

B SERIES

GAS-FIRED, GRAVITY-VENTED, BLOWER-TYPE UNIT HEATER FOR COMMERCIAL/INDUSTRIAL USE

25,000 - 400,000 BTUH

Reznor® Series 100, Model B gas-fired gravity-vented unit heaters are designed for 80% thermal efficiency and are designed for use with natural or propane gas, as specified, in sizes from 25,000 to 400,000 BTUH gas Input.

Model B unit heaters are designed for ceiling suspension with a centrifugal blower for air delivery. Sizes 25-100 are equipped with a direct drive blower motor with multi-speed taps capable of handling up to .50" w.c. of external static pressure. Sizes 125-400 are standard equipped with a blower using an adjustable belt drive and motor capable of handling external static pressure up to .25" w.c. Optional motors and drives are available to increase the blower capability to handle up to .50" w.c. of external static pressure.

A terminal strip connector facilitates field connection to a remote 24-volt thermostat for automatic operation. Each unit is provided with a fan control and all required limit safety controls, including an energy cutoff (ECO) device and a blocked vent switch. These units are approved for installation in The United States and Canada by the Canadian Standards Association (CSA). Canadian units require the selection of a totally enclosed motor. (An open motor may be selected for a heater to be installed in Canada only when the heater will be equipped with a Reznor field-installed blower cabinet.)

The Energy Policy Act of 2005 mandated that beginning August of 2008, no Gravity Vented Unit Heaters may be sold without an Intermittent Ignition Device (No Standing Pilot- Spark Ignition Only) AND, (either an automatic shutoff vent damper or a power vent exhaust). Your state may have already enacted this restriction in their local codes. Please take note of this when placing orders for gravity vented units.

STANDARD FEATURES AND BENEFITS

- Orifices for natural gas
- Aluminized steel heat exchanger
- Aluminized steel burner rack with stainless steel insert
- Spark ignited, intermittent safety pilot with electronic flame supervision
- Single-stage combination gas valve (field adjustable for high altitude operation)
- 115/1/60 supply voltage - Sizes 25-300
- 230/1/60 supply voltage - Size 400
- ODP motor with internal overload (U.S. installations)
- Totally enclosed blower motor (Canadian installations)
- Motor contactor - Sizes 300 and 400
- Direct drive blower with multi-speed taps - Sizes 25-100
- Adjustable belt drive blower - Sizes 125 - 400
- Fan and limit safety controls
- Blocked vent shutoff system
- Energy cutoff (ECO) device
- 24-volt control voltage transformer
- Horizontal/Vertical vent outlet
- Horizontal louvers or Duct adapter
- Terminal strip connector for 24-volt field wiring
- Convenient bottom burner access
- 4-point 3/8"-16 threaded hanger connections

FACTORY INSTALLED OPTIONS

- Equipped for propane gas
- E-3 (409) stainless steel heat exchanger and burner

- Two-stage gas control (50% low fire) - Sizes 75-400
- Spark ignited, intermittent safety pilot with electronic flame supervision with timed lockout (timed lockout is required for propane gas)
- Burner air shutters
- 208/230 single & three phase supply voltage - Sizes 125-400
- 460 & 575 three phase supply voltage - Sizes 125-400
- Alternate motor HP and drive - Sizes 125-400
- Totally enclosed blower motor - Sizes 125-400

FIELD INSTALLED OPTIONS

- Power venter
- Vertical louvers
- Downturn air nozzle, 25-65° or 50-90° variable air deflector range
- Thermostat and relay kits
- Air recirculation kits
- Manual summer/winter switch
- Filter cabinet with 1" or 2" filters
- Polytube adapter - Models 75-400
- Multiple heater control
- Hanger kits to suspend from 1" pipe or to use with vibration isolation suspension
- Unit-mounted thermostat bracket
- Step down transformer 230/115 or 460/115 - Sizes 25-100
- Burner air shutters
- Low ambient fan control relay kit
- Belt guard and/or blower inlet guard
- Single-stage and two-stage thermostats



B SERIES

FIELD INSTALLED OPTIONS continued

- Thermostat guard with locking cover
- Manual shutoff valve and union
- Gas conversion kit

NOTE: When installing gravity vented appliances check local and state codes for requirements. Some states require the addition of spark pilot Option AH2 or AH3.

NOTE: Regulated combination redundant gas valve consists of combination pilot solenoid valve, electric gas valve, pilot filter, pressure regulator, pilot shutoff, and manual shutoff, all in one body. Gas supply pressure must not exceed 0.5 psi (8 oz. or 14" w.c.). Minimum inlet pressure for natural gas is 5" w.c.; minimum inlet pressure for propane gas is 11" w.c.

B MODEL TECHNICAL DATA

Size	25		50		75		100		125	
Heating Input - BTUH (kW)	25,000	(7.3)	50,000	(14.7)	75,000	(22.0)	100,000	(29.3)	125,000	(36.6)
Thermal Output - BTUH (kW) (80%) ^A	20,000	(5.9)	40,000	(11.7)	60,000	(17.6)	80,000	(23.4)	100,000	(29.3)
Vent Outlet Diameter	4" Rd		4" Rd		5" Oval		6" Oval		7" Oval	
Gas Connection - Natural Gas ^B	1/2"		1/2"		1/2"		1/2"		1/2"	
Control Amps (24 - Volt)	0.33		0.33		0.33		0.33		0.33	
Full-Load Amps (115 Volt)	2.9		2.9		5.3		5.3		6	
Normal Consumption (watts) - (60°F rise and .25" w.c. ESP)	140		175		340		430		500	
Maximum Air Volume - CFM (M ³ /hr)	410	(697)	820	(1393)	1,230	(2,090)	1,645	(2,795)	2,055	(3,491)
Minimum Air Volume - CFM (M ³ /hr)	245	(416)	490	(832)	740	(1,257)	985	(1,673)	1,235	(2,098)
Standard Motor Horsepower	1/6		1/6		1/3		1/3		1/3	
Blower Size (inches)	9x6		9x6		9x6		9x9		10x10	
Approximate Net Wt - lbs (kg)	93	(42)	100	(45)	114	(52)	126	(57)	176	(80)
Approximate Shipping Wt - lbs (kg)	193	(88)	206	(93)	229	(104)	241	(109)	318	(144)

Size	165		200		250		300		400	
Heating Input - BTUH (kW)	165,000	(48.4)	200,000	(58.6)	250,000	(73.3)	300,000	(87.9)	400,000	(117.2)
Thermal Output - BTUH (kW) (80%) ^A	132,000	(38.7)	160,000	(46.9)	200,000	(58.6)	240,000	(70.3)	320,000	(93.8)
Vent Outlet Diameter	8" Oval		8" Oval		10" Oval		10" Oval		12" Oval	
Gas Connection - Natural Gas ^B	1/2"		1/2"		1/2"		3/4"		3/4"	
Control Amps (24 - Volt)	0.23		0.23		0.23		0.2		0.2	
Full-Load Amps (115 Volt)	9		9		11		13		230V-9.1	
Normal Consumption (watts) - (60°F rise and .25" w.c. ESP)	710		750		1000		1320		1650	
Maximum Air Volume - CFM (M ³ /hr)	2,715	(4613)	3,290	(5590)	4,115	(6,991)	4,935	(8,384)	6,500	(11,043)
Minimum Air Volume - CFM (M ³ /hr)	1,625	(2761)	1,975	(3355)	2,465	(4,188)	2,960	(5,029)	3,900	(6,626)
Standard Motor Horsepower	1/2		1/2		3/4		1		1	
Blower Size (inches)	12x9		15x11		15x11		15x11		15x15	
Approximate Net Wt - lbs (kg)	201	(91)	235	(107)	273	(124)	296	(134)	390	(177)
Approximate Shipping Wt - lbs (kg)	343	(156)	385	(175)	431	(196)	454	(206)	561	(254)

^A For U.S. installations, ratings for altitudes to 2000 ft.. Above 2000 ft., derate by 4% for each 1000 ft. above sea level.

^A For Canadian installations, ratings for altitudes to 2000 ft. High altitude units (2001-4500 ft.) are derated by 10% of maximum input.

^B Gas connection for propane is 1/2" for all sizes. Sizes shown are for gas connection to a single-stage gas valve; NOT gas supply line size.

B MODEL DIMENSIONS

±1/16" (2MM)

Size		A	B	C ^C	D	E	F ^D	G ^{E F}	H	J	K	L ^{E G}
25	in	30 1/8	13 1/2	43 1/2	31 1/2	5 7/8	14 1/2	61 1/2	19	4 Rnd	10 1/4	15 7/8
	mm	(765)	(343)	(1,105)	(800)	(149)	(368)	(1,562)	(483)	--	(260)	(403)
50	in	30 1/8	13 1/2	50	31 1/2	5 7/8	14 1/2	61 1/2	19	4 Rnd	10 1/4	15 7/8
	mm	(765)	(343)	(1,270)	(800)	(149)	(368)	(1,562)	(483)	--	(260)	(403)
75	in	30 1/8	15 1/2	50	31 1/2	5 7/8	14 1/2	61 1/2	19	5 Oval	10 1/2	15 7/8
	mm	(765)	(394)	(1,270)	(800)	(149)	(368)	(1,562)	(483)	--	(267)	(403)
100	in	30 1/8	17 1/2	50	31 1/2	5 7/8	14 1/2	61 1/2	19	6 Oval	12 7/8	15 7/8
	mm	(765)	(445)	(1,270)	(800)	(149)	(368)	(1,562)	(483)	--	(327)	(403)
125	in	32	23 1/4	47 1/2	31 1/2	5 7/8	14 7/8	66	18	7 Oval	14 1/2	15 7/8
	mm	(813)	(591)	(1,207)	(800)	(149)	(378)	(1,676)	(457)	--	(368)	(403)
165	in	40 1/8	20 1/4	61	36	4 7/8	19 1/2	76 1/8	23 3/8	8 Oval	14 1/4	23 7/8
	mm	(1,019)	(514)	(1,549)	(914)	(124)	(495)	(1,934)	(594)	--	(362)	(606)
200	in	40 1/8	23 1/4	66 1/2	36	4 7/8	19 1/2	76 1/8	23 3/8	8 Oval	14 3/8	23 7/8
	mm	(1,019)	(591)	(1,689)	(914)	(124)	(495)	(1,934)	(594)	--	(365)	(606)
250	in	43 1/2	28 3/4	66 1/2	36	4 7/8	19 1/2	76 1/8	21 7/8	10 Oval	12 3/8	23 7/8
	mm	(1,105)	(730)	(1,689)	(914)	(124)	(495)	(1,934)	(556)	--	(314)	(606)
300	in	43 1/2	28 3/4	66 1/2	36	4 7/8	19 1/2	76 1/8	21 7/8	10 Oval	12 3/8	23 7/8
	mm	(1,105)	(730)	(1,689)	(914)	(124)	(495)	(1,934)	(556)	--	(314)	(606)
400	in	43 1/2	37	66 1/2	36	4 7/8	19 1/2	76 1/8	21 7/8	12 Oval	13	23 7/8
	mm	(1,105)	(940)	(1,689)	(914)	(124)	(495)	(1,934)	(556)	--	(330)	(606)

Size		M		N ^E	P ^E	R ^E	S ^E	T ^G	U ^G	V ^E	W ^E	X ^H	Y	Z
		Nat	Pro											
25	in	1/2	1/2	3 3/4	21	17 3/4	5 1/4	10 3/4	8 1/2	14 3/4	6 1/4	31 1/4	21 1/2	27 5/8
	mm	--	--	(95)	(533)	(451)	(133)	(273)	(216)	(375)	(159)	(794)	(546)	(702)
50	in	1/2	1/2	3 3/4	21	17 3/4	5 1/4	10 3/4	8 1/2	14 3/4	6 1/4	31 1/4	21 1/2	27 5/8
	mm	--	--	(95)	(533)	(451)	(133)	(273)	(216)	(375)	(159)	(794)	(546)	(702)
75	in	1/2	1/2	2 3/4	21	17 3/4	5 1/4	12 3/4	8 1/2	14 3/4	6 1/4	31 1/4	21 1/2	27 5/8
	mm	--	--	(70)	(533)	(451)	(133)	(324)	(216)	(375)	(159)	(794)	(546)	(702)
100	in	1/2	1/2	1 3/4	21	17 3/4	5 1/4	14 3/4	8 1/2	14 3/4	6 1/4	31 1/4	21 1/2	27 5/8
	mm	--	--	(44)	(533)	(451)	(133)	(375)	(216)	(375)	(159)	(794)	(546)	(702)
125	in	1/2	1/2	1 3/8	26	17 3/4	5 1/4	20 1/2	8 1/2	20 1/2	6 1/4	35 3/4	21 1/2	28 1/2
	mm	--	--	(35)	(660)	(451)	(133)	(521)	(216)	(521)	(159)	(908)	(546)	(724)
165	in	1/2	1/2	2 7/8	26	25 1/4	7 1/4	17 1/2	11 1/2	20 1/2	8	36 3/4	27	36 3/4
	mm	--	--	(73)	(660)	(641)	(184)	(445)	(292)	(521)	(203)	(933)	(686)	(933)
200	in	1/2	1/2	1 3/8	26	25 1/4	7 1/4	20 1/2	11 1/2	20 1/2	8	36 3/4	27	36 3/4
	mm	--	--	(35)	(660)	(641)	(184)	(521)	(292)	(521)	(203)	(933)	(686)	(933)
250	in	1/2	1/2	5 7/8	40 1/2	25 1/4	7 1/4	26	11 1/2	26	8	36 3/4	27	38 3/8
	mm	--	--	(149)	(1,029)	(641)	(184)	(660)	(292)	(660)	(203)	(933)	(686)	(975)
300	in	3/4	1/2	5 7/8	40 1/2	25 1/4	7 1/4	26	11 1/2	26	8	36 3/4	27	38 3/8
	mm	--	--	(149)	(1,029)	(641)	(184)	(660)	(292)	(660)	(203)	(933)	(686)	(975)
400	in	3/4	1/2	6 3/4	50 1/2	25 1/4	7 1/4	34 1/4	11 1/2	34 1/4	8	36 3/4	27	38 3/8
	mm	--	--	(171)	(1,283)	(641)	(184)	(870)	(292)	(870)	(203)	(933)	(686)	(975)

NOTES:

C Deduct 6-5/8" on Models 50, 75 & 100 when equipped with direct drive motor.

D Use with 4-point suspension without blower cabinet.

E When equipped with optional blower cabinet.

F Dimension includes a 3/4" flange on rear of blower cabinet.

G When equipped with optional duct flange.

H Use with 4-point suspension with blower cabinet.

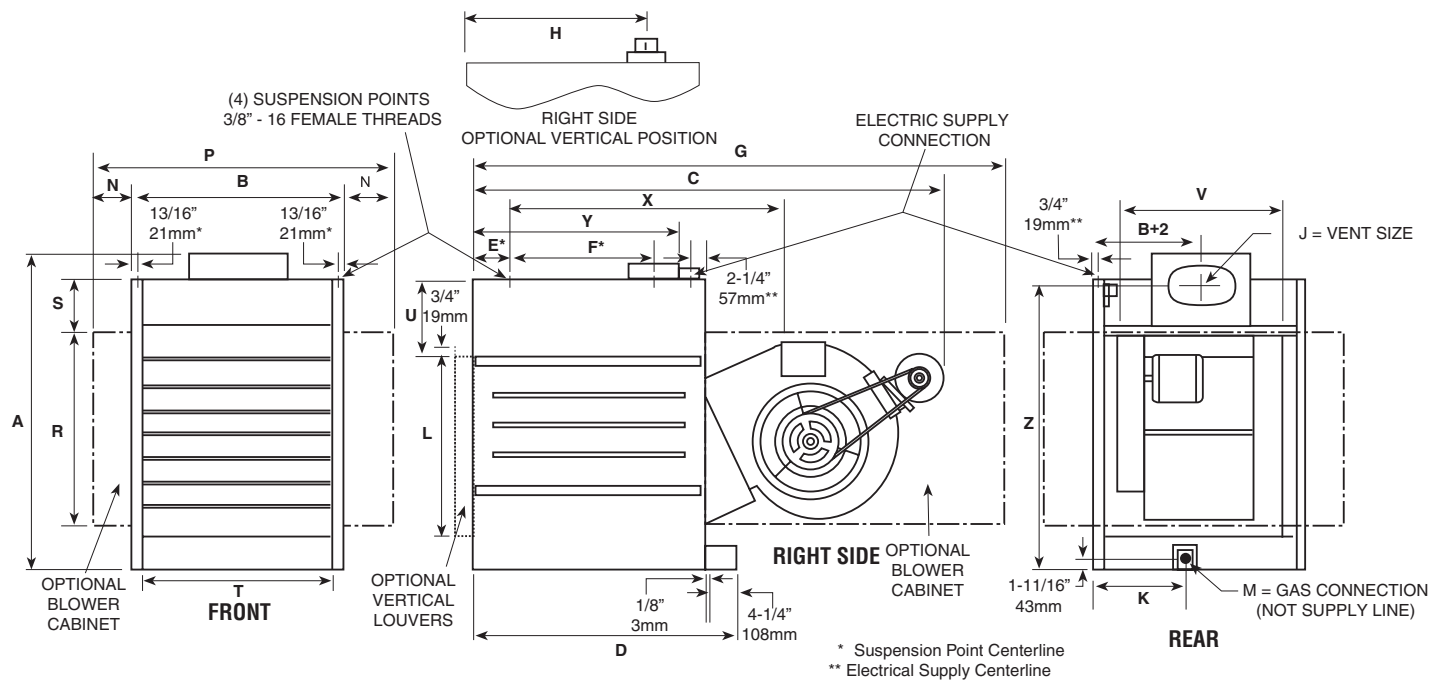
J Contactor is standard on Models 300 & 400; optional on other sizes.

K Contactor location with optional 3 phase motors on Models 50, 75, 100 & 125.

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B MODEL DIMENSIONS continued

±1/16" (2MM)



CLEARANCES FROM COMBUSTIBLES (Required Clearances)

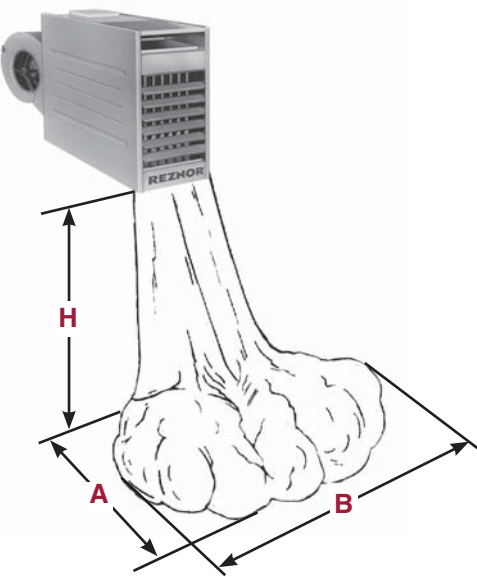
Top & Flue Connector	6"
Sides	18"
Bottom	12"
(when supplied with optional downturn nozzle, bottom clearance is 42"). For service purposes, in standard units, bottom clearance exceeding 12" minimum is not required, but may be desirable.	
Rear	24"
For service purposes the back of the unit must have 24" clearance.	

FILTERS FOR OPTIONAL BLOWER CABINET

Size	Quantity	Filter Size
25-125	1	20 x 20
165-200	1	16 x 25
	1	20 x 25
250-300	2	16 x 20
	2	20 x 20
400	2	16 x 25
	2	20 x 25
1" or 2" permanent filters		

THROW/FLOOR COVERAGE

Applies to Model B Sizes 125-400 Floor Coverage with 50-90 degree Variable Air Deflection Downturn Nozzle



Blower Model	CFM	Mounting Height - H															
		12 ft		16 ft		20 ft		24 ft		28 ft		32 ft		36 ft		40 ft	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
125	1545	20	22	18	20	16	18	--	--	--	--	--	--	--	--	--	--
165	2090	24	26	22	24	20	22	--	--	--	--	--	--	--	--	--	--
200	2470	--	--	26	28	24	26	20	22	--	--	--	--	--	--	--	--
250	3090	--	--	30	32	28	30	24	26	--	--	--	--	--	--	--	--
300	3710	--	--	--	--	32	34	30	32	28	30	26	28	24	26	--	--
400	4950	--	--	--	--	36	38	34	36	32	34	30	32	28	30	24	26

Blower Model	M ³ /hr	Mounting Height - H															
		3.7M		4.9M		6.1M		7.3M		8.5M		9.8M		11.0M		12.2M	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
125	2625	6.1	6.7	5.5	6.1	4.9	5.5	--	--	--	--	--	--	--	--	--	--
165	3551	7.3	7.9	6.7	7.3	6.1	6.7	--	--	--	--	--	--	--	--	--	--
200	4196	--	--	7.9	8.5	7.3	7.9	6.1	6.7	--	--	--	--	--	--	--	--
250	5250	--	--	9.1	9.8	8.5	9.1	7.3	7.9	--	--	--	--	--	--	--	--
300	6303	--	--	--	--	9.8	10.4	9.1	9.8	8.5	9.1	7.9	8.5	7.3	7.9	--	--
400	8410	--	--	--	--	11.0	11.6	10.4	11.0	9.8	10.4	9.1	9.8	8.5	9.1	7.3	7.9

KEY:

- A = Throw
- B = Spread (Side to side coverage with standard louvers)
- H = Mounting Height

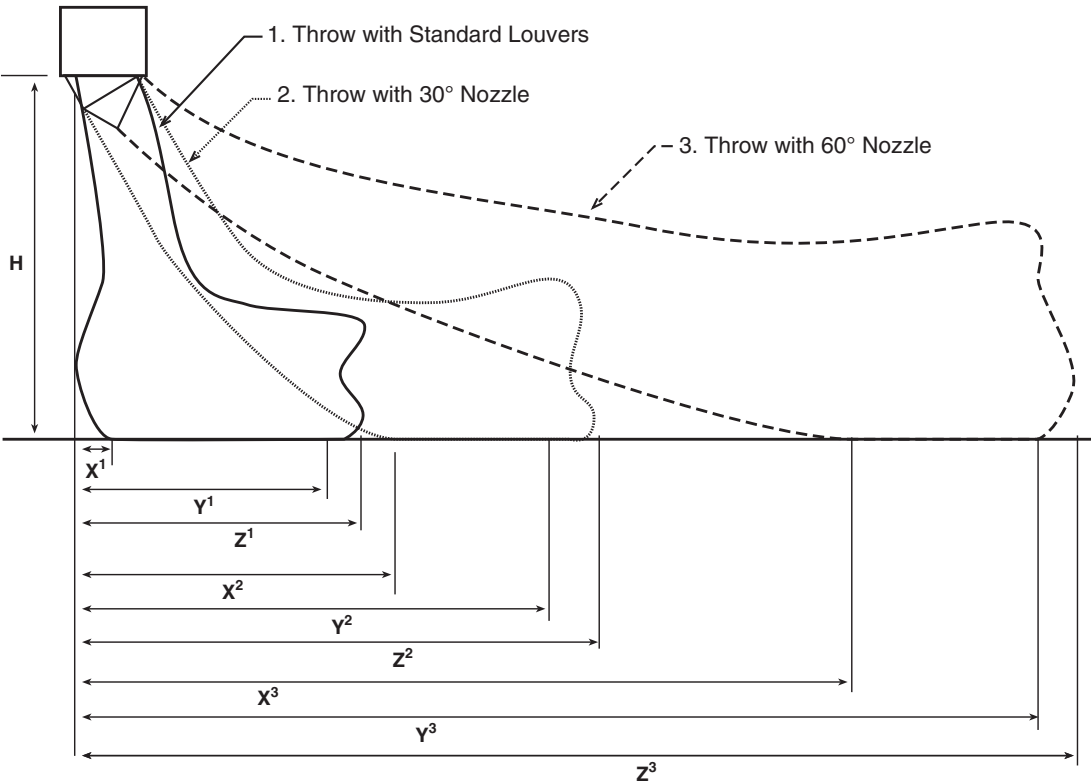
NOTES: Data based on 80°F entering air temperature and 60°F rise through the unit. Standard horizontal louver set for maximum down deflection. Table and drawing show approximate floor coverage at various mounting heights. **NOTE** that throw "A" and sideward spread "B" are increased as mounting height is reduced, due to floor bounce effect. Conversely the floor coverage reduces as mounting height increases. Horizontal louvers can be used to spread throw area "A" forward from the heater, and vertical louvers can be used to increase sideward spread "B". Vertical louvers set at maximum deflection will increase spread "B" approximately 10 feet, but will reduce maximum mounting height 4 feet.

EXAMPLE: B200 at 20 ft. mounting height with standard louver setting gives a floor coverage of "A" = 24' x "B" = 26'. Using vertical louvers set at maximum sideward spread, the maximum mounting height would be 16 feet, and the floor coverage would be "A" = 26' and "B" = 28' plus 10' or 38'.

Applies to Model LDAP (in heat mode)

NOTES:

"Z" is the point where the air velocity drops below 50 feet (15.2M) per minute. Throws listed are with standard louvers facing one direction and fully open. Throw pattern changes with louver angle, 2-way louver direction, and or optional 4-way louvers.



MODEL B WITH BELT DRIVE MOTOR

Model B unit heaters are designed to handle up to .5" w.c. of static pressure with temperature rises as shown from 45°F to 75°F. The following chart indicates the CFM, the motor HP, and the optional drive required to achieve the desired temperature rise with external pressures from 0 to .5" w.c.

Drive Option Key (see chart on next page):

AM —	The "AM" drive will provide the selected CFM and temperature rise when installed with the total external static pressure listed but MAY require field-adjustment of the blower speed (CFM). Check the temperature rise and the motor amps. If adjustment is needed, follow "Blower Speed Adjustment" instructions in the heater installation manual.	STD	The standard drive as set at the factory provides the selected CFM and temperature rise when installed with the external static pressure listed.
		STD	The standard drive will provide the selected CFM and temperature rise when installed with the total external static pressure listed but REQUIRES field-adjustment of the blower speed (CFM). Follow the "Blower Speed Adjustment" instructions in the heater installation manual.
N.R.	The temperature rise and static pressure combination is not recommended for the heater size.		

NOTES: (1) Sizes 50-100 do not show a standard drive because they have a standard direct drive blower motor.

(2) If the unit includes an optional blower cabinet, see the chart below for pressure drop information.

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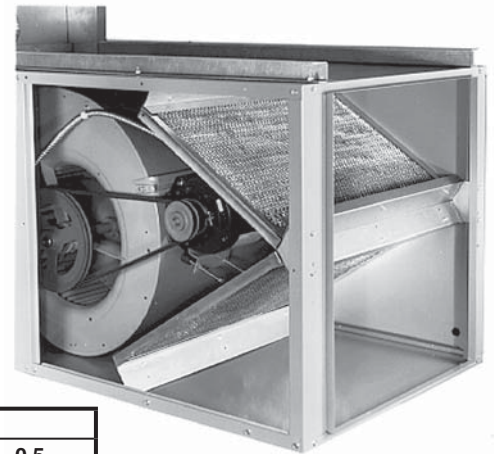
BLOWER CHARTS

MODEL B WITH BELT DRIVE MOTOR continued

Temp. Rise	Heater Size																			
	25		50		75		100		125		165		200		250		300		400	
	Filter Thickness																			
	1"	2"	1"	2"	1"	2"	1"	2"	1"	2"	1"	2"	1"	2"	1"	2"	1"	2"	1"	2"
75°F	0.004	0.007	0.01	0.015	0.018	0.032	0.032	0.055	0.05	0.075	0.018	0.03	0.026	0.045	0.017	0.028	0.024	0.038	0.026	0.045
70°F	0.004	0.008	0.01	0.018	0.023	0.034	0.036	0.058	0.055	0.1	0.021	0.035	0.03	0.052	0.019	0.031	0.027	0.045	0.03	0.052
65°F	0.005	0.009	0.011	0.019	0.024	0.04	0.041	0.069	0.065	0.12	0.024	0.04	0.035	0.06	0.023	0.036	0.03	0.053	0.035	0.06
60°F	0.005	0.009	0.014	0.023	0.028	0.047	0.052	0.087	0.085	0.14	0.028	0.047	0.041	0.07	0.025	0.042	0.035	0.061	0.041	0.07
55°F	0.006	0.01	0.016	0.027	0.034	0.057	0.065	0.105	0.1	0.16	0.033	0.057	0.047	0.08	0.03	0.051	0.041	0.072	0.047	0.08
50°F	0.006	0.01	0.018	0.029	0.041	0.069	0.07	0.12	0.13	N.R.	0.04	0.068	0.057	0.095	0.035	0.062	0.04	0.085	0.057	0.095
45°F	0.007	0.011	0.024	0.04	0.05	0.086	0.092	0.16	0.18	N.R.	0.049	0.082	0.07	0.14	0.043	0.074	0.065	0.12	0.07	0.14

OPTIONAL BLOWER/FILTER CABINET FOR MODELS B

- Shipped separately for field assembly and installation
- Filter Rack (less filters)
- Filter Rack with 1" or 2" Permanent Filters



Model B	Temp Rise °F	CFM	Total External Static Pressure ("w.c.)											
			0		0.1		0.2		0.3		0.4		0.5	
			Drive	HP	Drive	HP	Drive	HP	Drive	HP	Drive	HP	Drive	HP
Size 125	75	1235	AM4	1/3	AM4	1/3	STD	1/3	STD	1/3	AM7	1/3	AM8	1/3
	70	1320	STD	1/3	STD	1/3	STD	1/3	AM7	1/3	AM8	1/3	AM9	1/2
	60	1540	STD	1/3	STD	1/3	AM7	1/3	AM8	1/2	AM9	1/2	AM10	1/2
	50	1850	AM7	1/2	AM8	1/2	AM9	1/2	AM9	1/2	AM10	1/2	AM11	3/4
	45	2055	AM8	1/2	AM9	3/4	AM10	3/4	AM11	3/4	AM11	3/4	AM13	3/4
Size 165	75	1630	AM3	1/2	STD	1/2	STD	1/2	STD	1/2	AM7	1/2	AM8	1/2
	70	1750	AM3	1/2	STD	1/2	STD	1/2	AM6	1/2	AM7	1/2	AM8	1/2
	60	2040	STD	1/2	STD	1/2	AM7	1/2	AM7	3/4	AM8	3/4	AM8	3/4
	50	2440	AM7	3/4	AM7	3/4	AM8	3/4	AM9	3/4	AM10	1	AM11	1
	45	2715	AM9	1	AM9	1	AM10	1	AM11	1	AM11	1	AM12	1
Size 200	75	1975	STD	1/2	STD	1/2	STD	1/2	STD	1/2	AM4	1/2	AM5	3/4
	70	2115	STD	1/2	STD	1/2	STD	1/2	STD	1/2	AM4	1/2	AM5	3/4
	60	2470	STD	1/2	STD	1/2	AM3	1/2	AM4	3/4	AM5	3/4	AM6	3/4
	50	2960	AM3	3/4	AM4	3/4	AM4	3/4	AM5	1	AM6	1	AM6	1
	45	3290	AM4	1	AM4	1	AM5	1	AM6	1	AM6	1	AM7	1 1/2
Size 250	75	2470	AM2	1/2	AM2	1/2	STD	3/4	STD	3/4	AM5	3/4	AM5	3/4
	70	2645	AM2	1/2	STD	3/4	STD	3/4	STD	3/4	AM5	3/4	AM6	3/4
	60	3085	STD	3/4	STD	3/4	AM5	3/4	AM5	1	AM6	1	AM7	1
	50	3700	AM5	1	AM5	1 1/2	AM6	1 1/2	AM7	1 1/2	AM7	1 1/2	AM8	1 1/2
	45	4115	AM6	1 1/2	AM7	1 1/2	AM7	2	AM8	2	AM8	2	AM8	2
Size 300	75	2960	STD	1	STD	1	STD	1	STD	1	AM6	1	AM6	1
	70	3170	STD	1	STD	1	STD	1	STD	1	AM6	1	AM7	1 1/2
	60	3700	STD	1	STD	1	AM6	1 1/2	AM7	1 1/2	AM7	1 1/2	AM8	1 1/2
	50	4440	AM7	2	AM8	2	AM8	2	AM9	2	AM9	3	AM10	3
	45	4935	AM9	3	AM9	3	AM9	3	AM10	3	AM11	3	AM11	3
Size 400	75	3950	AM2	1 1/2	STD	1 1/2	STD	1 1/2	STD	1 1/2	STD	1 1/2	AM6	1 1/2
	70	4230	STD	1 1/2	STD	1 1/2	STD	1 1/2	STD	1 1/2	AM6	1 1/2	AM6	1 1/2
	60	4935	STD	1 1/2	STD	1 1/2	STD	1 1/2	AM6	2	AM7	2	AM7	2
	50	5925	AM7	3	AM8	3	AM8	3	AM9	3	AM9	3	AM9	3
	45	6580	AM9	5	AM9	5	AM10	5	AM11	5	AM11	5	AM12	5

(3) KEY TO DRIVE OPTIONS

AM1	401-450 RPM
AM2	451-500 RPM
AM3	501-550 RPM
AM4	551-600 RPM
AM5	601-650 RPM
AM6	651-700 RPM
AM7	701-750 RPM
AM8	751-800 RPM
AM9	801-850 RPM
AM10	851-900 RPM
AM11	901-950 RPM
AM12	951-1000 RPM
AM13	1001-1050 RPM
AM14	1051-1100 RPM
AM15	1101-1150 RPM
AM16	1151-1200 RPM
AM17	1201-1250 RPM

MOTOR FULL LOAD AMP TABLE

HP	Type	FLA	RPM	V	PH	HP	Type	FLA	RPM	V	PH	HP	Type	FLA	RPM	V	PH
0.25	Open	5.1	1750	120	1	0.75	Open	11	1750	120	1	1.5	TEFC	16.4	1750	120	1
		2.1	1750	208	1			6.3	1750	208	1			9.5	1750	208	1
		2.3	1750	230	1			5.5	1750	240	1			8.2	1750	230	1
		1.1	1750	208	3			2.9	1750	208	3			4.3	1750	208	3
		1.4	1750	230	3			2.6	1750	240	3			4.4	1750	230	3
		0.75	1750	460	3			1.3	1750	460	3			2.2	1750	460	3
0.25	TEFC	3.6	1750	120	1	0.75	TEFC	11	1750	120	1	2	Open	1.6	1750	575	3
		2.2	1750	208	1			5.4	1750	208	1			20.4	1750	120	1
		1.9	1750	230	1			5.5	1750	230	1			10	1750	208	1
		1.6	1750	208	3			2	1750	208	3			10.2	1750	230	1
		1.4	1750	230	3			2.2	1750	230	3			7	1750	208	3
		0.7	1750	460	3			1.1	1750	460	3			6.6	1750	230	3
0.33	Open	5.5	1750	120	1	1	Open	0.8	1750	575	3	2	TEFC	3.5	1750	460	3
		3.2	1750	208	1			13	1750	120	1			2.1	1750	575	3
		2.8	1750	230	1			7.5	1750	208	1			24	1750	120	1
		1.4	1750	208	3			6.5	1750	240	1			12	1750	230	1
		1.6	1750	230	3			3.7	1750	208	3			6.5	1750	208	3
		0.8	1750	460	3			3.2	1750	240	3			5.8	1750	230	3
0.33	TEFC	4.6	1750	120	1	1	TEFC	1.6	1750	460	3	3	Open	2.9	1750	460	3
		2.3	1750	208	1			1.1	1750	575	3			2.3	1750	575	3
		2.4	1750	230	1			13	1750	120	1			14	3600	208	1
		1.2	1750	208	3			6.5	1750	230	1			12.4	3600	230	1
		1.2	1750	230	3			3.3	1750	208	3			9	3600	208	3
		0.6	1750	460	3			3.4	1750	230	3			8.6	3600	230	3
0.5	Open	8.8	1750	120	1	1.5	Open	1.7	1750	460	3	3	TEFC	4.3	3600	460	3
		5.1	1750	208	1			1.4	1750	575	3			3.6	3600	575	3
		4.4	1750	230	1			15	1750	120	1			30	3600	120	1
		3	1750	208	3			8.3	1750	208	1			15	3600	230	1
		2.5	1750	230	3			7.5	1750	230	1			8.5	3600	208	3
		1	1750	460	3			5.6	1750	208	3			8.2	3600	230	3
0.5	TEFC	7	1750	120	1	1.5	Open	5	1750	230	3	3	TEFC	4.1	3600	460	3
		3.4	1750	208	1			2.7	1750	460	3			3	3600	575	3
		3.5	1750	230	1			1.6	1750	575	3						
		2.3	1750	208	3												
		2	1750	230	3												
		1	1750	460	3												
		0.7	1750	575	3												

OPTIONS AND ACCESSORIES

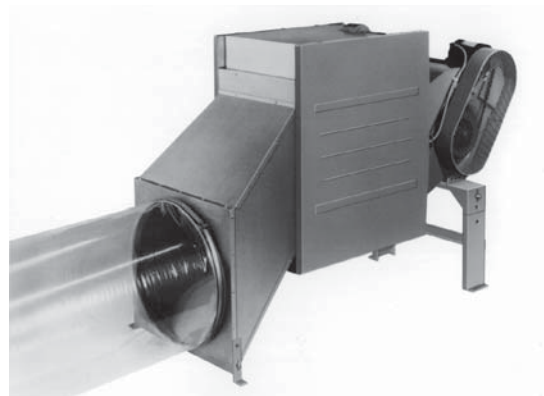
APPLY TO UNIT HEATER MODELS AS LISTED

OPTIONAL POLYTUBE OUTLET ADAPTER - APPLY TO MODEL B

The optional outlet nozzle is designed to allow the attachment of polytube-type air distribution for use in greenhouse and industrial buildings. Outlet on suspended heater may be either above, below, or directly in line with the heater discharge. A kit is available to floor mount the heater with outlet below the heater discharge (see illustration). Model B standard blower and drive are designed to handle rated CFM at .25 w.c. ESP, and will inflate a 24" tube up to 150 ft. long. See table for proper free area, minimum number of holes and sizes. Units may be used for greenhouse heating and ventilating or in industrial applications requiring high mounting heights or spot heating by means of polytube distribution.

The total open or free area of the polytube is important. Polytube suppliers have a great deal of flexibility in placement and sizing of holes. Too small of a free area will cause overheating. Excessive open area may not permit the tube to inflate. See the table below for a guide in hole size and location. Spacing and hole size may be varied, but free area must not be less than shown for the heater being installed.

Greenhouse Application - For greenhouse use, the number of units required is generally based on an airflow volume of 1-1/2 to 2 CFM per square foot of house floor area. Depending on the heat loss requirements of the house type, location, and desired temperature above ambient, the ventilation requirements determine the number of distribution systems required and the heat loss determines the BTUH heater size required. As a general rule, a single system will serve a maximum house width of 30 ft. and a length of 150 ft.



Photograph shows polytube outlet. The outlet nozzle requires field assembly and installation on the standard unit in place of the top front panel and louvers. The heater manufacturer does not supply tubing. Tubing can be ordered from a local greenhouse supply distributor. Two such suppliers are FOF Products, Inc. P. O. Box E, 1505 Racine Street, Delevan, WI 53115 and ACME Engineering Co., P.O. Box 978, Muskogee, OK 74402.

Size	CFM at .25” ESP	Polytube Diameter (inches)	Minimum Free Area (sq. in.)	Suggested Hole Sizes and Locations					
				Holes	Length of Polytube				
					50 Ft	75 Ft	100 Ft	125 Ft	150 Ft
75	925	18	110	Number	37 pairs	75 pairs	75 pairs	--	--
				Diameter	1-1/2”	1”	1”	--	--
				Spacing	16”	12”	16”	--	--
100	1235	18	145	Number	50 pairs	50 pairs	100 pairs	94 pairs	--
				Diameter	1-1/2”	1-1/2”	1”	1”	--
				Spacing	12”	18”	12”	16”	--
125	1540	18	185	Number	40 pairs	60 pairs	60 pairs	125 pairs	--
				Diameter	1-7/8”	1-1/2”	1-1/2”	1”	--
				Spacing	15”	15”	20”	12”	--
130	1600	24	190	Number	40 pairs	60 pairs	60 pairs	125 pairs	--
				Diameter	1-7/8”	1-1/2”	1-1/2”	1”	--
				Spacing	15”	15”	20”	12”	--
165	2035	24	240	Number	50 pairs	50 pairs	75 pairs	75 pairs	75 pairs
				Diameter	1-7/8”	1-7/8”	1-1/2”	1-1/2”	1-1/2”
				Spacing	12”	18”	16”	20”	24”
200	2465	24	300	Number	42 pairs	42 pairs	60 pairs	60 pairs	100 pairs
				Diameter	2-1/4”	2-1/4”	1-7/8”	1-7/8”	1-1/2”
				Spacing	14”	21”	20”	25”	18”
250	3085	24	360	Number	40 pairs	60 pairs	60 pairs	60 pairs	60 pairs
				Diameter	2-1/2”	2”	2”	2”	2”
				Spacing	15”	15”	20”	25”	30”
300	3700	24	425	Number	75 pairs	75 pairs	75 pairs	75 pairs	75 pairs
				Diameter	2”	2”	2”	2”	2”
				Spacing	9”	12”	16”	20”	24”
400	4935	24	550	Number	60 pairs	60 pairs	60 pairs	100 pairs	100 pairs
				Diameter	2-1/2”	2-1/2”	2-1/2”	1-7/8”	1-7/8”
				Spacing	10”	15”	20”	15”	18”

CAUTION: To prevent overheating of the blower unit heater and to ensure correct air distribution, the minimum hole area must be provided as shown in the table for each size. If more holes are used, do not exceed 1.25 times the minimum area shown to ensure proper tube inflation.

Conversion Table (Diameter to Area)	
Diameter of the Hole (inches)	Area of the Hole (square inches)
2-1/2	4.91
2-1/4	3.98
2	3.14
1-7/8	2.76
1-1/2	1.76
1	0.785

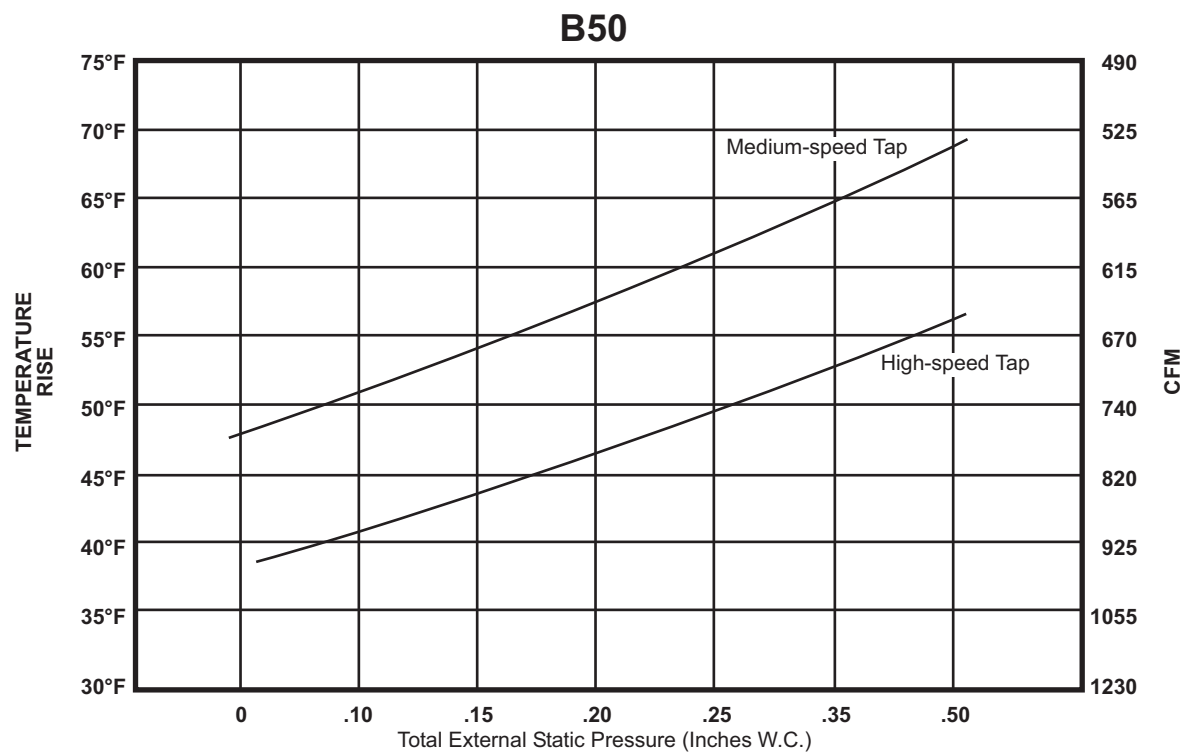
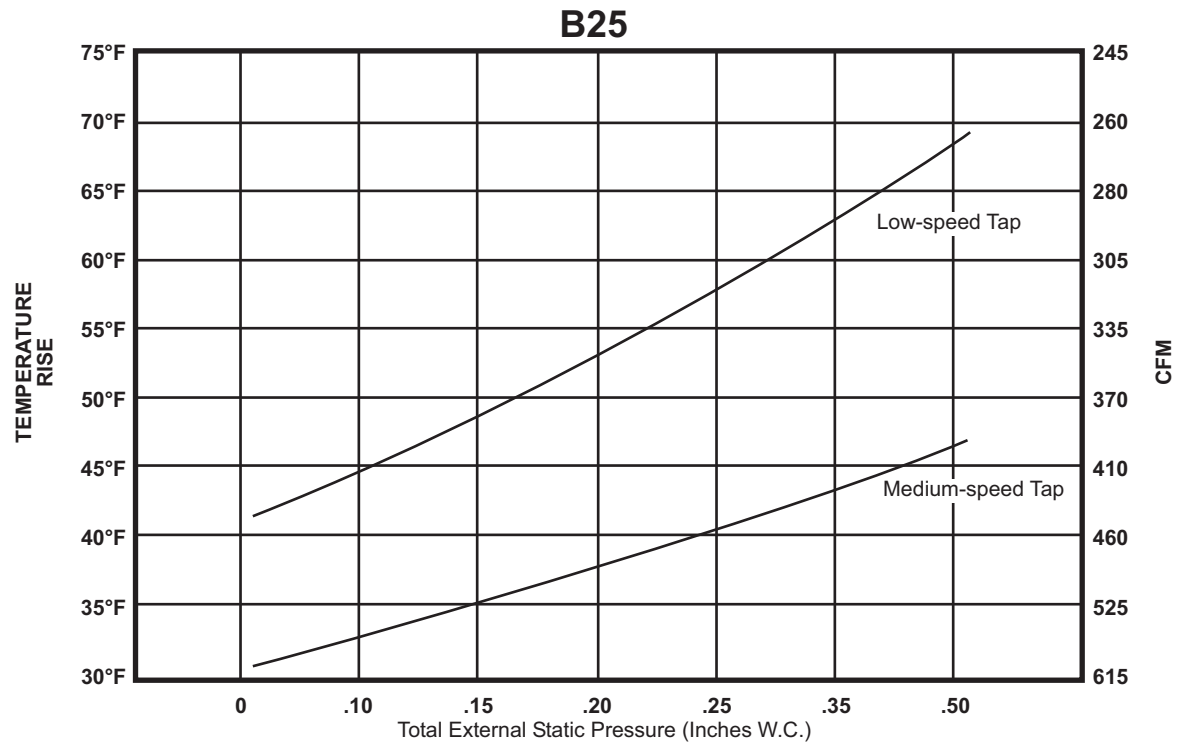
BLOWER CURVES

MODEL B WITH DIRECT DRIVE MOTOR

The blower curves for Models B (Sizes 25, 50, 75 and 100) with direct drive motors indicate the temperature rise available for each size of heater at a given total external static pressure. These units are designed and certified for total external static pressures up to .5" w.c. and temperature rises from 45°-75°F.

The direct drive motors are equipped with multispeed taps for speed adjustment as indicated on the curve charts. Models 25 and 75 are factory-wired to the medium speed tap; Models 50 and 100 are factory-wired to the high-speed tap.

NOTE: If the heater includes a blower cabinet, refer to appropriate pressure drop chart.



BLOWER CURVES

APPLY TO MODELS B WITH DIRECT-DRIVE MOTOR

