



## APPLICATIONS

The CUH Heavy Duty Unit Heater can be installed horizontally at high level to act as combination heater and de-stratification fan. Hot air generated by heaters, process heat and machinery is automatically recycled from high level down to the occupied space. If the required low level temperature is still not attained, the heater elements are energised until this is the case.

De-stratification alone can produce savings of around 30%, thus by incorporating this facility in the heaters the total energy cost and overall installation cost can be effectively reduced. The reduction in high level temperature reduces the heat losses through the roof and the return of heated air to low level reduces the overall heat requirement.

## FEATURES

- Rugged heavy duty finned metal sheathed elements
- Totally enclosed permanently lubricated motor for increased reliability
- Automatic reset over temperature cut out for added safety
- Fan delay switch to purge unit of residual heat on switch off
- Draw through design for efficient air circulation
- Adjustable directional louvres for optimum airflow



## WORKSHOP HEATER PACKAGE

The workshop heater package consists of a CUH heater, fitted with de-stratification thermostat (CUH-DTH), remote thermostat with on/off switch (CUH-RTH) and vertical mounting bracket (CUH-V/VB) or eye bolts for chain suspension (CUH-EYE).

## SELECTION

Unit selection is a balance of heating and de-stratification requirements. For satisfactory heating performance the total heating output must be sufficient to overcome the area's heat loss. The units used for de-stratification must be capable of recirculating the air volume above them approximately three times per hour.

Consideration must also be given to the maximum mounting height of the heaters. CDF De-Stratification Fan units can be added to reduce hot air stratification and improve air circulation.

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## EXAMPLE

Consider a workshop, 20m x 15m x 5.5m high, overall heat loss 60kW.  
 Required working height 4m thus mount de-stratification heaters at 4m.  
 Volume of air above heaters =  $20 \times 15 \times (5.5 - 4) = 450\text{m}^3$ .  
 Thus recirculated at 3 times per hour =  $3 \times 450 = 1350\text{m}^3/\text{hr}$ .  
 For even heating select 6 CUH-10 10kW units.  
 Each unit circulates  $1190\text{m}^3/\text{hr}$ , thus 2 units will be sufficient for de-stratification.  
 Two units mounted at 4.3m on centre line of building and 4 others on the walls, 3m high near the corners.

## CONTROL

CUH units for de-stratification use are fitted with an integral de-stratification thermostat (CUH-DTH), which closes on temperature rise. This switches the fan off when the high level temperature has reduced to the pre-determined level, usually about 25°C. The remote thermostat maintains the required low level temperature by switching the heater elements.

## INSTALLATION

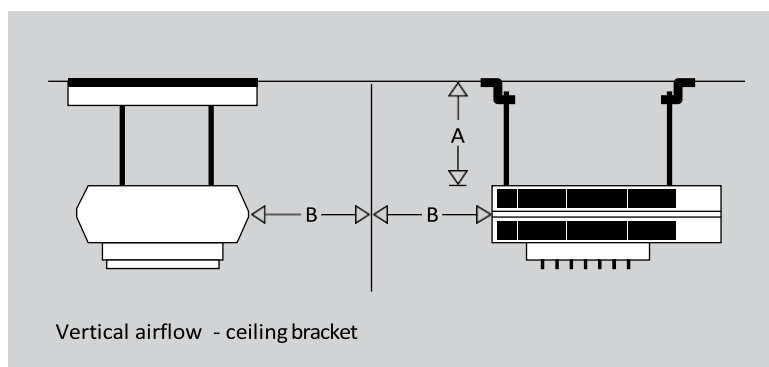
For optimum performance the heater should not be mounted higher than the maximum height shown in the table. The heaters should not be mounted at a height of less than 2.2m, 3.0kW - 5kW units not closer than 300mm to wall or ceiling and 7.5kW - 30kW not closer than 450mm to ceiling and 600mm to wall. Standard brackets maintain these clearances.

All electrical connections should be made by a suitably qualified person in accordance with the latest edition of the IEE Requirements for Electrical Installation (BS 7671:2008).

## MOUNTING

Standard mounting brackets are recommended. They ensure minimum clearances are maintained. Selection as per table below. Vertical airflow units can be suspended from chain using the CUH-EYE eye bolt set.

Airflow	Heater	Bracket	A mm	B mm
Horizontal	03 - 05	C35	300	300
	07 - 15	C720	450	600
	20 - 30	C2550	450	600
Vertical	03 - 05	VB35	300	300
	07 - 15	VB720	450	600
	20 - 30	V2550	450	600



CAT No.	Heater			Fan Motor		Air Vol m³/hr	Height mm	Width mm	Depth mm	Max mtg ht (m)		Throw m	Weight kg	Trade Price
	kW	Volts	Phase	Watt	RPM					Horz	Vert			
CUHW-3000	3.3	230	1P	6.0	1550	680	368	450	165	2.8	2.8	3.7	12	£515
CUHW-3003	3.3	400	3PN	6.0	1550	680	368	450	165	2.8	2.8	3.7	12	£560
CUHW-5000	5.0	230	1P	6.0	1550	680	368	450	165	2.8	2.8	3.7	12	£575
CUHW-5003	5.0	400	3PN	6.0	1550	680	368	450	165	2.8	2.8	3.7	12	£605
CUHW-7500	7.5	400	3PN	15.0	1550	1190	546	620	165	3.0	3.7	6.7	23	£775
CUHW-10000	10	400	3PN	15.0	1550	1190	546	620	165	3.0	4.3	6.7	23	£850
CUHW-15000	15.0	400	3PN	38.0	1550	1870	546	730	165	3.4	6.1	9.8	30	£1,225
CUHW-20000	20.0	400	3PN	62.0	1550	3400	743	865	256	3.7	6.7	9.8	55	£1,480
CUHW-25000	25.0	400	3PN	62.0	1550	3400	743	865	256	3.7	6.7	13.7	55	£1,590
CUHW-30000	30.0	400	3PN	62.0	1550	3400	743	865	256	3.7	6.1	12.2	55	£1,865

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