INSTALLATION INSTRUCTIONS • DUCT-O-BAR FIGURE 8 SYSTEMS

TYPICAL INSTALLATIONS

VFE

Angle Brackets

Lateral Brackets

Straight Brackets

V-BAR

"X" Dimension for spacing
1-1/2" - single staggered collectors
3" - parallel mounted collectors

For bracket details and prices, see FE Figure 8 brochure and price list.

Recommended support spacing - 5 ft. maximum

Use vertical collectors for angle and straight brackets.

Use lateral collectors for lateral brackets.

See collector sheet

CAUTION

MAKE CERTAIN POWER SUPPLY IS DISCONNECTED BEFORE INSTALLING, REPAIRING, OR WORKING IN THE PROXIMITY OF ANY ELECTRICAL SYSTEM. ONLY QUALIFIED ELECTRICAL PERSONNEL SHOULD INSTALL OR REPAIR THESE PRODUCTS.

Be sure collectors are aligned directly under the center of their respective conductor bars.

Brochure VFE-95-INST
EXPANSION GAP & ANCHORING REQUIREMENTS

Steel Expands
Copper Expands

Expansion gaps should be placed at intervals determined by the temperature rise of the specific conductor. If the estimated temperature rise for a steel conductor system is 100°F, provisions should be made for expansion gaps at midspan for systems 300 ft. to 500 ft. in length. Beyond 500 ft. the expansion gaps should be placed according to the following table:

Steel Conductors: every 300 ft. of straight run
Copper Conductors: every 200 ft. of straight run
All Systems: at building expansion joints

ANCHORS

Anchor clamps are required at midpoint on all systems without expansion gaps. Systems with expansion gaps require an anchor point midway between expansion gap and each end of the runway. When 2 or more expansion gaps are used, anchor points must also be placed midway between gaps. The use of an anchor clamp set permits controlled expansion toward the expansion gap and the end of the run.

EXPANSION GAP INSTALLATION

A 10' Expansion Gap Assembly is installed in the same manner as other 10' sections of conductor bar. The connector ears have been left off and attached to the lead wire in a bag. This will allow you to position the expansion gap assembly in the proper direction to match the support location with your mounting bracket. It is critical that the expansion gap is installed as shown in the above picture to ensure the assembly and allow the bar to expand as designed. For shipping purposes, the gap has been completely closed and must be adjusted accordingly to the ambient temperature during installation. Set the gap according to the table below. Install the anchor clamps (also attached to the expansion gap) as shown on the enclosed supplementary installation instructions. Package the gap setting after installation of conductor bars.

OPERATING TEMPERATURES

<table>
<thead>
<tr>
<th>Min.</th>
<th>Max.</th>
<th>Ambient</th>
<th>Gap Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100°F</td>
<td>25°F</td>
<td>1/16&quot;</td>
</tr>
<tr>
<td>25°F</td>
<td>125°F</td>
<td>50°F</td>
<td>1/8&quot;</td>
</tr>
<tr>
<td>75°F</td>
<td>100°F</td>
<td>75°F</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>50°F</td>
<td>150°F</td>
<td>100°F</td>
<td>1&quot;</td>
</tr>
<tr>
<td>125°F</td>
<td>125°F</td>
<td>125°F</td>
<td>1/2&quot;</td>
</tr>
</tbody>
</table>

3/8" NPT x 1-1/4" Mounting Bolt

Nylon Expansion Rivet

Using the guide hole in the anchor/hanger drill an 11/64" hole through the first lobe of the conductor and insert the rivet. Be sure to drive the pin firmly into the hole to expand the rivet for proper anchoring.

Dimensions

VFE-908-2PF-A
Anchor/Hanger

Same for VFE-908-2PF Hanger

2
Center Power Feed Installation
1. Alternate power feed locations as shown (Figure 3)
2. Notch the conductor insulating cover on top and bottom (1-1/4" x 1/2" deep) to expose conductor (Figure 4).
3. Assemble the connector clamp over the exposed conductor.
4. Place the power feed wire into the lug furnished with the assembly and tighten the screw.
5. Notch the insulating case halves to provide feed wire entry and assemble the case over the exposed connector parts.

![Figure 3]

Conductor spacing may also be 3" for easier access. *See collector sheet for spacing requirements.

PICKUP GUIDE VFE-908-JN

![Figure 4]

When using pickup guides in discontinuous circuits use the self centering model of the collectors, i.e. V-P-100-S5.

TRANSFER CAP VFE-908-GCT

![Diagram]

NOTE: Deburr end of conductor bar before installing
C - Series Collectors
Vertical Mount - Single Head

V-C-100-V5
V-C-100-V5-H

C - Series Collectors
Lateral Mount - Single Head

V-C-100-L5
V-C-100-L5-H

P - Series Collectors
Vertical or Lateral Mount
Single or Tandem Heads

V-P-100-V5  V-P-200-VT5
V-P-100-L5  V-P-200-LT5
V-P-100-S5  V-P-200-ST5
V-P-100-V5-H V-P-200-VT5-H
V-P-100-L5-H V-P-200-LT5-H
V-P-100-S5-H V-P-200-ST5-H

Special Instructions
For P Series Lateral Mount Collectors

P Series Lateral Collectors have torsion springs at the base of the body pin and must be installed according to the instructions given to the left.

1. Install collector mounting post with the center line of the post 3 1/4" from the contact surface of the conductor bar. (Keep mounting post straight.)
2. For single shoe collectors, install them as shown in figure 1. (Note 2" minimum spacing between conductors.) Collectors cannot be staggered.
3. For tandem collectors, install them as shown in figure 1. (Note 2" minimum spacing between conductors.)