Modulatic® Packaged Once-Through Steam Generators

SPECIFICATIONS 220 BHP

**DESIGN DETAILS**

**General Information**
Type of Boiler: Watertube
Model Series: 4776
Rated Capacity: 220 BHP
Equivalent Evaporation: 7,590 lb/hr from and at 212°F
Thermal Output: 7,370,000 Btu/hr
Construction Codes: ASME, Hartford, National Board
Boiler Shell Insulation: Mineral Wool Insulation
Approx. Shipping Weight: 8,900 lbs

**Power Requirements**
Main Power: 230/460/575 VAC, 3 Ph, 60 Hz
Control Power: 120 VAC, 1 Ph, 60Hz
HP required by pump: 10 HP – for 300 psi
HP required by blower: 10 HP – for 300 psi

**Overall Dimensions**
L x W x H: 96” x 72” x 108”

**Pressure psig**

<table>
<thead>
<tr>
<th>Design psig</th>
<th>Operating psig</th>
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<tbody>
<tr>
<td>15</td>
<td>13 max.</td>
</tr>
<tr>
<td>300</td>
<td>250 max.</td>
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<tr>
<td>600</td>
<td>540 max.</td>
</tr>
<tr>
<td>900</td>
<td>810 max.</td>
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* Consult factory for pressures up to 3200 psig

**Performance Data**
Fuel Consumption @ Rated Output:
Gas: 9,300 scfh
Oil (No. 2): 65.3 gal/hr

Turndown Ratios:
Oil & Gas: 8 to 1

Combustion and Ventilating Air Required:
Oil & Gas: 1,912 scfm

**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: 1 psig
Pilot Burner: 6” W.C.

**Atomizing Air Requirements:**
Oil (No. 2): 9 scfm @ 40 psig
Gas: None required

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

**Customer Connections**
Stack Outlet: 18” O.D.
Steam Outlet:
- 15 psi: 6” ASA
- 300, 600 psi: 3” NPT
- 900 psi: 1 1/2” 600#
Main Gas Supply: 3” NPT
Pilot Gas Supply: 1/2” NPT
Oil Supply: 3/4” NPT
Oil Return: 1/2” NPT
Atomizing Air: 3/8” NPT
Feedwater Inlet: 2 1/2” NPT
Blowdown Outlet: 1” NPT
Coil Blowdown Outlet: 1” NPT
Water Pump Relief Valve: 1/2” NPT
Trap Return:
- 15, 300, 600 psi: 1” NPT
- 900 psi: 1” NPT
Safety Valve Outlet: 2 1/2” NPT

*Note: varies based on set pressure*