

NESTA



Floor-Standing Condensing Boiler

120 · 160 · 200 · 250 · 300

The Nesta range offers high-output condensing boilers for large residential and commercial use. Ideal for medium to large projects, they provide reliable heat for new builds or renovations. With a compact stainless steel heat exchanger, Nesta boilers offer easy installation. The internal control unit manages up to 6 boilers and allows remote management via ethernet or GSM router. Using a proven Fire Tube design, these boilers suit demanding commercial use. The range includes five output models in a small enclosure, simplifying installation. Despite a compact 0.5 m² footprint, Nesta boilers deliver impressive power. Self-cleaning flue ways enhance maintenance. Craftsmanship, performance, and sustainability define the Nesta range of modern small industrial boilers.

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

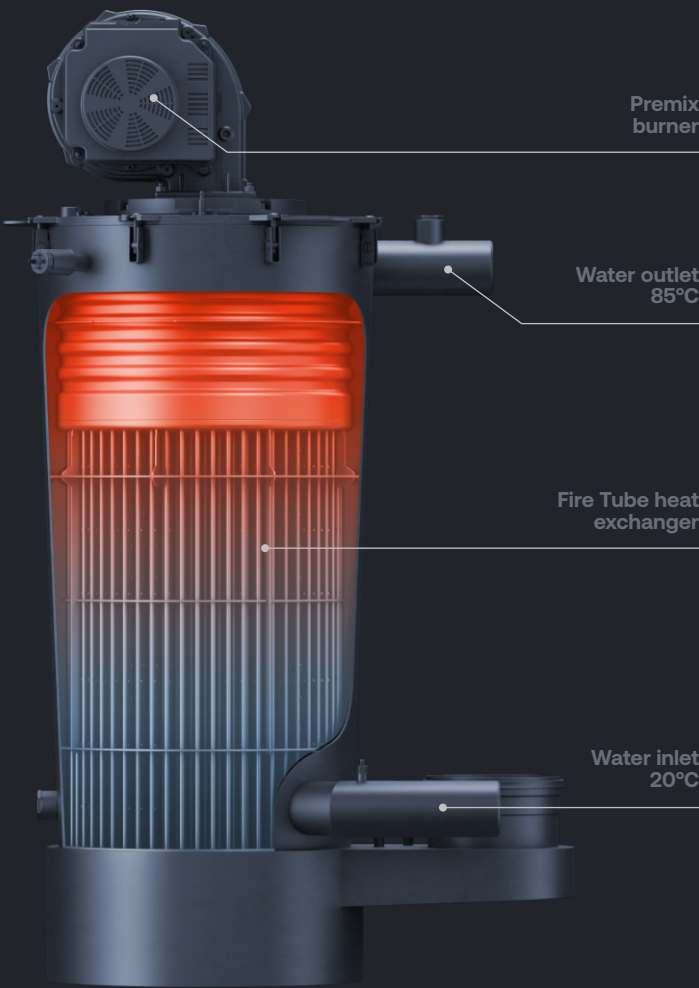


Fire Tube

The Nesta boilers are centred around a Fire Tube heat exchanger, engineered from specially selected stainless steel alloys. This construction imparts durability, reliability, and enhanced resistance to corrosion and oxidation, ensuring long-lasting performance and serviceability.

The Fire Tube design of the Nesta heat exchanger is a hallmark of our product, a market-proven technology that has been manufactured and distributed globally for many years. Our dedication to innovation and advancement in design has resulted in the creation of one of the most efficient boilers in its class, a testament to our unwavering commitment to excellence.

The geometry of Nesta's heat exchanger and flue gas pipes are engineered to provide ample heat exchange surface area and water capacity, ensuring high efficiency and optimal condensation, as well as temperature stability. The outcome of these design considerations is a device that is marked by exceptional efficiency, durability, and reliability, offering users peace of mind and confidence in its performance.



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. The exchanger is designed in such a way to keep the internal surface of the pipes clean, guaranteeing constant high performance over time and considerably limiting maintenance interventions.

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 flue gasses, ensures an optimal counter-current movement over the entire length of the exchanger. This particular design allows AIC condensing boilers to reach very high efficiency, without the risk of oxidation.

Max. Operating pressure

6 bar

Energy class

A

Quiet operation

Parameters

Resistance to corrosion and oxidisation

Self-cleaning flue ways

Internal circuit piping in welded stainless steel

Low pressure drop

Reduced maintenance

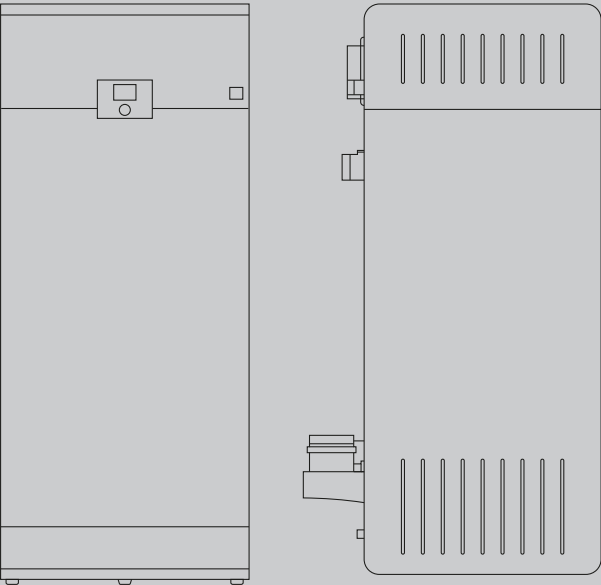
Water content

Nesta 120 kW	51 ltr
Nesta 160 kW	47 ltr
Nesta 200 kW	66 ltr
Nesta 250 kW	62 ltr
Nesta 300 kW	75 ltr

Design

The Nesta boilers embody a visual aspect characterized by exceptional quality and attention to detail. Their compact size, minimalistic design, and high-quality finishing make them a seamless fit for any interior. Additionally, their quiet operation ensures minimal disturbance, while their small footprint allows for easy installation, even in space-constrained areas.

The Nesta boilers, with their sleek and elegant design, truly exemplify the pinnacle of craftsmanship. In a commitment to excellence and environmental responsibility, the heat exchanger is constructed entirely of recyclable stainless steel, further elevating the standards of our product.



Characteristics

- Floor-standing
- Adaptable to various applications
- Sleek design
- Stainless steel heat exchanger
- Compact dimensions



100% Stainless steel

Years Warranty Heat Exchanger

10

Years Warranty Boiler

5

*Subject to conditions



Applications

The versatility of the NESTA boilers is showcased through their wide range of potential applications.

They can be installed as stand-alone units or as part of a cascade system, making them suitable for large residential and commercial installations. Moreover, their adaptability extends to retrofitting in older buildings as well as integrating seamlessly into contemporary building designs, further emphasising their diverse range of applications.

120–300 kW

Hotels
Schools
Sports complexes
Nurseries
Gymnasiums
Hairdressing salons
Restaurants
Clinics
Industrial changing rooms
Medium / large residential
Carwashes
Commercial applications

Robust and lightweight

Nesta boilers are meticulously constructed with a sturdy frame structure that ensures robustness and durability. To enhance maneuverability and minimise weight, the boilers are fitted with removable aluminium panels.

This thoughtful design not only contributes to the boiler's lightweight nature but also maintains its resilient build. As a result, Nesta stands out as one of the lightest options in its category without compromising on its sturdy construction. This design element greatly facilitates the handling and positioning of the unit, making it particularly well-suited for rooftop plantrooms where ease of installation and movement are of utmost importance. Trust in Nesta boilers for a combination of strength and agility, making them the perfect choice for various applications.

Characteristics

- Sturdy frame structure
- Removable lightweight aluminium panels
- One of the lightest options in its category
- Well-suited for rooftop plantrooms
- Ease of installation and movement
- Combination of strength and agility



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.



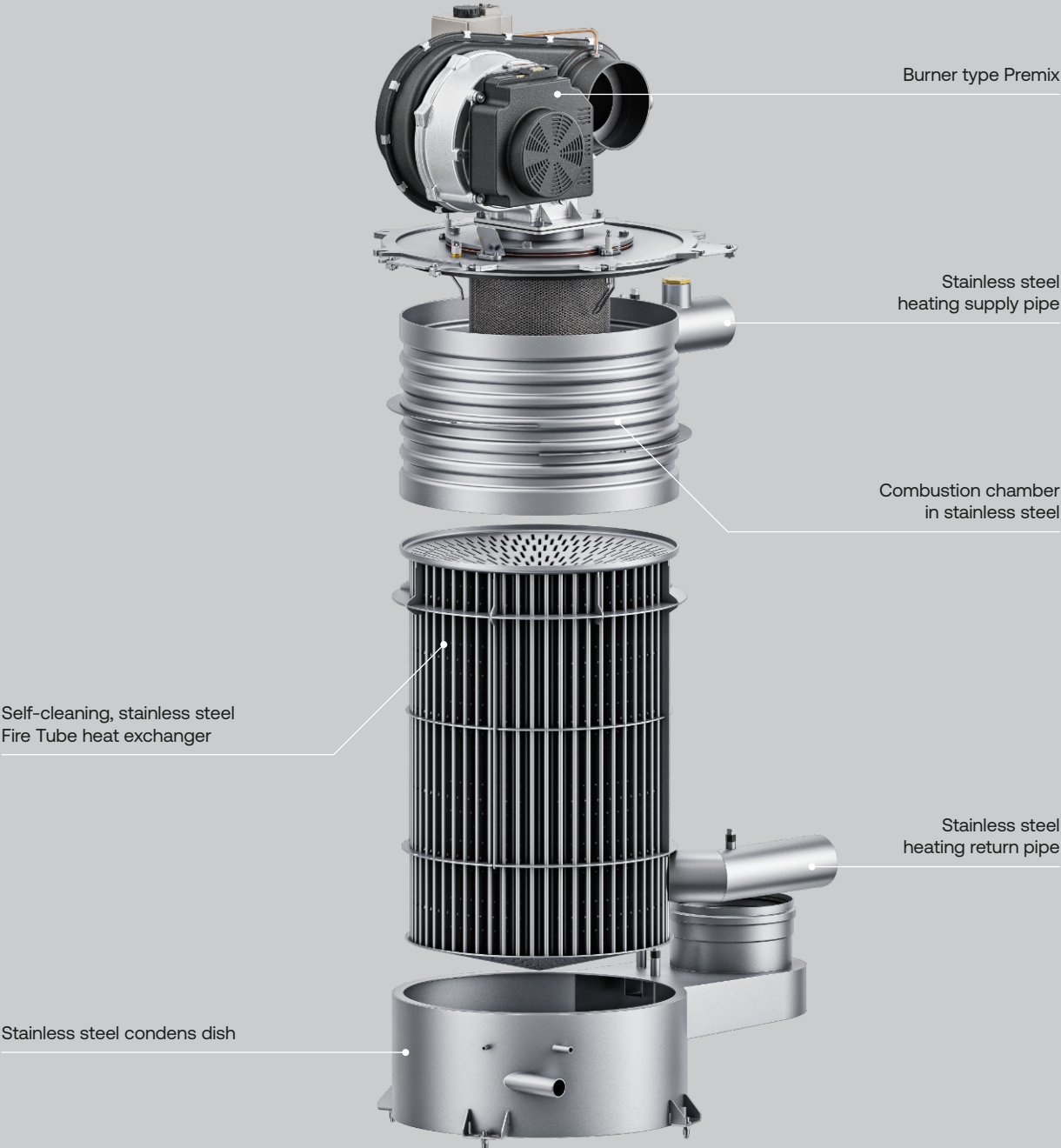
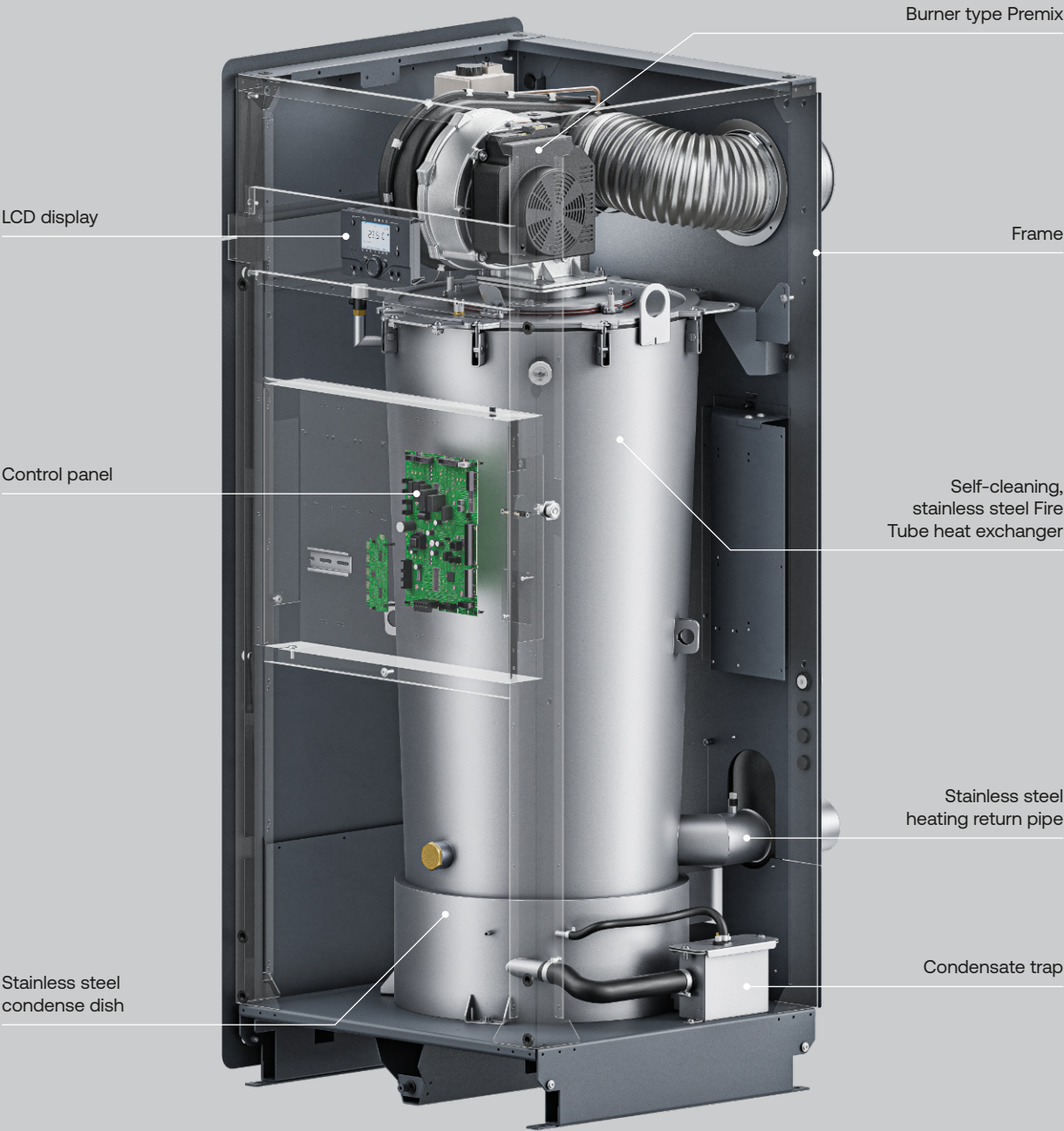
Compact dimension

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

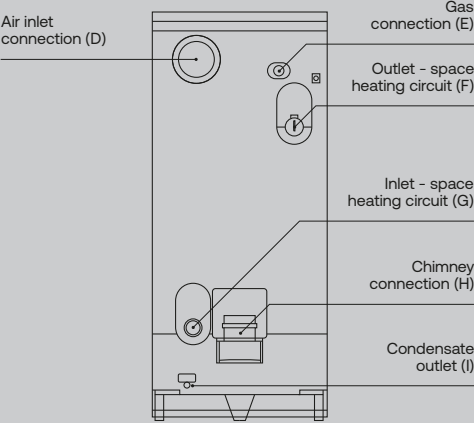
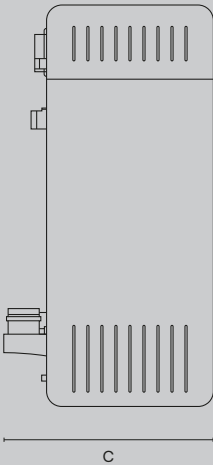
Performance			N 120 FS	N 160 FS	N 200 FS	N 250 FS
Heat input (net)	G20 / G25	kW	11,2-115,5	19,0-150,0	25,0-190,0	25,5-232,0
	G31	kW	28,9-115,5	37,9-150,0	47,5-190,0	58,0-232,0
Heat output at 80/60 °C	G20 / G25	kW	10,8-112,8	18,3-146,6	24,2-185,6	24,6-226,7
	G31	kW	27,9-112,8	36,6-146,5	46,0-185,6	56,2-226,7
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

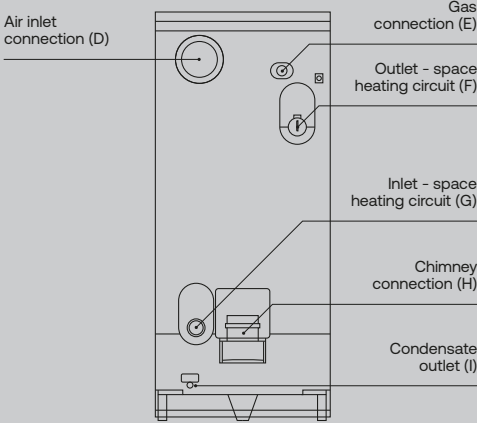
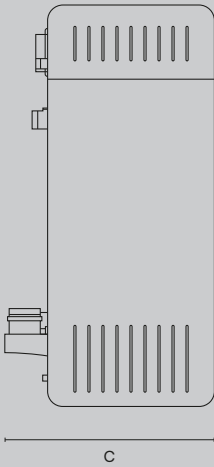
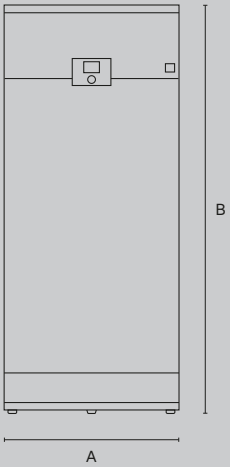
General			N 300 FS
Energy consumption	W		410
Supply voltage / frequency	V/Hz		230/50
Protection class	IP		X4D
Capacity	l		75
Min operating pressure	bar		0,8
Max operating pressure	bar		6
Max boiler supply temperature	°C		85

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



Advanced Industrial Components

AIC, founded in 2001, is a renowned specialist in designing and manufacturing stainless steel and titanium heat exchangers. With top-quality products and advanced production processes, we excel in complex heat transfer projects. AIC Europe, established in 2018, delivers innovative heating solutions and exceptional service through its subsidiaries across Europe. Our continuous investment and research focus on reducing emissions, maximizing energy savings, and providing high eco-comfort performance in heating and hot water.

1000 Employees

35% Planning and Management
65% Production and Logistics

33.900 m²

Production facilities
in Poland

14

Commercial branches in Europe,
North America and Asia

