



- Ideal for most industrial and commercial applications with a large range of heat outputs and burner options
- Easy installation with a factory fitted bolt-on burner
- Durability and long life provided by stainless steel combustion chamber and mild steel heat exchanger
- Design flexibility with floor standing, horizontal mounting or external site installation

Combat[®]

Cabinet Heaters

Quality in Any Language™



0063

Technical Data

Natural Gas (G20) & Propane (G31) Data

Model		015	020	030	040	050	060	070	080	0100
Maximum Gross Heat Input	(kW) (Btu/hr)	56.1 191,413	73.7 251,464	103.0 351,436	144.7 493,546	182.1 621,155	220.0 750,640	253.6 865,113	297.0 1,013,364	363.0 1,238,556
Maximum Heat Output	(kW) (Btu/hr)	46.9 160,091	60.3 205,744	81.9 279,442	114.7 391,247	144.8 494,100	176.0 600,512	202.8 692,090	237.6 810,691	290.1 989,719
Reduced Gross Input*	(kW) (Btu/hr)	33.6 114,473	44.0 150,128	63.3 215,809	86.4 294,626	108.9 371,567	132.0 450,384	151.8 517,942	178.2 608,018	217.8 743,134
Reduced Output*	(kW) (Btu/hr)	28.4 96,781	36.6 124,879	52.6 179,514	70.7 241,058	89.6 305,698	108.6 370,543	126.3 430,833	146.6 500,233	179.2 611,396
Maximum Gas Rate - Natural Gas (G20)	(m ³ /hr) (ft ³ /hr)	5.4 190.7	7.1 250.7	9.9 349.6	13.9 490.8	17.5 617.9	21.2 748.5	24.4 861.6	28.6 1009.9	34.9 1232.4
Minimum Gas Rate - Natural Gas (G20)*	(m ³ /hr) (ft ³ /hr)	3.2 113.0	4.2 148.3	6.1 215.4	8.3 293.0	10.5 370.8	12.7 448.4	14.6 515.6	17.1 603.8	21.0 741.5
Maximum Gas Rate - Propane (G31)	(m ³ /hr) (Kg/hr) (Ltr/hr)	2.1 3.9 7.7	2.7 5.1 10.0	3.8 7.1 13.9	5.4 10.1 19.8	6.8 12.7 25.0	8.2 15.4 30.3	9.4 17.6 34.6	11.0 20.6 40.5	13.5 25.3 49.7
Minimum Gas Rate - Propane (G31)*	(m ³ /hr) (Kg/hr) (Ltr/hr)	1.3 2.4 4.7	1.6 2.9 5.7	2.3 4.3 8.4	3.2 5.9 11.6	4.1 7.6 14.9	4.9 9.1 17.9	5.6 10.5 20.6	6.6 12.3 24.2	8.1 15.1 29.7
Inlet Pressure - G20	(mbar)	20 (Minimum: 17;Maximum: 25)								
Inlet Pressure - G31	(mbar)	37 (Minimum: 25;Maximum: 45)								
Gas Connection	(ins)	R 3/4	R 3/4	R 3/4	R 3/4	R1 1/4	R1 1/4	R1 1/4	R1 1/4	R1 1/4

* High/Low and Modulating Burners Only

Oil Data (Class D fuel oil)

Model		015	020	030	040	050	060	070	080	0100
Heat Output	(kW) (Btu/hr)	44.0 150,000	58.6 200,000	87.9 300,000	117.2 400,000	146.5 500,000	175.8 600,000	205.2 700,000	234.5 800,000	293.1 1,000,000
Heat Input	(kW) (Btu/hr)	51.0 174,012	73.6 251,073	109.7 374,277	146.2 498,786	183.2 625,000	221.2 754,870	256.2 874,060	300.6 1,025,647	355.8 1,213,874
Consumption	(L/hr) (Galls/hr)	4.82 1.06	6.96 1.53	10.37 2.28	13.83 3.04	17.32 3.81	20.92 4.60	24.23 5.33	28.43 6.25	33.65 7.4
Oil Pump Connections	(ins)	1/4	1/4	1/4	1/4	1/4	3/8	3/8	3/8	3/8

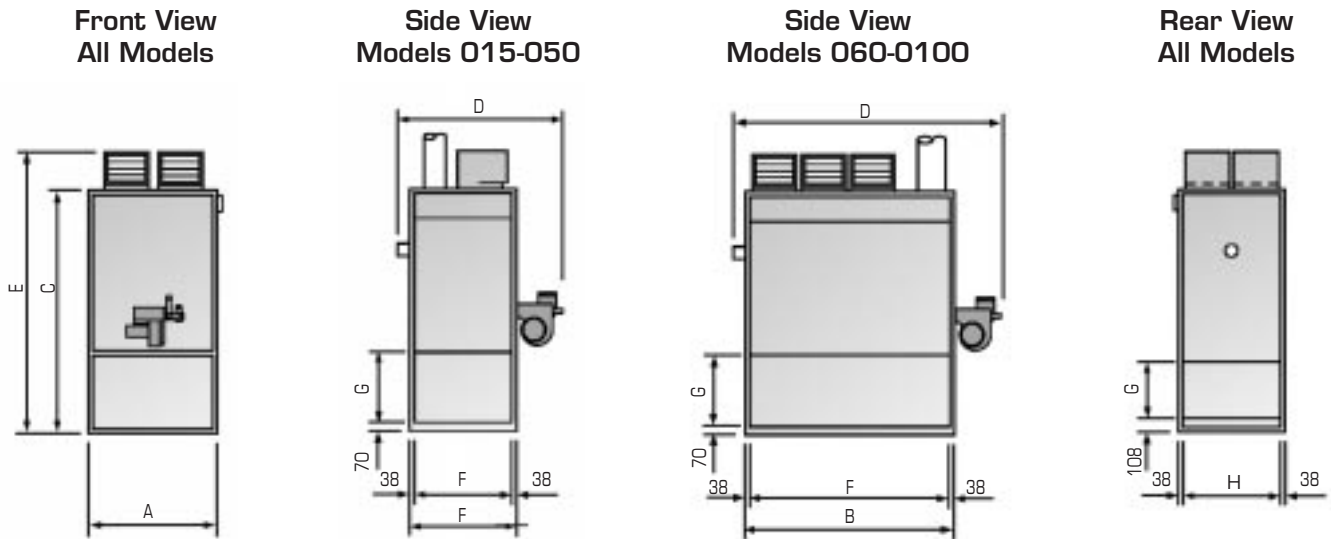
General Data

Model		015	020	030	040	050	060	070	080	0100
Electrical Supply		Models 15 to 30: 230V/50Hz/Single Phase • Models 40 to 100: 400V/50Hz/Three Phase (Models 40 & 50 are available with 230V single phase electrical supply as an extra cost option.)								
Main Fan Motor Type		DD	DD	DD	DD	DD	BD	BD	BD	BD
Motor Size	(kW)	0.75	0.75	0.75	2.2	2.2	1.5	2.2	2.2	4.0
Start Current	(Amps)	24	24	28	21	21	10.2	30	30	35.0
Run Current	(Amps)	5.3	5.3	6.3	6.2	6.2	3.5	5.1	5.1	9.6
Airflow - Free Blowing	(m ³ /hr) (ft ³ /min)	3398 2,000	3398 2,000	5097 3,000	6796 4,000	8495 5,000	11044 6,500	12443 7,500	12443 7,500	17330 10,200

DD = Direct Drive BD = Belt Drive

Dimension Data

All dimensions shown in mm.



Model		015/020	030	040	050	060/070/080	0100
'A' Width	(mm)	724	724	857	857	1016	1016
'B' Depth Cabinet Only	(mm)	857	857	857	1016	1676	1994
'C' Height Cabinet Only	(mm)	1740	1740	1930	1930	1930	1930
'D' Depth Overall	(mm)	1267	1267	1337	1496	2156	2496
'E' Height Inc. Heads	(mm)	1988	2058	2235	2235	2235	2235
'F' Left/Right Hand Air Inlet Spigot - Depth	(mm)	781	781	781	940	1600	1918
'G' Left/Right Hand Air Inlet Spigot - Height	(mm)	457	457	559	559	559	559
'H' Rear Air Inlet Spigot - Depth	(mm)	648	648	781	781	na	na
'J' Rear Air Inlet Spigot - Height	(mm)	361	361	446	446	na	na
Weight	(kgs)	200	200	245	270	440	530
Flue Diameter*	(mm)	178	178	178	178	229	229

Heater Clearances to Combustibles (mm)

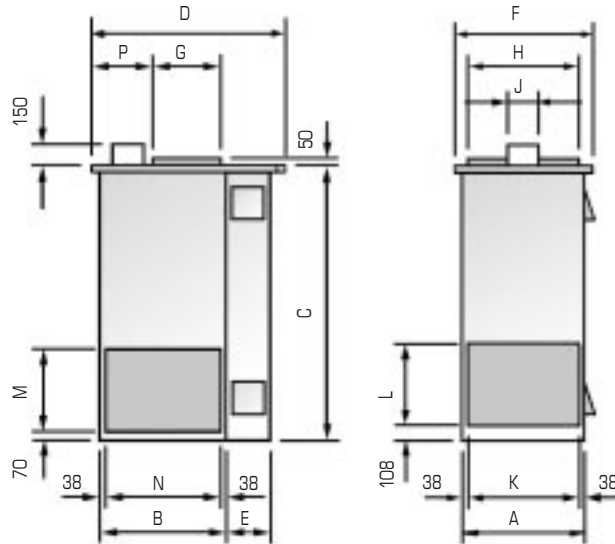
To side of Heater	600	To rear of Heater	600	To front of Heater	2000	For air distribution	4000
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Note: Horizontal Cabinet heaters are designed to lie on their left hand side, as standard.

*All heaters must be connected to a suitable flue system.

Dimension Data - External Heaters

All dimensions shown in mm.



Model		015/020/030	040	050	060/070/080	0100
'A' Width	(mm)	724	857	857	1016	1016
'B' Depth Cabinet Only	(mm)	857	857	1016	1676	1994
'C' Height Cabinet Only	(mm)	1740	1930	1930	1930	1930
'D' Depth Overall	(mm)	1396	1498	1657	2483	2800
'E' External Heater Housing	(mm)	373	474	474	639	639
'F' Width Overall	(mm)	840	973	973	1132	1132
'G' Air Outlet Spigot Depth	(mm)	476	476	610	1238	1524
'H' Air Outlet Spigot Width	(mm)	648	781	781	940	940
'J' Flue Spigot Diameter	(mm)	203	203	203	254	254
'K' Rear Return/ Fresh Air Inlet - Width	(mm)	648	781	781	na	na
'L' Rear Return/ Fresh Air Inlet - Height	(mm)	369	469	469	na	na
'M' Left/Right Hand Return/ Fresh Air Inlet - Height	(mm)	464	560	560	560	560
'N' Left/Right Hand Return/ Fresh Air Inlet - Width	(mm)	781	781	940	1600	1918
'P' Rear Of Heater To Air Outlet Spigot*	(mm)	401	401	426	96	96

Note: *For models 060 - 0100 the circular flue spigot is at the front of the heater with the rectangular air outlet spigot at the rear.

COMBAT® external cabinet heaters are designed to be sited externally, with heat ducted into the building. These models are fitted with a special metal rain drip cover and all cabinet joints are silicone sealed to ensure that the heaters are weatherproof.

Controls

Each heater will require connection to a suitable remote control panel. This will require on-site wiring.

Burner Options

COMBAT[®] cabinet heaters are fitted with On/Off burners as standard. High/Low burners are available as an option on all models, and a fully modulating burner is available as an option on all Natural Gas and LPG fired models.

Inlet & Outlet Ducts

Where there is a need for the heater to be connected to fresh air or air from an adjacent area, for its intake of distribution air, inlet duct connections can be provided. **Note:** When employing an inlet duct arrangement there must be adequate provision for the supply of combustion air. Please contact Roberts-Gordon for advice.

As standard, each heater is supplied with the specified number of discharge heads for warm air distribution. If a heater is to be attached to ducting for warm air distribution, then an outlet duct spigot can be provided. In these instances, advice should be sought to ensure that proposed duct systems are compatible with the heater.

Important Notice

The equipment described in this Data Sheet is suitable for most commercial and industrial heating applications. However in certain environments, particularly where there is a chlorinated atmosphere (e.g. near degreasing plant or other solvent processes), or a particularly dusty atmosphere, specialist advice should be sought at the design stage. Please consult Roberts-Gordon.

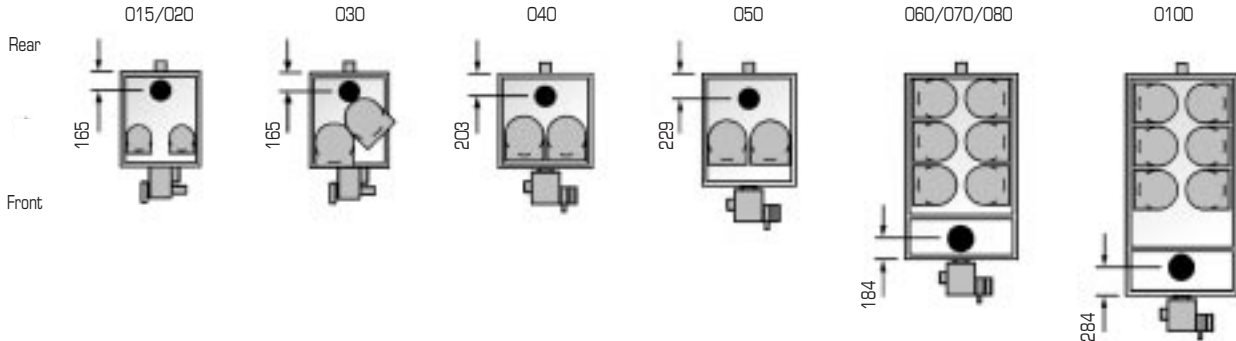
Roberts-Gordon reserves the right to alter product specification details without notice.

Installation Code: ROBERTS GORDON[®] products are to be installed only in accordance with local laws, codes and regulations, and only by a contractor qualified in the installation and service of oil and/or gas-fired heating equipment.

Further Information: Applications, engineering and detailed guidance on systems design, installation and product performance is available through ROBERTS GORDON[®] representatives. Please contact us for any further information you require, including installation, operation and service manuals.

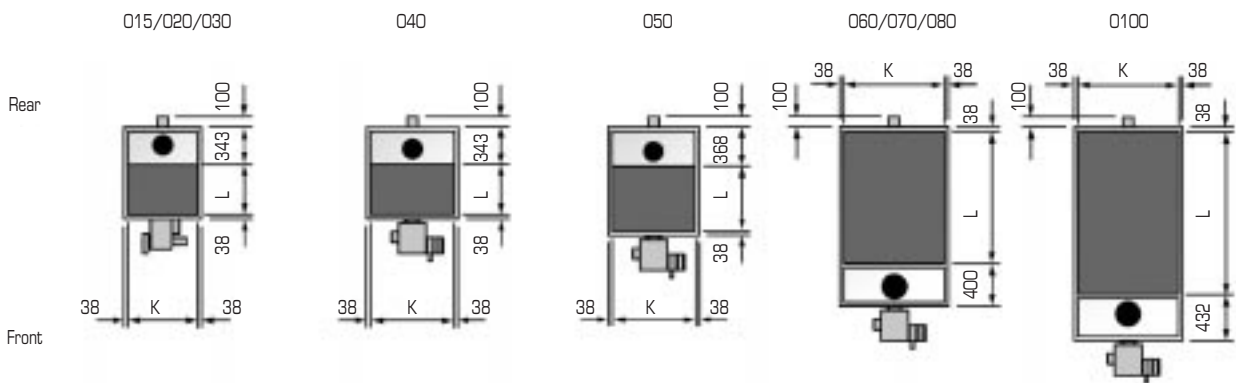
Air Outlet & Flue Arrangements

Vertical and Horizontal Heaters - Free Blowing



Notes: Models 015 and 020 are fitted with 9" diameter discharge heads as standard.
Models 030 to 0100 are fitted with 14" diameter discharge heads as standard

Vertical and Horizontal Heaters - Air Outlet Spigots



Outlet Spigot Dimensions

Model	015/020/030	040	050	060/070/080	0100
K Spigot Width (mm)	648	781	781	940	940
L Spigot Depth (mm)	476	476	610	1238	1524

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