

Meibes Heat Interface Unit (HIU)

Hot Water Cylinder Unit



Product code AI-GB00012





Founded in 1975 by Jan Aalberts. The enterprise has grown to an organisational structure in which group companies are responsible for the day-to-day business.

With almost 15,338 employees, Aalberts Industries operates from over 200 locations in more than 30 countries. Achieving leading niche positions by focusing on businesses and technologies with sustainable profitable growth potential, delivering high added value for our customers.



The Flamco Group is a member of the Aalberts Industries N.V. and is concerned with the development, production and sale of high-quality products for use in HVAC systems. Operating in more than 70 countries, we offer successful and innovative solutions.

At Flamco we are constantly trying to think of ways to make our products more user-friendly, energy-efficient and sustainable. With the focus on sustainability and innovation, we have been doing this for more than fifty years.



Meibes was founded in 1961 in Germany (close to Hannover) by the brothers Helmut & Alfred Meibes. During the following decades, Meibes founded subsidiaries (e.g. Poland, Czech Republic and Russia) and increased the existing product portfolio to fullfill the different market requirements. In 2001, Meibes joined Aalberts Industries N.V. and got the chance to cooperate with different other companies in the Aalberts group. During this time Meibes increased the business with different affiliates (e.g. Flamco) and Meibes increased the business in whole Europe and in many other countries in the world.

Right now Meibes is the leading products of pre-fabricated products and systems in the area of installation technologies for distribution of heating and cooling Medias. In addition to the classical systems for boiler connections, systems for renewable energies such as solar and heat pumps are an essential part of the delivery program.









MEIBES HIU A1 CX BLU-CLIMATE RANGE

A1 CX units are for use with a separate pre-plumbed hot water cylinder and have the capacity to serve apartments with two bathrooms.

- Designed to suit projects where stored water provision is a preferred design approach.
- Can be supplied in a range of configurations and heat meter set-ups.
- Complete with RTL (return temperature limiting) device to optimise system performance.
- Including high specification DPCV (differential pressure control valve) ensuring the unit is self-balancing.
- Customised, highly thermally efficient plate heat exchanger to deliver optimal heat transfer to the dwelling system.
- Top and bottom unit connections available to suit all installation requirements.
- Case comes with a vision window to check status of the unit without removing the enclosure.
- A range of high duty units to suit more demanding applications are available.



INDIRECT FOR CYLINDER SYSTEM – A1 CX

When using a cylinder system the primary circuit is separate to the secondary circuit, so that hot water is supplied from the cylinder, ensuring hot water is always available. The system incorporates a zone valve which is controlled by standard controls such as a time clock and a room thermostat to switch off the unit when there is no demand, thereby reducing network load.

SYSTEM BENEFITS

Simple design

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• Hot water reserve in apartment.





Code	HIU model	With case	With heat meter
AI-GB00005	A1CX SP HIU 20Kw c/w case RTL 2.5b no HM	YES	NO
AI-GB00006	A1CX SP 20Kw c/w case BPHM	YES	YES
AI-GB00009	A1CX SP 20Kw c/w case No HM	YES	NO
AI-GB00010	A1CX SP 20Kw No case BPHM	NO	YES
AI-GB00011	A1CX SP 20Kw No case No HM	NO	NO
AI-GB00012	A1CX SP 20Kw c/w case RTL BPHM	YES	YES
AI-GB00137	A1CX SP 20Kw RTL HP HD BPHM*	YES	YES
AI-GB00138	A1CX SP 30Kw RTL HP HD BPHM*	YES	YES

* GB000137 & GB00138 are PN16 & 4.5 Bar DP rated units





Code	Accessory
AI-10203.163	A1CX First Fix Rail complete with 4 valves
AI-10203.163PY	A1CX 4 B/vve First fix rail+flushing bypass



1 Hydraulics



External Connections

- A Primary flow
- B Primary return
- **C** Secondary flow
- D Secondary return
- 1 Test points
- 2 Strainer
- 3 Heat meter
- 4 Differential pressure control valve DPCV (Balancer)
- 5 Zone valve
- 6 Plate heat exchanger
- 7 Bleed points
- 8 3/4" isolation ball valves (not illustrated)
- 9 Return Temperature Limiter



2 Specifications

2.1 Facts and Figures

DH = District Heating



Description	Туре	District heating station to be installed in conjunction with a pre-plumbed unvented cylinder		
	Mounting	Wall mounted with top or bottom connections		
	Size including case	400 x 180 x 500 mm (WxDxH)		
	Heating System	2 pipe flow		
Construction Pipework		Fully insulated flexible stainless steel pipe with brass fittings		
	Plate heat exchanger	Fully insulated stainless steel		
	Casing	White powder coated sheet steel cover with viewing window for the heat meter		
	Primary Fluid	Low pressure hot water		
Secondary Fluid		Low pressure hot water		
		20kW Standard Unit	30kW High Pressure Unit	
Duty (primary)	Heat Transfer Capacity (P1; q1)	20 kW @ 30K ΔT (550 l/h)	32 kW @ 30K ∆T (900 l/h)	
	Fluid Temperature flow (t11)	70°C (95° Max)	70°C (95° Max)	
	Fluid Temperature return (t12) - design (max.	40°C	40°C	
	temp. depends on RTL setting)			
Pressure	Primary pressure rating	PN10	PN16	
	Max. primary differential pressure (Δp1)	250 kPa	4.5 bar = 400 kPa	
	Secondary pressure rating	PN6	PN6	
Fittings	Zone Valve	Fitted with electrical actuator head, max.	Fitted with electrical actuator head, max.	
Primary side		differential pressure 100 kPa (kvs=1.85)	differential pressure 700 kPa (kvs=1.6)	
	Return Temperature Limiter	20 65°C	25 70°C	
Strainer		On primary flow		
	Test points	Binder style test points		
Sensor Pocket Primary Flow temperature sensor for heat meter		neter		
	Heat Meter	Rossweiner "HeatSonic" M-Bus heat meter with permanent display. Battery or main		
		power available.		
	Differential Pressure Control Valve (DPCV) Factory set (at 30 kPa)			
	Air Vents	Manual		
Connections	All external connections	3/4" female ball valves 4x (not illustrated); optional "First Fix Rail" with or without		
		flushing bypass		



3 Graph

3.1 Simulation with Cylinder, Valve 80576.01 kvs= 1,85 and thermostat with remote sensor (Setting 5,5), flow rate primary appr. 4 l/h

Prim. Flow Temperatures	Prim. Return Temperature	Second. Flow Temperature Second. Return Temperature
— Cylinder Temperature	— Prim. Flow Rate	Secondary Flow Rate





Notes

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