

# DIMENSIONAL DATA

## Propeller Units - Model PD

Figure 14.1

### Dimensional Drawings

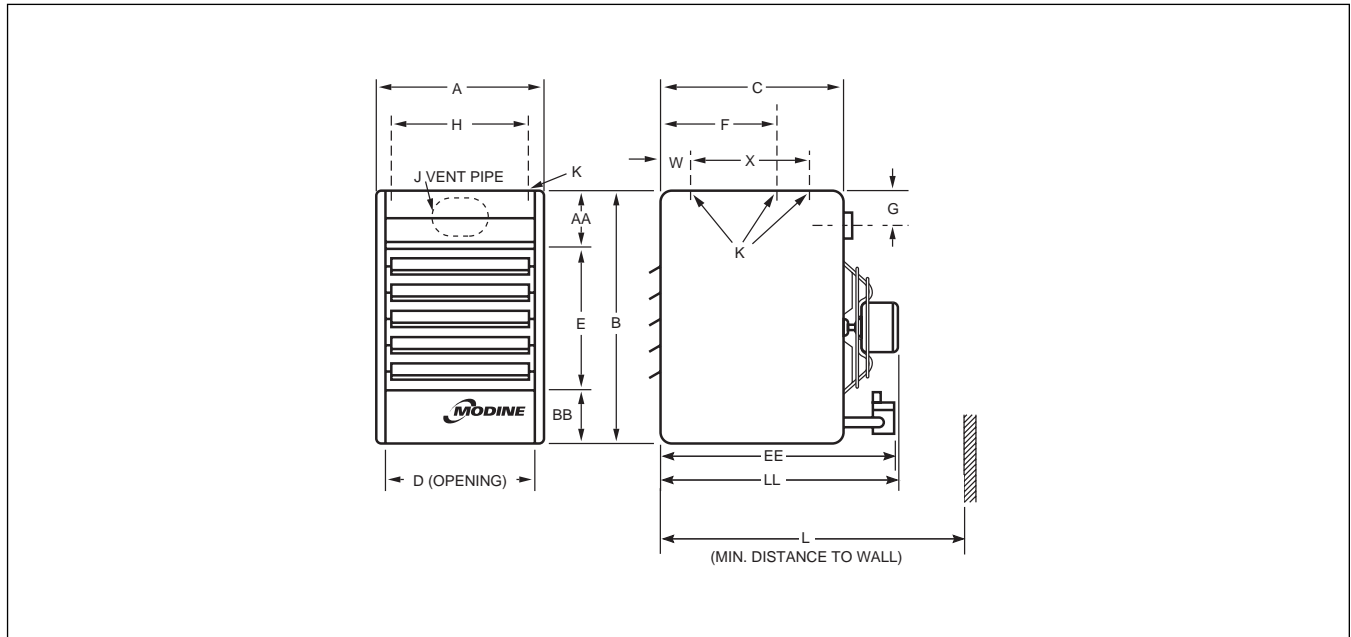


Table 14.1  
Dimensions (inches) — PD ①

Dimension Symbol	Model Number											
	PD 30	PD 50	PD 75	PD 100	PD 125	PD 150	PD 175	PD 200	PD 250	PD 300	PD 350	PD 400
A	12-7/8	17-1/4	17-1/4	19-1/4	19-1/4	21	23-1/2	25-5/8	25-5/8	28-5/8	33-5/8	40
B	24-1/4	24-1/4	28-3/4	28-3/4	35-1/4	35-1/4	35-1/4	40-1/4	40-1/4	40-1/4	40-1/4	40-1/4
C	14-3/4	14-3/4	20	20	22	22	22	25	25	25	25	25
D	10-7/16	14-13/16	14-13/16	16-13/16	16-13/16	18-9/16	21-1/16	23-3/16	23-3/16	26-3/16	31-3/16	37-1/2
E	13	13	16	16	20	20	20	24	24	24	24	24
F	9-1/4	9-1/4	11	11	12	12	12	13-1/2	13-1/2	14	—	—
G	2	2	2-3/4	2-3/4	3-5/8	3-5/8	3-5/8	4-3/8	4-3/8	4-3/8	4-1/4	4-1/4
H	9-1/4	13-5/8	13-5/8	15-5/8	15-5/8	17-3/8	19-7/8	22	22	25	30	36-3/8
J ②	3	4	5	6	6	7	7	7	8	9	10	10
K (Mounting Holes) ③	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16	3/8-16
L ④	28-1/4	28-1/4	36	36	36-1/2	37-1/8	37-1/8	40-7/8	41	42-1/4	42-1/4	47-1/4
W	—	—	—	—	—	—	—	—	—	—	5	5
X	—	—	—	—	—	—	—	—	—	—	16	16
AA	5	5	6-1/4	6-1/4	8	8	8	9	9	9	9	9
BB	6-1/4	6-1/4	6-1/2	6-1/2	7-1/4	7-1/4	7-1/4	7-1/4	7-1/4	7-1/4	7-1/4	7-1/4
EE	22-1/4	22-1/4	29	29	30-1/2	30-1/2	30-1/2	32-7/8	32-7/8	32-7/8	32-7/8	32-7/8
LL	19-1/2	20-1/8	30	30	30	31-1/8	31-1/8	34-7/8	34-7/8	36-1/4	35-1/2	40-1/2
Gas Connections ⑤	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
Fan Diameter	9	12	12	14	14	16	18	20	20	22	22	24
Approx. Weight	58#	72#	102#	116#	152#	162#	169#	231#	231#	261#	330#	410#

- ① Do not use propeller units with duct work.
- ② Diameter of round vent pipe to fit oval opening.
- ③ PD 30 through PD 300 — 2 holes (and the level hanging adjustment feature). PD 350 through PD 400 — 4 holes. (Listed is the hole diameter and threads per inch to accept threaded rod).
- ④ Dimension equals overall plus 6".
- ⑤ For natural gas; may vary depending on control availability.

## GAS-FIRED, GRAVITY-VENTED UNIT HEATERS

- Low Initial Cost, 80% Thermal Efficiency • Gravity-Vented • 12 Propeller Models and 11 Blower Models
- Small Vent-Sizes Provide Lower Cost • Available with Intermittent Pilot Ignition • Power Exhaust Optional



**MODEL PD**

Due to its low cost and compact design, Modine's PD propeller unit heater is the logical choice for many unit heater applications. The model PD is a gas-fired, gravity-vented propeller unit heater that provides application versatility, ease of installation, low installed cost, long life and excellent heat-throw. Designed for overhead suspended mounting, this heater only requires venting, gas, and electric service connections prior to operation.

Propeller fan units are classified as zero-static-pressure type, and should not be used with velocity-generating discharge nozzles or ductwork connections.

**The model BD blower is a gas-fired, gravity-vented blower unit heater, and is usually selected in place of the model PD for one or more of the following reasons:**

- To overcome static pressures.
- Where several rooms or areas are to be served by a remote heat source.
- To provide heat, filtered air and ventilation, all from a single source.
- When quiet operation is important.
- For zone control over heating and ventilation.
- For spot heating or high mounting-heights where special discharge nozzles may be required.

**Equipment options include:**

- Blower and motor enclosures, combination filter-rack and duct connections, velocity-generating nozzles and deflector hoods.
- A wide variety of motor horsepower and control options to meet your performance criteria.

**Performance Data**

	Model Number											
	PD 30	PD 50	PD 75	PD 100	PD 125	PD 150	PD 175	PD 200	PD 250	PD 300	PD 350	PD 400
<b>Btu/Hr Input</b>	30,000	50,000	75,000	100,000	125,000	150,000	175,000	200,000	250,000	300,000	350,000	400,000
<b>Btu/Hr Output</b>	24,000	40,000	60,000	80,000	100,000	120,000	140,000	160,000	200,000	240,000	280,000	320,000
<b>Vent Dia. (In.)</b>	3	4	5	6	6	7	7	7	8	9	10	10
<b>CFM @ 70°F</b>	440	740	1100	1460	1850	2180	2550	2870	3700	4460	4870	5440
<b>Air Temp. Rise (°F)</b>	51	50	51	51	50	51	51	52	50	50	53	54
<b>Maximum Mounting Height (Ft)</b>	7	9	12	14	14	16	17	15	19	21	20	19
<b>Heat Throw (Ft) ①</b>	25	33	41	49	51	55	59	51	67	74	70	69
<b>Motor HP</b>	1/40	1/40	1/12	1/12	1/8	1/8	1/6	1/6	1/3	1/2	3/4	3/4

① At 65° ambient temperature and unit fired at full-rated input. Mounting height is measured from floor to bottom of unit.



**MODEL BD**

	Model Number										
	BD 50	BD 75	BD 100	BD 125	BD 150	BD 175	BD 200	BD 250	BD 300	BD 350	BD 400
<b>Btu/Hr Input</b>	50,000	75,000	100,000	125,000	150,000	175,000	200,000	250,000	300,000	350,000	400,000
<b>Btu/Hr Output</b>	40,000	60,000	80,000	100,000	120,000	140,000	160,000	200,000	240,000	280,000	320,000
<b>Vent Dia. (In.)</b>	4	5	6	6	7	7	7	8	9	10	10
<b>Motor HP (Std 115V/60Hz/1Ph)</b>	1/4	1/4	1/4	1/4	1/4	1/3	1/4	1/3	3/4	1	1-1/2
<b>Air Flow CFM Range</b>	529-926	794-1389	1058-1852	1323-2315	1587-2778	1852-3241	2116-3704	2646-4630	3175-5556	3704-6481	4233-7407
<b>Air Temp. Rise Range (°F)</b>	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70

Note: Maximum mounting heights and heat throws for BD models, without ductwork or nozzles, and at a CFM yielding a 55° temperature rise, are the same as those listed for equivalent size PD units.

**DO NOT LOCATE ANY GAS-FIRED UNIT IN AREAS WITH CHLORINATED, HALOGENATED OR ACIDIC VAPORS IN ATMOSPHERE.**



Request Catalog 6-189 For Complete Technical Information and Specifications.

# MODINE GAS-FIRED UNIT HEATERS Models PD/BD, PDP/BDP, PSH/BSH

## PRODUCT FEATURES AND CUSTOMER BENEFITS

<b>Heat Exchanger</b>	20-gauge aluminized or stainless steel for additional strength and corrosion resistance.
<b>Casing</b>	22-gauge cold-rolled steel, with completely-painted outer panels, rounded corners and hidden fasteners for more-attractive appearance.
<b>Paint</b>	Electrostatically-applied, baked-on polyester powder paint for corrosion resistance and durability.
<b>Burner</b>	Burner can be easily removed for fast, efficient service. Available in aluminized or stainless steel.
<b>Level Hanging Adjustment</b>	Maintains level hanging, even if using a variety of field-installed accessories.
<b>Natural &amp; Propane Gas Fuel</b>	Factory-installed or field-conversion kits available.
<b>Combustion Air Inlet</b>	Meters air to assure proper amount and eliminate flame disturbance.
<b>Intermittent Pilot Ignition</b>	Pilot is lit only when heat is called for. Includes a line voltage/25V control transformer. (Not standard on all models)
<b>Six-Terminal Wiring Board</b>	Easy thermostat and accessory wiring connections.
<b>Totally-Enclosed Motors</b>	Offers maximum atmospheric protection. Built-in thermal-overload protection on single-phase motors.
<b>Wing Screws</b>	For easy access to manifold, burner, and heat exchanger
<b>Die-Formed Venturi and Light-weight Fans</b>	Quiet operation.
<b>Safety Fan Guard</b>	360 degrees, formed from heavy rod-stock. Optional finger-proof guards available.
<b>Limit Control</b>	Safety device shuts off gas supply if unit overheats.
<b>Adjustable Air-Deflector Blades</b>	Horizontal blades standard; vertical blades optional for maximum air-current control.

## OPTIONS AND ACCESSORIES

Deflector Hoods	<b><u>Propeller Models Only</u></b>
Vertical Deflector Blades	Finger-Proof Fan Guards
Summer/Winter Switch	
Energy-Saver Kit	<b><u>Blower Models Only</u></b>
Low-Voltage Thermostats and Subbases	Blower and Motor Enclosures
Thermostat Guards with Locking Covers	Combination Filter Rack and Duct Connector
Power Exhauster	Outlet Duct Connectors
Transformers and Relays	Discharge Nozzles
High-Pressure Regulators	Discharge Polytube Transitions
Propane and Natural-Gas Conversion Kits	Belt Guards
Concentric Venting	