

STERLING MODEL "TF" TUBULAR DESIGN GAS FIRED UNIT HEATER



ENERGY
PERFORMANCE
VERIFIED
RENDEMENT
ENERGETIQUE
VERIFIE

TFS-6

DESCRIPTION

The Sterling Model "TF" gas-fired unit heater offers a highly efficient, extremely durable alternative to the traditional clam shell design. These propeller type units combine the latest tubular heat exchanger and inshot burner technology with the quality and reliability you have come to know from Sterling. Units are available in sizes 150 to 400 MBH.

Standard energy saving features like the direct spark ignition and power venting reduce standby losses and offer improved seasonal efficiencies. The Model "TF" unit is certified by ETL as providing 83% thermal (combustion) efficiency.

TUBULAR HEAT EXCHANGER

The Sterling tubular heat exchanger has been designed to provide maximum and uniform heat transfer. The low pressure drop associated with this design enables heated air to be evenly distributed to the conditioned space. This curved, non-welded serpentine design experiences less thermally induced stress making it highly durable for significantly longer service life. All Sterling tubular heat exchangers are constructed of heavy duty 20-gauge aluminized steel. Optional 409 stainless steel heat exchangers are also available.

DIRECT SPARK IGNITION SYSTEM

Sterling Model "TF" units utilize a direct spark pilotless ignition of the burner, providing fast heat delivery. This highly reliable and efficient ignition system incorporates an integrated electronic control board to regulate the system sequence of operation, including an onboard LED indicator for simple troubleshooting.

VENTING

The Sterling Model "TF" unit heater is ETL certified in accordance with categories I and III venting requirements. This certification allows units to be vented both vertically and horizontally using either single wall or double wall venting materials. This venting flexibility of the Model "TF" unit heater makes installation easier and more cost effective by allowing the installer to utilize existing venting components.

CONTROL ACCESSIBILITY

Designed with the service person in mind, every component of the Sterling Model "TF" is easily accessible. Ignition and fan controls are located in one centrally located control panel. The access door provides control isolation as well as a pleasing exterior appearance.

STANDARD FEATURES

- Inshot burner design
- 20-gauge steel jacket with baked enamel finish.
- Main control panel
- 120/1/60 supply voltage
- Power vented
- 120/24 volt control transformer
- Direct Spark Ignition
- Individually adjustable and removable louvers
- Single stage combination gas valve
- 115/1/60 volt fan motor with internal overload protection
- 10 year heat exchanger, flue collector and burner warranty.



03/09

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PROJECT: _____

UNIT TAG: _____

TFTUBULAR DESIGN PERFORMANCE AND DIMENSIONAL DATA



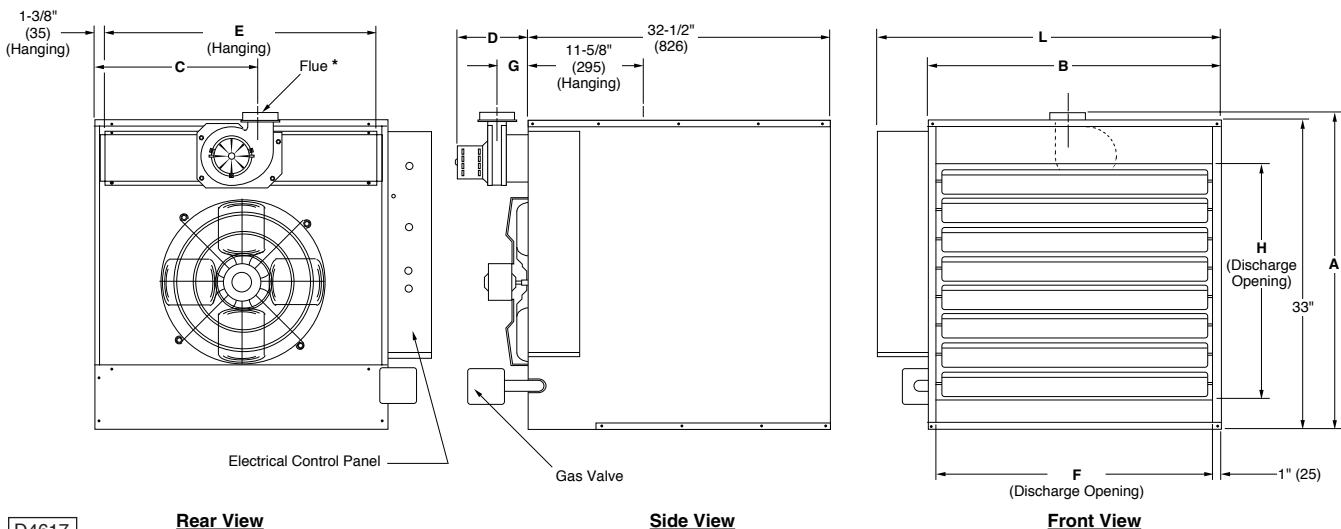
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Model TF Unit Size	150	175	200	250	300	350	400
PERFORMANCE DATA†							
Input - BTU/Hr.	150,000	175,000	200,000	250,000	300,000	350,000	400,000
(kW)	(43.9)	(51.2)	(58.6)	(73.2)	(87.8)	(102.5)	(117.1)
Output - BTU/Hr.	124,500	145,250	166,000	207,500	249,000	290,500	332,000
(kW)	(36.4)	(42.5)	(48.6)	(60.7)	(72.9)	(85.1)	(97.2)
Thermal Efficiency (%)	83	83	83	83	83	83	83
Free Air Delivery - CFM	2,400	2,850	3,200	3,450	5,000	5,600	5,800
(cu. m/s)	(1.133)	(1.346)	(1.511)	(1.629)	(2.361)	(2.644)	(2.738)
Air Temperature Rise - Deg. F	47	46	47	54	45	47	51
(Deg. C)	(26)	(26)	(26)	(30)	(24)	(26)	(28)
Full Load Amps at 120V	5.8	8.0	8.0	8.0	11.3	13.5	13.5
MOTOR DATA:							
Motor HP (Qty.)	1/4	1/3	1/3	1/3	(2) 1/4	(2) 1/3	(2) 1/3
Motor kW	(0.19)	(0.25)	(0.25)	(0.25)	(0.19)	(0.25)	(0.25)
Motor Type	PSC	PSC	PSC	PSC	PSC	PSC	PSC
R.P.M.	1,140	1,140	1,140	1,140	1,140	1,140	1,140
Amps @ 115V	4.7	5.8	5.8	5.8	9.4	11.6	11.6
DIMENSIONAL DATA - inches (mm)							
"A" Overall Height to Top of Flue	33-3/4 (857)	33-3/4 (857)	33-3/4 (857)	33-3/4 (857)	34 (864)	34 (864)	34 (864)
"B" Jacket Width of Unit	20-3/4 (527)	32-3/4 (831)	32-3/4 (831)	32-3/4 (831)	50-3/4 (1289)	50-3/4 (1289)	50-3/4 (1289)
"C" Width to Centerline Flue	13-3/8 (340)	19-3/8 (492)	19-3/8 (492)	19-3/8 (492)	28-3/8 (721)	28-3/8 (721)	28-3/8 (721)
"D" Depth to Rear of Housing	11 (279)	11 (279)	11 (279)	11 (279)	12-1/4 (311)	12-1/4 (311)	12-1/4 (311)
"E" Hanging Distance Width	18-5/8 (473)	30-5/8 (778)	30-5/8 (778)	30-5/8 (778)	48-5/8 (1235)	48-5/8 (1235)	48-5/8 (1235)
"F" Discharge Opening Width	18-3/4 (476)	30-3/4 (781)	30-3/4 (781)	30-3/4 (781)	48-3/4 (1238)	48-3/4 (1238)	48-3/4 (1238)
"G" Depth to Centerline Flue	4-3/4 (121)	4-3/4 (121)	4-3/4 (121)	4-3/4 (121)	5-1/8 (130)	5-1/8 (130)	5-1/8 (130)
"H" Discharge Opening Height	24-1/2 (622)	24-1/2 (622)	24-1/2 (622)	24-1/2 (622)	24-1/2 (622)	24-1/2 (622)	24-1/2 (622)
"L" Overall Unit Width	25-1/4 (641)	37-1/4 (946)	37-1/4 (946)	37-1/4 (946)	55-1/4 (1403)	55-1/4 (1403)	55-1/4 (1403)
*Flue Size Diameter - in.	5	5	5	5	6	6	6
(Dia.-mm)	(127)	(127)	(127)	(127)	(152)	(152)	(152)
Fan Diameter - in. (Qty.)	16	18	18	18	(2) 16	(2) 18	(2) 18
Gas Inlet-Natural Gas (in.)	1/2	1/2	1/2	3/4	3/4	3/4	3/4
Gas Inlet- LP Gas (in.)	1/2	1/2	1/2	1/2 OR 3/4	1/2 OR 3/4	1/2 OR 3/4	1/2 OR 3/4
Approximate Unit Weight - lbs.	155	191	201	211	307	321	335
(kg)	(70)	(87)	(91)	(96)	(139)	(145)	(152)
Approximate Ship Weight - lbs.	195	241	251	261	367	381	395
(kg)	(88)	(109)	(114)	(118)	(166)	(173)	(179)

† 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.

* Flue collar is factory supplied with unit; to be field installed per included instructions.



D4617

Rear View

Side View

Front View

DIMENSIONS XXX STANDARD UNITS
DIMENSIONS IN PARENTHESIS (XXX) MILLIMETERS