

ENGINEERING SUBMITTAL DATA
HIGH INTENSITY GAS FIRED INFRARED
SPACE HEATERS & ACCESSORIES



FS Series - High Intensity Space Heaters

A Division of TPI Corporation

Job Name:			Date:		
Address:					
City:		State:		Zip:	
Engineer:			Architect:		
Local Representative:					
Customer Name:					
Address:					
City:		State:		Zip:	
Phone:			Fax:		

Qty.	Model No.	BTU/H Input	Gas Type	Control Option	Shipping Weight	Typical Mount Ht.
	FS 20 NED	20,000	Natural	Direct	20 #	8' - 12'
	FS 40 NED	40,000	Natural	Spark	28 #	10' - 14'
	FS 60 NED	60,000	Natural	Ignition	36 #	12' - 16'
	FS 80 NED	80,000	Natural	w / 100%	44 #	14' - 18'
	FS 100 NED	100,000	Natural	Safety	52 #	16' - 20'
	FS 120 NED	120,000	Natural	Lockout	60 #	18' - 24'
	FS 20 PED	20,000	Propane	Direct	20 #	8' - 12'
	FS 40 PED	40,000	Propane	Spark	28 #	10' - 14'
	FS 60 PED	60,000	Propane	Ignition	36 #	12' - 16'
	FS 80 PED	80,000	Propane	w / 100%	44 #	14' - 18'
	FS 100 PED	100,000	Propane	Safety	52 #	16' - 20'
	FS 120 PED	120,000	Propane	Lockout	60 #	18' - 24'
	FS 20 NSG	20,000	Natural	Standing	20 #	8' - 12'
	FS 40 NSG	40,000	Natural	Pilot,	28 #	10' - 14'
	FS 60 NSG	60,000	Natural	Millivolt	36 #	12' - 16'
	FS 80 NSG	80,000	Natural	Control,	44 #	14' - 18'
	FS 100 NSG	100,000	Natural	100% Safety	52 #	16' - 20'
	FS 120 NSG	120,000	Natural	Shut Off	60 #	18' - 24'
	FS 20 PSG	20,000	Propane	Standing	20 #	8' - 12'
	FS 40 PSG	40,000	Propane	Pilot,	28 #	10' - 14'
	FS 60 PSG	60,000	Propane	Millivolt	36 #	12' - 16'
	FS 80 PSG	80,000	Propane	Control,	44 #	14' - 18'
	FS 100 PSG	100,000	Propane	100% Safety	52 #	16' - 20'
	FS 120 PSG	120,000	Propane	Shut Off	60 #	18' - 24'



Accessories

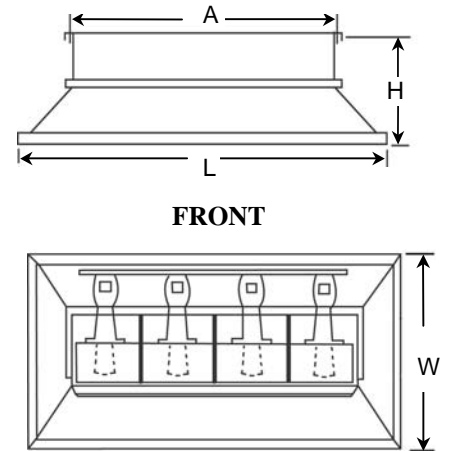
QTY	Model No.	Item No.	Description
	CMK	8886000	Mounting Chain Kit: 16 ft.- chain, 90 lbs.-rated & (4) S-hooks
	D2022H10BC	5026702	Line Voltage Thermostat: 22A, 120 - 277V double pole-positive off, UL / CSA
	RK120EAA	5260102	Low Voltage Thermostat: Millivolt or 24V - heating only, positive off
	FH-1/2	4820802	Flexible Gas Supply Hose: 24" x 1/2"
	GBV-1/2	4817202	Gas Ball Valve: 1/2" NPT w / 1/8" NPT pressure tap. AGA rated at 2 psi
	SCR-20	4830202	Ceramic Tile Screen - FS20 series
	SCR-40 *	4830302	Ceramic Tile Screen - FS40 series
	SCR-60 *	4830402	Ceramic Tile Screen - FS60 series

Note: * Use (2) SCR-40 for the FS80 series.
 * Use (2) SCR-60 for the FS120 series.
 * Use (1) SCR-40 & (1) SCR-60 for the FS100 series.

SPECIFICATIONS FOR FS SERIES HI-INTENSITY HEATERS

Series (prefix)	FS20	FS40	FS60	FS80	FS100	FS120
BTUH Input						
Natural Gas	20,000	40,000	60,000	80,000	100,000	120,000
LP Gas	20,000	40,000	60,000	80,000	100,000	120,000
Mounting Heights						
Horizontal	10'-12'	12'-16'	16'-20'	20'-24'	22'-28'	24'-30'
Angle 0°-20°	8'-10'	10'-14'	12'-16'	14'-20'	16'-22'	18'-24'
Clearance to Combustible:						
Side	36"	36"	36"	36"	36"	36"
Rear	36"	40"	40"	40"	40"	40"
Top	36"	40"	40"	40"	40"	44"
Below	36"	48"	72"	108"	108"	108"
Dimensions						
L – Length	16-1/4"	22-1/2"	28-3/4"	35"	41-1/4"	47-1/2"
W – Width	20-1/2"	20-1/2"	20-1/2"	20-1/2"	20-1/2"	20-1/2"
H – Height	10-1/2"	10-1/2"	10-1/2"	10-1/2"	10-1/2"	10-1/2"
R – Reflector Height	3-7/8"	3-7/8"	3-7/8"	3-7/8"	3-7/8"	3-7/8"
Mounting Holes - 9/32"						
A – Length	8"	14-1/4"	20-1/2"	26-3/4"	33"	39-1/4"
B – Length	10-5/8"	10-5/8"	10-5/8"	10-5/8"	10-5/8"	10-5/8"
Shipping Weight (lbs.)	25#	33#	41#	49#	57#	65#

DIMENSIONS

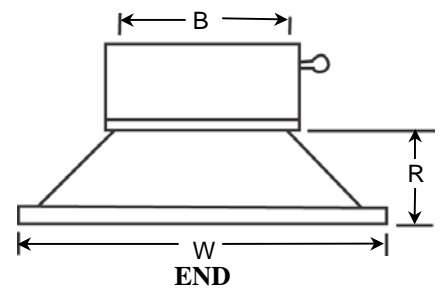


FRONT

TOP

FOSTORIA SUN-MITE® MODEL NUMBERS

Series	BTUH		+ Control Option (see below)
	FS_ _	(see specs)	
	20	(20,000)	NED, PED, NSG, PSG Example: FS60 NED 60,000 BTU Natural Gas with Direct Spark Ignition, 100% Safety Lockout + 24V Operating Voltage
	40	(40,000)	
	60	(60,000)	
	80	(80,000)	
	100	(100,000)	
	120	(120,000)	



END

CONTROL OPTIONS

NED	Natural Gas, Direct Spark Ignition with 100% Safety Lockout, 24V Control - 120/24V Transformer Supplied
PED	LP Gas, Direct Spark Ignition with 100% Safety Lockout, 24V Control - 120/24V Transformer Supplied
NSG	Natural Gas, Standing Pilot Ignition with Self-Generating Millivolt Power Supply, Thermostat Supplied
PSG	LP Gas, Standing Pilot Ignition with Self-Generating Millivolt Power Supply, Thermostat Supplied

Inlet Gas Pressure

Gas Source	Minimum	Maximum
Natural Gas:	6.4 Inches W.C.	14.0 Inches W.C.
Propane:	11.0 Inches W.C.	14.0 Inches W.C.

Gas Supply Inlet Connection

1/2" NPT

Reflector / Plenum

0.050" BOS - Polished Aluminum

Modular Burner Design

Individual -20,000 BTU/H high temperature cast aluminum burner body with ceramic tiles gasket to body with stainless steel frame.

Mounting Angle

Horizontal to 20° Maximum
 8° Angle built into each burner head insures positive venting action of combustion gases with heater in horizontal position.



Architectural/Engineering Short Form Specifications

FS Series / Hi-Intensity Space Heater

Gas-fired, unvented, infrared heaters shall be furnished and installed in accordance with governing codes and as shown per building drawing(s) as described. Heaters shall be vented by positive air displacement of 3.9 CFM p/1000 BTU/H input for Natural gas or 4.5 CFM p/1000 BTU/H input for Propane gas. One (1) sq. in. of free air p/1000 BTU/H of input is required where negative pressure exists in the space to be heated.

Heaters shall be Fostoria, model number FS _____ Mbtu/h _____ Control Option* as manufactured by Fostoria Industries, Inc., Fostoria, Ohio. (Example: FS100NED)

- Heaters shall include 20,000Btu/h modular burners with individual steel venturi tubes, gas orifice and ceramic tile for reliable ignition and near 100% optimum burner efficiency.
- Burner bodies shall be high temperature cast aluminum with stainless steel ceramic tile frame.
- Heaters ceramic combustion surface shall be at an 8° design angle and capable of operating continuously at 1725° F with a minimum of 190 perforations per square inch.
- Heaters can be mounted horizontal to a 20° maximum angle.
- Heater housing and reflector shall be constructed of 0.050" BOS - polished aluminum.
- An Operation / Installation / Parts Manual shall be supplied with each heater.
- Heaters shall operate satisfactorily on natural gas at a minimum inlet pressure of 6.4 inches W.C., on propane gas at a minimum inlet pressure of 11 inches W.C. Maximum inlet pressure for both gas types is 14 inches W.C.
- The gas type and control operation of heaters shall be number _____ shown below.

* Control Option

1. **NED** – Natural Gas, Direct Spark Ignition, 100% Safety Lockout, 24V Operating Voltage.
2. **PED** – Propane Gas, Direct Spark Ignition, 100% Safety Lockout, 24V Operating Voltage.
3. **NSG** – Natural Gas, Standing Pilot Ignition with Self-Generating Millivolt Power Supply, 100% Safety Shut-off.
4. **PSG** – Propane Gas, Standing Pilot Ignition with Self-Generating Millivolt Power Supply, 100% Safety Shut-off.

Note: NED & PED models include 120 / 24V transformer.
NSG & PSG models include millivolt thermostat.

Heaters shall be CSA design certified by the Canadian Standards Association, formerly American Gas Association (A.G.A.) and manufactured under ISO 9001: 2000 standards. Supplier shall provide a manufacturer's written warranty covering all components for a period of one (1) year.

Fostoria Industries, Inc. • 1200 N. Main St. • Fostoria, OH 44830-0986
Ph. 800-495-4525 • Fax. 419-435-0842 • www.fostoriaindustries.com