



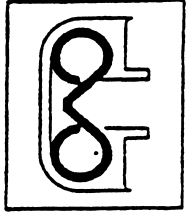
1351 W. Second Street  
 Oconomowoc, WI 53066  
 Phone: 262-567-2288; 800-434-0062  
 Fax: 262-567-0857  
 E-mail: sales@ductowire.com

1445 Norjohn Ct. Unit 10  
 Burlington, Ontario, Canada L7L 0E6  
 Phone: 905-331-2612; 800-361-WIRE (9473)  
 Fax: 905-331-6639; 800-663-0933  
 E-mail: dow@ductowire.ca

# INSTALLATION INSTRUCTIONS • DUCT-O-BAR FIGURE 8 SYSTEMS

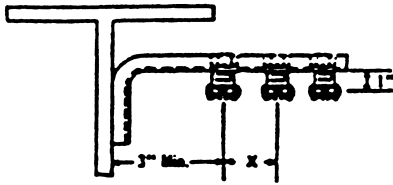
## TYPICAL INSTALLATIONS

## VFE

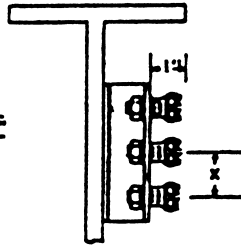


V-BAR

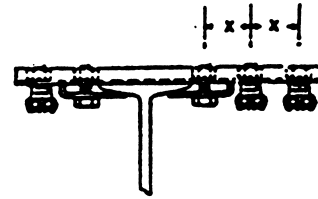
Angle Brackets



Lateral Brackets



Straight Brackets



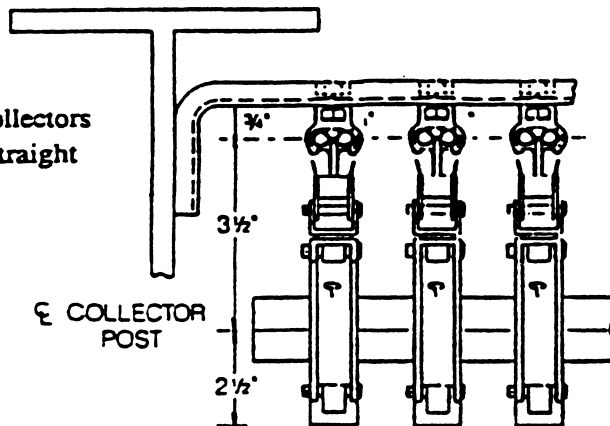
### "X" Dimension for spacing

- 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.

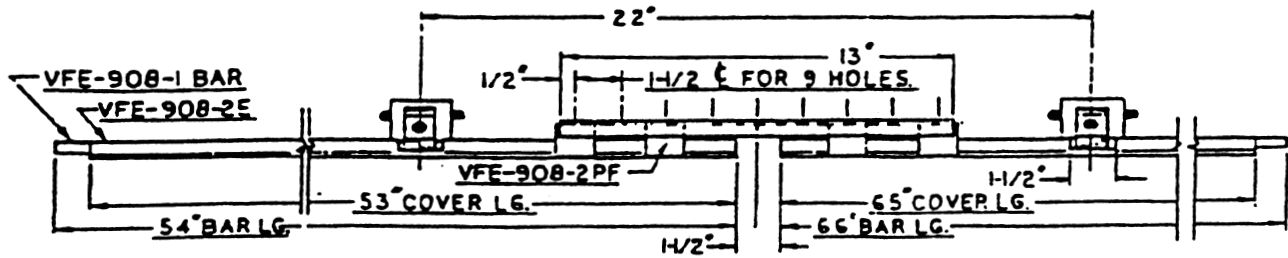
See collector sheet

### 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.

# EXPANSION GAP & ANCHORING REQUIREMENTS



Steel Expands  $1"/100°F/150$  ft.  
 Copper Expands  $1"/100°F/100$  ft.

Expansion gaps should be placed at intervals determined by the temperature rise of the specific conductor, i.e. 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 600 ft. in length. Beyond 600 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.

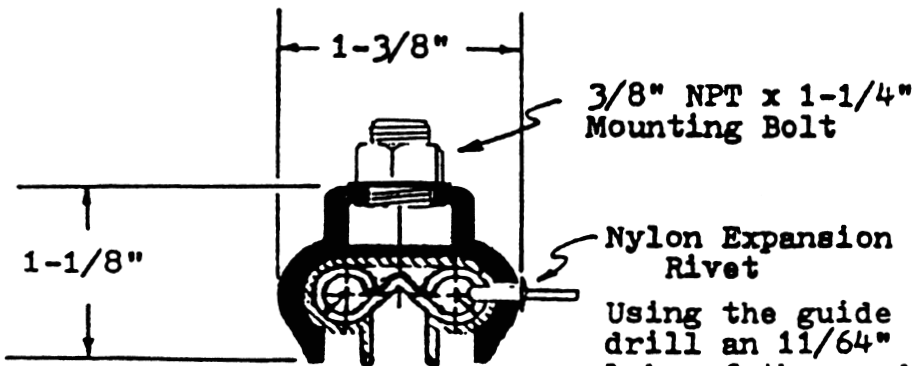
## EXPANSION GAP INSTALLATION

A 10' Expansion Gap Assembly is installed in the same manner as other 10' sections of conductor bar. The connector pins 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 mounted as shown in the above picture to secure 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. Recheck the gap setting after installation of conductor bars.

OPERATING TEMPERATURES		GAP SETTING	
Min.	Max.	Ambient Temperature	Gap Width
0	100°F	25°F	1-1/2"
		50°F	1"
		75°F	1/2"
25°F	125°F	50°F	1-1/2"
		75°F	1"
		100°F	1/2"
50°F	150°F	75°F	1-1/2"
		100°F	1"
		125°F	1/2"

## ANCHORS

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



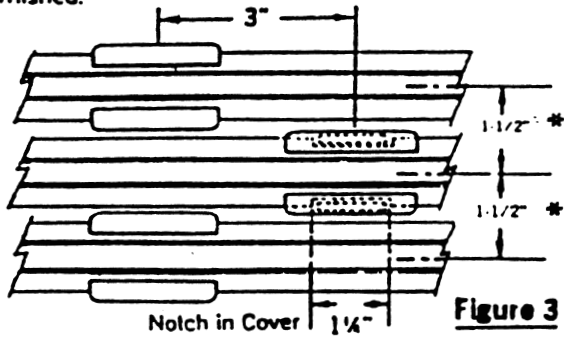
Dimensions VFE-908-2PF-A  
 Anchor/Hanger  
 Same for VFE-908-2PF Hanger

Using the guide hole in the anchor/hanger drill an 11/64" hole through the first lobe of the conductor and insert the rivet.

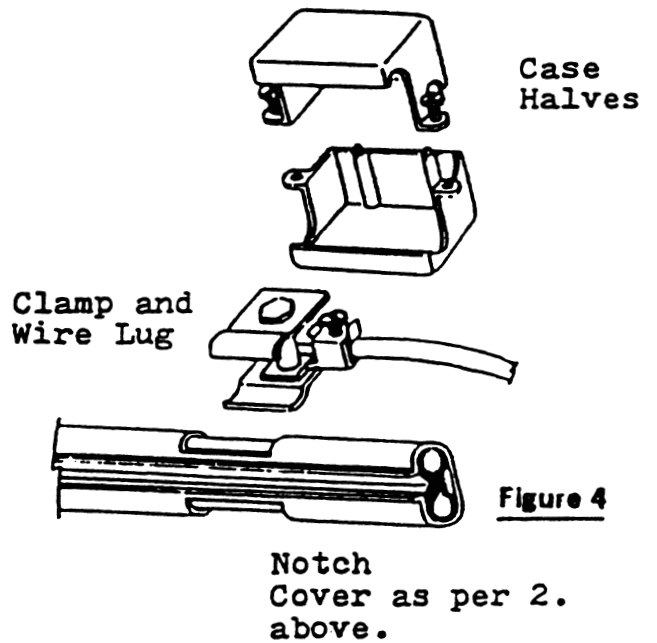
Be sure to drive the pin firmly into the hole to expand the rivet for proper anchoring.

### 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.
6. Secure the insulating case with 2 self-tapping screws furnished.

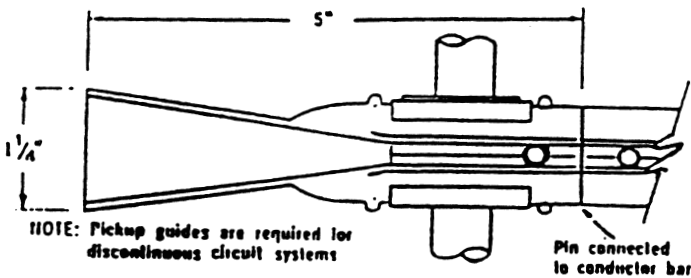


Conductor spacing may also be 3" for easier access.

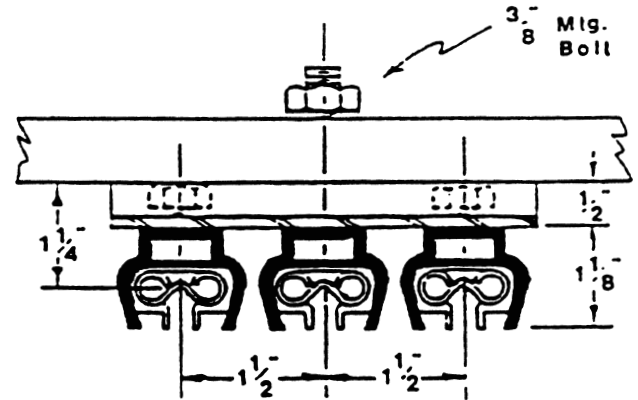


\* See collector sheet for spacing requirements.

### PICKUP GUIDE VFE-908-JN

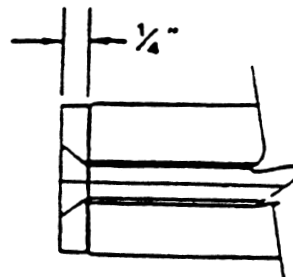
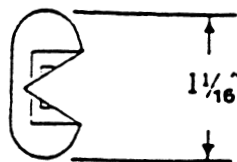


When using pickup guides in discontinuous circuits use the self centering model of the collectors, i.e. V-P-100-S5.



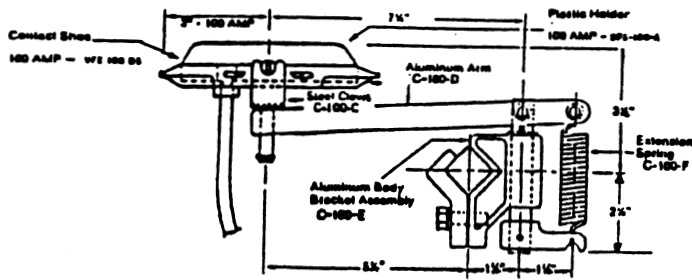
Shown with extra long bolt through bracket.

### TRANSFER CAP VFE-908-GCT



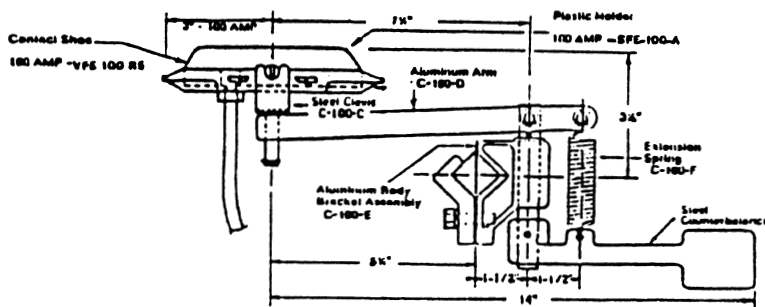
NOTE: Deburr end of conductor bar before installing

# VFE SYSTEM COLLECTOR DIMENSIONS



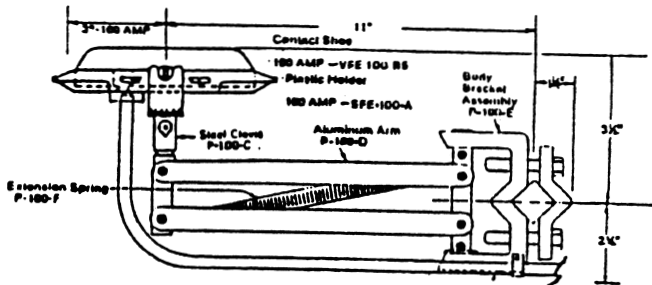
## C - Series Collectors Vertical Mount-Single Head

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



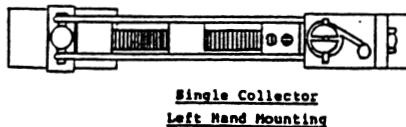
## P - Series Collectors Vertical or Lateral Mount Single or Tandem Heads

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

Figure 1



Figure 2



1. Install collector mounting post with the center line of the post  $3\frac{1}{4}$ " from the contact surface of the conductor bar. (Keep mounting post straight).
2. For single shoe collectors, install them as shown in figure 2. (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.)

## 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.