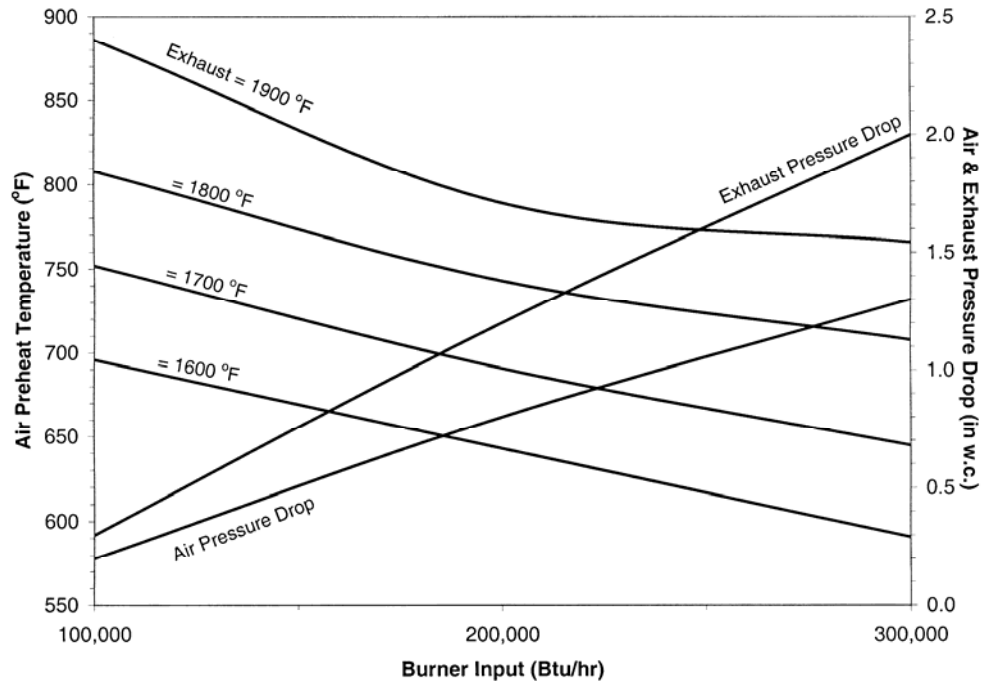




RAD RADIANT TUBE PLUG-IN RECUPERATOR

RADimax 300

Burner Input Versus Recuperator Outlet Preheated Air Temperature

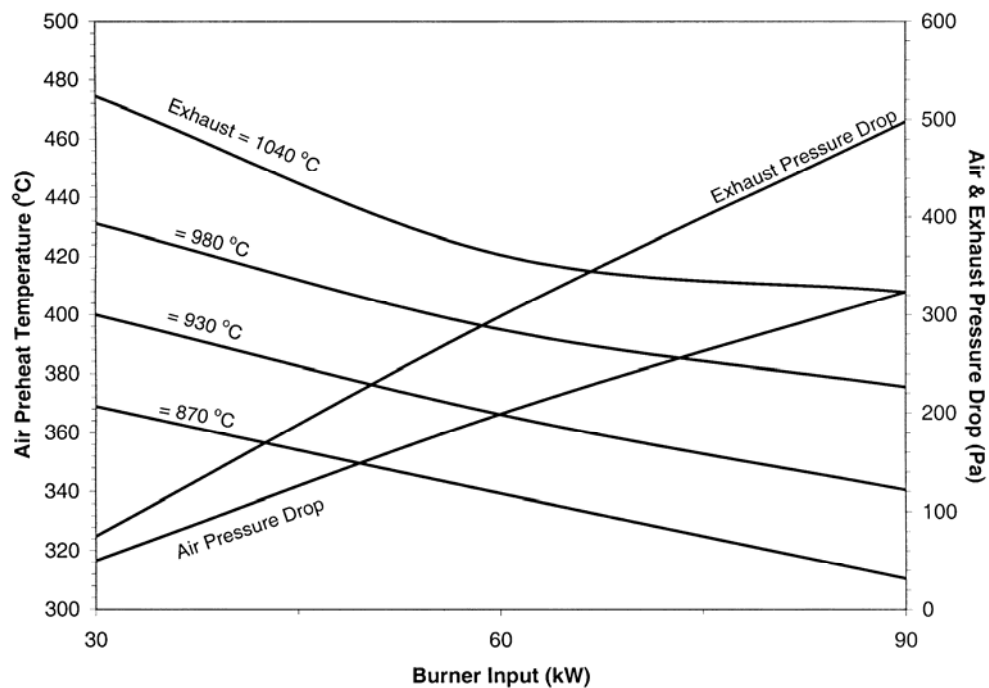


Q783

METRIC CAPACITIES

RADimax 300

Burner Input Versus Recuperator Outlet Preheated Air Temperature



Q783 Metric

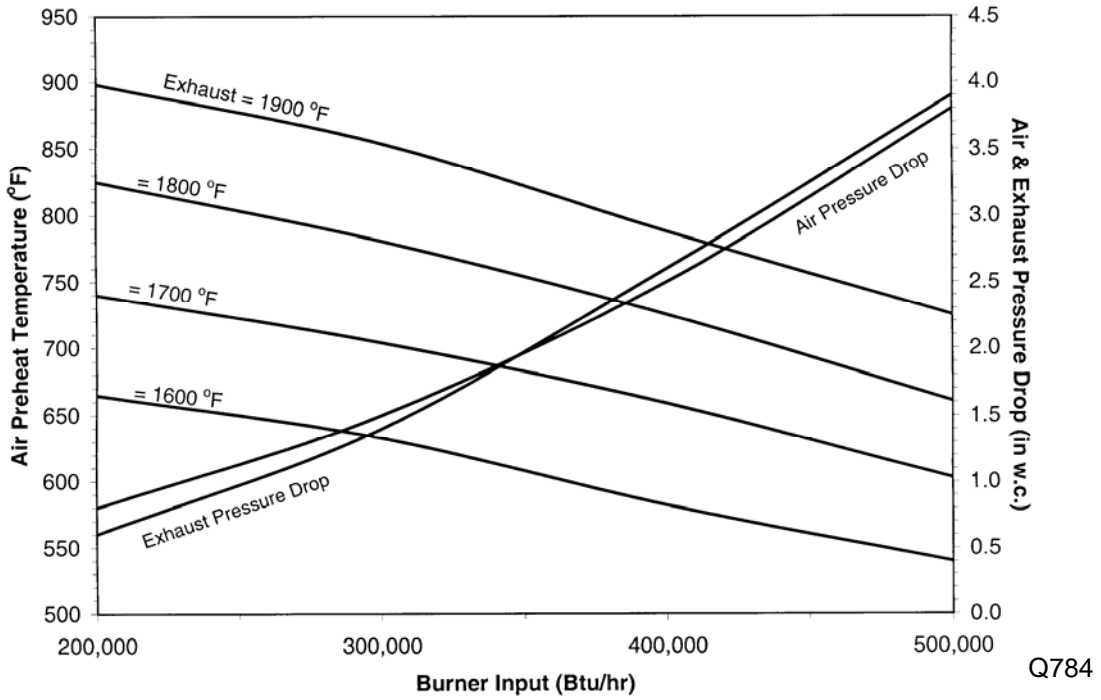
In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.

(OVER)

RAD RADIANT TUBE PLUG-IN RECUPERATOR

RADimax 500

Burner Input Versus Recuperator Outlet Preheated Air Temperature

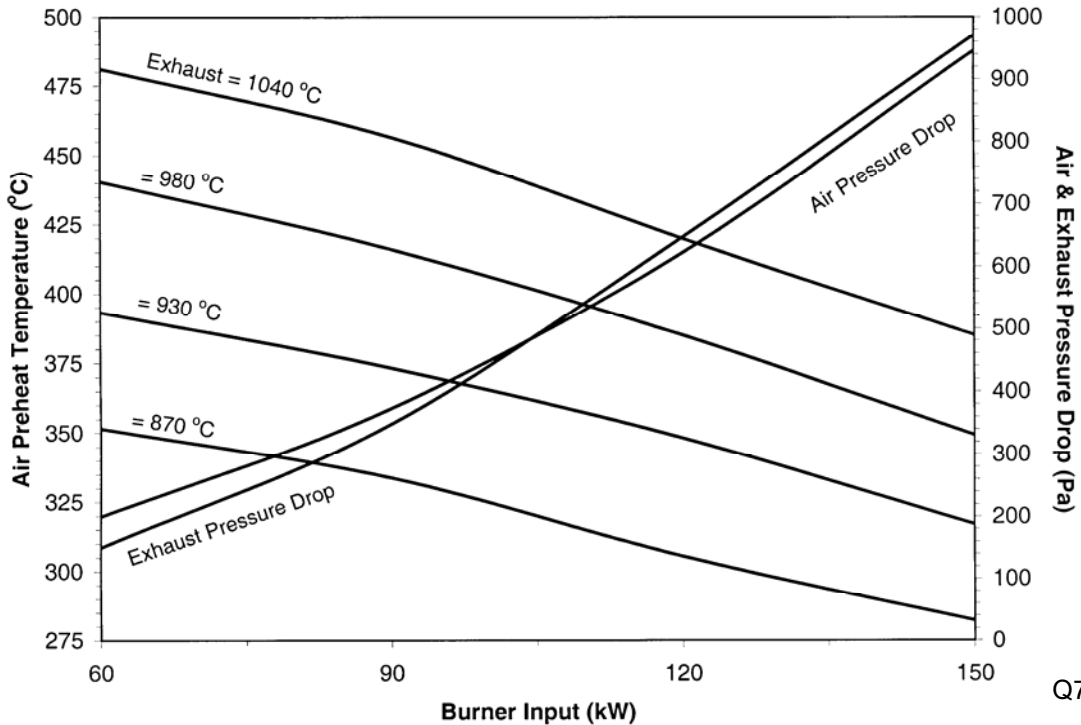


Q784

METRIC CAPACITIES

RADimax 500

Burner Input Versus Recuperator Outlet Preheated Air Temperature



Q784 Metric

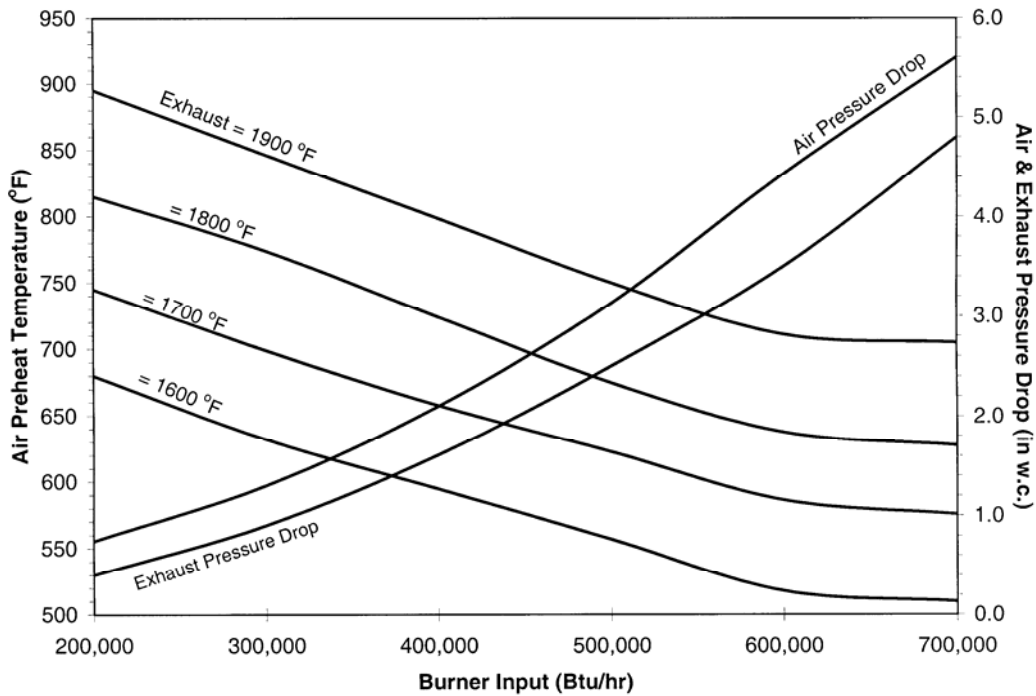


CAPACITIES

RAD RADIANT TUBE PLUG-IN RECUPERATOR

RADimax 700

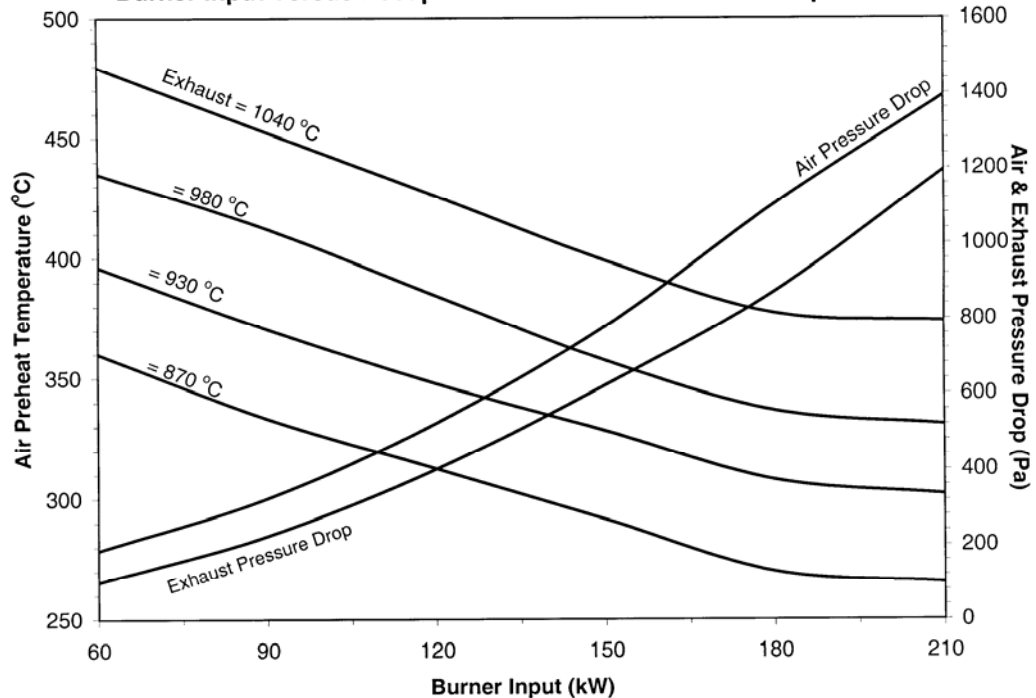
Burner Input Versus Recuperator Outlet Preheated Air Temperature



METRIC CAPACITIES

RADimax 700

Burner Input Versus Recuperator Outlet Preheated Air Temperature



(OVER)

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HAUCK MANUFACTURING CO., P.O. Box 90 Lebanon, PA 17042-0090 717-272-3051

9/06

www.hauckburner.com

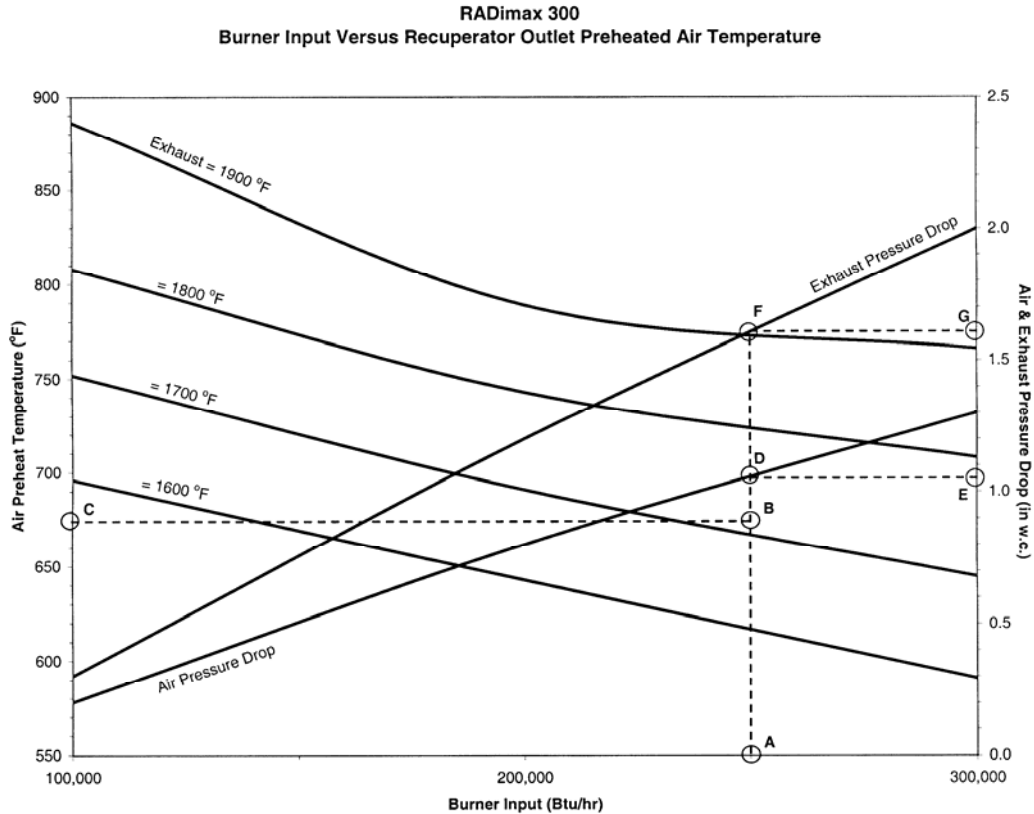
Fax: 717-273-9882

RAD-2.1

SELECTION

The performance of a RADimax radiant tube plug-in recuperator is based on two basic criteria; burner input and exhaust temperature. An example is presented below for a RADimax 300 to show how performance is determined from the respective performance curves.

Example: An existing radiant tube burner fires into a U-tube at a rate of 250,000 Btu/hr (73 kW). The measured exhaust gas temperature leaving the U-tube is 1710°F (932°C). Using the chart below, determine the potential Air Preheat Temperature, and the Air and Exhaust Pressure Drops that would result by installing a Hauck RAD 300 radiant tube plug-in recuperator.



Air Preheat Temperature

- A. Locate Burner Input of 250,000 Btu/hr (73 kW) on the x-axis.
- B. Move vertically up the graph to intersect on Exhaust temperature of 1710°F (932°C).
- C. Move vertically to the left y-axis and read the scale which corresponds to an Air Preheat Temperature of 675°F (360°C).

Air Pressure Drop

- A. Locate Burner Input of 250,000 Btu/hr (73 kW) on the x-axis.
- D. Move vertically up the graph until you intersect the Air Pressure Drop line.
- E. Move horizontally to the right y-axis and read the scale which corresponds to an Air Pressure Drop of 1.1"wc (275 Pa).

Exhaust Pressure Drop

- A. Locate Burner Input of 250,000 Btu/hr (73 kW) on the x-axis.
- F. Move vertically up the graph until you intersect the Exhaust Pressure Drop line.
- G. Move horizontally to the right y-axis and read the scale which corresponds to an Exhaust Pressure Drop of 1.6"wc (400 Pa).

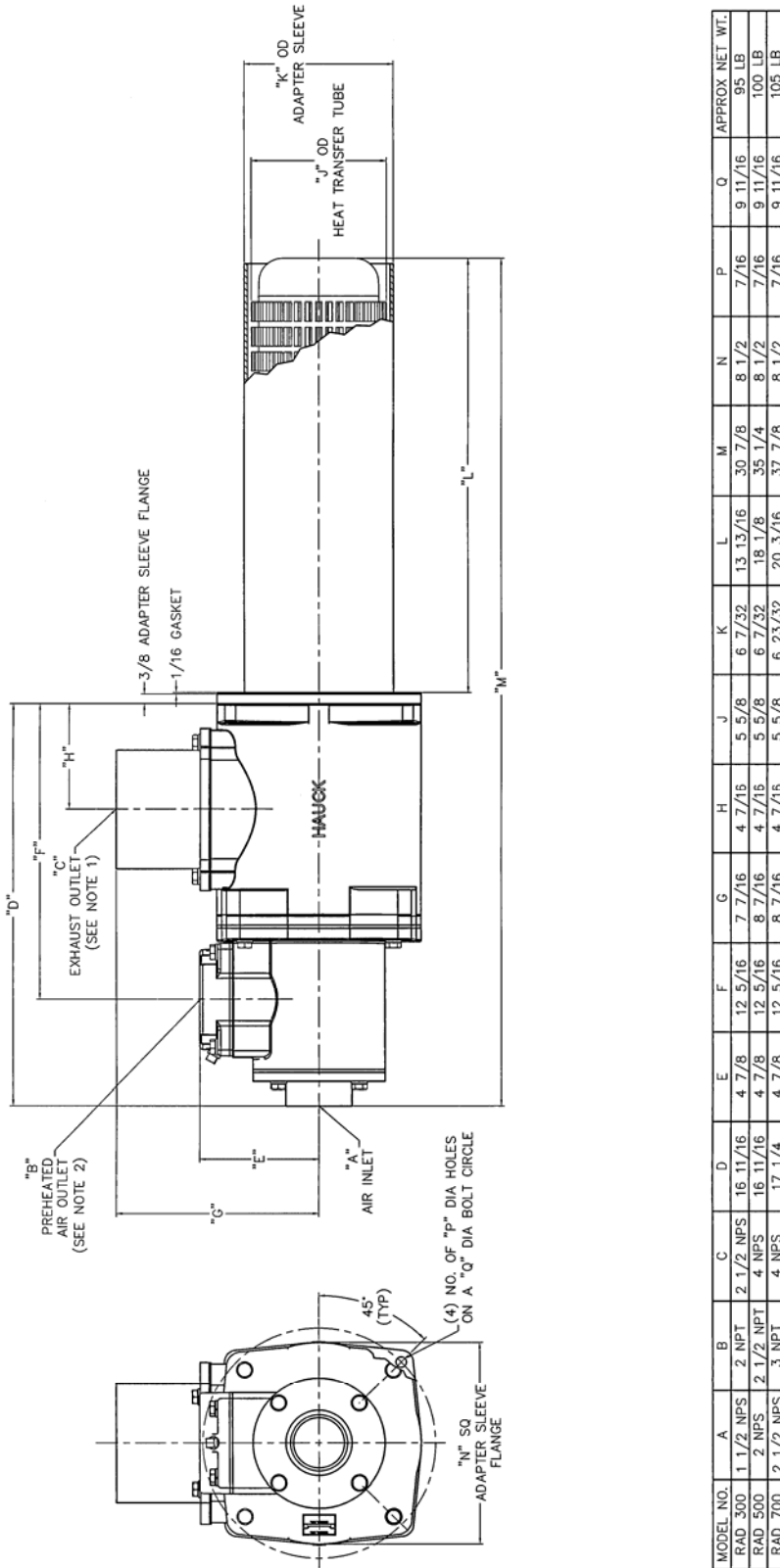
NOTE

Prior to installation of a RADimax radiant tube plug-in recuperator, it is important to verify that the existing or new combustion air blower/fan will be adequate to overcome the added air and exhaust piping pressure losses. Contact Hauck to verify adequacy of the combustion air supply system, and for analysis of system efficiency and fuel savings.



DIMENSIONS

RAD RADIANT TUBE PLUG-IN RECUPERATOR



Y7972
(NOT TO SCALE)

- NOTES:
- PREFERRED EXHAUST OUTLET MOUNTING SHOWN @ 12 O'CLOCK POSITION AND OPTIONAL MOUNTING @ 3 OR 9 O'CLOCK POSITION; 6 O'CLOCK MOUNTING IS NOT RECOMMENDED. SPECIFY MOUNTING POSITION ON ORDER.
 - PREHEATED AIR OUTLET MOUNTING AVAILABLE @ 3, 6, 9 OR 12 O'CLOCK POSITION. SPECIFY MOUNTING POSITION ON ORDER.
 - ADAPTER SLEEVE AND GASKET REQUIRED FOR RADIANT TUBES WITH AN I.D. GREATER THAN "K" DIMENSION; CONSULT HAUCK.

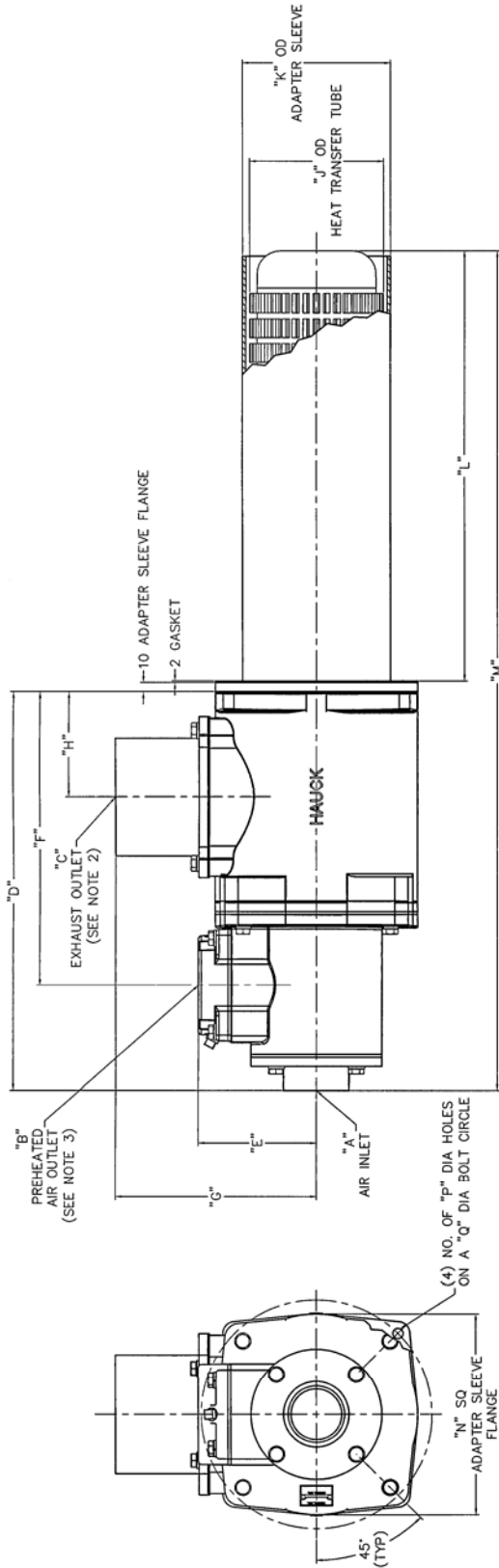
(See Reverse Side For Metric Dimensions)

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METRIC DIMENSIONS

RAD RADIANT TUBE PLUG-IN RECUPERATOR



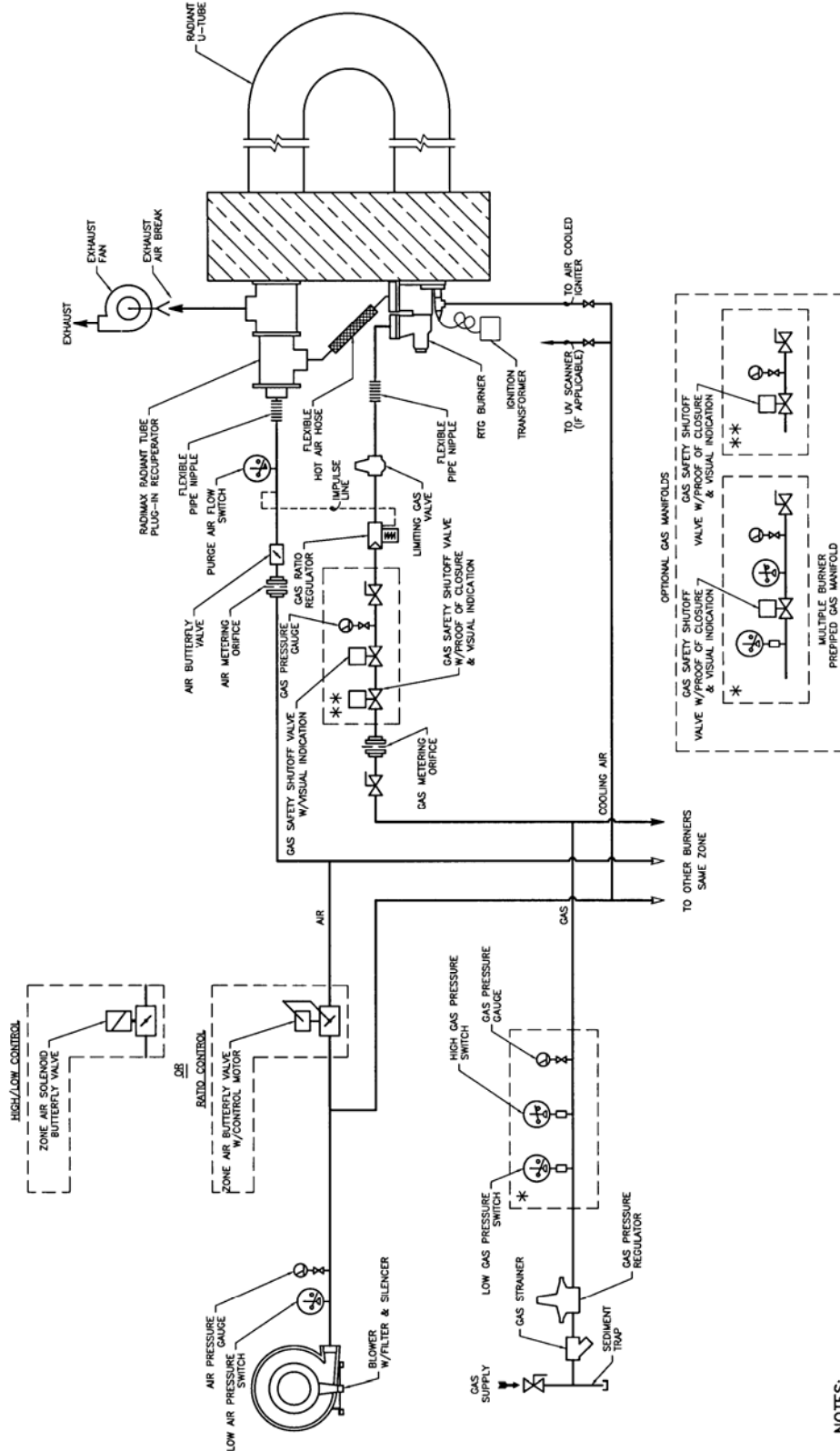
MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	APPROX. NET WT.
RAD 300	1 1/2 NPS	2 NPT	2 1/2 NPS	424	124	313	189	113	143	158	351	784	216	11	246	43 KG
RAD 500	2 NPS	2 1/2 NPT	4 NPS	424	124	313	214	113	143	158	460	895	216	11	246	45 KG
RAD 700	2 1/2 NPS	3 NPT	4 NPS	438	124	313	214	113	143	171	513	962	216	11	246	48 KG

Y7972 METRIC
(NOT TO SCALE)

- NOTES:
1. DIMENSIONS ARE IN MM.
 2. PREFERRED EXHAUST OUTLET MOUNTING SHOWN @ 12 O'CLOCK POSITION AND OPTIONAL MOUNTING @ 3 OR 9 O'CLOCK POSITION; 6 O'CLOCK MOUNTING IS NOT RECOMMENDED. SPECIFY MOUNTING POSITION ON ORDER.
 3. PREHEATED AIR OUTLET MOUNTING AVAILABLE @ 3, 6, 9 OR 12 O'CLOCK POSITION. SPECIFY MOUNTING POSITION ON ORDER.
 4. ADAPTER SLEEVE AND GASKET REQUIRED FOR RADIANT TUBES WITH AN I.D. GREATER THAN "K" DIMENSION; CONSULT HAUCK.

RAD RADIANT TUBE PLUG-IN RECUPERATOR

TYPICAL CONTINUOUS FURNACE HIGH/LOW OR RATIO CONTROL



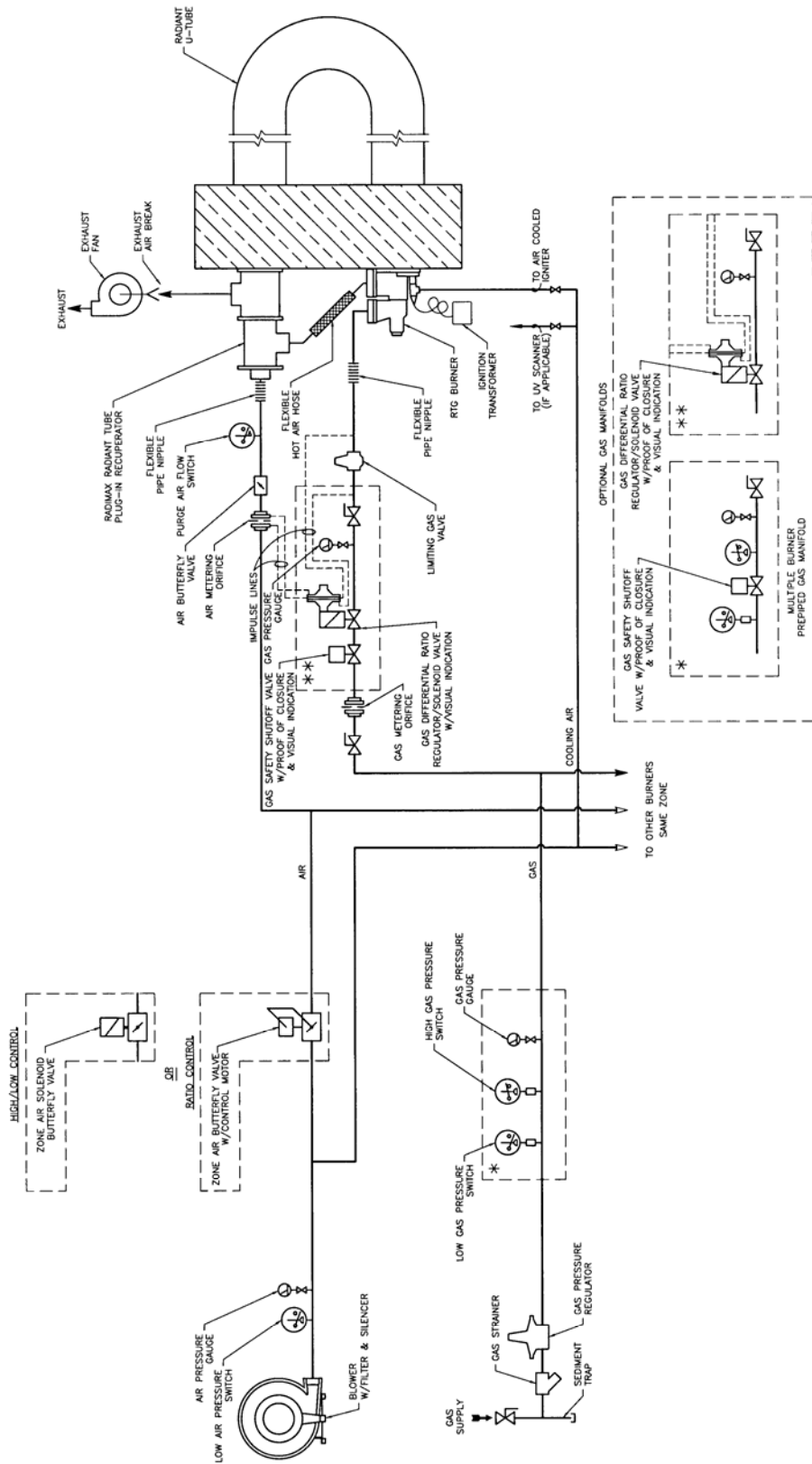
Y7190
(NOT TO SCALE)

- NOTES:
1. CONTROL METHODS SHOWN ARE RECOMMENDED FOR CONTINUOUS FURNACE.
 2. OPTIONAL GAS MANIFOLDS ARE PERMITTED AS AN EXCEPTION PER NFPA 86 2003 EDITION REQUIREMENTS FOR A RADIANT TUBE BURNER FIRING INTO A METAL TUBE OF EXPLOSION RESISTANT CONSTRUCTION, HOWEVER, SPECIAL FEATURES ARE REQUIRED IN THE ASSOCIATED CONTROL SYSTEM (SEE HAUCK APPLICATION SHEET GJ76).

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.

TYPICAL BATCH FURNACE HIGH/LOW OR RATIO CONTROL

RAD RADIANT TUBE PLUG-IN RECUPERATOR



- NOTES:
1. CONTROL METHODS SHOWN ARE RECOMMENDED FOR BATCH FURNACE.
 2. OPTIONAL GAS MANIFOLDS ARE PERMITTED AS AN EXCEPTION PER NFPA 86 2003 EDITION REQUIREMENTS FOR A RADIANT TUBE BURNER FIRING INTO A METAL TUBE OF EXPLOSION RESISTANT CONSTRUCTION, HOWEVER, SPECIAL FEATURES ARE REQUIRED IN THE ASSOCIATED CONTROL SYSTEM (SEE HAUCK APPLICATION SHEET GJ76).

Y7192
(NOT TO SCALE)