CI/SfB
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Cabinet Heaters



GAS AND OIL FIRED CABINET HEATERS



REZNOR®

Cabinet Heaters

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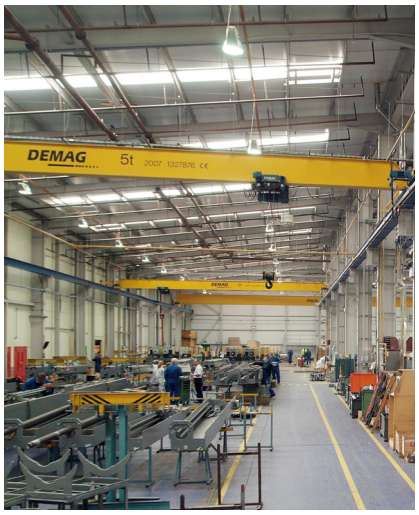


Introduction

The Reznor range of cabinet heaters combines innovative design with a proven four pass heat exchanger technology to provide a high efficiency cost effective and durable range.

The units may be specified for either freeblowing applications or for use with ductwork.

Units are manufactured in accordance with ISO 9001 accreditation, all heater efficiencies are compliant with Part L2B of the 2006 Building Regulations with the majority of models also meeting the higher efficiency requirements for Enhanced Capital Allowances.



Features & Benefits

A range of options are available. These include:

- High low or fully modulating burners
- Combustion air adaptors
- Stainless steel tubular heat exchanger
- Air inlet spigots
- Air inlet filters
- Manual or motorised inlet dampers
- Up rated fan motor for increased static pressure

Applications

- Factories
- Warehouses
- Workshops
- Showrooms
- Greenhouses



Model Range

Cabinet heaters are available as either gas or oil fired models.

- Gas fired cabinets heaters may be specified for either Natural Gas (G20) or Propane (G31)
- Oil fired cabinets heaters are suitable for use with Class D gas oil (35 sec), most units can also be specified for Kerosene (28 sec oil)

Vertical freestanding models are available from 29kw to 380kW.

Horizontal and Down flow models from 58kW to 380kW.

ECA

Qualified for Energy Technology List
www.eca.gov.uk
Authorised User No. 00011

This symbol verifies that the product was independently assessed and qualifies for the ECA scheme, an upfront tax relief enabling businesses that invest in energy-saving equipment to claim 100% first year capital allowances against their taxable profits.

Specification

Cabinets

Cabinets are constructed from electro-zinc coated steel with an inner heat shield skin and an epoxy powder coat finish outer skin to form a rigid and durable casework.

Air Distribution

Centrifugal fan(s) circulate large air volumes evenly across the full heat exchanger surface for enhanced life expectancy. Fans on models 30 to 90 are direct drive with a single phase motor whilst larger models are fitted with a three phase motor and v-belt drive.

Free blowing heaters are fitted with long throw discharge nozzles complete with horizontal louvres and can be rotated through 360º. Models 75-380 are supplied with a raised rear nozzle (one per three nozzle heater and two per four nozzle heater).

Heaters for use with ductwork are supplied with a duct outlet spigot.

Heat Exchanger and Burner

Four pass combustion chamber/heat exchanger assembly provides improved thermal efficiency with extended operational life. A stainless steel chamber is combined with a high efficiency cross flow tubular heat exchanger to achieve thermal efficiency in excess of 91% (ECA models).

The complete assembly is mounted to allow for thermal expansion thereby avoiding undue thermal stress and premature heat exchanger failure.

Gas fired units are fitted with a fully automatic forced draught burner complete with full safety controls to EN676 and the heaters are CE certified. A high low burner is fitted as standard on model 380.

Oil fired units are supplied complete with a fully automatic burner complete with safety controls, units are also supplied complete with factory fitted fire valve and oil filter. Oil fired models 350 and 380 are fitted with high low burners as standard.

Controls

A combined fan and limit switch is fitted on all heaters.

In the event of overheating the unit would automatically be shut down by the limit thermostat.

All heaters are supplied with an electronic programmer complete with optimised control, this is factory fitted and wired on free-blowing vertical models. For horizontal, down flow and all duct outlet models heaters the controller is supplied loose for on site wiring by the installer.



TECHNICAL DATA

Model			30	35	45	60	75	90	120	135	180	205	235	285	350	380
ECA Approved			✓	✓	✖	✓	✓	✖	✓	✓	✓	✖	✓	✓	✓	✖
Nominal heat output		kW	29	36	43	58	73	86	117	132	177	205	235	284	350	381
Airflow		m^3/h	2196	2556	2556	3708	5004	5004	7740	2.65	9540	12240	15552	17496	24768	24768
Temperature rise		°C	39	41	50	46	43	50	44	40	46	49	44	47	41	45
Throw[1]		m	14	14	14	17	17	17	20	20	20	22	22	25	31	31
Static pressure	Std motor	Pa	75	100	100	125	100	100	137	150	175	188	125	175	250	250
	Increased motor	Pa	n/a	n/a	n/a	n/a	n/a	n/a	175	200	225	225	188	225	n/a	n/a
Fuel Consumption																
Natural gas G20		m^3/h	3.3	4.2	5.1	6.7	8.5	10.1	13.6	15.3	20.2	24.3	27.0	33.0	40.7	45.8
Oil		l/h	3.3	4.2	5.0	6.6	8.6	10.0	13.6	15.2	20.3	24.1	27.1	33.0	37.5	44.5
Propane G31		m^3/h	1.3	1.7	2.0	2.6	3.4	4.0	5.4	6.0	8.0	9.6	10.7	13.0	16.1	18.1
Fuel connection[2]																
Gas		Rc	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"	⅜"
Oil		Rc	½"	½"	½"	½"	½"	½"	¾"	¾"	1"	1¼"	1¼"	1¼"	1½"	2"
Minimum gas inlet pressure																
Natural gas G20		mbar	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Propane G31		mbar	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
Electrics																
Main fan motor		kW	0.55	0.55	0.55	0.99	0.99	0.99	1.50	2.20	3.0	3.00	4.00	5.50	7.50	7.50
FLC 230/1/50		amp	**3.2**	**4.8**	**4.8**	**6.0**	**7.2**	**7.2**	12.0	14.0	n/a	n/a	n/a	n/a	n/a	n/a
FLC 415/3/50		amp	n/a	n/a	n/a	2.2	2.2	2.2	**3.6**	**5.2**	**6.5**	**6.5**	**8.4**	**11.0**	**17.0**	**17.0**
Up-rated fan motor		kW	n/a	n/a	n/a	n/a	n/a	n/a	2.2	3.0	4.0	4.0	5.5	7.5	11.0	11.0
FLC 415/3/50		amp	n/a	n/a	n/a	n/a	n/a	n/a	5.2	6.5	8.4	8.4	11.0	14.0	24.0	24.0
Flue diameter		mm ø	125	125	125	150	150	175	175	175	200	200	225	225	250	250
Combustion air diameter		mm ø	125	125	125	125	125	125	150	150	150	150	150	150	150	150
Noise level[3]		dB(A)	63	65	65	68	68	68	70	72	74	74	75	77	77	77
Nett weight		Kg	196	196	196	241	243	243	330	332	525	540	630	646	1090	1090

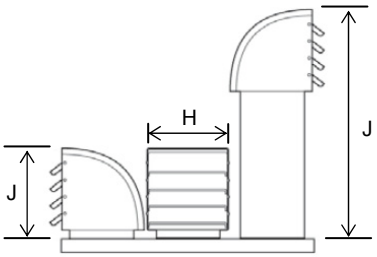
1 Throw is dependent on building height, room temperature and nozzle settings.
2 Gas lines must be adequately sized and reduced at appliance as required.
3 Noise levels measured at 5 metres from appliance.

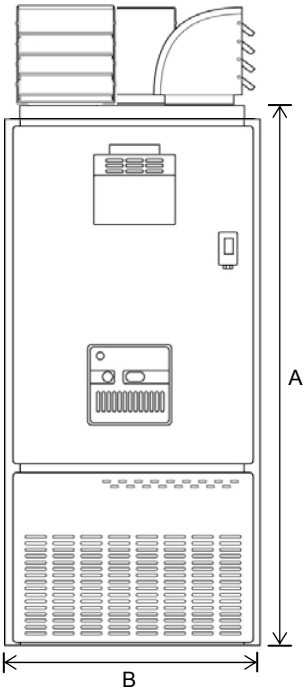
Vertical Cabinets

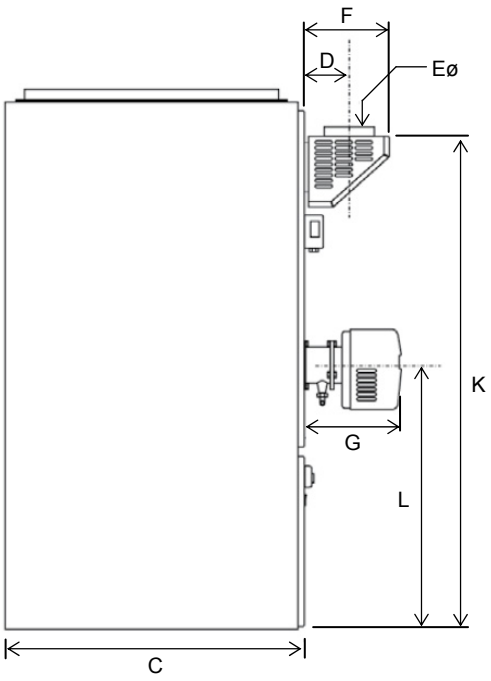
GAS AND OIL FIRED CABINET HEATERS



Vertical Heaters VN/VD



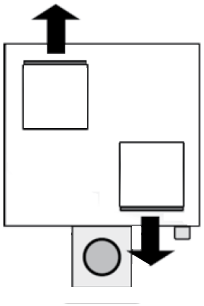




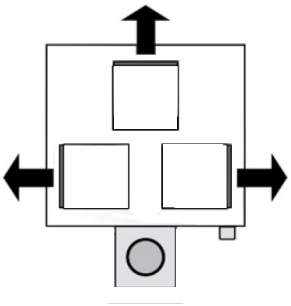
DIMENSIONS														
Model	30	35	45	60	75	90	120	135	180	205	235	285	350	380
A	1650	1650	1650	1900	1900	1900	2025	2025	2125	2125	2110	2110	2667	2667
B	660	660	660	660	660	660	740	740	916	916	1100	1100	1244	1244
C	662	662	662	925	925	925	1085	1085	1315	1315	1550	1550	1550	1550
D	95	95	95	170	170	170	170	170	195	195	195	195	203	203
E mmø	125	125	125	150	150	175	175	175	200	200	225	225	250	250
F	250	250	250	320	320	320	320	320	380	380	380	380	355	355
G Oil Gas	229 349	229 349	229 349	267 362	267 362	267 362	298 432	298 432	298 432	476 580	476 580	476 580	476 580	476 580
H	280	280	280	280	280	280	305	305	355	355	406	406	474	474
J[1] Standard Extended	240 n/a	330 n/a	330 n/a	330 n/a	330 660	330 660	360 720	360 720	410 815	410 815	460 915	460 915	613 1115	613 1115
K	1500	1500	1500	1778	1778	1778	1878	1878	1980	1980	1965	1965	2610	2610
L	835	835	835	984	984	984	968	968	1068	1068	1054	1054	1372	1372

1 Heaters with 3 or 4 nozzles are supplied with extended head on the rear nozzle(s). For applications with restricted headroom, units may be specified with all nozzles at standard height.

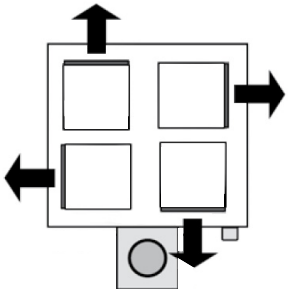
Air Discharge and Inlet Details



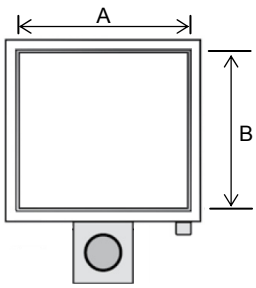
Nozzle outlet 30-60



Nozzle outlet 75-120

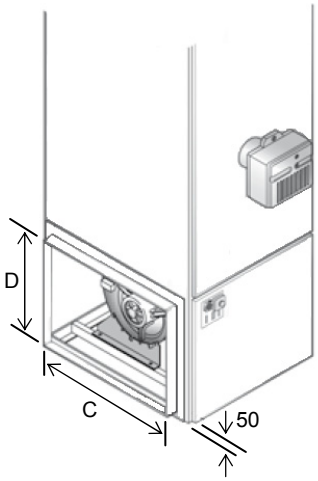


Nozzle outlet 35-380

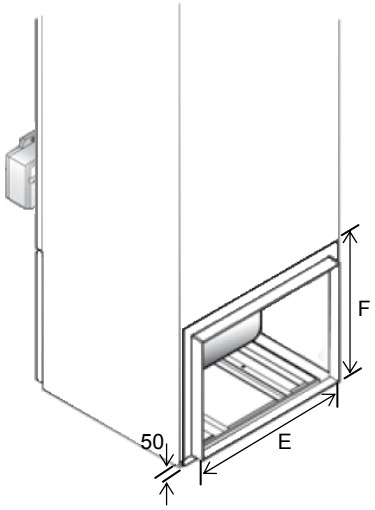


Duct Outlet Spigot

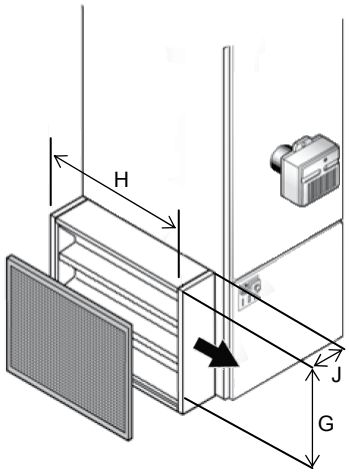
Return Air Spigots and Filters



Side inlet spigot
left (as shown) or right -
please specify at time of order



Rear inlet spigot

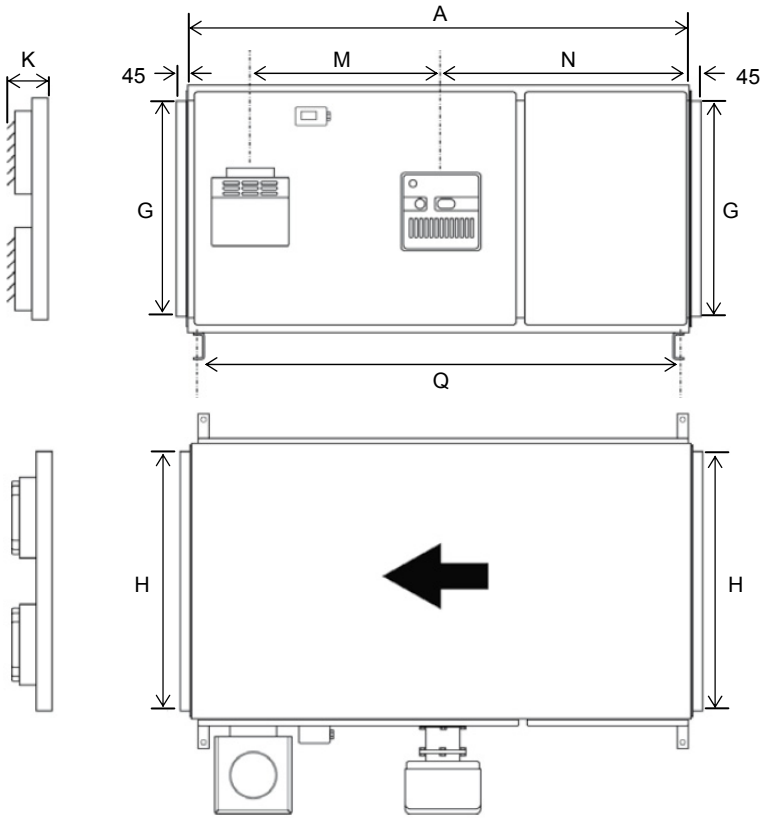


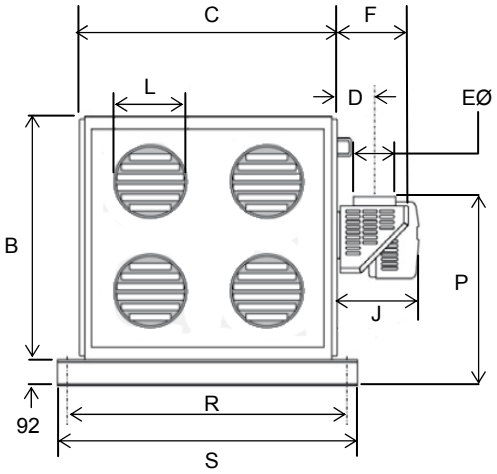
Side inlet filter
left (as shown) or right - please specify at time of order. Additional side inlet spigot is required to connect filter box to inlet ductwork

DIMENSIONS														
Model	**30**	**35**	**45**	**60**	**75**	**90**	**120**	**135**	**180**	**205**	**235**	**285**	**350**	**380**
Head plan (VN)	1	1	1	1	2	2	2	3	3	3	3	3	3	3
Nozzle detail no.	2	2	2	2	3	3	3	4	4	4	4	4	4	4
(VN) Spigot ø	240	240	240	240	240	240	280	280	320	320	370	370	470	470
Outlet Spigot A	570	570	570	634	634	634	714	714	890	890	1000	1000	1086	1086
(VD) B	570	570	570	770	770	770	950	950	1120	1120	1450	1450	1365	1365
Side Inlet Spigot C	522	522	522	702	702	702	904	904	1078	1078	1145	1145	1150	1150
(VN/VD) D	348	348	348	427	427	427	542	542	692	692	654	654	796	796
Rear Inlet Spigot E	620	620	620	520	520	520	608	608	790	790	935	935	n/a	n/a
(VN/VD) F	445	445	445	550	550	550	550	550	560	560	654	654	n/a	n/a
Inlet Filter Assembly G	420	420	420	600	600	600	680	680	765	765	720	720	860	860
(VN/VD) H	660	660	660	800	800	800	990	990	1165	1165	1245	1245	1530	1530
J	300	300	300	300	300	300	300	300	300	300	450	450	450	450
Installation Clearances														
Front	500	500	500	500	500	500	600	600	600	900	900	900	900	900
Side	300	300	300	300	300	300	300	300	300	300	400	400	500	500
Rear	700	700	700	1000	1000	1000	1200	1200	1500	1500	2000	2000	2000	2000

Filter cassettes can be withdrawn from either side, ensure adequate clearance for withdrawal i.e. full width of filter box

Horizontal Heaters HN/HD

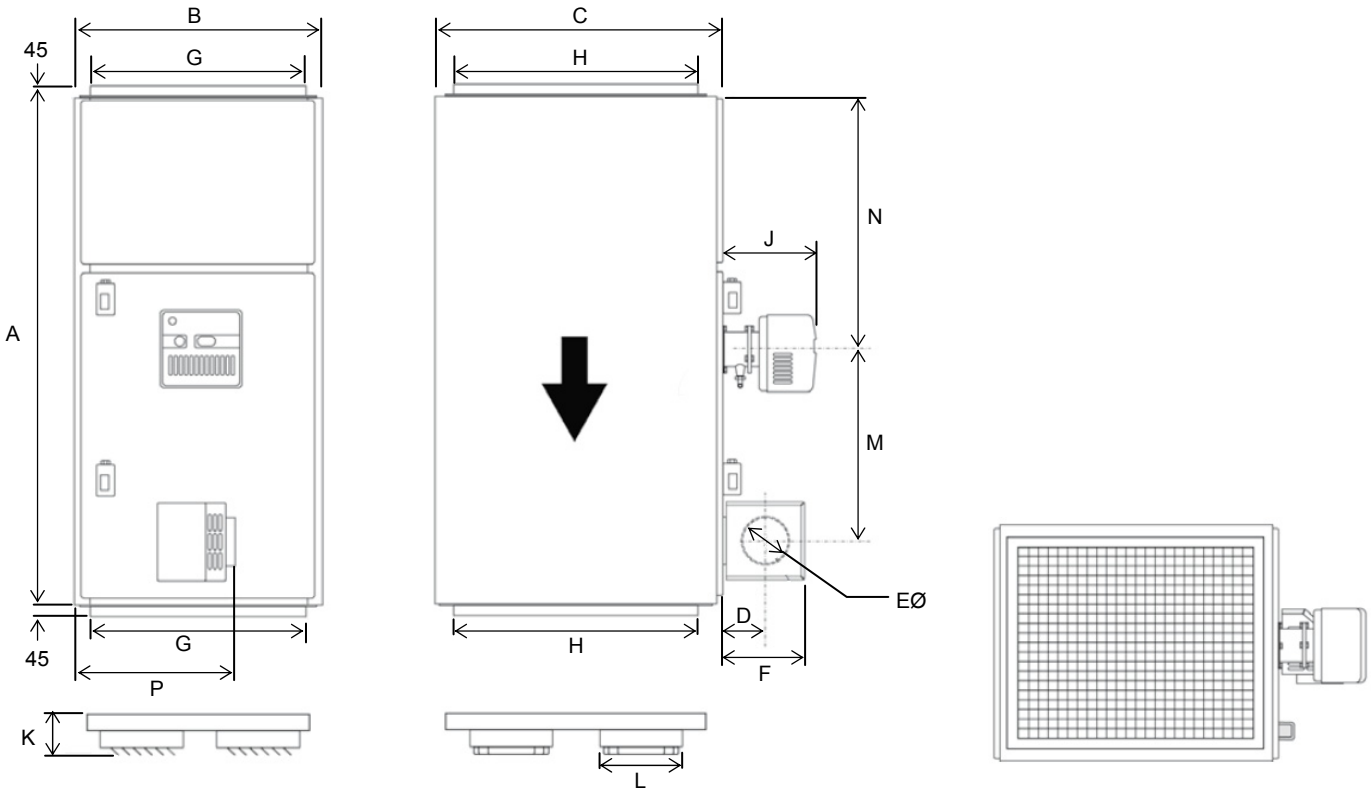




Note: Units may be specified for airflow right to left which is the standard configuration as shown. Alternatively units can be specified for airflow left to right.

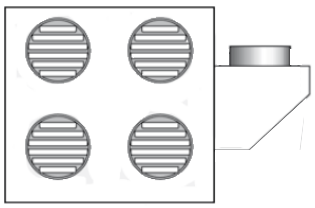
Downflow Cabinets

Downflow Heaters RN/RD



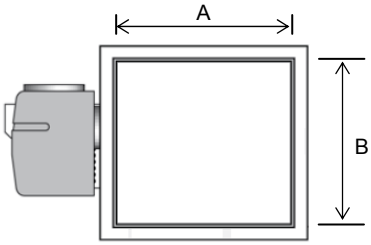
DIMENSIONS											
Model	60	75	90	120	135	180	205	235	285	350	380
A	1865	1865	1865	1993	1993	2093	2093	2076	2076	2667	2667
B	660	660	660	740	740	916	916	1100	1100	1244	1244
C	925	925	925	1085	1085	1315	1315	1550	1550	1550	1550
D	170	170	170	170	170	200	200	225	225	203	203
E mmø	150	150	175	175	175	200	200	225	225	250	250
F	320	320	320	320	320	380	380	380	380	355	355
G	560	560	560	640	640	816	816	1000	1000	1086	1086
H	790	790	790	952	952	1182	1182	1450	1450	1365	1365
J Oil Gas	267 362	267 362	267 362	298 432	298 432	298 432	476 580	476 580	476 580	476 580	476 580
K	160	160	160	225	225	320	320	320	320	320	320
L	209	209	209	290	290	425	425	425	425	480	480
M	676	676	676	790	790	790	790	769	769	1054	1054
N	984	984	984	968	968	1068	1068	1054	1054	1372	1372
P	476	476	476	515	515	648	648	748	748	1304	1304

Air Discharge and Inlet Details



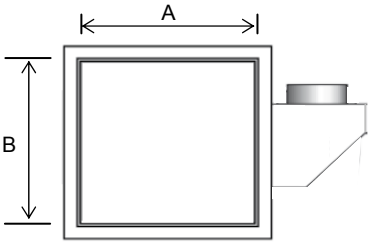
Discharge outlets

(All HN/RN models are supplied with 4 louvred outlets)



Inlet spigot (all)

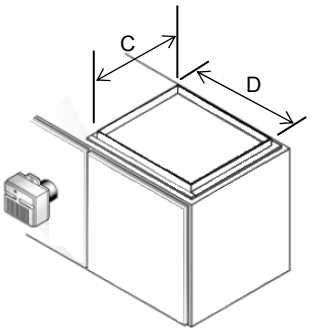
(Burner location shown for standard R-L horizontal airflow)



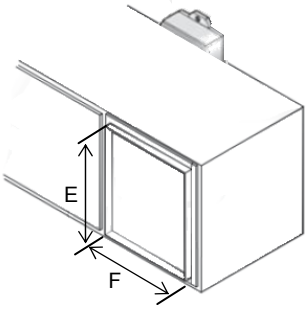
Outlet spigot (HD/RD)

(Flue location shown for standard R-L horizontal airflow)

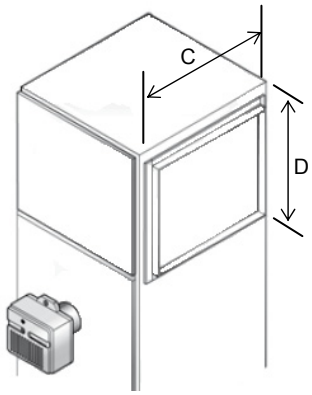
Return Air Spigots



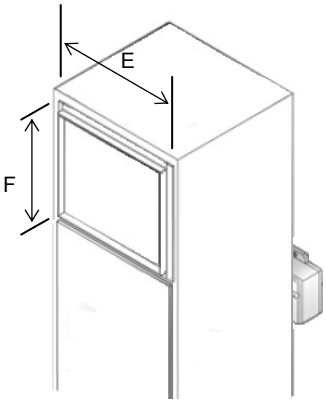
Top or bottom inlet spigot
HN/HD



Rear inlet spigot
HN/HD



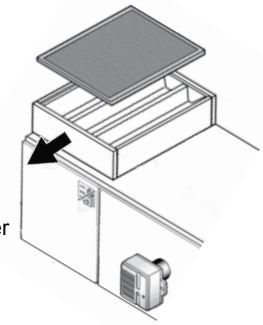
Side inlet spigot
RN/RD



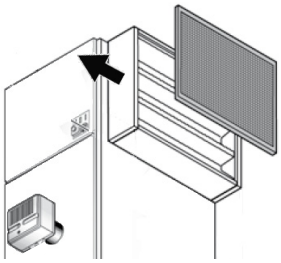
Rear inlet spigot
RN/RD

Air filters

Top or bottom inlet filter
HN/HD



Side inlet filter
RN/RD



DIMENSIONS

Model		60	75	90	120	135	180	205	235	285	350	380
Nozzle ø (HN/RN)		203	203	203	284	284	419	419	419	419	470	470
Duct Spigot (All)	A	790	790	790	952	952	1182	1182	1450	1450	1365	1365
	B	560	560	560	640	640	816	816	1000	1000	1086	1086
Top & Side Inlet (HN/HD & RN/RD)	C	702	702	702	904	904	1078	1078	1145	1145	1150	1150
	D	427	427	427	542	542	692	692	654	654	796	796
Rear Inlet (HN/HD)	E	520	520	520	608	608	790	790	935	935	n/a	n/a
	F	550	550	550	550	550	560	560	654	654	n/a	n/a
Installation Clearances												
Front		500	500	500	600	600	600	900	900	900	900	900
Top (RN/RD)		150	150	150	150	150	150	150	150	150	150	150
Top[1] (HN/HD)		150	150	150	150	150	150	150	400	400	500	500
Rear		1000	1000	1000	1200	1200	1500	1500	2000	2000	2000	2000

1 Top clearance applies to units with side air inlet. For units with top air inlet allow 1000mm

An AmbiRad Group brand

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