RESCOM 2100™ HOT WATER BASEBOARD RADIANT HEATING

Unique, slim-design baseboard radiators
The RESCOM 2100™ system is unlike traditional baseboard heating systems. Smooth flat panels are easily secured to the wall. Hot water circulates through the panels emitting a radiant heat that warms objects and people in the room. This quiet, efficient and even heat source can satisfy all of your heating requirements, from a small kitchen to a large family room, a complete house or office. Once installed, the panels are virtually invisible, blending into the decor of the room.

LOOKS GREAT - simulates a baseboard - only 7-1/8" high and 1-1/16" deep. Constructed from tough extruded aluminum and covered with high impact baked appliance enamel for added good looks and durability. Available in custom colours at an additional charge. Panels may also be painted with any high quality oil based paint to match your decor.
UNIQUE SLIM-LINE DESIGN - blends into any interior setting for residential, commercial, or industrial applications and allows freedom of furniture and curtain placement, as there are no ducts, no vents and no restriction of airflow.

CONSISTENT TEMPERATURES - are maintained throughout the room as gentle radiant warmth is provided from the panels.

SAFE HEAT - designed at a water temperature of 160°F (71°C), which provides a safe panel surface temperature.

HEALTHY HEAT - is provided as most of the heat is generated by radiation, which does not create air currents for dust and dust mites to travel on. This is a major benefit to allergy sufferers.

ENERGY EFFICIENT - temperatures at the floor and ceilings are virtually the same allowing more comfort at a lower thermostat setting. (There is no heat blanket at the ceiling). Room by room control allows for even greater savings by reducing heat in areas used less frequently.

SILENT OPERATION - only moving part is a small electric circulation pump.

EASY INSTALLATION - flexible polyethylene tubing can be run through existing floors and walls. Reflecto-Foil™ reflective insulation is provided with each panel and is applied behind the panel to assure heat is directed into the room, not into the wall. Dependable compression fittings allow for complete hook-ups to all panels and manifold without soldering. Quick fastening system means simple and low cost or do-it-yourself installation.
RESCOM 2100™ - hot water baseboard is available in TWO unique versions:

System I. For installations using a hot water boiler (closed loop).

System II. For installations with a certified dual-purpose potable hot water heater. All plumbing components are 3rd party certified for potable water. Perfect for basements, additions, sun rooms, added heat in cold areas, etc.
FREQUENTLY ASKED QUESTIONS

WHAT ABOUT OPERATING COSTS?
Savings of as much as 75% can be achieved by converting from traditional heating systems. The system can be run using any type of hot water source.

HOW WILL THESE PANELS LOOK IN MY ROOM?
Having no vents or openings, these sleek, unobtrusive looking panels are 1-1/16" (27 mm) wide and 7-1/8" (18 cm) high, tight against the wall. They can easily be painted to match or complement the colours in your room.

HOW EASY ARE THE PANELS TO INSTALL?
Unlike standard panels, there is no cutting or soldering involved. The panels come complete with mounting brackets, reflective insulation and brass compression fittings for simple connections.

CAN I HEAT SMALL, HARD TO HEAT AREAS?
Yes. The panels are designed to be stacked, run vertically or horizontally, placed along the floor or anywhere on the wall to provide the heat you need.

MY HOUSE ALWAYS SEEMS DUSTY. CAN THIS PROBLEM BE SOLVED?
Since radiant heat does not rely on air movement, there is no dust or pollen that is blown around the room. This also means a more uniform distribution of heat throughout the room.
Technical Data

MATERIAL: System I Baseboard - 6063 Aluminium; System II Baseboard - 6063 Aluminium, astmb88 Copper tubing

Thermal Linear Expansion Coefficient: per inch degree Fahrenheit = 13.5 x 10^-6

Dimensions: Panel size - depth 1 1/16" (2.7cm), Height - 7 1/8" (18.1cm); Wall thickness - 0.09 inches, (0.23cm)

Weight: System I Baseboard - 1.7 lbs. / foot (2.5kg / meter); System II Baseboard - 2.1 lbs. / foot (3.2kg / meter)

Operating Temperature: Design Temperature - 160 degree F (71 degree C), can be as low as 120 degrees F
Maximum recommended - 180 degree F (82 degree C)

Water Content: System I Baseboard - 2.774 US gallon per 100 feet; System II Baseboard - 1.840 US gallon per 100 feet; 1/2" pex tubing - 0.920 US gallon per 100 feet

Antifreeze: If required, a heat exchanger is to be used between boiler and closed heating loop.

Fittings: Brass Compression type

Zone sizing: Recommended zone size is 30 feet of panel plus 100 feet of tubing.

Circulation Pump Sizing: Using 1/2" piping charts, calculate the total pressure drop by adding the total number of feet of tubing used plus the total linear feet of panel used x 2 plus 4 feet for each panel used (for end fittings in each panel) for the longest loop = equivalent 1/2" tubing. Multiply this number by the head loss per foot for the desired gallon per minute flow rate. You can now select the appropriate circulation pump size from the circulator charts.
**PANEL HEAT OUTPUT PER LINEAL FOOT (BTU)**

Test results have been adjusted to reflect a 15% radiant efficiency factor. Data derived from factory tests February 1996. Complete test data available on request.

**WATER TEMPERATURE INPUT/ BTU OUTPUT PER FOOT**

<table>
<thead>
<tr>
<th>DEGREE FAHRENHEIT</th>
<th>120</th>
<th>130</th>
<th>140</th>
<th>150</th>
<th>160</th>
<th>170</th>
<th>180</th>
</tr>
</thead>
<tbody>
<tr>
<td>System I @ 1 Gallon</td>
<td>187</td>
<td>201</td>
<td>230</td>
<td>288</td>
<td>316</td>
<td>374</td>
<td>460</td>
</tr>
<tr>
<td>System II @ 1 Gallon</td>
<td>129</td>
<td>144</td>
<td>173</td>
<td>201</td>
<td>230</td>
<td>244</td>
<td>288</td>
</tr>
<tr>
<td>System I @ 2 Gallons</td>
<td>230</td>
<td>288</td>
<td>316</td>
<td>345</td>
<td>374</td>
<td>403</td>
<td>488</td>
</tr>
<tr>
<td>System II @ 2 Gallons</td>
<td>144</td>
<td>187</td>
<td>201</td>
<td>230</td>
<td>259</td>
<td>288</td>
<td>316</td>
</tr>
</tbody>
</table>

www.baseboardrads.com
PARTS & INSTALLATION GUIDE

MATERIALS: Aluminum Baseboards, Aluminum Cover Plates, Cover Supports, Copper "U" Bends, Copper 90 Degree Bends, Galvanized Steel Mounting Brackets, Reflecto-Foil™ Insulation

PANEL SIZES: 2 ft. to 10 ft. in 1 ft. increments
Panels can be custom cut. Price is charged at next size up.
(je. 2-1/2' = 3' cost)

* Simple, fast installation with compression fittings; no cutting or soldering.
* Compatible with 1/2" Pex tubing or 1/2" standard copper tubing
* Save as much as 75% of energy costs over traditional heating systems.
* Ideal for existing or new residential or commercial applications.
* Clean, sleek design eliminates openings, dust catchers and dust movement.
* Rugged design can take everyday abuse from children, furniture, etc.
* Panels can be positioned horizontally or vertically for areas with limited space.
* Standard colour is trim white, but panels are easily paintable.

www.baseboardrads.com
This guide assists you in easily designing and installing the Rescom 2100™ system. Although this system is very easy to install, we advise you to contact your local municipal planning department regarding the design of your new hot water heating system to ensure that it conforms to local plumbing and heating codes.

1. A proper heat-loss calculation for your house and a system layout should be done to determine the number of feet of panel required to satisfy your heating needs.

2. Determine what will be the source of hot water for your heating system (i.e. boiler, hot water tank, etc.). You must allow for control and safety devices in the system.

3. Install both a return and supply line from your heating source. (We recommend Pex tubing be used due to its ease of use and superior strength and durability.) Send the tubing up through the wall or along the floor joists to the point where you plan on locating the first Rescom 2100™ panel in the specific loop. Note: a maximum of 30 linear feet of panel is to be used in one loop.
4. Tuck the enclosed section of Reflecto-Foil™ insulation into the back of the Rescom Rad. Next, insert one of the enclosed mounting brackets into one end of the panel and screw the bracket to the wall. If carpet is to be laid after installation, you should raise the panel accordingly. Then insert the second mounting bracket into the other end of the panel and screw to the wall. Wall plugs may be required to secure the mounting brackets. See diagram #1.
5. Connect the supply and return tubes to the first end of the panel. The enclosed compression fittings allow for simple installation of the panel. Slip the nut over the end of the pipe, then the compression ring. Next the 1/2" insert slips into the end of the pipe, if you are using Pex tubing. If you are using copper, eliminate the insert. The nut and compression ring then attach to the end of the panel. Using two wrenches, hold the brass fitting on the panel while tightening the nut around the tubing being sure the tubing stays pushed fully into the fitting. Ensure the fittings are secure and tight. See Diagrams #2 and #3. Do NOT over tighten!
6. Secure the supply and return tubing at the other end of the panel, and continue the tubing to the next section of panel. Continue until you have reached the end of your loop. At the end of the loop, a copper "U" bend is to be used to complete the loop. The "U" bend is attached to the panel in the same manner as the Pex tubing using the compression fittings but eliminating the 1/2" insert. See diagram # 4.

Diagram #4

www.baseboardrads.com
7. Next, snap cover plates onto either end of the panel to conceal the tubing and fittings; trim and cut cover plates, if necessary, to accommodate tubing.

8. The system is now ready to be filled and tested for leaks. Depending on the design of your system, water or a combination of water and glycol can be used (i.e. cottage application). Once the system has been filled, re-tighten all compression fittings.

9. If a manifold controls your system, the manifold should be located near your heating source and include a filling and venting device as well as an expansion tank. It is advised that the loops that service different rooms of the house are identified at the manifold (i.e. living room, bedroom, etc.).

10. To clean the panels, use mild soapy water or WD-40.
CORNER ASSEMBLY

Inside Corner Assembly

One cover panel has notches to accommodate 90° bends

1. Slide notched cover into place first
2. Then butt up a 12” cover plate against it.
CORNER ASSEMBLY

Outside Corner Cover Plate

www.baseboardrads.com
STACKED PANEL ASSEMBLY

Double Stacked

Triple Stacked
Panel end with fixtures
Copper U-Bend installed
Copper 90 Degree Bends attached to only one panel
Interior view of Outside Corner Cover Plate covering Copper 90 Degree Bends
Exterior view of Outside Corner Cover Plate
Inside corner showing 90 Degree Copper Bends installed
Inside corner with Inside Corner Cover Plates ready to slide into place
First Inside Corner Cover Plate slid into place
Both Inside Corner Cover Plates slid into place
Backside view of Inside Corner Cover Plates slid into place
For more information:

Call: 905-428-0146

eMail: info@baseboardrads.com

Visit: www.baseboardrads.com