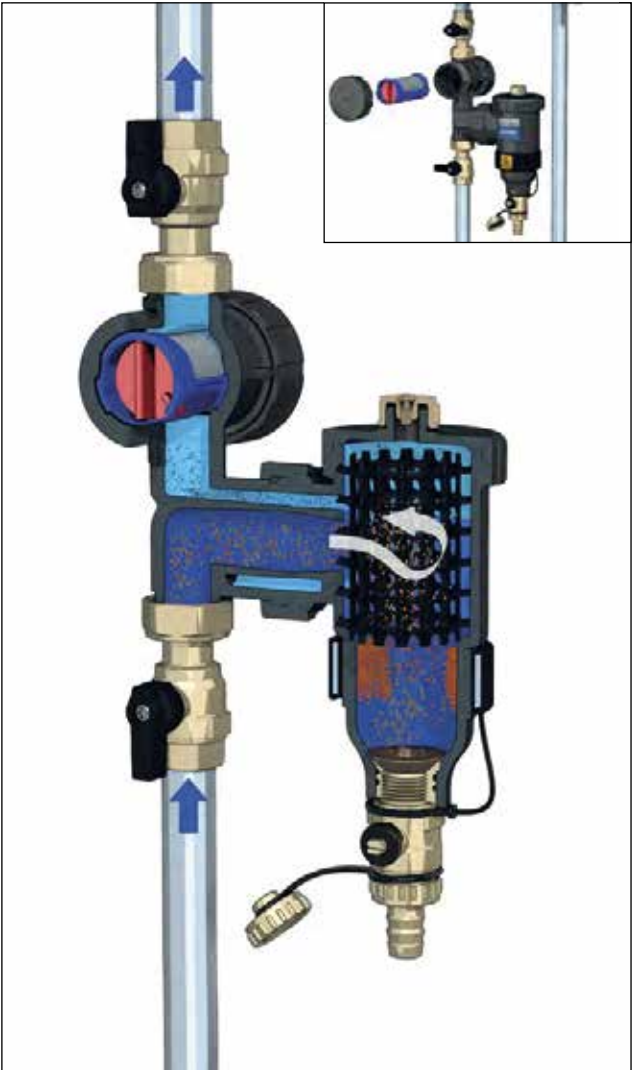


FUNCTION

The multifunction device is obtained by coupling a dirt separator and a cartridge strainer arranged in series.

The water circulating in the system flows, in sequence, first through the dirt separator and then through the cartridge strainer.

1. Elimination of particles even of small diameters (sizes of a few hundredths of a millimetre) is handled by the dirt separator due to the effect of collision of the particles with the internal element and gravity decantation of sludge in the collection chamber. This result can be obtained only after some circulations of the medium and hence during operation of the system in steady-state conditions.
2. The total elimination of particles of diameters measured in tenths of a millimetre, right from the first passage of the medium (system commissioning), is guaranteed by the mesh strainer, which mechanically intercepts impurities carried by the thermal medium.



DISCAL® AUTOMATIC AIR SEPARATORS

Ref no	Size	Insulation	Connections	Body
551702	22mm	No	Compression	Brass
551703	28mm	No	Compression	Brass
551705	¾" F	No	F x F BSP	Brass
551706	1" F	No	F x F BSP	Brass
551716	1" M	No	F x F BSP	Brass

SPECIFICATION

- The Discal® range of air eliminators are designed for use with heating circuits to provide an efficient method of air removal
- Max working pressure: 10 bar
- Max working temperature: 110°C without isolation
- Max percentage of glycol: 50%



551706

DISCAL® DIRTMAG®

Ref no	Size	Connections	Body
546402	22mm	Compression	Polyamide 66
546403	28mm	Compression	Polyamide 66
546405	¾"	F x F BSP	Polyamide 66
546406	1"	F x F BSP	Polyamide 66

SPECIFICATION

- Medium: water glycol solution
- Max percentage of glycol: 30%
- Max working pressure: 3 bar
- Temperature range: 0 - 90°C
- Particle separation rating down to 5µm
- Insulation shell available separately



CALEFFI HED® - HIGH-EFFICIENCY DEAERATOR

Ref no	Size	Connections	Body
551602	22mm	Compression	Technopolymer
551603	28mm	Compression	Technopolymer
551606	1"	F x F BSP	Technopolymer
551607	1¼"	F x F BSP	Technopolymer
551617	1¼"	M x M BSP	Technopolymer

SPECIFICATION

- Medium: water
- Max percentage of glycol: 30%
- Max working pressure: 3 bar
- Material: Technopolymer
- Insulation shell available separately

NEW



551606

HEAT PUMPS - BALL VALVES

AI-373B28L



INTABALL® VALVE COMPLETE WITH LOCK - BLUE LEVER HANDLE

Ref no	Size	Connections	Body	Pressure
AI-373B28L	28mm	Compression	Brass	25 bar

SPECIFICATION

- Temperature range: -20°C - 99°C
- Complies with full bore BS EN 13828:2003
- Complete with lockable lever handle



HEAT PUMPS - BALL VALVES

AI-373R28L



INTABALL® VALVE COMPLETE WITH LOCK - RED LEVER HANDLE

Ref no	Size	Connections	Body	Pressure
AI-373R28L	28mm	Compression	Brass	25 bar

SPECIFICATION

- Temperature range: -20°C - 99°C
- Complies with full bore BS EN 13828:2003
- Complete with lockable lever handle



AI-373B28E



INTABALL® LEVER BALL VALVES WITH EXTENSION STEM - BLUE HANDLE

Ref no	Size	Connections	Body	Pressure
AI-373B28E	28mm	Compression	Brass	25 bar

SPECIFICATION

- Temperature range: -20°C - 99°C
- Complies with full bore BS EN 13828:2003
- Complete with extension stem



INTABALL® LEVER BALL VALVES WITH EXTENSION STEM - RED HANDLE

Ref no	Size	Connections	Body	Pressure
AI-373R28E	28mm	Compression	Brass	25 bar

SPECIFICATION

- Temperature range: -20°C - 99°C
- Complies with full bore BS EN 13828:2003
- Complete with extension stem



AI-373R28E



HEAT PUMPS - BALL VALVES

124-6003 CST



FILTER BALL VALVES

Ref no	Size	Connections	Body	Pressure
124-6003 CST *	½"	F x F BSP	Brass	30 bar
124-6004 CST	¾"	F x F BSP	Brass	30 bar
124-6005 CST	1"	F x F BSP	Brass	30 bar
124-6006 CST	1 ¼"	F x F BSP	Brass	20 bar
124-6007 CST	1 ½"	F x F BSP	Brass	20 bar
124-6008 CST	2"	F x F BSP	Brass	20 bar

Spare filters available see page 124

* ½" complies with the full bore and the other sizes exceeds the reduced bore diameter circle specified in BS EN 13547.



SPECIFICATION

- Max pressure ½" - 1": 30 bar
- Max pressure 1 ¼" - 2": 20 bar
- Max temperature: 140°C
- Working temp. range: -20 - 100°C
- Strainer mesh size: 500 µ - 0.5 mm
- Threaded ends: ISO 228 - 1

HEAT PUMPS - BALL VALVES

THREE-WAY MOTORISED BALL VALVE

Ref no	Size	Description	Operating time	Kv (m³/h)
644562	1"	Three-way motorised ball valve	40 s	9
644566	1"	Three-way motorised ball valve	40 s	9
644002	-	Spare motor	-	-
644012	-	Spare motor	-	-

For heating and air-conditioning systems. With auxiliary microswitch.

CE marked



SPECIFICATION

- Max working pressure : 10 bar
- Medium working temp. range: -5 - 110°C
- Ambient working temp. range: 0 - 55°C
- Protection class: IP 44
- Voltage: 230v
- 90° rotation - "T" drilling



644562



644002

THREE-WAY MOTORISED BALL VALVE WITH INSULATION KIT

Ref no	Size	Description	Operating time	Kv (m³/h)
638373	1¼"	Three-way motorised ball valve with insulation kit	50 s	24.7
638383	1½"	Three-way motorised ball valve with insulation kit	50 s	47
638012	-	Spare motor	-	-
CBN638173	1¼"	Insulation kit	-	-
CBN638183	1½"	Insulation kit	-	-

For heating and air-conditioning systems. With auxiliary microswitch.

CE marked



SPECIFICATION

- Max working pressure : 16 bar
- Medium working temp. range: -10 - 110°C
- Ambient working temp. range: -10 - 55°C
- Protection class: IP 65
- Voltage: 230v
- 90° rotation - "T" drilling - reduced bore



638373



638012



CBN638173

580011



COMPACT AUTOMATIC FILLING UNIT

Ref no	Size	Body	Pressure
580011	½"	Brass	10 bar
580010	½"	Dezincification resistant alloy	10 bar

Automatic compact filling unit conforming to EN 1717 with BA type backflow preventer, shut-off valves, strainer, pressure test ports for checking the backflow preventer and pressure reducing valve.

SPECIFICATION

- Max. working temperature: 65°C
- Max. working Pressure: 10 bar
- Filling unit adjustment range: 0-8 - 4 bar
- With insulation
- For horizontal or vertical installation
- Backflow preventer conforming to EN 12729
- Pressure reducer conforming to EN 1567

580010



ALT-ST0035



FILLING LOOPS

Ref no	Size	Description
ALT-ST0035	15mm	Filling loop with built-in gauge

Used to fill sealed systems from the mains cold water.

SPECIFICATION

- Approved flexible hoses complete with check valves



BALANCING VALVE WITH FLOW METER

Ref no	Size	Flow rate scale	Connections
132402	½"	2 - 7 L/min	F BSP
132512	¾"	5 - 13 L/min	F BSP
132522	¾"	7 - 28 L/min	F BSP
132602	1"	10 - 40 L/min	F BSP
132702	1 ¼"	20 - 70 L/min	F BSP
132802	1 ½"	30 - 120 L/min	F BSP
132902	2"	50 - 200 L/min	F BSP

SPECIFICATION

- For adjusting and control of flows in heating, air conditioning and cooling systems. Visual flow indicator and flow adjustment.

132402



FILL & FLUSH VALVE

Ref no	Size	Connection	Pressure
124-1501	22mm	Compression	10 bar
124-1502	28mm	Compression	10 bar

The Altecnic fill and flush valve is designed for use on domestic and small commercial heating systems. The combination of two ball isolating valves and one 'T' port diverting ball valve are used to fill and flush the system with cleaning chemicals or water treatment.

SPECIFICATION

- Max temperature: 85°C
- Min temperature: 2°C
- Max Pressure: 10 bar Compression ends complying with: BS EN 1252-2 for use with R250 (half hard) copper tube.

124-1501



124-1502



HEAT PUMPS - SEALED SYSTEMS & EXPANSION VESSELS

CA-900012



ROBOKIT EXTRA SEALED SYSTEM - NITROGEN FILLED

Ref no	Vessel (Litre)	Expansion Vessel	Filling Loop	Mounting Bracket	Safety Relief Valve w/gauge	Manifold Fitting
CA-900008	8	Y	Y	Y	Y	Y
CA-900012	12	Y	Y	Y	Y	Y
CA-900018	18	Y	Y	Y	Y	Y
CA-900024	25	Y	Y	Y	Y	Y
CA-900035	35	Y	Y	N	Y	Y
CA-900050CP	50	Y	Y	N	Y	Y
CA-900080	80	Y	Y	N	Y	Y

SPECIFICATION

- Reflex vessel includes Altecnic 5-year warranty
- Nitrogen filled
- Not suitable for potable water



CE marked UK CA

HV8I



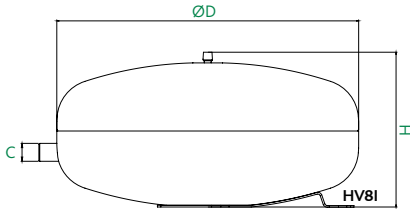
HEATING VESSELS C/W INTEGRATED BRACKETS

Ref no	Cap (L)	Dia (Ø D mm)	Ht (Ø H mm)	Connections	Max pressure
HV8I	8	287	163	G ½"	3 bar
HV12I	12	362	168	G ½"	3 bar
HV18I	18	362	222	G ¾"	3 bar
HV25I	25	409	239	G ½"	3 bar
HV35I	35	480	240	G ¾"	3 bar
HV50I	50	480	318	G ¾"	3 bar
HV80I	80	634	325	G ¾"	3 bar

SPECIFICATION

- Flat vessel for expansion on heating systems and boilers
- Max working pressure: 3 bar
- Max vessel operating temperature: 70°C

CE marked UK CA



8 - 80 litres

133-1065



133-1066



MULTI FUNCTION EXPANSION VESSEL BRACKET

Ref no	Description
133-1065	Multifunction Fixing Bracket only
133-1066	Multifunction Fixing Bracket Plus

SPECIFICATION

- Suitable for connection to heating vessels 2-25L
- Space saving and easy install
- Includes automatic air vent
- Plus versions includes expansion vessel isolation and drain-off

Want to learn more about Renewable products? View our full range of brochures online



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To purchase any products in this brochure, please visit your local plumbers merchant.

Use the handy store locator tool on our website



General information

Office hours:

Monday to Friday 8.30am - 5.00pm.

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Prices are exclusive of VAT, and are subject to change without notice.

All prices displayed are recognised as list.

Terms:

A copy of Altecnic's terms and conditions is available on request.

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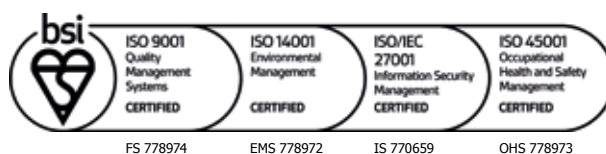
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