

NEW

NXR5i

Floor Standing Cast Iron Section Pressure Jet Boiler
810 to 1460kW Output



Working towards
a cleaner future

POTTERTON
COMMERCIAL

heating specialists

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The Potterton Commercial NXR5i range of cast-iron forced draught boilers represent the latest continuing development of this type of technology. This is due to the reliability of the proven heat-exchanger design, burner matching options and is backed by the extended warranty*.

Standard NXR5i Features

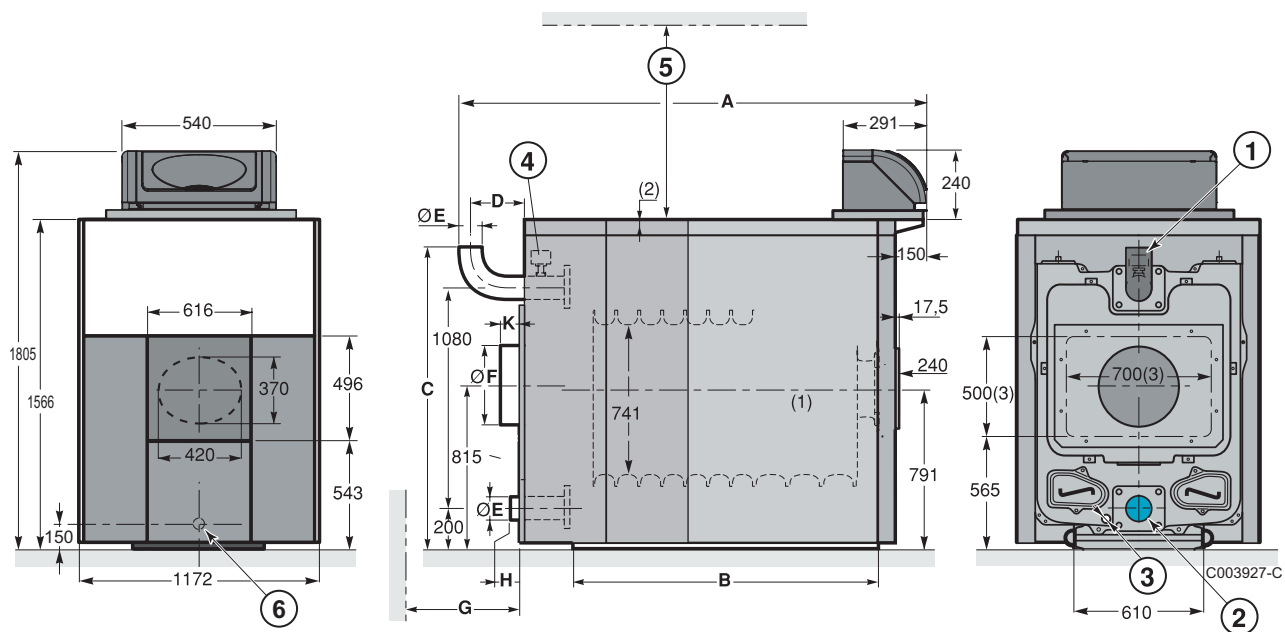
- Cast iron sectional design
- Exceptionally robust
- Integrated control panel
- 10 year warranty*
- Optional controllers available for DHW, weather compensation and cascade
- Commissioning and erection services available

The NXR5i range offers both the specifier and end user peace of mind. The output kW offers flexibility in existing boiler house installations to meet the needs of the modern building services engineer's refurbishment requirements.

With its specially designed heat-exchanger which incorporates multiple flue-ways and fins to increase the surface area, it means that the NXR5i provides seasonal boiler efficiencies in line with Part L2 of the Building Regulations 2010 for boilers over 400kW. The large chamber capacity ensures environmentally sound combustion, reducing CO and NO_x emissions. With a choice of matched burners available on Natural Gas, LPG, Oil and Dual Fuel options, the NXR5i gives the engineer useable options.

* terms and conditions apply





- ① Heating flow – Ø E (weld)
 - ② Heating return – Ø E (weld)
 - ③ Draining – Mk $\frac{3}{4}$ " connection
 - ④ Flow switch position
 - ⑤ Minimum height for sweeping = 850mm
 - ⑥ 2" tapped sludge removal hole
- (1) Burner centre line height
 - (2) The lateral control panel can be mounted to the right or left of the boiler. Exact height positioning defined by the fitter during assembly.
 - (3) Max width of flue opening

Boiler Type		NXR5i-14	NXR5i-15	NXR5i-16	NXR5i-17	NXR5i-18	NXR5i-19	NXR5i-20	NXR5i-21	NXR5i-22	NXR5i-23	NXR5i-24	NXR5i-25
A) Overall length	(mm)	2538	2649	2760	2871	3017	3128	3279	3390	3501	3612	3723	3834
B) Base length	(mm)	1744	1744	1966	1966	2188	2188	2450	2450	2672	2672	2894	2894
C) Height of flow	(mm)	1488	1488	1488	1488	1504	1504	1504	1504	1504	1504	1504	1504
D) Distance of flow	(mm)	217	188	189	210	236	257	208	209	230	231	252	253
E) Flow diameter	(mm)	139.7	139.7	139.7	139.7	159	159	159	159	159	159	159	159
F) Flue diameter	(mm)	400	400	400	400	400	400	400	*	*	*	*	*
G) Service – rear**	(mm)	–	150	150	370	370	370	650	650	650	980	980	980
H) Return connection space	(mm)	-2	-31	-30	-9	-8	13	-36	-35	-14	-13	8	9
K) Flue connection space***	(mm)	10	-19	-18	3	4	25	-24	-23	-2	-1	20	21

* Plain plate, requires cutting. Maximum cut-out 500 x 700.
 ** G = Length required for removing the water distributing tube.
 *** Dimension representing the end of a 100 mm long chimney projection.

N.B. With models NXR5i-21, NXR5i-22, NXR5i-23, NXR5i-24 and NXR5i-25, a plain plate which must be cut out is supplied without a 100 mm chimney projection. (To be supplied by others)

Range Benefits

- Cast iron sectional boiler
- Gross Efficiency (Part L2 – 2010) Gas – 82% Oil – 85%
- Oil, Natural Gas, LPG and Dual Fuel Option
- High/Low and Fully Modulating matched burner options
- Integrated control panel including: VFCs, high limit thermostat, control thermostat, boiler thermometer and external BEMS interlock

Options

- Flue gas thermometer**
- Hours run meters**
- Optional controllers available for DHW, weather compensation and cascade
- Erection and commissioning services
- 10 year extended warranty on the heat exchanger*

* Terms and conditions apply
 ** Contact sales department for details

Specification

Boiler Type		NXR5i -14	NXR5i -15	NXR5i -16	NXR5i -17	NXR5i -18	NXR5i -19	NXR5i -20	NXR5i -21	NXR5i -22	NXR5i -23	NXR5i -24	NXR5i -25
Output 80/60°C Min – Max	kW	810	870	930	990	1050	1110	1160	1220	1280	1340	1400	1460
Input	kW	890.4	966.7	1024.3	1093.1	1147.3	1216.3	1267.8	1335.5	1403.7	1464.3	1543.6	1595.2
Net Efficiency @ 80/60°C	%	91.2%	90.0%	90.6%	90.2%	91.0%	90.6%	91.5%	91.2%	90.9%	91.1%	90.7%	90.9%
Energy Consumption (Nat Gas)	m³/h	92.37	100.28	106.26	113.40	119.02	126.18	131.52	138.54	145.62	151.90	160.13	165.48
Energy Consumption (Oil)	kg/hr	93.24	101.23	107.26	114.47	120.14	127.37	132.76	139.85	146.99	153.34	161.64	167.04
Inlet Gas Pressure	mbar	*											
Flue Gas Volume – Nat Gas	kg/h	1450	1550	1650	1760	1860	1960	2070	2170	2270	2380	2480	2580
Flue Gas Volume – Oil	kg/h	1380	1480	1580	1670	1770	1870	1970	2070	2170	2260	2360	2460
Max Flue Gas Pressure @ Outlet	mbar	0**											
Water Flow Rate @ 10°C ΔT	m³/h	63.47	68.01	72.54	77.07	81.61	86.14	90.67	95.21	99.74	104.28	109.43	113.34
Water Flow Rate @ 20°C ΔT	m³/h	34.91	37.4	39.9	42.39	44.88	47.38	49.87	52.36	54.86	57.35	60.19	62.34
Hydraulic Resistance @ 10°C ΔT	mbar	67.2	77.6	26.2	30.2	35.8	41.4	48	53.6	59.2	64.8	71.6	78.4
Hydraulic Resistance @ 20°C ΔT	mbar	16.8	19.4	6.5	7.6	9	10.4	12	13.4	14.8	16.2	17.9	19.6
Max Operating Pressure	bar	6 bar											
Min Operating Pressure	bar	1 bar											
Maximum Flow Temperature	°C	90											
NOx Level (Dry @ 0% O ₂)	mg/kWh	*											
High Level Ventilation (BS6644)#	cm²	3562	3867	4097	4372	4589	4865	5071	5342	5615	5857	6174	6381
Low Level Ventilation (BS6644)#	cm²	1781	1933	2049	2186	2295	2433	2536	2671	2807	2929	3087	3190
Flow & Return Connection Size	mm	139.7	139.7	139.7	139.7	159	159	159	159	159	159	159	159
Flow & Return Connection Type		Welded											
Gas Connection Size – Nominal *	inch	*											
Gas Connection Type		*											
Flue Connection Size	mm	4000						Plain Plate, max cut-out 500 x 700					
CO ₂ Content – Natural Gas	%	9.5											
CO ₂ Content – Oil	%	13.1 to 13.5											
Flue Gas Temperatures @ 80/60°C	°C	<190											
Electrical Connection	V/Hz	220/240v – 50Hz – Refer to manufacturer for burner details											
Power Consumption	W	2 amp max burner – Refer to manufacturer for burner details 1 amp 230 volt 50hz max pump control output											
Dimension W x D x H (excluding burner)	mm	1172 x 2538 x 1805	1172 x 2649 x 1805	1172 x 2760 x 1805	1172 x 2871 x 1805	1172 x 3017 x 1805	1172 x 3128 x 1805	1172 x 3279 x 1805	1172 x 3390 x 1805	1172 x 3501 x 1805	1172 x 3612 x 1805	1172 x 3723 x 1805	1172 x 3834 x 1805
Water Content	litres	655	693	731	769	807	845	905	943	981	1019	1057	1095
Dry Weight	kg	3171	3364	3561	3756	3955	4124	4343	4538	4734	4930	5107	5297
Section Dimensions	mm	Front – 1320x1060x180, Inter – 1320x1050x120, Special Inter – 1350x1050x150 and Rear – 1350x1050x180											
Section Weight	kg	Front – 216.5, Inter – 179, Special Inter – 209 and Rear – 259											

* Depends on burner selection

** The pressure at the flue outlet must not exceed 0 mbar

Guidance only: refer to BS6644 for further information

