

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

Raytherm® - Type WH

Water Heaters
 Commercial

Models 2100 - 4001

EFFICIENT

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

THERMAL SHOCK PROOF

- ▶ Twenty-year warranty against thermal shock damage up to 150°F differential
- ▶ Maximum operating temperature: 210°F

LIGHTWEIGHT

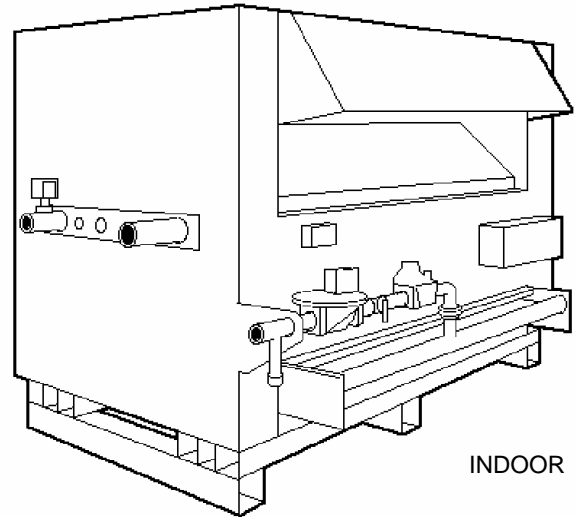
- ▶ A floor load of 70 lbs./sq. ft. or less

HIGH RECOVERY

- ▶ Cuts fuel costs substantially because the standby and radiation losses associated with tank-type water heaters 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
 - Bronze – Standard
 - Glass-lined Cast Iron – Option A-2
- Fin Tubing
 - Copper – Standard
 - Cupro Nickel – Option A-3
- ASME Steel Tube Sheet
- Silicone O-Rings
- 125 PSIG ASME Pressure Relief Valve
- Temperature and Pressure Gauge
- Water Connections
 - Left Hand – Standard
 - Right Hand – Option A-6
- Two-pass Flow Configuration

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 – 200°F
- High Limit Control, Auto Reset – 200°F Models 3001-4001
- On/Off Switch
- Flow Switch
- Economaster II Pump Time Delay

Gas Control Train

- Manual Main Gas Shut-off Cock
- Main Gas Pressure Regulator
- Redundant Safety Shut-off Valve
- Control Valve
- Firing Mode
 - On/Off (WH1)
 - 2-stage Firing (WH3)
 - Motorized Modulation (WH2)
- Fuel
 - Natural Gas
 - Propane Gas
- Design Certified ANSI Z21.10.3

Construction

- Front Controls
- Stainless Steel Burners
- Baked Enamel Paint
- Built-in Draft Diverter
- Draft Inducer – Optional
 - Motorized Draft Inducer – Indoor – Option D-2

Water Heater Controller

- Required on Model WH2 only
- B-17 Modulating Controller (104-220°F), Mounted By Others

Temperature Controllers

- B-2 Single-Stage Tankstat (100-180°F), Loose
- B-3 2-Stage Tankstat (100-180°F), Loose
- 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-3 High Limit Control, Auto Reset, 180°F
- S-1 Low Gas Pressure Switch, Manual
- S-2 High Gas Pressure Switch, Manual
- _____
- _____

Regulatory Agency Requirements

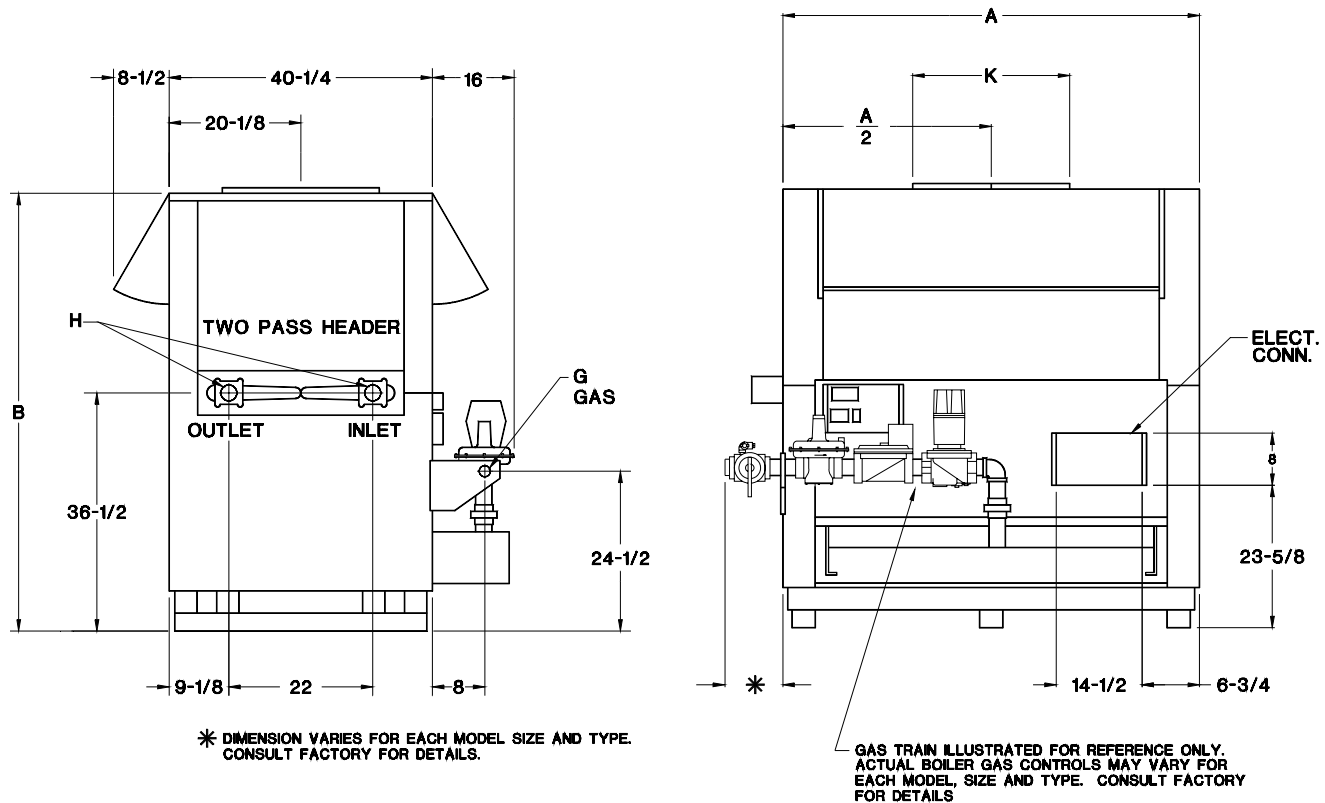
- CSD-1 Safety Controls
- _____



Raypak®
 A Rheem® Company

Raytherm - Type WH Models 2100-4100

Model _____



MODELS WH 2100 – 4001

Model No.	MBTUH		Width A	Overall Height B	Gas Conn. G	Water Conn. H	Flue Dia. K	Approx. Shipping Weight (lbs)
	Input	Output						
WH-2100	2100	1722	61	68-1/4	*	3	24	1400
WH-2500	2499	2049	70	68-1/4	*	3	26	1580
WH-3001	3000	2460	81-1/4	68-1/4	2	3	28	1750
WH-3500	3500	2870	92-1/2	68-1/4	2	3	30	1920
WH-4001	4000	3280	103-3/4	68-1/4	2	3	32	2100

* 1-1/2" or 2", contingent on water heater type code requirements

NOTES: Dimensions are in inches.

Ratings are for elevations up to 2,000 feet. For elevations over 2,000 feet, reduce ratings 4% for every 1,000 feet above sea level.

HEATER RATES OF FLOW AND PRESSURE DROPS

Model No.	20°F ΔT		30°F ΔT		40°F ΔT	
	GPM	ΔP (ft)	GPM	ΔP (ft)	GPM	ΔP (ft)
WH-2100	172	11.0	115	4.9	N/A	N/A
WH-2500	N/A	N/A	137	7.5	102	4.3
WH-3001	N/A	N/A	164	11.2	123	6.5
WH-3500	N/A	N/A	191	16.8	144	9.3
WH-4001	N/A	N/A	N/A	N/A	164	12.8

Maximum acceptable flow through heat exchanger tubes is 200 GPM.

HEATER RECOVERY RATES (GPH)

Model No.	Temperature Rise						
	20°F	30°F	40°F	50°F	60°F	80°F	100°F
WH-2100	10336	6890	5168	4134	3445	2584	2067
WH-2500	12300	8200	6150	4920	4100	3075	2460
WH-3001	14765	9844	7383	5906	4922	3691	2953
WH-3500	17227	11484	8613	6891	5742	4301	3445
WH-4001	19688	13125	9844	7875	6563	4922	3938