

Job: _____
 Engineer: _____
 Contractor: _____
 Prepared By: _____ Date: _____
 Model: _____

Raytherm[®] - Type H

Hydronic Heating Boilers
 Commercial

Models 962-1826 (Indoor)

EFFICIENT

- ▶ 82% thermal efficiency – highest of any atmospheric boiler available today

THERMAL SHOCK PROOF

- ▶ Twenty-year warranty against thermal shock damage up to 150°F differential
- ▶ Maximum operating temperature: 230°F

LIGHTWEIGHT

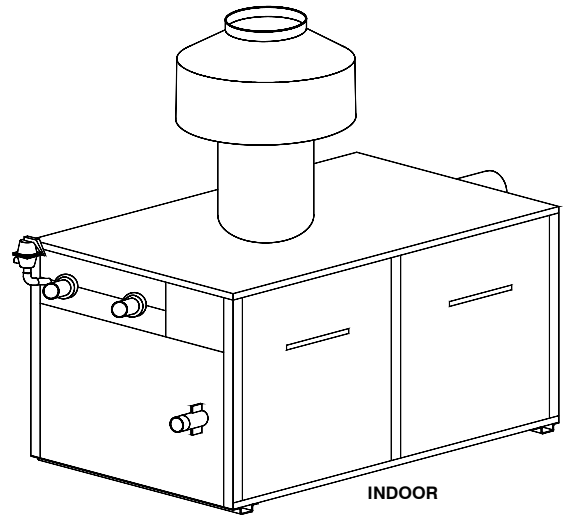
- ▶ A floor load of 70 lbs./sq. ft. or less

HIGH RECOVERY

- ▶ Cuts fuel costs substantially because the standby and radiation losses normal to other boilers are eliminated

LOW WATER OPERATING TEMPERATURE

- ▶ Operates with water temperature as low as 105°F without condensing



Heat Exchanger

- ASME Inspected and Stamped 160 PSIG
- National Board Approved
- Headers
 - Glass-lined Cast Iron – Standard
 - Bronze – Option A-1
- Finned Tubing
 - Copper – Standard
 - Cupro Nickel – Option A-3
- ASME Steel Tube Sheet
- Silicone O-Rings
- 60 PSIG ASME Pressure Relief Valve
- Temperature and Pressure Gauge
- Water Connections
 - Left Hand – Standard
 - Right Hand – Option A-6
- Flow Configuration
 - Two-pass – Standard
 - Single-pass – Cast Iron Only
- Pump - Rear-mounted, 1/2 HP, 120 VAC, 1Ø, 60 Hz – Optional
 - 4.25" Impeller
 - 4.7" Impeller

Controls

- 120V, 60Hz, 1 Ph Power Supply
- 120/24V Transformer
- 100% Pilot Shut-off/Lockout
- Electronic, Intermittent Ignition (IID) Pilot
- High Limit Control, Manual Reset, 240°F
- On/Off Switch

Controls (cont.)

- Flow Switch
- Economaster II Pump Time Delay

Gas Train

- Manual Main Gas Shut-off Cock
- Main Gas Pressure Regulator
- Redundant Safety Shut-off Valve
- Control Valve
- Firing Mode
 - On/off (H4)
 - Two-stage Firing (H3)
 - Four-stage Firing (H9)
 - Mechanical Modulation, 110-170°F (H5)
 - Mechanical Modulation, 150-210°F (H1)
 - Motorized Modulation (H2)
 - B-6000 (H6)
- Fuel
 - Natural Gas
 - Propane Gas
- Design Certified ANSI Z21.13/CSA 4.9

Construction

- Front Controls
- Stainless Steel Burners
- Polytuf Powder Coat Finish
- Vent Selection
 - Draft Diverter – Option D-10
 - Power Vent, Loose – Option D-2
- Base (Optional)
 - Combustible Floor Shield – Option J-1

Temperature Controllers

Note: H1 and H5 do not require a controller

- B-7 Modulating
- B-5 Modulating, Outdoor Reset
- B-6 Two-stage
- B- Four-stage Digital
- Y-241 Electronic Sequencer, 1-4 Stages
- Y-281 Electronic Sequencer, 1-8 Stages

Additional Safety Controls

- F-9 Low Water Cut-off Probe
- I-1 High Limit Control, Auto Reset, 240°F
- S-1 Low Gas Pressure Switch, Manual
- S-2 High Gas Pressure Switch, Manual
- _____
- _____

Regulatory Agency Requirements

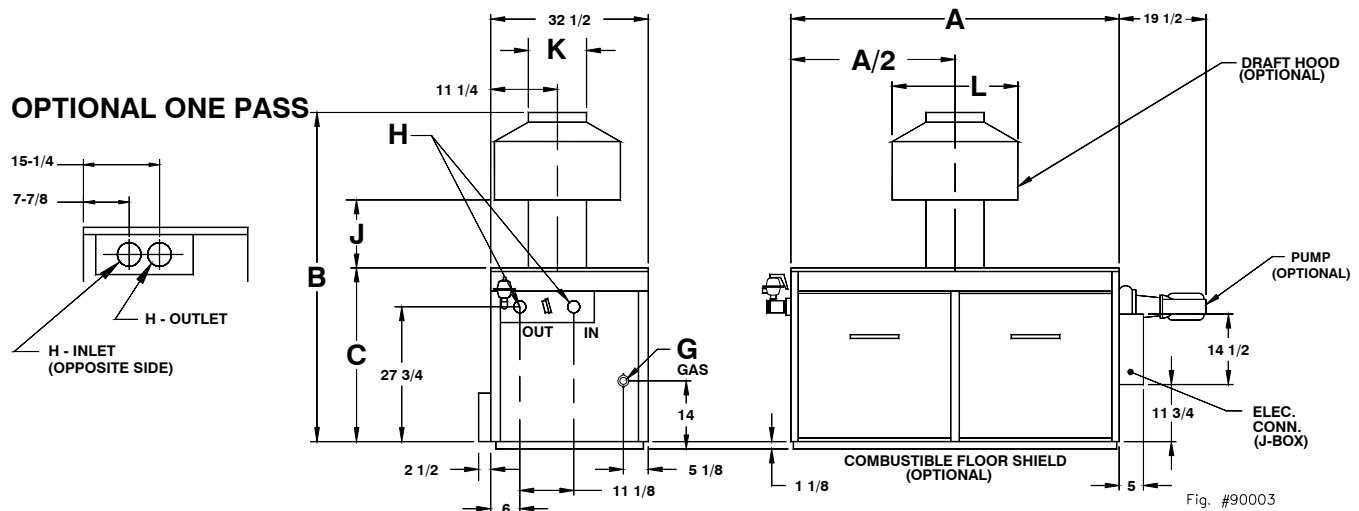
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Raypak[®]
 A Rheem[®] Company

Raytherm - Type H Hydronic Heating Boilers

Model _____



MODELS 962 THRU 1826

Model Size	MBTUH Natural Gas		Dimensions (Inches)								Approx. Shipping Weight (Lbs.)
	Input	Output	Width A	Overall Height B	Jacket Height C	Gas Conn. G	Water Conns. H	J	Flue Dia. K	L	
H-962	961.7	788.6	52-3/8	76-1/8 (a)	33-1/2	1	2-1/2 (c)	23-5/8	14	28	705
H-1125	1124.7	922.0	59-1/4	78-1/8 (a)	33-1/2	1 (b)	2-1/2 (c)	23-5/8	16	32	745
H-1223	1222.5	1002.4	63-5/8	78-1/8 (a)	33-1/2	1 (b)	2-1/2 (c)	23-5/8	16	32	805
H-1336	1336.6	1096.0	68-5/8	80-1/8 (a)	33-1/2	1-1/4	2-1/2 (c)	23-5/8	18	36	875
H-1468	1467.0	1203.0	74-7/8	80-1/8 (a)	33-1/2	1-1/4	2-1/2 (c)	23-5/8	18	36	945
H-1631	1630.0	1336.6	81-1/8	83-1/8 (a)	36-1/2	1-1/4	2-1/2 (c)	23-5/8	18	36	985
H-1826	1825.6	1497.0	89-3/8	85-1/8 (a)	36-1/2	1-1/4	2-1/2 (c)	23-5/8	20	40	1035

NOTE: Ratings shown are for elevations up to 2,000 feet. For elevations over 2,000, reduce ratings at the rate of 4% for each 1,000 feet above sea level.

(a) Add 1-1/8" to overall height for combustable floor shield option
 (b) 1" or 1-1/4" contingent on boiler type or code requirements
 (c) 3" NPT on single-pass option

BOILER RATE OF FLOW AND PRESSURE DROP

TWO PASS	10° ΔT		20° ΔT		30° ΔT		40° ΔT	
	GPM	ΔP FT.	GPM	ΔP FT.	GPM	ΔP FT.	GPM	ΔP FT.
962	N/A	N/A	79	8.5	53	3.8	N/A	N/A
1125	N/A	N/A	90	12.0	61	5.5	46	3.1
1223	N/A	N/A	N/A	N/A	67	7.0	50	3.9
1336	N/A	N/A	N/A	N/A	73	8.6	55	4.9
1468	N/A	N/A	N/A	N/A	80	11.0	60	6.2
1631	N/A	N/A	N/A	N/A	90	14.8	67	8.1
1826	N/A	N/A	N/A	N/A	N/A	N/A	75	10.6
ONE PASS								
962	157	6.1	N/A	N/A	N/A	N/A	N/A	N/A
1125	184	8.8	92	2.3	N/A	N/A	N/A	N/A
1223	200	11.0	100	2.9	N/A	N/A	N/A	N/A
1336	N/A	N/A	110	3.7	N/A	N/A	N/A	N/A
1468	N/A	N/A	120	4.5	N/A	N/A	N/A	N/A
1631	N/A	N/A	134	6.0	N/A	N/A	N/A	N/A
1826	N/A	N/A	150	8.0	100	3.7	N/A	N/A

N/A: Not Applicable

NOTES: Above values represent maximum flows and pressure drops for closed heating systems. Maximum acceptable flow through heat exchanger tubes is 90 GPM for two-pass and 200 GPM for single-pass. Single-pass heat exchangers are to be used only when flow rates exceed the allowable for two-pass.