Brackets Mounts & Hardware
Section 6 - Brackets, Mounts & Hardware

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INERTIA offers a series of supporting components and accessories to aid in the switchgear construction process including brackets, mounts, hardware, jumpers, as well as other. Please see the items listed below:

- **Bracket, Mounts & Hardware Additional Production and Accessories**
  - 15 kV - 69 kV Triangular Standard or Raptor Clearance (with or without Insulators)
  - 15 kV - 69 kV Twin Circuit Pole Top Insulator Frame (with or without Insulators)

- **Insulator Brackets for Overhead Lines**
  - Special Application Pole or Tree Mounted Insulator Brackets (with or without Insulators)
  - Line Post Insulator Brackets
  - Single Phase or 3 Phase Termination Bracket
  - Custom Standoff Brackets

- **Vault Rack/Junction Bar Assemblies**
  - Vault Junction Bars
  - Elbow Parking Stands (Standard or Wall Mounted)
  - Temporary Vault Support Kits

- **Substation Flex Jumpers:**
  - 1 KA - 4 KA Super-flexible Busbar Jumpers
  - 800 A Flexible Tinned Copper Braid Jumpers

- **Misc. Hardware:**
  - Station Post Insulator Adapters
  - 5 kV - 25 kV Phase/Conductor Spacers
  - Fuse Holders, Pole Mounted
  - 1/2”-13 Torque-limiting Shear Nuts (303 Stainless Steel or Zinc, Die Cast)

In addition to the above listed products Inertia accepts customer requests for custom designed hardware and equipment. Please use the “Self-Design Worksheet” or submit any drawings or supporting documentation with your request for quote.
35 kV Triangular Framing Assembly

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

- 3/4"X 1-3/4" GRADE 2 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.

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<tr>
<th>Materials:</th>
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<td>Finish:</td>
<td>35 kV Triangular Framing Assy. Extra Clearance</td>
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Drawing No.: 9-084A-EXM
Revision: 00

INERTIA Engineering & Machine Works, Inc. 6665 Hardaway Road • Stockton, CA 95215
Tel: 800-791-9997 | Fax: 209-931-8186
E-mail: sales@inertiaworks.com
Twin Circuit, 34.5 kV Pole Top Insulator Frame

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

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Materials:
- Finish: 6061-T6 Anodized Aluminum
- Frame is supplied with or without insulators.
- Insulator are bolted upright on the horizontal arms for shipping

Description:
- Twin Circuit, 34.5 kV Pole Top Insulator Frame

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Drawing No.: 9-394M
Revision: 00
Pole or Tree Mounted Insulator Brackets

Special application insulator mounting brackets. Lightweight durable; available with or without insulators.

Two Pole Insulator Rack

Three Pole Insulator Rack

Four Pole Insulator Rack

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Materials:
- Description: Pole or Tree Mounted Insulator Brackets
  - Drawing No.: 9-359M
  - Revision: 00

Finish: N/A
Scale: NTS
Drawn By: N/A
Date: N/A
Line Post Insulator Brackets

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

6" LINE POST BRACKET
With 9/16" Arrestor Mounting Hole
5/16" Hot Rolled Steel Hot Dipped Galvanized
9-341M

6" OFFSET, LINE POST MOUNTING BRACKET
5/16" Hot Rolled Steel Hot Dipped Galvanized
9-342-2M

HORIZONTAL INSULATOR CROSSARM MNT. BKT.
6061 T6 Anodized Aluminum
9-341M

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<td>Revision: 00</td>
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</table>
Line Post Insulator Brackets

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 lbs. Vertical Load
1/4” Hot Rolled Steel, Hot Dipped Galvanized
9-366-1M

4.25” X 20° x 8.0” Mounting Insulator Standoff Bracket
2,000 lbs. Vertical Load
1/4” Hot Rolled Steel, Hot Dipped Galvanized
9-366-2M

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### 69 kV 3-Phase Termination Bracket

All ferrous components are hot dipped galvanized.

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**Materials:**

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<td>69 kV 3 Phase Termination Bracket</td>
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69 kV Single Phase Termination Bracket

ALL MATERIAL: 6061-T6 ANODIZED ALUMINUM
APPROXIMATE WEIGHT: 30 lbs.

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Vault/Rack Junction Bar Assemblies, 200 & 600 A

Junction Rails Allows 3-2 way, 3-3 way, and 3-4 way 200 Amp Loadbreak junctions to be mounted in a 3 FT x 5 FT enclosure. Install with 12 inches of clearance between the top of the bracket and any overhead obstacle. This bracket requires four bolts for installation.

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Wall Mounted, 200 A Elbow Parking Stand

MATERIAL:  6061-T6 ANODIZED ALUMINUM FRAME
304 STAINLESS STEEL LOADBREAK ELBOW PARKING STANDS
STAINLESS STEEL FASTENERS

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**3 Position Elbow Parking Stand**

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**MATERIAL:** 6061-T6 ANODIZED ALUMINUM FRAME
304 STAINLESS STEEL LOADBREAK ELBOW PARKING STANDS
STAINLESS STEEL FASTENERS
Temporary Vault Support Kit

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NOTE:
EACH KIT CONTAINS COMPONENTS FOR TWO ASSEMBLIES AS SHOWN.

Materials:

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Description:
Temporary Vault Support Kit

Drawing No.: 9-414-OAM
Revision: 00
1 kA - 4 kA Super-Flexible Busbar Jumpers

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.

1 kA PADS ARE 2-HOLE NEMA PADS; 2 kA, 3 kA, AND 4 kA PADS ARE 4-HOLE NEMA PADS OR 6-HOLE NEMA PADS PER CUSTOMER SPECIFICATIONS.

ALL JUMPERS ARE DESIGNED TO HAVE A MAXIMUM TEMPERATURE RISE OF 33°C AT 25°C AMBIENT TEMPERATURE.
JUMPERS CAN BE SUPPLIED WITH UV STABILIZED, 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 upon quote.
800 A Flexible Tinned Copper Braid Jumper

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.

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| Materials: | N/A |
| Finish:    | N/A |
| Scale:     | NTS |
| Drawn By:  | N/A |
| Date:      | N/A |

Description:
Flexible Tinned Copper Braid Jumper, 800 A

Drawing No.: 9-391M
Revision: 00
5” Bolt Circle Station Post Insulator Adapters

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)Ø0.687 HOLES ON 5.00” B.C. AT 90°

3/8 PLATES

9-348M
5” BC TO 4”

9-202M
5” BC - 3” BC INSULATOR STAND OFF

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5-25 kV Phase Spacer

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 provides years of service in the most severe environments.

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.

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

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Description: PHASE SPACER, 5-25 kV, #6 & #2 AWG

Drawing No.: 9-151AM
Revision: 00
24” Pole Top Fuse Holder

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.

Materials: Grey PVC/Al

<table>
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<tr>
<th>Description:</th>
<th>Fuse Holder, 24”, Pole Mounted</th>
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**Torque-Limiting Shear Nut**

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

<table>
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<tr>
<th>Shear Nut Size</th>
<th>Construction Material</th>
<th>Shear Point</th>
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<tbody>
<tr>
<td>1/2&quot;-13</td>
<td>303 Stainless Steel</td>
<td>45-55 lbs</td>
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<tr>
<td>1/2&quot;-13</td>
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