Chart 28

Channel Rack Frame Assembly Floor Preparation

TOOLS REQUIRED

Rotary impact drill and associated drill bits
Chalk line, with chalk
Steel measuring tape (25-foot)
Extension power cord (3-wire, 50-foot)
Hammer (24- to 40-ounce)
Trouble lamp, insulated (e.g., Duralamp)
Vacuum cleaner
Felt marking pens
Roll of adhesive tape
Roll of cellophane tape
Anchor setting tool (Redhead RT58 or equivalent)

Procedure

1. Verify that the area dimensions and location of reference points correspond to the floor plan.

2. Using the job floor plan, mark equipment locations on floor. Figure 1 shows typical aisle spacing for front/rear equipment access and/or removal.

Figure 1. Sample Floor Location

1. Mark the front base line and end of frame using the chalk line.

2. See Figure 2 for anchor bolt placement dimensions. Using a felt marking pen, accurately mark the anchor points for each frame per these dimensions.

Figure 2. Frame Anchor Points

1. Are self-drilling anchors used?

If yes, go to step 10.
If no, go to step 6.

Expansion Anchors Installation

1. Drill the anchor holes 5/8-inch by 2 inches deep.

2. Use a vacuum cleaner, or equivalent, to remove debris from anchor hole and the surrounding area.

3. Install expansion shield in each hole and set with a setting tool.

4. Go to step 21.

Self-Drilling Anchors

1. Position and lock the chuck/shank assembly in the rotary impact drill.

2. Insert and seat anchor in the chuck.

3. To position the anchor, operate the drill in the impact mode.

   NOTE: *Use the impact action until the teeth are embedded just below the concrete surface.*

4. Engage the rotation action and drill until the chuck is within 1/16-inch above the concrete surface, as shown in Figure 3.

NOTE: *Let the tool do the work. Apply just enough pressure to control the tool. Vertical force in excess of the weight of the tool tends to reduce the impact force, which defeats the drilling process for the self-drill inserts.*

Figure 3. Drilling Hole Using Self-Drilling Anchor

1. Stop the tool and lift approximately one inch to disengage impact action; then start tool and withdraw the anchor.

2. Disengage the rotation action and, while the anchor is still attached, start the tool to expel the concrete cuttings from the anchor.

3. Completely remove concrete cuttings from the hole.

   NOTE: *Inspect the hole for any concrete chips. The hole must be completely clear for proper seating of the anchor.*

4. Insert and lightly seat the expansion plug in the anchor.

5. Verify that the tool is in the impact position only.

6. Insert the anchor into the hole and set with impact action of the tool until the chuck is 1/16-inch above the concrete, as shown in Figure 4.

Figure 4. Setting Anchor

1. Break off the chucking cone. A hard push of the tool will be sufficient to break off this cone.

2. Remove the cone from the chuck.

3. If equipment frames are not to be installed immediately, cover the anchors with adhesive tape.

4. STOP. This procedure is complete.