

2027



Product Overview

Nesta Chrome · Nesta
Nesta Plus · CoilMaster
Texas · Silox · Hybridos Eco

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Wall-hung condensing boiler high water content

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Compact floor-standing boiler

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High power with high modulation

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Combination floor-standing condensing boiler

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Condensing water heater with integrated storage

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Twin wall stainless steel cylinder

74 Hybridos Eco
Factory Made high power hybrid system



Our Philosophy

AIC was founded in 2001 and rapidly became an internationally recognised reliable specialist in the design, engineering and manufacture of stainless steel and titanium heat exchangers, which now lie at the heart of our own innovative range of condensing products.

We believe in continuous investment in people and processes. Due to that, we are at the forefront of advanced heat transfer solutions. Thanks to proven design products without compromise on quality and our technologically advanced automated production processes, we can carry out the most complex and technologically advanced heat transfer projects.

In 2018 AIC Europe was established with headquarters in Weert in the Netherlands. By creating a network of subsidiaries throughout Europe, we can now deliver our advanced range of stainless steel gas fired condensing boilers and high-powered water heaters to the market. Always looking to the future, AIC also offers innovative heating solutions with a complete range of air-water heat pumps and high-power hybrid systems, micro-generators and electrical energy storage batteries.

The AIC products and technological solutions are the results of continuous investment and research aimed at achieving our objectives of a maximum reduction in polluting emissions with increased energy savings, guaranteeing the user high eco-comfort performance in heating and domestic hot water.

Mission
Developing energy-oriented products that will help the world transition its economy into our greener future.

Vision
Growing a network of subsidiaries and partners throughout Europe and beyond to deliver our advanced heating technologies to the global market, providing innovative heating solutions with unparalleled service.

Our philosophy

Current subsidiaries

- The Netherlands
- Poland
- United Kingdom & Ireland
- Italy
- Spain, Portugal and Andorra
- France
- Canada

Partners

- Germany
- Slovenia
- Belgium
- Czech Republic

Production facilities in Poland

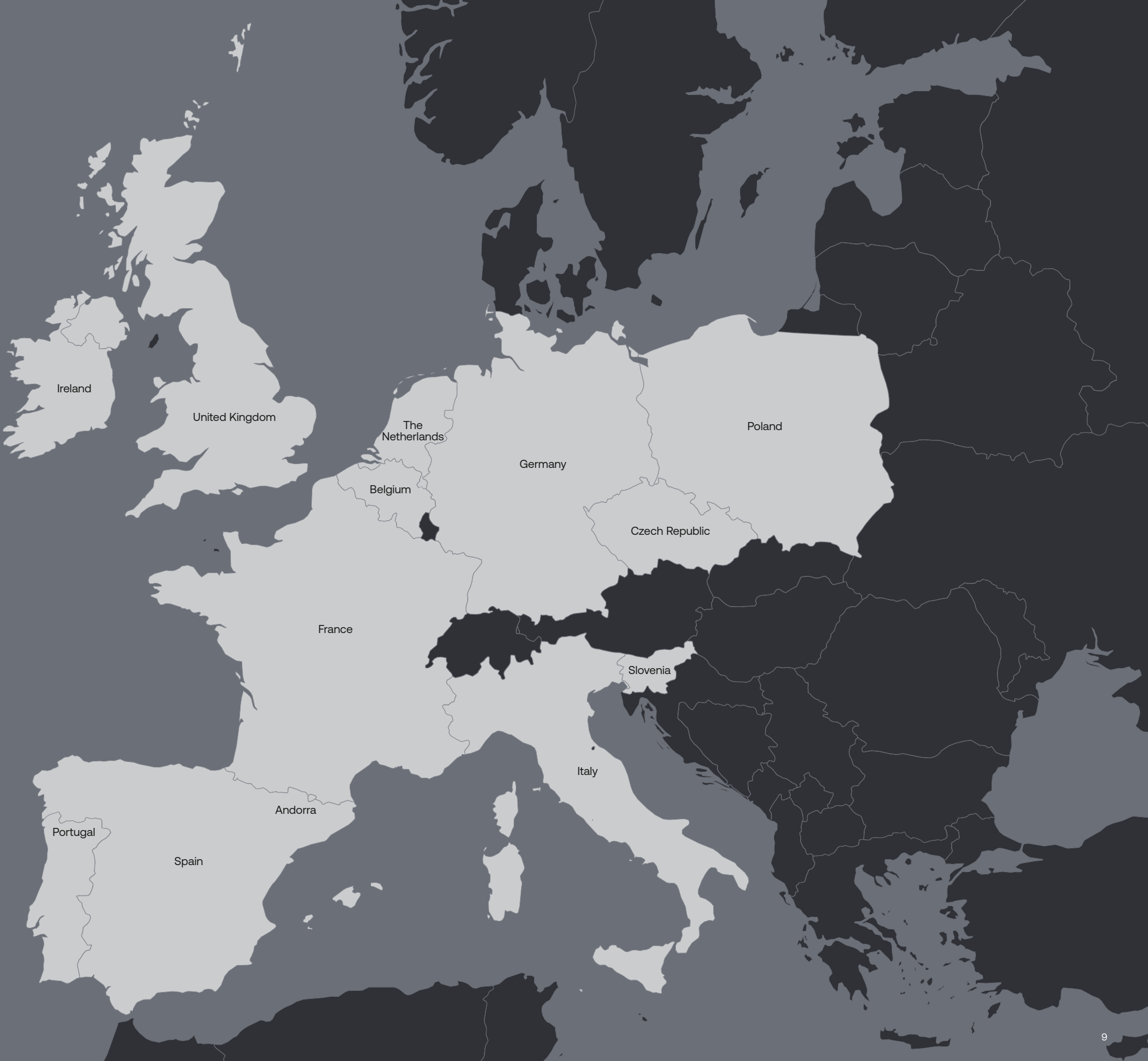
33.900 m²

Employees
35% Planning and Management
65% Production and Logistics

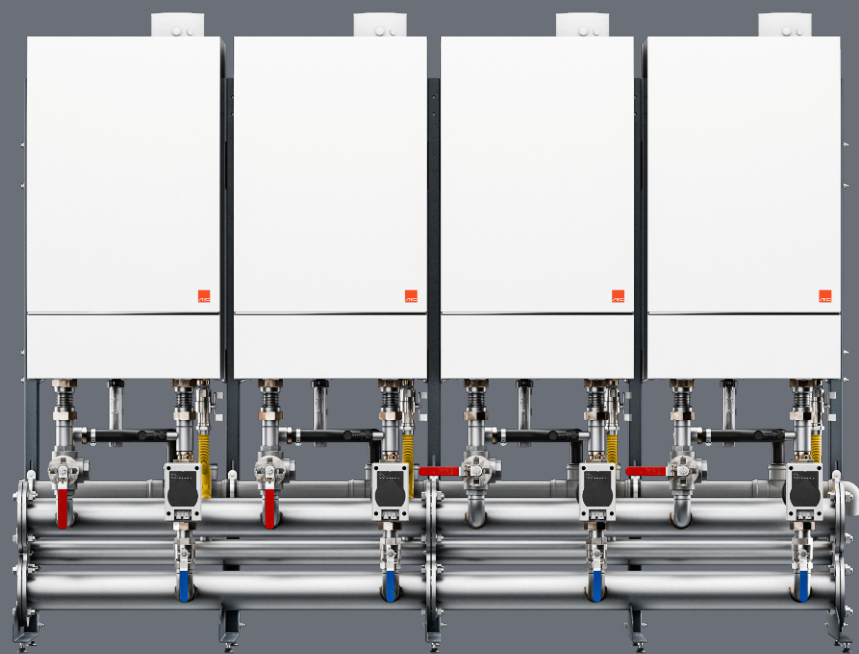
800

Commercial branches in Europe
and North America

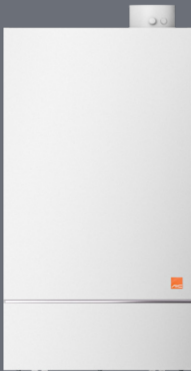
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A complete range of condensing boilers
and DHW producers



Cascade Nesta Chrome



Nesta Chrome



Nesta



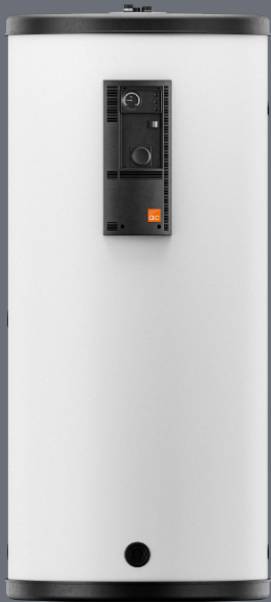
Nesta Plus



CoilMaster



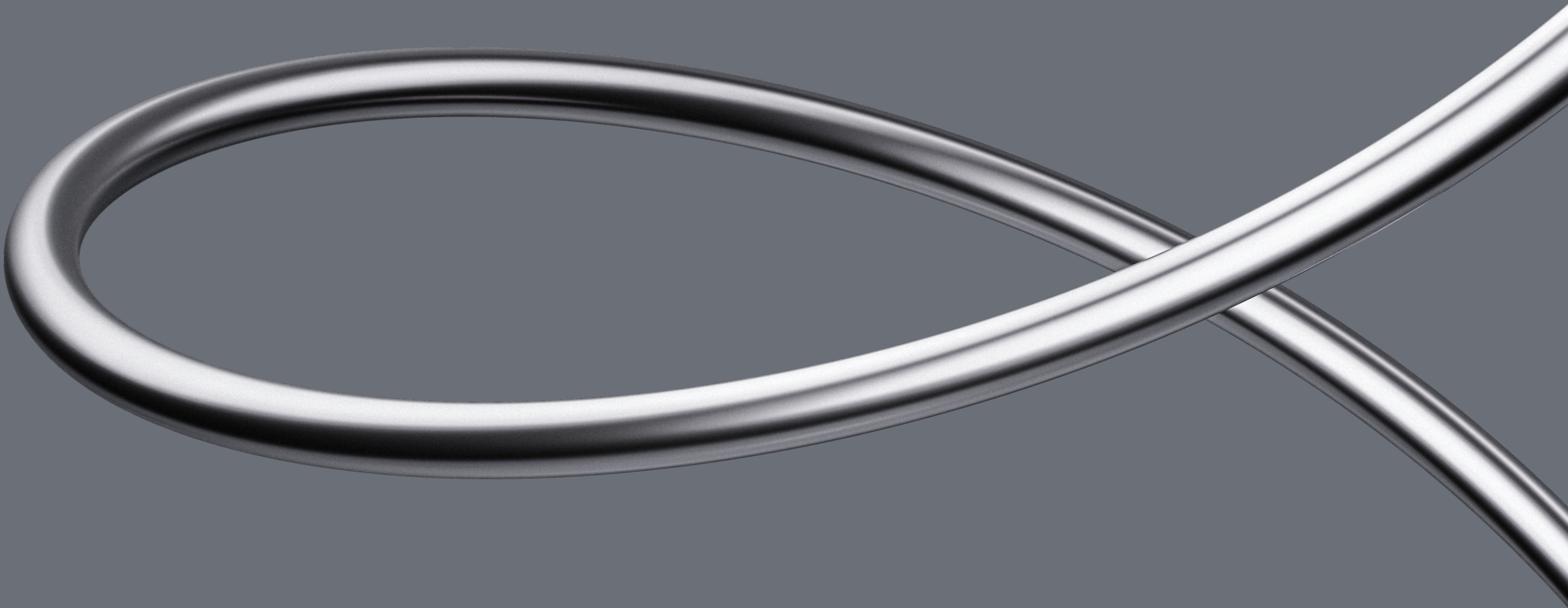
Texaas



Silox

Product range

Nesta Chrome	24–150 kW
Nesta	120–300 kW
Nesta Plus	280–1260 kW
CoilMaster	35–120 kW
Texas	99–230 kW
Silox – Silox S	90–1000 l



Intelligent stainless-steel utilisation
The ideal material for heat transfer

For 25 years AIC have specialised in the processing of stainless steel. We are proud of the knowledge we have gained throughout this time, and with extensive investments in technology, we can process the optimal type of stainless steel most suited to the component performance. AIC products are built and designed by experts, and by combining different categories of stainless steel we can assure maximum resistance and reliability of our products over time.

Unrivalled resistance to corrosion and oxidation
Consistent performance

All the components of the Fire Tube exchanger are manufactured from selected stainless steel, which offers unmatched resistance to corrosion and oxidation, resulting in consistent performance. These corrosion and oxidation issues can occur due to acid condensation, use of aggressive chemicals, and deposits from dirty gas supply.

The ideal material for each application

Nickel-free stainless steel	Austenitic stainless steel	Austenitic stainless steel	Duplex stainless steel
1.4509	1.4307	1.4404	1.4162

All stainless-steel internal components

Resistance to corrosion and oxidisation
Stability at high operating temperatures
Maximum hygiene

High Technology AIC Fire Tube Exchanger

Stable temperature and low pressure drops

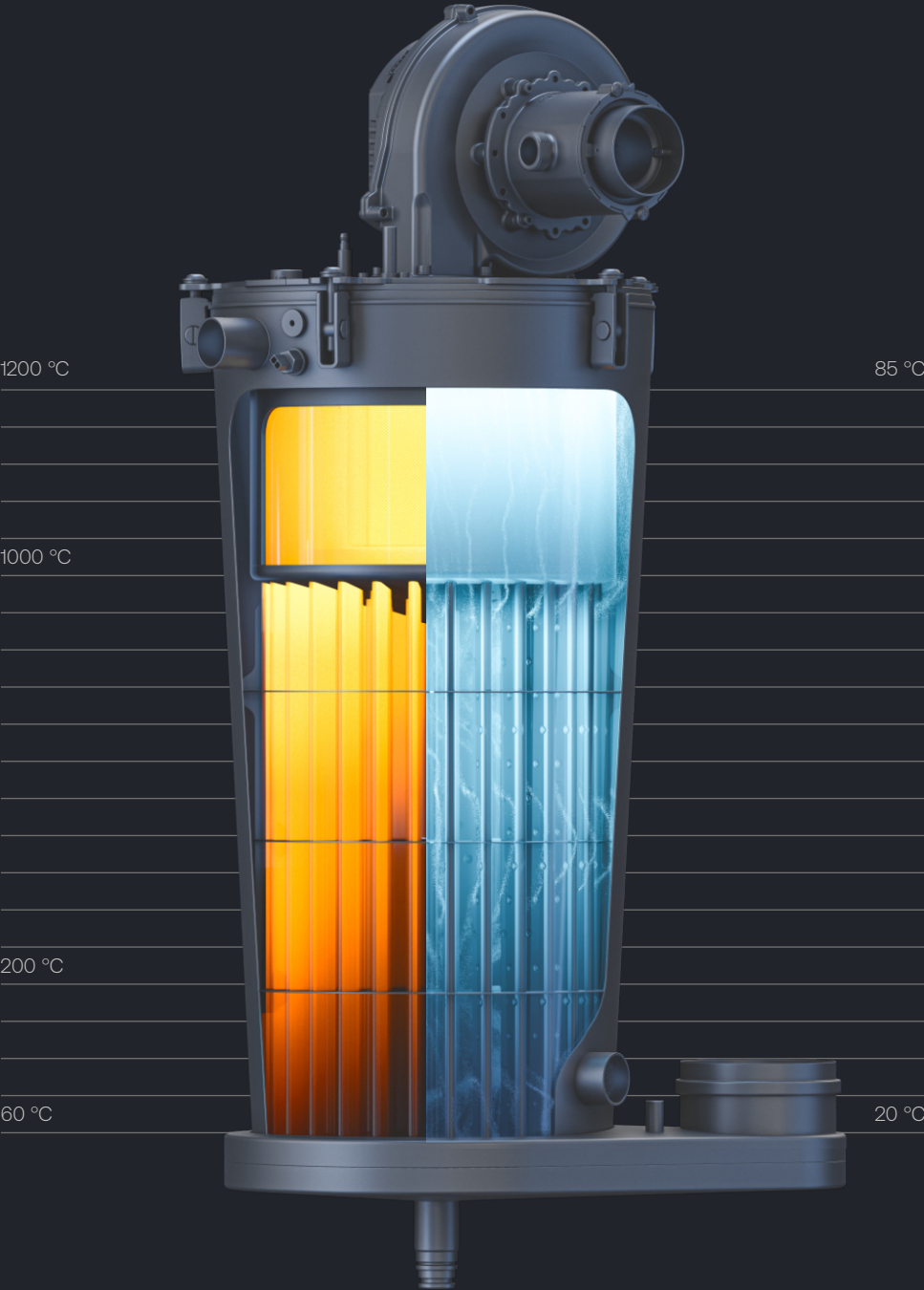
The geometry of the Fire Tube exchanger, thanks to the high water content, gives all AIC boilers a temperature stability, for a more balanced operation, minimizing the risk of overheating, with low pressure drops, both on the water and flue gas sides. The ratio between the water section and the flue gas section has been carefully calculated to achieve the maximum use of energy for a uniform stress on the boiler body.

Very high performance

The completely immersed flue gas tubes of the Fire Tube exchanger, with their exclusive design with high heat transfer coefficient between water and smoke, ensures an optimal counter-current exchange over the entire length of the exchanger. This particular design allows AIC condensing boilers to reach very high efficiency, without the risk of oxidation.

Low maintenance and long life

The Fire Tube exchanger is self-cleaning thanks to the condensates that run from the top to the bottom of the vertical flue pipes. In this way they keep the internal surface of the pipes clean, guaranteeing constant high performance over time and considerably limiting maintenance interventions.



Nesta Chrome

Wall-hung Condensing Boiler

24 · 32 · 38 · 45 · 49 · 60
80 · 100 · 115 · 120 · 150

108 %

Thermal
efficiency

12:1

Wide
modulation ratio

6

Low NOx
burner class

Our offering of wall-hung condensing boilers includes a diverse range of model sizes, boasting powers ranging from 24 to 150 kW. An excellent choice for both residential and commercial applications, they are the perfect solution for new installations or to upgrade existing systems. The standard internal electronics allow for the seamless management of up to 6 boilers in a cascade, making them suitable for facilities with higher power demands. The cascade system enables a broad modulation range of the heating system, ensuring optimal performance. The boilers can be installed in a linear or back-to-back arrangement and our range of stainless steel cascade assembly kits and hydraulics ensure a hygienic and straightforward installation.

Key Features & Benefits

Stainless steel heat exchanger

High water content (up to 28 liters)

Self-cleaning flue ways

Internal circuit piping in welded stainless steel

Low pressure drop

Compact dimensions

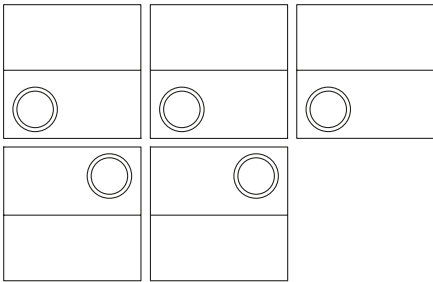
Reduced maintenance



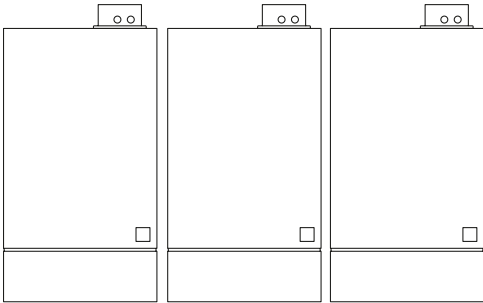
Cascade system

The Nesta Chrome Cascade System, manufactured by AIC, offers a seamless and effortless installation experience. Prefabricated stainless steel hydraulic kits and accessories guarantee ease of integration, particularly in medium to large-scale installations with varying heating demands.

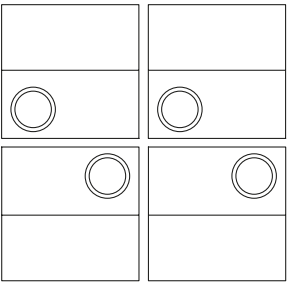
The system is adaptable to fluctuating heating requirements by adjusting its output according to building usage. AIC provides a comprehensive and user-friendly cascade system that is adaptable to various layout options. Its flexibility in design accommodates configurations ranging from two to six Nesta Chrome boilers, with options for in-line or back-to-back installations, as well as the use of a plate heat exchanger or low-loss header. The Nesta Chrome Cascade System can be customized to fit your specific requirements, making it the perfect solution for your heating needs.



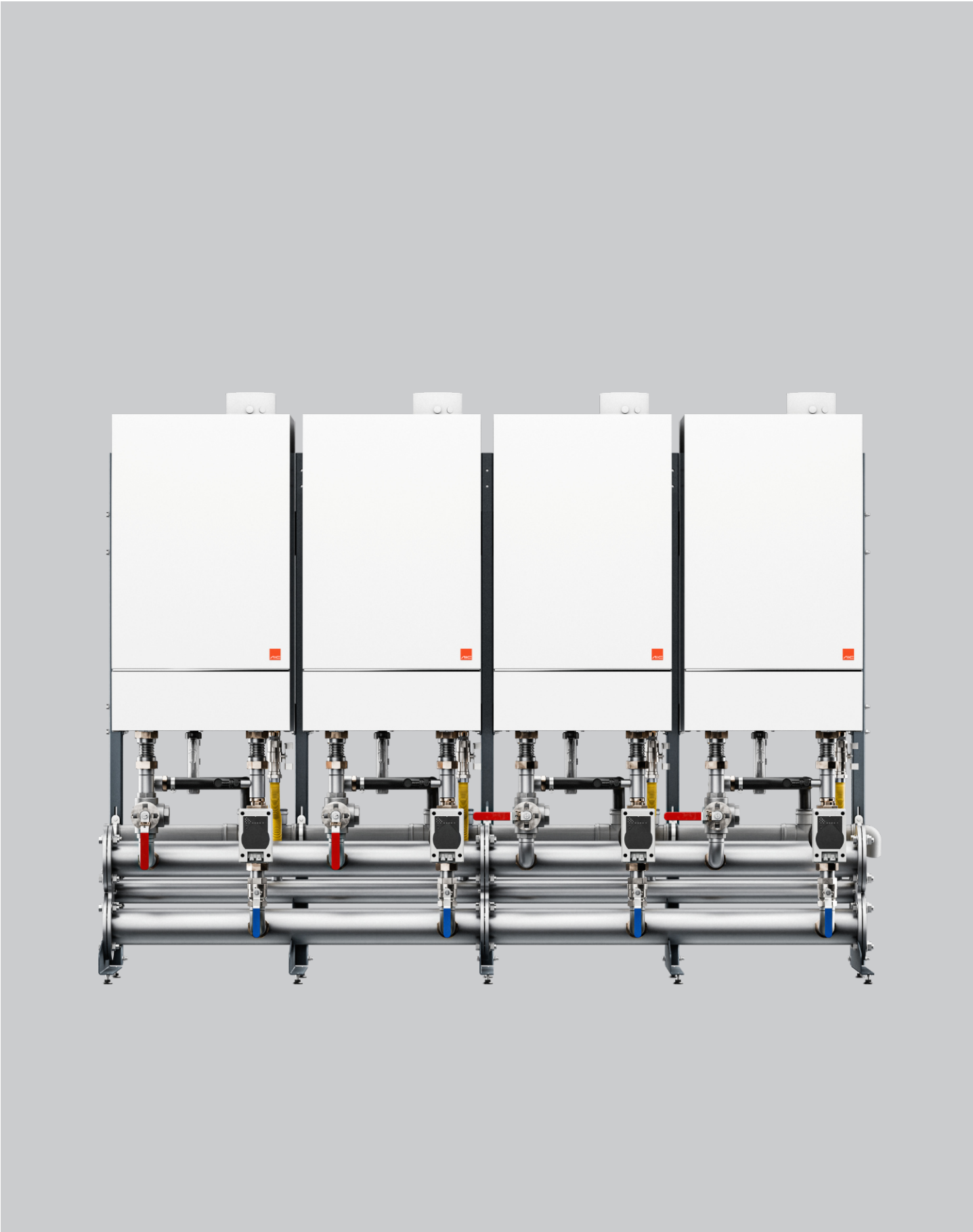
Back to back
odd configuration (5 boilers)



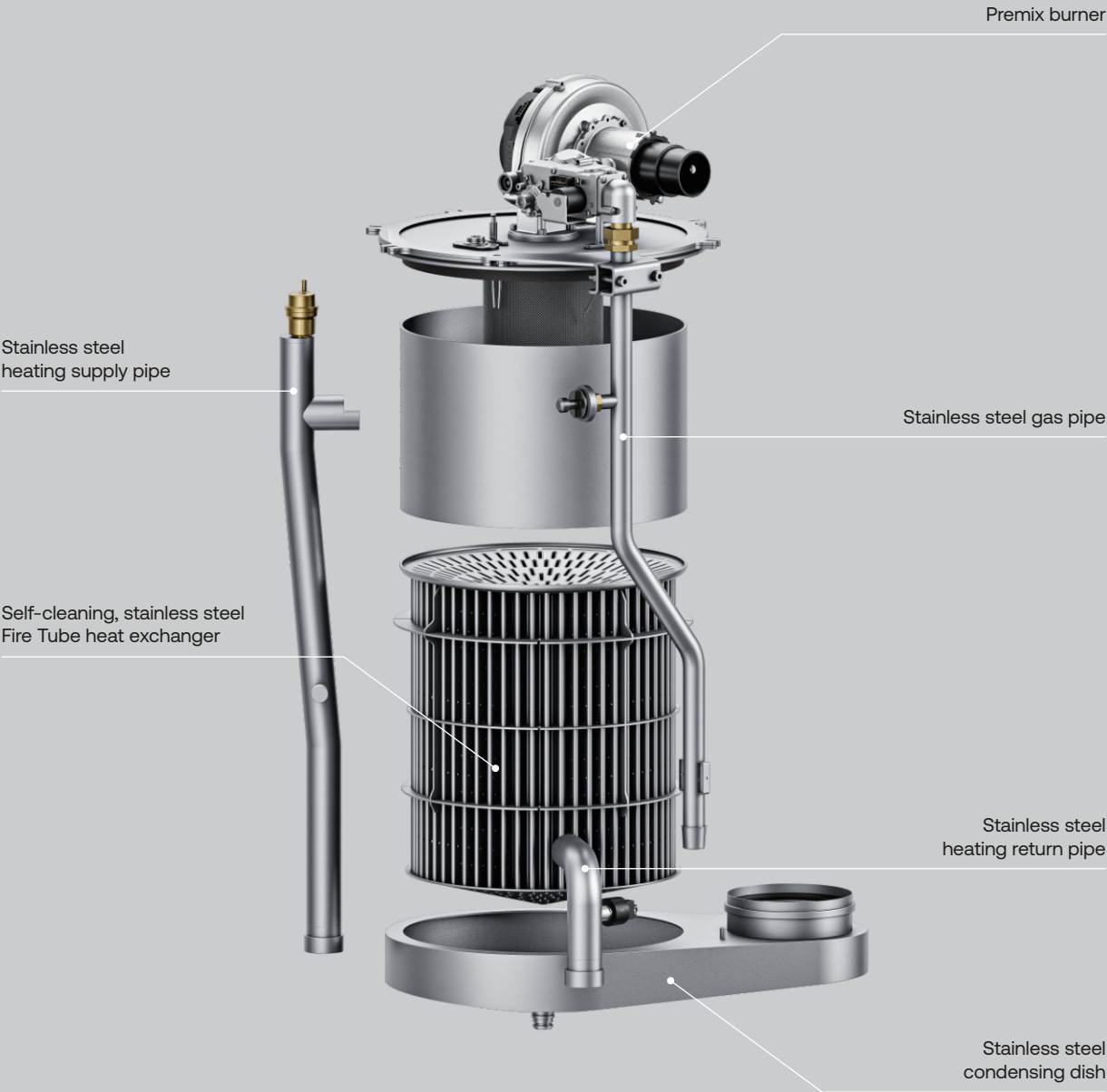
In line configuration
(2–6 boilers)



Back to back
even configuration (2–6 boilers)



Construction



Specification NC 24–49 WH

Performance			NC 24 WH	NC 32 WH	NC 38 WH	NC 45 WH	NC 49 WH
Heat input (net)	G20 / G25	kW	3,2–24,0	3,2–32,0	4,5–38,0	4,5–45,0	4,5–47,3
	G31	kW	3,2–24,0	3,2–32,0	4,5–38,0	4,5–45,0	4,5–48,1
	G20Y20 ⁽¹⁾	kW	3,0–22,7	3,0–30,3	4,3–36,0	4,3–42,6	4,5–47,3
Heat output at 80/60 °C	G20 / G25	kW	3,1–23,3	3,1–31,1	4,4–37,0	4,4–43,8	4,4–46,1
	G31	kW	3,1–23,3	3,1–31,1	4,4–37,0	4,4–43,8	4,4–46,9
	G20Y20 ⁽¹⁾	kW	2,9–22,1	2,9–29,4	4,2–35,0	4,2–41,5	4,4–46,1
Heat output at 50/30 °C	G20 / G25	kW	3,4–25,4	3,4–33,8	4,8–40,2	4,8–47,5	4,8–49,9
	G31	kW	3,3–25,0	3,3–33,3	4,7–39,5	4,7–46,8	4,7–49,9
	G20Y20 ⁽¹⁾	kW	3,2–24,0	3,2–32,0	4,5–38,0	4,5–45,0	4,8–49,9

Efficiency			NC 24 WH	NC 32 WH	NC 38 WH	NC 45 WH	NC 49 WH
Heating efficiency 80/60 °C	G20	%	97	97	97,3	97,3	97,6
Heating efficiency 50/30 °C	G20	%	105,9	105,7	105,7	105,6	105,7
Useful efficiency at 30% (return 30 °C)	G20	%	108,4	108,4	107,7	107,7	108,1
Seasonal efficiency	G20	%	93	93	93	93	93

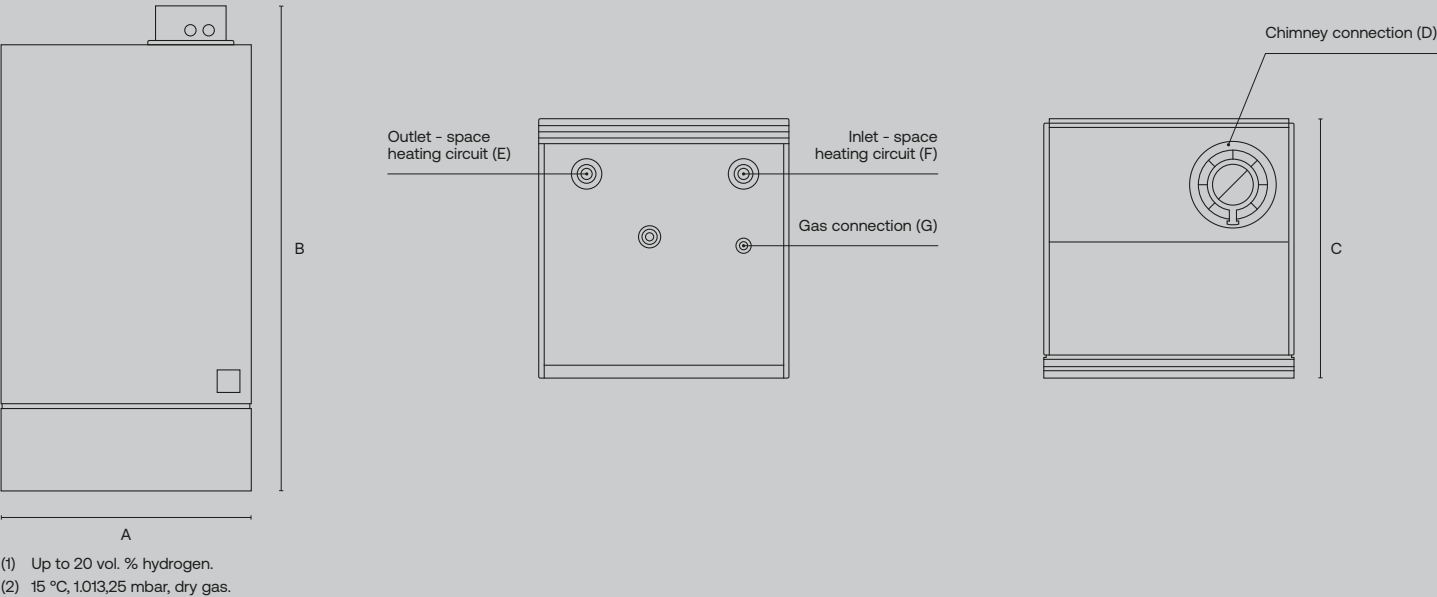
General		NC 24 WH	NC 32 WH	NC 38 WH	NC 45 WH	NC 49 WH
Energy consumption	W	67,5	67,5	90	90	90
Supply voltage / frequency	V/Hz	230/50	230/50	230/50	230/50	230/50
Protection class	IP	X4D	X4D	X4D	X4D	X4D
Capacity	l	8	8	11,4	11,4	11,6
Min operating pressure	bar	0,6	0,6	0,6	0,6	0,6
Max operating pressure	bar	6	6	6	6	6
Max boiler supply temperature	°C	85	85	85	85	85
Gas appliance category	I2E(S) ⁽³⁾ , I2E(R), I2H, I2E, I2ELL, I2EK, I3P, II2E3P, II2EK3P, II2L3P, II2H3P, II2Er3P					
Gas type	G20, G20Y20 ⁽¹⁾ , G25, G25.3, G31					
Chimney type(s)	B23, B23P, C13, C13(x), C33, C33(x), C43, C43(x), C53, C63, C63(x), C83, C83(x), C93, C93(x)					
CO emission (0% O ₂)	mg/kWh	25,0	31,0	43,0	57,0	62

(1) Up to 20 vol. % hydrogen.
(2) 15 °C, 1.013,25 mbar, dry gas.
(3) Only for models NC24 WH to NC45 WH

General			NC 24 WH	NC 32 WH	NC 38 WH	NC 45 WH	NC 49 WH
Gas flow rate	G20 ⁽²⁾ / G20Y20 ^{(1),(2)}	m³/h	0,3–2,5	0,3–3,4	0,5–4,0	0,5–4,8	0,5–4,8
	G25 ⁽²⁾	m³/h	0,4–2,9	0,4–3,8	0,5–5,5	0,5–5,4	0,6–5,9
	G31 ⁽²⁾	m³/h	0,1–1,0	0,1–1,3	0,2–1,5	0,2–1,8	0,2–1,9
NOx class			6	6	6	6	6
NOx emission	mg/kWh		35,1	35,1	37,6	37,6	34
Energy class			A	A	A	A	A

Dimensions		NC 24 WH	NC 32 WH	NC 38 WH	NC 45 WH	NC 49 WH
Width (A)	mm	445	445	445	445	445
Height (B)	mm	1065	1065	1065	1065	1065
Depth (C)	mm	400	400	400	400	400
Max chimney length	m	15	15	15	15	15
Empty weight	kg	53	53	64	64	64

Connections		NC 24 WH	NC 32 WH	NC 38 WH	NC 45 WH	NC 49 WH
Chimney connection (concentric) (D)	mm	80/125	80/125	80/125	80/125	80/125
Outlet - space heating circuit (E)	inch	3/4	3/4	1	1	1
Inlet - space heating circuit (F)	inch	3/4	3/4	1	1	1
Gas connection (G)	inch	3/4	3/4	3/4	3/4	3/4



Specification NC 60–150 WH

Performance			NC 60 WH	NC 80 WH	NC 100 WH	NC 115 WH	NC 120 WH	NC 150 WH
Heat input (net)	G20 / G25 / G31	kW	8,2-57,5	8,2-80,0	12,0-99,0	12,0-115,0	12,0-120,0	15,0-145,0
	G20Y20 ⁽¹⁾	kW	7,8-54,4	7,8-75,7	11,4-93,7	11,4-108,9	11,4-113,6	14,2-137,3
Heat output at 80/60 °C	G20 / G25 / G31	kW	8,0-55,8	8,0-77,8	11,8-96,5	11,8-112,2	11,8-117,1	14,7-142,5
	G20Y20 ⁽¹⁾	kW	7,6-52,8	7,6-73,6	11,2-91,3	11,2-106,2	11,2-110,8	13,9-134,5
Heat output at 50/30 °C	G20 / G25	kW	8,8-60,7	8,8-84,4	12,9-105,2	12,9-122,1	12,9-127,4	16,2-154,0
	G31	kW	8,9-59,8	8,9-83,2	13,3-103,0	13,3-119,6	13,3-124,8	14,8-156,0
	G20Y20 ⁽¹⁾	kW	8,3-57,5	8,3-79,9	12,2-99,6	12,2-115,6	12,2-120,6	15,3-148,3

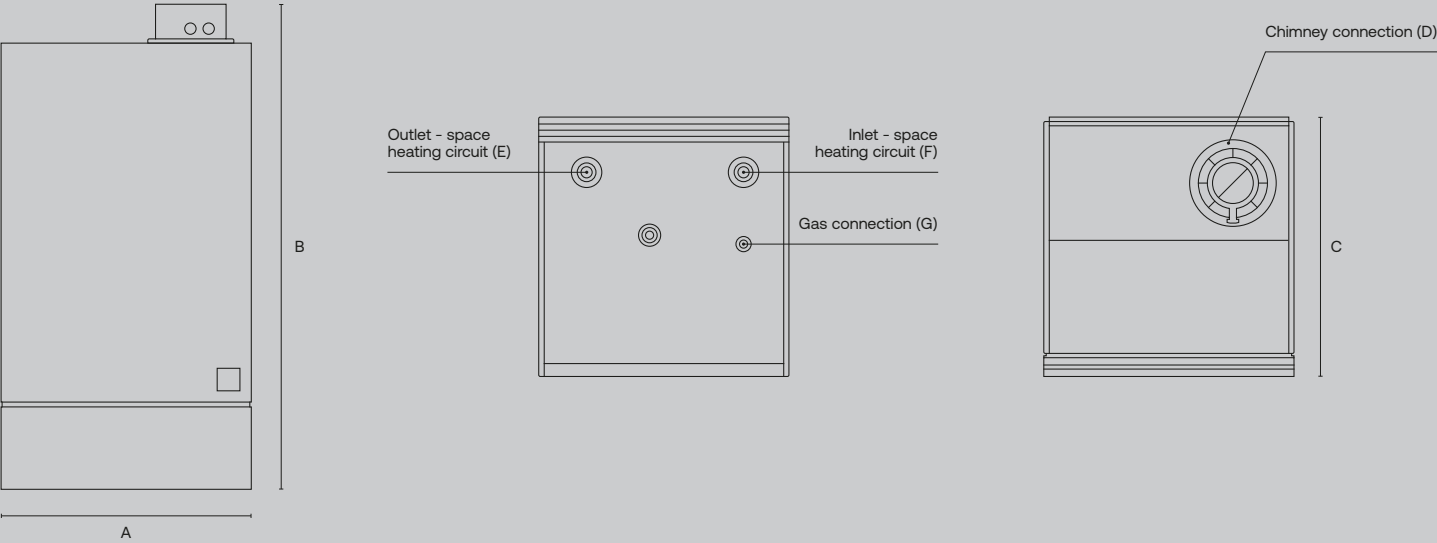
Efficiency			NC 60 WH	NC 80 WH	NC 100 WH	NC 115 WH	NC 120 WH	NC 150 WH
Heating efficiency 80/60 °C	G20	%	97,8-97,6	97,8-97,8	98,0-97,9	98,0-98,1	98,0-98,1	98,1-98,1
Heating efficiency 50/30 °C	G20	%	107,9-105,5	107,9-105,5	107,8-106,2	107,8-106,2	107,8-106,2	107,8-106,0
Useful efficiency at 30% (return 30 °C)	G20	%	108,4	108,3	108,3	108,2	108,2	108,2
Seasonal efficiency	G20	%	93	93	93	93	93	93

General			NC 60 WH	NC 80 WH	NC 100 WH	NC 115 WH	NC 120 WH	NC 150 WH
Energy consumption	W		100	150	240	300	300	300
Supply voltage / frequency	V/Hz		230/50	230/50	230/50	230/50	230/50	230/50
Protection class	IP		X4D	X4D	X4D	X4D	X4D	X4D
Capacity	l		19,3	17,6	26,3	25,2	25,2	28,3
Min operating pressure	bar		0,6	0,6	0,6	0,6	0,6	0,6
Max operating pressure	bar		6	6	6	6	6	6
Max boiler supply temperature	°C		85	85	85	85	85	85
Gas appliance category	I2E(S,R), I2H, I2E, I2ELL, I2EK, I3P, II2E3P, II2EK3P, II2L3P, II2H3P, II2Er3P							
Gas type	G20, G20Y20 ⁽¹⁾ , G25, G25.3, G31							
Chimney type(s)	B23, B23P, C13(x), C33(x), C43(x), C53(x), C63(x), C83(x), C93(x)							
CO emission (0% O ₂)	mg/kWh		64,8	32,0	80,2	69,7	69,7	94,5
Gas flow rate	G20 ⁽²⁾ / G20Y20 ^{(1),(2)}	m³/h	0,9-6,1	0,8-8,4	1,2-10,3	1,3-11,9	1,3-12,4	1,6-15,4
	G25 ⁽²⁾	m³/h	1,0-6,7	0,9-9,5	1,4-11,7	1,4-13,3	1,4-13,9	1,8-17,2
	G31 ⁽²⁾	m³/h	0,4-2,4	0,4-3,2	0,5-4,1	0,5-4,6	0,5-4,8	0,6-5,9
NOx class			6	6	6	6	6	6
NOx emission	mg/kWh		32,6	32,1	39,8	37	37	37,5
Energy class			A	na	na	na	na	na

(1) Up to 20 vol. % hydrogen.
(2) 15 °C, 1.013,25 mbar, dry gas.

Dimensions		NC 60 WH	NC 80 WH	NC 100 WH	NC 115 WH	NC 120 WH	NC 150 WH
Width (A)	mm	550	550	550	550	550	550
Height (B)	mm	1065	1065	1065	1065	1065	1065
Depth (C)	mm	511	511	562	562	562	612
Max chimney length	m	25	25	25	25	25	16
Empty weight	kg	71	75	93	96	96	117

Connections		NC 60 WH	NC 80 WH	NC 100 WH	NC 115 WH	NC 120 WH	NC 150 WH
Chimney connection (concentric) (D)	mm	100/150	100/150	100/150	100/150	100/150	100/150
Outlet - space heating circuit (E)	inch	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
Inlet - space heating circuit (F)	inch	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
Gas connection (G)	inch	3/4	3/4	3/4	3/4	3/4	3/4



Nesta

Floor-Standing Condensing Boiler

120 · 160 · 200 · 250 · 300

108 %

Thermal
efficiency

10:1

Wide
modulation ratio

6

Low NOx
burner class

The Nesta boilers offer a wide range of high output Floor-Standing condensing boilers, ranging from 120 to 300 kW, catering to medium or large residential and commercial installations. These boilers are the perfect choice for new build projects or renovations that demand a dependable and substantial heat output. Our stainless steel heat exchanger guarantees reliability and high efficiency, all housed within a compact casing and a small footprint. With advanced internal control units, Nesta boilers allow for the management of cascades up to 6 boilers in direct and mixed circuits, including an additional DHW circuit, alongside boiler management and alarm functions. Furthermore, the Nesta boilers can be remotely managed through an ethernet network or GSM router, ensuring optimal control and monitoring capabilities.

Key Features & Benefits

Self-cleaning flue ways

Stainless steel heat exchanger

Internal circuit piping in welded stainless steel

Low pressure drop

Compact dimensions

Reduced maintenance

Can be installed in cascade up to 6 boilers



With its remarkably compact footprint of merely 0.5 m², the Nesta boiler effortlessly accommodates installation in plantrooms that prioritize space efficiency.

Every model within the Nesta range has been meticulously sized to fit through a 70 cm wide doorway, enabling invaluable maneuverability and unhindered access without causing any disturbance to the building.



The boiler's carefully considered geometry, coupled with the self-cleaning flue ways of the Fire Tube exchanger, streamlines routine maintenance procedures and reduces associated expenses.

This innovative feature ensures maximum efficiency throughout the entire lifespan of the boiler, further enhancing its long-term performance and cost-effectiveness.



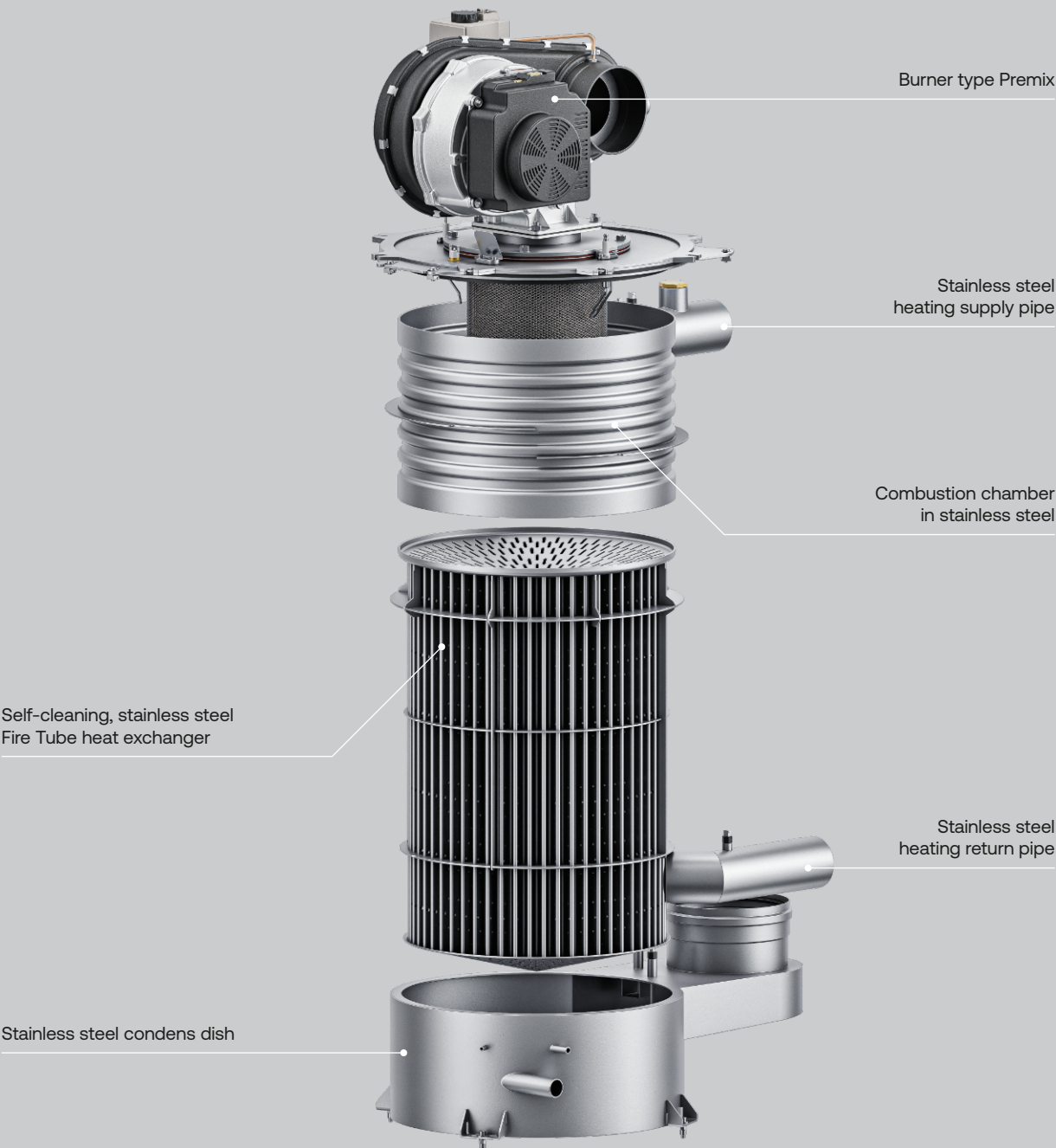
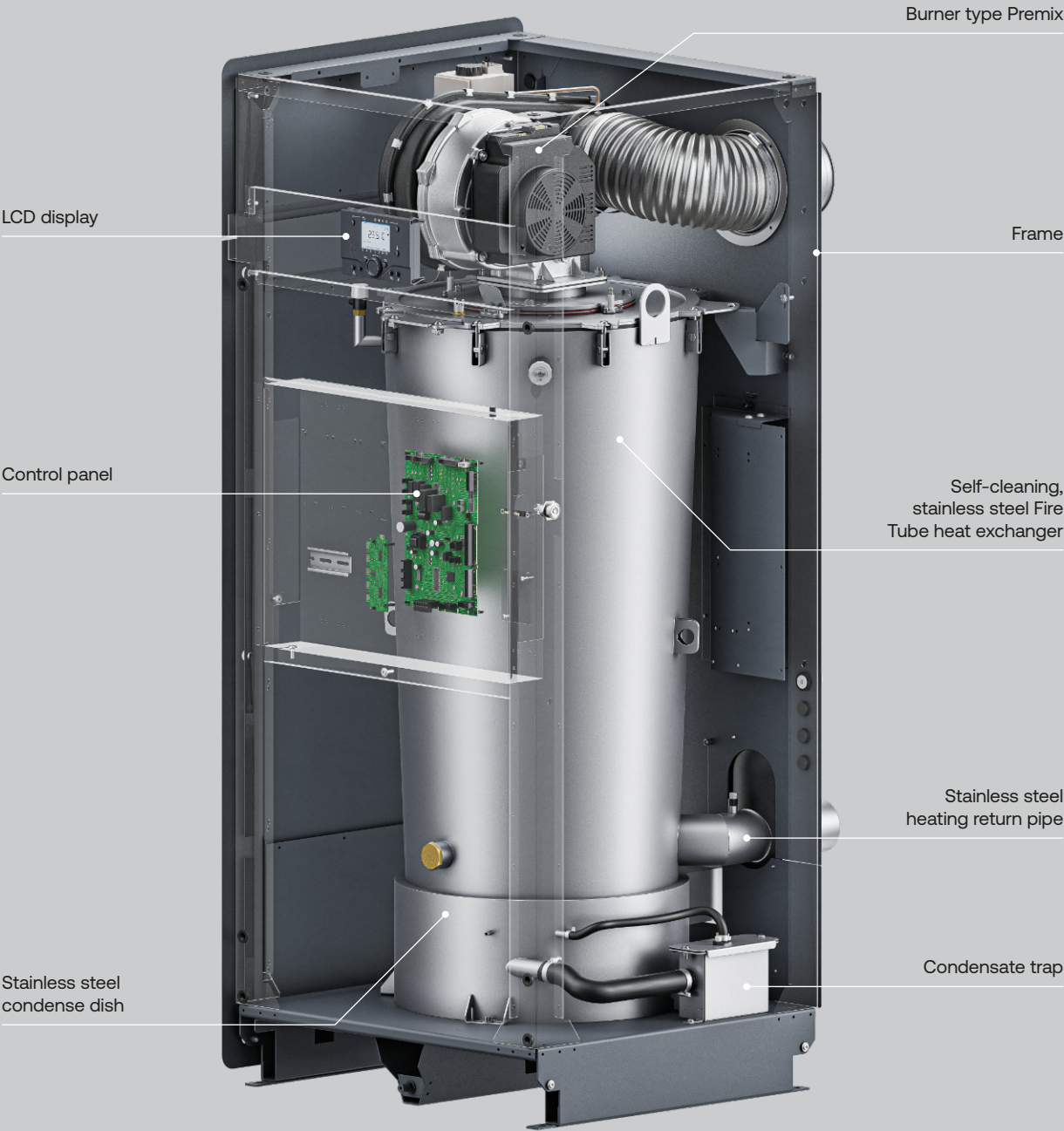
Compact dimension

All models in the Nesta range are sized to allow easy passage through a 70 cm wide doorway, ensuring easy manoeuvrability without disruption to the building.

Self-cleaning

The self-cleaning flue ways of the Fire Tube exchanger simplifies routine maintenance operations and related costs, offering maximum efficiency.

Construction



Specification N 120–250 FS

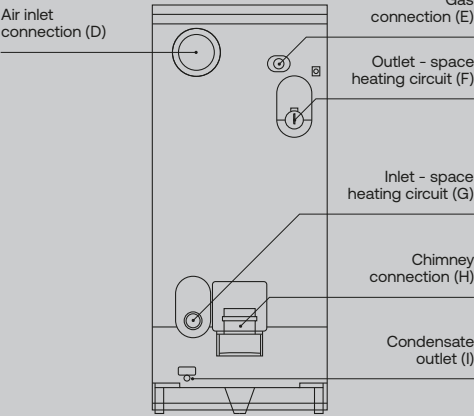
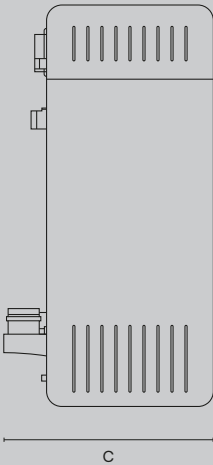
Performance			N 120 FS	N 160 FS	N 200 FS	N 250 FS
Heat input (net)	G20 / G25	kW	11,2-115,5	19,0-150,0	25,0-190,0	25,5-232,0
	G31	kW	28,9-115,5	37,9-150,0	47,5-190,0	58,0-232,0
Heat output at 80/60 °C	G20 / G25	kW	10,8-112,8	18,3-146,6	24,2-185,6	24,6-226,7
	G31	kW	27,9-112,8	36,6-146,5	46,0-185,6	56,2-226,7
Heat output at 50/30 °C	G20 / G25	kW	12,0-124,0	20,4-161,2	26,8-204,2	27,4-249,7
	G31	kW	30,5-122,0	40,0-158,4	50,0-200,5	61,4-244,5

Efficiency			N 120 FS	N 160 FS	N 200 FS	N 250 FS
Heating efficiency 80/60 °C	G20	%	96,5-97,8	96,5-97,8	96,8-97,7	96,5-97,7
Heating efficiency 50/30 °C	G20	%	107,4-107,5	107,4-107,5	107,2-107,5	107,6-107,7
Useful efficiency at 30% (return 30 °C)	G20	%	108,7	108,3	108,0	108,0
Seasonal efficiency	G20	%	93	93	93	93

General			N 120 FS	N 160 FS	N 200 FS	N 250 FS
Energy consumption		W	178	197	208	275
Supply voltage / frequency		V/Hz	230/50	230/50	230/50	230/50
Protection class		IP	X4D	X4D	X4D	X4D
Capacity		l	51	47	66	62
Min operating pressure		bar	0,8	0,8	0,8	0,8
Max operating pressure		bar	6	6	6	6
Max boiler supply temperature		°C	85	85	85	85
Gas appliance category			I2H, I2E, I2N, I2ELL, I2HS, I2EK, I3P, I2E(R), II2E3P, II2EK3P, II2H3P, II2L3P, II2ELL3P, II2E+3P, II2E(R)3P, II2Esi3P, II2Ei3P			
Gas type			G20, G25, G25.1, G25.3, G31			
Chimney type(s)			B23, B23P, C43, C53, C63, C83			
CO emission (0% O ₂)		mg/kWh	64,5	64,5	64,5	64,5
Gas flow rate	G20 ⁽¹⁾	m³/h	1,1-10,7	1,6-14,3	2,0-18,2	1,7-21,9
	G25 ⁽¹⁾	m³/h	1,3-12,4	1,9-16,6	2,3-21,2	2,0-25,5
	G31 ⁽¹⁾	m³/h	1,2-4,5	1,5-6,0	1,9-7,6	2,3-9,2
NOx class			6	6	6	6
NOx emission		mg/kWh	36,6	39,4	38,7	36,0

Dimensions		N 120 FS	N 160 FS	N 200 FS	N 250 FS
Width (A)	mm	648	648	648	648
Height (B)	mm	1524	1524	1524	1524
Depth (C)	mm	787	787	859	859
Empty weight	kg	202	224	247	259

Connections		N 120 FS	N 160 FS	N 200 FS	N 250 FS
Air inlet connection (D)	mm	130	130	130	130
Gas connection (E)	inch	G 3/4	G 3/4	G 1	G 1
Outlet - space heating circuit (F)	inch	G 2	G 2	G 2 1/2	G 2 1/2
Inlet - space heating circuit (G)	inch	G 2	G 2	G 2 1/2	G 2 1/2
Chimney connection (H)	mm	130	130	180	180
Condensate outlet (I)	mm	23	23	23	23



(1) 15 °C, 1.013,25 mbar, dry gas.

Specification N 300 FS

Performance			N 300 FS
Heat input (net)	G20 / G25 / G20Y20 ⁽¹⁾	kW	31,0-280,0
	G31	kW	55,0-280,0
Heat output at 80/60 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	30,0-272,0
	G31	kW	53,3-273,8
Heat output at 50/30 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	33,2-300,0
	G31	kW	57,9-295,1

Efficiency			N 300 FS
Heating efficiency 80/60 °C	G20	%	96,8-97,2
Heating efficiency 50/30 °C	G20	%	107,2-107,1
Useful efficiency at 30% (return 30 °C)	G20	%	108,1
Seasonal efficiency	G20	%	92,56

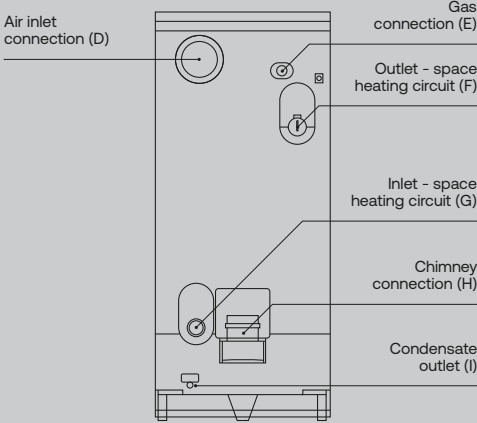
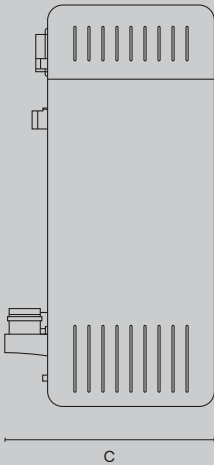
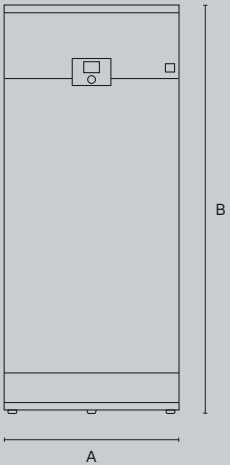
General			N 300 FS
Energy consumption	W		410
Supply voltage / frequency	V/Hz		230/50
Protection class	IP		X4D
Capacity	l		75
Min operating pressure	bar		0,8
Max operating pressure	bar		6
Max boiler supply temperature	°C		85

Gas appliance category			I2E(S), I2H, I2E, I2ELL, I2HS, I2N, I2EK, I3P, I2E(R), II2E3P, II2E(S)3P, II2EK3P, II2H3P, II2L3P, II2E+3P, II2E(R)3P, II2Esi3P, II2Er3P, II2ELL3P
Gas type			G20, G25, G25.1, G25.3-G31, G20Y20 ⁽¹⁾
Chimney type(s)			B23, B23P, C43, C53, C63, C83
CO emission (0% O ₂)			mg/kWh66,59
Gas flow rate	G20 ⁽²⁾	m³/h	3,3-29,0
	G25 ⁽²⁾	m³/h	3,8-33,1
	G20Y20 ^{(1),(2)}	m³/h	3,8-34,0
	G31 ⁽²⁾	m³/h	2,3-11,5
NOx class			6
NOx emission			mg/kWh24

(1) Up to 20 vol. % hydrogen.
(2) 15 °C, 1.013,25 mbar, dry gas.

Dimensions			N 300 FS
Width (A)	mm		648
Height (B)	mm		1524
Depth (C)	mm		890
Empty weight	kg		283

Connections			N 300 FS
Air inlet connection (D)	mm		130
Gas connection (E)	inch		G 1 1/2
Outlet - space heating circuit (F)	inch		G 2 1/2
Inlet - space heating circuit (G)	inch		G 2 1/2
Chimney connection (H)	mm		180
Condensate outlet (I)	mm		23



Nesta Plus

High output Floor-Standing
Condensing Boiler

280 · 350 · 420 · 570
700 · 840 · 1080 · 1260

108 %

Thermal
efficiency

10:1

Wide
modulation ratio

6

Low NOx
burner class

The Nesta Plus floor-standing condensing boiler range, presenting outputs ranging from 280 to 1260 kW, caters to the specific needs of commercial and industrial installations delivering substantial thermal output. At the heart of the Nesta Plus lies the Fire Tube stainless steel heat exchanger, meticulously designed to maximise heat extraction while minimising its physical footprint. The boilers are equipped with a standard electronic controller, adept at managing up to 6 boilers in cascade, efficiently overseeing vital boiler functions, alarms, and facilitating multi-circuit installations when additional accessories are employed. The Nesta Plus system can be entirely managed through an ethernet network or GSM router, bolstered by the optional WEB Server Module. Moreover, the boiler's high water content, capable of accommodating up to 600 litres, ensures operational stability and attains an impressive yield efficiency of 108%.

Key Features & Benefits

Self-cleaning flue ways

Internal circuit piping in welded stainless steel

Low pressure drop

Compact dimensions

Reduced maintenance

Stainless steel heat exchanger

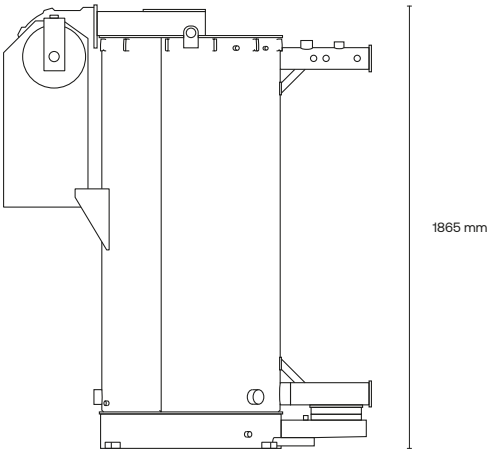
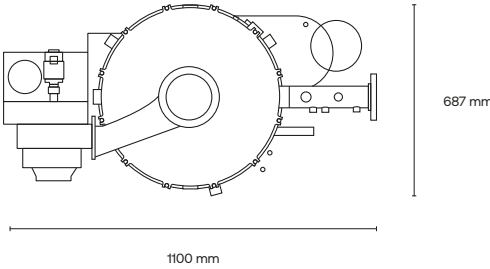
Lifting points for transportation and positioning



High water content and compact dimensions

Setting itself apart from other boilers in its class, the Nesta Plus is characterized by its high water content design. This unique feature ensures maximum thermal output while maintaining compact appliance dimensions.

The carefully calculated ratio between internal water and flue volumes optimises energy extraction while guaranteeing temperature stability and balanced operation. The higher water content minimises the risk of overheating and ensures low pressure drop in both water and flue gas elements, resulting in efficient and reliable performance.

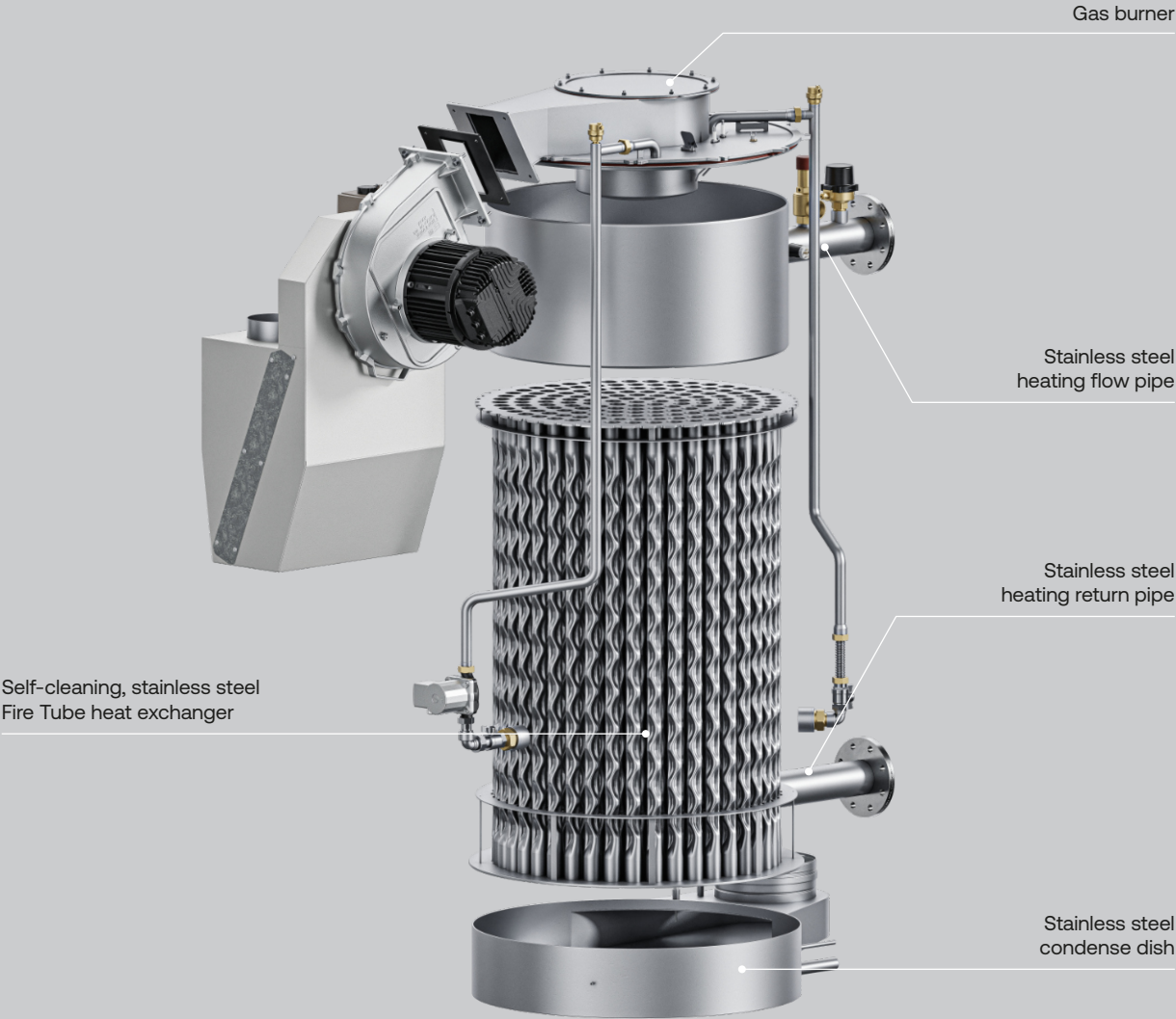
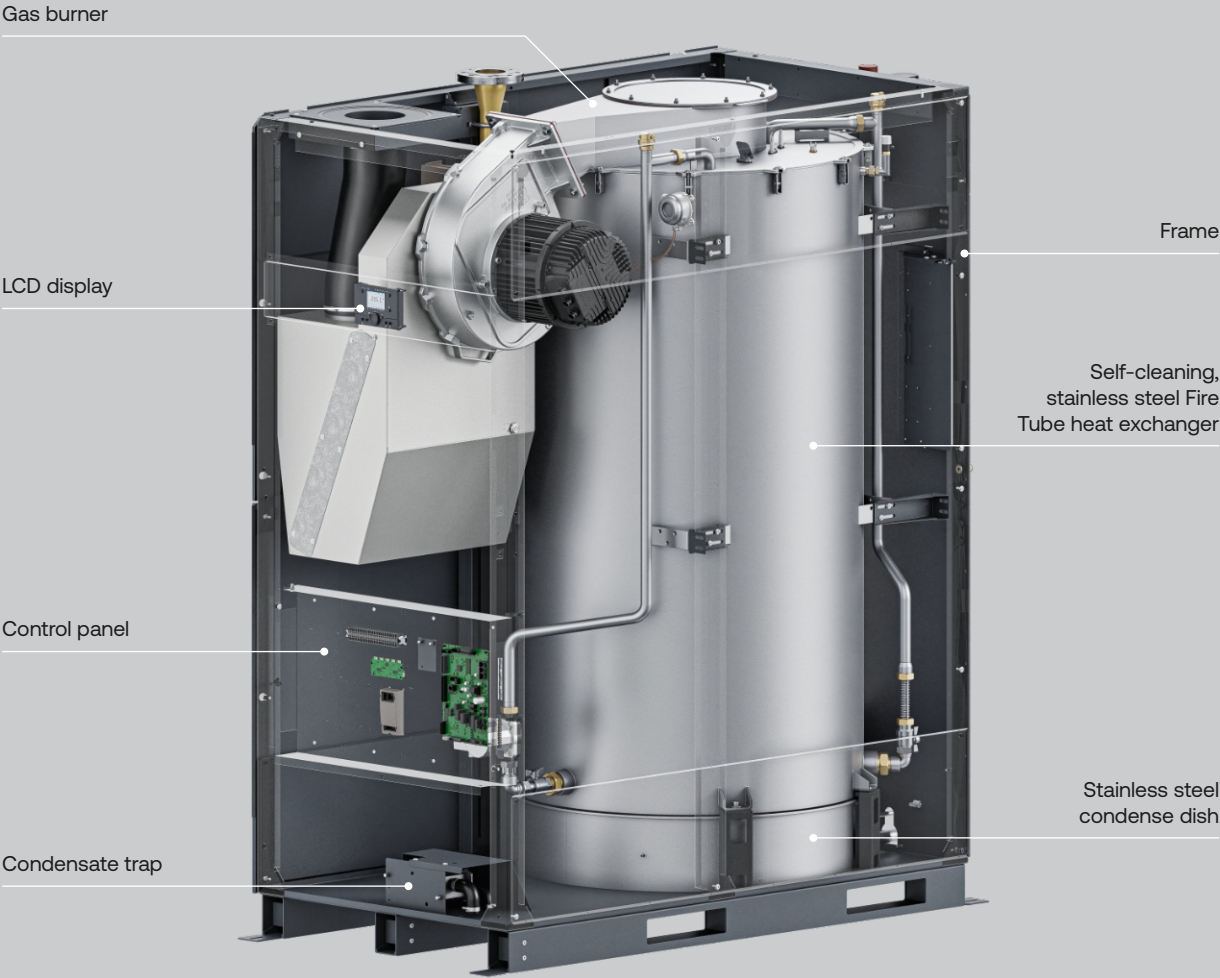


Water content

Nesta Plus 280 FSW	291 ltr
Nesta Plus 350 FSW	291 ltr
Nesta Plus 420 FSW	390 ltr
Nesta Plus 570 FSW	444 ltr
Nesta Plus 700 FSW	563 ltr
Nesta Plus 840 FSW	563 ltr
Nesta Plus 1080 FSW	600 ltr
Nesta Plus 1260 FSW	600 ltr



Construction



Specification NP 280–570 FSW

Performance			NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Heat input (net)	G20 / G25 / G20Y20 ⁽¹⁾	kW	44,0–265,0	48,0–325,0	59,0–401,2	90,0–530,0
	G31	kW	66,0–265,0	80,0–325,0	99,0–401,2	124,0–530,0
Heat output at 80/60 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	42,8–259,5	46,7–317,7	57,3–392,0	87,6–518,0
	G31	kW	64,0–258,0	77,8–317,1	96,5–391,5	120,0–515,0
Heat output at 50/30 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	47,7–283,6	52,0–346,3	63,8–431,7	97,1–562,8
	G31	kW	70,0–276,8	85,0–338,3	105,5–421,0	132,0–556,0

Efficiency			NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Heating efficiency 80/60 °C	G20	%	97,3–97,9	97,3–97,8	97,2–97,7	97,4–97,8
Heating efficiency 50/30 °C	G20	%	108,4–107,0	108,4–106,6	108,2–107,6	107,9–106,2
Useful efficiency at 30% (return 30 °C)	G20	%	108,7	108,7	108,4	109,0
Seasonal efficiency	G20	%	93	93	93	93

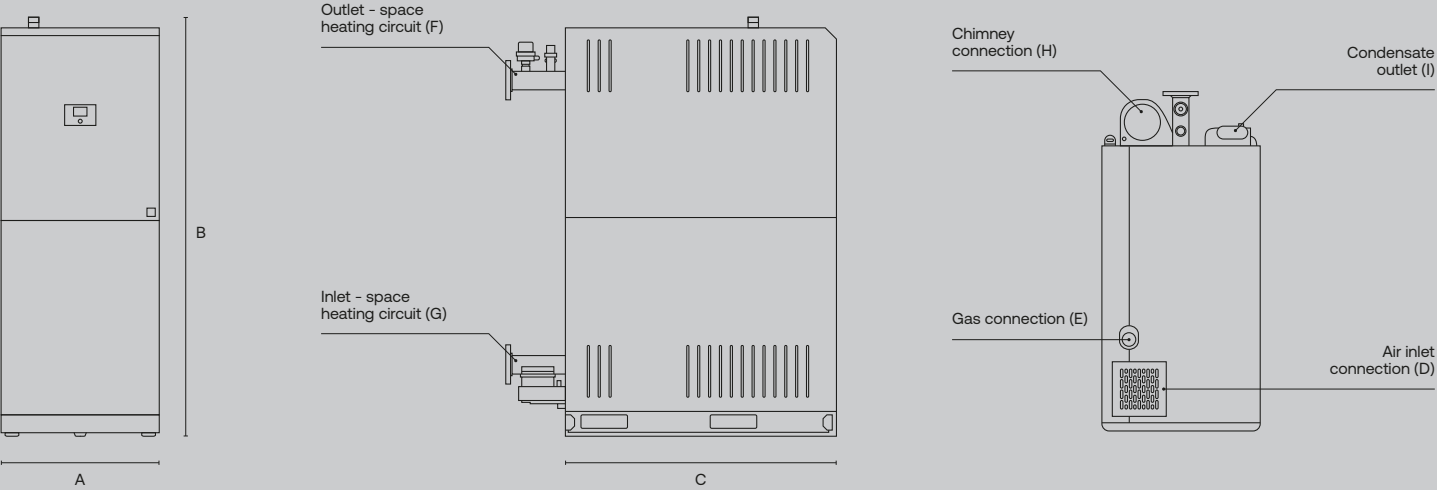
General			NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Energy consumption	W		641	818	845	1040
Supply voltage / frequency	V/Hz		230/50	230/50	230/50	230/50
Protection class	IP		X4D	X4D	X4D	X4D
Capacity	l		291	291	390	444
Min operating pressure	bar		0,8	0,8	0,8	0,8
Max operating pressure	bar		6	6	6	6
Max boiler supply temperature	°C		90	90	90	90

Gas appliance category			I2E(S), I2E, I2H, I2ELL, I2HS, I2N, I2EK, I3P, I2E(R), II2E3P, II2E(S)3P, II2EK3P, II2H3P, II2L3P, II2E+3P, II2E(R)3P, II2Esi3P, II2Er3P, IIELL3P			
Gas type			G20, G20Y20 ⁽¹⁾ , G25, G25.1, G25.3, G31			
Chimney type(s)			B23, B23P, C43, C53, C63, C83			
CO emission (0% O ₂)		mg/kWh	20,4	27,9	24,7	17,2
Gas flow rate	G20 ⁽²⁾	m³/h	4,5–27,8	5,0–33,4	6,3–41,6	9,2–54,8
	G25 ⁽²⁾	m³/h	5,5–32,0	6,2–38,9	8,4–47,0	11,6–60,6
	G20Y20 ^{(1),(2)}	m³/h	5,2–30,9	5,6–38,3	7,2–49,2	10,6–62,7
	G31 ⁽²⁾	m³/h	2,7–11,1	3,3–13,3	3,7–15,0	5,1–20,7
NOx class			6	6	6	6
NOx emission		mg/kWh	39,2	36,6	30,0	24,0

(1) Up to 20 vol. % hydrogen.
(2) 15 °C, 1.013,25 mbar, dry gas.

Dimensions		NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Width (A)	mm	762	762	762	865
Height (B)	mm	2020	2020	2020	2020
Depth (C)	mm	1306	1306	1306	1556
Empty weight	kg	549	549	624	728

Connections		NP 280 FSW	NP 350 FSW	NP 420 FSW	NP 570 FSW
Air inlet connection (D)	mm	150	150	150	250
Gas connection (E)	inch	G 1½"	G 1½"	G 1½"	Flange DN 65 Class PN 6
Outlet - space heating circuit (F)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16
Inlet - space heating circuit (G)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN80 Class PN16
Chimney connection (H)	mm	180	180	200	200
Condensate outlet (I)	mm	26,7	26,7	26,7	26,7



Specification NP 700–1260 FSW

Performance			NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Heat input (net)	G20 / G25 / G20Y20 ⁽¹⁾	kW	104,0-660,0	107,8-792,0	167,0-1020,0	185,0-1190,0
	G31	kW	155,0-660,0	197,0-792,0	255,0-1020,0	301,0-1190,0
Heat output at 80/60 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	101,0-644,4	104,7-773,8	163,0-993,5	180,7-1158,7
	G31	kW	150,8-645,1	190,9-771,8	249,6-996,5	294,7-1162,6
Heat output at 50/30 °C	G20 / G25 / G20Y20 ⁽¹⁾	kW	112,2-702,6	116,6-835,6	179,4-1082,8	199,0-1258,4
	G31	kW	165,2-693,2	210,0-818,1	271,1-1051,6	310,3-1226,9

Efficiency			NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Heating efficiency 80/60 °C	G20	%	97,1-97,6	97,1-97,7	97,7-97,4	97,7-97,4
Heating efficiency 50/30 °C	G20	%	107,8-106,5	108,2-105,5	107,5-106,2	107,6-105,8
Useful efficiency at 30% (return 30 °C)	G20	%	108,4	108,5	108,1	108
Seasonal efficiency	G20	%	93	93	93	93

General			NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Energy consumption	W		1366	2068	2924	3966
Supply voltage / frequency	V/Hz		230/50	3x400/50	3x400/50	3x400/50
Protection class	IP		X4D	X4D	X4D	X4D
Capacity	l		563	563	600	600
Min operating pressure	bar		0,8	0,8	0,8	0,8
Max operating pressure	bar		6	6	6	6
Max boiler supply temperature	°C		90	90	90	90

Gas appliance category			I2E(S), I2E, I2H, I2ELL, I2HS, I2N, I2EK, I3P, I2E(R), II2E3P, II2E(S)3P, II2EK3P, II2H3P, II2L3P, II2E+3P, II2E(R)3P, II2Esi3P, II2Er3P, IIELL3P			
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Gas type			G20, G20Y20 ⁽¹⁾ , G25, G25.1, G25.3, G31			
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Chimney type(s)			B23, B23P, C43, C53, C63, C83			
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CO emission (0% O ₂)		mg/kWh	18,3	21,5	21,5	21,5
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Gas flow rate	G20 ⁽²⁾	m³/h	10,5-68,0	10,6-77,8	17,5-106,6	19,2-123,6
	G25 ⁽²⁾	m³/h	13,0-79,1	13,1-90,5	21,0-126,2	23,0-143,4
	G20Y20 ^{(1),(2)}	m³/h	12,6-75,8	12,8-93,0	20,2-117,5	22,1-143,9
	G31 ⁽²⁾	m³/h	6,3-26,8	7,6-31,0	10,4-41,3	12,4-48,1

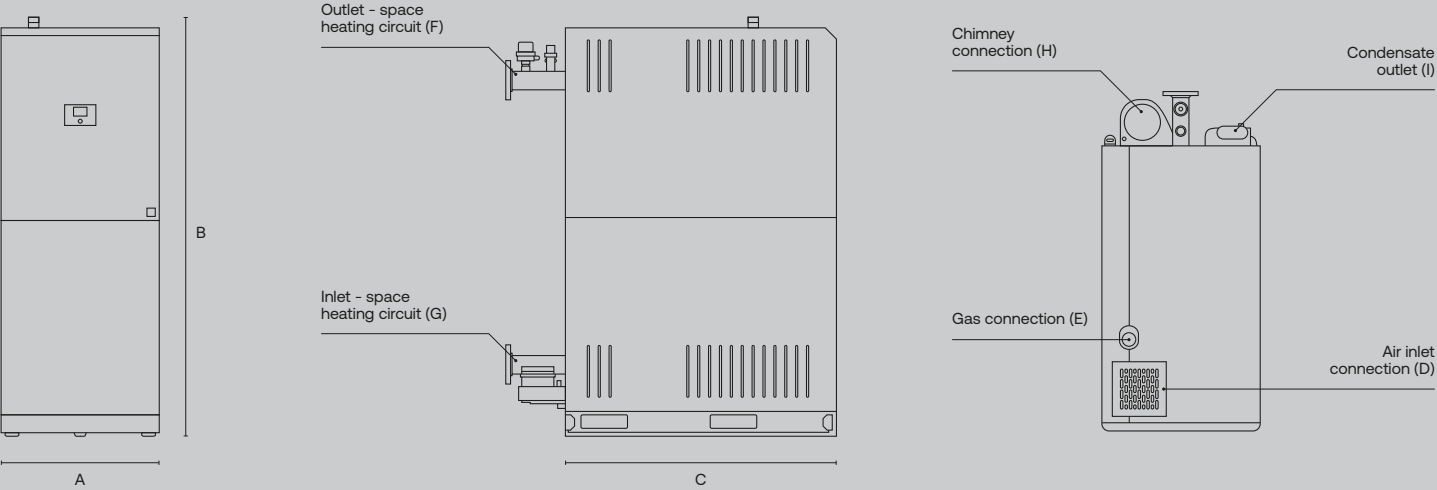
NOx class			6	6	6	6
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NOx emission		mg/kWh	36,2	29	39,7	24
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(1) Up to 20 vol. % hydrogen.
(2) 15 °C, 1.013,25 mbar, dry gas.

Dimensions		NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Width (A)	mm	865	865	1132	1132
Height (B)	mm	2020	2020	2076	2076
Depth (C)	mm	1556	1556	1806	1806
Empty weight	kg	887	897	1158	1250

Connections		NP 700 FSW	NP 840 FSW	NP 1080 FSW	NP 1260 FSW
Air inlet connection (D)	mm	250	250	300	300
Gas connection (E)		Flange DN 65 Class PN 6	Flange DN 65 Class PN 6	Flange DN 80 Class PN 16	Flange DN 80 Class PN 16
Outlet - space heating circuit (F)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN150 Class PN16	Flange DN150 Class PN16
Inlet - space heating circuit (G)		Flange DN80 Class PN16	Flange DN80 Class PN16	Flange DN150 Class PN16	Flange DN150 Class PN16
Chimney connection (H)	mm	250	250	300	300
Condensate outlet (I)	mm	26,7	26,7	33,4	33,4



CoilMaster

Combination Floor-Standing
Condensing Boiler

35 · 45 · 60 · 70 · 80 · 100 · 120

3,270 ltr/h
Maximum DHW
production at 40°ΔC

104 %
Useful efficiency
in DHW mode

10:1
Maximum
modulation ratio

The CoilMaster, a response to the demands of modern living, offers an energy-efficient boiler solution. With focus on enhanced building insulation, gas consumption has shifted from heating to hot water, often surpassing the demand for heating. To optimise gas usage, it is crucial to install an appliance that condenses efficiently in both heating and hot water modes, maximising each kilowatt of gas input. The CoilMaster achieves this with its stainless steel heat exchanger, engineered to deliver exceptional performance, making it one of the most efficient boilers in its class. With the integration of a stainless steel DHW circuit, the CoilMaster offers an immediate response to hot water demand, and it can be fed by the mains water supply for continuous delivery of high-performance domestic hot water.

Key Features & Benefits

Coil Fire Tube heat exchanger in stainless steel

Self-cleaning flue ways, anti-legionella

Passage through a 75 cm wide doorway

Class 6 low NOx burner

Easy installation and maintenance

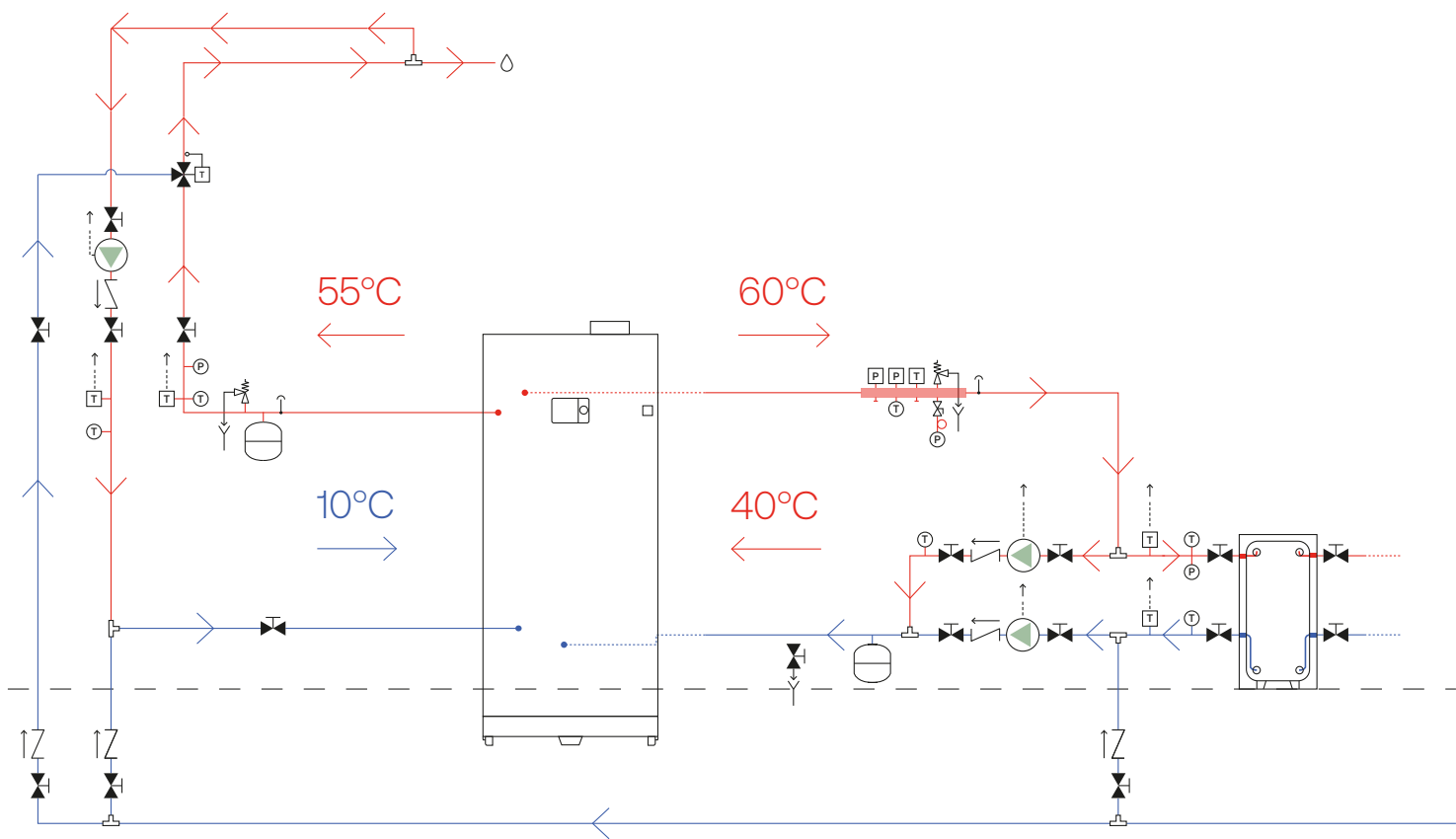
Energy class A

Indirect DHW production



Twin condensing boiler

How does it work?



01 Condensing heating

When the heating fluid returns from the circuit, it enters the lower section of the primary tank, triggering the condensing mode of the CoilMaster. By employing an internal pump, the circulation of the primary fluid intensifies, enhancing the counter current exchange and, as a result, improving the thermal efficiency.

02 Condensing hot water

In domestic hot water mode, the cold feed enters the lower section of the stainless steel coil for DHW. The low temperature of the lower primary circuit facilitates continuous condensation of the flue gases in the boiler, enabling a consistent withdrawal of hot water at high temperature from the top of the coil.

03 Condensing heating and hot water

Once the CoilMaster reaches and stabilizes at the desired temperature, it adeptly generates both heating and domestic hot water at the same time, operating efficiently in its condensing mode. This innovative system ensures optimal utilization of energy resources while providing consistent and reliable performance.



Despite its compact size, the CoilMaster delivers exceptional output, meeting high heating and DHW requirements without the necessity of additional storage.

It harnesses the benefits of condensing technology in both heating and DHW modes, providing ample volumes of efficient instantaneous DHW. The appliance minimises the risk of fouling through the use of an indirect heat exchanger.

Domestic hot water performance ⁽¹⁾		CM 35	CM 45	CM 60	CM 70	CM 80	CM 100	CM 120
Load profile	-	XXL	XXL	XXL	XXL	XXL	XXL	XXL
Peak flow at 40 °C first 10 minutes (storage temp. 80 °C)	l/10'	229	263	344	384	423	546	602
Peak flow at 40 °C first hour (storage temp. 80 °C)	l/60'	1112	1362	1703	1994	2283	2921	3327
Continuous flow rate 40 °C (ΔT = 30 K)	l/h	1068	1320	1632	1932	2232	2850	3270
Continuous flow rate 50 °C (ΔT = 40 K)	l/h	796	989	1224	1449	1674	2138	2453
Continuous flow rate 60 °C (ΔT = 50 K)	l/h	600	750	978	1170	1338	1560	1830
DHW efficiency at ΔT = 30 K	%	104	104	104	104	104	104	104

(1) Operating conditions: DHW set point T = 80 °C, Cold water inlet T = 10 °C.

Domestic hot water always in condensing mode

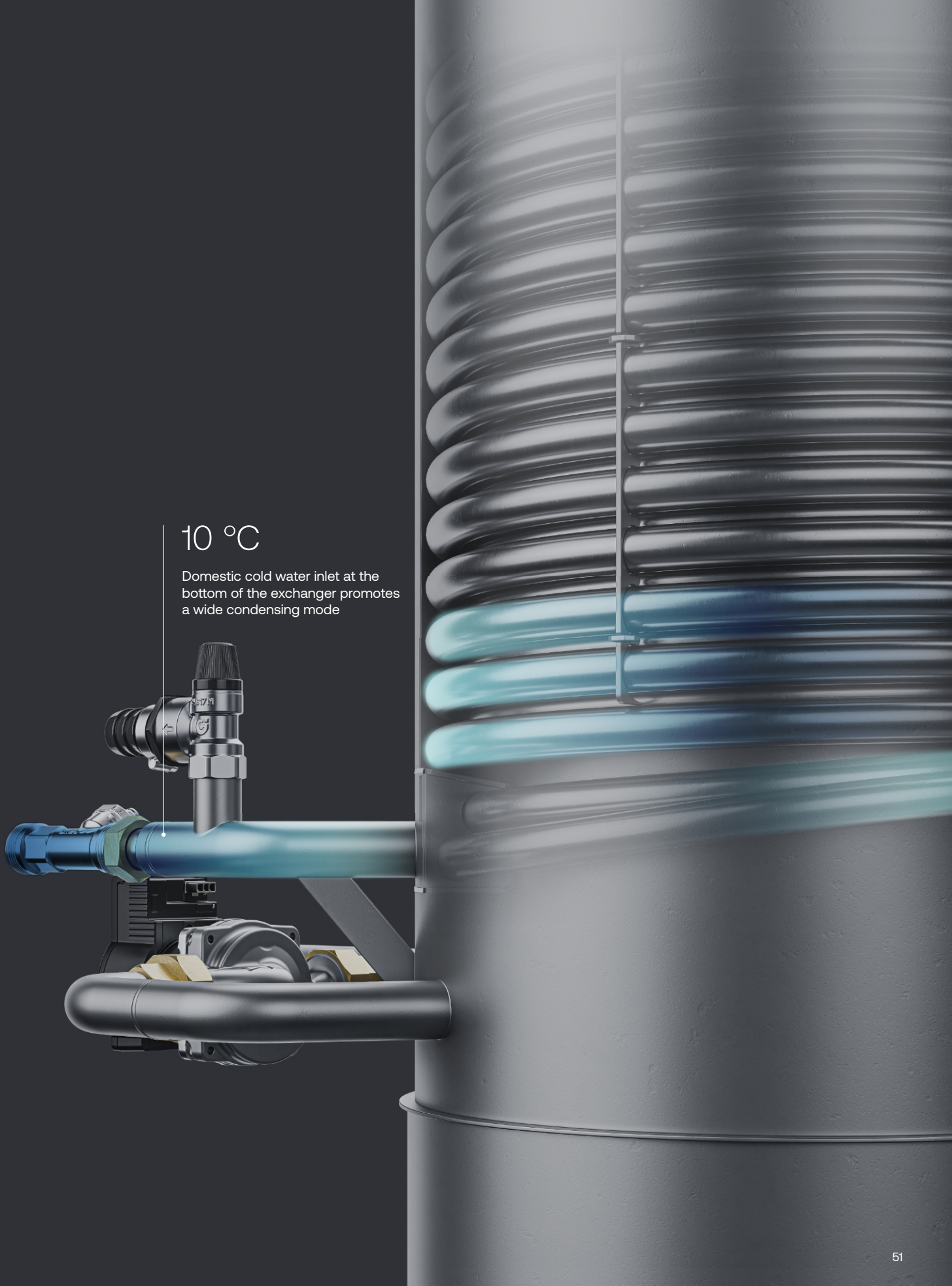
Anti-legionella

Indirect DHW production

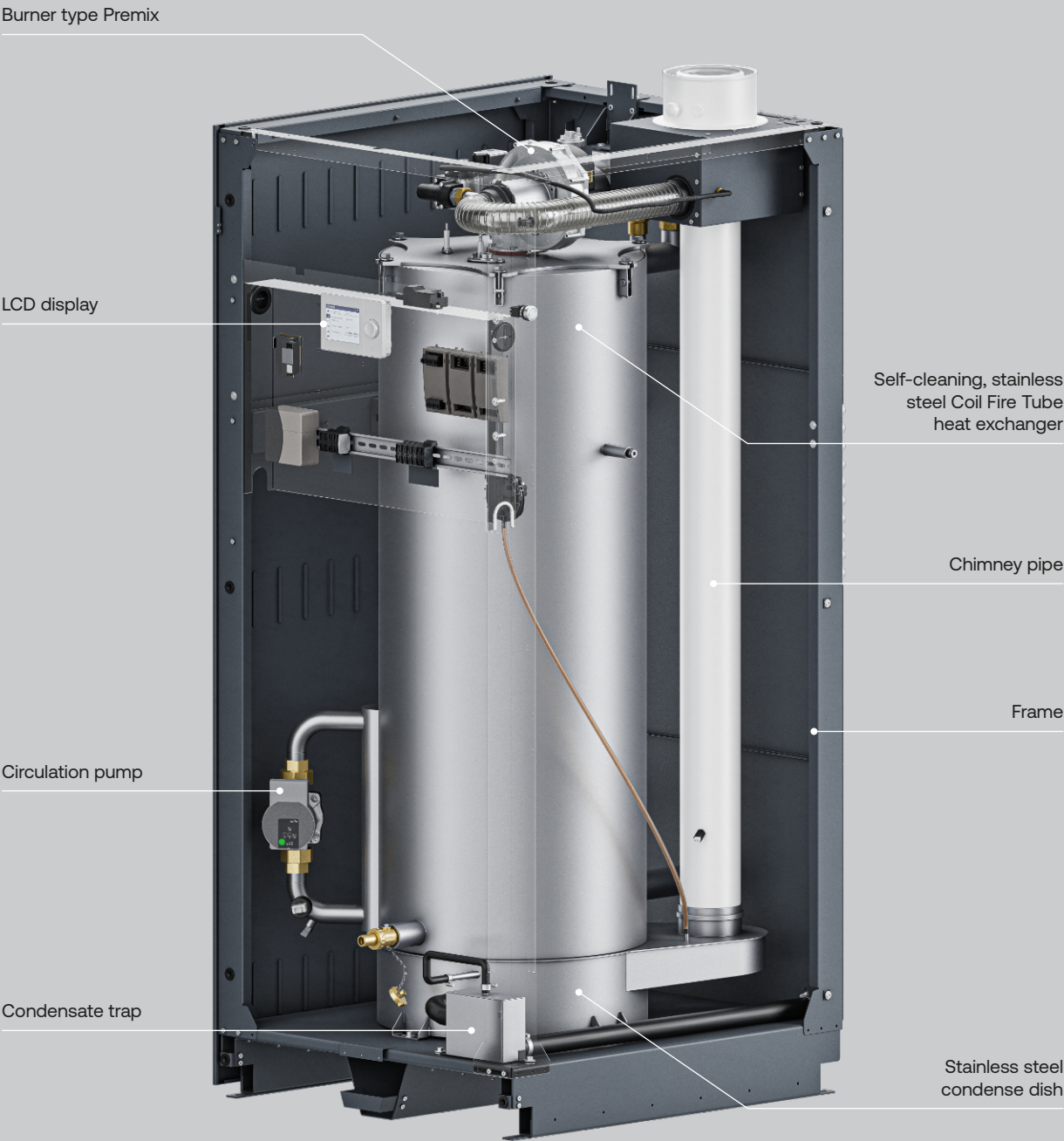
Bivalent condensation

The stainless steel domestic hot water coil is completely immersed in the primary circuit and ensures effective condensation thanks to the low temperatures of inlet water (10-15 °C). The high production of continuous DHW is thus delivered consistently by the large heat exchange surface and indirect heat transfer, protecting the coil itself from the harmful limescale deposits which would significantly reduce performance over time.

The threat of legionella is negated due to the high operating temperature of both the primary and domestic circuits, allowing for high volume, rapid hot water production.



Construction



Specification CM 35–45

Performance			CM 35	CM 45
Heat input (net)	G20 / G25 / G31	kW	4,5–34,9	4,5–45,0
	G20Y20 ⁽¹⁾	kW	4,3–33,0	4,3–42,6
Heat output at 80/60 °C	G20 / G25	kW	4,4–34,1	4,4–44,0
	G20Y20 ⁽¹⁾	kW	4,2–32,3	4,2–41,6
Heat output at 50/30 °C	G20 / G25	kW	4,9–37,6	4,9–48,4
	G20Y20 ⁽¹⁾	kW	4,6–35,6	4,6–45,8

Efficiency			CM 35	CM 45
Heating efficiency 80/60 °C	G20	%	97,2–97,3	97,2–97,3
Heating efficiency 50/30 °C	G20	%	108,3–107,8	108,5–107,6
Useful efficiency at 30% (return 30 °C)	G20	%	108,3	108,5
Seasonal efficiency	G20	%	92	93

Domestic hot water performance ⁽²⁾			CM 35	CM 45
Load profile	-		XXL	XXL
Peak flow at 40 °C first 10 minutes (storage temp. 80 °C)	I/10'		229	263
Peak flow at 40 °C first hour (storage temp. 80 °C)	I/60'		1112	1362
Continuous flow rate 40 °C (ΔT = 30 K)	I/h		1068	1320
Continuous flow rate 50 °C (ΔT = 40 K)	I/h		796	989
Continuous flow rate 60 °C (ΔT = 50 K)	I/h		600	750
DHW efficiency at ΔT = 30 K	%		104	104

(1) Up to 20 vol. % hydrogen.
(2) Operating conditions: DHW set point T = 80 °C, Cold water inlet T = 10 °C.
(3) 15 °C, 1.013,25 mbar, dry gas.

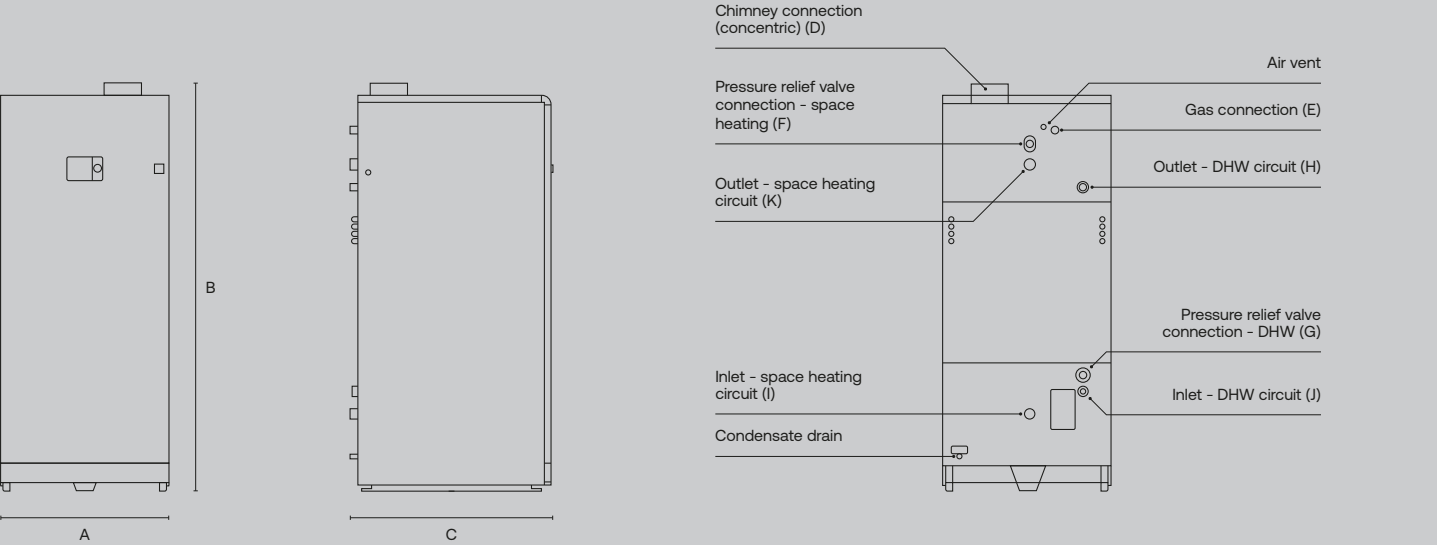
General			CM 35	CM 45
Energy consumption	W		45	86
Supply voltage / frequency	V/Hz		230/50	230/50
Protection class	IP		20	20
Seasonal space heating energy efficiency class			A	A
Range of space heating energy efficiency classess			A+++ → D	A+++ → D
Domestic hot water efficiency class			A	A
Range of domestic hot water energy efficiency classes			A+ → F	A+ → F
Gas appliance category			I2E(S), I2E, I2Er, I2H, I3P, II2E3P, II2EK3P, II2ELL3P, II2Esi3P, II2H3P, II2L3P	
Gas type			G20, G20Y20 ⁽¹⁾ , G25, G25.3, G31	
Chimney type(s)			B23, B23p, C13, C33, C43, C53, C63, C83, C93	
Capacity - space heating	l		43,6	43,6
Capacity - domestic hot water	l		10,6	10,6
CO emission (0% O ₂)	mg/kWh		7,5	7,5
Gas flow rate	G20 ⁽³⁾	m³/h	0,5–3,7	0,5–4,8
	G25 ⁽³⁾	m³/h	0,6–4,2	0,6–5,6
	G31 ⁽³⁾	m³/h	0,2–1,4	0,2–1,8
	G20Y20 ^{(1),(3)}	m³/h	0,5–3,7	0,5–4,8
NOx class			6	6
NOx emission	mg/kWh		24,3	28,9
Max temperature - space heating	°C		95	95
Max temperature - DHW	°C		80	80
Max operating pressure - space heating	bar		3	3
Max operating pressure - DHW	bar		8	8

(1) Up to 20 vol. % hydrogen.
(2) Operating conditions: DHW set point T = 80 °C, Cold water inlet T = 10 °C.
(3) 15 °C, 1.013,25 mbar, dry gas.

Specification CM 60–120

Dimensions		CM 35	CM 45
Width (A)	mm	600	600
Height (B)	mm	1676	1676
Depth (C)	mm	640	640
Empty weight	kg	180	180

Connections		CM 35	CM 45
Chimney connection (concentric) (D)	mm	80/125	80/125
Gas connection (E)	inch	3/4	3/4
Pressure relief valve connection - space heating (F)	inch	1	1
Pressure relief valve connection - DHW (G)	inch	3/4	3/4
Outlet - DHW circuit (H)	inch	3/4	3/4
Inlet - space heating circuit (I)	inch	1	1
Inlet - DHW circuit (J)	inch	3/4	3/4
Outlet - space heating circuit (K)	inch	1	1



Performance			CM 60	CM 70	CM 80	CM 100	CM 120
Heat input (net)	G20 / G25 / G31	kW	9,5-57,5	9,5-69,9	9,5-80,0	12,5-99,0	12,5-115,0
	G20Y20 ⁽¹⁾	kW	9,0-54,4	9,0-66,2	9,0-75,7	11,8-93,7	11,8-108,9
Heat output at 80/60 °C	G20 / G25	kW	9,2-56,1	9,2-68,2	9,2-77,8	12,1-97,2	12,1-112,9
Heat output at 50/30 °C	G20 / G25	kW	10,3-61,6	10,3-74,9	10,3-85,9	13,4-106,9	13,4-124,2

Efficiency			CM 60	CM 70	CM 80	CM 100	CM 120
Heating efficiency 80/60 °C	G20	%	97,1-97,3	97,3-97,3	97,2-97,3	97,5-97,8	97,5-97,9
Heating efficiency 50/30 °C	G20	%	108,2-107,2	108,0-107,2	108,4-107,4	107,7-108,0	107,7-108,0
Useful efficiency at 30% (return 30 °C)	G20	%	108,2	108,0	108,4	108,2	108,2
Seasonal efficiency	G20	%	92	92	93	93	93

Domestic hot water performance ⁽²⁾		CM 60	CM 70	CM 80	CM 100	CM 120
Load profile	-	XXL	XXL	XXL	XXL	XXL
Peak flow at 40 °C first 10 minutes (storage temp. 80 °C)	l/10'	344	384	423	546	602
Peak flow at 40 °C first hour (storage temp. 80 °C)	l/60'	1703	1994	2283	2921	3327
Continuous flow rate 40 °C (ΔT = 30 K)	l/h	1632	1932	2232	2850	3270
Continuous flow rate 50 °C (ΔT = 40 K)	l/h	1224	1449	1674	2138	2453
Continuous flow rate 60 °C (ΔT = 50 K)	l/h	978	1170	1338	1560	1830
DHW efficiency at ΔT = 30 K	%	104	104	104	104	104

(1) Up to 20 vol. % hydrogen.
(2) Operating conditions: DHW set point T = 80 °C, Cold water inlet T = 10 °C.
(3) 15 °C, 1.013,25 mbar, dry gas.

Texas

Condensing Instantaneous Water
Heater with Integrated Storage

99 · 230

7,573 ltr/h

Maximum DHW
production at 40°ΔC

6:1

Maximum
modulation ratio

1 m²

Small
footprint

The Texas water heater is a condensing unit with a storage capacity of 500 litres and a power output ranging from 99 to 230 kW. It features a unique design that includes a large number of helical flue pipes immersed in the domestic hot water (DHW), resulting in exceptional hot water performance. This design reduces mechanical stress on the water heater, ensuring durability. The Texas water heater is constructed using Duplex stainless steel, and it is equipped with a patented Helical Fire Tube heat exchanger, which offers a large surface area for maximum heat transfer and minimal pressure drop.

Key Features & Benefits

Helical Fire Tube heat exchanger in Duplex stainless steel

High production of peak and continuous DHW

Large heat transfer surface area

Self-cleaning flue gas tubes

High resistance to corrosion

Fast recovery times

Built in destratification pump





Integrated optimisation pump

For greater stability and uniformity of temperature inside of the tank, Texas is equipped with an integrated optimizing pump which has the task of “forcing” the circulation of water up through the helicoidal flue pipes, consistently delivering high performance and efficiency. The integrated optimizing pump maximizes the uniformity of temperature inside the storage and eliminates the risk of Legionella.

Parameters

- Greater stability and uniformity of temperature
- Forcing the circulation of water up through the pipes
- Delivering high performance and efficiency
- High durability of materials
- Easy service access

Duplex steel

The Texas water heater, engineered for high-volume hot water delivery in hygiene critical facilities, is crafted with longevity and dependability in mind.

AIC's choice of Duplex stainless steel ensures maximum resistance to corrosion and chlorides. With twice the mechanical strength of other austenitic steels, it withstands high chloride concentrations (up to 2,000 mg/l). This makes it ideal for applications with significant water demands and peak draw-off, as well as continuous usage. Its corrosion-resistant properties suit installations with high chloride levels found in sports centres, swimming pools, campsites, hotels, and spas. Notably, the quality of the chosen material eliminates the need for an anode, reducing maintenance requirements.



Characteristics

- Leanduplex 32101 & Duplex LDX 2101
- Very high mechanical strength
- Maximum resistance to corrosion
- Withstands high chloride concentrations
- Reducing maintenance requirement

DHW condensing


Anti-Lagionella


Load profile
4XL

Construction



Specification

Performance			TX 99 FS	TX 230 FS
Nominal heat input (Q)	G20 / G20Y20 ⁽¹⁾	kW	18,3-99,0	37,0-230,0
	G25	kW	19,0-99,0	37,0-230,0
	G31	kW	24,0-99,0	54,4-230,0
	G30	kW	-	54,4-230,0
Nominal useful output (P)	G20 / G20Y20 ⁽¹⁾	kW	105,1	246,8
	G25	kW	107,4	249,3
	G31	kW	105,2	239,5

Domestic hot water performance ⁽²⁾			TX 99 FS	TX 230 FS
Load profile			3XL	4XL
Peak flow at 40 °C first 10 minutes		l/10'	1148	1749
Peak flow at 40 °C first hour		l/60'	3926	7573
Continuous flow rate 40 °C (ΔT = 30 K)		l/h	3010	6989
Peak flow at 50 °C first 10 minutes		l/10'	1061	1308
Peak flow at 50 °C first hour		l/60'	2924	5635
Continuous flow rate 50 °C (ΔT = 40 K)		l/h	2235	5192
Peak flow at 60 °C first 10 minutes		l/10'	846	1040
Peak flow at 60 °C first hour		l/60'	2308	4435
Continuous flow rate 60 °C (ΔT = 50 K)		l/h	1754	4075
Recovery time (10 °C - 55 °C)		min	16	6
Efficiency for continuous draw-off at constant ΔT (ηu)	G20	%	106,2	107,3
	G31	%	106,3	104,2

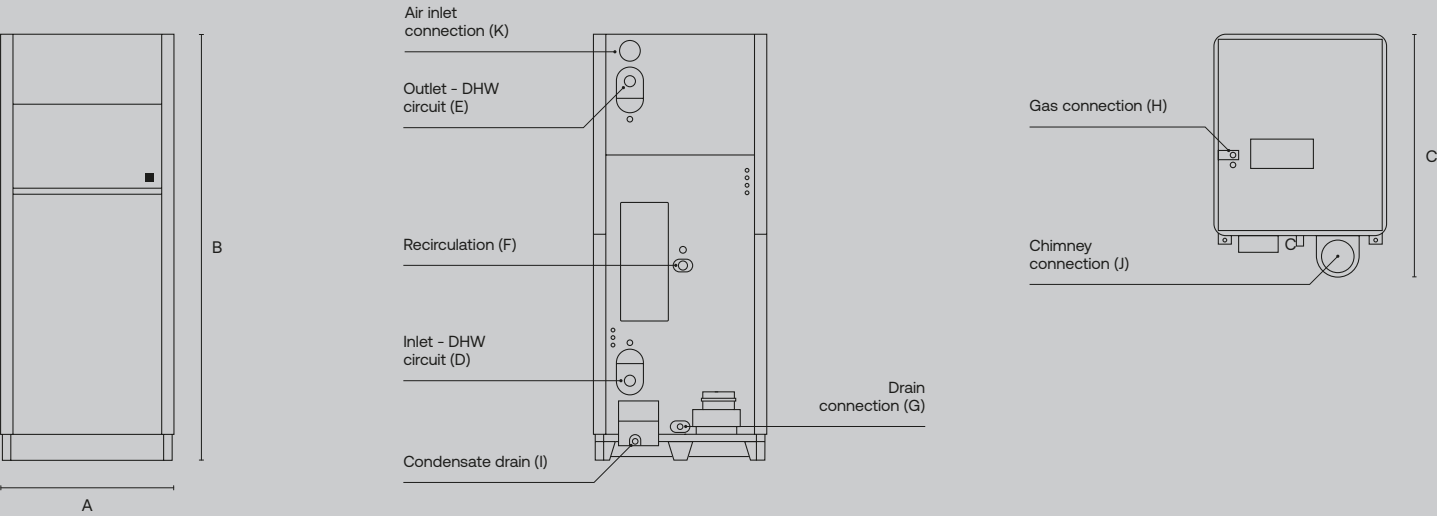
(1) Up to 20 vol.% hydrogen.
(2) Operating conditions: DHW set point T = 80 °C, cold water inlet T = 10 °C.
(3) 15 °C, 1.013,25 mbar, dry gas.

General			TX 99 FS	TX 230 FS
Energy consumption		W	169	290
Supply voltage / frequency		V/Hz	230 / 50	230 / 50
Protection class		IP	X4D	X4D
Capacity		l	500	500
Min operating pressure		bar	1,2	1,2
Max operating pressure		bar	8,0	8,0
Max pressure		bar	10,0	10,0
Max DHW operating temperature		°C	80	80
Gas type		G20, G25, G25.1, G25.3, G31, G20Y20 ⁽¹⁾	G20, G25, G25.1, G25.3, G30, G31, G20Y20 ⁽¹⁾	
Gas appliance category		I2E(S), I2E, I2H, I2E(R), I2ELL, I2HS, I2N, I2EK, I3P, I3B, I3B/P, II2E3P, II2E3B/P, II2E(S)3P, II2E(S)3B/P, II2EK3P, II2EK3B/P, II2H3P, II2H3B/P, II2L3P, II2L3B/P, II2E+3P, II2E+3B/P, II2E(R)3P, II2E(R)3B/P, II2Esi3P, II2Esi3B/P, II2Er3P, II2Er3B/P		
Chimney type(s)			B23, B23P, C43, C53, C63, C83	
CO emission		mg/kWh	4,3	9,7
Gas flow rate	G20 ⁽³⁾	m³/h	2,0-10,0	3,9-22,8
	G25 ⁽³⁾	m³/h	2,4-11,8	4,4-26,4
	G20Y20 ^{(1),(3)}	m³/h	2,2-12,1	4,5-27,0
	G30 ⁽³⁾	m³/h	-	1,8-7,0
	G31 ⁽³⁾	m³/h	0,9-3,9	2,2-8,9
NOx class			6	6
NOx emission		mg/kWh	37,6	37,5
Mass flow rate of flue gases (min-max)		g/s	8,0-42,0	16,0-96,6
Max flue gas temperature		°C	60	71

(1) Up to 20 vol.% hydrogen.
(2) Operating conditions: DHW set point T = 80 °C, cold water inlet T = 10 °C.
(3) 15 °C, 1.013,25 mbar, dry gas.

Dimensions		TX 99 FS	TX 230 FS
Width (A)	mm	880	880
Height (B)	mm	2174	2174
Depth (C)	mm	1050	1050
Empty weight	kg	402,5	432,5
Full of water	kg	902,5	932,5

Connections		TX 99 FS	TX 230 FS
Inlet - DHW circuit (D)	inch	G 2	G 2
Outlet - DHW circuit (E)	inch	G 2	G 2
Recirculation (F)	inch	G 1	G 1
Drain connection (G)	inch	G 1	G 1
Gas connection (H)	inch	G 3/4	G 1 1/4
Condensate drain (I)	mm	26,7	26,7
Chimney connection (J)	mm	150	150
Air inlet connection (K)	mm	100	100



Silox

Twin wall stainless steel cylinder

140 · 180 · 215 · 260 · 400 · 600 · 1000
90S · 130S · 190S · 260S · 400S · 600S · 1000S

316 L

AISI stainless steel

6.808

Litres/60’ up to

150 kW

Power absorbed
up to

Stainless steel DHW cylinders from AIC cover a wide range of capacities suitable for most applications. To optimise the product design and manufacturing process only the highest quality materials are used, ensuring long term performance and efficiency.

Utilising twin wall technology, the **Silox** cylinder extracts every possible kW of heat from the primary skin of the cylinder, transferring this to the inner DHW store to ensure fast recovery and uninterrupted hot water production.

Key features and benefits

High heat exchange

Fast recovery times

Self-cleaning function

Uniform temperature (Anti-legionella function)

Domestic storage tank inspection flange

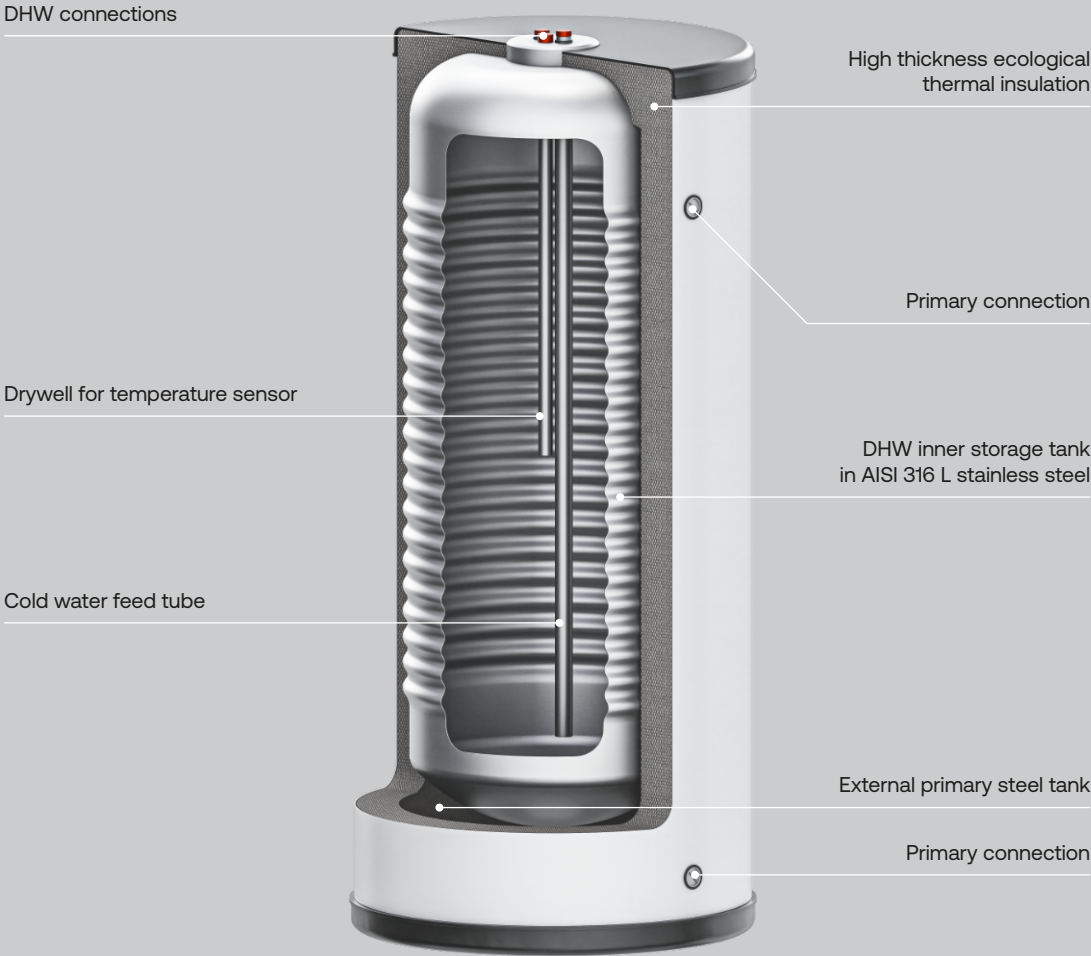
Connection provided for single electric heater (Silox model)

Complete control panel (Silox model)

Thick ecological polyurethane insulating foam jacket with no CFC or HCFC



Construction features



Technical specifications Silox

General		Sx 140	Sx 180	Sx 215	Sx 260	Sx 400	Sx 600	Sx 1000
Total capacity	l	138	176	214	252	355	574	955
Exchange surface	m²	0,9	1,2	1,6	1,9	2,2	2,8	4
Standing heat loss	W	49	53	56	61	99	103	113
Energy efficiency class		B	B	B	B	C	C	C

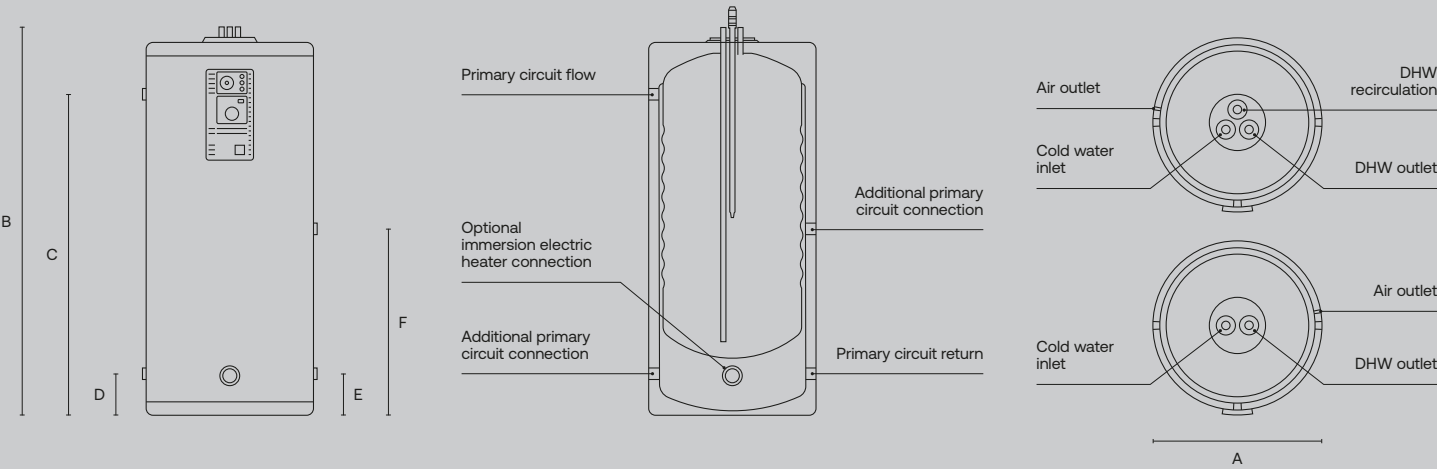
Primary circuit								
Primary tank capacity	l	46	49	53	56	90	141	243
Max primary temperature	°C	110	110	110	110	110	110	110
Max primary operating pressure	bar	3	3	3	3	3	3	3

Secondary (DWH) circuit								
Secondary (DHW) tank capacity	l	92	127	161	196	265	433	712
Max DHW tank temperature	°C	90	90	90	90	90	90	90
Max DHW tank operating pressure	bar	8	8	8	8	8	8	8

Domestic Hot Water Performance ⁽¹⁾								
Peak flow at 40 °C first 10 minutes	l/10'	422	522	655	770	1.148	1.658	2.752
Peak flow at 45 °C first 10 minutes	l/10'	312	389	484	569	847	1.229	2.040
Peak flow at 60 °C first 10 minutes	l/10'	199	249	309	363	536	791	1.314
Peak flow at 40 °C first hour	l/60'	1.382	1.493	2.159	2.523	3.366	4.159	6.808
Peak flow at 45 °C first hour	l/60'	989	1.112	1.545	1.806	2.411	2.994	4.902
Peak flow at 60 °C first hour	l/60'	466	634	874	1.022	1.368	1.731	2.837
Continuous flow rate at 40 °C	l/h	1.017	1.029	1.594	1.857	2.208	2.650	4.297
Continuous flow rate at 45 °C	l/h	826	882	1.293	1.508	1.793	2.161	3.490
Continuous flow rate at 60 °C	l/h	489	517	773	881	1.041	1.283	2.070
Charging time (from 10° to 60 °C)	min	23	23	21	21	23	32	36
Primary flow rate	m³/h	2,9	3,1	4,6	5,2	6,3	7,6	12,2
Maximum absorbed power	kW	35	36	56	65	77	92	150

Dimensions		Sx 140	Sx 180	Sx 215	Sx 260	Sx 400	Sx 600	Sx 1000
External diameter (A)	mm	560	560	560	560	620	770	950
Overall height (B)	mm	1.029	1.279	1.529	1.767	1.722	1.728	2.250
Dimension (C)	mm	834	1.084	1.334	1.574	1.510	1.491	1.926
Dimension (D)	mm	214	214	214	214	180	190	336
Dimension (E)	mm	214	214	214	214	180	190	336
Dimension (F)	mm	n/a	649	775	895	845	835	n/a
Empty weight	kg	49	59	70	80	90	133	239

Connections								
Cold water inlet	mm	G 3/4	G 3/4	G 3/4	G 1	G 1	G 1	G 1 1/4
DHW outlet	mm	G 3/4	G 3/4	G 3/4	G 1	G 1	G 1	G 1 1/4
DHW recirculation	mm	G 3/4	G 3/4	G 3/4	G 1	G 1	G 1	n/a
Air outlet	mm	G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	G 1/2
Primary circuit flow	mm	G 1	G 1	G 1	G 1	G 1 1/2	G 1 1/2	G 1 1/2
Primary circuit return	mm	G 1	G 1	G 1	G 1	G 1 1/2	G 1 1/2	G 1 1/2
Optional immersion electric heater connection	mm	G 2	G 2	G 2	G 2	G 2	G 2	G 2
Add. primary circuit return connection (lower)	mm	G 1	G 1	G 1	G 1	G 1 1/2	G 1 1/2	G 1 1/2
Add. primary circuit return connection (midway)	mm	n/a	G 1	G 1	G 1	G 1 1/2	G 1 1/2	n/a



(1) Operating conditions: Primary T = 85 °C, Cold water inlet T = 10 °C.

Technical specifications Silox S

General		Sx 90 S	Sx 130 S	Sx 190 S	Sx 260 S	Sx 400 S	Sx 600 S	Sx 1000 S
Total capacity	l	80	122	187	249	321	570	955
Exchange surface	m²	0,8	1,0	1,2	1,6	2,4	3,1	4,0
Standing heat loss	W	45	50	58	63	99	103	113
Energy efficiency class		B	B	B	B	C	C	C

Primary circuit

Primary tank capacity	l	21	30	41	56	65	108	243
Max primary temperature	°C	110	110	110	110	110	110	110
Operating primary temperature	°C	85	85	85	85	85	85	85
Max primary operating pressure	bar	3	3	3	3	3	3	3

Secondary (DWH) circuit

Secondary (DHW) tank capacity	l	59	92	146	193	256	462	712
Max DHW tank temperature	°C	90	90	90	90	90	90	90
Max DHW tank operating pressure	bar	8	8	8	8	8	8	8

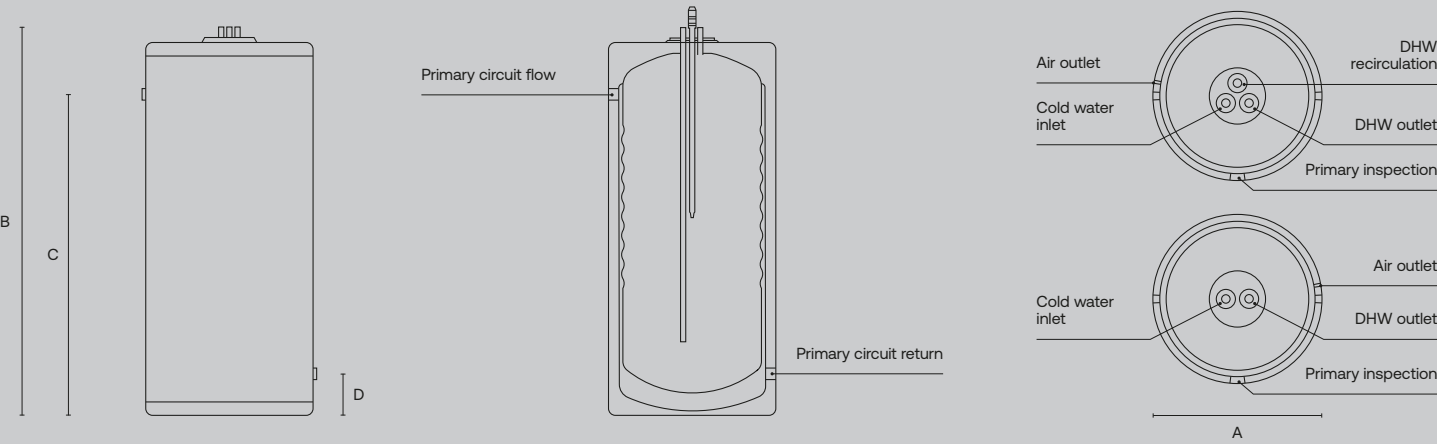
Domestic Hot Water Performance ⁽¹⁾

Peak flow at 40 °C first 10 minutes	l/10'	262	428	570	920	1.096	1.653	2.752
Peak flow at 45 °C first 10 minutes	l/10'	180	287	421	594	810	1.226	2.040
Peak flow at 60 °C first 10 minutes	l/10'	110	183	270	356	516	789	1.314
Peak flow at 40 °C first hour	l/60'	898	1.551	1.682	2.982	3.335	4.078	6.808
Peak flow at 45 °C first hour	l/60'	597	1.046	1.199	1.862	2.369	2.936	4.902
Peak flow at 60 °C first hour	l/60'	270	569	688	973	1.357	1.700	2.837
Continuous flow rate at 40 °C	l/h	565	960	980	1.400	1.875	2.225	4.297
Continuous flow rate at 45 °C	l/h	470	920	947	1.336	1.769	2.085	3.490
Continuous flow rate at 60 °C	l/h	265	545	548	873	1.028	1.241	2.070
Charging time (from 10° to 60 °C)	min	18	20	25	24	23	32	36
Primary flow rate	m³/h	1,5	3,2	3,4	4,7	6,2	7,3	12,2
Maximum absorbed power	kW	20	40	41	57,5	76	90	150

Dimensions		Sx 90 S	Sx 130 S	Sx 190 S	Sx 260 S	Sx 400 S	Sx 600 S	Sx 1000 S
External diameter (A)	mm	480	480	620	620	620	770	950
Overall height (B)	mm	749	1.155	983	1.239	1.724	1.730	2.250
Dimension (C)	mm	575	980	777	1.027	1.512	1.493	1.926
Dimension (D)	mm	170	170	182	182	182	192	336
Empty weight	kg	35	51	64	78	106	151	239

Connections

Cold water inlet	inch	3/4	3/4	3/4	3/4	1	1	1 1/4
DHW outlet	inch	3/4	3/4	3/4	3/4	1	1	1 1/4
DHW recirculation	inch	3/4	3/4	3/4	3/4	1	1	n/a
Air outlet	inch	G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	G 1/8	G 1/2
Primary circuit flow	inch	G 1	G 1	G 1	G 1	G 1	G 1 1/2	G 2
Primary circuit return	inch	G 1	G 1	G 1	G 1	G 1	G 1 1/2	G 2
Primary inspection	mm	91	91	91	91	91	91	2"



(1) Operating conditions: Primary T = 85 °C, Cold water inlet T = 10 °C.

Hybridos Eco

Factory Made high power hybrid system



Tax deductions

ECO

Low environmental impact

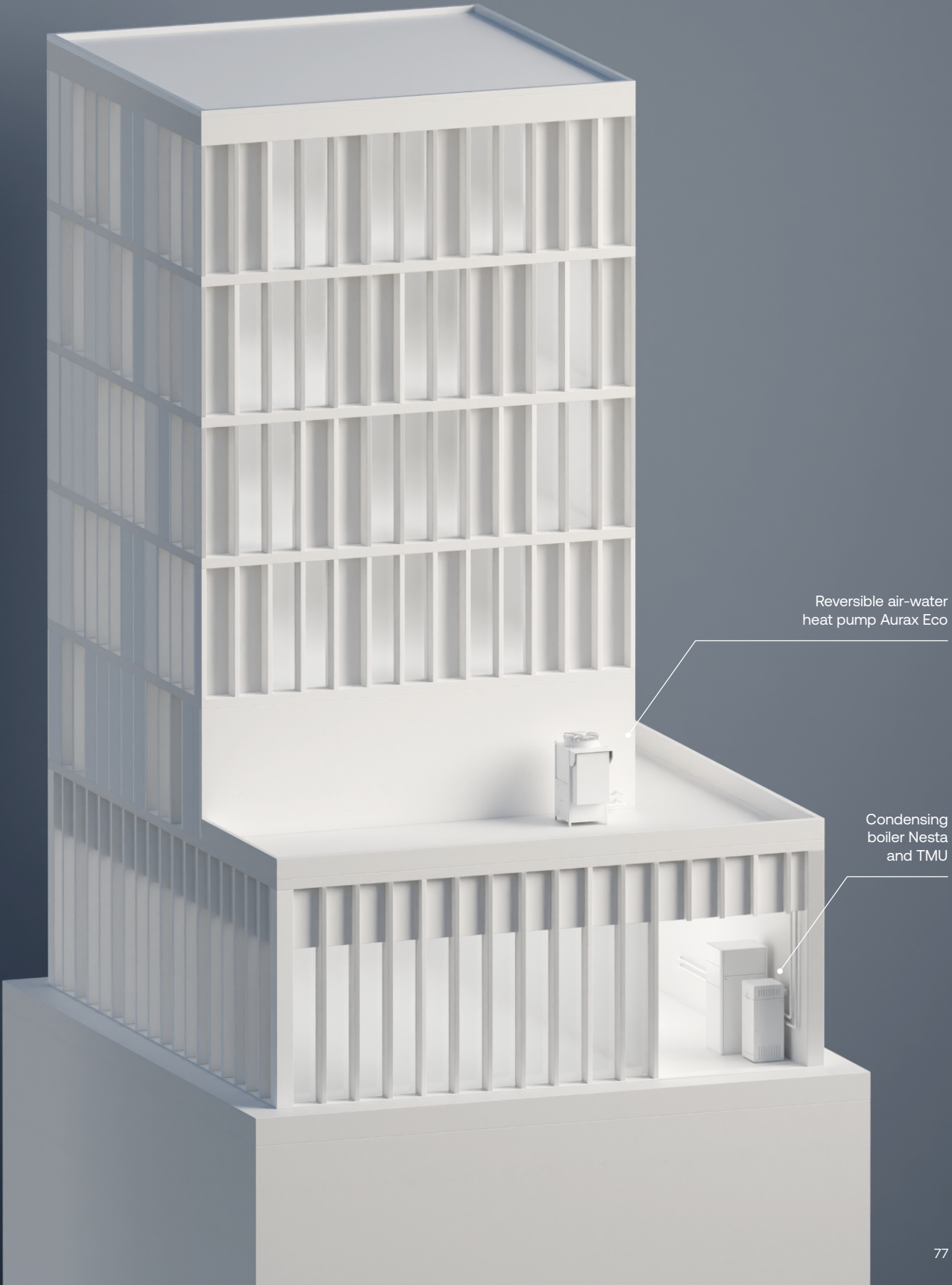
In Europe, there are 120 million heating systems, 60% of them are in class C and D (source: EHI). A hybrid installation is an excellent solution for the evolution of integrated hydronic systems for environmental comfort (Seasonal heating and air conditioning with DHW). Delivering ambient comfort for the future.

The term ‘hybrid’ refers to an appliance or installation that combines at least two different energy sources and whose operation is managed by one control. The most common option is a hybrid system which combines an electric heat pump with a condensing boiler.

The option of drawing from different technologies makes hybrid systems very efficient; depending on your building's insulation value, the installation will respond to demand, generally running the heat pump during spring and autumn seasons. It will then employ the condensing boiler during the coldest days of the year for maximum comfort.

Key features and benefits

- It contributes to improving the overall energy class of the building
- Reduced polluting emissions
- Maximum energy savings
- Access to the thermal account and tax deductions in certain European countries
- Service continuity
- Wide range of outputs and solutions





The hybrid solution specifically designed by AIC for the redevelopment of commercial and industrial buildings, and residential buildings with centralised plantrooms. To achieve high performance and the greatest possible efficiency in heating as well as in the production of domestic hot water.

The system consists of

- a heat pump generator Aurax Eco
- combined with high power condensing boilers single or in cascade (Nesta Chrome – Nesta – CoilMaster)
- perated by a Thermal Management Unit (TMU) which manages and monitors thermal control and integrated staging

100 %

Stainless steel



Stratification
function



Energy
Management
function

Thermal Management Unit (TMU) thermal control unit with storage and integrated stratification, the brain of the AIC Hybridos system, composed of:

Energy Management Regulator

Allowing you to always use the most convenient form of energy. Integrated into the elegant oven-painted sheet metal casing. It also allows the management of up to 3 direct or mixed heating circuits and a DHW circuit.

Stainless steel stratified heat storage

Designed for the simultaneous operation of 2 heat sources. Equipped with a special separation diaphragm to maximise the contribution provided by the heat pump.

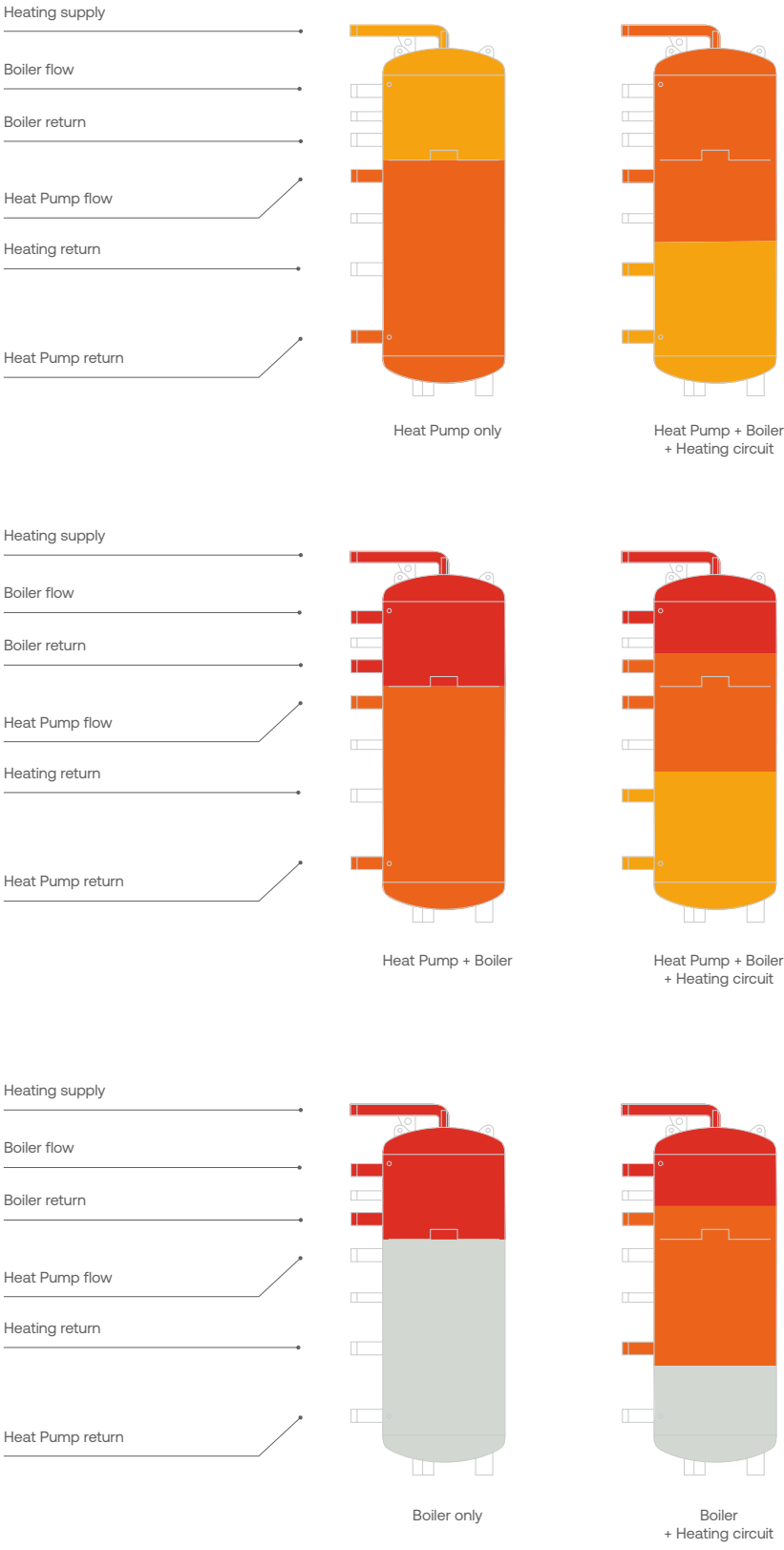
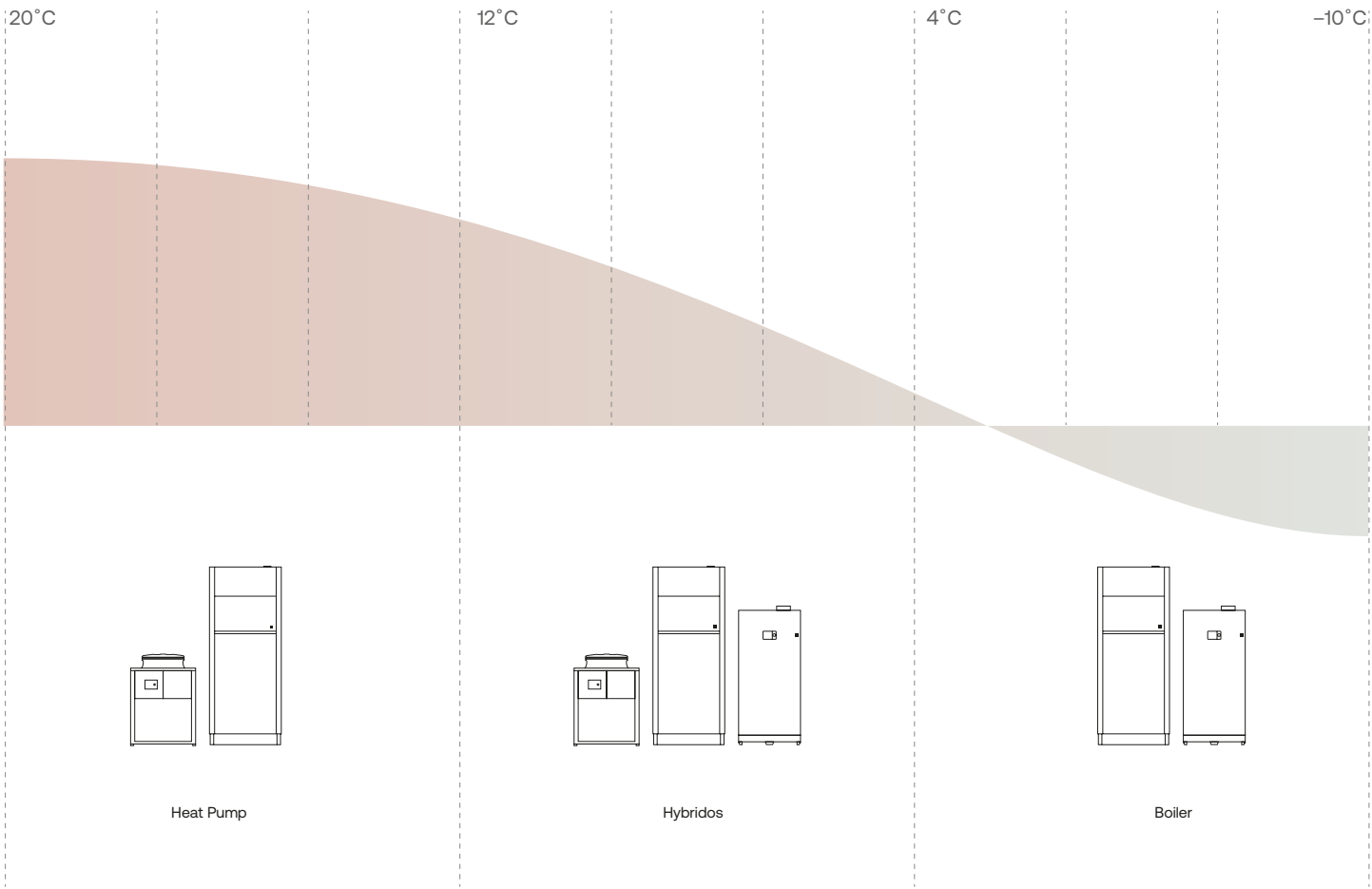
Key features and benefits

- Stratified stainless steel heat storage
- Available on 500 and 800 litres capacity
- Multi-energy
- Special seperation diaphram between the boiler section and heat pump section
- Neodul® Insulation in polystyrene foam with added graphite nanoparticles
- Elegant casing in oven-cured sheet metal
- Series of boiler delivery and return connections
- Series of heat pump delivery and return connections
- Series of delivery and return connections on the system side
- Series of delivery and return connections for DHW production



Energy Management Function

Thanks to the TMU, the Hybridos AIC system can have two operating modes: Alternating operation or Parallel operation.



Alternating operation Heat Pump only

The heat pump works in the lower part of the TMU. The hot water stratifies towards the upper part of the storage and serves the system.

Parallel operation Heat Pump and Boiler

The heat pump works in the lower part of the TMU, contributing to the maximum contribution from renewable sources. The boiler raises the temperature, when necessary, by heating the upper part of the TMU near the delivery to the system.

In this way each generator is utilised to the fullest by optimising its features.

Alternating operation Boiler only

The boiler works in the upper part of the TMU, heating the minimum volume of water at a high temperature to serve the system.

Hybridos Eco configurations

Hybridos Eco Configurations	Model Hybrid System	Model Boiler	Power kW	Model Heat Pump	Power kW	Model TMU	Capacity Litres
Hybridos Eco NC with Nesta Chrome single wall-mounted condensing boiler and Aurax Eco heat pump	Hybridos Eco NC60.25	NC 60 WH	57,5	Aurax Eco 25.1	24,7	TMU 500	500
	Hybridos Eco NC80.38	NC 80 WH	80	Aurax Eco 38.1	37,9	TMU 500	500
	Hybridos Eco NC100.25	NC 100 WH	99	Aurax Eco 25.1	24,7	TMU 500	500
	Hybridos Eco NC100.45	NC 100 WH	99	Aurax Eco 45.1	44,7	TMU 500	500
	Hybridos Eco NC120.55	NC 120 WH	120	Aurax Eco 55.1	55,5	TMU 500	500
	Hybridos Eco NC150.68	NC 150 WH	145	Aurax Eco 68.2	67,8	TMU 500	500
Hybridos Eco NCD with two Nesta Chrome wall-mounted condensing boilers in cascade “In Line” and Aurax Eco heat pump	Hybridos Eco NC120D.55	2 x NC 60 WH	115	Aurax Eco 55.1	55,5	TMU 500	500
	Hybridos Eco NC160D.74	2 x NC 80 WH	160	Aurax Eco 74.2	73,6	TMU 500	500
	Hybridos Eco Max NC200D.86	2 x NC 100 WH	198	Aurax Eco 86.2	85,8	TMU 800	800
	Hybridos Eco Max NC240D.68	2 x NC 120 WH	240	Aurax Eco 68.2	67,8	TMU 800	800
	Hybridos Eco Max NC240D.106	2 x NC 120 WH	240	Aurax Eco 106.2	106,1	TMU 800	800
	Hybridos Eco Max NC300D.114	2 x NC 150 WH	290	Aurax Eco 114.2	113,8	TMU 800	800
	Hybridos Eco Max NC360T.150	3 x NC 120 WH	360	Aurax Eco 150.1	147,3	TMU 800	800
Hybridos Eco N with Nesta single floor standing condensing boiler and Aurax Eco heat pump	Hybridos Eco N120.55	N 120 FS	115,5	Aurax Eco 55.1	55,5	TMU 500	500
	Hybridos Eco N160.68	N 160 FS	150	Aurax Eco 68.2	67,8	TMU 500	500
	Hybridos Eco N200.55	N 200 FS	190	Aurax Eco 55.1	55,5	TMU 500	500
	Hybridos Eco Max N200.86	N 200 FS	190	Aurax Eco 86.2	85,8	TMU 800	800
	Hybridos Eco Max N250.106	N 250 FS	232	Aurax Eco 106.2	106,1	TMU 800	800
	Hybridos Eco Max N300.114	N 300 FS	280	Aurax Eco 114.2	113,8	TMU 800	800
	Hybridos Eco Max NP350.150	NP 350 FSW	325	Aurax Eco 150.1	147,3	TMU 800	800
Hybridos Eco CM with CoilMaster combination condensing floor-standing boiler and Aurax Eco heat pump	Hybridos Eco CM 60.25	CM 60	57,5	Aurax Eco 25.1	24,7	TMU 500	500
	Hybridos Eco CM 80.38	CM 80	80	Aurax Eco 38.1	37,9	TMU 500	500
	Hybridos Eco CM 100.45	CM 100	99	Aurax Eco 45.1	44,7	TMU 500	500
	Hybridos Eco CM 120.55	CM 120	115	Aurax Eco 55.1	55,5	TMU 500	500

Aurax Eco heat pump

- High efficiency 2 Pipe reversible air-water heat pump with single or double compressor, optimised for maximum efficiency in heating mode
- Silent version
- Models from 24,7 to 147,3 kW

Condensing boiler

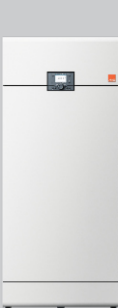
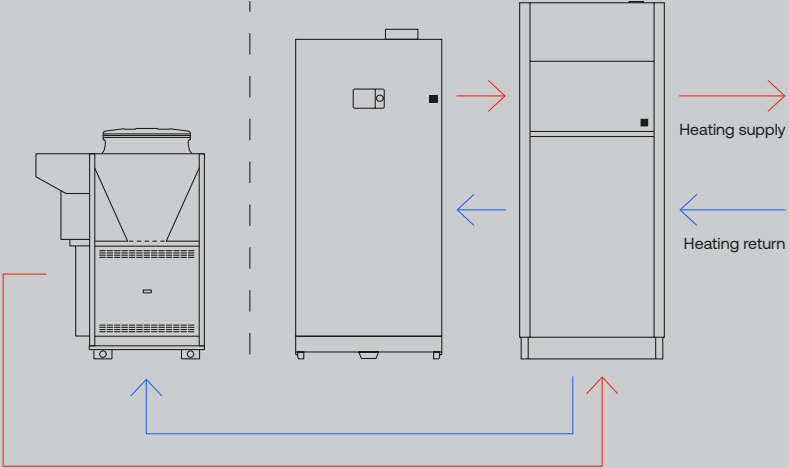
Depending on the configuration, the AIC Hybridos Eco system is equipped with the following boiler models:

- Nesta Chrome – single wall mounted boiler
- Nest Chrome – cascade system
- Nesta – floor standing boiler
- CoilMaster – floor standing combination boiler
- Models from 57,5 to 325 kW

Thermal Management Unit – TMU

Thermal control unit with integrated stratification storage, dual function:

- Energy Management Regulator
- Stainless steel stratified heat storage
- Models from 500 to 800 litres



Hybridos Eco NC
with Nesta Chrome single wall-mounted condensing boiler and Aurax Eco heat pump

Hybridos Eco NCD
with two Nesta Chrome wall-mounted condensing boilers in cascade “In Line” and Aurax Eco heat pump

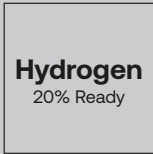
Hybridos Eco N
with Nesta single floor standing condensing boiler and Aurax Eco heat pump

Hybridos Eco CM
with CoilMaster combination condensing floor-standing boiler and Aurax Eco heat pump

AIC is ready for a sustainable future

AIC condensing boilers are certified to operate perfectly with a 20% hydrogen blend. In this way, AIC takes a first big step towards the energy transition that foresees the use of hydrogen as the primary power source for condensing boilers of the future on the horizon.

Hydrogen is present in large quantities on our planet and can offer the domestic heating sector energy security while respecting the climate and environment. AIC Research and Development has dedicated time and investment to studying the use of “green” hydrogen as a power source for its condensing boilers, achieving this first important milestone for sustainable comfort.



Quality guaranteed over time

Extend for free the warranty of AIC boilers

The formula for obtaining free extended warranties on major components of AIC boilers.

Based on proven and reliable technology, AIC designs and manufactures energy-responsible products that are built to last and minimize maintenance. To further protect its customers' investment, AIC has developed a unique and affordable component warranty extension formula, FULL LIFE Extension, applicable to its entire range of boilers. Contact your local AIC contact person to find out how to get it.



Building information modeling

AIC is BIM Ready and has made the Technical/BIM library of its high-power boiler range available at www.myaic.co.uk. The BIM models contain the 3D geometry describing the physical appearance of the product, as well as data (parameters) indicating what type it belongs to, how it is classified, performance values, materials, expected lifetime, and more.

Autodesk Revit

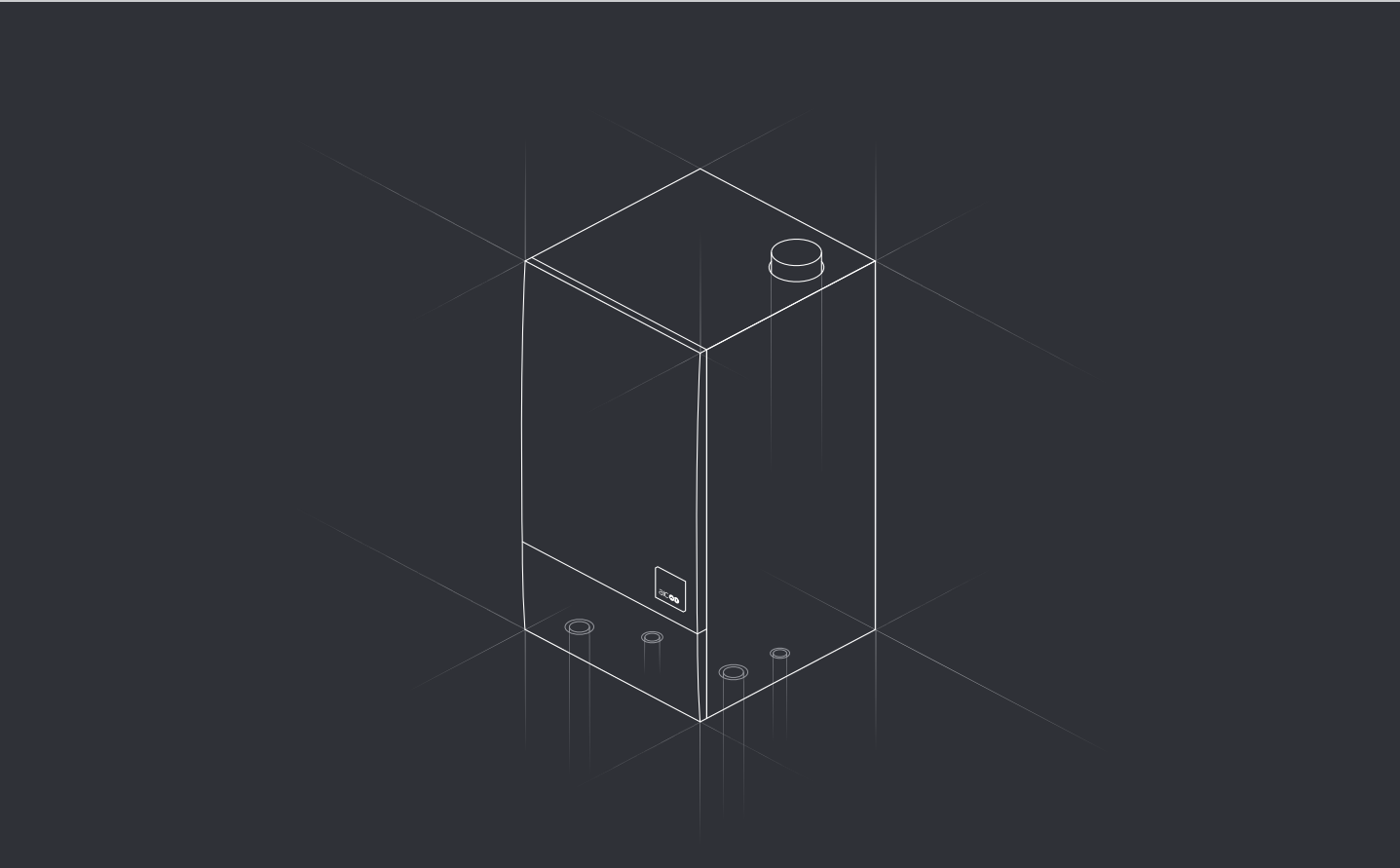
.rfa

Autodesk Viewer free online

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Microsoft Excel

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Thermesis

The AIC software for calculating domestic hot water requirements

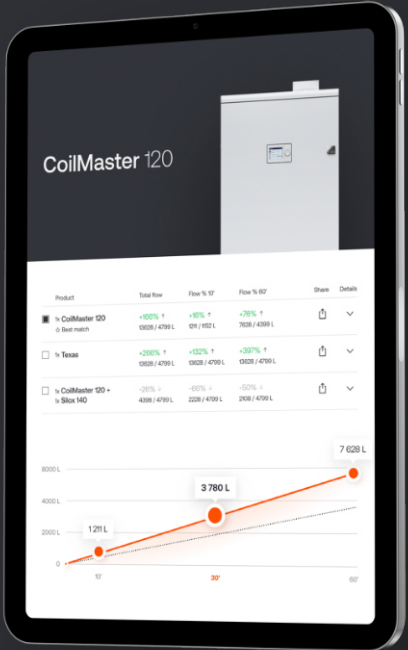
AIC supports the heating professional, not only by providing access to its in-house technical department, but also with Thermesis software. A professional working tool for determining domestic hot water requirements in large users, providing not only the calculation, but also the ideal AIC solution complete with specification description, calculation report and diagrams in pdf and dwg format.

- Per definire gli elevati fabbisogni di acqua calda sanitaria nelle utenze collettive come:
- Apartment buildings
 - Hotels
 - Campsites
 - Gyms
 - Sports Centres
 - Hospitals
 - Nursing homes
 - Canteens
 - Restaurants
 - Industrial changing rooms
 - Industrial applications

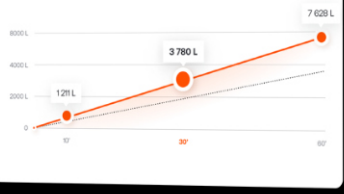


Thermesis

The professional software for determining domestic hot water requirements in large users and providing the ideal AIC solution complete with diagrams and project data.



Product	Total flow	Flow % 12	Flow % 62	Share	Details
1x CoilMaster 120	+100% 1 10000 / 4700 L	+100% 1 121 / 1452 L	+70% 1 7000 / 4300 L		
1x Texas	+100% 1 10000 / 4700 L	+100% 1 12120 / 4700 L	+100% 1 12120 / 4700 L		
1x CoilMaster 120 + 1x Slice 140	+100% 1 40000 / 4700 L	+100% 1 2220 / 4700 L	+100% 1 2100 / 4700 L		



Service Centre Network

Professional and always up-to-date

For AIC, the training of its partners is extremely important and it invests a lot of resources and energy to keep its network of Authorised Service Centres and Premium Partners constantly updated. For this purpose, the AIC Academy has been organised with an intensive and engaging program of theoretical and practical courses at the training centre located in your local AIC subsidiary.



aicON

The AIC app for professionals

The AIC App for installers, service centres and users to keep track of the installation and maintenance of AIC products. The complete history of the boiler from the date of installation and commissioning, including all annual maintenance and replacement parts: all in one App.

The different input profiles allow access to additional functions reserved for professionals to have at hand at all times:

- Documentation and Manuals
- Commissioning Reports
- Exploded views and Spare parts

