

INERTIA
ENGINEERING



HIGH VOLTAGE SWITCHGEAR & AUTOMATION EQUIPMENT

SECTION 6 Brackets, Mounts & Misc. Hardware

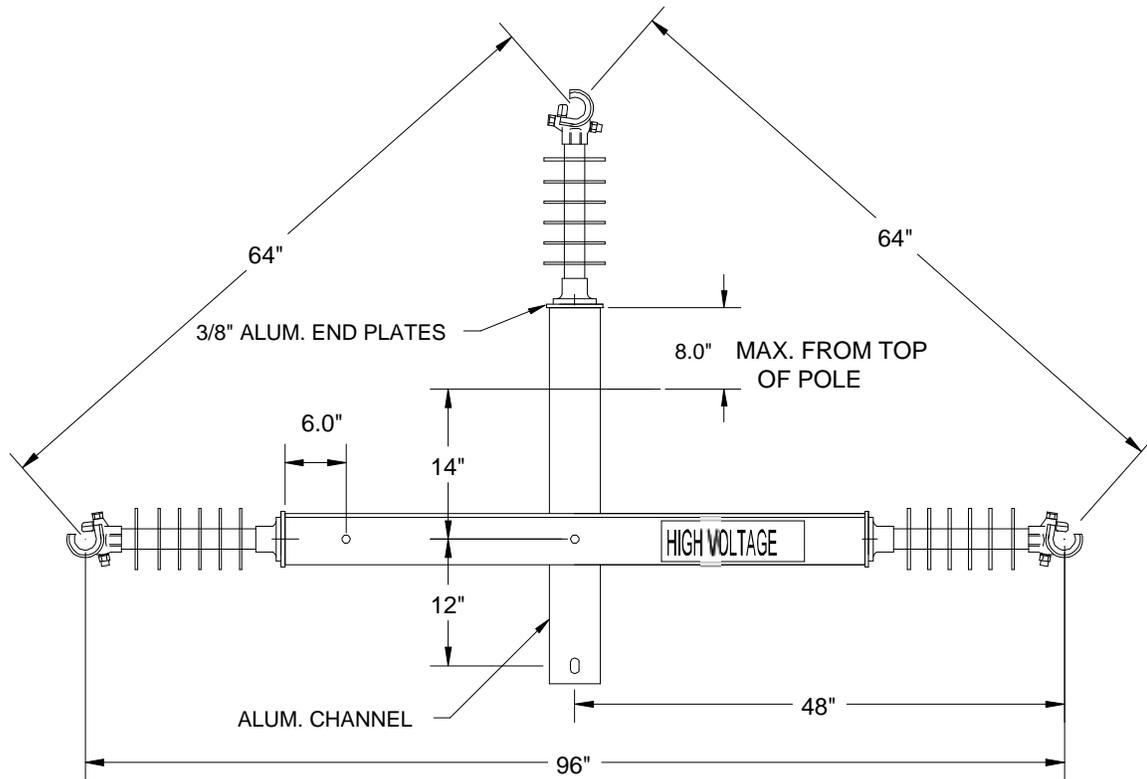
CAT. NO: 040930G
May, 2008



BRACKETS, MOUNTS & HARDWARE

- **Insulator Brackets for Overhead Lines** 6.10-6.16
 - **Vault Brackets and Junction Cabinets** 6.30-6.33
 - **Substation Flexible Jumpers** 6.50-6.51
 - **Miscellaneous Hardware** 6.70-6.73
 - **Self-Design Worksheet** Last page
-

Tri-Frame brackets reduce installation time and crossarm replacement. They are available in 15 kV - 69 kV versions with either standard clearances or raptor protection clearances. They are available either with or without insulators.



3/4"X 1-3/4" GRADE 5 HEX BOLTS AND LOCK WASHERS SUPPLIED WITH 34.5 KV TINNED UNIVERSAL CLAMP TYPE SILICONE INSULATORS.

TORQUE INSULATOR MOUNTING BOLTS TO 65-75 FT. LBS.

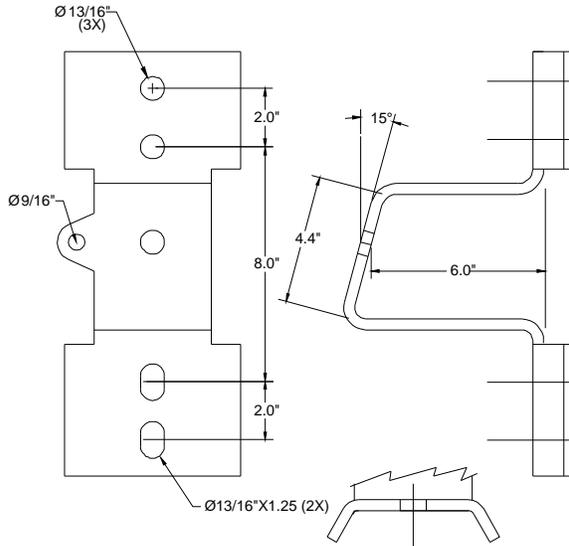
This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.



Material:	Aluminum
Finish:	
Scale:	NTS
Drawn by:	
Date:	11/28/01

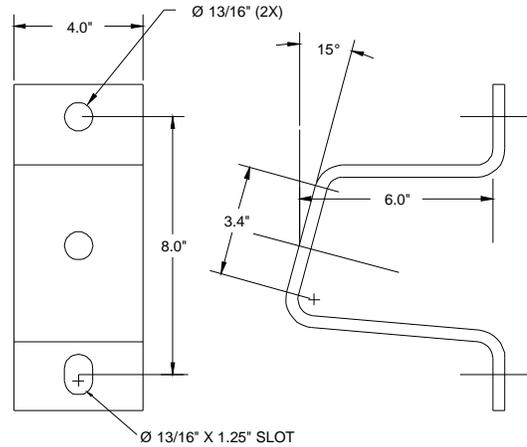
Description: Triangular Framing Assembly 35 kV Raptor Clearance	
Drawing No: 9-084A-EXM	Revision: 0

Order 10 or 10,000 custom standoff brackets, built to your specifications



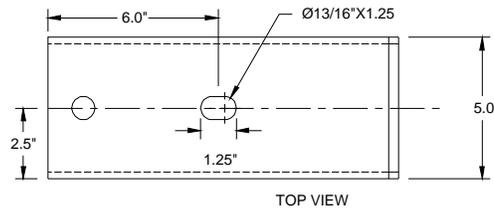
9-342-1M

6" Offset, Line Post Mounting Bracket
with 9/16" Arrestor Mounting Hole
5/16" Hot Rolled Steel Hot Dipped Galvanized

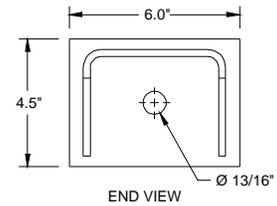


9-342-2M

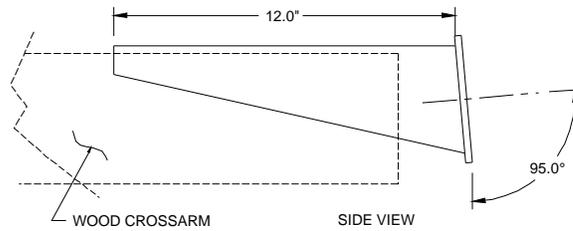
6" Offset, Line Post Mounting Bracket
5/16" Hot Rolled Steel Hot Dipped Galvanized



TOP VIEW



END VIEW



SIDE VIEW

6061 T-6 ANODIZED ALUMINUM

9-341M

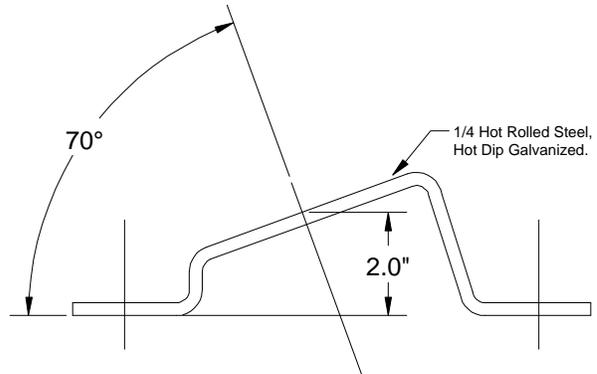
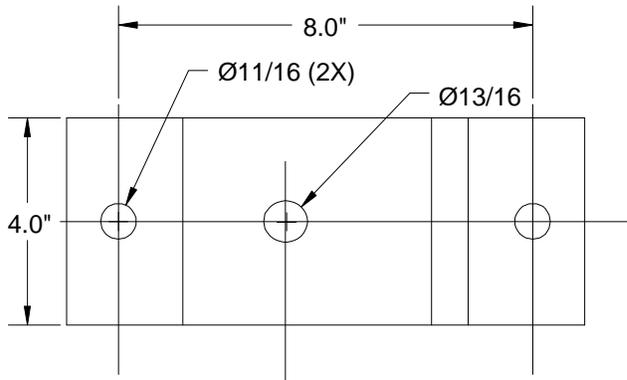
Horizontal Insulator Crossarm Mounting Bracket

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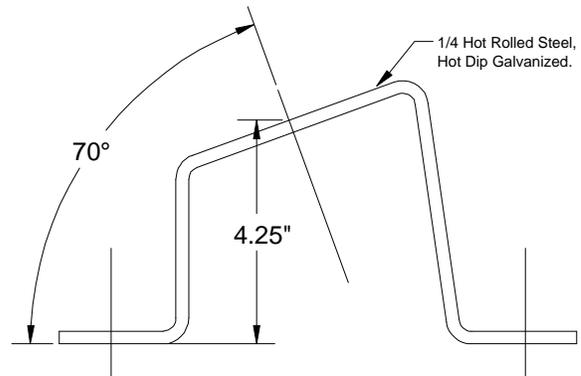
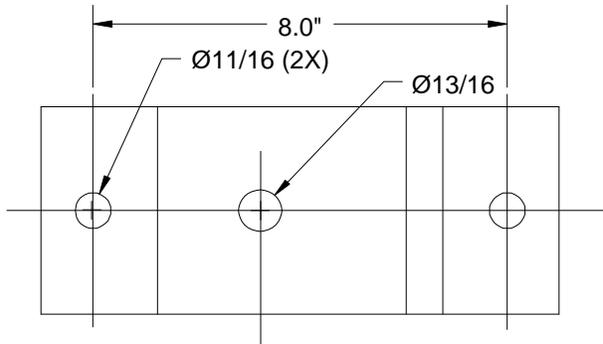


Material:	HDG Steel	Description:	
Finish:		Miscellaneous Line Post Insulator Brackets	
Scale:	NTS	Drawing No:	Revision:
Drawn by:			
Date:	01/12/00	9-341& 9-342M	0

Order 10 or 10,000 custom standoff brackets, built to your specifications



2.0" X 20° X 8.0" MOUNTING INSULATOR STANDOFF BRACKET
5,000 LB. VERTICAL LOAD
9-366-1M



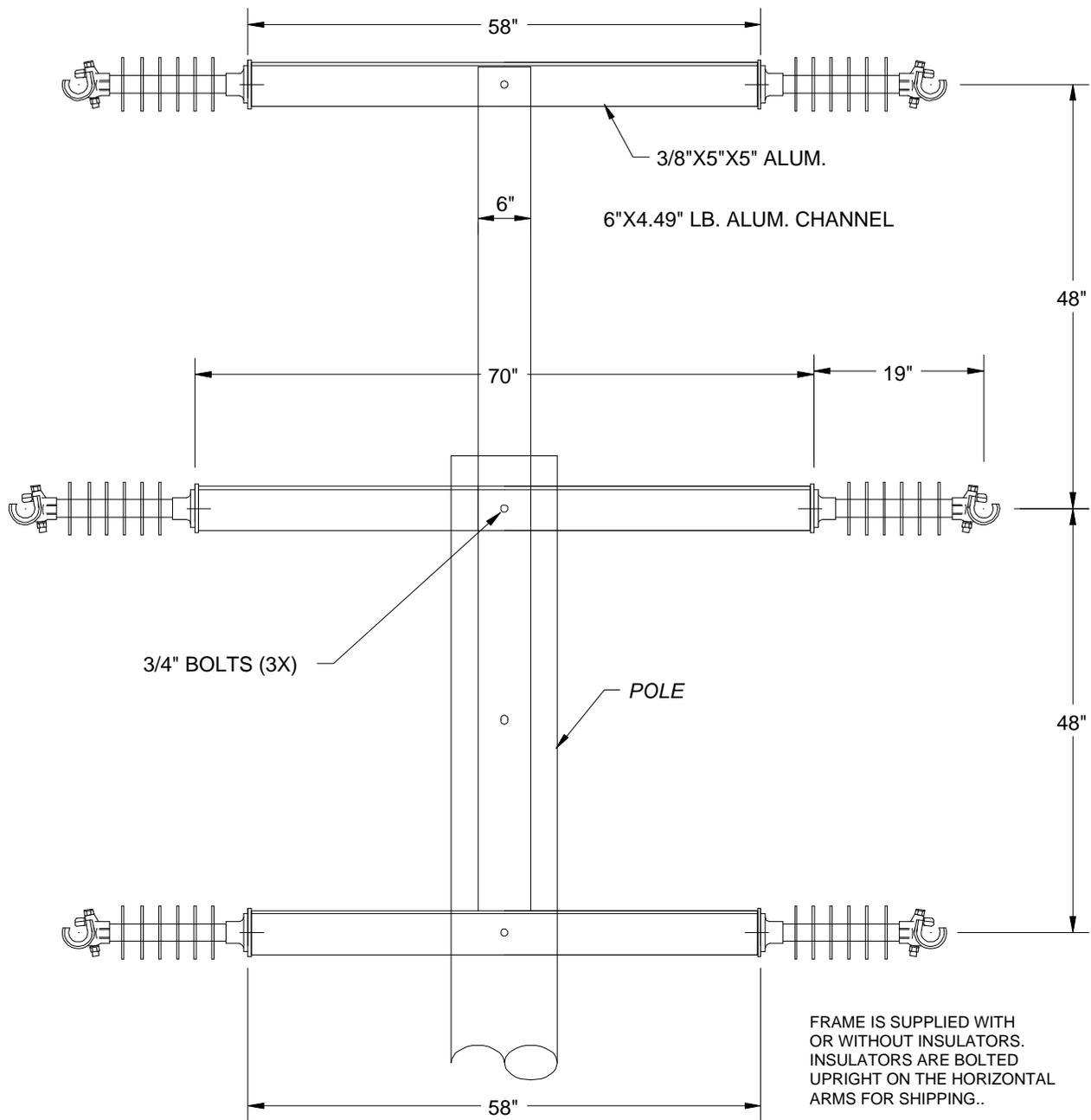
4.25" X 20° X 8.0" MOUNTING INSULATOR STANDOFF BRACKET
2,000 LB. VERTICAL LOAD
9-366-2M

This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.



Material:	1/4" HDG Steel	Description:	
Finish:		Miscellaneous Line Post Insulator Brackets	
Scale:	NTS	Drawing No:	
Drawn by:		9-366M	
Date:	01/15/00	Revision:	
		0	

Twin circuit insulator brackets reduce installation time and crossarm replacement. They are available in 15 kV - 69 kV versions with either standard clearances or raptor protection clearances. They are available either with or without insulators.

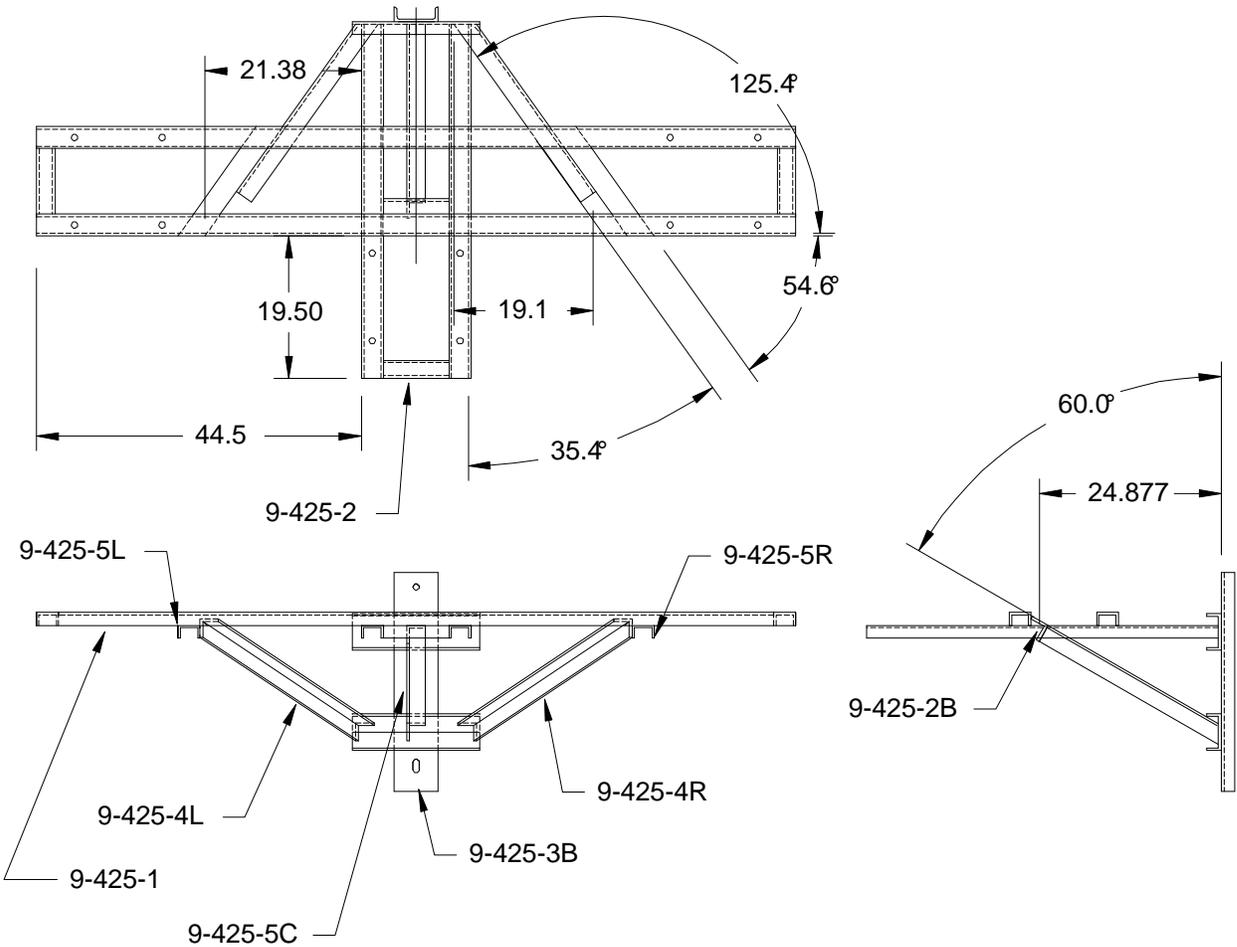


FRAME IS SUPPLIED WITH OR WITHOUT INSULATORS. INSULATORS ARE BOLTED UPRIGHT ON THE HORIZONTAL ARMS FOR SHIPPING..

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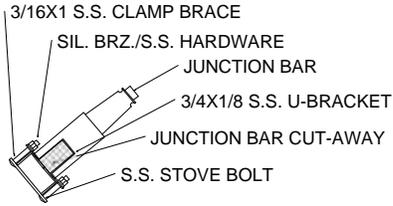
Material:	6061-T6 Al	Description:	
Finish:		Twin Circuit, 34.5 kV Pole Top Insulator Frame	
Scale:	NTS	Drawing No:	Revision:
Drawn by:			
Date:	01/25/00	9-394M	0



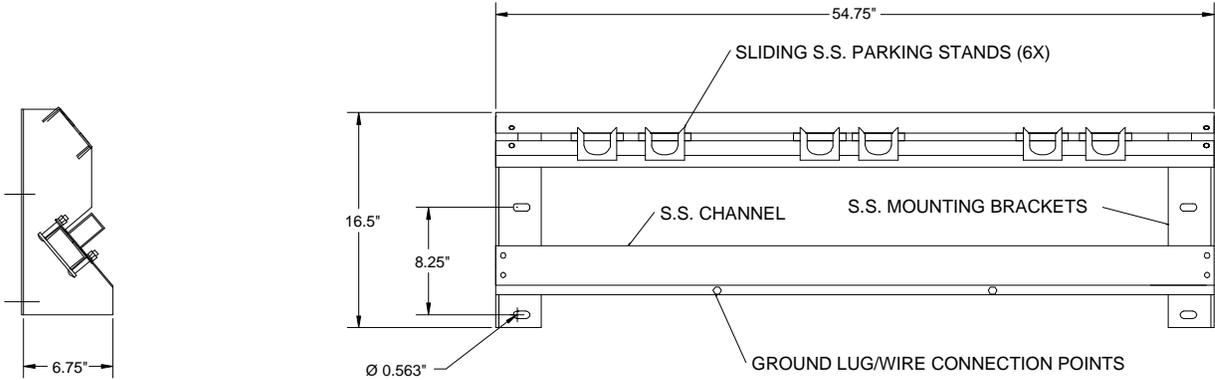
This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.



Material:		Description:	
Finish		69 kV 3-Phase Termination Bracket	
Scale:	NTS	Drawing No:	
Drawn by:		9-425M	Revision:
Date:	04/10/03		0

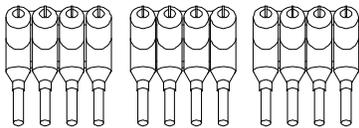


JUNCTION RAIL PROVIDES 3-2 WAY, 3-3 WAY AND 3-4 WAY, 200 AMP AND 600 AMP JUNCTIONS, MOUNTED IN AS SMALL AS A 3 FT. X 5 FT. ENCLOSURES IN A MINIMAL AMOUNT OF TIME. THE STRONG, DURABLE STAINLESS STEEL JUNCTION RACKS ARE AVAILABLE WITH OR WITHOUT JUNCTION BARS. CONSULT THE FACTORY FOR CONFIGURING TO YOUR SPECIFIC REQUIREMENTS.

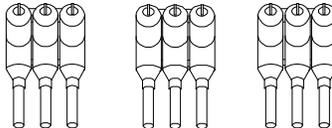


JUNCTION BRACKET ACCOMMODATES :

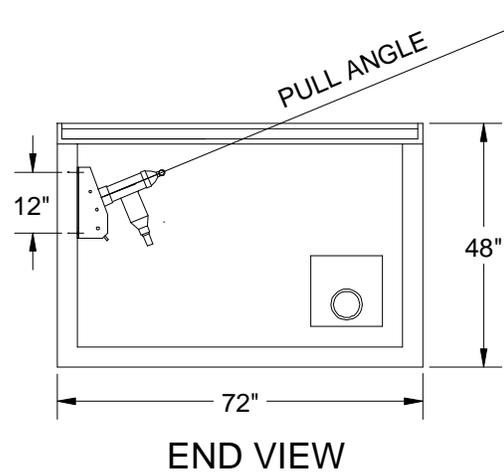
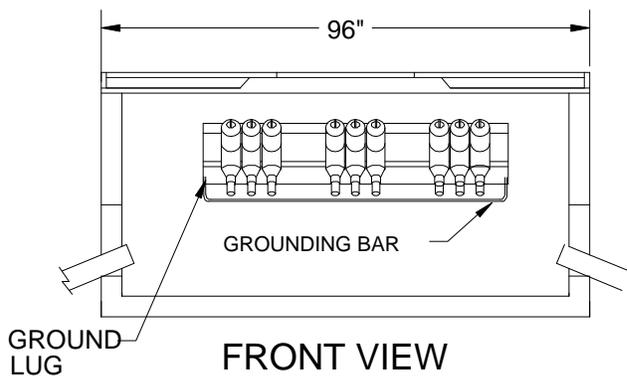
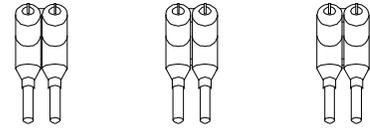
3-4 WAY CONFIGURATIONS



3-3 WAY CONFIGURATIONS



3-2 WAY CONFIGURATIONS

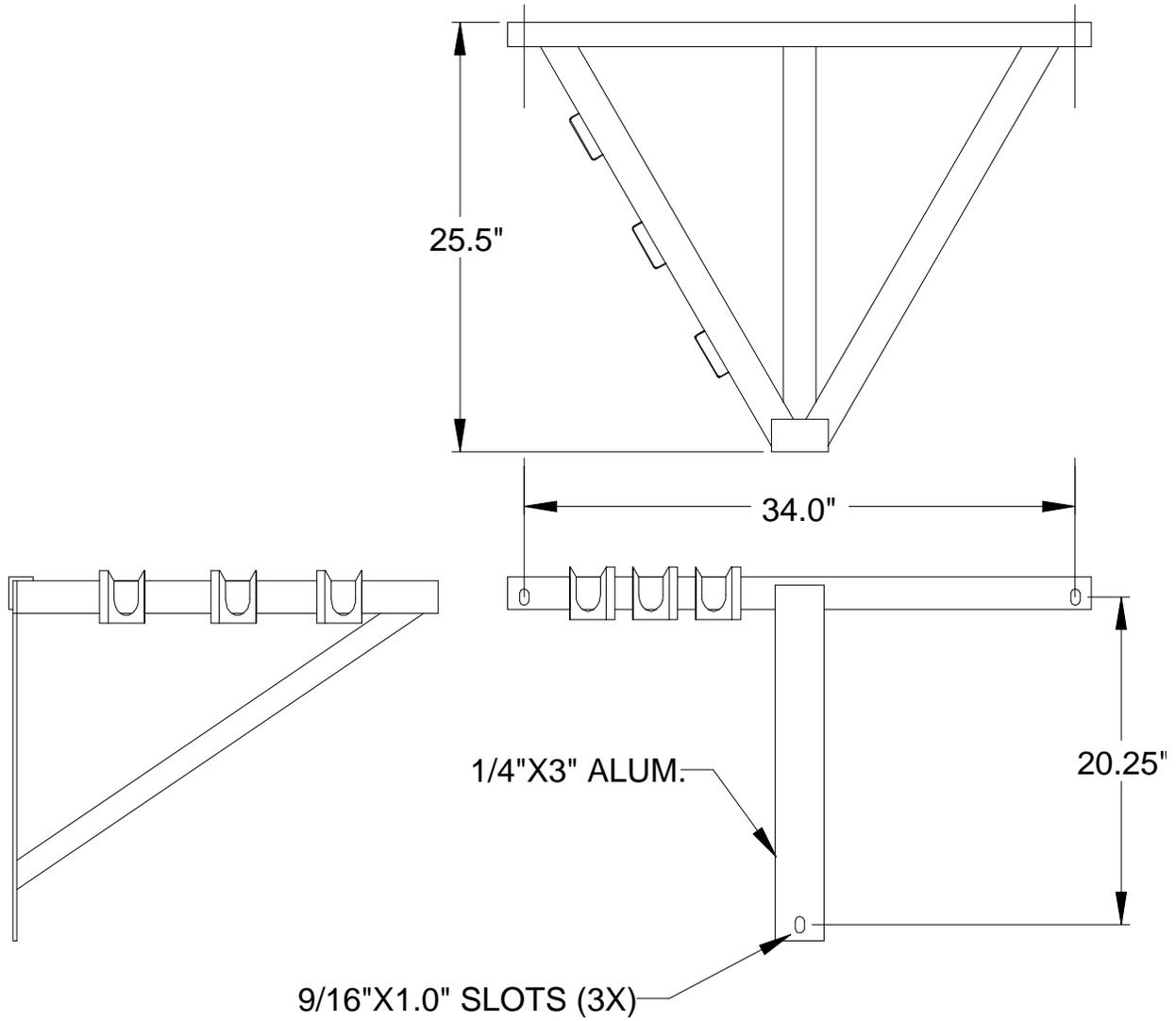


This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.



Material:	Stainless Steel
Finish:	
Scale:	NTS
Drawn by:	
Date:	11/28/01

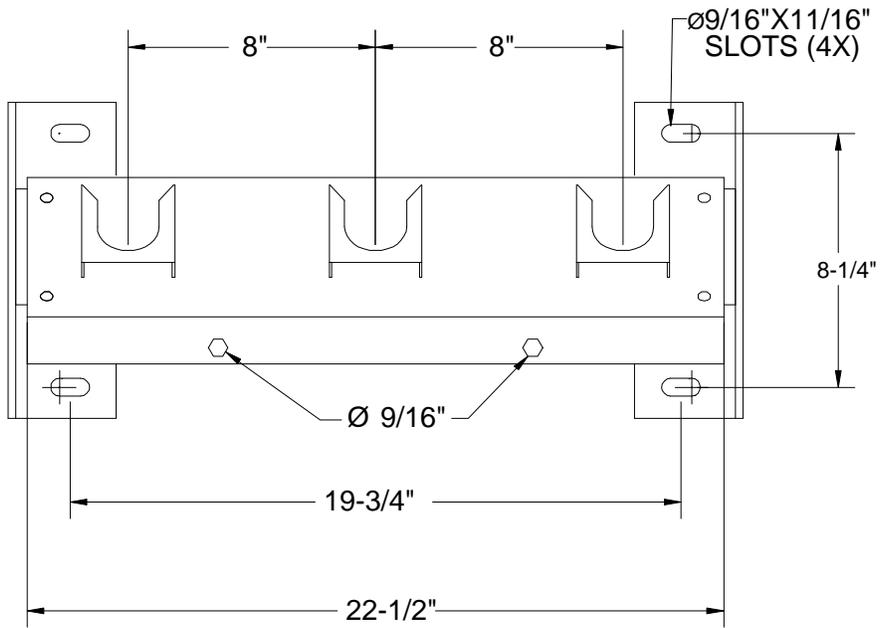
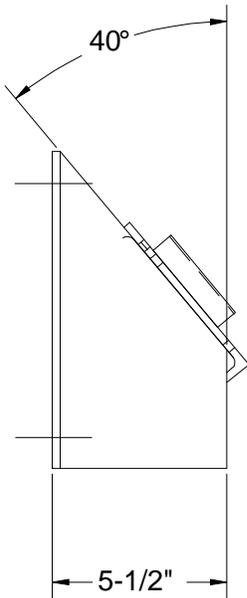
Description: Vault Rack/Junction Bar Assemblies 200 A & 600 A	
Drawing No: 9-085M	Revision: 0



MATERIAL:
 6061 ALUMINUM FRAME
 304 STAINLESS LOADBREAK ELBOW PARKING STANDS
 STAINLESS STEEL FASTENERS

This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.

	Material:	As described	Description:	
	Finish		Wall Mounted, 200 A Elbow Parking Stand	
	Scale:	NTS	Drawing No:	
	Drawn by:		<p style="text-align: center; font-size: 24pt;">9-309M</p>	
	Date:	07/11/01		

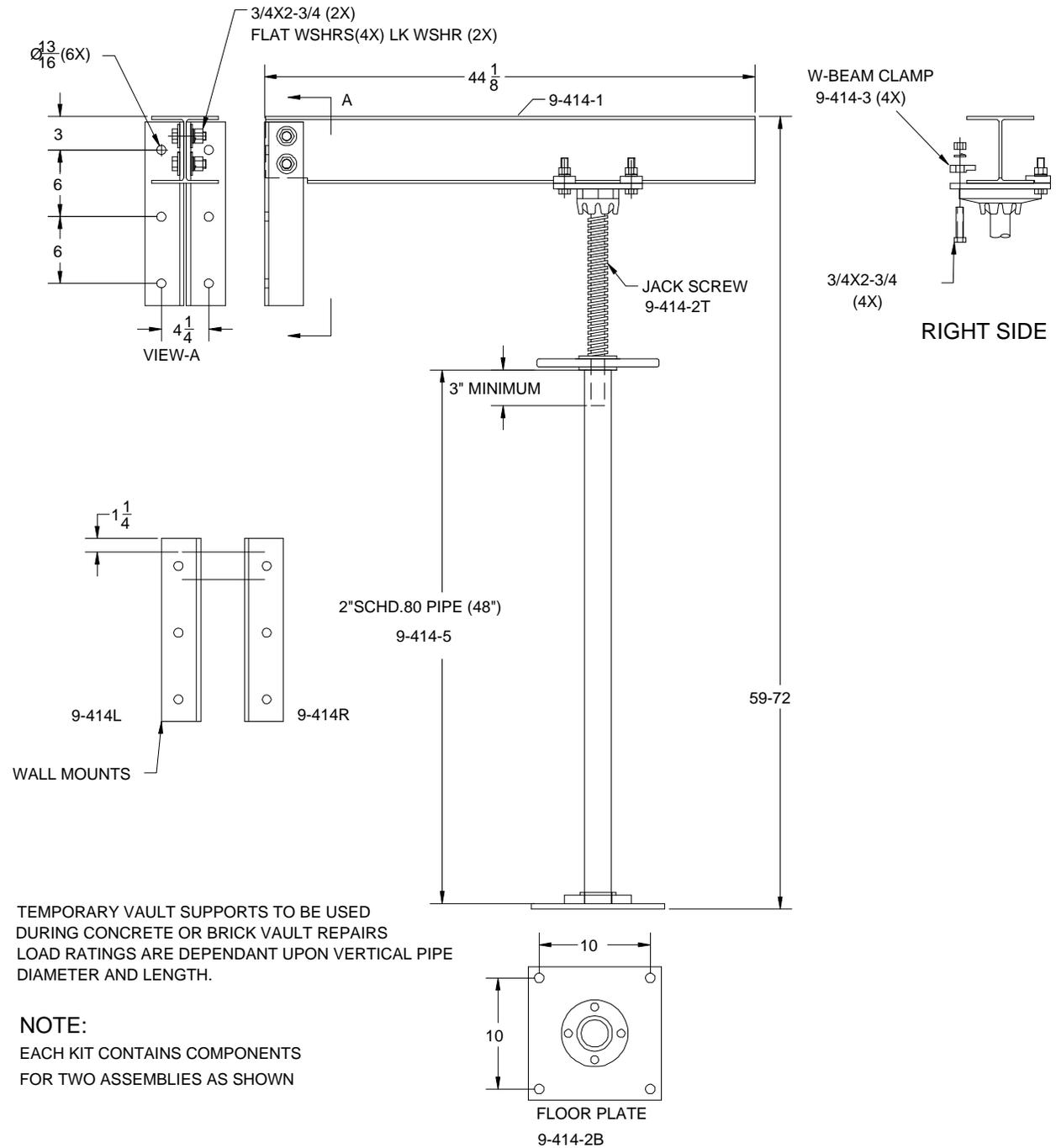


**ALL 300 SERIES STAINLESS STEEL
FASTENERS AND COMPONENTS**

This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.



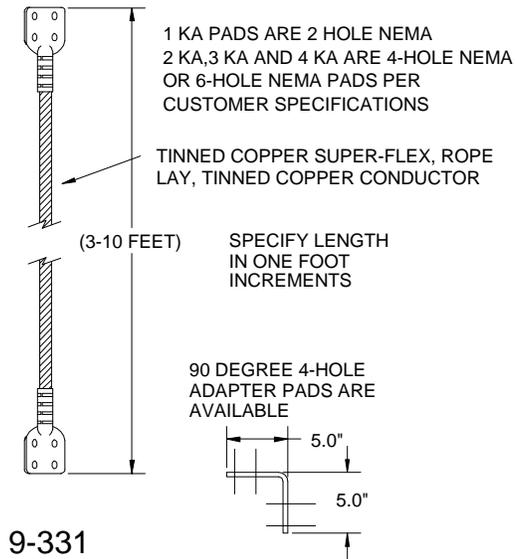
Material:		Description:	
Finish:		Elbow Parking Stand, 3-Position	
Scale:	NTS	Drawing No:	Revision:
Drawn by:			
Date:	05/03/04	9-086M	0



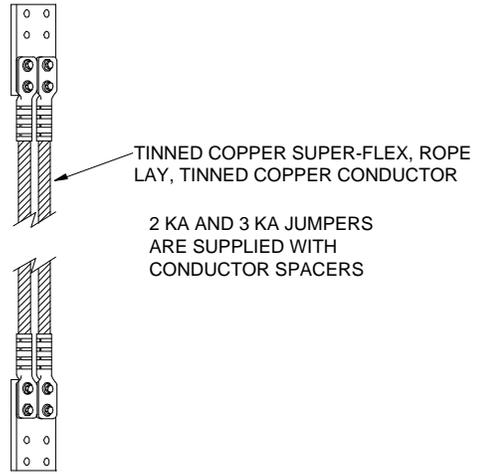
This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.

	Material:		Description: Temporary Vault Support Kit	
	Finish:			
	Scale:	NTS	Drawing No:	
	Drawn by:		<p style="font-size: 24pt; font-weight: bold;">9-414-OAM</p>	
	Date:	09/04/03		

Eliminate bushing fatigue and failures caused by rigid conductors or corroded, once flexible, conductors with custom super-flexible jumpers. Use our stainless steel shear-nuts with the jumpers to make repeatable and reliable electrical connections to electrical equipment.

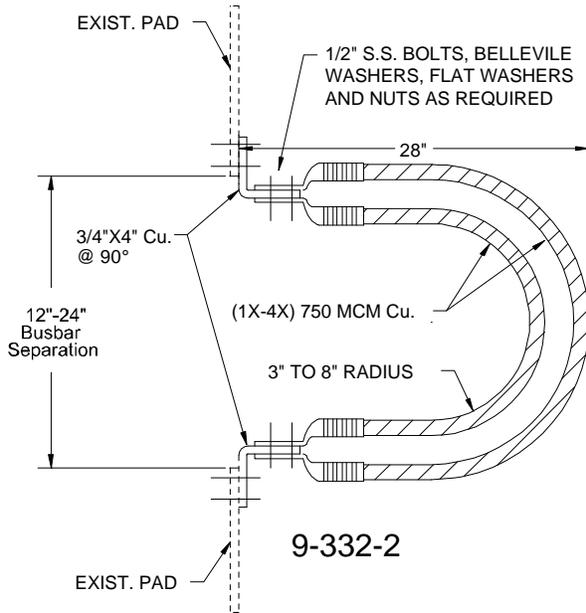


9-331

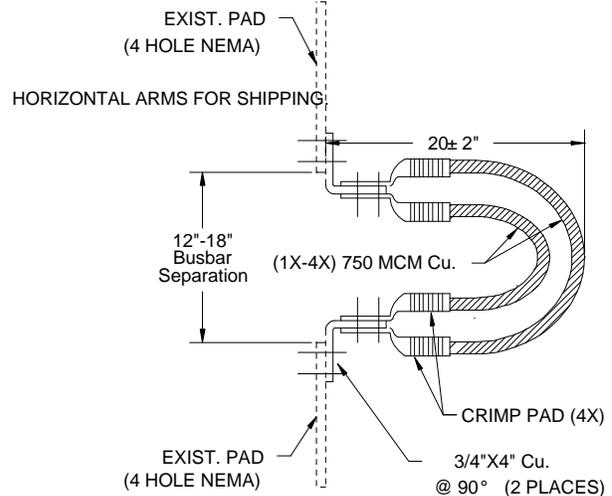


9-332

SHORT SPAN FLEX BRAID JUMPERS: 1 KA, 2 KA, 3 KA AND 4 KA



9-332-2



9-332-3

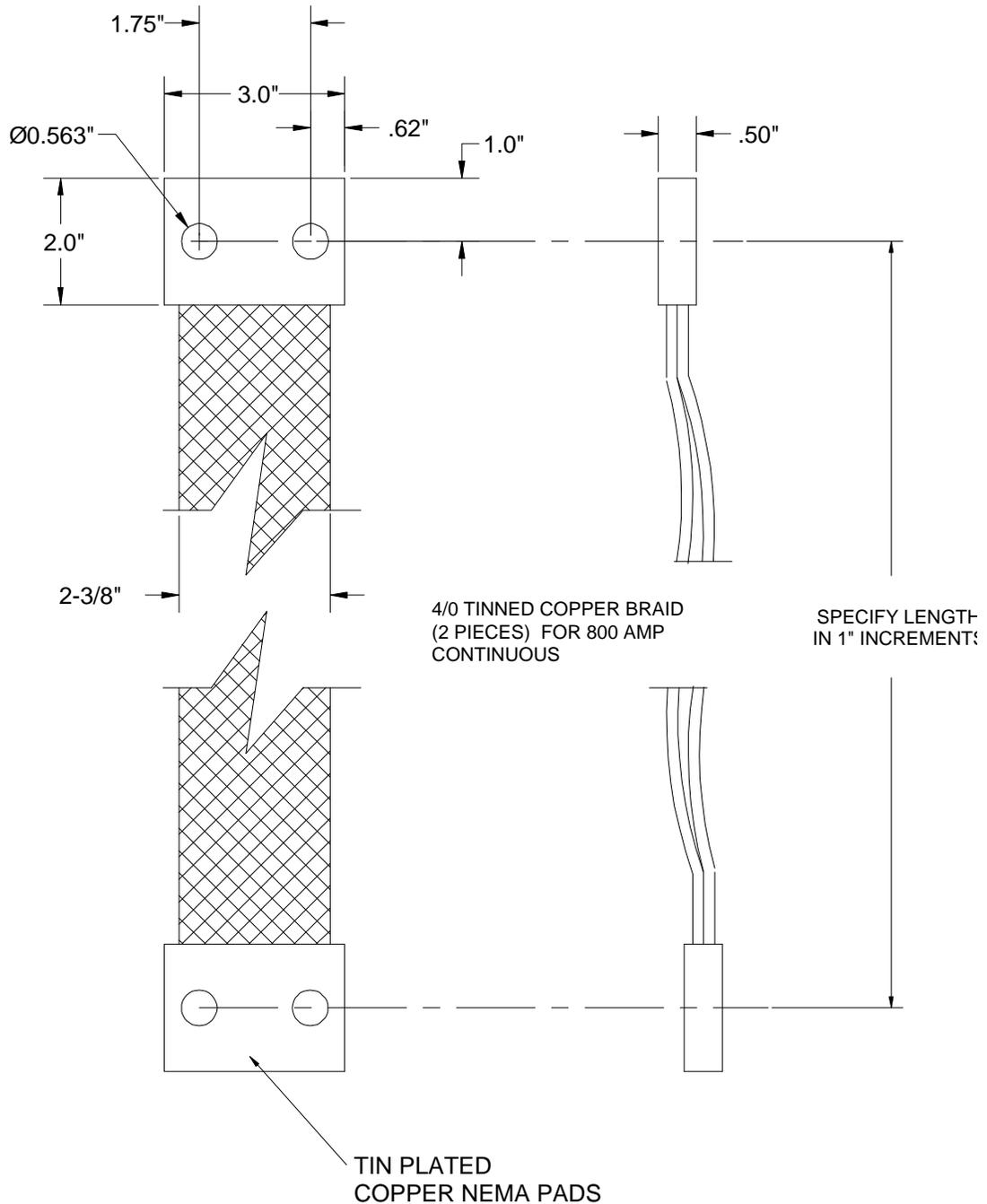
ALL JUMPERS ARE DESIGNED TO HAVE A MAXIMUM TEMPERATURE RISE OF 33°C AT 25°C AMBIENT TEMPERATURE.

JUMPERS CAN BE SUPPLIED WITH UV STABLE, TRACK RESISTANT INSULATION FOR WILDLIFE PROTECTION. CONSULT FACTORY FOR YOUR SPECIFIC REQUIREMENTS

This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.

	Material:	Tinned Copper	Description:	
	Finish:		Super-flexible Busbar Jumpers, 1 KA - 4 KA	
	Scale:	NTS	Drawing No:	Revision:
	Drawn by:		9-331 & 9-332M	0
	Date:	03/14/00		

Swaged, tinned copper, flexible flat braids are available in customer specified lengths. Terminal pad configuration are available in 150 to 1200 A continuous current ratings. Use Inertia stainless steel shear-nuts with the jumpers to make repeatable and reliable electrical connections to electrical equipment.



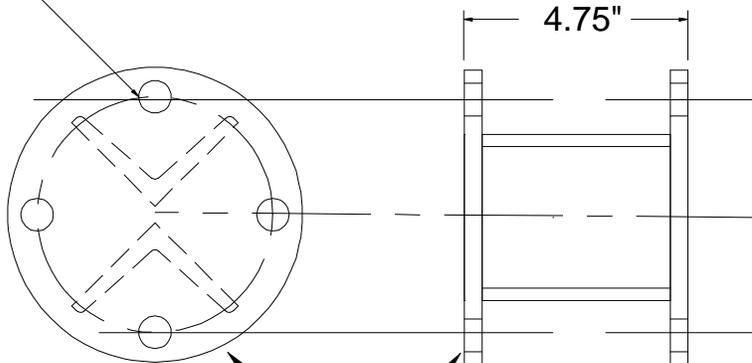
This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.



Material:	As described	Description:	
Finish:		Flexible Tinned Copper Braid Jumper, 800 A	
Scale:	NTS	Drawing No:	Revision:
Drawn by:			
Date:	02/08/01	9-391M	0

Standoffs- for replacing pin cap insulators with stronger station post insulators and conversion from 5" bolt circle insulators to 3" bolt circle insulators and vice versa.

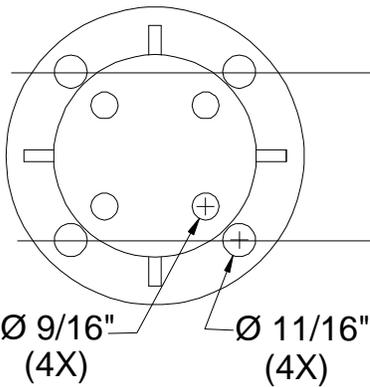
(4)Ø 0.687 HOLES ON 5.00" B.C. AT 90°



9-348M

5" BC x 4" INSULATOR STAND-OFF

3/8" PLATES
A36 H.R.S.
HOT DIP GALV.



9-202M

5" BC TO 3" BC INSULATOR STAND-OFF

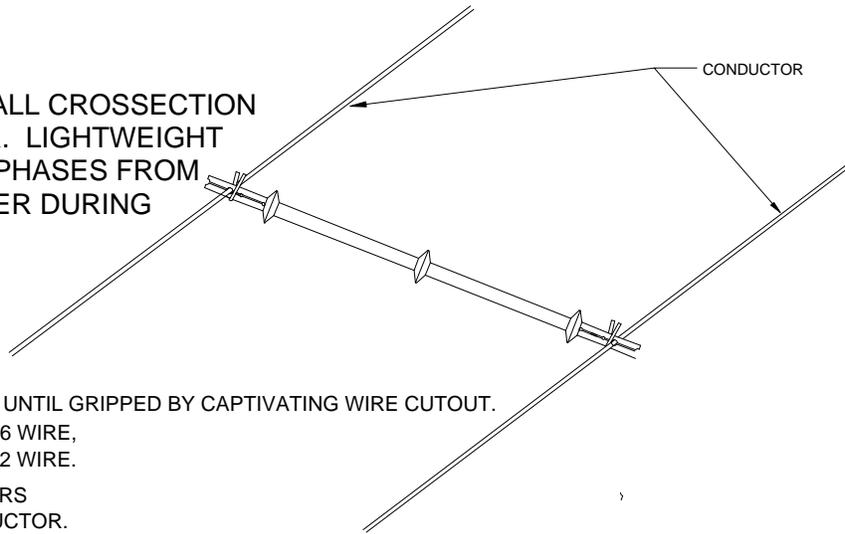
This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.



Material:	As shown	Description:	
Finish:	H.D. Galv.	Station Post Insulator Adapters, 5" Bolt Circle	
Scale:	NTS	Drawing No:	
Drawn by:		9-202 & 9-348M	
Date:	10/13/99	Revision:	
		0	

Lightweight and economical conductor spacers install in seconds and provide long service life. The shedded design provides extended wet creepage distance. The UV resistant, silicone finish provide years of service in the most severe environments.

PHASE SPACER FOR SMALL CROSSECTION OVERHEAD CONDUCTOR. LIGHTWEIGHT SOLUTION TO PREVENT PHASES FROM CONTACTING EACH OTHER DURING HIGH WIND CONDITIONS.

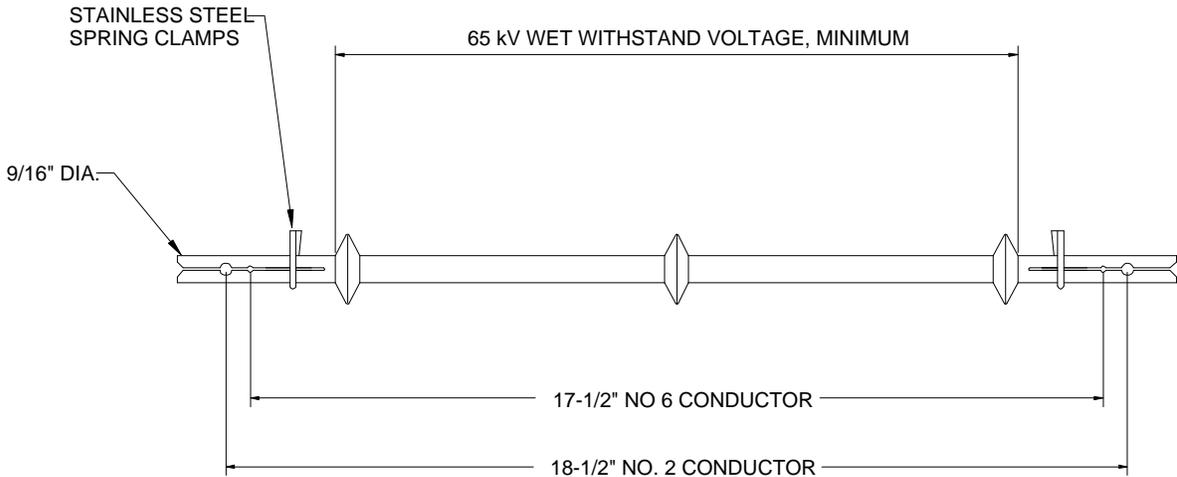


INSTALLATION:

1. SLIDE CONDUCTOR INTO SLOT UNTIL GRIPPED BY CAPTIVATING WIRE CUTOUT.
NOTE: SMALL HOLE IS FOR NO. 6 WIRE,
LARGE HOLE IS FOR NO. 2 WIRE.
2. GRIP SPRING CLAMP WITH PLIERS AND SLIDE IT UP TO THE CONDUCTOR.

SPECIFICATIONS:

MATERIAL: DELRIN 527
 SILICONE FINISH .001 IN. MIN.
 TENSILE STRENGTH MIN. AT 100°C: 4.8kpsi
 ELECTRICAL WET WITHSTAND: 4,500 VOLTS/in.
 ULTRAVIOLET RESISTANCE: 80% MAX ELONGATION AT 600kj/m²
 COLOR: SKY GRAY
 WEIGHT: 5.0 OZ.

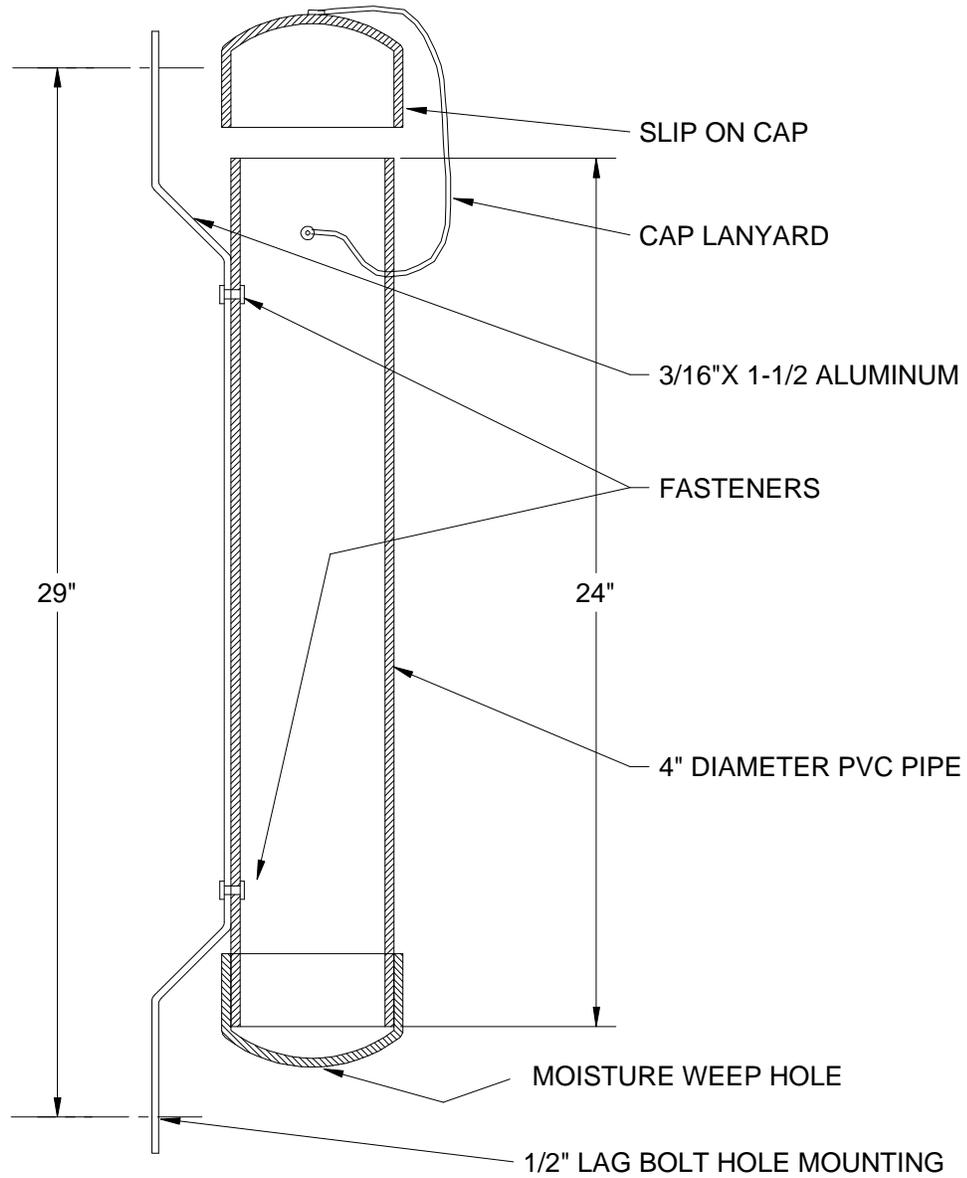


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Material:	DELIN 527	Description: PHASE SPACER, 5-25 kV, #6 & #2 AWG.	
Finish:			
Scale:	NTS	Drawing No: 9-151A M	Revision: 0
Drawn by:			
Date:	11/27/01		

Pole top fuse canisters provide storage for unique or uncommon fuses not routinely carried on service vehicles. Site-specific fuses can be stored on the pole where these fuses are used, making them available when and where they are needed.

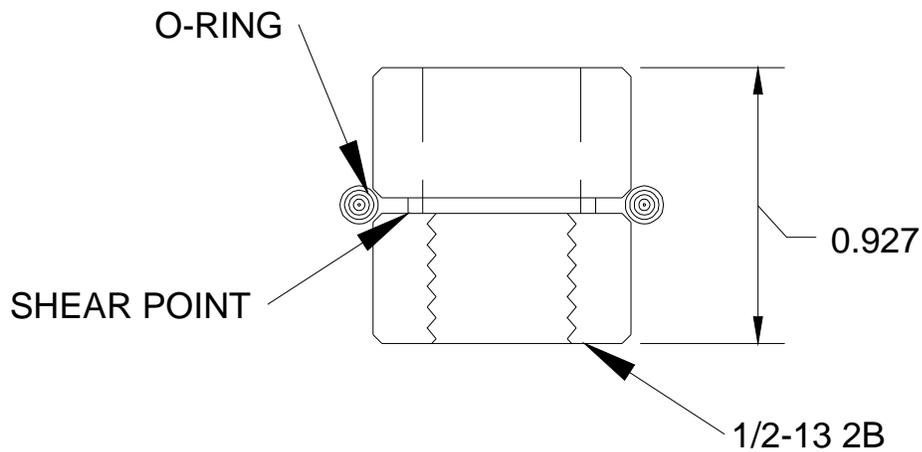
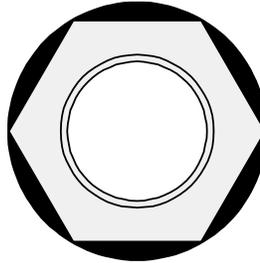


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Material:	Grey PVC/Al	Description:	
Finish:		Fuse Holder, 24", Pole Mounted	
Scale:	NTS	Drawing No:	Revision:
Drawn by:			
Date:	05/21/99	9-305 M	0

Stainless steel shear-nuts make repeatable and reliable electrical connections to electrical apparatus. Zinc, die cast shear nuts can be used for lower torque requirements. Installing rod guides, steps and other hardware to fiberglass poles or crossarms can damage the fiberglass pole or crossarm when excessive torque is applied. Shear nuts mitigate this problem.

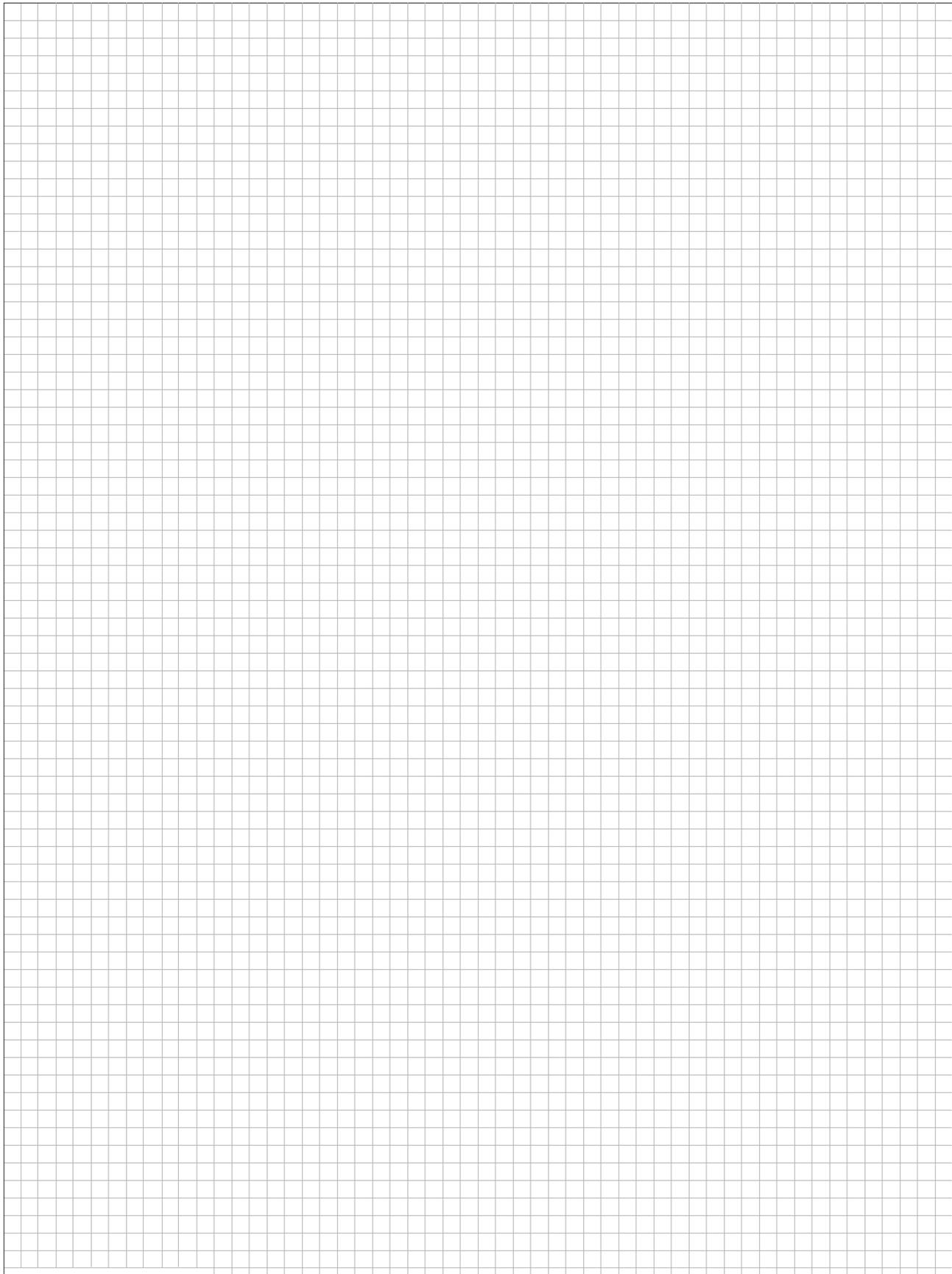


Shear Nut Size	Construction Material	Shear Point
1/2-13	304 Stainless steel	45-55 lbs
1/2-13	Zinc, Die Cast	25-30 lbs

The above sizes are used for field connections to electrical equipment where specific torque values are required to compress Belleville washers and ensure a good electrical connection without the need for torque wrenches and the associated calibration of that tool. Other sizes, materials and torque-limits are available. Consult the factory for your specific needs.

This drawing is for illustrative purposes only and therefore; may, or may not reflect the current revision of this drawing. Please request the current revision from the factory.

	Material:	As shown	Description:	
	Finish:		Torque-limiting Shear Nut, 1/2-13	
	Scale:	NTS	Drawing No:	
	Drawn by:		9-399 M	
	Date:	09/11/00	Revision:	
			0	



Fax: (209) 931-8186

	Material:		Description:	
	Finish:			
	Scale:		Drawing No:	Rev.
	Drawn by:			
	Date:			