

NXR

Cast iron boiler technology

NXR 2 (22 – 69kW)

NXR 3 (90 – 290kW)

NXR 4 (320 – 800kW)



Working towards
a cleaner future

POTTERTON
COMMERCIAL

heating specialists

NXR Range Contents



22 to 69kW



90 to 290kW



320 to 800kW

Page	Description
3	Range details
4	Control panels
5	Optional controllers
6	NXR2 range benefits
6	NXR2 technical details
7	NXR2 dimensional details
8	NXR3 range benefits
8	NXR3 technical details
9	NXR3 dimensional details
10	NXR4 range details
10	NXR4 technical details
11	NXR4 dimensional details
12	Contact details

NXR Range

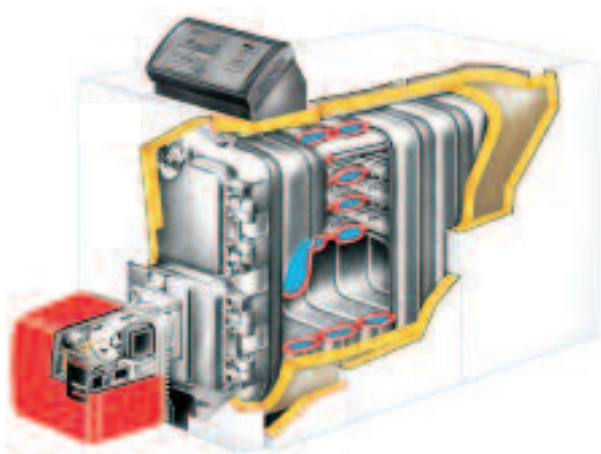
The Potterton Commercial NXR range of cast-iron forced draught boilers have constantly been at the forefront of boiler room applications and design for more than a decade.



NXR4 Section



NXR3 Section



NXR3 Illustrated

- Cast iron sectional design
- Exceptionally robust
- Versatile fuel options
- Integrated control panel
- Lifetime guarantee*
- Optional sequence and zone controllers
- Commissioning & erection services



*terms and conditions apply

This is in part due to the reliability of the proven heat-exchanger design and backed by the lifetime guarantee* the NXR range offers both the specifier and end user piece of mind. The output/kW ratio offers flexibility in boiler house installation to meet the needs of the modern building services engineer.

The NXR boiler provides everything today's professional energy managers look for in an advanced boiler.

With its specially designed heat-exchanger which incorporates multiple flue-ways and fins to increase the surface area, means that the NXR3 provides high seasonal boiler efficiencies in line with Part L2 of the Building Regulations 2006. The large chamber capacity ensures environmentally sound combustion reducing CO and NOx emissions. With a choice of matched burners available on all fuel types the NXR range is a winner.

NXR Controls

The Potterton Commercial NXR range comes complete with an integrated control panel.

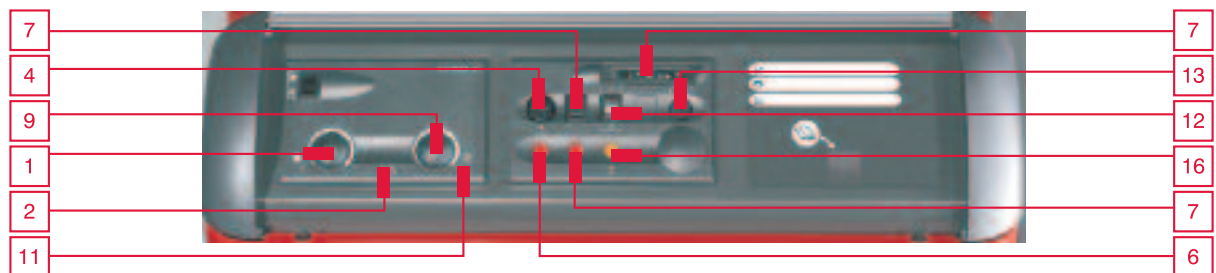
Specially designed and pre-wired control panels allow full boiler control and incorporate the following features: mains on/off switch, control thermostat, overheat thermostat, boiler thermometer, high/low control, flue gas thermometer, hours run meters, lockout indication and volt-free remote indication.



NXR3/4 Control Panel

1	Control thermostat	9	2nd stage time delay
2	1st Stage indication light	10	1st stage hours run meter
3	Boiler thermometer	11	2nd stage indication
4	Overheat thermostat	12	On/off switch
5	Reset button	13	6.3 amp fuse
6	Overheat indicator	14	Over-ride button for safety checks
7	Lockout indicator	15	Over-ride thermostat
8	Flue gas thermometer	16	Mains supply indicator

NXR2 Control Panel



NXR Controls



Optional Controllers

The boilers can adapt easily to cope and address every requirement of the modern day customer, through simple plug in sequence and zone controllers. This allows full heating and hot-water control through compensation, optimisation, sequencing and zoning, meaning the very best utilisation of the boilers can be achieved, maximising efficiency while reducing fuel usage, giving monetary and environmental benefits.



EcoControls

Potterton Commercial EcoControl range of boiler controls have been specifically developed for use on the NXR and Derwent Range of boilers. Designed for Single and Modular applications which allow for full control and utilisation of the boilers. The controls allow for weather compensation and optimisation, meeting all current Building Regulations.

EcoControls selection table for multiple installations

No. of Boilers	No. of Heating Zones									Pack
	0	1	2	3	4	5	6	7	8	
2 Boilers	1	1	1	1	1					EC7
	1	1	1	1	1					EC8
		1	2	3	4					EC9
3 Boilers	1	1	1	1	1	1	1			EC7
	2	2	2	2	2	2	2			EC8
		1	2	3	4	5	6			EC9
4 Boilers	1	1	1	1	1	1	1	1	1	EC7
	3	3	3	3	3	3	3	3	3	EC8
		1	2	3	4	5	6	7	8	EC9
5 Boilers	1	1	1	1	1	1	1	1	1	EC7
	4	4	4	4	4	4	4	4	4	EC8
		1	2	3	4	5	6	7	8	EC9
6 Boilers	1	1	1	1	1	1	1	1	1	EC7
	5	5	5	5	5	5	5	5	5	EC8
		1	2	3	4	5	6	7	8	EC9
7 Boilers	1	1	1	1	1	1	1	1	1	EC7
	6	6	6	6	6	6	6	6	6	EC8
		1	2	3	4	5	6	7	8	EC9
8 Boilers	1	1	1	1	1	1	1	1	1	EC7
	7	7	7	7	7	7	7	7	7	EC8
		1	2	3	4	5	6	7	8	EC9

Application:

For multiple heating installations, the **EcoControl 7** can sequence control up to 8 boilers. The **EcoControl 7** is fitted to the lead boiler, each subsequent boiler in the cascade (slave boilers) require an **EcoControl 8** to be fitted.

The control system can also control up to 8 heating zones with an **EcoControl 9** used for each zone. The **EcoControl 9** has the facility for controlling the heating circuit pump and 3 port mixing valve. In addition to this the QAA range of room controllers can offer remote room control and optimisation.

NXR2

Floor Standing Cast Iron
Pressure Jet Gas & Oil Fired

NXR2H
22 to 69kW Heating

NXR2DHW
22 to 42kW Heating & Hot Water

Range Benefits

- NXR2H Single models in 6 sizes 22, 27, 35, 42, 55 & 69kW
- NXR2DHW Single models in 4 sizes 22, 27, 35 & 42kW
- Competitive pricing
- On/Off operation
- Fully matched oil & gas burners
- Lifetime guarantee on the heat exchanger*
- Aesthetically pleasing design
- Delivered fully assembled

* terms and conditions apply

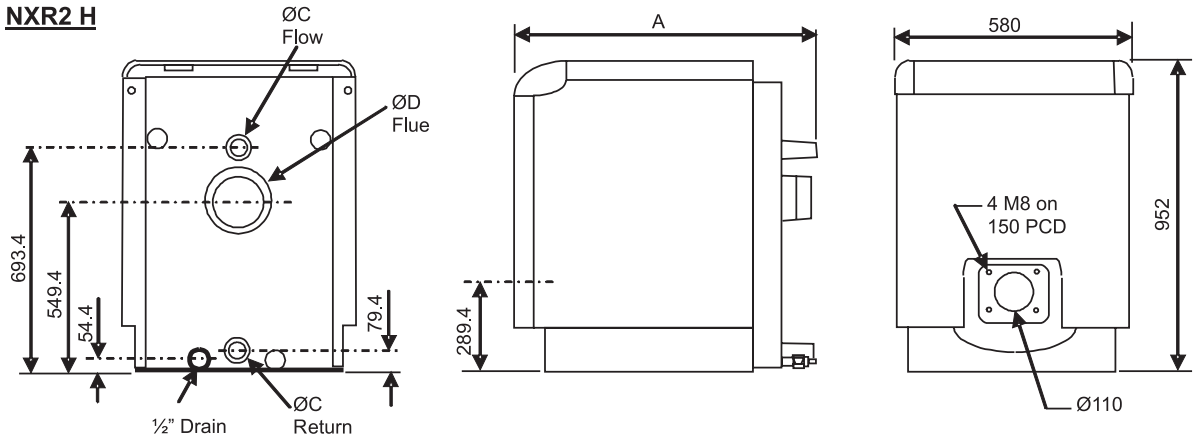


NXR2 Technical Details

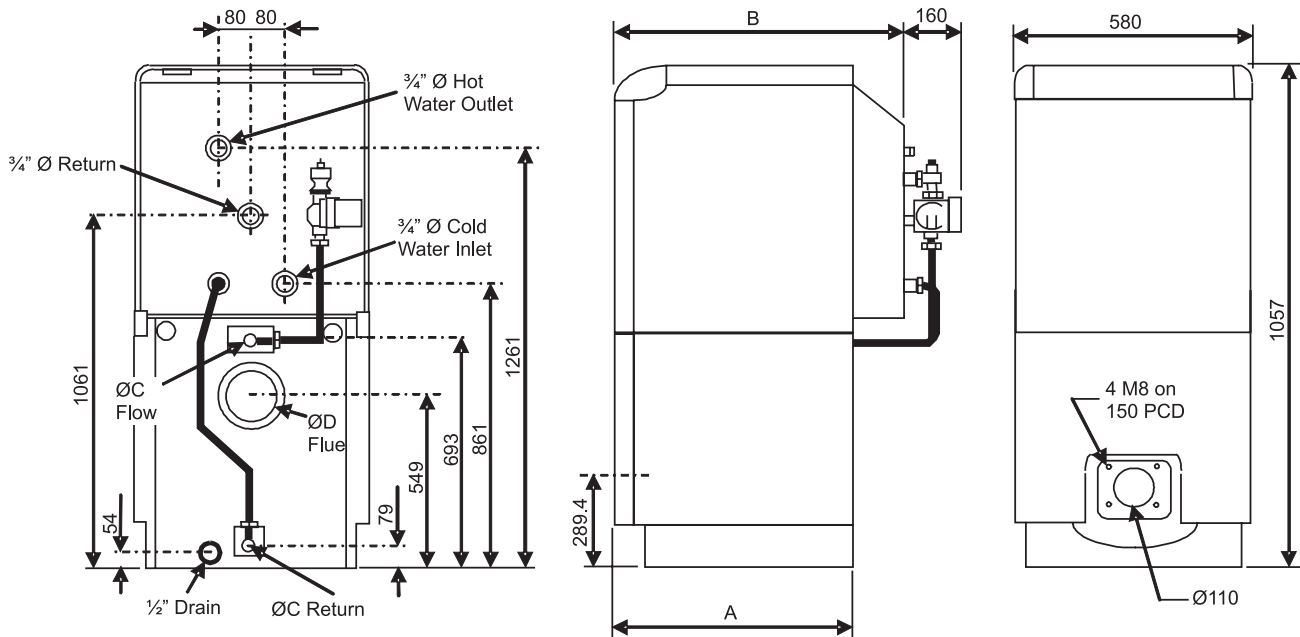
Boiler	Version No.	DHW		H		DHW		H		H		H	
		22	27	27	35	35	42	42	55	55	69	69	
Output	kW	22	27	27	35	35	42	42	55	55	69	69	
Input	kW	24	29.5	29.5	38.3	38.3	46.1	46.1	60.4	60.4	75.6	75.6	
Fuel Consumption	m ³ /hr	2.54	3.12	3.12	4.05	4.05	4.88	4.88	6.39	6.39	8	8	
	Lit/hr	2.02	2.49	2.49	3.23	3.23	3.89	3.89	5.09	5.09	6.38	6.38	
Output at 100%	% - PCI	90.4	90.3	90.3	90.1	90.1	90.3	90.3	91.4	91.4	92.6	92.6	
Output at 30%	% - PCI	90.1	90.5	90.5	91.1	91.1	91.6	91.6	91.9	91.9	92.2	92.2	
Number of sections		2	2	2	3	3	3	3	4	4	5	5	
Nominal Flue Connection Size		Ø 139mm	Ø 139mm	Ø 139mm	Ø 139mm	Ø 139mm	Ø 139mm	Ø 139mm	Ø 153mm	Ø 153mm	Ø 153mm	Ø 153mm	
Flue Gas Volume	m ³ /hr	0.038	0.038	0.038	0.058	0.058	0.058	0.058	0.077	0.077	0.097	0.097	
Water capacity	litres	43	45	43	45	57	59	57	59	71	85	85	
Water Flow @ 11°C Δt	lit/sec	0.52	0.65	0.65	0.82	0.82	1	1	1.3	1.3	1.65	1.65	
Water circuit resistance (Δt = 11°C)	kpa	0.28	0.43	0.43	0.72	0.72	1	1	0.2	0.2	0.32	0.32	
Max water pressure	bar	4											
Min Water Pressure	bar	0.5											
DHW heater capacity	litres	120		120		150		150					
Storage Temperature	°C	60		60		60		60					
Max. discharge/10 minutes	litres	20		20		25		25					
Max DHW pressure	bar	10		10		10		10					
DHW power	kW	20		20		28.7		28.7					
Electricity supply		230V - 50 Hz											
Packaged weight	kg	205	310	205	310	245	370	245	370	310	360	360	
Net weight	kg	190	280	190	280	230	340	230	340	280	330	330	
Minimum Return Temp	°C	55											
Minimum Flow Temp	°C	85											
Nominal Flue Gas Temp	°C	200											

NXR2 Dimensional Details

NXR2 H



NXR2 DHW



kW	22		27		35		42		55		69
	H	DHW	H	DHW	H	DHW	H	DHW	H	H	
A	600	600	600	600	760	760	760	760	920	1080	
B		720		720		880		880			
C	1"								1 1/2"		
D	Ø139								Ø153		

NXR3 Floor Standing Pressure Jet Gas & Oil Boiler

Cast Iron Technology 90 to 290kW

Range Benefits

- Cast iron sectional high efficiency boiler
- Upto 86% gross, seasonal efficiency
- Oil, Natural Gas, LPG & Dual Fuel Options
- On/Off, high/low & fully modulating match tested burners
- Integrated control panel
Inc: VFC's, high limit, control thermostats, boiler thermometer, flue gas thermometers, hours run meters and external BEMS interlocks
- Lifetime guarantee on the heat exchanger*
- Optional sequence & zone controls
- Erection & commissioning services

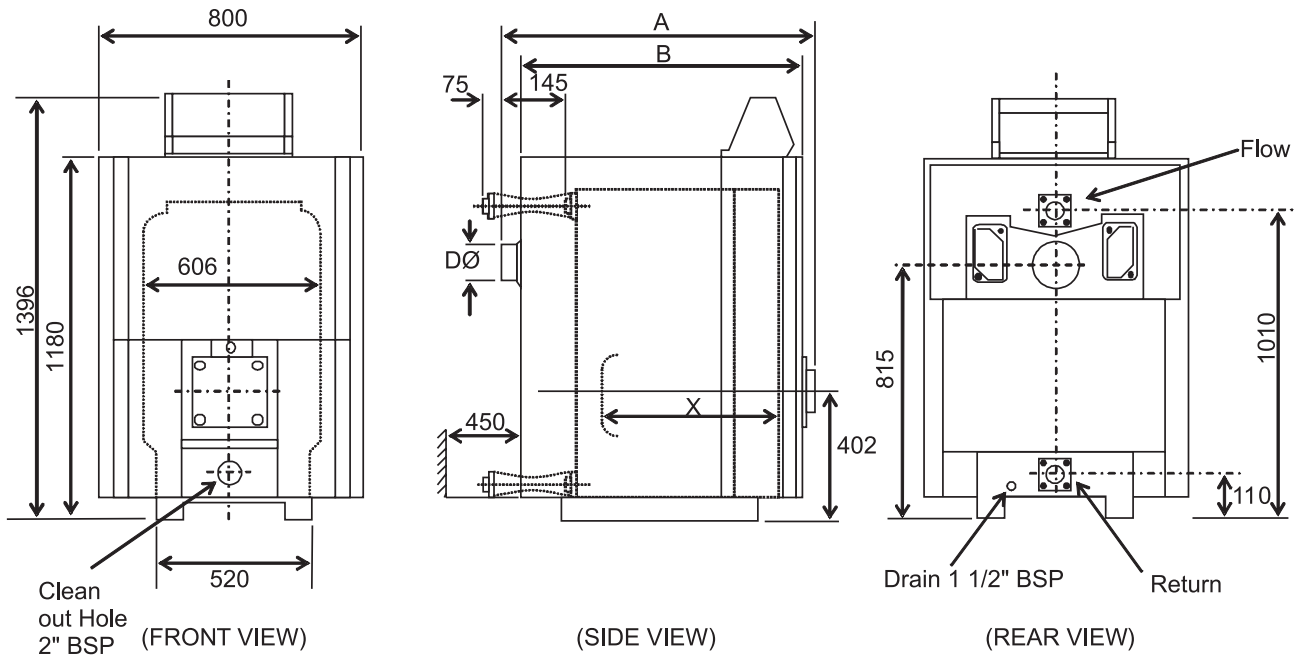
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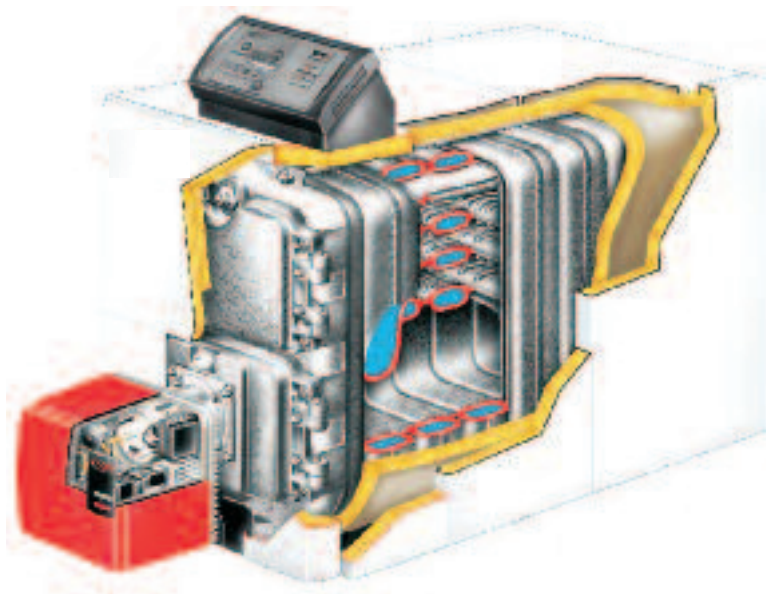
NXR3 Technical Details

NXR3 Model		34	35	36	37	38	39
No. of Sections		4	5	6	7	8	9
Output	kW	90	130	170	210	250	290
Fuel Consumption	Gas m ³ /hr	10.04	14.5	18.95	23.51	28.06	32.62
	Oil lit/hr	9.97	14.39	18.8	23.33	27.84	32.37
Efficiency Gross Gas/Oil	100%	84					
	30%	86.4					
Max Operating Pressure	bar	6					
Min Operating Pressure	bar	1					
Max Flow Temperature	°C	90					
Min Return Temperature	°C	55					
Water flow at 11°CΔt	lit/sec	1.95	2.81	3.68	4.55	5.41	6.28
Hydraulic Resistance at 11°CΔt	kpa	0.9	1.7	2.8	3.9	5.8	9.3
Flue Gas Volume	m ³ /hr	126	182	237	294	351	409
Flue Draught Requirements		0 to -4mm.wg.					
Dry Weight	kg	612	730	848	950	1068	1184
Water Content	lit	112	136	160	184	208	232
Power Requirements		230V 1Ph 50Hz, Fused 6.3A					
Nominal Flue Connection Size	mm	180mmØ				200mmØ	
Flue Gas Temperature	°C	170			160		

NXR3 Dimensional Details



	Model	34	35	36	37	38	39
A	mm	995	1165	1335	1505	1675	1845
B	mm	900	1070	1240	1410	1580	1750
$\varnothing D$	mm	180				200	
Water Connections	F&R	2 1/2" BSP Screwed Flanges (PN6)					



NXR4

Floor Standing Pressure
Jet Gas & Oil Boiler

Cast Iron Technology 320 to 800kW

Range Benefits

- Cast iron sectional high efficiency boiler
- Upto 89% gross, seasonal efficiency
- Oil, Natural Gas, LPG & Dual Fuel Option
- High/low & fully modulating match tested burners
- Integrated control panel
Inc: VFC's, high limit, control thermostats, boiler thermometer, flue gas thermometers, hours run meters and external BEMS interlocks
- Lifetime guarantee on the heat exchanger*
- Optional sequence & zone controls
- Erection & commissioning services

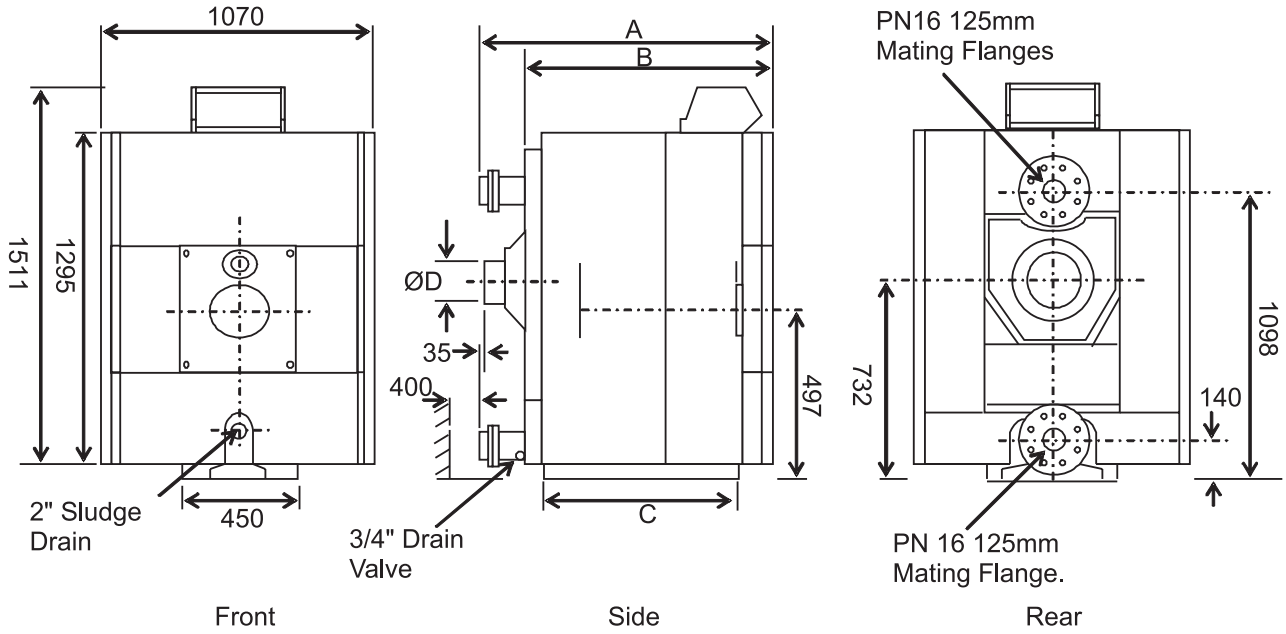
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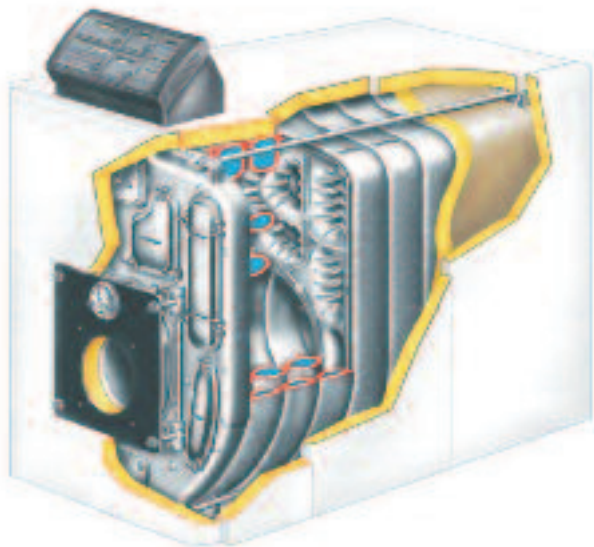
NXR4 Technical Details

NXR4 Model		9	10	11	12	13	14	15	16	17
No. of Sections		9	10	11	12	13	14	15	16	17
Output	kW	320	380	440	500	560	620	680	740	800
Fuel Consumption	Gas m ³ /hr	36	42.7	49.4	56.1	62.9	69.7	76.4	83.2	89.9
	Oil lit/hr	35.7	42.4	49	55.7	62.5	69.1	75.8	82.5	89.2
Efficiency Gross Gas/Oil	100%	84 / 88								
	30%	86 / 89								
Max Operating Pressure	bar	6								
Min Operating Pressure	bar	1								
Max Flow Temperature	°C	90								
Min Return Temperature	°C	55								
Water flow at 11°CΔt	lit/sec	6.93	8.23	9.52	10.82	12.12	13.42	14.72	16.02	17.32
Hydraulic Resistance at 11°CΔt	kpa	1.56	2.16	2.84	3.61	4.46	5.39	6.42	7.51	8.68
Flue Gas Volume	m ³ /hr	472	560	648	736	825	914	1002	1091	1179
Flue Draught Requirements		1 to -4mm.wg.								
Dry Weight	kg	1589	1745	1884	2028	2166	2315	2445	2585	2725
Water Content	lit	302	334	366	398	430	462	494	526	558
Power Requirements		230V 1Ph 50Hz, Fused 6.3A								
Flue Gas Temperature	°C	180								

NXR4 Dimensional Details



NXR4	Type	409	410	411	412	413	414	415	416	417
A	mm	1640	1780	1920	2060	2200	2340	2480	2620	2760
B	mm	1440	1580	1720	1860	2000	2140	2280	2420	2560
C	mm	1320	1460	1600	1740	1880	2020	2160	2300	2440
$\varnothing D$	mm	300				350				



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Spares

Potterton Commercial spares are available nationwide through the interpart network of approved stockists. Alternatively please contact:-

Interpart

Brooks House
Coventry Road
Warwick CV34 4LL
Tel: 0844 871 1540

Applications & Installations

Our experienced technical support team are available to offer advice on any aspect of heating system design and boiler installation.

Please contact: 0845 070 1057

Commercial service offices

Our service organisation covers the whole of the UK to look after your needs for all Potterton Commercial products.

Our service office offers a wide range of specialised services including:

- Burner commissioning for all fuels
- Boiler service contracts
- Breakdown and repair services
- Burner and boiler replacement
- Oil/gas conversions
- Water treatment and descaling
- Packaged units

All descriptions and illustrations contained within this leaflet have been carefully prepared, but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information in this leaflet.

The Enhanced Capital Allowance Scheme

All businesses, regardless of size, are able to claim enhanced capital allowances, except where the assets are leased.

If the product purchased is listed on the Energy Technology Product List end users can claim enhanced capital allowances on the cost of the product, along with any costs that are directly associated with the provision of the product

The scheme enables businesses to claim 100% first year capital allowances on investments in energy saving equipment. Businesses are now able to write off the whole cost of their investment against their taxable profits of the period during which they make the investment.

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