

Product Data



Beacon/Morris
GAS-FIRED UNIT HEATERS



**UPDATED
EFFICIENCIES**



MODEL "BRT"
GAS FIRED UNIT HEATER

**INDUSTRIAL, COMMERCIAL
AND RESIDENTIAL
GARAGE CERTIFIED**

ETL LISTED

**DIRECT
SPARK IGNITION**

RELIABLE BURNER IGNITION

**TWO
STAGE GAS**

AVAILABLE ON SIZES 60-120

**TUBULAR
HEAT EXCHANGER**

ALUMINIZED STEEL

Stainless Steel Option Available

**SINGLE
ORIFICE BURNER**

ONE BURNER TO SERVICE
ONE BURNER TO CONVERT
321 STAINLESS STEEL BURNER BOX

DUAL VENTING

STANDARD UNIT CAN BE FIELD
CONVERTED TO SEPARATED
COMBUSTION WITH OPTIONAL
CONCENTRIC VENT KIT

**GAS CONVERSION
KIT INCLUDED**

STANDARD WITH EVERY UNIT

bm
Beacon/Morris

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PERFORMANCE AND DIMENSIONAL DATA

Unit Size	30	45	60	75	90	105	120
PERFORMANCE DATA†							
Input - BTU/Hr.	30,000	45,000	60,000	75,000	90,000	105,000	120,000
(kW)	(8.8)	(13.2)	(17.6)	(22.0)	(26.4)	(30.8)	(35.2)
Output - BTU/Hr.	24,900	37,350	49,800	61,500	73,800	86,100	98,400
(kW)	(7.2)	(10.9)	(14.5)	(18.0)	(21.6)	(25.2)	(28.8)
Thermal Efficiency (%)	83	83	83	82	82	82	82
Free Air Delivery - CFM	370	550	740	920	1,100	1,300	1,475
(cu. m/s)	(.175)	(.260)	(.349)	(.434)	(.519)	(.614)	(.696)
Air Temperature Rise - Deg. F	60	60	60	60	60	60	60
(Deg. C)	(15)	(15)	(15)	(15)	(15)	(15)	(15)
Full Load Amps at 120V	3.0	3.0	4.1	4.1	6.4	6.4	6.4
Maximum Circuit Ampacity	3.5	3.5	4.8	4.8	7.5	7.5	7.5
MOTOR DATA:							
Motor HP	1/20	1/20	1/12	1/12	1/10	1/10	1/10
Motor (kW)	(0.04)	(0.04)	(0.06)	(0.06)	(0.075)	(0.075)	(0.075)
Motor Type	SP	SP	SP	SP	SP	SP	SP
R.P.M.	1650	1650	1050	1050	1050	1050	1050
Motor Amps @ 115V	1.9	1.9	2.6	2.6	4.2	4.2	4.2
DIMENSIONAL DATA - inches (mm)							
"A" Jacket Height	12-3/8 (314)	12-3/8 (314)	15-7/8 (403)	15-7/8 (403)	22-5/8 (574)	22-5/8 (574)	22-5/8 (574)
"B" Overall Height	13-1/4 (337)	13-1/4 (337)	16-13/16 (427)	16-13/16 (427)	23-9/16 (598)	23-9/16 (598)	23-9/16 (598)
"C" Overall Depth	25-7/8 (632)	25-7/8 (632)	26-3/16 (665)	26-3/16 (665)	26-3/8 (670)	26-3/8 (670)	26-3/8 (670)
"D1" Center Line Height of Flue*	8-1/2 (216)	8-1/2 (216)	10-3/8 (263)	10-3/8 (263)	13-5/8 (346)	13-5/8 (346)	13-5/8 (346)
"D2" Center Line Height of Air Intake	8-1/2 (216)	8-1/2 (216)	8 (203)	8 (203)	8-5/8 (219)	8-5/8 (219)	8-5/8 (219)
"E" Fan Diameter	10 (254)	10 (254)	14 (356)	14 (356)	16 (406)	16 (406)	16 (406)
"F" Discharge Opening Height	10-13/16 (275)	10-13/16 (275)	14-7/16 (367)	14-7/16 (367)	21-3/16 (538)	21-3/16 (538)	21-3/16 (538)
"G" Vent Connection Diameter	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
"H1" Center Line of Flue Connection From Side	7-1/4 (184)	7-1/4 (184)	7-1/4 (184)	7-1/4 (184)	7-3/4 (197)	7-3/4 (197)	7-3/4 (197)
"H2" Center Line of Air Intake From Side	2-3/4 (70)	2-3/4 (70)	2-3/4 (70)	2-3/4 (70)	3-1/2 (89)	3-1/2 (89)	3-1/2 (89)
Vent Size Requirements - Standard Combustion							
Category I Horizontal**	4 (102)	4 (102)	4 (102)	5 (127)	5 (127)	5 (127)	5 (127)
Category III Horizontal	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
Category I & III Vertical	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)	4 (102)
Vent Size Requirements - Separated Combustion							
Exhaust Diameter**	4 (102)	4 (102)	4 (102)	4 (102)	5 (127)	5 (127)	5 (127)
Intake Air Diameter	4 (102)	4 (102)	4 (102)	4 (102)	5 (127)	5 (127)	5 (127)
Unit Weight - lbs.	60	65	80	85	95	105	110
(kgs)	(27)	(29)	(36)	(39)	(43)	(48)	(50)
Shipping Weight - lbs.	70	75	90	95	110	115	120
(kgs)	(32)	(34)	(41)	(43)	(50)	(52)	(54)

*For all installations, the flue collar is included with the unit and should be field installed per the instructions included with the unit.

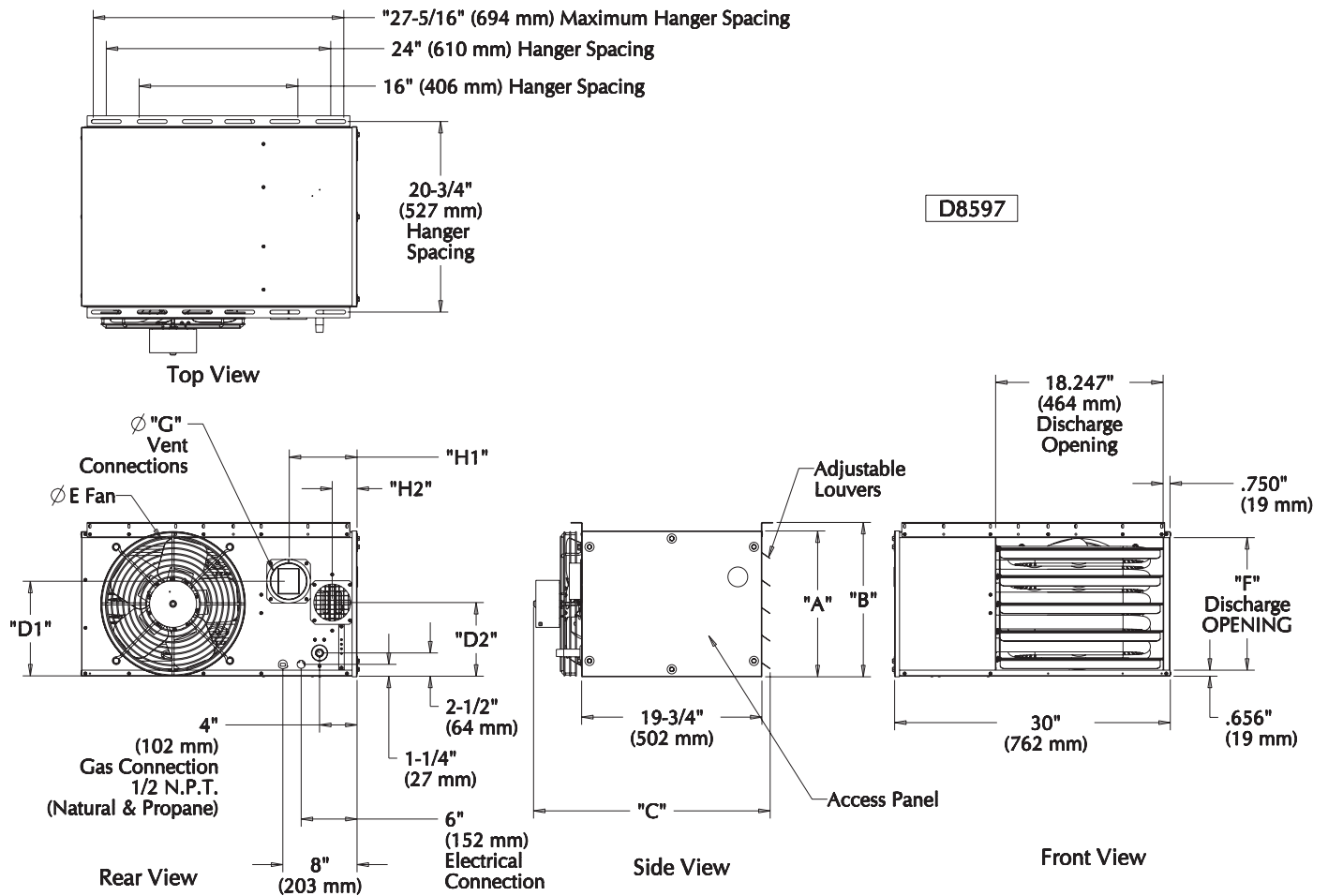
**4-5" reducer supplied where required.

† Ratings shown are for unit installations at elevations between 0 and 2,000 ft (0 to 610m). For unit installations in U.S.A. above 2,000 ft. (610m), the unit input must be derated 4% for each 1,000 ft. (305m) above sea level; refer to local codes, or in absence of local codes, refer to the latest edition of the National Fuel Gas Code, ANSI Standard Z223.1 (N.F.P.A. No. 54),

For installations in Canada, any reference to deration at altitudes in excess of 2,000 ft. (610m) are to be ignored. At altitudes of 2,000 ft. to 4,500 ft. (610 to 1372m), the unit must be derated to 90% of the normal altitude rating, and be so marked in accordance with the ETL certification.



DIMENSIONAL DATA



DIMENSIONS .XXX STANDARD UNITS
 DIMENSIONS IN PARENTHESIS (XXX) MILLIMETERS



PRODUCT FEATURES



ENERGY
PERFORMANCE
VERIFIED
RENDMENT
ENERGETIQUE
VERIFIE

STANDARD FEATURES

- ▶ Up to 83% Thermal Efficiency
- ▶ Redundant Single Stage Gas Valve
- ▶ Residential Certification
- ▶ 20GA Aluminized Heat Exchanger
- ▶ 120/24V Control Transformer
- ▶ 115/1/60 Fan Motor with Internal Overload Protection
- ▶ Power Vented
- ▶ Direct Spark Ignition
- ▶ 20GA Baked Enamel Cabinet
- ▶ 10 Year Heat Exchanger Warranty
- ▶ OSHA Fan Guard
- ▶ Right Hand Control Access
 - Field Convertible to Left Hand
- ▶ High Limit Switch
- ▶ Air Pressure Switch
- ▶ Natural or Propane Gas
- ▶ Gas Conversion Kit Included
- ▶ Field Convertible to Separated Combustion
- ▶ Easy Access Control Panel
- ▶ 321 Stainless Steel Burner Box

OPTIONAL EQUIPMENT

- ▶ 409 Stainless Steel Heat Exchanger
- ▶ Two Stage Gas Control (Sizes 60-120 Only)
- ▶ Supply Voltage (Field Mounted Transformers):
 - 208/1/60
 - 230/1/60
 - 208/3/60
 - 230/3/60
 - 460/3/60
 - 575/3/60
- ▶ Totally Enclosed Motors (Sizes 60-120 Only)
- ▶ 409 Stainless Steel Flue Collector
- ▶ Pressure Regulator (1/2 – 2 psi)
- ▶ Single & Two Stage Mercury Free Thermostats
- ▶ Line Volt Thermostat
- ▶ Locking Thermostat Cover
- ▶ 24V SPST Relay
- ▶ Vent Caps
- ▶ Concentric Vent Kits
(For All Separated Combustion Installations)



Model BRT045



Model BRT045



Model BRT120



Model BRT120