

## Technical Notes

### Mounting Procedure for Field Curved Runtal Radiators

#### A. General Guidelines for Field Curved Radiators

1. Only single panel “R” and “RF” radiator models can be field curved.
2. The minimum radiator length is typically 15'-0”.
3. The minimum radius is typically 15'-0”.
4. A single radiator can be curved to ¼ of the total circle, but no more.

#### B. Wall Preparation

1. Field Curved “R” model radiators have mounting clips welded periodically across the back of the radiator, starting 4” in from each end, and evenly spaced in between. The total number of brackets is dependent on the radiator’s length:  
180” to 236” – use 7 brackets  
238” to 296” – use 9 brackets  
298” to 354” – use 11 brackets  
The required brackets will most likely not line up with wall studs. Therefore, some means of solid backing must be provided at the proper height between the wall studs at the bracket locations so that the brackets have something solid to support them. This solid backing could be in the form of wood or steel blocking between studs. Another popular method is to screw a wide strip of sheet metal (18 gauge minimum) to the face of the wall studs at the mounting bracket height, from one end of the radiator to the other. The curved drywall is then mounted over the wall studs and sheet metal, hiding the sheet metal. A second row of blocking or sheet metal is optional (but not absolutely required) at the height of the lower radiator mounting clips. This lower row gives a solid backing for the lockdown brackets recommended on each curved installation. For radiators four tubes or less, a single wide sheet metal strip can be used for both the top and bottom brackets.
2. Field Curved “RF” model radiators have a continuous mounting cutout along the back of the radiator, and therefore the K12 brackets should be placed on wall studs as close to each end of the radiator as possible. If the end wall bracket is more than few inches from the end of the radiator, an additional bracket may be needed to hold the end of the radiator out from the wall. The remainder of the brackets should be spaced out as evenly as possible on studs in between. The required number of brackets is as follows:  
180” to 236” – use 7 brackets  
238” to 296” – use 9 brackets  
298” to 354” – use 11 brackets  
Solid bracing between studs (as described above) at the bottom clip height is optional (but not absolutely required), for solid mounting of the lockdown brackets.

#### C. Mounting Procedure

1. Once the wall mount brackets are secured solidly to the wall, the mounting procedure for “R” and “RF” radiators are basically the same.
2. First, put the hold off bolts through the slots in the lockdown brackets. There will be one hold off bolt for each upper mounting bracket, however you do not need a lockdown bracket for each hold off bolt. Runtal recommends a minimum of (3) lockdown brackets for radiators shorter than 236”, (4) lockdowns for radiators between 238” and 296”, and (5) lockdowns for radiators over 236”.

3. Screw the hold off bolts (with their lockdown brackets if they have them) into the radiator. Try to screw the hold off bolt in just far enough so that it will hold out the bottom of the radiator far enough to make the radiator hang parallel with the wall once it is mounted.
4. The more people there are to help actually lift and mount the radiator, the easier the task. Runtal recommends a minimum of three people, with the ideal number being one person for each bracket location.
5. Start at one end and clip the radiator on the first bracket. Then gently push the radiator back towards the next bracket, and so down the line until all of the clips can be mounted down on the brackets. The amount of force required to curve the radiator to the wall corresponds to the curving radius; the tighter the radius, the more force which will be required.
6. Adjust the hold off bolts if necessary to plumb the radiator.
7. Once the radiator is set on the upper brackets, drive a screw into the wall through the lower slot of the lockdown bracket. This will prevent the radiator from rising up off of the upper brackets.

#### **D. General notes on Field Curved Radiators**

1. Field curving is not perfect. The last six inches on each end of a curved radiator will actually reverse curve back towards the wall, the result of the front tube face needing to travel the same distance as the back tube face. This effect is hardly noticeable on large radius applications, and fairly noticeable on tight radius applications. This is typically not a problem for a single curved radiator. However, for multiple curved radiators piped in a series, the pipe couplings will not line up and a flexible means of connection needs to be used.
2. Standard pipe trims do not curve well. Full trim covers will not curve at all. Therefore, center pipe trims between two curved radiators should only overlap the radiators about an inch maximum on each side. Also, the shorter the trim, the less noticeable the fact that the trim is not curved. Do not use 24" center pipe trims if at all possible.