PRODUCT DESCRIPTION

Rite Atmospheric Natural Gas Fired Watertube Boilers are found at the heart of better engineered closed-loop heating systems all over North America. From conventional space heating systems to heat pumps to industrial process loads, Rite offers 47 basic models, ranging from 480 to 12,500 MBH Input (11 – 310 Boiler Horsepower). These heavy duty, long lasting boilers have been providing heat to schools, churches, commercial buildings, metal finishers and silicone chip makers (to name a few) – Safely and reliably for nearly fifty years.

So simple to maintain and operate, Rite Boilers feature complete waterside access so that virtually all scale and mud deposits can be seen and mechanically cleaned during a single scheduled maintenance shutdown. The result – Better fuel efficiency and lower operating cost over the life of your boiler investment. Consider a few of our other standard features: Floating heads that eliminate pressure vessel cracks and broken welds caused by thermal stress cycling (backed by Rite’s 25 year Thermal Shock Warranty), Single Stacks on models to 7,500,000 BTUH input, Top supply and return water connections, Rugged Heat Exchangers with minimal pressure drop at normal flow rates can also handle the boiler firing under no flow conditions, Rite’s bolted/gasketed headplates that eliminate any possibility of hydraulic explosion in the event that safety devices fail – and you have a better boiler by design.

RITE ATMOSPHERIC BURNER FEATURES

Rite Atmospheric Boilers are an excellent choice when: Low NOx emissions are not required, natural gas will be the only fuel used, the installation is indoors (See our line of weatherproof models for outdoor applications), and when lower combustion efficiencies at less than full firing rate are acceptable.

Atmospheric burners are far less expensive than power burners, so when the above criteria is met, then Atmospherics are a strong economical alternative to Rite’s outstanding line of power burner fired water boilers. Other factors favoring Atmospherics are: Extremely low electrical power consumption (no energy hogging fan motors), Rapid start-up on demand (No pre-purge blower fan), Lighter weight, Lower height, and Whisper-quiet burner operation.
STACK / DRAFT REQUIREMENTS

- UL listed for use with Type B Vent.
- Minimum stack height including Draft Control is 10 feet.
- The stack should be supported independently of the boiler and an adjustable length section of stack should be installed after the draft control to allow for future separation. All Rite Boilers have internal stack supports to handle the weight of the stack during installation.
- Boilers with barometric damper draft control should draft between -.05" to -.09" W.C. when firing. Boilers with draft diverters will draft between -.02" to -.04" W.C.
- A draft gauge is installed on all boilers equipped with barometric dampers to help set and maintain the draft.

AIR REQUIREMENTS

Adequate Combustion/Ventilation Air is vital for safe, efficient operation. Refer to the latest edition of the Uniform Mechanical Code or consult your local Building and Safety Department for specific requirements.

Warning: Do not install in a room that will develop negative pressure without utilizing a properly sized induced draft fan.

ELECTRICAL REQUIREMENTS

- A Single Point 120/60/1 8 amp supply to the electrical panel.

NATURAL GAS SUPPLY REQUIREMENTS

(STATIC AND AT FLOW)

- Models 48 E - 76 E 6" w.c. min. to 14" w.c. max.
- Models 85 E - 400 E 7" w.c. min. to 14" w.c. max.
- Models 425 E - 750 E 15" w.c. min. to 28" w.c. max.
- Models 840 E - 1250 E 20" w.c. min. to 28" w.c. max.
- For other gas pressures, consult factory or your Rite Representative.

“Propane Supply Requirements: 11” w.c. min. to 14” w.c.

WATER TEMPERATURES & PRESSURE DROPS

- Minimum return water temperature is 135°F (after start-up). Lower temperature return factory options available.
- Maximum practical supply water temperature is 235°F. Higher temperature/presure Rite Boilers available.
- Pressure drop for all models is less than 3 feet of water, or 1.3 psi.

ELEVATION DERATION

Ratings given below are for elevations up to 2000 feet. Above 2000 feet, ratings should be reduced at the rate of 4% for every 1000 feet above sea level.

B.T.U. FORMULA

- B.T.U. Output @ 0-2000' elevation = 60 x 8.3 x T x G.P.M.