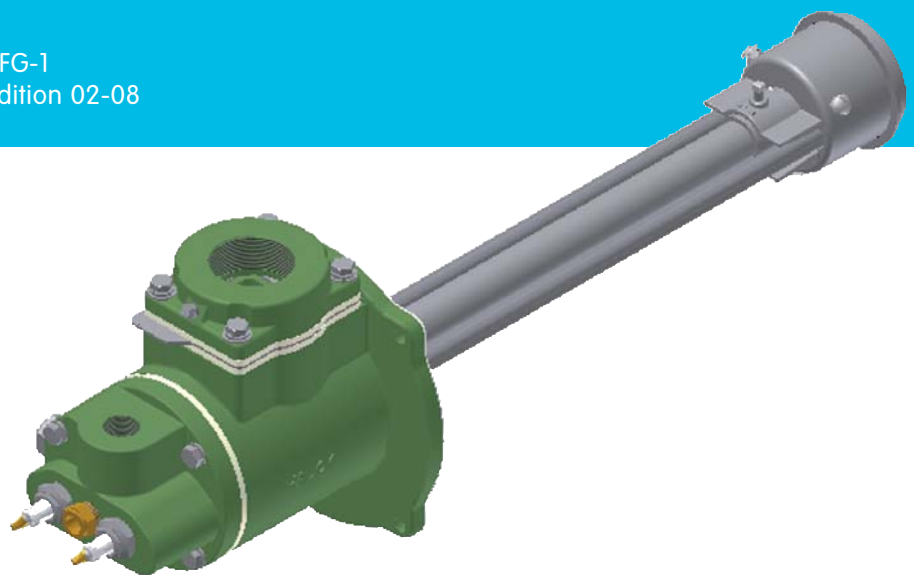
RFG

RADiflame Radiant Tube Gas Burner

RFG-1
Edition 02-08



Hauck, a product brand of the Elster Group

- Designed for use with Hauck's RADimax recuperator for maximum fuel efficiency
- Available in 8 and 16 osig (3450 Pa and 6900 Pa) inlet air pressure
- Ambient or preheated combustion air up to 800°F (425°C)
- Simple construction for ease of assembly and service
- Low pressure drop design for preheated air applications
- Excellent tube temperature uniformity
- Available with flue gas inspiration for reduced NOx emissions

www.hauckburner.com

elster Hauck

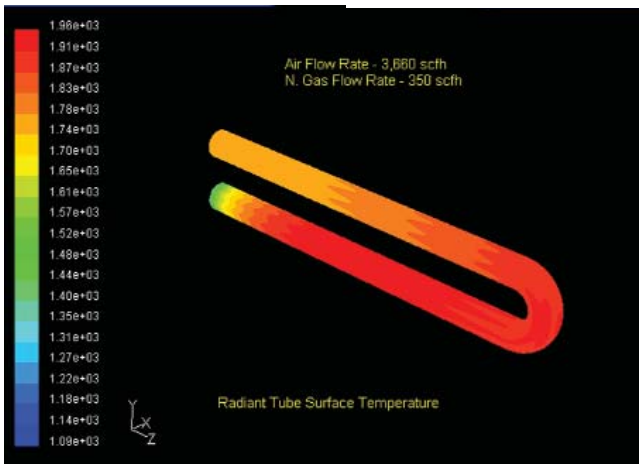
Hauck's RFG radiant tube burners provide reliable ignition, flame stability and uniform heat distribution in all radiant tubes. The fixed spin plate construction allows for specific and repeatable air flows with a standard flame length relative to the burner's capacity. RFG burners are available with capacities from 200,000 to 1,200,000 Btu/hr (58 to 317 kW). The RFG can fire any clean industrial fuel gas with a higher heating value of 500 Btu/ft^3 (19.7MJ/nm^3) or greater with ambient or preheated combustion air.

Burner Control
RFG burners are normally operated with automatic control systems. They can be used in cross-connected ratio, high/low or high/off control systems and offer reliable pulse firing ignition.

Construction
The RFG burner features industrial grade bolted castings with a modular construction. Reliable ignition is provided through the integral spark igniter. The RFG features an integral gas limiting orifice valve, eliminating the need to purchase and install this component separately. The burner is easy to use with very little operator adjustment required.

Energy Savings
The burner's low pressure design requires less combustion air pressure to operate the burner, substantially reducing the combustion air blower's power consumption. This feature also makes it ideally suited for use with preheated air via a radiant tube plug-in recuperator such as Hauck's RADimax for additional energy savings.

Reduced NOx Emissions
The use of flue gas inspiration (FGI) can significantly reduce NOx emissions. Hauck's FGI system employs our patented method of using compressed air to entrain exhaust gases into the combustion air. Subsequent introduction of flue gas laden combustion air into the burner reduces the peak temperature of the flame resulting in lower NOx emissions and high thermal efficiency.



RFG Radiant Tube Temperature Uniformity

Burner Selection

RFG burners are available in 16 osig (100 series) or 8 osig (200 series) versions to better fit application requirements or burner retrofits.

To aid in burner selection, please provide the following information when ordering:

- Btu/hr heat release per burner
- Tube type and material
- Furnace wall thickness
- Preheated combustion air temperature
- Furnace or process temperature
- Tube I.D., O.D., and length
- Recuperator type

For additional information on this product, visit our website at:

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RFG RADiFlame
RADIANT TUBE GAS BURNERS

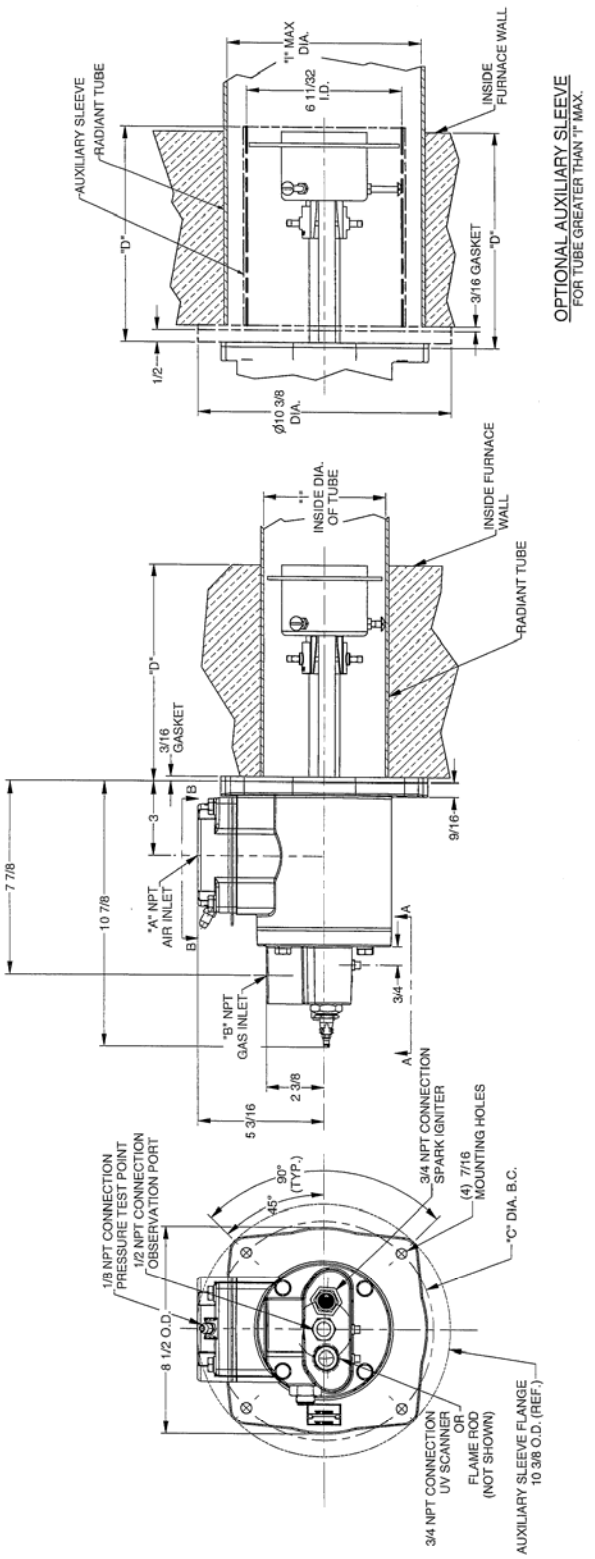
		MODEL NUMBER			
BURNER SPECIFICATIONS – HIGH FIRE		**120**	**220**	**125**	**225**
Max. Input @ 10% Excess Air	**(Btu/hr)**	**487,000**	**516,000**	**1,004,000**	**855,000**
Max. Air Flow	(scfh)	5,050	5,350	10,400	8,850
Burner Static Air Pressure	("wc)	27.7	13.9	27.7	13.9
Min. Input @ Max. Air Flow	(Btu/hr)	149,000	126,000	184,000	188,000
Max. Excess Air	(%)	260	350	500	400
Burner Gas Inlet Pressure	("wc)	2.9	2.1	1.9	2.1
BURNER SPECIFICATIONS – LOW FIRE					
Input @ 100% Excess Air	**(Btu/hr)**	**61,000**	**61,000**	**107,000**	**107,000**
Air Flow	(scfh)	1,150	1,150	2,050	2,050
Burner Static Air Pressure	("wc)	1.5	0.6	1.4	0.7
Min. Input @ Air Flow	(Btu/hr)	34,100	34,100	59,000	59,000
Max. Excess Air	(%)	260	260	270	270
Min. Gas For Ignition	(scfh)	33	33	57	47

NOTES:

1. Capacities based on natural gas with HHV of 1034 Btu/ft^3, 0.59 S.G., and a stoichiometric air/gas ratio 9.74:1 with burner firing into radiant tube.
2. Air and gas flows based on 60°F @ sea level; capacities for preheated air will differ from those shown.
3. Air static pressures measured at static tap on burner air inlet flange.
4. All data based on industry standard air and gas piping practices.
5. Flame detection available via flame rod or UV scanner.
6. 200 series burners capable of higher capacities than listed: consult Hauck.

(See Reverse Side for Metric Capacities)

RFG RADiFlame
RADIANT TUBE GAS BURNER



BURNER MODEL NO.	A AIR INLET	B GAS INLET	C	D	I	
					MIN.	MAX.
RFG_20	2 NPT	3/4 NPT	9	9" - 24"	4	7
RFG_25	2 1/2 NPT		9 1/2		4 1/4	9 1/4

Y8142
(NOT TO SCALE)

NOTES
1. DIMENSIONS "D" & "I" MUST BE SPECIFIED; LENGTH "D" IN 1" INCREMENTS AND "I" IN 1/8" INCREMENTS WITHIN THE LISTED MIN- MAX RANGE.
2. AIR & GAS INLETS MAY BE LOCATED AT 3, 6, 9 OR 12 O'CLOCK POSITION; MUST BE SPECIFIED ON ORDER.

(See Reverse Side for Metric Dimensions)