Installation and Maintenance	IM 822
	Group: **Applied Systems**
	Part Number: **IM 822**
	Date: **July 2005**

Rooftop Seismic Roof Curb Installation

- **Type RPS, RFS, RCS, RDS, RAH, RAR, RPR**
- **C Vintage**

Assembly and Attachment Instructions

It is important to follow these installation instructions for all IBC Seismic compliant McQuay Rooftop units.

IBC Seismic compliant McQuay Rooftop units can be mounted to either a roof curb or a post and rail setup. If using a roof curb, it must be specifically designed for seismic restraint and be IBC seismic compliant (spring isolated or non-isolated type seismic roof curbs are available). Typical construction of a seismic rated roof curb is from structural steel framing and contains seismic hold down brackets for attachment of the rooftop unit (see Figure 1). Post and rail arrangements rated for seismic applications are also available (spring isolated or non-isolated).

IMPORTANT: An acceptable IBC seismic installation provides a direct positive attachment to both the building structure and the roof mounted equipment.

Refer to the roof curb manufacturer's submittal drawings for actual roof curb assembly, attachment details and rigging instructions for both roof curb and post and rail arrangements.

Roof Curb Arrangement

1. Set the rooftop unit on the roof curb (McQuay Rooftop units are designed to overhang the roof curb).
2. Adjust the seismic hold down brackets so they come into contact with the unit base per Figures 2 and 3 on page 2.
   - **a** The seismic hold down brackets should be adjustable and accommodate the overhang of the rooftop unit.
   - **b** If the hold down bracket cannot reach the unit base, use a shim spacer. See Figure 3 on page 2.
3. Weld each seismic hold down bracket (and shim spacer, if required) to the unit base as shown in the acceptable weld zone detail in Figure 2 on page 2.

⚠ CAUTION

When welding unit to the curb, do not damage wiring (control panel side). Weld ONLY in the specified zone in the acceptable weld zone (see Figure 2 on page 2). Welding must comply with weld fillet size, etc. as indicated in Figure 2 on page 2.

Note – High temperature insulation is installed at the factory to allow for field welding along the lower front edge region of the unit base.

Figure 1: Typical seismic roof curb (spring isolated)

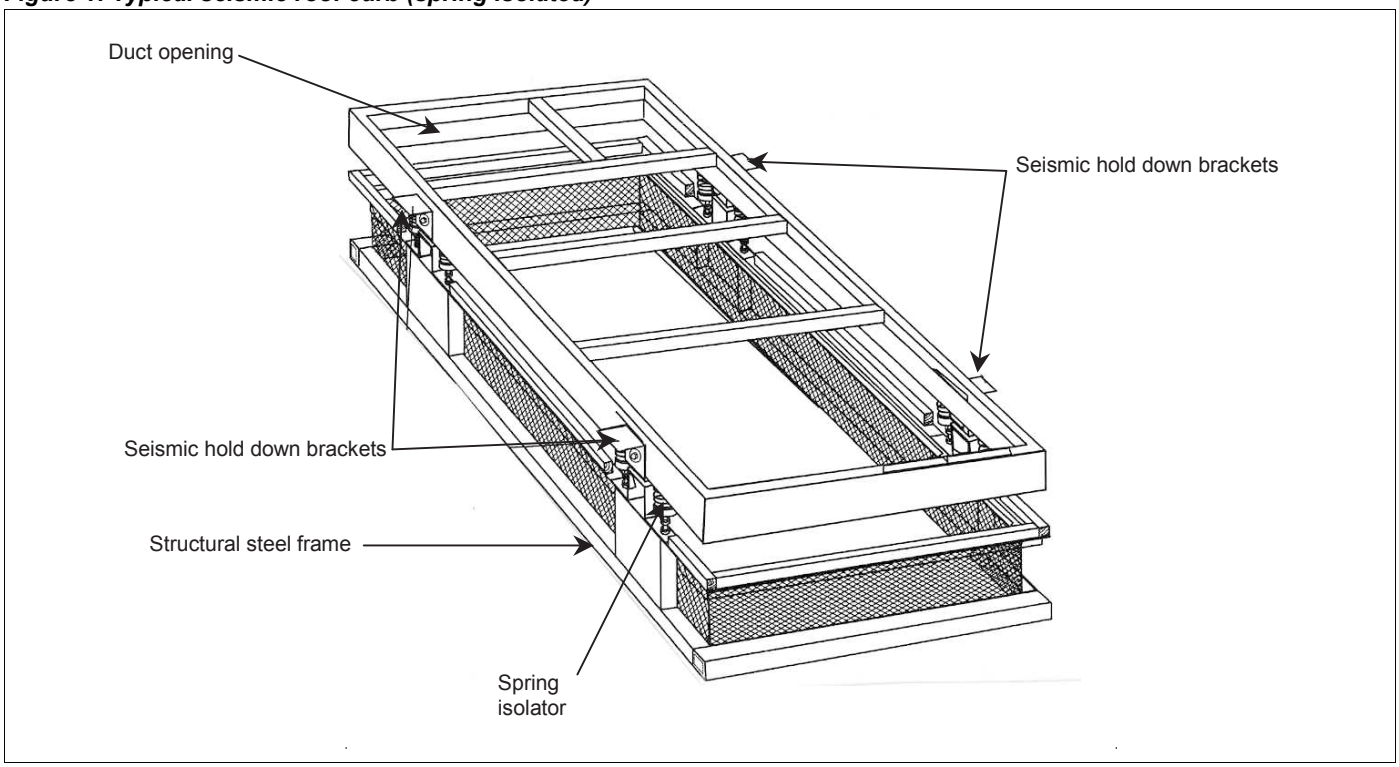


Figure 2: Welding of hold down brackets—unit base, cross-sectional view

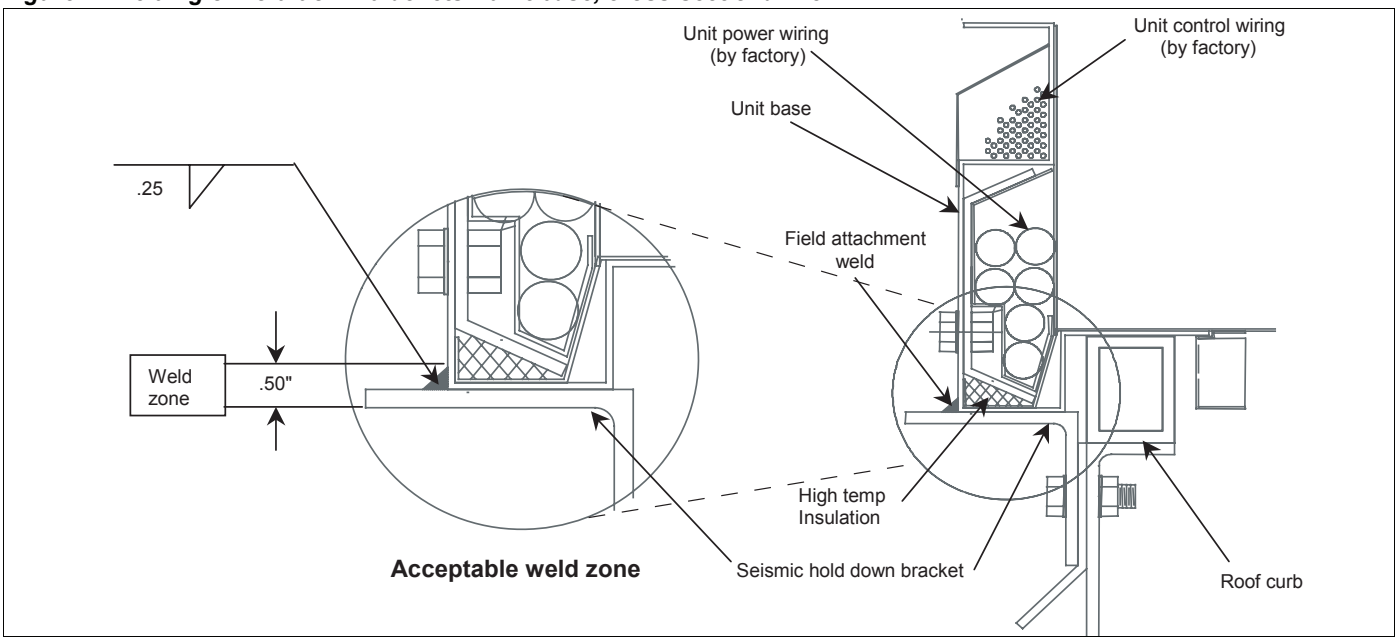
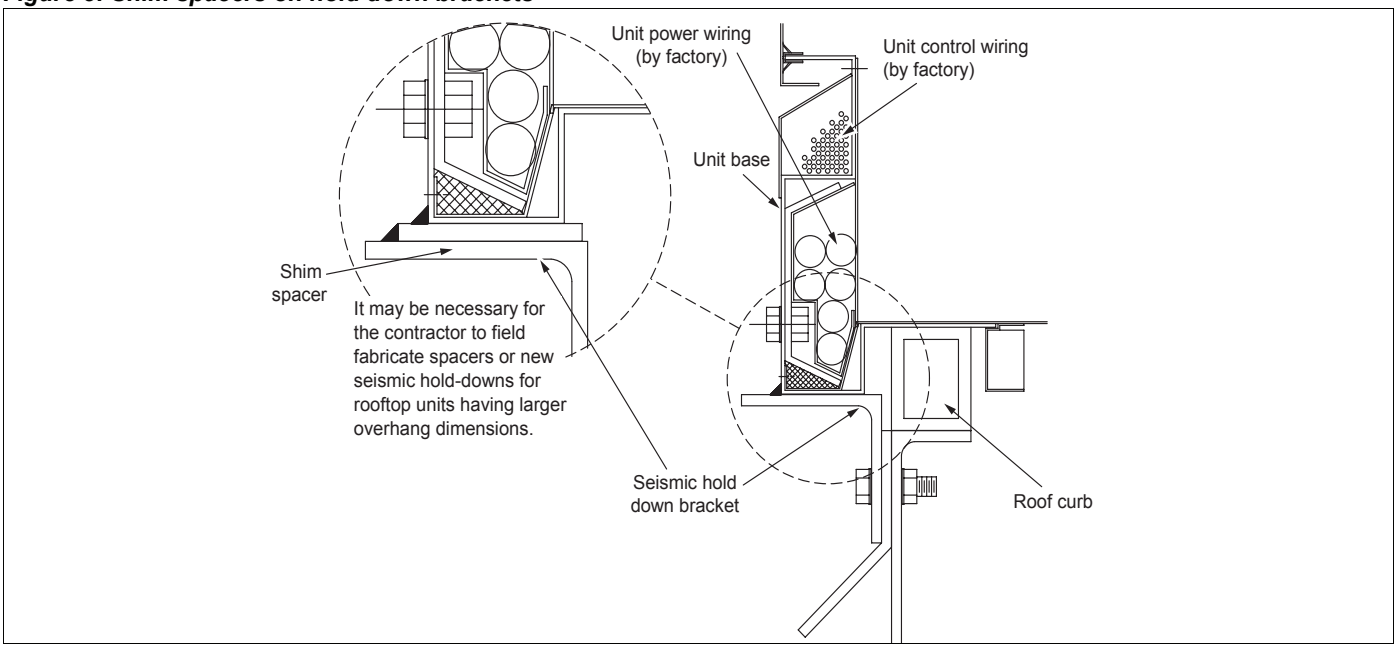


Figure 3: Shim spacers on hold down brackets



Post and Rail Arrangement

1 Set the rooftop unit on the rails. The rails should run lengthwise and support the entire unit base.

2 Weld both sides of the unit directly to each rail as shown in Figures 4 and 5 on page 3. The total number of welds required is dependent on the length of the unit.

- **a** Make the fillet welds 2 inches long, spaced 48 inches apart on centers.
- **b** Place the end welds 6 to 12 inches from the unit edge.

⚠ CAUTION

When welding unit to the curb, do not damage wiring (control panel side). Weld ONLY in the specified zone in the acceptable weld zone (see Figure 4 on page 3). Welding must comply with weld fillet size, etc. as indicated in Figure 4 on page 3.

Note – High temperature insulation is installed at the factory to allow for field welding along the lower front edge region of the unit base.

Figure 4: Welding of unit to rail—unit base, cross-sectional view

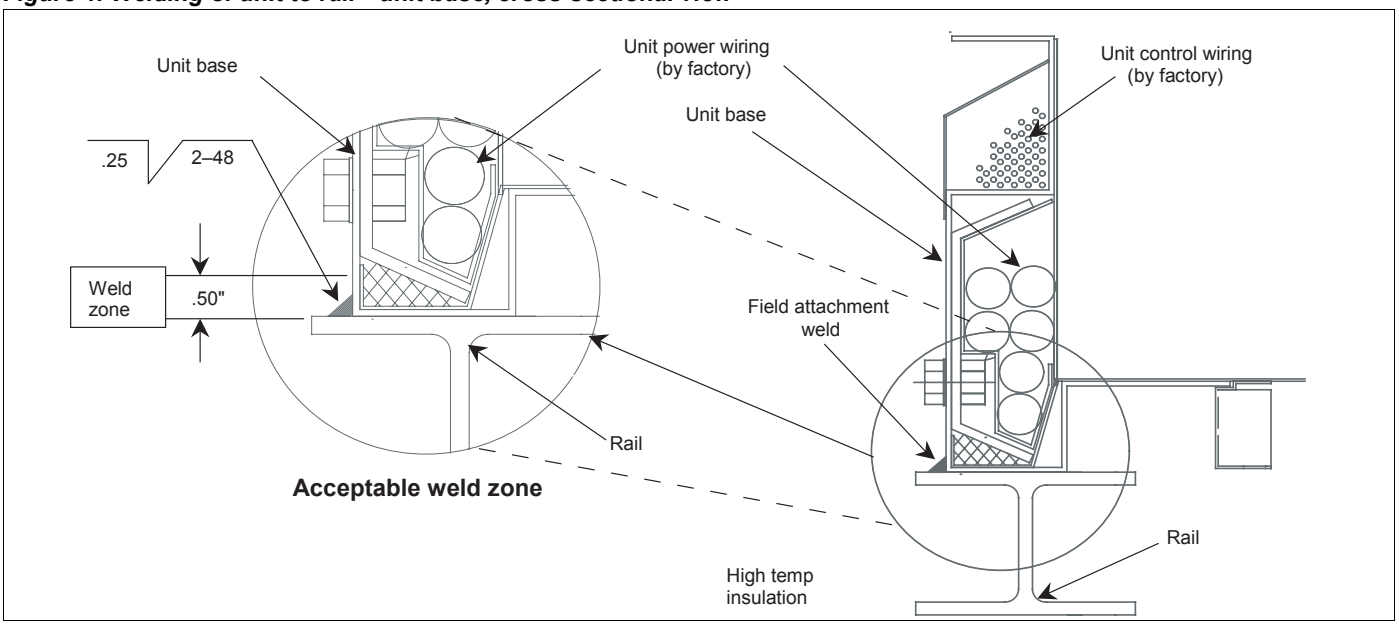
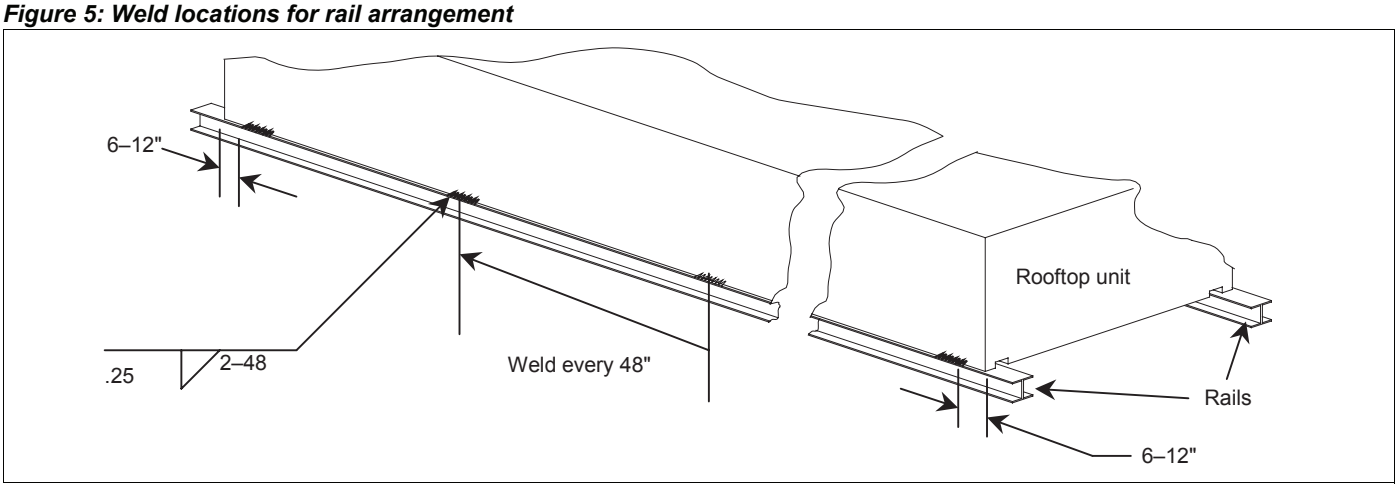


Figure 5: Weld locations for rail arrangement



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