

AMBIRAD

ENERGY EFFICIENT HEATING SYSTEMS



Tcore

High efficiency
room sealed
unit heaters



Introduction

Tcore – the most exciting innovation in the warm air market for many years. Extensive research and development has resulted in a technically advanced range of gas fired unit heaters that deliver the highest possible standards of energy efficiency and performance.

Incorporating a radical new heat exchanger and burner Tcore is compact, lightweight and provides end users, consulting engineers and installation contractors with the ultimate unit heater solution.



UDSA horizontal discharge unit

Energy saving

- 4-pass heat exchanger achieves 92% thermal efficiency.
- Eligible for Enhanced Capital Allowances.
- Optional auto destratification control prevents the build up of excess heat in the roof space.
- Improved airflow and new louvre design give longer air throws and significantly reduces stratification within the building.
- Reduced carbon dioxide and NOx emissions.



UDSA downflow discharge unit

Easy installation and maintenance

- Reduced weight for quicker installation and simplified support requirements.
- Single burner for easy maintenance and servicing.
- Maybe flued through wall or roof.
- Balanced flue units eliminate the need for combustion air grilles in the wall.



UDSB-D unit with centrifugal fan



Serpentine 4-pass heat exchanger with aerodynamic low profile for improved airflow



Self aligning burner

Extended operational life

- The titanium stabilised aluminised steel heat exchanger is particularly strong and durable providing additional temperature resistance. Its weld free construction ensures long life.
- Self-aligning burner eliminates possible flame impingement and premature heat exchanger failure.
- Single burner eliminates cross lighting problems on ignition.

Enhanced safety

- Room sealed units draw combustion air from outside building thereby preventing contaminants from entering the combustion zone.
- Differential pressure switch shuts off the burner if either the flue or combustion air supply is obstructed.
- Dual limit stats monitor the airflow to prevent overheating in the event of the main fan failing or being restricted.



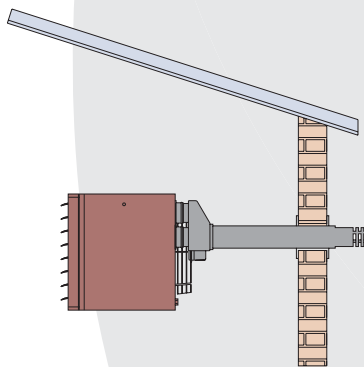
Authorised User No. 00011

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.

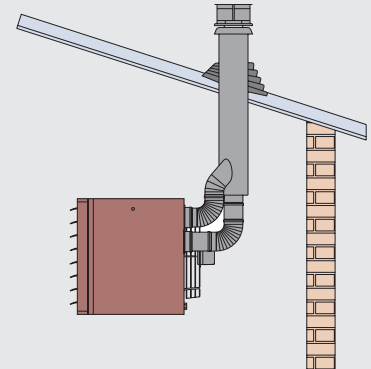
The allowances include the cost of the heater **plus** directly related installation costs.

Application versatility

- Horizontal models available from 11 to 97kW.
- Vertical downflow models available from 15 to 97kW. Downflow units are ideal for warehouse application and for use as heaters over doorways.
- The smallest unit is only 310mm high. Making it ideal for mounting in confined areas e.g. underneath mezzanine floors.
- Horizontal units may be suspended or base mounted on a suitable non combustible support.
- Units are also available complete with direct drive centrifugal fan for increased airflow or for use with duct work. Refer to separate UDSB-D data sheet.



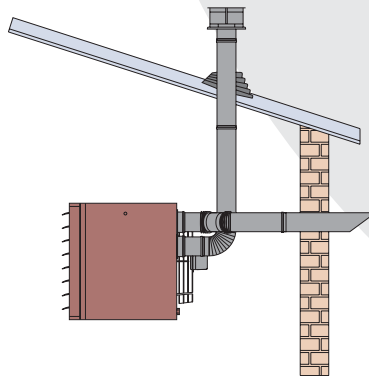
Balanced flue wall outlet (type C12) eliminates expensive roof opening and flashing



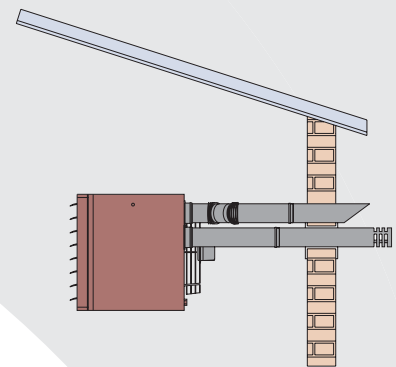
Balanced flue roof outlet (type C32)

Simplified flueing arrangements

- Units are CE certified as type B appliances (fan assisted flue) or type C (balanced flue) appliances.
- CE Certification for different balanced flue options (as illustrated) for complete installation flexibility.
- Balanced flue wall terminal provides both flue outlet and combustion air inlet thereby reducing installation time.
- Balanced flue terminals may be extended by up to 9 metres of flue plus 9 metres of combustion air pipe (deduct 1.5m for each 90° bend).



Combustion air through the wall, flue outlet through the roof (type C52)



Separate combustion air and flue pipes (type C12) for applications where wall thickness exceeds length of balanced flue terminal

Specification and technical data

Model		UDSA 11	UDSA 15	UDSA 20	UDSA 25	UDSA 30	UDSA 35	UDSA 43	UDSA 50	UDSA 55	UDSA 64	UDSA 73	UDSA 85	UDSA 100
Nominal heat output	kW	11	15	18	26	29	35	42	49	55	64	73	85	97
Airflow	m ³ /h	1020	1360	1700	2385	2725	3510	4535	5180	5830	6810	7770	9065	10360
Temperature rise	°C	32	32	32	32	32	29	28	28	28	28	28	28	28
Throw ¹	m	10	13	16	20	22	25	28	30	30	33	35	36	39
Noise level (free field @ 5m) ²	dB(A)	36	37	38	40	41	45	47	48	49	50	48	49	49
Noise level (typical installation @ 5m) ²	dB(A)	46	47	48	50	51	55	57	58	59	60	58	59	59
Gas consumption ³														
Natural gas G20	m ³ /h	1.26	1.68	2.1	2.94	3.36	4.02	4.85	5.59	6.3	7.41	8.39	9.79	11.18
Propane G31	kg/h	0.93	1.24	1.55	2.16	2.47	2.96	3.57	4.12	4.64	5.46	6.18	7.21	8.24
Gas connection ⁴	Rc	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Mounting height														
Horizontal ⁵	m	2.0-2.5	2.0-3.0	2.0-3.0	2.0-3.5	2.0-3.5	2.5-3.5	2.5-3.5	2.5-3.5	2.5-3.5	3.0-4.0	3.0-4.0	3.0-4.0	3.5-4.0
Vertical ⁶	m		4-5	4-5	4.5-6	4.5-6	5.5-7	7-9	7.5-10	7-9	8-10.5	7.5-10	8.5-11	9-12
Total electrical rating (230V/50Hz)	kW	0.12	0.13	0.13	0.27	0.27	0.33	0.49	0.49	0.49	0.68	0.85	0.85	0.85
Net weight	kg	33	38	40	56	60	88	99	99	112	118	143	158	168

¹ Throw is dependent on mounting height, building height, room temperature and louvre settings.

² Noise levels are dependent on heater location and type of building.

³ Natural gas G20 Calorific value 10.5 kWh/m³ GCV, inlet gas pressure maximum 50 mbar, minimum 17.5 mbar.

Propane G31 Calorific value 14.0 kWh/kg GCV, inlet gas pressure maximum 50 mbar, minimum 37 mbar.

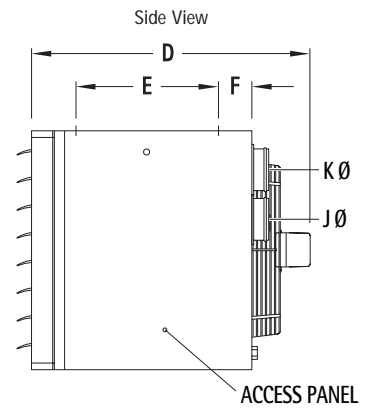
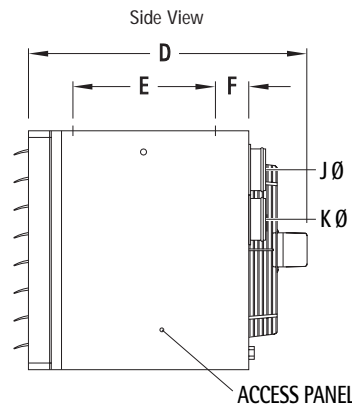
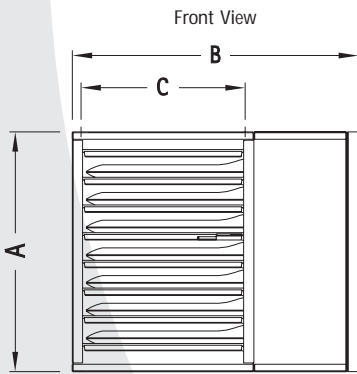
⁴ Not supply line size.

⁵ Recommended height to underside of heater for standard horizontal discharge units. Downturn nozzles are recommended for units installed at higher mounting heights. For buildings over 4 metres high, air re-circulation fans are recommended in conjunction with the heaters.

⁶ Mounting height depends on louvre setting. Downflow heaters should be used in conjunction with air re-circulation fans.

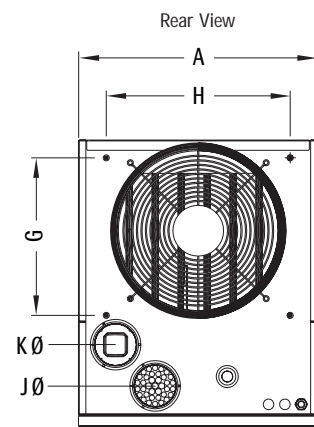
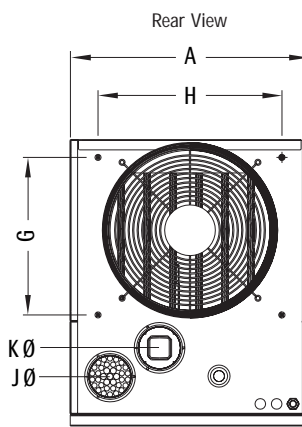
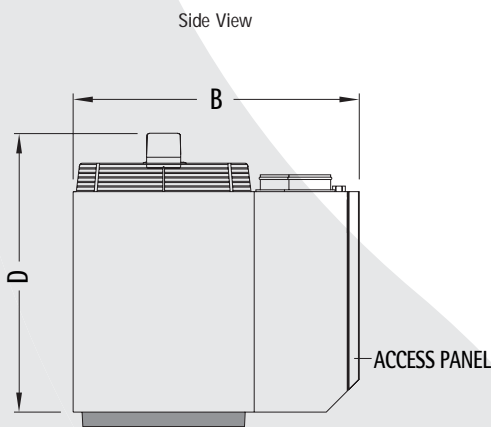
Dimensions

Horizontal unit



Models 35, 43, 50 only

Downflow unit



Models 35, 43, 50 only

Model	UDSA 11	UDSA 15	UDSA 20	UDSA 25	UDSA 30	UDSA 35	UDSA 43	UDSA 50	UDSA 55	UDSA 64	UDSA 73	UDSA 85	UDSA 100
A	307	383	383	586	586	510	510	510	663	663	865	865	865
B	700	700	700	700	700	971	971	971	971	971	1040	1040	1040
C ¹ Suspension points	404	404	404	404	404	601	601	601	601	601	651	651	651
D	696	723	723	771	771	1129	1129	1129	1138	1138	1138	1138	1138
E ¹ Suspension points	350	350	350	350	350	600	600	600	600	600	600	600	600
F	98	98	98	98	98	149	149	149	149	149	149	149	149
G ¹ Suspension points		413		413		623	623	623	623	623	673	673	673
H ¹ Suspension points		250		450		400	400	400	500	500	500	500	500
J Air inlet dia	80	80	80	100	100	100	100	100	130	130	130	130	130
K Flue outlet dia	80	80	80	100	100	100	100	100	130	130	130	130	130
Top clearance													
Horizontal unit	50	50	50	50	50	100	100	100	100	100	100	100	100
Downflow unit		80		80		100	100	100	100	100	100	100	100
Rear clearance	450	450	450	450	450	450	450	450	450	450	450	450	450
Bottom clearance*	50	50	50	50	50	100	100	100	100	100	100	100	100
Side clearance	50	50	50	50	50	100	100	100	100	100	100	100	100
Access clearance	600	600	600	600	600	600	600	600	600	600	600	600	600

¹ Suspension centres.

* Clearance required for combustibles – horizontal units may be base mounted on suitable non-combustible supports.

All dimensions are in millimetres.



Ambi-Rad Limited Fens Pool Avenue
Brierley Hill West Midlands
DY5 1QA United Kingdom



Telephone 01384 489700
Facsimile 01384 489707
UK sales email sales@ambirad.co.uk
Website www.ambirad.co.uk

AMBIRAD is the registered trademark of Ambi-Rad Limited.

Due to continuous product innovation, Ambi-Rad reserves the right to change product specification without due notice.

AMBIRAD
ENERGY EFFICIENT HEATING SYSTEMS



An Ambi-Rad Group company