

HUSHCORE™ *UnitaryPlus*™ “IS” System Installation Guidelines

NOTE: It is the exclusive responsibility of the HVAC contractor to assure that the chiller piping, utility lines, and other connections to the chiller do not interfere with the structural steel framing, columns or other components of the *UnitaryPlus*™ “IS” System.



I. LIST OF TOOLS RECOMMENDED FOR INSTALLATION (MINIMUM)

- A. Crane sized for the pick and reach requirements of the structural steel and panel weights.
- B. Lifting straps for proper lifting of columns and panels.
- C. Wrenches sized for tightening the anchor bolt nuts as shown on the installation drawings
- D. Pry bar.
- E. Hammer and sledge hammer.
- F. 4' Level or laser level system.
- G. Paint brush (approx. 1/2" wide) for any touch up needed (for painted systems only)
- H. 2" x 4" x 6" wood blocks. (minimum 4)
- I. Jig saw, hack saw, electric hack saw and tin snips. These tools are required for field modifications and to allow clearance around pipes, equipment, or other obstructions/penetrations.

II. PLANNING

Coordinate the chiller concrete pad dimensions and depth to handle support of the vertical columns of the *Unitary™* "IS" System. The concrete pad must be sized to extended minimum 24" beyond the footprint of the chiller on all sides. The pad depth must be thick enough to accommodate the anchor bolt embedment depth shown on the drawings.

Prior to beginning installation of your barrier system review the drawings which may include some or all of the below:

Plan View - showing the general foundation and column layout

Elevations – showing all walls viewed from the outside of the barrier and in some instances Internal Elevations.

Panel Layout Plan – showing the proper layout for the panels by mark-#.

Detail Sheet – showing all necessary details keyed to their appropriate location on either the Plan Views or Elevations.

Panels and connector components are keyed to the drawings and Bill of Materials in the following manner:

1. Panels are marked on the drawings by Panel Mark Number (i.e. 1-1, 1-2, etc.) and by the nominal size of the panel (i.e. 48x108 is a 48" x 108" panel). NOTE: Actual panel sizes could measure slightly undersized from the dimensions on the drawings to allow for column web thicknesses and tolerances.
2. Connector and Joiner components are indicated on the Drawings by type and length.
3. Please review drawings and details to determine **corner configurations**.

III. SET STRUCTURAL COLUMNS

First, Survey all the foundations and anchor bolts. Check each set of anchor bolts for proper layout and center-to-center dimensions. Call BRD immediately if there are any variations from the installation drawings. If dimensions are OK, set all the leveling nuts accordingly such that the bottoms of all base plates are at the same elevation. If drop in anchors are used, refer to the drawings for details on installation.

Using the crane (or hoist system) set each column on the anchor bolts. Ensure that the column configuration and mark # match the location on the installation drawings. Plum and square each column then tighten anchor bolt nuts.

Set all columns and anchor to foundations. Recheck spacing and center-to-center dimensions before starting panel installation.

Refer to the project drawings for rooftop installations which will require project specific anchorage and attachment methodologies.

IV. PANEL INSTALLATION

Once all columns are set you can begin the panel installation phase. The crating system is designed as the “staging” container as well so be careful when starting to remove panels from the crate. **DO NOT LIFT PANELS STRAIGHT OUT** of the packing crates. This will be difficult to do and has the potential to scratch the panels.

Remove the side wall (long side) of the crate and place some type of clamp at the top of the end wall to hold the panels in the vertical position. Once you are ready to start lifting panels move the clamp back to support the rest of the panels in the crate by freeing the first panel so it can be removed. Set the panel at the edge, or near the edge, of the crate on some wood blocking to allow you to secure your padded lifting strap around the center of the panel.

Properly secure the strap system to the center of the panel. Lift the panel slightly to ensure the panel is centered on the strap and will not lift out of level. Make sure that panels and steel are safely secured for each lift and are not carried overhead above people below.

Set panels as per the drawing layout at the top of the column steel. Support will be on factory welded bracketing. Secure panels with a limited number of screws until all panels have been set and seated. The joining method of the panels around the edge of the condenser fan deck may vary. Tongue and groove, H joining and V groove sealing are the most typical.

Install corner flashing after panels are fully leveled and anchored using sheet metal angles called out on the drawings. Flashing is usually supplied in standard lengths and cut to size in the field at the time of installation. Do not install the perimeter cap channels until after the splitter baffles have been installed.

V. SPLITTER BAFFLE INSTALLATION

After the steel and perimeter panels have been installed to form the completed acoustical discharge plenum, the internal splitter baffles can be installed. Please note that the flat edge of the baffles faces down.

Refer to the project specific drawings or submittals for the quantity of baffles and spacing. Layout the baffle locations and mark vertically on the inside of each plenum side wall. Mark the depth of the baffles on each side wall measuring down from the top.

Project drawings will show angles or channels to be used and their location to support the baffles. Use Tek screws for attachment and anchorage.

Install the perimeter only cap channel flashing.

SHOULD YOU HAVE ANY QUESTIONS DURING INSTALLATION PLEASE CONTACT BRD Noise and Vibration Control, Inc. @ (610) 863-6300.