

Gas 320 620 Ace

Pre-assembled, floor standing, high-efficiency condensing commercial boilers

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Engineered for reliable and efficient performance, the Gas 320/620 Ace floor standing boiler is designed with new and old building plant rooms in mind. It's a compact boiler, easy to install and easy to maintain. The Gas 320/620 Ace has the capacity to be installed side to side, which provides flexibility in floor design. It also has an optional secondary return

feature that makes this boiler particularly suitable with heating technologies that use low-grade heat, such as heat pumps or underfloor heating circuits.

The Gas 320/620 Ace has a unique low-water content heat exchanger that allows for low- to zero-flow condition control with maximum flexibility in the operating temperature differential. The Ace control platform delivers local and remote connectivity, across a wide range of protocols.

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- **Features and benefits**
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Features and benefits

- ΔT of 10°C–40°C, operating range of 20°C to 80°C
- Maximum set point 90°C
- Low- to zero-flow condition operation and monitoring
- Low-water content
- Modbus gateway option for connection to a BMS system
- Bluetooth for enhanced connectivity
- NOx emissions from 15mg/kWh
- Condensing efficiency up to 106.8%
- Non-condensing efficiency up to 98.5%
- Multiple configurations, designed for ease of installation
- Full technical support and information
- Commissioning included
- 7-year warranty (T&Cs apply)

Technical information

	Gas 320 285/5	Gas 320 335/6	Gas 320 430/7	Gas 320 500/8	Gas 320 575/9	Gas 320 650/10
Performance						
Nominal heat output central heating operation @ 80/60°C kW (min-max)*	51.1-260.7	64.8-326.7	78.6-394.8	91.5-461.0	105.5-530.4	118.7-600.9
Nominal heat output central heating operation @ 50/30°C kW (min-max)*	278.8	350.3	424.5	497.1	573.5	651.5
Nominal input (Hi) (min-max)	54-266	68-333	82-402	95-469	109-539	122-610
Efficiency						
SBEM seasonal efficiency GCV	96.48	96.34	96.19	96.05	95.89	95.75
Efficiency – full load 100% NCV	98%	98.1%	98.2%	98.3%	98.4%	98.5%
Efficiency – part load 30% NCV	109.2%	109%	108.8%	108.6%	108.3%	108.1%
Seasonal space htg Efficiency at nominal heat output	88.3	88.4	88.5	88.6	88.7	88.7
Seasonal space htg Efficiency at 30 % rated heat output	98.4	98.2	98	97.8	97.6	97.4
Gas						
Standard fuel	Natural gas	Natural gas	Natural gas	Natural gas	Natural gas	Natural gas
Max gas consumption m³/h	5.7 - 28.1	7.2 - 35.2	8.7 - 42.5	10.1 - 49.6	11.5 - 57.0	12.9- 64.6
Min/max gas inlet pressure mbar	17-25	17-25	17-25	17-25	17-25	17-25
Flue (supplied as standard for conventional flue, option for room-sealed available)						
Flue diameter mm I/D	250	250	250	250	250	250
Air inlet diameter mm I/D	250	250	250	250	250	250

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Flue gas mass flow rate kg/h	91-448	114-561	138-677	160-790	184-907	205-1027
Flue gas temperature 0°C	30-60	30-61	30-64	30-63	30-66	30-65
Residual fan duty Pa	130	120	130	150	150	150
Hydraulics						
Water content litres	49	60	71	82	93	104
Hydraulic resistance @ 40°C ΔT mbar (kPa)	34 (3.4Kpa)	33 (3.3Kpa)	36 (3.6Kpa)	33 (3.3Kpa)	38 (3.8Kpa)	39 (3.9Kpa)
Hydraulic resistance @ 30°C ΔT mbar (kPa)	60 (6Kpa)	59 (5.9Kpa)	64 (6.4Kpa)	59 (5.9Kpa)	67 (6.7Kpa)	69 (6.9Kpa)
Hydraulic resistance @ 20°C ΔT mbar (kPa)	113 (11.3Kpa)	110 (11.0Kpa)	120 (12.0Kpa)	110 (11.0Kpa)	125 (12.5Kpa)	130 (13.0Kpa)
Hydraulic resistance @ 11°C ΔT mbar (kPa)	374 (37.4Kpa)	364 (36.4Kpa)	397 (39.7Kpa)	364 (36.4Kpa)	413 (41.3Kpa)	435 (43.5Kpa)
Nominal flow rate @ 40°C ΔT l/s	1.6	1.9	2.3	2.7	3.2	3.6
Nominal flow rate @ 30°C ΔT l/s	2.1	2.6	3.1	3.6	4.2	4.8
Nominal flow rate @ 20°C ΔT l/s	3.1	3.9	4.7	5.5	6.3	7.1
Nominal flow rate @11°C ΔT l/s	5.6	7.1	8.5	9.9	11.5	13.0
Standard operating temperature °C	20-90	20-90	20-90	20-90	20-90	20-90
Max operating temperature °C	90*	90*	90*	90*	90*	90*
High limit temperature °C	110	110	110	110	110	110
Max water operating pressure bar	7	7	7	7	7	7
Min water operating pressure bar	1	1	1	1	1	1
General						
Dry weight kg without packaging incl. control box	366	400	435	497	533	570
Dimension (WxHxD)	707x1550x1862	707x1550x1862	707x1550x1862	707x1550x2172	707x1550x2172	707x1550x2172
NOx Annual Emissions EN15502 G20	43	43	44	45	46	47
NOx Annual Emissions BREEAM G20	15	16	16	17	18	18
Noise levels dB(A) at 1 metre	55.7	55.7	55.7	55.7	55.7	55.7
Electrical (excluding pump)						
Nominal power supply	230v-1ph-50hz	230v-1ph-50hz	230v-1ph-50hz	230v-1ph-50hz	230v-1ph-50hz	230v-1ph-50hz
Power consumption w	10-280	10-345	10-450	10-576	10-768	10-720
Modulating input v dc	0-10	0-10	0-10	0-10	0-10	0-10
Start current amps	4	4	4	4	4	4
Fuse main (power connector)	10	10	10	10	10	10
Controls voltage	24 (max 4va)	24 (max 4va)	24 (max 4va)	24 (max 4va)	24 (max 4va)	24 (max 4va)
Insulation class IP	X1	X1	X1	X1	X1	X1
Run current amps	1.4	1.4	1.4	1.4	1.4	1.4

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*When operating at >25°C ΔT
maximum flow temperature is
limited to 80°C