

HVH

Horizontal or Vertical Discharge Fan Forced Unit Heater

- 2.6 - 50 kW
- 8,900 – 170,600 Btuh
- 208, 240, 277, 480, and 600 volt
- 1 or 3 phase
- Vertical or Horizontal Airflow
- Wall or Ceiling Mounted Configurations
- CSA Certified to US and Canadian Standards
- CE Certified to European Standards

Description

The Chromalox HVH self-contained blower heater provides quiet, reliable, fan-forced heat for all types of commercial and industrial applications. The hallmark of the HVH blower heater is its versatility. It can provide vertical or horizontal airflow and can be mounted on walls or ceilings. Optional wall or ceiling swivel mounting brackets help direct airflow exactly where it is needed. Heavy-duty construction affords long, dependable service, while its two-tone gray polyester powder coat finish makes an attractive appearance.

Applications

- Shipping and Receiving Areas
- Pump Houses
- Power Generating Stations
- Aircraft Hangars
- Factories
- Warehouses
- Garages

Construction

Cabinet – Heavy 20-gauge steel, 2.6 to 15 kW models; 18-gauge steel, 25 to 50 kW models. Phosphate undercoated for corrosion resistance. Finished in a two-tone gray polyester powder coat.

Louvers – Individually adjustable. Direct airflow up or down as needed. Fintube® Heating Elements Corrosion resistant steel fins furnace-brazed to a tubular heating element, assuring long life and superior heat transfer.



Fan Motor – Totally enclosed fan motor is rated for continuous duty with built-in thermal cutout and operates on the same voltage as the heating circuit.

Dynamically Balanced Fan – Ensures smooth, quiet operation. Blade pitch is carefully selected so that the volume of air moved results in the optimum discharge air temperature. Pull-through airflow design draws air across heating elements for more even airflow distribution and cooler element operation.

Features

- **Integral 24V Control Transformer** is standard on 480V models and eliminates the need for an external control source (120V is optional).
- **Heavy Duty Magnetic Contactors** are standard on all models except 2.6 thru 5 kW single phase models, except for 480V models.
- **Linear Thermal Cutouts** open the control circuit and disconnect power to the heating elements if overheating occurs. Automatic Reset allows the control circuit to reclose and restore power when temperature returns to normal.
- **Field Convertible** — Combination 208/240V and 1 or 3 phase operation through 10 kW.

VERSATILE MOUNTING CONFIGURATIONS

Vertical Discharge Recessed fasteners on the rear of the heater cabinet are internally threaded for suspension of unit in the vertical discharge mode with threaded rods.

Horizontal Discharge Ceiling Bracket – The ceiling bracket allows you mount the heater directly to the ceiling or over-head member, simply and easily. The swivel mounting allows you to readily adjust the direction of warm air flow for maximum comfort up to 180° rotation.

Wall Mounting Bracket – The wall mounting brackets permits the heater to be rotated to face any direction.

Factory Installed or Field Installation Kits

Summer Fan Switch Kit – Field installable for circulating warm, stratified air. Available for all models.

Thermostat Kit – Field installable on all models. Range 40° to 100°F (4° to 38°C).

Disconnect Switch Kits – Field-installable switch enables power to be disconnected while servicing heater. Mounts on the front of the heater.

Outlet Screen – Prevents objects from coming in contact with fan

Factory Installed options

- Pilot Light (recommended)
- Time Delay (heat on and off): Provides delay of fan operation until elements have warmed up. The fan stays on until cool.

Advantages

- Self Contained
- Versatile, Flexible and High Performance
- Easy Installation
- Minimum Maintenance
- Long Life
- Attractive Appearance

Because it has individually adjustable discharge louvers to direct air flow, and can be wall or ceiling (plus swivel) mounted, the HVH heater may be used in a variety of heating applications:

- Primary Heating
- Supplementary Heating
- Dual System Heating
- Spot Heating
- Entryway Air-Curtain Heating

HVH

Horizontal or Vertical Discharge Fan Forced Unit Heater *(cont'd.)*

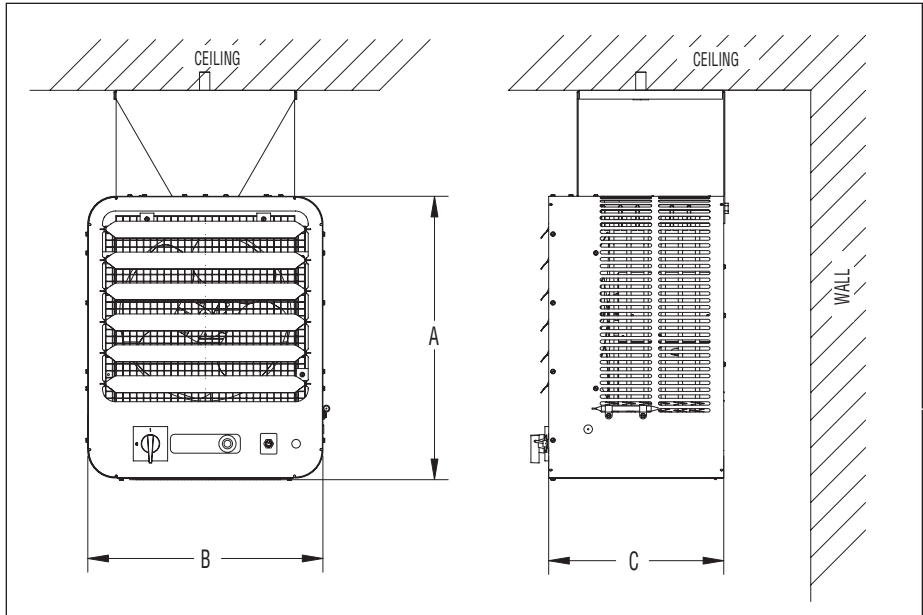
Thermostat Kits (40-90° F)

Model	Rating	PCN	Stock
TK-5	SPST	219475	S

Available Disconnect Switch Kits

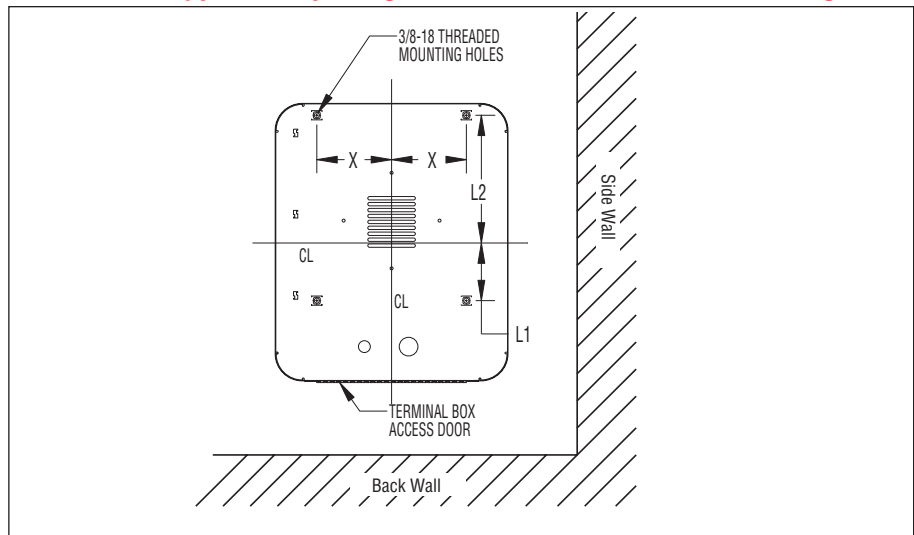
Model	Rating	PCN	Stock
HDS-1	63 Amps	219491	S
HDS-2	80 Amps	219790	NS
HDS-3	100 Amps	219803	NS

Horizontal Discharge



Heater	Dimensions In. (mm)		
	A	B	C
HVH-02 to 05 (Except 600 V)	16-1/8 (410)	13 (330)	10 (254)
HVH-07 to 15 (Except 600 V)	20-5/8 (524)	17-1/8 (435)	12-3/4 (324)
HVH 02 to 15 (600 V)	20-5/8 (524)	17-1/8 (435)	12-3/4 (324)
HVH-20 (All Voltages)	20-5/8 (524)	17-1/8 (435)	12-3/4 (324)
HVH-25 to 50 (All Voltages)	29-3/16 (741)	26-1/16 (662)	14-5/8 (371)

Rod Thread Type and Spacing Dimensions for Vertical discharge



Mounting Limitations

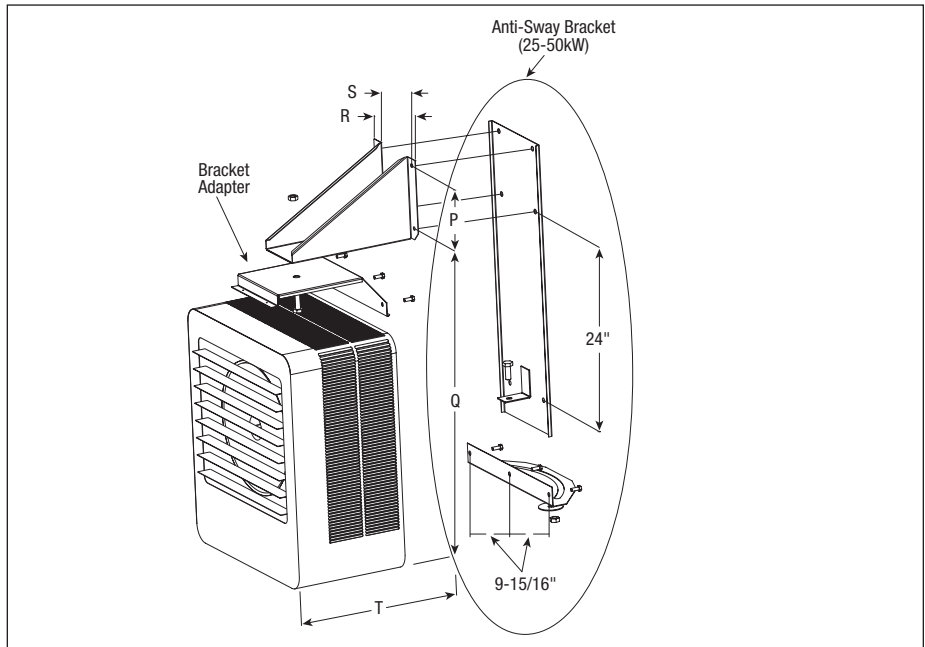
Hazardous Atmosphere — Unit heaters should not be used in potentially explosive atmospheres. **Corrosive Atmosphere** — The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of greenhouses, swimming pools, chemical storage bins, etc. **Mounting Height** — Do not install unit heaters above recommended maximum mounting height. Obstructions must not block unit heater air inlet or discharge.

Unit	Rod Thread Type	Dimensions In. (mm)		
		L ₁	L ₂	X
2 to 5 kW	3/8 - 16	2-7/8 (73)	7-1/8 (181)	3-3/4 (95)
7-1/2 to 20 kW	3/8 - 16	4-5/16 (110)	9-3/8 (238)	5-1/2 (140)
25 to 50 kW	3/8 - 16	8-5/16 (211)	14 (356)	9-15/16 (252)

HVH

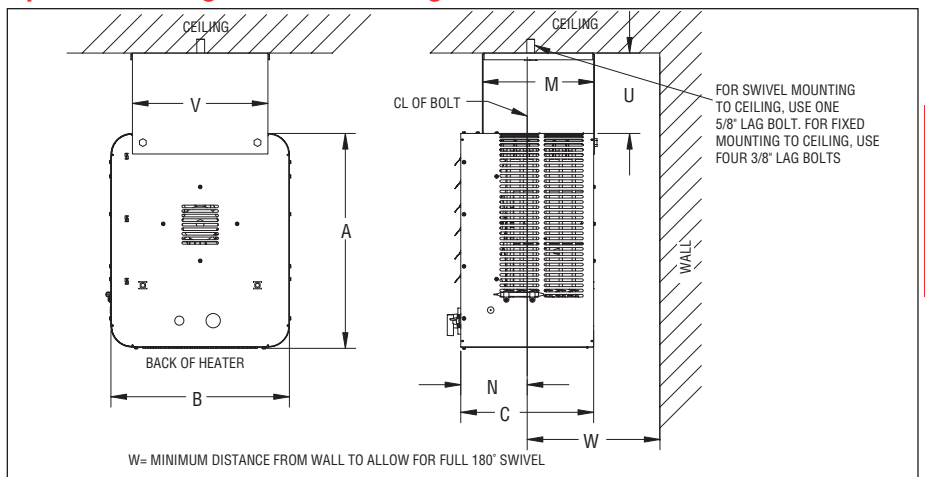
Horizontal or Vertical Discharge Fan Forced Unit Heater (cont'd.)

Optional Wall Swivel Mounting Bracket



Bracket Model No.	Dimensions In. (mm)					Bracket Wt. lbs. (kg.)	Use With
	P	Q	R	S	T		
HVW-1	6 (152)	18-7/8 (479)	7 (178)	5 (127)	17-5/8 (448)	4 (1.8)	HVH-02 to 05
HVW-2	6 (152)	23-1/4 (591)	7 (178)	5 (127)	18-5/8 (473)	6 (2.7)	HVH-07 to 15
HVW-3	6 (152)	23-7/16 (595)	7 (178)	5 (127)	20-1/16 (510)	6 (2.7)	HVH-02 to 15 (600 V), HVH-20 (All Voltages)
HVW-4	8 (203)	23-13/16 (605)	10-3/8 (264)	8-1/2 (216)	22-7/16 (570)	27 (12.3)	HVH-25 to 50

Optional Ceiling Swivel Mounting Bracket



Bracket Model No.	Dimensions In. (mm)								Bracket Wt. lbs. (kg.)	Use With
	A	B	C	M	N	U	V	W		
HVC-1	16-1/8 (410)	13 (330)	10 (254)	8-3/8 (213)	5-3/4 (146)	7-3/4 (197)	9-3/4 (248)	12 (305)	4 (1.8)	HVH-02, 04, 05
HVC-2	20-5/8 (524)	17-1/8 (435)	12-3/4 (324)	10-3/4 (273)	6-3/4 (171)	7-3/4 (197)	12 (305)	12 (305)	8 (3.6)	HVH-07, 10, 12, 15
HVC-3	20-5/8 (524)	17-1/8 (435)	14-1/16 (357)	12-1/16 (306)	8-1/16 (205)	7-3/4 (197)	13-5/16 (338)	8 (203)	8 (3.6)	HVH-02 to 15 (600V), HVH-20 (All Voltages)
HVC-4	29-13/16 (757)	26-1/16 (662)	14-5/8 (371)	11-3/4 (298)	8-3/16 (208)	7-3/4 (197)	22-5/16 (567)	8-7/16 (214)	17 (7.7)	HVH-25 to 50

Optional Fan Only Kits

Description	Model	PCN	Stock
Fan switch (no relay)	HVF-01	219504	S
Fan switch (24V relay)	HVF-02	219512	NS
Fan switch (120V relay)	HVF-03	219520	NS

INDUSTRIAL AIR HEATERS

HVH Horizontal or Vertical Discharge Fan Forced Unit Heater

Recommended Control Options

Heater		Field Installed Options															Factory Installed Options			
		Wall Bracket Options				Ceiling Bracket Options				Outlet Screen Options			Thermostat Options	Disconnect Options					Fan Switch Options	
Model No.	PCN	HVW-1 219416	HVW-2 219424	HVW-3 219782	HVW-4 219820	HVC-1 219432	HVC-2 219440	HVC-3 219811	HVC-4 219838	HVS-1 219459	HVS-2 219467	HVS-3 219774	TK-5 219475	HDS-1 219491	HDS-2 219790	HDS-3 219803	HVF-01 219504	HVF-02 219512	HFD-1 ^a	PL-1 ^b
HVH-02-81-00	219096	X				X				X				X						X
HVH-02-21-00	219109	X				X				X				X						X
HVH-02-71-00	219117	X				X				X				X						
HVH-04-81-00	219125	X				X				X				X						X
HVH-04-83-34	219133	X				X				X			X	X			X		X	X
HVH-04-21-00	219141	X				X				X				X						X
HVH-04-23-34	219150	X				X				X			X	X			X		X	X
HVH-04-71-00	219168	X				X				X				X						X
HVH-04-43-30	219176	X				X				X			X	X			X		X	X
HVH-05-81-00	219184	X				X				X				X						X
HVH-05-83-34	219192	X				X				X			X	X			X			X
HVH-05-21-00	219205	X				X				X				X						X
HVH-05-23-34	219213	X				X				X			X	X			X			X
HVH-05-71-00	219221	X				X				X				X						
HVH-05-43-30	219230	X				X				X			X	X			X		X	X
HVH-07-81-34	219248		X				X				X		X	X			X			X
HVH-07-83-34	219256		X				X				X		X	X			X			X
HVH-07-21-34	219264		X				X				X		X	X			X			X
HVH-07-23-34	219272		X				X				X		X	X			X			X
HVH-07-71-30	219280		X				X				X		X	X			X			
HVH-07-43-30	219299		X				X				X		X	X			X	X	X	X
HVH-10-81-34	219301		X				X				X		X	X			X			X
HVH-10-83-34	319310		X				X				X		X	X			X			X
HVH-10-21-34	219328		X				X				X		X	X			X			X
HVH-10-23-34	219336		X				X				X		X	X			X			X
HVH-10-43-30	219344		X				X				X		X	X			X	X	X	X
HVH-12-83-34	219352		X				X				X		X	X			X			X
HVH-12-23-34	219360		X				X				X		X	X			X			X
HVH-12-43-30	219379		X				X				X		X	X			X	X	X	X
HVH-15-83-34	219387		X				X				X		X	X			X			X
HVH-15-23-34	219395		X				X				X		X	X			X			X
HVH-15-43-30	219408		X				X				X		X	X			X	X	X	X
HVH-20-23-30	219563			X				X			X		X	X			X			X
HVH-20-43-30	219571			X				X			X		X	X			X			X
HVH-20-63-30	219580			X				X			X		X	X			X			X
HVH-25-23-30	219598				X				X			X		X	X		X		X	X
HVH-25-43-30	219600				X				X			X		X	X		X		X	X
HVH-25-63-30	219619				X				X			X		X	X		X		X	X
HVH-30-23-30	219627				X				X			X		X		X			X	X
HVH-30-43-30	219635				X				X			X		X	X		X		X	X
HVH-30-63-30	219643				X				X			X		X	X		X		X	X
HVH-35-23-30 ^c	219651				X				X			X		X	X		X		X	X
HVH-35-43-30	219660				X				X			X		X	X		X		X	X
HVH-35-63-30	219678				X				X			X		X	X		X		X	X
HVH-40-23-30 ^c	219686				X				X			X		X			X		X	X
HVH-40-43-30	219694				X				X			X		X	X		X		X	X
HVH-40-63-30	219707				X				X			X		X	X		X		X	X
HVH-45-23-30 ^c	219715				X				X			X		X			X		X	X
HVH-45-43-30	219723				X				X			X		X		X			X	X
HVH-45-63-30	219731				X				X			X		X	X		X		X	X
HVH-50-23-30 ^c	219740				X				X			X		X			X		X	X
HVH-50-43-30	219758				X				X			X		X	X		X		X	X
HVH-50-63-30	219766				X				X			X		X	X		X		X	X

Notes:

- A. HFD-1 is a fan delay on / fan delay off. Fan delay is standard on heaters 20 kW and above
- B. PL-1 is a green pilot indicating power to heater
- C. Factory installed disconnect switch not available
- D. Field installed thermostat kits not available on models with control code 00.

HVH

Horizontal or Vertical Discharge Fan Forced Unit Heater

When ordering HVH heaters, specify the model number and corresponding PCN (Product Code Number). If controls (thermostat, fan switch, transformer, disconnect) or other options are required, designate these options in the model number when ordering, as shown below. Always specify voltage, phase and kW by listing them on the purchase order specifications.

HVH	Horizontal or Vertical Discharge Blower Heater										
	kW										
	02	2.6 kW	20	19.8 kW							
	04	4.0 kW	25	25.0 kW							
	05	5.0 kW	30	30.0 kW							
	07	7.5 kW	35	33.3 kW							
	10	10.0 kW	40	37.5 kW							
	12	12.5 kW	45	45.0 kW							
	15	15.0 kW	50	50.0 kW							
	Volts										
	2	240V									
	4	480V									
	6	600V									
	7	277V									
	8	208V									
	A	220V									
	B	380V									
	C	400V									
	D	415V									
	Phase										
	1	1									
	3	3									
	Control										
	00	No Contactor									
	30	Contactor with 24V Transformer									
	31	Contactor with 24V Externally Supplied									
	32	Contactor with 120V Transformer									
	33	Contactor with 120V Externally Supplied									
	34	Contactor with 208/240V Internally Supplied									
	35	Contactor with 277V Internally Supplied									
	Integral Thermostat										
	0	None									
	TL	40-100°F Range (4° to 38°C)									
	Disconnect Switch										
	0	None									
	D	Yes									
	Fan Only Switch										
	00	None									
	FI	Internal (In Heater)									
	FE	External (On Wall)									
	Time Delay (Standard on 20kW and above)										
	0	None									
	R	Yes									
	Pilot Light										
	0	None									
	P	Yes									
	Outlet Screen										
	0	None									
	S	Yes									
HVH	05	2	1	34	TL	D	FI	-0	-0	-0	Typical Model Number

Note: 20-50 kW models available in 208/240, 480, and 600 V only.
Units with thermostats must include built-in contactor.



UB High Capacity Horizontal Blower Heater

- 2 - 50 kW
- 6,820 - 170,600 Btuh
- 120, 208, 240, 277, 480 and 550 Volt
- 1 or 3 Phase
- Wall or Ceiling Mounted Configurations

Description

Rugged, industrial UB heaters are ideal for factories, warehouses, garages or any other area that requires a high volume of forced-air heat.

Applications

- Entryway Air-Curtain Heating
- Power Generating Stations
- Factories
- Freeze Protection of Machinery

Construction (2 - 50 kW models)

Painted Finish — For attractive appearance and corrosion resistance.

Cabinet — 16 gauge steel cabinet construction supported with an 18 gauge base assembly and finished in almond powder.

Louvers — Adjustable discharge grille to direct the air flow up or down.

Heavy Gauge Rear Wire Grille protects against accidental contact with rapidly rotating fan blade.



Metal Sheath Fintube® Heating Elements —

The electric heat bank - Chromalox patented metal sheath Fintube® heating elements. Heat radiation fins are corrosion-resistant copper-clad steel, furnace brazed to the tubular heating elements to assure superior heat transfer. Wide spacing prevents clogging. Air is evenly drawn across the circumferential elements preventing hot spots and prolonging element life.

Rugged Motor and Dynamically Balanced Fan provides a high volume of hot air.

Integral Automatic Reset Thermal Cutout for fast heat response and overheat protection.

Features (2 - 20 kW models)

Fan Only Operation — UB-23 and UB-32, (excluding the 120V UB-32), have a separate fan control switch for circulating air during summer months.

Totally Enclosed Fan Motor — Continuous duty with built-in automatic reset thermal overload protection operates on same voltage as supplied to the heater, except on 480 and 550 volt where motor is either 115 or 230 volts. All motors are single phase with sleeve bearings.

Heaters with model numbers having a suffix "T" include a transformer to stepdown the voltage for operating the fan motor.

External contactor is not necessary with heaters having a model number suffix "R".

Wall or Ceiling Mounting Brackets are available separately for field installation depending on mounting arrangement desired.

Features (25 - 50 kW models)

Universal Wall & Ceiling Mounting Bracket is included to provide flexibility in the mounting arrangement.

Fan Interlock — Fan motor contactor includes a set of auxiliary contacts to prevent heating elements from being energized unless contacts of fan motor contactor are closed.

Thermal Fan Delay allows fan motor to continue to operate after heating thermostat has been satisfied to maximize transfer of generated heat to space being heated and extend operating life of heating elements.

Built-in Controlling Contactors and Line Fusing — All heaters drawing 48 Amps or greater are sub-divided into two (2) circuits with built-in line fuses and controlling contactors. Units drawing less than 48 Amps have built-in contactors only, line fusing must be provided externally. All units regardless of amperage rating have built-in fuse protection for the motor and transformer.

Integral 120V Control Circuit — 120 volt power for the control circuit is provided from the unit mounted transformer to eliminate the need to run separate power to the unit for control.

Heavy Duty 1/3 HP Motor operates at 1,550 RPM on line voltage. Motor has built-in thermal overload protection, permanently lubricated ball bearings and factory installed line fuses for maximum trouble-free service life.

Advantages

- Low Maintenance
- High Capacity
- Primary Heating
- Supplementary Heating
- Dual System Heating
- Long Horizontal Air Throw
- Long Life

Refer to
WR-80, WR-90
in the Controls section.

UB

High Capacity Horizontal Blower Heater *(cont'd.)*

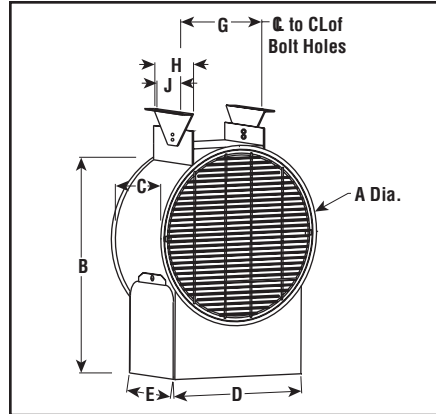
Mounting Kits

For 2 - 20 kW Heaters - Order Separately

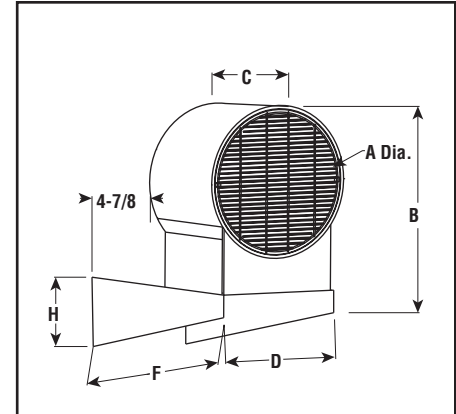
Heater	Model	PCN
Ceiling Mounting Brackets		
UB-23 and 32	1-44419	264330
UB-502 and 752	2-44419	264348
UB-1002, 1252, 1502 and 2002	3-44419	264356
Wall Mounting Brackets		
UB-23 and 32	WUB-1	264305
UB-502 and 752	WUB-3	264313
UB-1002, 1252, 1502 and 2002	WUB-4	264321

For 25 - 50 kW Heaters - a Universal Wall & Ceiling Mounting Bracket is included.

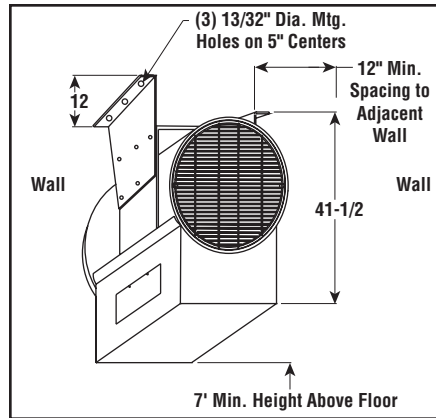
Ceiling Mounting Kit (2-20 kW) — Dimensions (Inches)



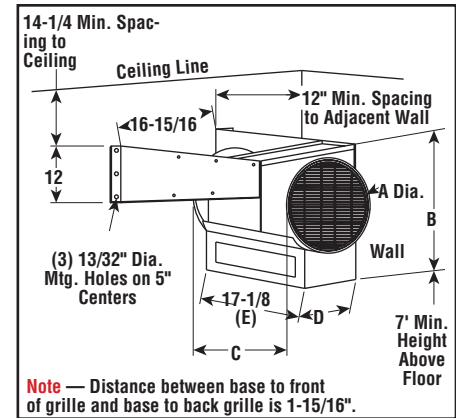
Wall Mounting Kit (2-20 kW) — Dimensions (Inches)



Ceiling Mounting Kit (25-50 kW) — Dimensions (Inches)



Wall Mounting Kit (25-50 kW) — Dimensions (Inches)



Dimensions (Inches)

Model	Dimensions (In.)									
	A	B	C	D	E	F	G	H	J	
UB-23	10-3/8	13-1/2	8	6-7/16	3	11-3/8	9-7/16	6	4	
UB-32	10-3/8	13-1/2	8	6-7/16	3	11-3/8	9-7/16	6	4	
UB-502	13-5/8	17-3/16	13	8-7/16	7-9/16	15-9/16	11-7/8	8	6	
UB-752	13-5/8	17-3/16	13	8-7/16	7-9/16	15-9/16	11-7/8	8	6	
UB-1002	17-1/8	20-3/4	15-3/16	11-3/4	9-5/16	17-5/32	12-1/4	10	8	
UB-1252	17-1/8	20-3/4	15-3/16	11-3/4	9-5/16	17-5/32	12-1/4	10	8	
UB-1502	17-1/8	20-3/4	15-3/16	11-3/4	9-5/16	17-5/32	12-1/4	10	8	
UB-2002	17-1/8	20-3/4	15-3/16	11-3/4	9-5/16	17-5/32	12-1/4	10	8	
UB-2502	17-1/8	23-5/16	21	14	17-1/8	17-5/32	18-15/16	10	8	
UB-3002	17-1/8	23-5/16	21	14	17-1/8	17-5/32	18-15/16	10	8	
UB-3502	21-1/8	27-5/16	21	17-7/16	17-1/8	17-5/32	22-15/16	10	8	
UB-4002	21-1/8	27-5/16	21	17-7/16	17-1/8	17-5/32	22-15/16	10	8	
UB-4502	21-1/8	27-5/16	21	17-7/16	17-1/8	17-5/32	22-15/16	10	8	
UB-5002	21-1/8	27-5/16	21	17-7/16	17-1/8	17-5/32	22-15/16	10	8	



LUH Horizontal Blower Heater

- 2.6 - 45 kW
- 8,900 - 153,000 Btuh
- 208, 240, 277, 480 and 600 Volt
- 1 or 3 Phase
- Wall or Ceiling Mounted Configurations

Description

Type LUH self-contained heater provides quiet, reliable fan-forced heating in all types of commercial and industrial applications.

Applications

- Shipping and Receiving Areas
- Pump Houses
- Power Generating Stations
- Aircraft Hangers
- Factories
- Warehouses
- Garages

Construction

Die Formed Cabinet — Heavy 18 gauge steel, phosphate undercoated for corrosion resistance and finished in almond polyester powder coat.

Louvers — Individually adjustable louvers direct air flow up or down as needed.

Fintube Heating Elements have corrosion resistant steel fins that are furnace brazed to the tubular element to assure long life and superior heat transfer.



Fan Motor — Totally enclosed fan motor is rated for continuous duty with built-in thermal cutout and operates on same voltage as the heating circuit.

Dynamically Balanced Fan is attached with rubber vibration insulators for smooth, quiet operation. Blade pitch is carefully selected so that the volume of air moved results in the optimum discharge air temperature.

Features

- **Sub-divided Circuits with Individual Fuse Protection** — Standard on all heaters with a total current draw of 48 Amps or greater. The fuse compartment is conveniently located for easy access.
- **Integral 120V Control Transformer** — Standard on 480V models, eliminates the need for an external control source (24V optional).
- **Heavy Duty Magnetic Contactors** are standard on all models.
- **Thermal Cutouts** open the control circuit and disconnect power to the heating elements if overheating occurs. **Automatic Reset** allows the control circuit to reclose and restore power when temperature returns to normal.
- **Field Convertible** — Combination 208/240V and 1 or 3 phase operation through 10 kW.
- **Mounting Configurations** — Recessed welded fasteners on top of the heater cabinet are internally threaded for suspension of unit with threaded rods. Ceiling and Universal Wall Swivel brackets are optional. The ceiling bracket lets you mount heater directly to ceiling or over-head member, simply and easily. The swivel mounting allows you to readily adjust the direction of warm air flow for maximum comfort up to 180 degrees.

Optional Features (Factory Installed or Field Installation Kits)

- **Summer Fan Switch Kit** — Field installable for circulating warm stratified air. Available for all models.
- **Thermostat Kit** — Field installable on all models. Range 40°F - 100°F.
- **Power Disconnect Kit** — Field installable switch enables power to be disconnected while servicing heater. 63, 80 and 100 Amp models available. Mounts in the back of the heater.
- **Ceiling Bracket** (shown above)
- **Wall Mounting Bracket**

Advantages

- Self Contained
- Versatile, Flexible and High Performance
- Easy Installation
- Minimum Maintenance
- Long Life
- Attractive Appearance

Because it has individually adjustable discharge louvers to direct air flow, and can be wall or ceiling (plus swivel) mounted, the LUH heater may be used in a variety of heating applications:

- Primary Heating
- Supplementary Heating
- Dual System Heating
- Spot Heating
- Entryway Air-Curtain Heating

Refer to
WR-80, RTC, WR-90
in the Controls section.

LUH

Horizontal Blower Heater (cont'd.)

Dimensions (Inches)

(4) Welded fasteners² for threaded rod mounting to overhead steel.

6" Min. to Wall

Wall Line

Min. to Wall

6"

Wall Mounted Universal Bracket

(4) 13/32" dia. wall mounting holes.¹

Stop for limiting rotation.

Swivel bolt permits heater to be rotated to face desired direction. Four bolts are provided for field attachment of swivel bracket to welded fasteners on top of unit.

Minimum mounting height is 7 feet from floor.

Wall Mounted Heaters

Heater	Dimensions (In.)					Wall Bracket	PCN	Stock	Wt. (Lbs.)
	P	Q	R	S	T				
LUH-02 to -05	1-3/4	21-1/2	6-3/4	5-1/2	14-15/16	WUH-01A	303474	S	3
LUH-07, 10, 12, 15	2	28-7/16	9-1/2	8-3/8	22-1/4	WUH-02	300484	S	5
LUH-20, 25	2	32	9-1/2	8-3/8	22-1/4	WUH-02	300484	S	7
LUH-30, 35, 40, 45	5-1/2	28-11/16	5	3-1/2	33-1/4	WUH-03	300492	S	10

Ceiling Mounted Heaters

Heater	Dimensions (In.)															Ceiling Bracket	PCN	Stock	Wt. (Lbs.)	
	A	B	C	D	E	F	G	H	I	J	K	M	N	U	V					W
LUH-02 to -05	16	13-1/8	8-7/8	11-5/8	10-3/4	9-3/4	5-1/2	3-13/16	4-1/2	4-15/16	6-5/8	6	4-7/16	4	4-1/2	10-1/2	WUH-04A	303466	NS	1
LUH-07, 10, 12, 15	20-1/2	17-1/4	11-1/2	16-3/8	14-3/8	12-3/8	8-1/4	4-1/2	6-1/4	7-7/16	8-5/8	8	6-1/4	6	7-1/4	16	WUH-05	300513	NS	2
LUH-20, 25	24	20-1/8	11-1/2	20-1/2	16-3/4	16	8-1/4	6	6-1/4	12	10-1/16	8	6-1/4	6	7-1/4	16	WUH-05	300513	NS	3
LUH-30, 35, 40, 45	24	20-1/8	17	26	16-3/4	16	8-1/4	6	11-3/4	12	10-1/16	13-3/4	9-5/16	6	7-1/4	21	WUH-06	300521	NS	3

Ceiling Mounted

(1) 11/16" dia. swivel mounting hole.

Notes —

1. Wall mounting fasteners to be supplied by customer.
2. Threaded rod to be supplied by customer.

Optional Control Accessories & Remote Thermostats Fan Only Operation Kits



Summer Fan Switch

Thermostat Kit

Note — A fan only operation (optional) is available by means of a built-in switch or by external control.

Summer Fan Switch	2 - 15 kW		20 - 45 kW		Stock	Wt. (Lbs.)
	Model	PCN	Model	PCN		
Internal 208 - 277V	ISFS-02 ²	305007	ISFS-02	305007	NS	0.25
External ¹ with Relay (24V control)	ESFS-40	305015	ESFS-40A	305058	NS	0.5
External ¹ with Relay (120V control)	ESFS-41	305023	ESFS-41A	305066	NS	0.5
External ¹ with Relay (240V control)	ESFS-42	305031	ESFS-42A	305074	NS	0.5
External ¹ with Relay (277V control)	ESFS-47	305040	—	—	NS	0.5

1. Kit includes wall plate (discard plate if switch is to be installed on heater).
 2. Do not use for 480V rated heaters. 480V heaters require fan relay option with proper control voltage relay coil.

Thermostat Kits

Model	PCN	Stock	Wt. (Lbs.)
LUH-TK1 (SPST)	301129	S	0.25

Power Disconnect Kits



3 Pole, 600V Rating

Model	Rating	PCN	Stock	Wt. (Lbs.)
EDS-1	63 Amp	303431	S	0.5
EDS-2	80 Amp	303440	S	0.5
EDS-3	100 Amp	303458	NS	1

Mounting Limitations

Hazardous Atmosphere — Unit heaters should not be used in potentially explosive atmospheres. **Corrosive Atmosphere** — The finish is not intended for direct salt spray exposure in marine applications or the highly corrosive atmospheres of greenhouses, swimming pools, chemical storage bins, etc. **Mounting Height** — Do not install unit heaters above recommended maximum mounting height. **Obstructions** must not block unit heater air inlet or discharge.

Industrial Air Heaters

LUH Horizontal Blower Heater (cont'd.)

Specifications and Ordering Information

Electrical (60 Hz)				Motor				Air Delivery					Ordering			
kW	Volts	Ckt & Phase	Amps ⁴	Volts	Phase	HP	RPM	CFM	FPM	Temp. Rise (°F)	Horiz. Throw (Ft.)	Mtg. Height (Ft.) ⁵	Model	Stock	PCN	Wt. (Lbs.)
2.6	208	1 - 1	13.1	208	1	1/40	1,650	410	880	21	12	8	LUH-02-81-34	S	303001	32
2.0/2.6	208/240	1 - 1	11.4 ²	240	1	1/40	1,650	410	880	21	12	8	LUH-02-21-34	S	303010	32
2.6	277	1 - 1	9.6	277	1	1/30	1,550	360	770	24	12	8	LUH-02-71-35	S	303028	32
4	208	1 - 1	19.8	208	1	1/40	1,650	410	880	31	12	8	LUH-04-81-34	S	303036	32
4	208	1 - 3 ³	11.7	208	1	1/40	1,650	410	880	31	12	8	LUH-04-83-34	S	303044	32
3/4	208/240	1 - 1	17.2 ²	240	1	1/40	1,650	410	880	31	12	8	LUH-04-21-34	S	303052	32
3/4	208/240	1 - 3 ³	10.2 ²	240	1	1/40	1,650	410	880	31	12	8	LUH-04-23-34	S	303060	32
4	277	1 - 1	14.6	277	1	1/30	1,550	360	770	35	12	8	LUH-04-71-35	S	303079	32
4	480	1 - 3	5.1	480	1	1/35	1,550	380	815	33	12	8	LUH-04-43-32	S	303087	32
5	208	1 - 1	24.6	208	1	1/40	1,650	410	880	39	12	8	LUH-05-81-34	S	303095	32
5	208	1 - 3 ³	14.5	208	1	1/40	1,650	410	880	39	12	8	LUH-05-83-34	S	303108	32
3.75/5	208/240	1 - 1	21.4	240	1	1/40	1,650	410	880	39	12	8	LUH-05-21-34	S	303116	32
3.75/5	208/240	1 - 3 ³	12.6	240	1	1/40	1,650	410	880	39	12	8	LUH-05-23-34	NS	303124	32
5	277	1 - 1	18.3	277	1	1/30	1,550	360	770	44	12	8	LUH-05-71-35	NS	303132	32
5	480	1 - 3	6.3	480	1	1/35	1,550	380	815	42	12	8	LUH-05-43-32	S	303140	32
7.5	208	1 - 1 ³	36.5	208	1	1/15	1,725	850	1,040	28	27	8	LUH-07-81-34	NS	303159	50
7.5	208	1 - 3	21.3	208	1	1/15	1,725	850	1,040	28	27	8	LUH-07-83-34	S	303167	50
5.6/7.5	208/240	1 - 1 ³	31.7 ²	240	1	1/15	1,725	850	1,040	28	27	8	LUH-07-21-34	S	303175	50
5.6/7.5	208/240	1 - 3	18.5 ²	240	1	1/15	1,725	850	1,040	28	27	8	LUH-07-23-34	NS	303183	50
7.5	277	1 - 1	27.7	277	1	1/15	1,550	750	920	32	27	8	LUH-07-71-35	NS	303191	50
7.5	480	1 - 3	9.9	480	3	1/15	1,725	850	1,040	28	27	8	LUH-07-43-32	S	303204	50
7.5	600	1 - 3	7.6	575	3	1/3	1,725	850	1,040	28	27	8	LUH-07-63-32	NS	—	50
9.7	208	1 - 1 ³	47.1	208	1	1/15	1,725	850	1,040	37	27	9	LUH-10-81-34	NS	303212	50
9.7	208	1 - 3	27.4	208	1	1/15	1,725	850	1,040	37	27	9	LUH-10-83-34	S	303220	50
7.5/10	208/240	1 - 1 ³	42.1 ²	240	1	1/15	1,725	850	1,040	37	27	9	LUH-10-21-34	S	303239	50
7.5/10	208/240	1 - 3	24.5 ²	240	1	1/15	1,725	850	1,040	37	27	9	LUH-10-23-34	NS	303247	50
10	480	1 - 3	12.9	480	3	1/15	1,725	850	1,040	37	27	9	LUH-10-43-32	S	303255	50
10	600	1 - 3	10.6	575	3	1/3	1,725	850	1,040	37	27	9	LUH-10-63-32	NS	—	50
12.5	208	1 - 3	35.2	208	1	1/15	1,725	850	1,040	47	27	9	LUH-12-83-34	S	303263	50
9.3/12.5	208/240	1 - 3	30.6	240	1	1/15	1,725	850	1,040	47	27	9	LUH-12-23-34	NS	303271	50
12.5	480	1 - 3	15.9	480	3	1/15	1,725	850	1,040	47	27	9	LUH-12-43-32	S	303280	50
12.5	600	1 - 3	12.6	575	3	1/3	1,725	850	1,040	47	27	9	LUH-12-63-32	NS	—	50
15	208	1 - 3	42.1	208	1	1/15	1,725	850	1,040	56	27	10	LUH-15-83-34	NS	303298	50
11.25/15	208/240	1 - 3	36.6 ²	240	1	1/15	1,725	850	1,040	56	27	10	LUH-15-23-34	NS	303300	50
15	480	1 - 3	19.0	480	3	1/15	1,725	850	1,040	56	27	10	LUH-15-43-32	S	303319	50
15	600	1 - 3	15.6	575	3	1/3	1,725	850	1,040	56	27	10	LUH-15-63-32	NS	—	50
14.5/19.4	208/240	1 - 3	48.0 ²	240	3	1/3	1,725	1,240	1,160	53	31	11	LUH-20-23-34	NS	303327	73
20	480	1 - 3	25.0	480	3	1/3	1,725	1,240	1,160	53	31	11	LUH-20-43-32	S	303335	73
20	600	1 - 3	19.6	575	3	1/3	1,725	1,240	1,160	53	31	11	LUH-20-63-32	NS	—	73
25	480	1 - 3	31.0	480	3	1/3	1,725	1,350	1,260	60	31	12	LUH-25-43-32	S	303343	73
25	600	1 - 3	24.6	575	3	1/3	1,725	1,350	1,260	60	31	12	LUH-25-63-32	NS	—	73
30	208	2 - 3	85.2	240	3	1/3	1,725	1,555	1,450	64	46	13	LUH-30-83-34	NS	303351	106
22.5/30	208/240	2 - 3	74.0 ²	240	3	1/3	1,725	1,555	1,450	64	46	13	LUH-30-23-34	NS	303360	106
30	480	2 - 3	37.1	480	3	1/3	1,725	1,555	1,450	64	46	13	LUH-30-43-32	S	303378	106
30	600	2 - 3	29.6	575	3	1/3	1,725	1,555	1,450	64	46	13	LUH-30-63-32	NS	—	106
26.25/35	208/240	2 - 3	86.0 ²	240	3	1/3	1,725	1,555	1,450	71	45	14	LUH-35-23-34	NS	303386	106
35	480	2 - 3	43.1	480	3	1/3	1,725	1,555	1,450	71	45	14	LUH-35-43-32	S	303394	106
35	600	2 - 3	34.7	575	3	1/3	1,725	1,555	1,450	71	45	14	LUH-35-63-32	NS	—	106
28.5/38	208/240	2 - 3	93.3	240	3	1/3	1,725	1,555	1,450	84	44	15	LUH-40-23-34	NS	303407	106
39	480	2 - 3	47.9	480	3	1/3	1,725	1,555	1,450	84	44	15	LUH-40-43-32	S	303415	106
40	600	2 - 3	39.7	575	3	1/3	1,725	1,555	1,450	84	44	15	LUH-40-63-32	NS	—	106
45	480	2 - 3	55.1	480	3	1/3	1,725	1,555	1,450	94	42	17	LUH-45-43-32	S	303423	106
45	600	2 - 3	43.7	575	3	1/3	1,725	1,555	1,450	94	42	17	LUH-45-63-32	NS	—	106

Stock Status: S = stock NS = non-stock
To Order—Specify model, PCN, kW, volts, phase and quantity.

- For motor data, see table.
- 208V amperage is 86% of 240V value.
- Models can be field wired for 1 or 3 phase.
- Includes motor Amps.
- Maximum mounting height for effective heat distribution. Minimum height is 7 feet.

Other Notes —

- All heaters have built-in contactors and stock 480V models have built-in control transformers and contactor with 120V holding coils. All stock 208 and 240V models have 208/240V holding coils. All stock 277V models have 277V holding coils.
- Optional contactors available with 120 or 24V holding coils on made-to-order models, contact your Local Chromalox Sales office.
- When total heater capacity exceeds 48 Amps, built-in fusing is provided behind a hinged and latched door in the side which allows easy access.

Industrial Air Heaters

LUH Horizontal Blower Heater (cont'd.)

Recommended Control Options

PCN	Description	Kits				PCN	Description	Kits			
		Thermostat	Fan Only	Remote Fan	Dis-connect			Thermostat	Fan Only	Remote Fan	Dis-connect
303001	LUH-02-81-34-00 208V 1P 2.6kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303220	LUH-10-83-34-00 208V 3P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303010	LUH-02-21-34-00 240V 1P 2.6kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303239	LUH-10-21-34-00 240V 1P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303028	LUH-02-71-35-00 277V 1P 2.6kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1	303247	LUH-10-23-34-00 240V 3P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303036	LUH-04-81-34-00 208V 1P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303255	LUH-10-43-32-00 480V 3P 10kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303044	LUH-04-83-34-00 208V 3P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303263	LUH-12-83-34-00 208V 3P 12.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303052	LUH-04-21-34-00 240V 1P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303271	LUH-12-23-34-00 240V 3P 12.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303060	LUH-04-23-34-00 240V 3P 4kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303280	LUH-12-43-32-00 480V 3P 12.5kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303079	LUH-04-71-35-00 277V 1P 4kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1	303298	LUH-15-83-34-00 208V 3P 15kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303087	LUH-04-43-32-00 480V 3P 4kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1	303300	LUH-15-23-34-00 240V 3P 15kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1
303095	LUH-05-81-34-00 208V 1P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303319	LUH-15-43-32-00 480V 3P 15kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1
303108	LUH-05-83-34-00 208V 3P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303327	LUH-20-23-34-00 240V 3P 20kW	LUH-TK1	ISFS-02	ESFS-42A	EDS-1
303116	LUH-05-21-34-00 240V 1P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303335	LUH-20-43-32-00 480V 3P 20kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303124	LUH-05-23-34-00 240V 3P 5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303343	LUH-25-43-32-00 480V 3P 25kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303132	LUH-05-71-35-00 277V 1P 5kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1	303351	LUH-30-83-34-00 208V 3P 30kW	LUH-TK1	ISFS-02	ESFS-42A	N/A
303140	LUH-05-43-32-00 480V 3P 5kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1	303360	LUH-30-23-34-00 240V 3P 30kW	LUH-TK1	ISFS-02	ESFS-42A	EDS-3
303159	LUH-07-81-34-00 208V 1P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303378	LUH-30-43-32-00 480V 3P 30kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303167	LUH-07-83-34-00 208V 3P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303386	LUH-35-23-34-00 240V 3P 35kW	LUH-TK1	ISFS-02	ESFS-42A	N/A
303175	LUH-07-21-34-00 240V 1P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303394	LUH-35-43-32-00 480V 3P 35kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-1
303183	LUH-07-23-34-00 240V 3P 7.5kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1	303407	LUH-40-23-34-00 240V 3P 40kW	LUH-TK1	ISFS-02	ESFS-42A	N/A
303191	LUH-07-71-35-00 277V 1P 7.5kW	LUH-TK1	ISFS-02	ESFS-47	EDS-1	303415	LUH-40-43-32-00 480V 3P 40kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-2
303204	LUH-07-43-32-00 480V 3P 7.5kW	LUH-TK1	ESFS-41	ESFS-41	EDS-1	303423	LUH-45-43-32-00 480V 3P 45kW	LUH-TK1	ESFS-41A	ESFS-41A	EDS-2
303212	LUH-10-81-34-00 208V 1P 10kW	LUH-TK1	ISFS-02	ESFS-42	EDS-1						

When ordering LUH heaters, specify the model number and corresponding PCN (Product Code Number). If controls or thermostat/fan options are required, designate these options in the model number when ordering, as shown below. Always specify voltage, phase and kW by listing them on the purchase order product specifications.

Model Numbers

Chromalox Horizontal Unit Heater

Heating Elements

02 = 2.6 kW	10 = 10.0 kW	25 = 25.0 kW	45 = 45.0 kW
04 = 4.0 kW	12 = 12.5 kW	30 = 30.0 kW	
05 = 5.0 kW	15 = 15.0 kW	35 = 35.0 kW	
07 = 7.5 kW	20 = 20.0 kW	40 = 40.0 kW	

Heater Voltage and Phase

81 = 208V, 1 Phase	71 = 277V, 1 Phase
83 = 208V, 3 Phase	43 = 480V, 3 Phase
21 = 240V, 1 Phase	63 = 600V, 3 Phase
23 = 240V, 3 Phase	

Control

00	No Contactor(s)
30	24V Control Internal Transformer
31	24V Control Externally Supplied
32	120V Control Internal Transformer
33	120V Control Externally Supplied
34	208/240V Control Internally Supplied, No Transformer
35	277V Control Internally Supplied

Control

00	No Thermostat, No Summer Fan Switch
40	Internal Thermostat Only
41	Internal Therm. and Internal Sum. Fan Sw.
42	External Sum. Fan Sw. Only (Not 480V)
43	External Sum. Fan Sw. and Fan Relay (All Volts)
44	Rem. Fan Sw. and Internal Therm. (Not 480V)
45	Rem. Fan Sw., Fan Relay and Int. Therm. (All Volts)D, E, F, G
46	Internal Sum. Fan Sw. (Not 480 V)
47	Internal Sum. Fan Sw., Fan Relay (All Volts)

Disconnect Switch

1	63 Amp
2	80 Amp
3	100 Amp

LUH 05 21 34 41 1 Typical Model Number

DRA

Portable Spot Industrial Salamander Blower Heater



- 7.5 to 30 kW
- 25,590 to 102,360 BTUH
- 208, 240, 480 and 600 Volts
- No Assembly Required
- Built-in Controls

Description

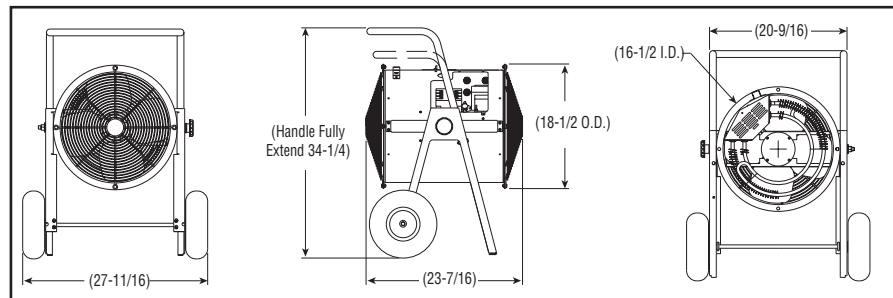
The Chromalox DRA Dragon is a rugged industrial grade, self contained, highly mobile, electric blower heater. The DRA can be left unattended without the threat of poisoning from combustion by-products associated with fuel fired heaters. The built in safety features include an adjustable thermostat to control the outlet air temperature, auto-reset cutouts for the fan motor and heating elements. The thermostat provides settings for full off, fan only and temperature control in the heating setting. Dragon heaters feature a large, easily accessible control and wiring compartment containing a magnetic contactor; additional safety is provided by a 120 volt control voltage transformer and motor starter on 480 and 600 volt units. The bright red polyester powder coated heating cylinder is highly visible and can be rotated to direct heat or fan driven air movement where it is needed. For assured safety, all standard units meet the requirements of UL (File No. E7061) and CSA (File No. LR40859).

Construction

Heating Cylinder

A structural frame consisting of 2 spun steel rings and 2 formed steel channels support a 20 gauge steel cylinder phosphate coated for corrosion resistance, and finished in red polyester powder coat paint. The heating cylinder pivots vertically to direct air flow.

Dimensions (Inches)



Leg Assembly

Each side consists of a one piece, 12 gauge, formed steel member, which accepts a steel tubular handle, held in place with a 1-1/2" long x 1/4" bolt on each side. The handle can be raised from the shipping position if desired. The rubber, pneumatic wheels are 10" diameter and 3 1/2" wide to provide ease of transporting the heater on irregular and gravel surfaces. The large wheels make it easy to roll up stairways without damage to decorative step surfaces.

Fan Assembly

The self-centering fan assembly consists of a totally enclosed, permanently lubricated motor and a dynamically balanced aluminum fan blade for smooth, quiet operation.

Controls

A thermostat, with a temperature range of 40°F to 100°F is included, with a full off position, a fan only position and an adjustable range of temperature settings in the heating mode position. Each unit includes a 3 pole magnetic contactor and auto-reset thermal cutout. 480 volt and 600 volt units also include a motor relay and 120 volt control voltage transformer for personnel safety.

Safety Guards

Front and rear grills are 10 gauge, finished in black polyester powder coat and are designed to meet OSHA safety requirements.

Heating Assembly

The patented metal sheath Fintube® heating elements consist of steel fins furnace brazed on industrial grade .475 diameter steel sheath tubular heaters for maximum heat transfer. The elements are held in place with steel bulkhead fittings for durability. The elements feature a high temperature finish for corrosive protection.

Applications

- For Best Results Use in Enclosed Area with Ceiling Heights Below 15'
- Warming Workers
- Thawing Frozen Pipes
- Thawing Railroad Cars
- Heating Large Tents
- Non-Hazardous Areas

Industrial Air Heaters

DRA

Portable Spot Industrial Salamander Blower Heater (cont'd.)

Specifications and Ordering Information

kW	Volts	Phase	Amps ¹	BTU/H	HP	CFM	Temp. Rise °F ²	Model	Stock	PCN	Wt. (Lbs.)
7.5	208	1 and 3	36.3/21.0	25,590	0.06	1070	23	DRA-07-83	NS	295523	65
7.5/5.6	240/208	1 and 3	31.5/18.3 ³	25,590	0.06	1070	23	DRA-07-23	S	295531	65
9.75	208	1 and 3	47.1/27.3	33,267	0.06	1070	31	DRA-10-83	S	295540	65
10/7.5	240/208	1 and 3	40.8/23.7 ³	33,267	0.06	1070	31	DRA-10-23	S	295558	65
15	208	3	41.8	51,180	0.06	1070	46	DRA-15-83	NS	295566	65
15/11.2	240/208	3	36.3 ³	51,180	0.06	1070	46	DRA-15-23	S	295574	65
15	480	1 and 3	31.4	51,180	0.06	1070	46	DRA-15-43	S	295582	65
15	600	1 and 3	25.2	51,180	0.06	1070	46	DRA-15-93	NS	295596	65
19.5/15	240/208	3	47.1 ³	66,534	0.06	1070	61	DRA-20-23	NS	295603	75
20	480	1 and 3	42.0	68,240	0.06	1070	62	DRA-20-43	S	295611	75
20	600	1 and 3	33.5	68,240	0.06	1070	62	DRA-20-93	NS	295620	75
30	480	3	36.3	102,360	0.06	1070	92	DRA-30-43	S	295638	75
30	600	3	29.1	102,360	0.06	1070	92	DRA-30-93	NS	295646	75

Stock Status: S = stock NS = non-stock
To Order—Specify model, PCN, kW, volts, phase and quantity.

1. Includes motor amps
2. Temperature rise at 240V operation
3. 208V amperage is 86% of 240V value

Models designated 1 and 3 can be field converted from three phase to single phase. Consult product installation, operation, and maintenance manual for details.

All models factory pre-wired with an 8 foot cord and plug for use in 3 phase operation (See table 1 factory installed plug and cord information)

Factory Installed Plug and Cord Data

Model	Plug Type	Cable Type	Model	Plug Type	Cable Type
DRA-07-83	NEMA 18-30P, Straight Blade	10 AWG, 4 Wire	DRA-15-93	NEMA 17-30P, Twist-Lock	12 AWG, 4 Wire
DRA-07-23	NEMA 18-30P, Straight Blade	10 AWG, 4 Wire	DRA-20-23	NEMA 15-50P, Straight Blade	4 AWG, 4 Wire
DRA-10-83	NEMA 18-30P, Straight Blade	8 AWG, 4 Wire	DRA-20-43	NEMA 16-30P, Twist-Lock	8 AWG, 4 Wire
DRA-10-23	NEMA 18-30P, Straight Blade	8 AWG, 4 Wire	DRA-20-93	NEMA 17-30P, Twist-Lock	10 AWG, 4 Wire
DRA-15-83	NEMA 18-50P, Straight Blade	6 AWG, 4 Wire	DRA-30-43	Non-NEMA 50A, Twist-Lock	6 AWG, 4 Wire
DRA-15-23	NEMA 15-50P, Straight Blade	6 AWG, 4 Wire	DRA-30-93	Non-NEMA 50A, Twist-Lock	8 AWG, 4 Wire
DRA-15-43	NEMA 16-30P, Twist-Lock	10 AWG, 4 Wire			

PORTABLE

Standard Locking Plugs

Plug Type	Catalog Number	Description	Volts	Amps	NEMA#	Fits Cable Dia. (In.)	Stock	PCN	Wt. (Lbs.)
LOCKING	PGL-15-20	3 Pole, 4 Wire	250	20	L15-20	.385 to .780	NS	338845 / 511556014	0.5
LOCKING	PGL-16-30	3 Pole, 4 Wire	480	30	L16-30	.595 to 1.150	NS	338861 / 511556023	0.5
LOCKING	PGL-17-30	3 Pole, 4 Wire	600	30	L17-30	.595 to 1.150	S	338870 / 511556032	0.5
LOCKING	PGL-3763C	2 Pole, 3 Wire	600	50	N/A	.750 to 1.125	NS	338917 / 511556033	0.5
LOCKING	PGL-3765C	3 Pole, 4 Wire	600	50	N/A	.750 to 1.125	NS	338925 / 511556034	0.5
NON LOCKING	PGN-6-50	2 Pole, 3 Wire	250	50	6-50	.625 to 1.187	S	338888 / 511506014	0.5
NON LOCKING	PGN-15-20	3 Pole, 4 Wire	250	20	15-20	.390 to .775	S	338896 / 511506006	0.5
NON LOCKING	PGN-18-30	4 Pole, 4 Wire	208	30	18-30	.625 to 1.310	NS	511506026	0.5
NON LOCKING	PGN-18-50	4 Pole, 4 Wire	208	30	18-50	.625 to 1.310	NS	511506024	0.5
LOCKING	PGL-8165C	3 Pole, 4 Wire	480	50	N/A	.92 to 1.2	NS	511556031	0.5
NON LOCKING	PGN-8461C	3 Pole, 4 Wire	250	60	N/A	.625 to 1.310	NS	511506028	0.5

Stock Status: S = stock NS = non-stock
To Order—Specify model, PCN, kW, volts, phase and quantity.

FASTShip

Same-day shipping on stock item orders received before 4 pm CST.
 3-day shipping on assembly-stock items.

SDRA

Portable High Temperature Blower Heater

- 30, 48 and 60kW
- 102,360 to 240,720 BTUH
- 480 or 600 Volts Three Phase
- Built-in Controls
- Air Temperature to 180°F
- Use with Flexible Duct



Applications

- Aircraft Cabin Heating
- Plant Maintenance
- Building Construction Sites
- Curing Plaster and Concrete
- Warming Workers
- Drying After Flood Damage
- Insect Control in Grain Mills
- Thawing Frozen Pipes
- Re-circulating Fresh Air
- Circulating Fresh Air
- Exhausting Contaminated Air

Description

The Chromalox SDRA SuperDragon is a rugged, self contained, mobile electric blower heater that can be used with or without optional inlet or outlet 20" diameter flexible duct. The SDRA units can be used for comfort heating or process heating temperatures to 180°F, and can be located in an ambient of up to 130°F. The SDRA includes a fan only switch, that allows the unit to be used to recirculate room air, supply fresh air source, or capture fume exhaust. The SDRA heaters provide for easily adjustable airflow for a wide variety of applications including flexible ducting up to 165 feet in length. Each unit includes two thermostats to enable the operator to set the maximum inlet and outlet temperatures, magnetic contactor(s), a 120 volt control transformer, power on pilot lights and a high limit cutout to protect the heater against unintended low air flow conditions. The SDRA can be left unattended without the threat of fire or by-product of combustion from fuel fired heaters. The bright red polyester powder coated heater can be easily moved because of two 10" diameter pneumatic wheels on the outlet and a 4" lockable swivel castor on the inlet.

Construction

Heating Section

A structural frame consisting of 2 spun steel rings and formed steel channels support a 20 gauge steel cylinder phosphate coated for corrosion resistance and finished in red polyester powder coat paint. The cylinder contains patented metal sheath Fintube® heating elements that include industrial grade .475" diameter steel sheath tubular heaters with furnace brazed steel fins for maximum

heat transfer. The elements are firmly attached to a robust steel assembly with steel bulkhead threaded fittings.

Fan Section

The fan assembly includes a 16" tubeaxial fan designed for industrial use and includes a streamlined belt tunnel that isolates the motor, drives and bearings from the air stream. The fan blades are precision balanced made with spark resistant aluminum and includes permanently lubricated ball bearings. Safety belt guards are supplied to protect operating personnel from harm. The drip proof motor is rated 1hp, 3 phase 1,725 rpm and operates on line voltage. Fan speed can be varied from 1,500 to 2,300 RPM for various air flows by use of adjustable pulleys.

Controls

Two adjustable thermostats (60 to 180°F) are located on the heater cylinder to allow the inlet and outlet temperatures to be adjustable for single pass heating or recirculated air temperature control. The power is switched by magnetic contactor(s) which are located in a gasketed NEMA 4 enclosure along with the motor starter, control voltage transformer and heater power fusing. A fan only toggle switch and pilot lights for power and heater are also located in the enclosure.

Safety Guards

Front and rear grills are 10 gauge, finished in black polyester powder coat paint and are designed to meet OSHA requirements.

SDRA

Portable High Temperature Blower Heater *(cont'd.)*

Specifications and Ordering Information

kW	Volts 3 Ph	Amps	BTUH	HP	CFM	Temp. Rise oF	Model	Stock	PCN	Dimensions (In.)			Wt. (Lbs)
										W	L	H	
30	480	37.2	102,360	1	1100-2700	35-88	SDRA-30-43	S	295689	26	44	38.5	200
30	600	30.0	102,360	1	1100-2700	35-88	SDRA-30-93	NS	295697	26	44	38.5	200
48	480	58.9	163,776	1	1100-2700	59-141	SDRA-48-43	NS	295700	30.25	44	38.5	210
48	600	47.3	163,776	1	1100-2700	59-141	SDRA-48-93	NS	295718	30.25	44	38.5	210
60	480	73.3	204,720	1	1100-2700	70-172	SDRA-60-43	S	295726	30.25	44	38.5	220
60	600	58.9	204,720	1	1100-2700	70-172	SDRA-60-93	NS	295734	30.25	44	38.5	220

Stock Status: S = stock NS = non-stock
To Order—Specify model, PCN, kW, volts, phase and quantity.

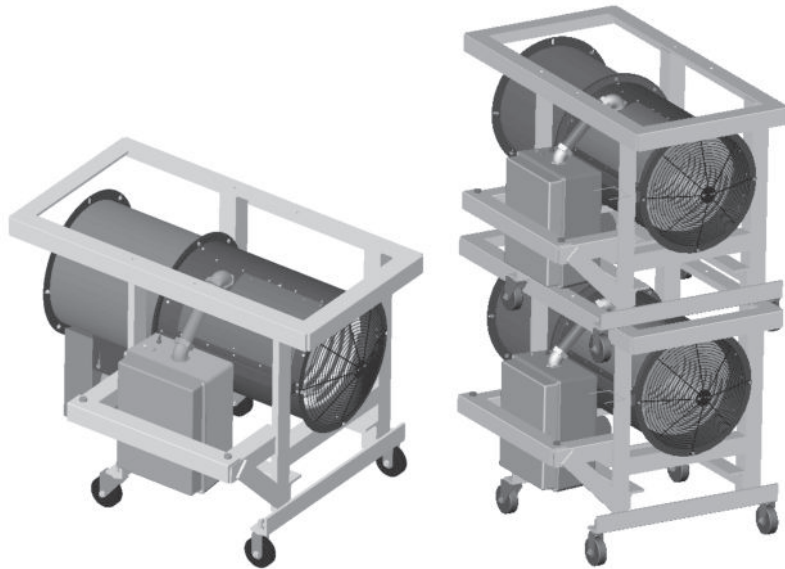
SDRA-RG

Series

Rental Grade Portable Blower Heater

Description

The SDRA-RG series of SuperDragons have the same features as the standard industrial grade units except that they feature a welded steel frame and can be stacked two high to reduce floor space during storage or transportation to various venues. The rental grade units feature 4" diameter casters, two of which lock.



Two SDRA-RG Stacked

Specifications and Ordering Information

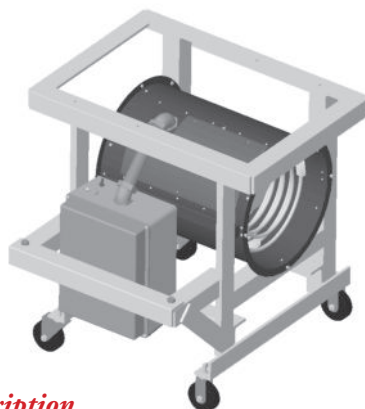
kW	Volts 3 Ph	Amps	BTUH	HP	CFM	Temp. Rise oF	Model	Stock	PCN	Dimensions (In.)			Wt. (Lbs)
										W	L	H	
30	480	37.2	102,360	1	1100-2700	35-88	SDRA-30-43RG	S	295742	35.75	45.75	34.5	280
30	600	30.0	102,360	1	1100-2700	35-88	SDRA-30-93RG	NS	295750	35.75	45.75	34.5	280
48	480	58.9	163,776	1	1100-2700	59-141	SDRA-48-43RG	NS	295769	35.75	45.75	34.5	290
48	600	47.3	163,776	1	1100-2700	59-141	SDRA-48-93RG	NS	295777	35.75	45.75	34.5	290
60	480	73.3	204,720	1	1100-2700	70-172	SDRA-60-43RG	S	295785	35.75	45.75	34.5	300
60	600	58.9	204,720	1	1100-2700	70-172	SDRA-60-93RG	NS	295793	30.25	45.75	34.5	300

Stock Status: S = stock NS = non-stock
To Order—Specify model, PCN, kW, volts, phase and quantity.

SDRA

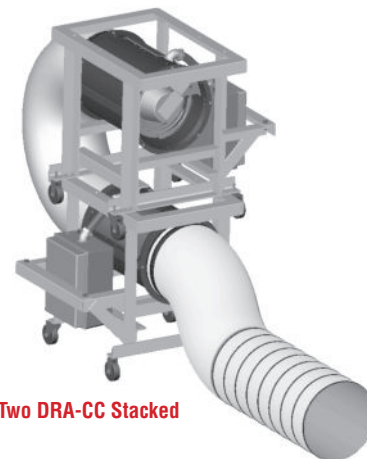
Portable High Temperature Blower Heater (*cont'd.*)

Model DRA-CC
ChromaCube Portable Heating System for Use with Customer Supplied Air Source



Description

The DRA-CC series of SuperDragons have the same construction features as the rental grade units except do not include the blower section. The units require customer supplied air via 20" diameter flexible duct. The control circuit includes an air flow switch to protect



Two DRA-CC Stacked

the heater in case of a restricted or loss of air flow. The control enclosure includes a contactor(s), control transformer, power fusing and power on pilot lights.

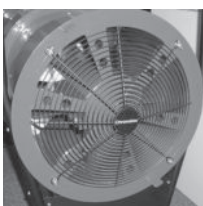
Specifications and Ordering Information

kW	Volts 3 Ph	Amps	BTUH	CFM	Temp. Rise oF	Model	Stock	PCN	Dimensions (In.)			Wt. (Lbs)
									W	L	H	
30	480	36.1	102,360	1100-2700	35-88	SDRA-CC-30-43	NS	295806	35.75	45.75	34	150
30	600	28.9	102,360	1100-2700	35-88	SDRA-CC-30-93	NS	295814	35.75	45.75	34	150
48	480	57.8	163,776	1100-2700	59-141	SDRA-CC-48-43	NS	295822	35.75	45.75	34	160
48	600	46.2	163,776	1100-2700	59-141	SDRA-CC-48-93	NS	295830	35.75	45.75	34	160
60	480	72.2	204,720	1100-2700	70-172	SDRA-CC-60-43	NS	295849	35.75	45.75	34	170
60	600	57.8	204,720	1100-2700	70-172	SDRA-CC-60-93	NS	295857	35.75	45.75	34	170

Stock Status: S = stock AS = assembly stock NS = non-stock
To Order—Specify model, PCN, kW, volts, phase and quantity.

Note: Units do not include fan/blower.

Accessories



AD-16 Adjustable Damper

The adjustable damper can be attached to the intake side of the SuperDragon heaters to reduce the amount of airflow to insure the required air temperature is realized. This is especially important when the unit will be used without flexible duct.

Model	Description	Stock	PCN	Wt. (lbs)
AD-16	Adjustable Damper	S	295902	12



Duct Adapter Ring

Provides a means to attach 20" flexible duct to the intake or outlet of the SuperDragon series heaters. Two are required if using duct on the inlet and outlet for applications where air is recirculated.

Model	Description	Stock	PCN	Wt. (lbs)
DAR-20	20" Duct Adaptor	S	295873	20



Flexible Duct Splice

The flexible duct splice is designed to splice two or more 25' lengths of flexible duct to create longer lengths.

Model	Description	Stock	PCN	Wt. (lbs)
FDS-20	20" Dia. Duct Splice Kit	NS	295881	40

Duct Clamp (not shown)

Stainless steel band is designed to fit over the flexible duct for a secure attachment to the adapter ring or flexible duct splice.

Model	Description	Stock	PCN	Wt. (lbs)
DC-20	20" Dia. Duct Clamp	S	295890	3



FX-20 Flexible Duct

Chromalox heavy duty, flexible duct is constructed of 100% polyester based fabric and is 20" diameter and 25' long. It is made to resist wear and is suitable for temperatures from -40 to 220°F. The duct is internally supported with a steel wire helix and can be used on the air intake end of the heater and will not collapse under the negative pressure.

Model	Description	Stock	PCN	Wt. (lbs)
FX-20	20" Dia. Flexible Duct 25'	S	295865	45

PORTABLE