

NESTA CHROME



Wall-hung Condensing Boiler

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



The Nesta Chrome is the flagship product in the Nesta range of condensing boilers, a wall-mounted solution with a power output range of 24 to 150 kW. Its versatile design makes it perfect for both new installations and the renovation of residential and commercial properties. At the heart of the Nesta Chrome lies a sophisticated stainless steel heat exchanger, crafted by AIC with meticulous attention to detail. The advanced technology within the Nesta Chrome results in exceptional performance, enabling users to benefit from low operating costs while enjoying unparalleled functionality. As such, it has become the boiler of choice among engineers and professionals alike, offering a fusion of performance, efficiency, and affordability.

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

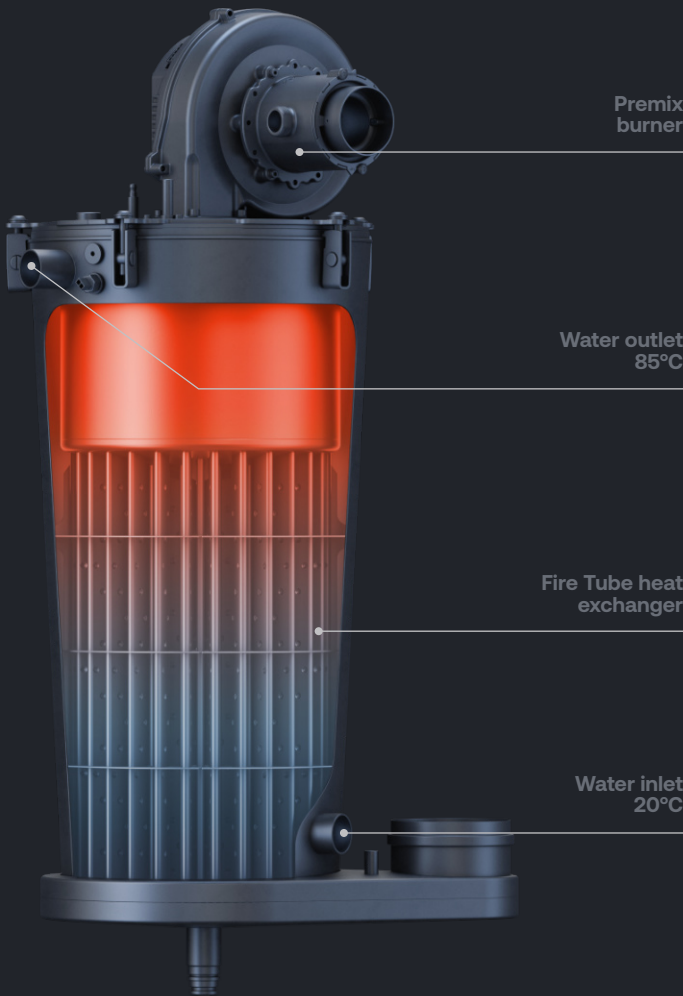


Fire Tube

The Nesta Chrome boilers are centred around a Fire Tube heat exchanger, engineered from the specially selected 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 Chrome heat exchanger is a hallmark of our product, with 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 Chrome's heat exchanger and flue gas pipes are engineered to provide maximum heat exchange surface area and water capacity, ensuring high efficiency and optimal condensation, as well as stability in temperature. 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, 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 and 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

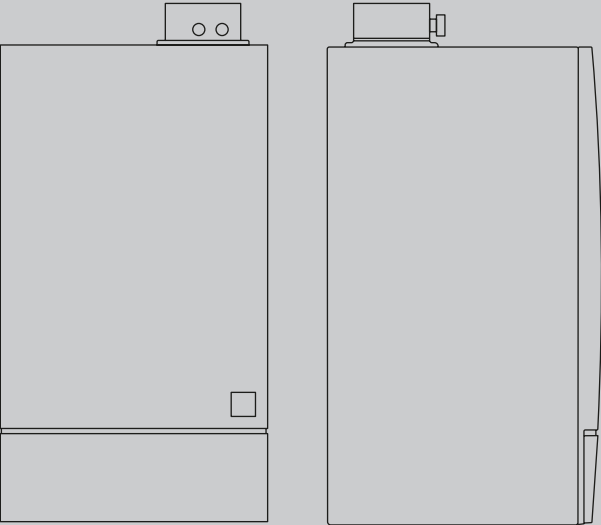
Water content

Nesta Chrome 24 kW	8 ltr	Nesta Chrome 80 kW	17,6 ltr
Nesta Chrome 32 kW	8 ltr	Nesta Chrome 100 kW	26,3 ltr
Nesta Chrome 38 kW	11,5 ltr	Nesta Chrome 120 kW	25,2 ltr
Nesta Chrome 45 kW	11,6 ltr	Nesta Chrome 150 kW	28,3 ltr
Nesta Chrome 60 kW	19,3 ltr		

Design

Our modern small commercial boiler is a testament to the finest craftsmanship, fabricated with the utmost care using only premium materials. Its understated and elegant design, characterised by clean lines and a minimalist aesthetic, seamlessly integrates into any interior environment.

The timeless design of our modern small commercial boiler showcases the attention to detail in its form, fit, and finish. Despite its compact size, it boasts impressive power output. 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

- Wall-hung
- 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 Chrome allows for installation as a standalone unit or as part of a cascade system, comprising multiple boilers.

The adaptability of our product extends to retrofitting older structures, as well as integration into contemporary building designs. With a broad range of power outputs, the Nesta Chrome is suitable for an array of heating needs, from residential properties and smaller clinics to larger commercial facilities such as office buildings, hotels, schools, and other establishments requiring dependable heat.

24–150 kW

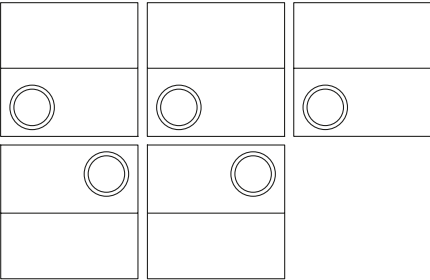
Residential properties	Office buildings
Plantrooms	Hotels
Small clinics	Schools
Restaurants	Industrial applications
Car washes	Single-family houses



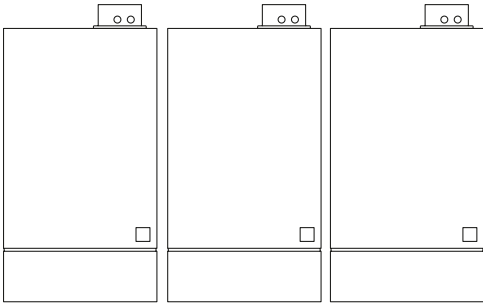
Cascade system

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.

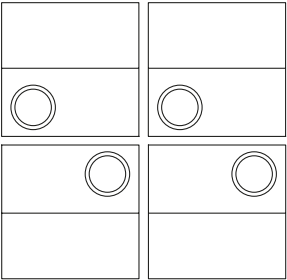
The system is adaptable to fluctuating heating requirements by adjusting its output according to building usage. AIC provides a comprehensive and user-friendly cascade system that is adaptable to various layout options. Its flexibility in design accommodates configurations ranging from two to six Nesta 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
configuration (2–6 boilers)



Connectivity

The Nesta Chrome Boiler boasts a sophisticated, yet user-friendly controller, equipped with weather regulation functions, suitable for end-users, engineers, and installers alike. In its standard programming mode, the controller can manage up to three direct heating circuits. With the addition of an extension, it is capable of overseeing an additional three mixed circuits and a circuit for DHW production.

The inclusion of an external storage cylinder gives the controller an anti-Legionella function, and it is equipped to manage up to six boilers in a cascade formation, with optional connectivity for regulation and remote control. By incorporating the optional WEB Server Module, the Nesta Chrome boiler, cascade, and entire heating system can be monitored and controlled remotely via either a GSM router or Ethernet network. Furthermore, the AIC condensing boiler range can be regulated through either an analogue 0-10 V signal or a Modbus RS485 digital signal.

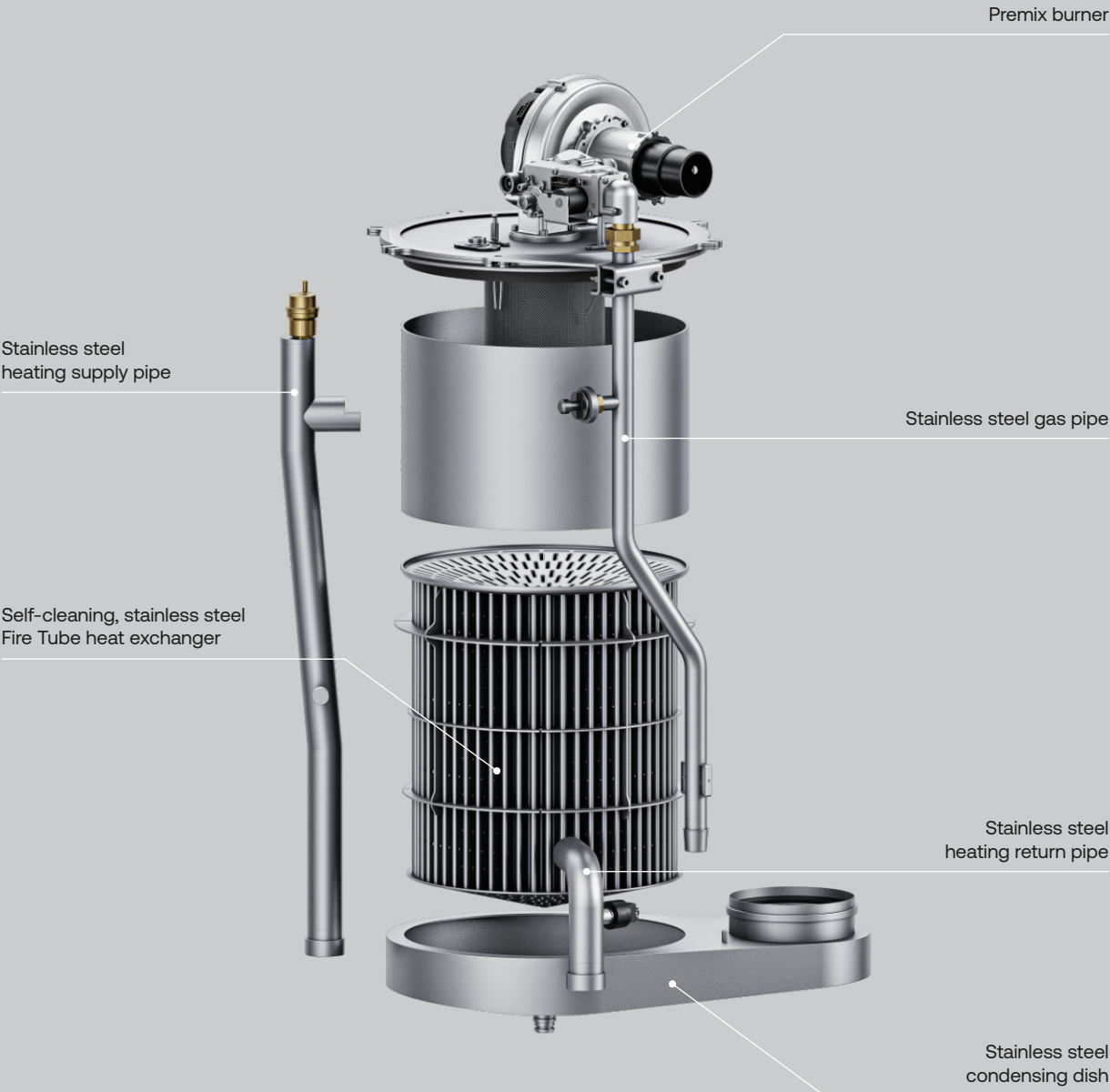
Characteristics

Integration of the WEB Server Module*
Flexible and intuitive management system
Manage up to 3 direct or mixed circuits*
One circuit for DHW production*
Manage up to 6 boilers in cascade
GSM router or ethernet network

*Option or with additional accessories



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

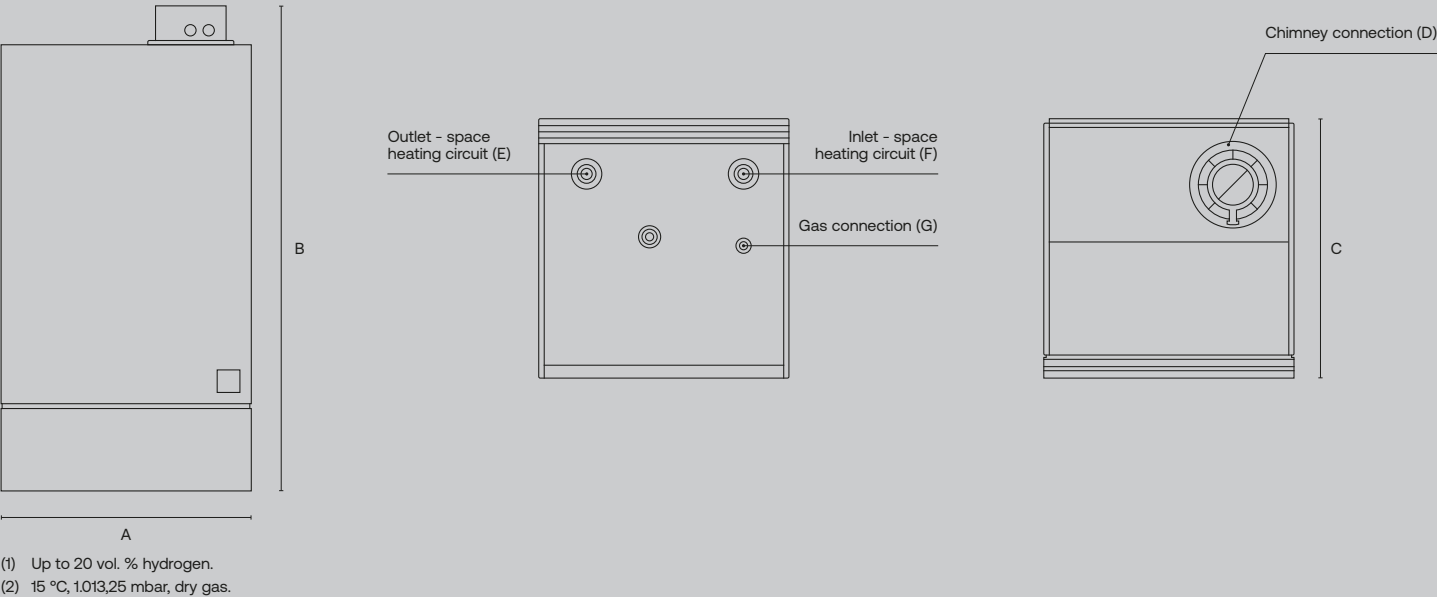
General		NC 24 WH	NC 32 WH	NC 38 WH	NC 45 WH	NC 49 WH
Energy consumption	W	67,5	67,5	90	90	90
Supply voltage / frequency	V/Hz	230/50	230/50	230/50	230/50	230/50
Protection class	IP	X4D	X4D	X4D	X4D	X4D
Capacity	l	8	8	11,4	11,4	11,6
Min operating pressure	bar	0,6	0,6	0,6	0,6	0,6
Max operating pressure	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

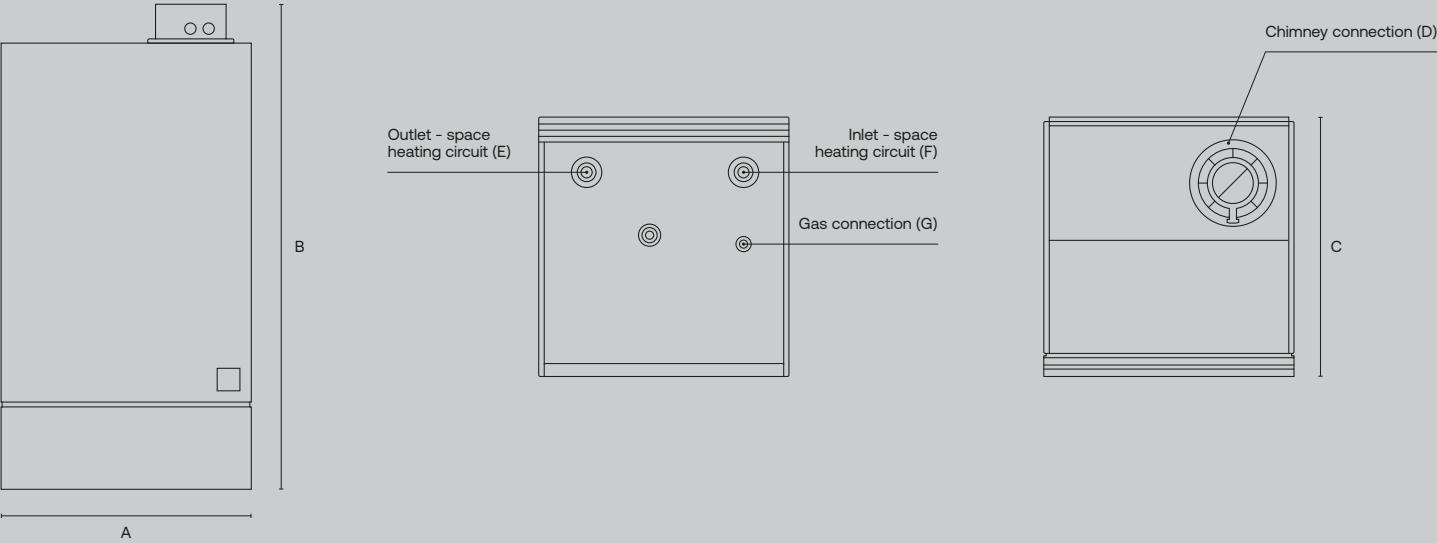
Efficiency			NC 60 WH	NC 80 WH	NC 100 WH	NC 115 WH	NC 120 WH	NC 150 WH
Heating efficiency 80/60 °C	G20	%	97,8-97,6	97,8-97,8	98,0-97,9	98,0-98,1	98,0-98,1	98,1-98,1
Heating efficiency 50/30 °C	G20	%	107,9-105,5	107,9-105,5	107,8-106,2	107,8-106,2	107,8-106,2	107,8-106,0
Useful efficiency at 30% (return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



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

