Reznor® Model WS Steam/Hot Water Suspended Heaters are design-engineered to be technically advanced and esthetically pleasing which makes it the hydronic heater for the 21st century.

This smart new concept in commercial heating units will accommodate all architects who are looking for something new and different.

The heating range of Model WS is 13,000 to 350,000 BTUH. The air volume ranges from 270 to 4,750 CFM.

The heat exchanger is made of one or two rows of steel coils (standard or optional copper coils) with aluminum fins, with approximately 10-1/2 fins per inch (4 fins per cm). The spacing between the fins makes cleaning and maintenance of the heat exchanger easier, which is essential to keep the unit heater efficient.

The standard steel tubing is very strong and long lasting. Steel tubing is designed for hot water applications up to 150 psi.

The copper tubing used for the heating coil is very thick (0.03", 0.75 mm), making Reznor heating coils extremely sturdy and long lasting. The copper tube diameter is 0.867" (22 mm) O.D. The large tube diameter reduces the water pressure drop, which means these units require lower pump pressure than other hydronic heaters. It also allows a very rapid heat radiation. For steam heating applications copper tube (Option HA12) is required. Designed for high working steam pressure up to 145 psi (10 bar), every heat exchanger is subjected to a pressure test at over 350 psi (25 bar) before leaving the factory.

The heat exchanger assembly receives a special paint coating which makes the coil long lasting and increases the thermal output.

The Fan/Motor Assembly is made up of three components: the fan, the motor and the fan guard, which also acts as the main support for the fan. This fan guard is galvanized for protection against corrosion, and is mounted onto the main casing with anti-vibration rubber mountings. The fan guard meets OSHA requirements.*

The standard 2-speed motor is a hermetically sealed motor which is maintenance free. The motor is wired for 115/1/60 supply voltage. The motor speed is field adjustable to run at high or low RPMs. Refer to the Technical Data Chart for fan RPM, heating output and CFM ranges.

The flexibility of changing motor speeds allows the installer to adjust the unit to high speed for increased BTUH output, or low speed for reduced noise level. All motors have internal protection as a standard feature.

All Model WS units can be installed for either vertical or horizontal discharge.

The unit cabinet is manufactured from .032" (0.8mm) galvanized pre-painted steel finished in dove gray. Using pre-painted steel helps protect the cabinet against oxidation.

The cabinet is held together by shake-proof screws and molded corner sections to add additional strength and durability. Adjustable louvers are held in place by spring loaded pivots. Vertical louvers are available for field installation.

The optional Air Flow Induction Optimizer is available for horizontally discharged units. The Air Flow Induction Optimizer increases the air flow due to the unique shape of its deflecting louvers which improves the throw of the heated air stream. See the optional accessories section for more information.

Units are packaged into strong corrugated cardboard cartons with strengthened upper and lower side sections. These containers are clearly marked with the model number, size and approximate shipping weight.

Units are manufactured in an ISO 9001 registered facility.

STANDARD FEATURES

- Heat exchanger composed of steel tubes and aluminum fins spaced approximately 10-1/2 fins per inch
- Painted tubing heat exchanger and aluminum fins
- Hot water applications
- Fan/Motor Assembly includes galvanized fan guard
- Vertical or horizontal configuration
- Cabinet and louvers constructed of galvanized pre-painted steel
- Cabinet held together by shake-proof screws and molded corner sections
- Spring mounted horizontal louvers
- 115/60 single phase, two speed motor (field adjustable)
- Manufactured in an ISO 9001 registered facility

FACTOR INSTALLED OPTIONS

- Heat exchanger composed of 0.03” thick, 0.867” O.D copper tubes and aluminum fins spaced approximately 10-1/2 fins per inch
- Up to 145 psi steam applications with copper tubing

FIELD INSTALLED OPTIONS

- Vertical louvers for better air distribution - vertical or horizontal discharge
- Air flow induction louvers increase air flow and throw - horizontal discharge
- Light duty, or heavy duty thermostat
- Thermostat guard cover

* OSHA requires that the fan guard spacing for a heater mounted 7 feet off the floor can not exceed 1/2 inch.
## TECHNICAL DATA

<table>
<thead>
<tr>
<th>Fan Speed</th>
<th>Size</th>
<th>MBH</th>
<th>Watts</th>
<th>kcal/hr</th>
<th>Maximum Heating Capacity*</th>
<th>Maximum Leaving Air Temperature (L.A.T.)*</th>
<th>Motor HP 115/1/60 Motor</th>
<th>Approximate Fan RPM</th>
<th>Approximate Air Volume</th>
<th>Supply Air Velocity</th>
<th>Rows of Coils in Heat Exchanger</th>
<th>Water Content</th>
<th>Approximate Weight</th>
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<tbody>
<tr>
<td>Low</td>
<td>18/24</td>
<td>15-3/4</td>
<td>2,411</td>
<td>6,027</td>
<td>69.5°F</td>
<td>223°F</td>
<td>65º</td>
<td>115/1/60</td>
<td>135</td>
<td>561</td>
<td>135</td>
<td>115/1/60</td>
<td>37</td>
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<tr>
<td>High</td>
<td>24</td>
<td>30-1/16</td>
<td>3,908</td>
<td>10,353</td>
<td>80°F</td>
<td>253°F</td>
<td>120</td>
<td>25-1/16</td>
<td>212</td>
<td>793</td>
<td>212</td>
<td>25-1/16</td>
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**DIMENSIONS**

**ACCURATE WITHIN ±1/8" (±3mm)**

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Fan Diameter</th>
<th>Ø</th>
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<tr>
<td>18/24</td>
<td>16-7/16(418)</td>
<td>11-1/8(282)</td>
<td>18-5/16(462)</td>
<td>12-5/8(321)</td>
<td>8-11/16(220)</td>
<td>5-1/8(130)</td>
<td>3-15/16(100)</td>
<td>11-13/16(300)</td>
<td>3/4</td>
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<tr>
<td>23/33</td>
<td>16-7/16(418)</td>
<td>11-1/8(282)</td>
<td>18-5/16(462)</td>
<td>12-5/8(321)</td>
<td>8-11/16(220)</td>
<td>5-1/8(130)</td>
<td>3-15/16(100)</td>
<td>11-13/16(300)</td>
<td>3/4</td>
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<tr>
<td>44/62</td>
<td>18-9/16(472)</td>
<td>13-1/4(336)</td>
<td>18-5/16(462)</td>
<td>14-3/4(375)</td>
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<td>76/110</td>
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<td>96/120</td>
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</tbody>
</table>

* Maximum heating capacity based on steam pressure at 2 psi with entering air temperature of 60°F (16°C) See tables on page 4 for more information.

* Based on an entering air temperature of 60°F (16°C).