

# UPA POWER VENTED UNIT HEATERS



Authorised User No. 00182

# Reznor®

THE NAME FOR WARM AIR

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## UPA – Power Vented Unit Heaters

UPA gas fired unit heaters deliver low cost energy efficient heating. With a range of outputs from 27 to 91kW units offer very high thermal efficiencies and are suitable for both industrial and commercial heating applications. Furthermore all units incorporate a power-vented flue to help eliminate unnecessary heat loss via the flue system in order to improve seasonal efficiencies.

### Features

- Power vented flue
- Axial fan for free blowing applications
- Aluminised steel heat exchanger
- Suitable for natural gas (G20)
- Horizontal louvres
- Auto spark ignition system
- High thermal efficiency 92% net CV

### Options

- Vertical louvres
- Downturn nozzles (30° and 60°)
- Suitable for propane gas
- Economy thermostat
- Wall mounting brackets

## Cost Savings

- High efficiency models achieve thermal efficiencies of 92% and are listed on the governments energy technology list. (End users who purchase products on this list are eligible to claim 100% Enhanced Capital Allowances within the 1st year).
- Fast pay back - the reduced energy consumption, and reduced installation costs, allows the capital cost of higher efficiency units to be recovered very quickly. In some cases within 12 months.
- Low cost

## Energy Saving

- High efficiency operation results in lower running costs
- Longer air throw improves distribution

## Easy Installation

- Power vented rear flue outlet permits use of a simple wall terminal removing the requirement for roof penetrations.



## Specification

### Heat Exchanger

The heat exchanger provides optimum efficiency with low NOx emissions.

Heat exchanger elements are designed to provide a large surface area to maximize efficiency and eliminate localised hot spots. The elimination of welded joints considerably reduces thermal and mechanical stress enhancing heat exchanger life expectancy.

### Air distribution

A quiet direct drive axial flow fan is fitted to all units for optimum air distribution. An optional 'economy thermostat' may be fitted to heaters installed at high level to recirculate warm air down to working level during periods when the burners are switched off.

Horizontal discharge louvres are fitted as standard. Additional vertical louvres may be fitted as an option.

Downturn nozzles are available to deflect the airflow and are recommended for units fitted at higher mounting heights.

The fan operation is controlled by an integral fan thermostat. This delays fan start up until the heat exchanger has reached operating temperature and continues to run the fan after the burner has switched off and all useful heat has been dissipated.

### Safety

To ensure safe automatic operation ignition is controlled and monitored from an electronic sequence controller and multi-functional gas safety valve. A differential pressure switch shuts off the burners if either the flue or combustion air supply is obstructed or the flue exhaust fan fails. A limit thermostat protects the unit from overheating and a second higher limit thermostat is fitted to provide dual safety control.

### Controls

Remote control panels are available to simplify on site wiring and provide optimum fuel economy. The panels are complete with digital time control, day and night temperature settings, a remote lockout reset facility and a 'fan only' switch to provide summer air movement.

### Installation

Heaters must be installed in accordance with BS 6230, paying particular attention to the requirements for combustion air.

Units may be suspended or base mounted on a suitable non combustible support. Maximum flue length is 14 metres, (deduct 1.5m for each 90° bend).

Flue systems complete with integral sealing rings are available to match the heaters. These are available for either roof or wall outlet and are ordered separately from the heater.

Four integral suspension points with M10 female threads are provided on each heater. Installation must be carried out by a suitably qualified installer.

Units must not be installed in areas classified as hazardous or where halogenated hydrocarbons or chlorinated vapours are present.

### Electrical

A permanent single-phase supply is required to each unit, to ensure correct fan operation this supply should not be switched off except for maintenance.

Units must be wired in accordance with the wiring diagrams provided and current electrical standards.

# TECHNICAL SPECIFICATION

## UPA Technical Data

MODEL			UPA 30	UPA 40	UPA 50	UPA 60	UPA 70	UPA 90
Nominal Heat Output		kW	27	40	49	57	69	91
Airflow @15°C		m³/h	2385	3885	4535	5540	6810	8825
Temperature Rise		K	33	30	32	30	29	30
Throw <sup>1</sup>		m	20	25	28	30	33	36
Maximum flue length <sup>2</sup>		m	14	14	14	14	14	14
Gas Consumption	nat.gas G20 <sup>3</sup>	m³/h	3.12	4.60	5.69	6.50	7.83	10.48
	propane G31 <sup>4</sup>	kg/h	2.30	3.39	4.20	4.79	5.77	7.72
Gas connection <sup>5</sup>		Rc	1/2	3/4	3/4	3/4	3/4	3/4
Fan motor(s) rating		kW	0.12	0.18	0.34	0.34	0.69	0.69
Total electrical rating		kW	0.273	0.333	0.490	0.490	0.677	0.848
Sound pressure level (Lp) @ 5m	free field	dB(A)	43	45	49	52	49	53
	typical installation	dB(A)	50	52	56	59	56	60
Suggested mounting height <sup>6</sup>		m	3.5	3.5	3.5	3.5	4	4
Approximate weight		kg	56	93	104	114	123	163

1 Throw depends on height of building, mounting height of heater, room temperature and louvre settings

2 Deduct 1.5 metres for each 90° bend

3 Natural Gas – minimum inlet pressure 17.5 mbar, maximum inlet pressure 50 mbar

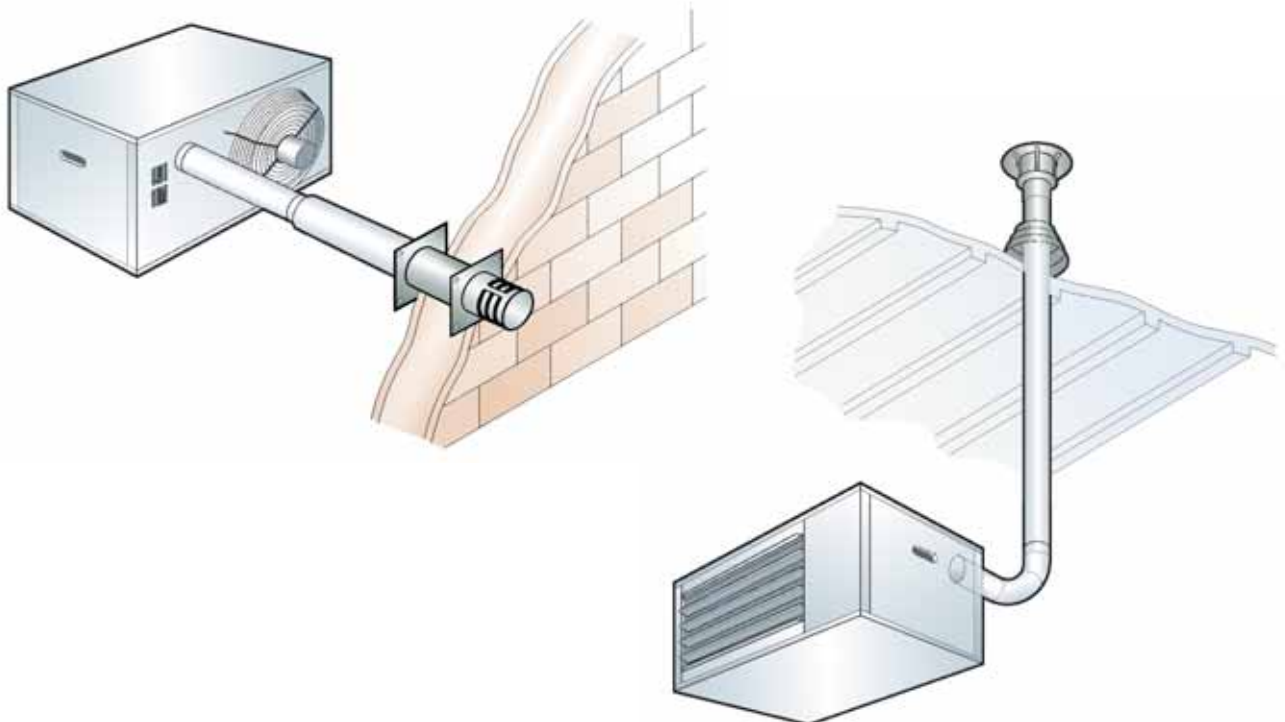
4 Propane Gas – minimum inlet pressure 37 mbar, maximum inlet pressure 50 mbar

5 Not supply line size

6 To underside of heater

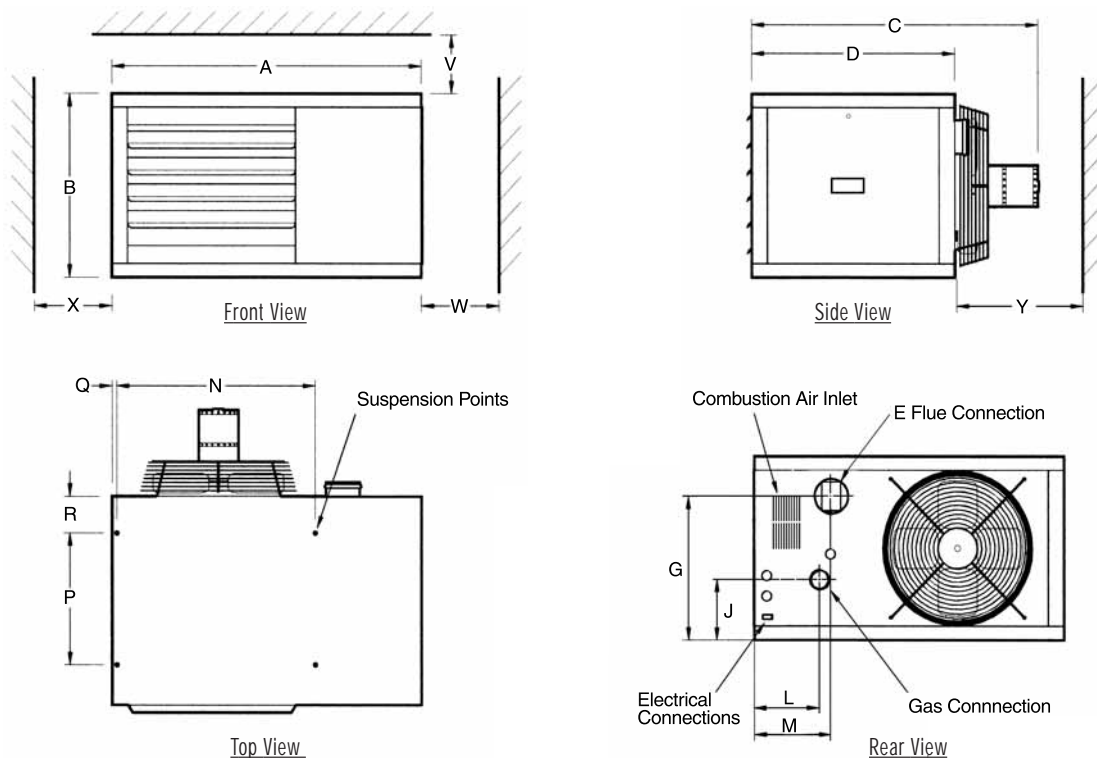
## Alternative Flue Arrangements

The power-vented flue allows units to be fitted with either wall or roof outlets. The terminals are ordered separately from the heaters to suit either a wall outlet or roof outlet. Additional flue pipes may be added, up to the maximum length of 14 metres.



# DIMENSIONS

## UPA – Power Vented Unit Heaters



MODEL		UPA30	UPA40	UPA50	UPA60	UPA70	UPA90
Width	A	702	975	975	975	975	1045
Height	B	588	512	512	665	665	868
Overall length	C	774	1132	1152	1141	1141	1141
Cabinet length	D	549	900	900	900	900	900
Flue outlet diameter	E	100	100	100	130	130	130
Base to flue outlet	G	368	372	372	355	355	564
Base to gas inlet	J	222	126	126	145	145	300
Side to gas inlet	L	124	166	166	166	166	187
Side to flue outlet	M	193	195	195	207	207	213
Suspension centres	N	413	622	622	622	622	672
Suspension centres	P	350	600	600	600	600	600
Side to suspension point	Q	17	37	37	37	37	37
Back to suspension point	R	98	150	150	150	150	150
Top clearance	V	50	100	100	100	100	100
Access side clearance	W	850	850	850	850	850	850
Side clearance	X	50	100	100	100	100	100
Rear clearance	Y	450	450	450	450	450	450

All dimensions in mm.

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### Company Standards and Services:

All Reznor products are tested and approved to CE standards. Reznor UK Ltd. is assessed to BS EN ISO 9002: 1994 Quality Assurance. Reznor offers a design service to its customers; including budget schemes, on site technical support and a comprehensive after-sales service package. Reznor reserves the right to change specifications without prior notice.



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