

TF/TC Series — Tubular Unit Heater

STANDARD FEATURES

- In-Shot Burner Design
- 20-Gauge Steel Jacket with Baked Enamel Finish
- Main Control Panel
- 115/1/60 Supply Voltage
- Direct Spark Ignition
- Redundant Single-Stage Gas Valve
- 115/24 Volt Control Transformer
- Individually Adjustable and Removable Louvers
- Power Vented
- 115/1/60 Volt Motor with Internal Overload Protection
- 10 Year Heat Exchanger, Flue Collector and Burner Warranty
- 82+% Thermal Efficiency

OPTIONAL FEATURES

- Stainless Steel Heat Exchanger, Burners and/or Flue Collector
- Supply Voltages: 208 & 230/1/60 and 230, 460, 575/3/60
- Premium Efficiency Blower Motors in ODP and TE Types
- Two-Stage and Various Electronic Modulation Gas Controls
- Discharge Nozzles (30°, 60° & 90°) or Duct Flange Assembly

Unit Number Description

TF Series		1	2	3	4	5	6	7	8	9	10	11	12	13	+
Digit	T X X X														
Item	Prefix	UT		CA		FT	FM	GT	AL	GC	SV	MT		AS	
	(Internal use Only)														

TC Series		1	2	3	4	5	6	7	8	9	10	11	12	13	14	+
Digit	T X X X															
Item	Prefix	UT		CA		FT	FM	GT	AL	GC	SV	MT	MS		AS	
	(Internal use Only)															

1, 2 - Unit Type [UT]

TF - Tubular Propeller
TC - Tubular Blower

3, 4, 5 - Capacity [CA]

100 - 100,000 BTU/HR
125 - 125,000 BTU/HR
150 - 150,000 BTU/HR
175 - 175,000 BTU/HR
200 - 200,000 BTU/HR
250 - 250,000 BTU/HR
300 - 300,000 BTU/HR
350 - 350,000 BTU/HR
400 - 400,000 BTU/HR

6 - Furnace Type [FT]

A - Right Side Access

7 - Heat Exchanger Construction Material [FM]

1 - Standard (Aluminized) Steel
2 - 409 Stainless Steel

8 - Gas Type [GT]

N - Natural Gas
P - Propane Gas (LP)

9 - Altitude [AL]

S - 0-4,999 feet
T - 5,000-11,999 feet
Note: Installations over 2,000 feet require gas input deration in the field. Refer to unit installation instructions.

10 - Direct Spark Gas Control [GC]

1 - Single Stage
2 - Two Stage
3 - Electronic Modulation w/Room Sensing
4 - Electronic Modulation w/Duct Sensing (Blower only)
5 - Electronic Modulation w/Duct Sensing & Room Ovrd. Stat (Blower only)
6 - Electronic Modulation w/External 4-20 mA Input
7 - Electronic Modulation w/External 0-10 VDC Input

11 - Supply Voltage [SV]

1 - 115/1/60
2 - 208/1/60
3 - 230/1/60
4 - 208/3/60
5 - 230/3/60
6 - 460/3/60
7 - 575/3/60
Z - Special

Note: Supply Voltages [SV] 2-7 include step down transformer. Field mounted for propeller units, factory mounted for blower units.

12 - Motor Type [MT]

1 - Open Drip Proof (Standard)
2 - Totally Enclosed
3 - Premium Efficiency, Open Drip Proof (Blowers only)
4 - Premium Efficiency, Totally Enclosed (Blowers only)

13 - Blower Motor Sizes [MS]**

A - 1/4 HP w/Contactor
C - 1/2 HP w/Contactor
D - 3/4 HP w/Contactor
F - 1 HP w/Contactor
G - 1-1/2 HP w/Contactor
H - 2 HP w/Contactor
J - 1/4 HP
L - 1/2 HP
P - 1/2 HP w/Magnetic Starter
R - 3/4 HP w/Magnetic Starter
S - 1 HP w/Magnetic Starter
T - 1-1/2 HP w/Magnetic Starter
U - 2 HP w/Magnetic Starter
W - 1/4 HP w/Magnetic Starter

**Notes: 1. All 3-phase units [SV = 4, 5, 6, 7] include a contactor as standard.
2. All single phase units [SV = 1, 2, 3] include a contactor for units equipped with 3/4 HP motor or higher [MS = D, F, G, H]
3. [MS] options J, L only available with [SV] option 1 (115/1/60).

13/14 - Accessories [AS]

FACTORY INSTALLED

M6 - OSHA Type Fan Guard (Propellers only)
M8 - Discharge Duct Flange Assembly (Blowers only)
P4 - Terminal Block Wiring
P6 - Summer/Winter Switch
S3 - 409 Stainless Steel Flue Collector
S5 - 304L Stainless Steel Burners

† FIELD INSTALLED (AS-___)

† All Field Installed Accessories are to be entered as a separate line item using catalog number which utilizes "AS" as a prefix. i.e: G3 becomes AS-G3.

A7 - High Pressure Regulator

A7 - 1/2-1 Regulator for 0.5-10 PSI
A7 - 3/8-1 Regulator for 10-20 PSI
A7 - 5/16-1 Regulator for 20-35 PSI

H5 - Low Ambient Control

M2-2 - Vent Caps (5 inch) (Unit Capacity 100-250)
M2-3 - Vent Caps (6 inch) (Unit Capacity 300-400)
M7 - 2 to 4 Point Suspension Kit (Propeller Only)

F1 - 1-Stage T675A Ductstat (Blower only)
F2 - 2-Stage T678A Ductstat (Blower only)

P5 - 24V SPST Relay-Specify Purpose

G1 - 1-Stage T87K Mercury Free Thermostat w/Subbase Kit

Q1 - Y-Splitter Nozzle

G2 - 1-Stage T87K Mercury Free Thermostat w/TG511A Guard Kit

X2 - 30 Degree Downturn Nozzle
X3 - 60 Degree Downturn Nozzle

G3 - 1-Stage T834N Mercury Free Thermostat/Fan Switch

X4 - 90 Degree Downturn Nozzle
X5 - Vertical Louver Kit

G5 - 2-Stage TH5220D Mercury Free Thermostat w/Subbase

G6 - Locking Thermostat Cover
G9 - 1-Stage T822K Mercury Free Thermostat

GW - WiFi Thermostat TH8321WF1001/U

TF Series — Tubular Propeller Unit Heater

Performance and Dimensional Data

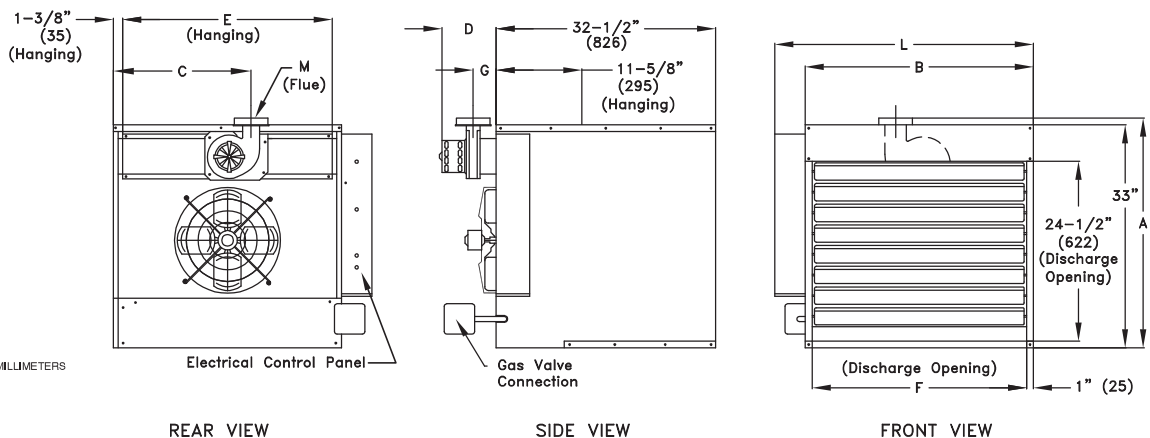


UNIT CAPACITY (MBH)	100	125	150	175	200	250	300	350	400
PERFORMANCE DATA†									
Input - BTU/Hr (kW)	100,000 (29.3)	125,000 (36.6)	150,000 (43.9)	175,000 (51.2)	200,000 (58.6)	250,000 (73.2)	300,000 (87.8)	350,000 (102.5)	400,000 (117.1)
Output - BTU/Hr (kW)	83,000 (24.3)	103,750 (30.4)	124,500 (36.4)	145,250 (42.5)	166,000 (48.6)	207,500 (60.7)	249,000 (72.9)	290,500 (85.1)	332,000 (97.2)
Thermal Efficiency - %	83	83	83	83	83	83	83	83	83
Free Air Delivery - CFM (cu. m/s)	1,600 (0.756)	2,200 (1.039)	2,400 (1.133)	2,850 (1.346)	3,200 (1.511)	3,450 (1.629)	5,000 (2.361)	5,600 (2.644)	5,800 (2.738)
Air Temperature Rise - °F (°C)	47 (26)	42 (23)	47 (26)	46 (26)	47 (26)	54 (30)	45 (24)	47 (26)	51 (28)
Full Load Amps at 120V	6.4	6.9	6.9	8.0	8.0	8.0	11.6	13.8	13.8
Minimum Circuit Amps at 120V	7.5	8.1	8.1	9.5	9.5	9.5	14.0	16.7	16.7
MOTOR DATA:									
Motor HP (Qty)	1/10	1/4	1/4	1/3	1/3	1/3	1/4 (2)	1/3 (2)	1/3 (2)
Motor kW	(0.080)	(0.19)	(0.19)	(0.25)	(0.25)	(0.25)	(0.19)	(0.25)	(0.25)
Motor Type ODP**	SP	PSC	PSC	PSC	PSC	PSC	PSC	PSC	PSC
RPM	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050
Amps @ 115V	4.2	4.7	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)	33-3/4 (857)	33-3/4 (857)	34 (864)	34 (864)	34 (864)
"B" Jacket Width of Unit	20-3/4 (527)	20-3/4 (527)	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 CL Flue	13-3/8 (340)	13-3/8 (340)	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)	11 (279)	11 (279)	12-1/4 (311)	12-1/4 (311)	12-1/4 (311)
"E" Hanging Distance Width	18-5/8 (473)	18-5/8 (473)	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)	18-3/4 (476)	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 CL Flue	4-3/4 (121)	4-3/4 (121)	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)	24-1/2 (622)	24-1/2 (622)
"L" Overall Unit Width	25-1/4 (641)	25-1/4 (641)	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)
"M" Flue Size Diameter* - Inches (mm)	5 (127)	5 (127)	5 (127)	5 (127)	5 (127)	5 (127)	6 (152)	6 (152)	6 (152)
Fan Diameter - Inches (Qty)	16	16	16	18	18	18	16 (2)	18 (2)	18 (2)
Gas Inlet, Natural Gas - Inches	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4
Gas Inlet, LP Gas - Inches	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4
Approximate Unit Weight - Lbs (kg)	133 (60)	145 (66)	155 (70)	191 (87)	201 (91)	211 (96)	307 (139)	321 (145)	335 (152)
Approximate Ship Weight - Lbs (kg)	173 (78)	185 (84)	195 (88)	241 (109)	251 (114)	261 (118)	367 (166)	381 (173)	395 (179)

† Ratings shown are for unit installations at elevations between 0 and 2,000 feet (0 to 610m). For unit installations in USA above 2,000 feet (610m), the unit input must be field derated 4% for each 1,000 feet (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 (NFPA No. 54).

For installations in Canada, any reference to deration at altitudes in excess of 2,000 feet (610m) are to be ignored. At altitudes of 2,000 feet to 4,500 feet (610 to 1372m), the unit must be field derated and be so marked in accordance with the ETL certification. See unit installation, operation and maintenance manual for deration information.

* Flue collar is factory supplied with unit; to be field installed per included instructions. ** LEGEND: SP = SHADED POLE PSC = PERMANENT SPLIT CAPACITOR ODP = OPEN DRIP PROOF



D4617C
DIMENSIONS .XXX STANDARD UNITS
DIMENSIONS IN PARENTHESIS (XXX) MILLIMETERS