### Design Details

#### General Information

- **Type of Boiler**: Watertube
- **Model Series**: 5907
- **Rated Capacity**: 400 BHP
- **Equivalent Evaporation**: 13,800 lb/hr from and at 212°F
- **Thermal Output**: 13,400,000 Btu/hr
- **Construction Codes**: ASME, Hartford, National Board
- **Boiler Shell Insulation**: Mineral Wool Insulation
- **Approx. Shipping Weight**: 15,500 lbs

#### Pressure psig

<table>
<thead>
<tr>
<th>Design</th>
<th>Operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>13 max.</td>
</tr>
<tr>
<td>150</td>
<td>135 max.</td>
</tr>
<tr>
<td>250</td>
<td>225 max.</td>
</tr>
<tr>
<td>530</td>
<td>475 max.</td>
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</tbody>
</table>

#### Controls

Steam Pressure, Low Water Cutoff, Flame Failure Protection, Coil Temperature Limit.

#### Burner

- **Manufacturer**: Vapor Power
- **Fuel**: Natural Gas, No. 2 Fuel Oil, or Combination
- **Type (gas)**: Multiple Orifice Nozzle
- **Type (oil)**: Air Atomized

#### Fuel Specifications:

- **Oil (No. 2)**: 141,000 Btu/U.S. gal
- **Gas**: 1000 Btu/cu ft
- **Main Burner**: 2 psig
- **Pilot Burner**: 6" W.C.

#### Fuel Air Requirements:

- **Oil (No. 2)**: 20 scfm @ 30 psig
- **Gas**: None required

#### Ignition Type:

- **Oil & Gas**: Electric spark - interrupted gas pilot

### Power Requirements

- **Main Power**: 230/460/575 VAC, 3 Ph, 60 Hz
- **Control Power**: 120 VAC, 1 Ph, 60Hz
- **HP required by circulating pump**: 20 HP
- **HP required by blower**: 20 HP

### Overall Dimensions

- **L x W x H**: 151" x 92" x 107"
  * Width does not include blower extension beyond body of Circulatic

### Performance Data

#### Fuel Consumption @ Rated Output

- **Gas**: 16,750 scfh
- **Oil (No. 2)**: 117.3 gal/hr

#### Turndown Ratios:

- **Oil & Gas**: 8 to 1

#### Combustion and Ventilating Air Required:

- **Oil & Gas**: 4,510 scfm

### Customer Connections

- **Stack Outlet**: 26" O.D.
- **Steam Outlet**:
  - 15 psi: 10" ASA
  - 150, 250, 530 psi: 4" ASA
- **Main Gas Supply**: 3" NPT
- **Pilot Gas Supply**: 1/2" NPT
- **Oil Supply**: 1" NPT
- **Oil Return**: 3/4" NPT
- **Atomizing Air**: 1/2" NPT
- **Feedwater Inlet**: 1 1/4" NPT
- **Blowdown Outlet**: 1" NPT
- **Surface Blowdown Outlet**: 3/8" NPT
- **Safety Valve Outlet (2)**: 2" NPT

*Note: varies based on set pressure*