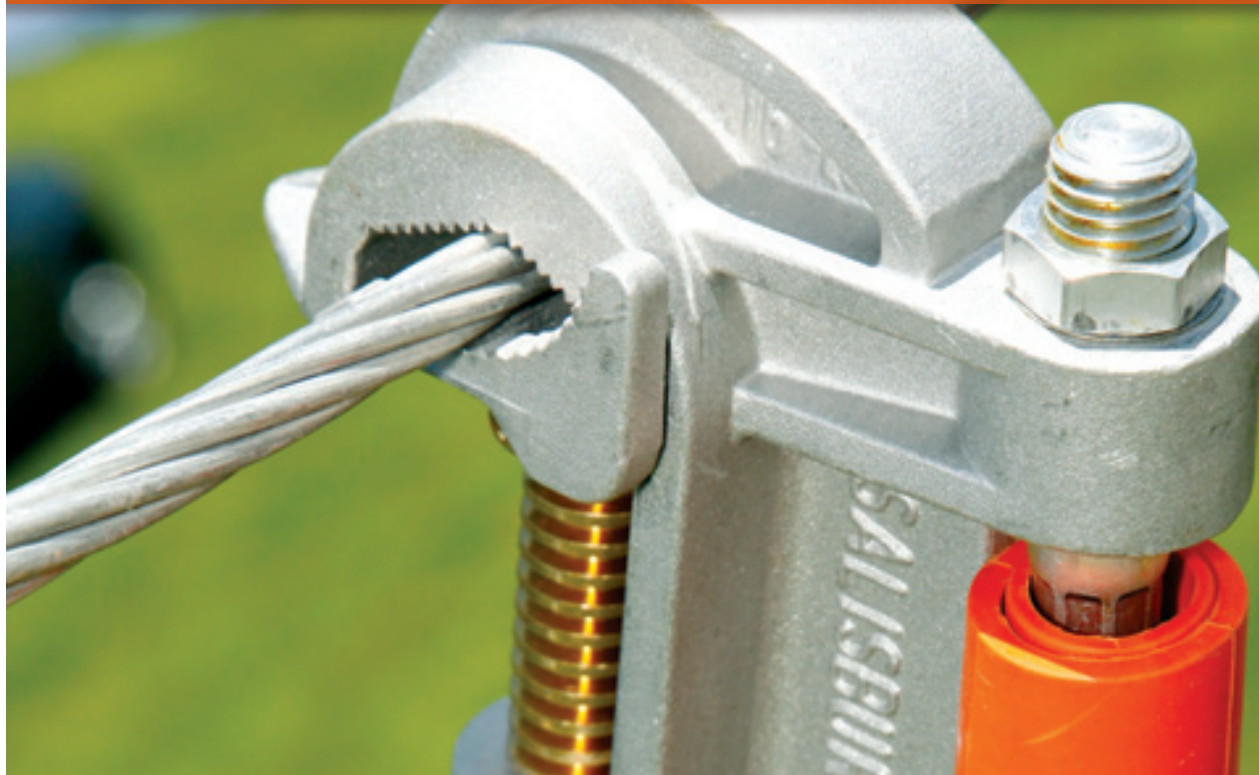


TEMPORARY PROTECTIVE GROUNDING EQUIPMENT



TEMPORARY PROTECTIVE GROUNDING EQUIPMENT



NOTE:

When ordering assemblies of grounding products, please make sure all items included in the assembly are only from the product line found within this section. Including items from other grounding equipment sections of this book will add additional shipping time.

Grounding Configurator™

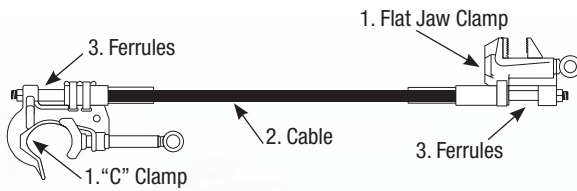
The Grounding Configurator™ makes ordering grounding equipment simple and easy. This interactive web tool allows you to easily build the proper temporary grounding equipment for your specific needs. The step by step process takes out the guess work, and makes it easy to change components until the most appropriate ground set is developed.



Just go to our web site www.salisburybyhoneywell.com and give it a try. You will be prompted from start to finish. All you need to know is the maximum fault current, its duration and the size of cable required on the fault, and the configurator will do the rest. No more second guessing quantities or parts to be sure that you have put together a ground set that will function just as you expect. When you finish, enter your personal information and the configurator will instantly provide you with the bill of materials including part numbers. All that's left to do is to place the order!

TEMPORARY PROTECTIVE GROUNDING EQUIPMENT

GROUND SET CHECKLIST



1. Specify the clamps. Two are required for a complete assembly. The maximum amperage of the clamp is designated by the ASTM grade of each clamp. Be sure that the clamp will meet or exceed the maximum amperage rating of the ground cable that it will be used with.

2. Specify the cable. Once the short circuit capacity of the system has been determined, choose the appropriate size cable. Specify the cable length, and the color of the jacket desired.

3. Specify the ferrules. One pair of ferrules is required per assembly. The size of the ferrule must match the size of the cable that it will be used with. Specify copper or aluminum and shrouded or non-shrouded.

4. Specify the options. List any optional equipment that is desired. This can include hanger studs, contact studs, heat shrink tubing, markings, clear strain relief, etc.

Options also include a ground set label. These optional labels include the date of manufacture and are available upon request when ordering.



HOW TO SPECIFY TEMPORARY PROTECTIVE GROUNDING ASSEMBLIES.

A grounding assembly in its basic form consists of two clamps, one pair of ferrules and a length of cable.

The clamps can be identical to each other or quite different depending on each grounding application. Because of this, ground clamps are sold individually, not in pairs. Salisbury offers a wide variety of clamps including C-clamps, flat jaw clamps, socket clamps, duckbill clamps and specialty clamps for unique situations. Clamps are offered in either bronze or aluminum alloys and are manufactured to meet the current specifications of ASTM F 855.

To attach a clamp to the grounding cable requires the use of a ferrule. Ferrules are compressed on the strands of the cable to provide a low resistance permanent connection. The size of the ferrule is determined by the size of the cable. Ferrules are available in aluminum or plated copper. Plated copper ferrules can be used with either aluminum or bronze clamps. Two ferrules are required for each assembly therefore they are sold in pairs. Ferrules are manufactured to the specifications of ASTM F 855.

The final component that makes up a ground set is the grounding cable itself. The size of the cable is dependent on the short circuit current capacity of the system being grounded. Once this is determined, only the length of the cable and the color of the jacket need to be specified to complete the assembly.

Salisbury by Honeywell is your complete source for grounding equipment and assemblies.

DUCK BILL GROUNDING CLAMPS

.96", 1.1" AND 1.66" SIZES



1853



21030



1793



21754



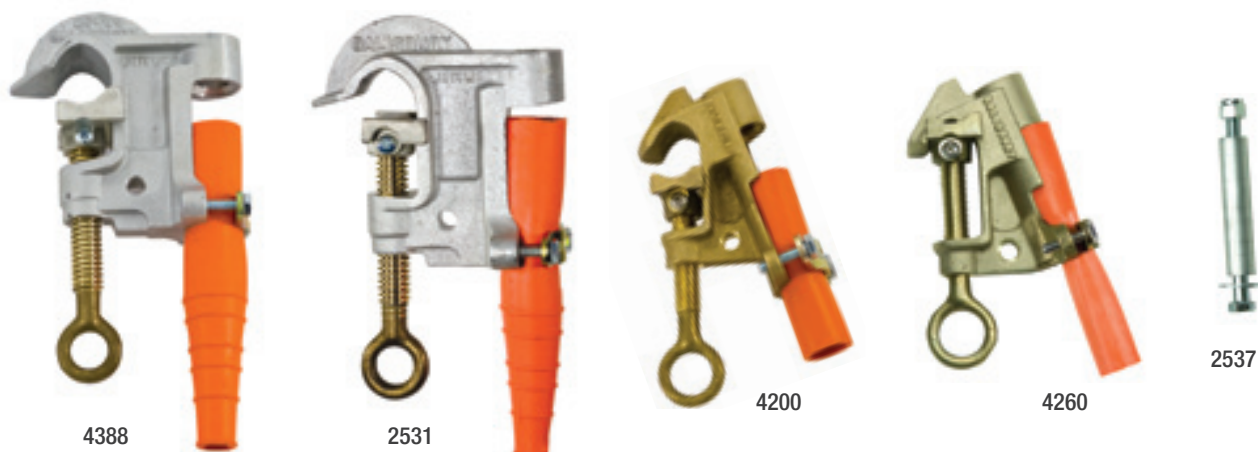
1855 - Stick Mounted
Duck Bill Clamp.

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|--|---|-----------------------|--|------------------------------|--------------------------|
| .96" SMOOTH JAW BRONZE DUCK BILL -- GRAVITY ACTUATED - "V" THREAD | | | | | |
| 1793 | Eye w/ strain relief sleeve, Smooth Jaw | 4 / A | 556 MCM ACSR to #6 .96" - .16" (24 mm - 4 mm) Dia. | 350 RMS Amps, 60 Hz | 1.3 (.6) |
| 21080 | Eye w/ strain relief sleeve, Smooth Jaw | 4 / A | | 350 RMS Amps, 60 Hz | 1.1 (.5) |
| 1797* | Mounted w/ strain relief sleeve, Smooth Jaw | 4 / A | | 350 RMS Amps, 60 Hz | 4.3 (2) |
| 2093 | Hanger Stud only | | | | .4 (.1) |
| 1.1" SMOOTH JAW ALUMINUM DUCK BILL -- SPRING LOADED - "V" THREAD | | | | | |
| 21030 | Eye w/ strain relief sleeve, Smooth Jaw | 5 / A | 795 MCM ACSR to #6 1.1" - .16" (28 mm - 4 mm) Dia. | 400 RMS Amps, 60 Hz | 1.1 (.5) |
| 21059 | Eye w/o strain relief sleeve, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 1.0 (.5) |
| 21081* | Mounted w/ strain relief sleeve, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 4.3 (2) |
| 21754 | Hanger Stud only | | | | .3 (.1) |
| 1.66" SERRATED JAW ALUMINUM DUCK BILL -- SPRING LOADED - "V" THREAD | | | | | |
| 2553 | Eye w/o strain relief sleeve, Serrated Jaw | 5 / B | 1590 MCM ACSR to #6 1.66" - .16" (42 mm - 4 mm) Dia. | 400 RMS Amps, 60 Hz | 1.4 (.6) |
| 1855* | Eye w/ strain relief sleeve, Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 4.7 (2.1) |
| 21754 | Hanger Stud only | | | | .3 (.1) |
| 1.66" SERRATED JAW ALUMINUM DUCK BILL -- ACME THREAD | | | | | |
| 1853 | Eye w/ strain relief sleeve, Serrated Jaw | 5 / B | 1590 MCM ACSR to #6 1.66" - .16" (42 mm - 4 mm) Dia. | 400 RMS Amps, 60 Hz | 1.5 (.7) |

*Mounted 1.25" dia X 6' fiberglass hotstick permanently mounted.

“C” TYPE GROUNDING CLAMPS

.83” AND 1.12” SIZES



| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|--|--------------------|--|---------------------------|-----------------------|
| .83” BRONZE “C” CLAMP W/ CURVED LOWER JAW - “V” THREAD | | | | | |
| 4200 | Eye w/strain relief sleeve, Smooth Jaw | 5 / A | 477 MCM 18 x 1 ACSR to #8 .83” - .12” (21 mm - 3 mm) Dia. | 400 RMS Amps, 60 Hz | 1.1 (.5) |
| 21067 | Eye w/o strain relief sleeve, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 1.0 (.4) |
| 4260 | Eye w/strain relief sleeve, Smooth Upper Jaw w/Curved Lower Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 1.1 (.5) |
| 21068 | Eye w/o strain relief sleeve, Smooth Upper Jaw w/Curved Lower Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 1.0 (.4) |
| 2093 | Hanger Stud only | | | | .4 (.2) |
| 1.12” ALUMINUM “C” CLAMP - ACME THREAD | | | | | |
| 2531 | Eye w/strain relief sleeve, Smooth Upper Jaw w/Flat Lower Jaw | 5 / A | 795 MCM 26 x 7 ACSR to #8 1.12” - .12” (29 mm - 3 mm) Dia. | 400 RMS Amps, 60 Hz | 1.1 (.5) |
| 2532 | Eye w/o strain relief sleeve Smooth Upper Jaw w/Flat Lower Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 1.1 (.5) |
| 2533* | Mounted w/ strain relief sleeve Smooth Upper Jaw w/Flat Lower Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 4.2 (19) |
| 4388 | Eye w/strain relief sleeve, Smooth Upper Jaw w/Curved Lower Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 1.5 (.7) |
| 4389 | Eye w/o strain relief sleeve, Smooth Upper Jaw w/Curved Lower Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 1.1 (.5) |
| 2537 | Hanger Stud only | | | 400 RMS Amps, 60 Hz | .2 (.1) |

*Mounted: 1.25” dia x 6’ Fiberglass Hotstick permanently mounted

"C" TYPE GROUNDING CLAMPS

1.12" SIZES



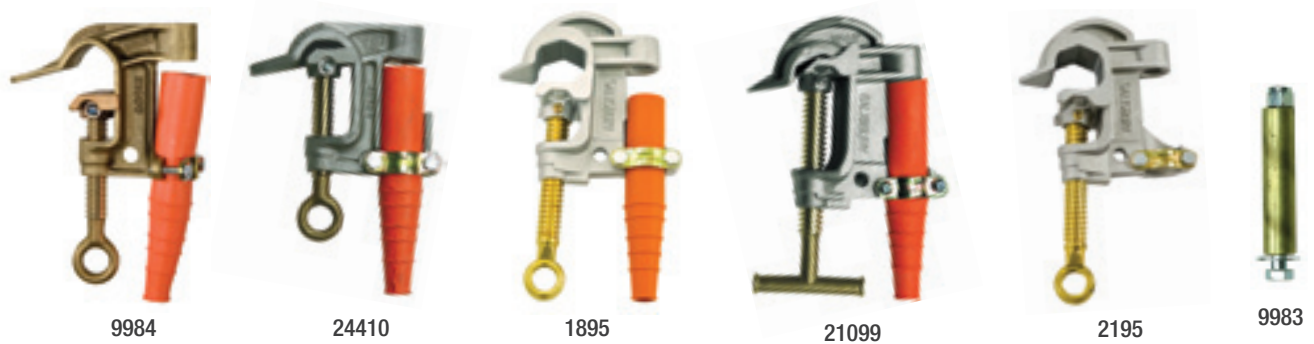
| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|--|-----------------------|---|------------------------------|--------------------------|
| 1.12" BRONZE "C" CLAMP - ACME THREAD | | | | | |
| 9985 | Eye, w/ strain relief sleeve, Smooth Jaw | 5 / A | 795 MCM 26" x 7" ACSR to #8 1.12" - .12" (29 mm - 3 mm) Dia. | 400 RMS Amps, 60 Hz | 1.9 (.9) |
| 2937 | Eye, w/o strain relief sleeve, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 1.8 (.8) |
| 4280* | Mounted, w/ strain relief sleeve, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 4.9 (2.2) |
| 4187 | Eye, w/ strain relief sleeve, Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 1.9 (.9) |
| 2537 * | Aluminum Hanger Stud only | | | | .4 (.2) |
| 1.12" "T" / EYE "C" CLAMP - ACME THREAD | | | | | |
| 4242 | Bronze "T" w/ strain sleeve & "T", eye screw, Smooth Jaw | 5 / A | 795 MCM 26" x 7" ACSR to #6 1.12" - .16" (29 mm - 4 mm) Dia. | 400 RMS Amps, 60 Hz | 1.9 (.9) |
| 9993 | Aluminum "T" w/ strain sleeve & "T", eye screw, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 1.9 (.9) |

* Mounted: 1.25" dia x 6' Fiberglass Hotstick permanently mounted

* Hanger Stud 2537 compatible with above clamp parts on this page only.

“C” TYPE GROUNDING CLAMPS

1.25” AND 1.5” SIZES



| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|--|--------------------|--|---------------------------|-----------------------|
| 1.25” BRONZE “C” CLAMP - ACME THREAD | | | | | |
| 9984 | Eye, w/ strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5 / A | 1035.5 MCM ACSR to #6 1.25” - .16” (32 mm - 4mm) Dia. | 400 RMS Amps, 60 Hz | 2.2 (1.0) |
| 1897 | Eye, w/o strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 2.1 (.9) |
| 4255 | Eye, w/ strain relief sleeve Smooth Jaw w/ Curved Lower Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 2.2 (1.0) |
| 21069 | Eye, w/o strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 2.1 (.9) |
| 4279 | Eye, w/ strain relief sleeve Serrated Jaw w/ Curved Lower Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.2 (1.0) |
| 21070 | Eye, w/o strain relief sleeve Serrated Jaw w/ Flat Lower Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.1 (.9) |
| 9983* | Brass Hanger Stud only | | | | .4 (.2) |
| 1.25” ALUMINUM “C” CLAMP - ACME THREAD | | | | | |
| 24410 | Eye, w/ strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5 / A | 1035.5 MCM ACSR to #6 1.25” - .16” (32 mm - 4mm) Dia. | | 2.2 (1.0) |
| 1.5” ALUMINUM “C” CLAMP, W/ FLAT LOWER JAW - ACME THREAD | | | | | |
| 1895 | Eye, w/ strain relief sleeve, Serrated Jaw | 5 / B | 1431 MCM ACSR to #6 1.5” - .16” (38 mm - 4mm) Dia. | 400 RMS Amps, 60 Hz | 1.7 (.8) |
| 2195 | Eye, w/o strain relief sleeve, Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 1.5 (.7) |
| 1896* | Mounted, w/ strain relief sleeve, Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 4.8 (2.1) |
| 21099 | “T”, w/ strain relief sleeve, Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 1.7 (.8) |
| 1928 | Hanger Stud only | | | | .2 (.1) |

* Mounted: 1.25” dia x 6’ Fiberglass Hotstick permanently mounted

* Hanger Stud 9983 compatible with above clamps parts on this page only.

"C" TYPE GROUNDING CLAMPS

2" AND 2.4" SIZES



21074



21075



20882



1923



1924 - Stick Mounted
"C" Type Clamp



4377



1921



4295



1928

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|---|-----------------------|---|------------------------------|--------------------------|
| 2" ALUMINUM "C" CLAMP W/ CURVED LOWER JAW - ACME THREAD | | | | | |
| 21074 | Eye, w/ strain relief sleeve, Smooth Jaw | 5H / A | 3000 MCM ACSR to #6 2"-.16" (51 mm - 4 mm)Dia. | 400 RMS Amps, 60 Hz | 2.1 (1.0) |
| 21075 | Eye, w/o strain relief sleeve, Smooth Jaw | 5H / A | | 400 RMS Amps, 60 Hz | 2 (.9) |
| 20882 | Eye, w/ strain relief sleeve, Serrated Jaw | 5H / B | | 400 RMS Amps, 60 Hz | 2.1 (1.0) |
| 21077 | Eye, w/o strain relief sleeve, Serrated Jaw | 5H / B | | 400 RMS Amps, 60 Hz | 2 (.9) |
| 2.4" ALUMINUM "C" CLAMP W/ FLAT LOWER JAW - ACME THREAD | | | | | |
| 1923 | Eye, w/ strain relief sleeve, Smooth Jaw | 5 / A | 2.0" I.P.S. to #6 2.4" - .16" (61 mm - 4 mm) Dia. | 400 RMS Amps, 60 Hz | 2.1 (1.0) |
| 4377 | Oval Eye, w/ strain relief sleeve, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 2.1 (1.0) |
| 4240 | Eye, w/o strain relief sleeve, Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 2.0 (1.0) |
| 1924* | Mounted, w/ strain relief sleeve Smooth Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 5.1 (2.3) |
| 1921 | Eye, w/ strain relief sleeve, Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.2 (1.0) |
| 4390 | Oval Eye, w/ strain relief sleeve, Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.2 (1.0) |
| 1922* | Mounted, w/ strain relief sleeve Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 5.2 (2.3) |
| 1928* | Hanger Stud only | | | | .2 (.1) |

2.4" BRONZE "C" CLAMP W/ FLAT LOWER JAW - ACME THREAD

| | | | | | |
|------|---|--------|---------------------------------|---------------------|-----------|
| 4295 | Eye, w/ strain relief sleeve, Smooth Jaw | 5H / A | 2.0" I.P.S. to #6 | 400 RMS Amps, 60 Hz | 4.1 (1.8) |
| 4311 | Eye, w/o strain relief sleeve, Smooth Jaw | 5H / A | 2.4" - .16" (61 mm - 4 mm) Dia. | 400 RMS Amps, 60 Hz | 4.0 (1.7) |

* Mounted: 1.25" dia x 6' Fiberglass Hotstick permanently mounted

♦ Hanger Stud 1928 Compatible with above clamps parts on this page only.

PRESSURE TERMINAL CLAMPS

1.1", 1.25" AND 2" SIZES



24407 - Stick
Mounted
Duck Bill Clamp

These **DUCKBILL** and **"C" CLAMPS** feature pressure terminations for use with plain ferrules. Made of high strength aluminum with bronze eye-screws, these Grade 5 clamps are designed for smooth operation and long service life. Use Duckbill clamps for all grounding applications from .16 to 1.1" diameter and "C" clamps for all grounding applications from .06 to 1.26" diameter.

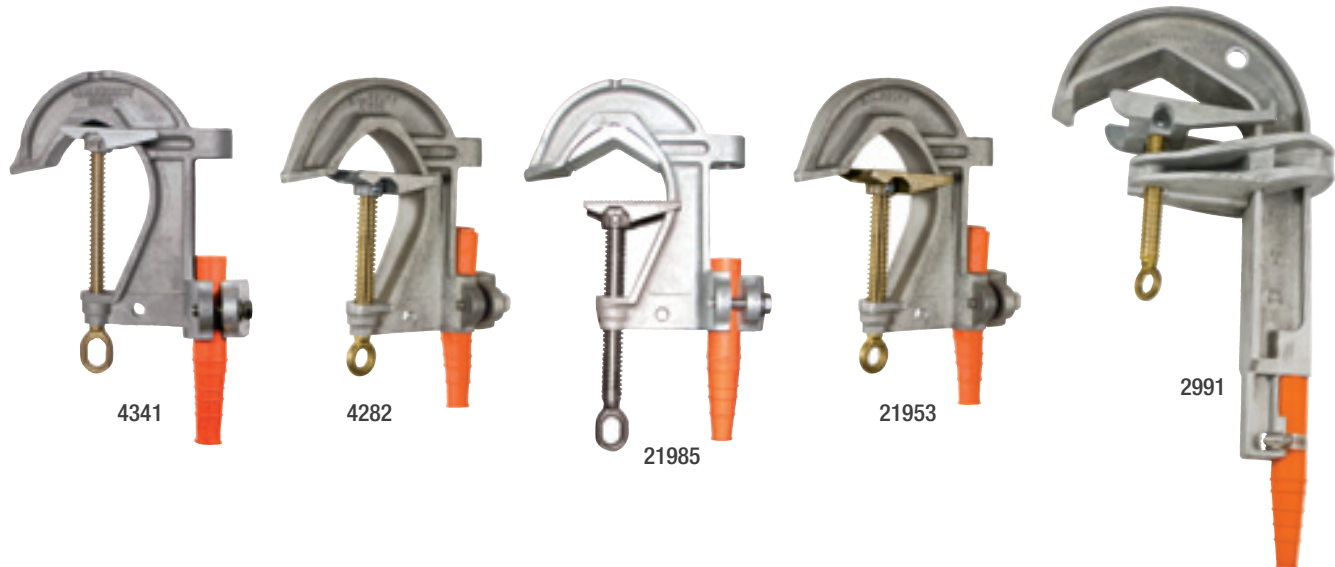
FLAT JAW GROUNDING CLAMPS are now available with pressure terminals for use with plain cable ferrules. These clamps are made of a high strength aluminum and a bronze eye screw or "T" handle for durability and smooth operation. Also featured is a hardened aluminum alloy serrated insert. This insert is designed to grip tightly to flat surfaces and cut through surface contamination and oxidation for low resistance contact. The pressure termination is designed on an angle keeping the cable out of the way during installation. The cable termination is angled to minimize interface with the "T" handle or eye when installing or removing the clamp.

Salisbury's 24438 Plain Ferrule 4-way Connector is available on page I-20.

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|---|-----------------------|--|------------------------------|--------------------------|
| 1.1" SMOOTH JAW ALUMINUM --SPRING LOADED - "V" THREAD | | | | | |
| 24404 | Duckbill, Eye w/o strain relief sleeve, Smooth Jaw | 5 / A | 795 MCM ACSR to #6 1.1"-1.16" (28 mm - 4 mm)Dia. | 400 RMS Amps, 60 Hz | 1.5 (.68) |
| 24407 | Stick mounted duckbill clamp | 5 / A | | 400 RMS Amps, 60 Hz | 4.5 (2.05) |
| 1.25" SMOOTH JAW ALUMINUM - ACME THREAD | | | | | |
| 24466 | "C" Type, Eye w/o strain relief sleeve, Serrated Jaw | 5 / B | 1035.5 MCM ACSR to #6 1.25"-1.16" (32 mm - 4 mm)Dia. | 400 RMS Amps, 60 Hz | 2.2 (1.0) |
| 21754 | Hanger Stud only | | | | 0.3 (0.1) |
| 2" SMOOTH JAW ALUMINUM - ACME THREAD | | | | | |
| 21942 | "C" Type, Eye w/o strain relief sleeve Serrated Jaw | 5 / B | 1035.5 MCM ACSR to #6 2"-1.16" (32 mm - 4 mm)Dia. | 400 RMS Amps, 60 Hz | 2.2 (1.0) |
| ALUMINUM FLAT JAW GROUNDING CLAMP - ACME THREAD | | | | | |
| 24405 | "T" screw, w/o strain relief sleeve, Serrated Jaw | 5 / B | 1.5" -.06" Flat or Square 1.26"-1.06" (32 mm - 1.5 mm)Dia. | 400 RMS Amps, 60 Hz | 2.1 (.9) |
| 24406 | Eye screw, w/o strain relief sleeve Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.0 (.9) |

GROUNDING CLAMPS FOR SUBSTATION BUSES

3.5" AND 6.62" SIZES



| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|--|--------------------|---------------------------------|---------------------------|-----------------------|
| 3.5" ALUMINUM "C" CLAMP FOR SUBSTATION BUSES - ACME THREAD | | | | | |
| 4282 | Eye, w/ strain relief sleeve, Smooth Jaw w/ Flat Lower Jaw | 5 / A | 3" - 1.5" I.P.S. | 400 RMS Amps, 60 Hz | 2.8 (1.3) |
| 4283* | Mounted, w/ strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5 / A | 3.5" - 1.75" | 400 RMS Amps, 60 Hz | 5.8 (2.5) |
| 21953 | Eye, w/ strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5H / A | (89 mm - 44 mm) Dia. | 400 RMS Amps, 60 Hz | 2.9 (1.4) |
| 4341 | Long Eye Screw, w/strain relief sleeve Smooth Upper Jaw w/ Flat Lower Serrated Jaw | 5 / A | 3" I.P.S. to #6 | 400 RMS Amps, 60 Hz | 2.9 (1.4) |
| 21985* | Long Eye Screw, w/strain relief sleeve Serrated Jaw, w/ Flat Lower Jaw | 6 / B | 3.5" - .16" (89 mm - 4 mm) Dia. | 450 RMS Amps, 60 Hz | 3.0 (1.5) |
| 6.62" ADJUSTABLE ALUMINUM "C" CLAMP FOR ROUND, SQUARE, RECTANGLE OR "H" SECTION SUBSTATION BUSES - ACME THREAD | | | | | |
| 2991 | Eye, w/ strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5H / A | 6.12" I.P.S | 400 RMS Amps, 60 Hz | 6.9 (3.1) |
| 2993** | Eye, w/ welded single contact stud, Smooth Jaw w/ Flat Lower Jaw | 5 / A | 6.62" - .4" | 400 RMS Amps, 60 Hz | 7.0 (3.2) |
| 9967** | Eye, w/ welded double contact stud Smooth Jaw w/ Flat Lower Jaw | 5 / A | (168 mm - 40 mm) Dia. | 450 RMS Amps, 60 Hz | 7.3 (3.3) |
| 4378 | Oval Eye, w/ strain relief sleeve Smooth Jaw w/ Flat Lower Jaw | 5 / A | | 400 RMS Amps, 60 Hz | 6.9 (3.1) |

*Mounted: 1.25" dia x 6' Fiberglass Hotstick permanently mounted

**No Ferrule Connection

+Accepts 3/4 - 10 ferrule threads

GROUNDING CLAMPS

FOR FLATS, ANGLES & ROUNDS



FLAT JAW GROUNDING CLAMPS are available with either a large “T” handle or with an eye for clampstick application. The handles and eyes are designed so that the cable will not interfere with the torquing of the clamp. The set screw that secures the clamp to a flat surface is located on the movable jaw on all designs. When tightened, the set screw forces the fixed jaw of the clamp firmly against the flat ensuring a consistent low resistance current path directly through the body of the clamp to the cable connection. With other designs having a set screw on the fixed jaw, current is required to flow through mechanical connections between the movable jaw, the eye screw and the body of the clamp before passing to the cable connection.

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|--|-----------------------|--|------------------------------|--------------------------|
| GRADE 3 BRONZE FLAT JAW GROUNDING CLAMPS - “V” THREAD | | | | | |
| 1814 | “T” screw w/ strain relief sleeve Serrated Jaw | 3 / B | 1.5” - .06” Flat or Square 1.26” - .06” (32 mm - 1.5 mm)Dia. | 300 RMS Amps, 60 Hz | 1.7 (.8) |
| 1815 | Eye Screw w/ strain relief sleeve Serrated Jaw | 3 / B | | 300 RMS Amps, 60 Hz | 1.6 (.7) |
| GRADE 5 ALUMINUM FLAT JAW GROUNDING CLAMP - ACME THREAD | | | | | |
| 4345 | “T” screw w/ strain relief sleeve, Serrated Jaw | 5 / B | 1.5” - .06” Flat or Square 1.26” - .06” (32 mm - 1.5 mm)Dia. | 400 RMS Amps, 60 Hz | 2.1 (.9) |
| 24442 | “T” screw w/ strain relief sleeve Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.1 (.9) |
| 4369 | Eye Screw w/ strain relief sleeve Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.0 (.9) |
| 24441 | Eye Screw w/ strain relief sleeve Serrated Jaw | 5 / B | | 400 RMS Amps, 60 Hz | 2.0 (.9) |

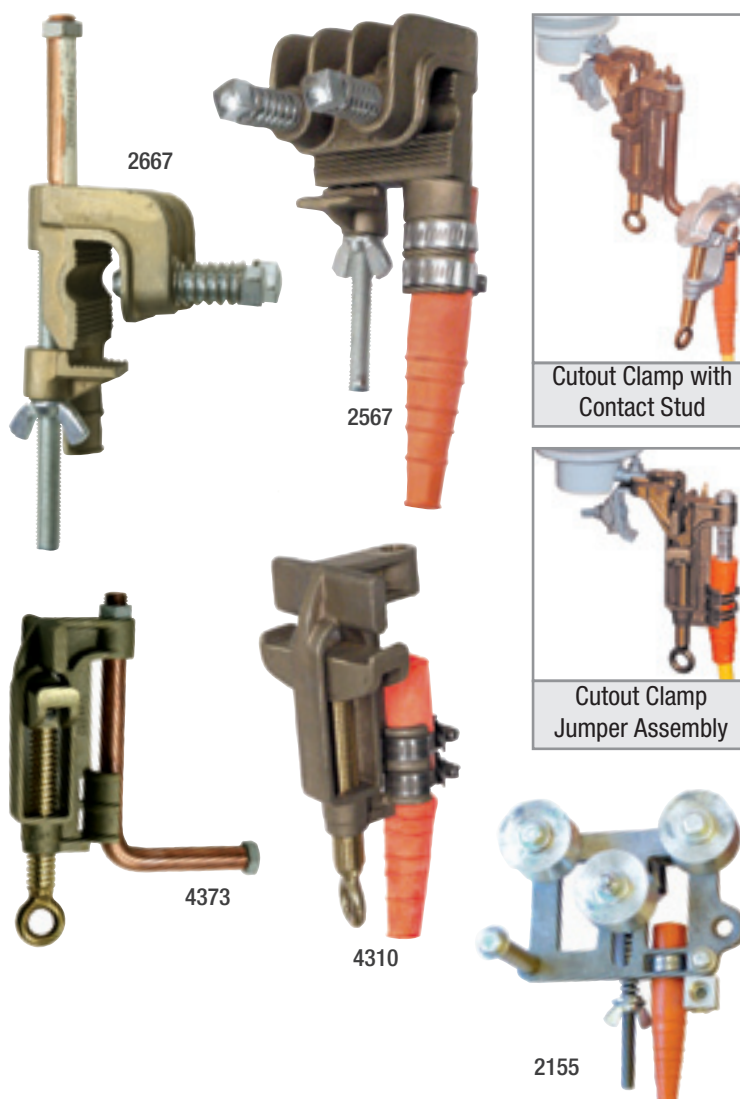
*Mounted: 1.25” dia x 6’ Fiberglass Hotstick permanently mounted

HEAVY DUTY DUAL-PURPOSE CLAMPS & SPECIALTY CLAMPS

The **HEAVY DUTY BRONZE “C” TYPE FLAT JAW CLAMP** with anti-blow off keeper is made to fit structural angles, flats and copper or copperweld stranded grounding assemblies. To install, first use an abrasive cloth or wire brush to clean the surface to be clamped. Then, wipe the surface clean, position the clamp, finger tighten and set the screws. Use a wrench to secure and tighten. A 2667 clamp with contact stud offers greater versatility.

CUTOUT CLAMPS are applied with a clampstick into the bottom hinge contact of a cutout. This clamp can be used as part of a ground assembly or by using a contact stud using a standard grounding assembly with “C” clamps from the stud to ground.

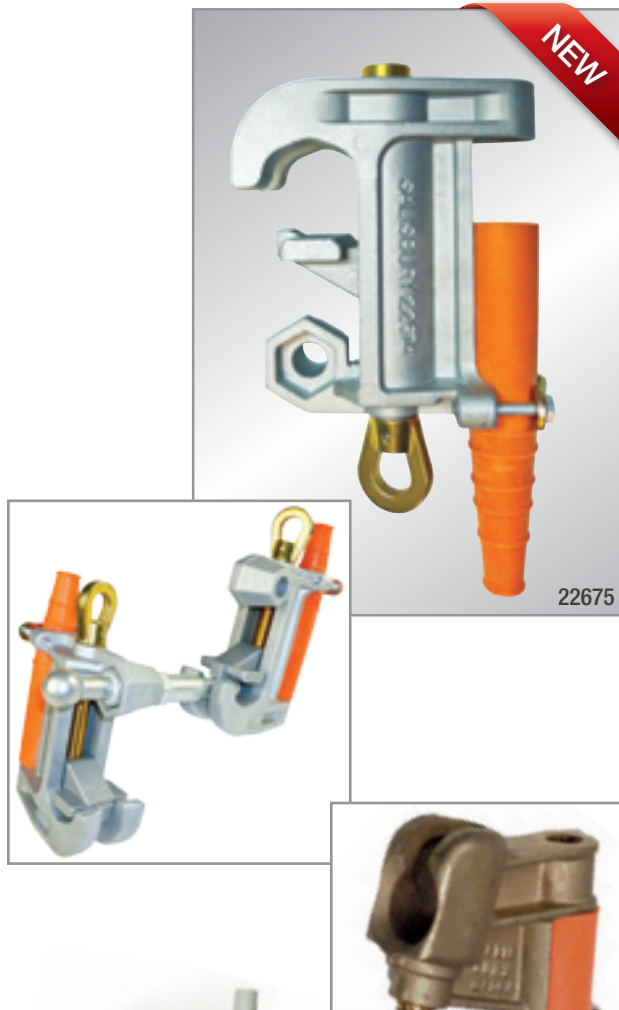
Lightweight, heavy duty **STRINGING GROUND** installs anywhere along the length of conductor to provide a continuous grounding bond, even if the conductor is slack. Constructed of high-strength aluminum alloy with large diameter sheaves and bronze bushing bearings. Features a side opening for quick, easy installation. Adjustable compression spring assures proper contact for different sizes of conductors and for easy passage of splices. In tests, this clamp withstood a 25 kA, 28 cycle short circuit. The three options for a ground tap connection are: termination for ground cables, contact/hanger stud and connector for ground wire.



| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | WEIGHT EA. lbs. (kgs) | | | |
|---|---|-----------------------|--|--|---|-----------|
| HEAVY DUTY BRONZE “C” TYPE FLAT JAW CLAMP | | | MAIN LINE RANGE | | TAP SIZE | |
| 2567 | 5/8”-11NC Connection, w/ strain relief sleeve Serrated Jaw | 5H / B | Angles & Flats: 2.5”-4” WX (64-101 mm x 3-19 mm) | | 5/8 - 11 UNC Max. Cable Size 4/0 Type V Compression Ferrules | 4 (1.8) |
| 2667 | 2567 Clamp, w/ Contact Stud Serrated Jaw | 5 / B | | | | 5 (2.3) |
| 2577 | 3/4”-10NC Connection, w/ strain relief sleeve Serrated Jaw | 6 / B | | | 3/4 - 10 UNC Max. Cable Size 250 MCM Type V Compression Ferrules | 4 (1.8) |
| | | | | | | |
| BRONZE CUTOUT CLAMPS - “V” THREAD | | | TAP SIZE | | CONTINUOUS CURRENT RATING | |
| 4310 | Eye, w/ ferrule connection | Grade 5 | 5/8 - 11 UNC Max. Cable Size: 470 Type VI Threaded Stud Compression Ferrule | | 400 RMS Amps, 60 Hz | 2.1 (1.1) |
| 4373 | Eye, w/ contact stud | Grade 5 | | | 400 RMS Amps, 60 Hz | 3.3 (1.5) |
| 4379 | Contact stud only | Grade 5 | | | 400 RMS Amps, 60 Hz | 1.2 (.5) |
| | | | | | | |
| STRINGING GROUND | | | MAIN LINE RANGE | | CONTINUOUS CURRENT RATING | |
| 2155 | Stringing ground, w/ Alloy Rollers & Smooth Contacts | 5 / A | 1033.5 MCM ACSR to #2 Sol 1.26”-.25” (32 mm - 6 mm) Dia Splice: 1.5” (38 mm) Dia | | 300 RMS Amps, 60 Hz | 5.3 (2.4) |

BALL & SOCKET SYSTEM

SOCKET CLAMP & BALL STUD “C” CLAMP



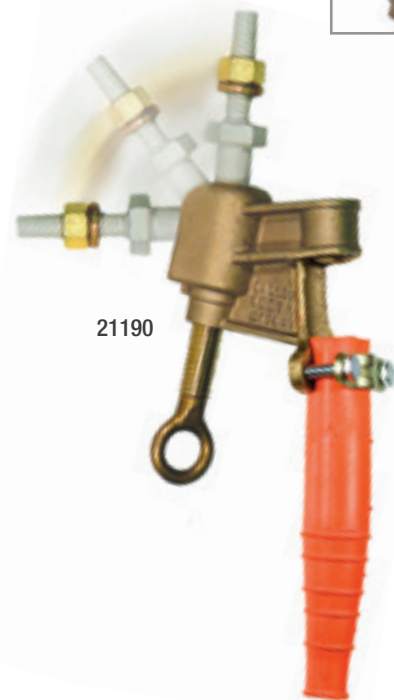
The **BALL AND SOCKET GROUNDING SYSTEM** allows for variable angle accessibility. This system is compact and lightweight. There are fixed grounding points on the socket clamp. The 21190 Socket Clamp, made from bronze alloy, has a socket size of 1 inch (25.4 mm) and a threaded bore boss of 5/8"-11 UNC. The socket clamp has an integral cable support with strain relief sleeve.

THE BALL STUD “C” CLAMP is a universal clamp that can be used in substations and on overhead lines. This universal clamp can be used as a socket clamp on a 1 inch (25.4 mm) Ball Stud and as a 1 ½ inch (38 mm) C-Clamp on overhead lines. The eye screw is not extended beyond the body of the clamp, minimizing possible thread damage during handling. Double lead V-thread allows for faster installation, minimizing worker fatigue. External and internal ball studs assembly can be used as a current carrying contact stud.

SPECIFICATIONS FOR BALL STUD “C” CLAMP

- Aluminum clamp body
- Double lead V-thread eye screw is bronze alloy
- ASTM Type 1, Class A, Grade 5 rating
- Fault current ratings:
 - 43,000 Amps – 15 cycles
 - 30,000 Amps – 30 cycles
- Ferrule attachment: 5/8" x 11 UNC for Grade 5 rating
- Grounding cable: #2 min size to 4/0 max size

See page K-3 for ball socket studs and accessories available for both Ball & Socket clamps and Ball Stud “C” Clamps.



| CAT. NO. | DESCRIPTION | ASTM GRADE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|----------|--|---------------|------------------------------|--------------------------|
| 21190 | w/ strain relief sleeve | 5 | 400 Amps | 1.2 (.54) |
| 21277 | w/o strain relief sleeve | 5 | 400 Amps | 1.1 (.5) |
| 22675 | 1" Ball Stud C-Clamp w/ strain relief | 5H | 400 Amps | 2.7 (1.22) |
| 22704 | 1" Ball Stud C-Clamp w/o strain relief | 5H | 400 Amps | 2.6 (1.18) |

GROUNDING CABLES

SALISBURY GROUNDING CABLES are made with extra flexible strand of soft drawn #30 AWG (.01") copper and are available in three different jackets.

Salisbury yellow and black ground cable now include permanent embossed markings.

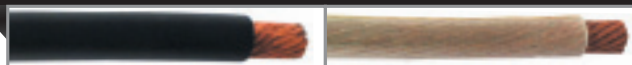
The yellow thermoplastic elastomer jacketed cable is the standard for grounding service. It provides a combination of economy, flexibility and durability. The service temperature ranges from 200° to -50°F. ASTM F 855 Type I.

The black thermoplastic elastomer jacketed cable has a smaller diameter and thinner jacket material giving it better flexibility than the yellow cable. The service temperature ranges from 200° to -50°F. ASTM F 855 Type I.

The PVC transparent flexible thermoplastic jacketed cable allows easy inspection for strand breakage. The flexibility decreases with low temperatures. The service temperature ranges from 140° to -40°F per ASTM F 855, Type III requirements.



ALSO AVAILABLE IN BLACK AND CLEAR PVC



SALISBURY GROUNDING CABLES

| CAT NO. | SIZE | STRAND DIA. in. (mm) | JACKET in. (mm) | SHORT CIRCUIT WITHSTAND AMPS, RMS, 60HZ | | CONTINUOUS CURRENT AMPS,RMS, 60HZ | WT./1000FT. lbs. (kgs) |
|------------------|-----------|-------------------------|--------------------|--|-----------|---|---------------------------|
| | | | | 15 CYCLES | 30 CYCLES | | |
| YELLOW JACKET | | | | | | | |
| 2136 | #2-665W | .35 (8.9) | .50 (12.7) | 14500 | 10000 | 200 | 282 (127) |
| 2137 | 1/0-1064W | .45 (11.4) | .62 (15.7) | 21000 | 15000 | 250 | 488 (221) |
| 2138 | 2/0-1330W | .49 (12.4) | .65 (16.5) | 27000 | 20000 | 300 | 537 (243) |
| 2139 | 4/0-2109W | .62 (1.7) | .83 (21.1) | 43000 | 30000 | 400 | 836 (379) |
| BLACK JACKET | | | | | | | |
| 2636 | #2-665W | .35 (8.9) | .47 (12) | 14500 | 10000 | 200 | 263 (119) |
| 2637 | 1/0-1064W | .45 (11.4) | .58 (14.7) | 21000 | 15000 | 250 | 404 (183) |
| 2638 | 2/0-1330W | .49 (12.4) | .63 (16) | 27000 | 20000 | 300 | 497 (225) |
| 2649 | 3/0-1672W | .55 (14) | .72 (18.3) | 36000 | 25000 | 350 | 680 (308) |
| 2639 | 4/0-2109W | .62 (1.7) | .78 (19.8) | 43000 | 30000 | 400 | 770 (349) |
| CLEAR PVC JACKET | | | | | | | |
| 2128 | #2-665W | .35 (8.9) | .53 (13.5) | 14500 | 10000 | 200 | 289 (131) |
| 2129 | 1/0-1064W | .45 (11.4) | .64 (16.3) | 21000 | 15000 | 250 | 520 (235) |
| 2133 | 2/0-1330W | .49 (12.4) | .70 (17.8) | 27000 | 20000 | 300 | 546 (247) |
| 2288 | 4/0-2109W | .62 (1.7) | .84 (21.3) | 43000 | 30000 | 400 | 841 (381) |

PLAIN SHROUDED & UNSHROUDED FERRULES



ALUMINUM PLAIN SHROUDED



COPPER PLAIN SHROUDED



ALUMINUM PLAIN UNSHROUDED



COPPER PLAIN UNSHROUDED

PLAIN SHROUDED & UNSHROUDED FERRULES

Plain ferrules are designed for use with all grounding clamps that feature pressure terminals including the 1" duckbill and 1.5" flat jaw clamp.

COPPER FERRULES are available in two different styles: unshrouded and shrouded. Shrouded ferrules are compressed on both the conductor and the jacket of the cable to reduce bending stress. Unshrouded ferrules are crimped on the conductor strands only. These ferrules are manufactured of tin plated, 99.5% pure copper.

ALUMINUM FERRULES are available in two different styles: unshrouded and shrouded. Shrouded ferrules are compressed on both the conductor and the jacket of the cable to reduce bending stress. Unshrouded ferrules are crimped on the conductor strands only.

| CAT. NO. | CABLE SIZE | STRAND DIE CODES T&B | JACKET DIE CODES T&B | BURNDY DIE NUMBER | WEIGHT EA. PAIR lbs. (kgs) |
|----------------------------|------------|-------------------------|-------------------------|----------------------|-------------------------------|
| COPPER SHROUDED | | | | | |
| 24424 | #2 | 50 | 71 | - | 0.30 (.14) |
| 24425 | 1/0 | 50 | 71 | - | 0.35 (.16) |
| 24426 | 2/0 | 60 | 76 | - | 0.40 (.18) |
| 24427 | 4/0 | 66 | 106 | - | 0.45 (.20) |
| COPPER UNSHROUDED | | | | | |
| 24420 | #2 | 50 | - | - | 0.30 (.14) |
| 24421 | 1/0 | 50 | - | U243 | 0.30 (.14) |
| 24422 | 2/0 | 60 | - | U245 | 0.35 (.16) |
| 24423 | 4/0 | 66 | - | U247 | 0.35 (.16) |
| ALUMINUM SHROUDED | | | | | |
| 24434 | #2 | 50 | 71 | - | 0.1 (.045) |
| 24436 | 2/0 | 60 | 76 | - | 0.15 (.07) |
| 24437 | 4/0 | 71 | 106 | - | 0.15 (.07) |
| ALUMINUM UNSHROUDED | | | | | |
| 24430 | #2 | 50 | - | - | 0.12 (.54) |
| 24431 | 1/0 | 50 | - | - | 0.12 (.54) |
| 24432 | 2/0 | 60 | - | - | 0.16 (.073) |
| 24433 | 4/0 | 71 | - | - | 0.16 (.073) |

*Add suffix "A" to the end of the catalog number when requesting a custom built grounding set.

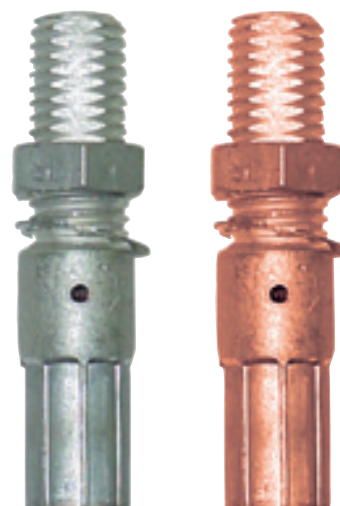
THREADED GROUNDING FERRULES & STRAIN RELIEF SLEEVES

Salisbury compression **THREADED GROUNDING FERRULES** provide low resistant connection to cable strands with a threaded stud that securely screws into a clamp. Nut and lock washers increase contact pressure and secure the assembly.

Tin plated copper ferrules can be used on either bronze or aluminum body clamps. All Salisbury threaded grounding ferrules are unshrouded and manufactured with a 5/8-11 UNC threaded stud and meets the requirements of ASTM F855.

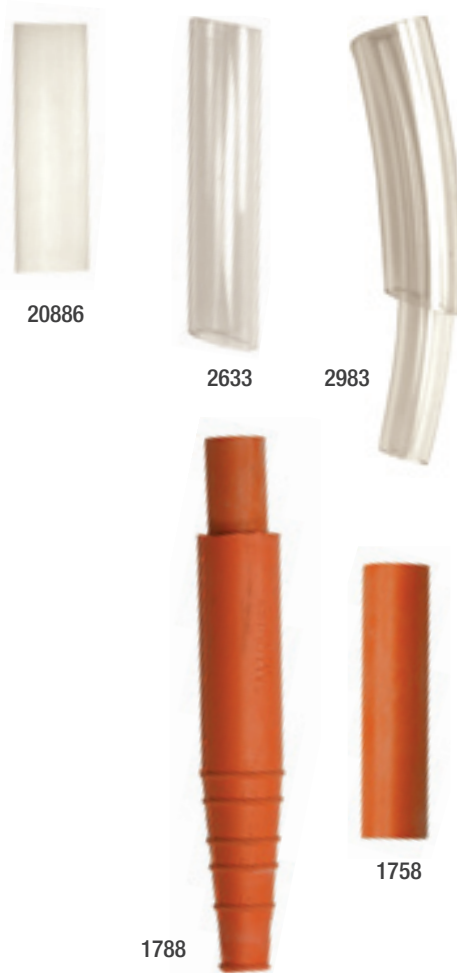
| CAT. NO. | ASTM GRADE | SIZE | INSTALLING DIE CODES T&B | BURNDY DIE NUMBERS | WEIGHT EA. PAIR lbs. (kgs) |
|---|------------|------|--------------------------|--------------------|----------------------------|
| ALUMINUM THREADED GROUNDING FERRULES | | | | | |
| 2026 | 1 | #2 | 50 | - | .2 (.1) |
| 2027 | 2 | 1/0 | 50 | - | .2 (.1) |
| 2620 | 3 | 2/0 | 60 | - | .3 (.1) |
| 2640 | 5 | 4/0 | 71 | - | .3 (.1) |
| COPPER THREADED GROUNDING FERRULES | | | | | |
| 2022 | 1 | #2 | 50 | U243 | .5 (.2) |
| 2023 | 2 | 1/0 | 50 | U243 | .4 (.2) |
| 2024 | 3 | 2/0 | 60 | U245 | .4 (.2) |
| 4277 | 4 | 3/0 | 66 | -t | .6 (.3) |
| 2025 | 5H | 4/0 | 66 | U247 | .6 (.3) |

Add suffix "A" to the catalog number when requesting a custom insulated grounding set.



STRAIN RELIEF SLEEVES reinforce cables at the termination points when used with the cable support system. This decreases strand damage to cables from age or mishandling which reduces current carrying capacity and service life. SALCOR® Strain Relief Sleeves accept all grounding cables #2 through 4/0. Sleeve assembly consists of two parts: the inner sleeve, which is discarded if the cable diameter exceeds .72" and tapered outer sleeve, 6.5" long, which can be cut to match the diameters. Clear strain relief sleeves and heat shrink are available to fit ground clamps.

| CAT. NO. | DESCRIPTION | WEIGHT EA. lbs. (kgs) |
|------------------------------------|--|-----------------------|
| CABLE STRAIN RELIEF SLEEVES | | |
| 1758 | Inner SALCOR® Sleeve Only | .1 (.04) |
| 1788 | Complete SALCOR® Strain Relief Assembly | .1 (.04) |
| 2633 | Clear Sleeve for 4/0 Grounding Cable | .1 (.04) |
| 2983 | Clear Sleeve for #2 to 2/0 Grounding Cable | .1 (.04) |
| 20886 | Clear Heat Shrink, 5"(127 mm) for All Grounding Cables | .1 (.04) |

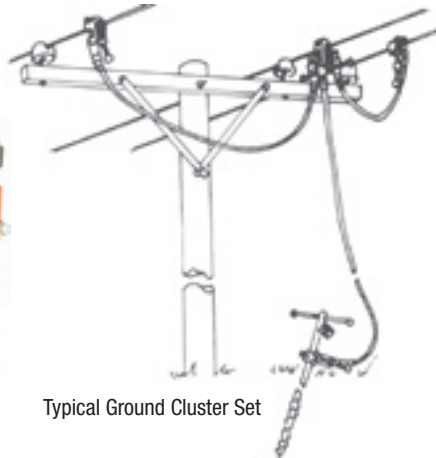


SINGLE GROUNDING ASSEMBLIES

SINGLE GROUNDING ASSEMBLIES & SETS



24309



Typical Ground Cluster Set

Salisbury offers a variety of single grounding versatility to the user when performing temporary grounding.

For ordering convenience, completed **SINGLE GROUNDING ASSEMBLIES** are listed which cover many standard application needs. Modification to these sets to meet specific needs can be made. Contact your local Salisbury representative for assistance or visit www.salisburybyhoneywell.com to use our helpful online grounding configurator.

| CAT. NO. | DESCRIPTION | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|------------------------------------|--|---------------|--------------------------|
| SINGLE GROUNDING ASSEMBLIES | | | |
| 24309 | 2 ea. #1895 Serrated Aluminum "C" Clamp 1.5" 1 pr. #2024 Ferrules 6 ft. #2138 2/0 Cu. Yellow Cable | 3 | 5.9 (2.7) |
| 2299 | 2 ea. #1895 Serrated Aluminum "C" Clamp 1.5" 1 ea. #1928 Hanger Stud, 1 pr. #2027 Ferrules 6 ft. #2137 1/0 Cu. Yellow Cable | 2 | 5.9 (2.7) |
| 2319 | 2 ea. #1923 Smooth Aluminum "C" Clamp 2.4" 1 ea. #1928 Hanger Stud, 1 pr. #2620 Ferrules 10 ft. #2138 2/0 Cu. Yellow Cable | 3 | 8.7 (3.9) |
| 2320 | 1 ea. #1923 Smooth Aluminum "C" Clamp 1 ea. #4345 Aluminum Flat Jaw "T" Handle Clamp 1 pr. #2620 Ferrules 15 ft. #2138 2/0 Cu. Yellow Cable | 3 | 7.4 (3.4) |
| 2321 | 2 ea. #1793 Bronze Duck Bill 556 MCM 1 ea. #2093 Hanger Stud, 1 pr. #2023 Ferrules 6 ft. #2137 1/0 Cu. Yellow Cable | 2 | 5.4 (2.5) |
| 2329 | 2 ea. #1921 Serrated Aluminum "C" Clamp 2.4" 1 ea. #1928 Hanger Stud, 1 pr. #2620 Ferrules 10 ft. #2138 2/0 Cu. Yellow Cable | 3 | 9 (4.1) |
| 2556 | 2 ea. #1853 Smooth Aluminum Duck Bill Clamp 1.66" 1 ea. #1858 Hanger Stud, 1 pr. #2027 Ferrules 6 ft. #2137 1/0 Cu. Yellow Cable | 2 | 5.2 (2.4) |
| 2876 | 2 ea. #2531 Smooth Aluminum "C" Clamp 1.0" 1 ea. #2537 Hanger Stud, 1 pr. #2027 Ferrules 6 ft. #2137 1/0 Cu. Yellow Cable | 2 | 4.9 (2.2) |
| 9975 | 2 ea. #9985 Smooth Bronze "C" Clamp 1.0" 1 ea. #9983 Hanger Stud, 1 pr. #2023 Ferrules 6 ft. #2137 1/0 Cu. Yellow Cable | 2 | 6.9 (3.1) |
| 9982 | 2 ea. #9984 Smooth Bronze "C" Clamp 1.25" 1 ea. #9983 Hanger Stud, 1 pr. #2023 Ferrules 6 ft. #2137 1/0 Cu. Yellow Cable | 2 | 8.3 (3.7) |

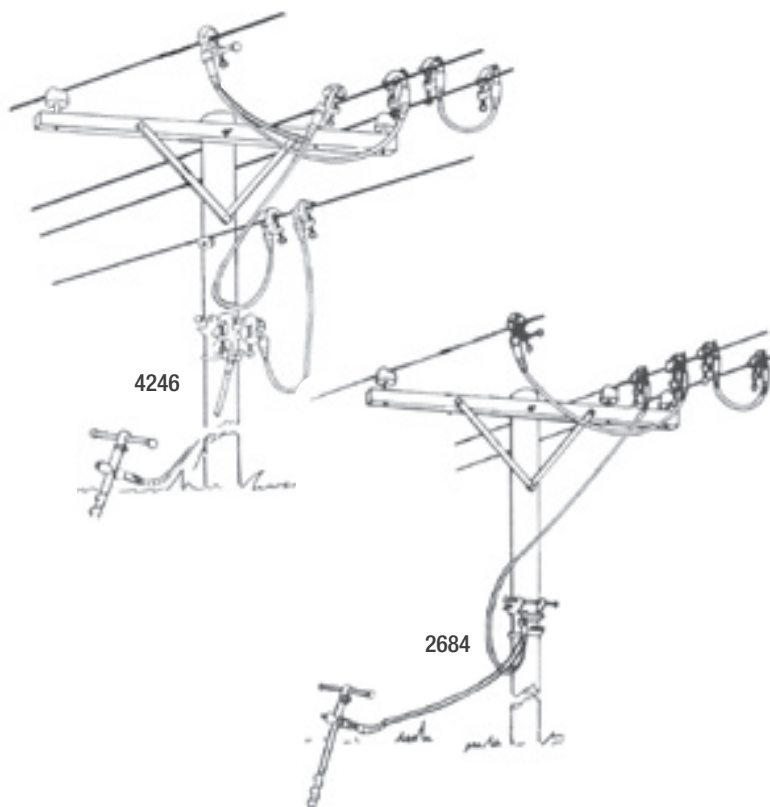
Optional ground set label available upon request when ordering.

GROUNDING SETS

SINGLE POINT DISTRIBUTION GROUNDING SETS & SPECIAL APPLICATION SETS

A **SINGLE POINT DISTRIBUTION GROUNDING SET** creates an equal potential zone on the working structure. This is accomplished by bonding all conductors and the structure to a ground source using individual assemblies as shown in the adjacent drawing.

The **SPECIAL APPLICATIONS GROUNDING SETS** listed are some typical complete personal protection ground sets for common line construction. These sets, although practical for many applications, are shown as a guide to help determine individual system needs and for ease of ordering. Variations of these sets may be requested to meet specific situations or user preferences. Your local Salisbury representative can answer any questions you have on personal protection grounding needs and applications.



| CAT. NO. | DESCRIPTION | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|--|--|------------|--------------------------|
| SINGLE POINT GROUNDING ASSEMBLIES | | | |
| 4246 | Complete Distribution Grounding Set 10 ea. #2531 Smooth Aluminum "C" Clamps 795 MCM 1 ea. #9998 Aluminum Pole Mount Contact Bar 5 pr. #2026 Ferrules 3 ea. #2537 Hanger studs 60 ft. #2636 # Cu. Cable 1 ea. #2103 Screw Ground Rod w/ Connector | 1 | 45.5 (20.6) |

Additional Single Point Sets are Available, Contact your local Salisbury representative.

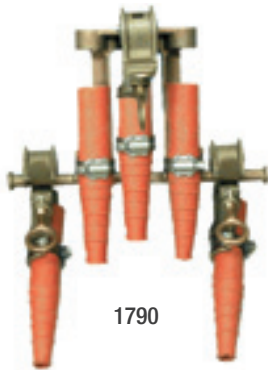
Optional ground set label available upon request when ordering.

SPECIAL APPLICATIONS GROUNDING SETS

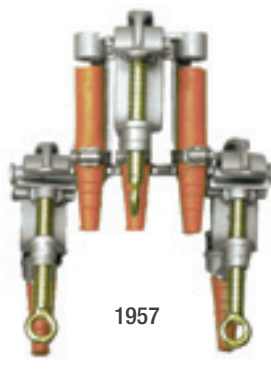
| | | | |
|-------------------------------|---|---|-------------|
| COMPLETE 3 PHASE DELTA | | | |
| 2684 | 2 ea. #20880 Contact Bar 7 ea. #1895 Serrated Aluminum "C" Clamp 1.5" 84 ft. #2637 1/0 Cu. Black Cable, 4 pr. #2027 Ferrules 2 ea. #1928 Hanger Studs, 1 ea. #2654 Storage Bag 1 ea. #2103 Screw Ground Rod | 2 | 63.5 (28.8) |
| 4249 | 2 ea. #20880 Contact Bar 7 ea. #2531 Smooth Aluminum "C" Clamp 795 MCM 86 ft. #2637 1/0 Cu. Cable, 4 pr. #2027 Ferrules 2 ea. #2537 Hanger Studs, 1 ea. #2654 Storage Bag 1 ea. #2103 Screw Ground Rod | 2 | 63.5 (28.8) |
| COMPLETE 4 WIRE WYE | | | |
| 4276 | 1 ea. #20880A Contact Bar 7 ea. #2531 Smooth Aluminum "C" Clamp 795 MCM 32 ft. #2637 1/0 Cu. Cable, 4 pr. #2027 Ferrules 3 ea. #2537 Hanger Studs, 1 ea. #2654 Storage Bag | 2 | 34 (15.4) |

Optional ground set label available upon request when ordering.

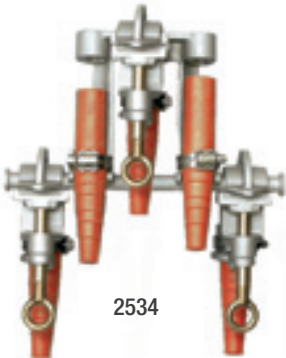
3 WIRE UNIVERSAL GROUNDING CLUSTERS & SETS



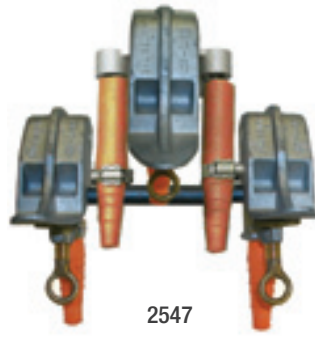
1790



1957

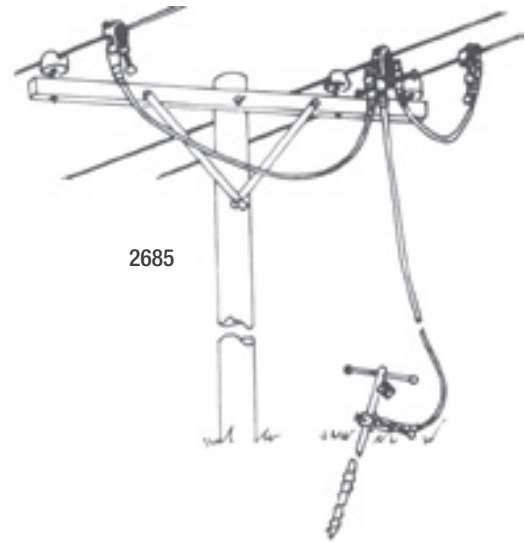


2534



2547

GROUNDING CLUSTERS are used to make it easy for a single line worker to apply multiple grounding assemblies on a three phase system. All clusters have an option of a ground lead by using the extra connection point on each cluster. Three wire clusters are recommended for three phase Delta systems. Complete grounding cluster assemblies are available from the factory. By specifying the cable size and length required, the assembly will be made to your specifications.



2685

| CAT. NO. | DESCRIPTION | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|----------|--|------------|--------------------------|
| 1790 | Cluster w/ 3 #1793 Smooth Jaw 556 MCM Bronze Duck Bill Clamps | 4 | 6 (2.7) |
| 1957 | Cluster w/ 3 #1895 Serrated Jaw 1.5" Aluminum "C" Clamps | 5 | 6.4 (2.9) |
| 2534 | Cluster w/ 3 #2531 Smooth Jaw 1" Aluminum "C" Clamps | 5 | 4.9 (2.2) |
| 2547 | Cluster w/ 3 #1853 Serrated Jaw 1.66" Aluminum Duck Bill Clamps | 5 | 5.4 (2.5) |
| 2685 | Assembled Ground Cluster Set 1 ea. #2516 Serrated Aluminum "C" Clamp 1.5" Cluster 74 ft. #2637 1/0 Cu. Cable 3 pr. #2027 Ferrules, 1 ea. #2103 Screw Ground Rod 1 ea. #2654 Storage Bag 1 ea. #1895 "C" Clamp, 1.5" | 2 | 54.2 (24.6) |
| 4248 | Assembled Ground Cluster Set 1 ea. #1790 Smooth Bronze Duck Bill Cluster 76 ft. #2636 #2 Cu. Cable 3 pr. #2022 Ferrules, 1 ea. #2103 Screw Ground Rod 1 ea. #2654 Storage Bag | 1 | 54.2 (24.6) |

Clusters are also available with Mounted Clamps, consult the factory for more information.
Optional ground set label available upon request when ordering.

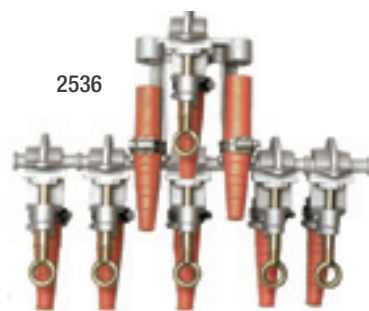
GROUNDING SETS & 4-WAY CONNECTORS

4 WIRE UNIVERSAL GROUNDING CLUSTERS & SETS

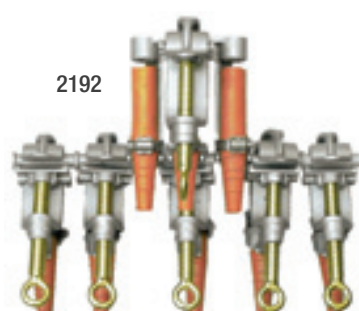
GROUNDING CLUSTERS make it easy for a single line worker to apply multiple grounding assemblies. All clusters have an option of a ground lead by using the extra connection point on each cluster. Four wire clusters are recommended for three phase Wye systems. Complete grounding cluster assemblies are available from the factory. By specifying the cable size and length required, the assembly will be made to your specifications.

The **2680 4-WAY CONNECTOR** ground set provides an excellent system for the grounding of a 3 phase system (Fig. A & B pg. I-21).

4-WAY CONNECTORS are used to create a common connection between the conductor leads and the ground lead of a ground set.



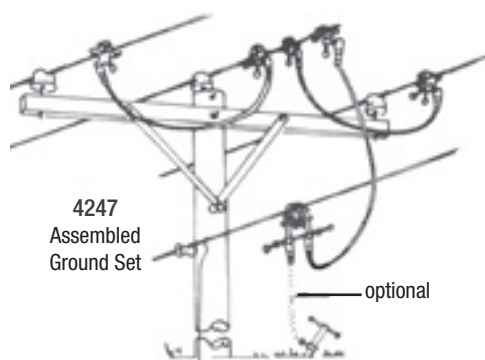
2536



2192



1794



4247
Assembled
Ground Set

optional

| CAT. NO. | DESCRIPTION | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|---|--|---------------|--------------------------|
| 4 WIRE UNIVERSAL GROUNDING CLUSTERS & SETS | | | |
| 1794 | Cluster w/ 6 #1793 Smooth Jaw 556 MCM Bronze Duck Bill Clamps | 4 | 9 (4.1) |
| 2192 | Cluster w/ 6 #1895 Serrated Jaw 1.5" Aluminum "C" Clamps | 5 | 11.8 (5.4) |
| 2536 | Cluster w/ 6 #2531 Smooth Jaw 1" Aluminum "C" Clamps | 5 | 8.8 (4) |
| 2604 | Cluster w/ 6 #1853 Serrated Jaw 1.66" Aluminum Duck Bill Clamps | 5 | 6.2 (2.8) |
| 2682 | Assembled Ground Cluster 1 ea. #1794 Smooth Bronze Duck Bill Cluster 18 ft. #2636 #2 Cu. Cable 3 pr. #2022 Ferrules 1 ea. #2654 Storage Bag | 1 | 14.5 (6.6) |
| 4247 | Assembled Ground Cluster 1 ea. #2536 Smooth Aluminum "C" Cluster 18 ft. #2637 1/0 Cu. Cable 3 pr. #2027 Ferrules 1 ea. #2654 Storage Bag | 2 | 18 (8.2) |
| 4-WAY CONNECTOR GROUND SET | | | |
| 2680 | Four Way Connector Ground Set - Grade 2, 21 kA 15 cycles 1 #2374 Four Way Connector w/ Sleeves 4 #1895 1.5" Serrated Jaw Clamps w/ Sleeves 1 #2427 Double Hanger Stud, 1 #2402 Contact Stud 34 ft. #2137 1/0 Cu. Cable 4 pr. #2027 Ferrules | 2 | 28 (12.7) |
| 2374 | Threaded Ferrule Four Way Connector | 5 | 1.8 (.8) |
| 21702 | Threaded Ferrule Four Way Connector 1 ¾ long x 2 ¼ dia. | 5 | .5 (.23) |
| 24438 | Plain Ferrule Four Way Connector | 5 | 2 (.9) |

Optional ground set label available upon request when ordering.



24438



21702

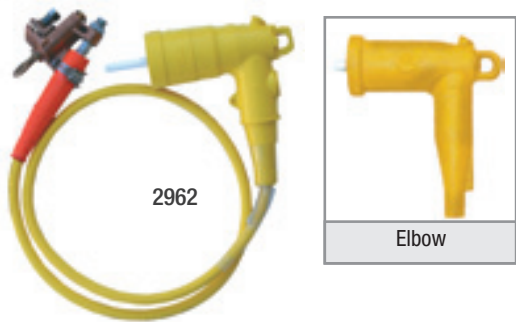


2374

DEAD FRONT GROUNDING JUMPERS & ELBOWS



22630



2962

Elbow

DEAD FRONT GROUND SETS are supplied with an insulated grounding elbow, yellow jacketed copper grounding cable and a 1815 bronze flat jaw ground clamp for the ground connection. **GROUNDING ELBOWS** are equipped with arc quenching tips as provided on standard load break elbows.

Both 15 kV and 25 kV elbows are available with connectors for 1/0 or 2/0 cable. Assembled sets for 15 kV and 25 kV are available for single phase or three phase grounding requirements. The fault duty rating for 200 amp grounding elbows is 10 kA for 10 cycles per IEEE 386. Standard three phase sets have a 4 ft. tail connecting to a 2374 four wire connector with 2 ft. leads for the elbows. Sets can be factory assembled to customer specifications.

| CAT. NO. | DESCRIPTION | WEIGHT EA. lbs. (kgs) |
|-------------------------------|------------------------------------|--------------------------|
| COMPLETE 3 PHASE DELTA | | |
| 2910 | 15 kV Elbow w/ 1/0 Cable Connector | 1.7 (.7) |
| 2912 | 15 kV Elbow w/ 2/0 Cable Connector | 1.7 (.7) |
| 2935 | 25 kV Elbow w/ 1/0 Cable Connector | 2 (.9) |
| 2936 | 25 kV Elbow w/ 2/0 Cable Connector | 2 (.9) |

| | | |
|-------------------------------|---|-----------|
| COMPLETE 3 PHASE DELTA | | |
| 2961 | 15 kV Single Phase, 6 ft. 1/0 Cable w/ Bag | 10 (4.5) |
| 2962 | 15 kV Single Phase, 6 ft. 1/0 Cable w/o Bag | 8 (3.6) |
| 2963 | 15 kV Three Phase, 1/0 Cable w/ Bag | 22 (10) |
| 22630 | 15 kV Three Phase, 1/0 Cable w/o Bag | 20 (9) |
| 2971 | 25 kV Single Phase, 6 ft. 1/0 Cable w/ Bag | 13 (5.9) |
| 22631 | 25 kV Single Phase, 6 ft. 1/0 Cable w/o Bag | 11 (5) |
| 2973 | 25 kV Three Phase, 1/0 Cable w/ Bag | 24 (10.9) |
| 22632 | 25 kV Three Phase, 1/0 Cable w/o Bag | 22 (10) |

Optional ground set label available upon request when ordering.

Fig. A 2680

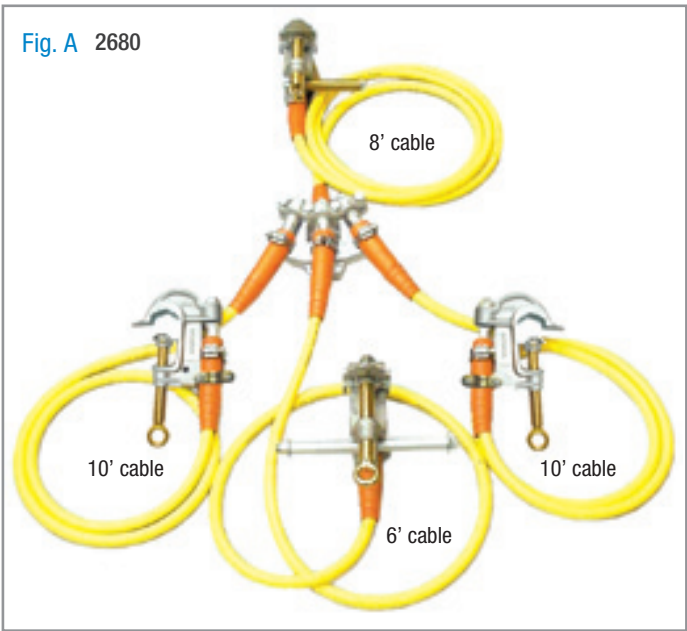
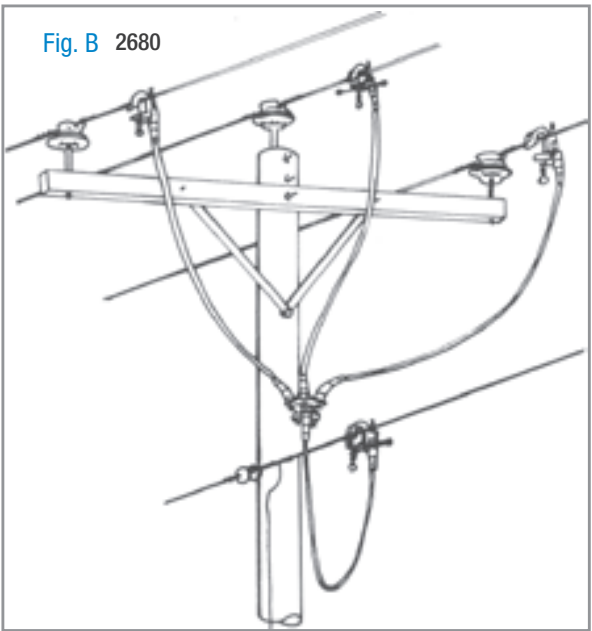


Fig. B 2680





ASTM F855-09 TABLE 1 - PROTECTIVE GROUNDING CLAMP RATINGS

TABLE 1 Protective Ground Cable, Ferrule, Clamp and Assembly Ratings for Symmetrical Current

| Grade | Grounding Clamp Torque Strength, min | | | | Short Circuit Properties ^A | | | | | | | Continuous Current Rating, A RMS, 60 Hz |
|-------|--------------------------------------|-----|----------|-----|---------------------------------------|--------------------|--------------------|---|--------------------|-----------------|--------------------------------|---|
| | Yield ^B | | Ultimate | | Withstand Rating, Symmetrical kA | | | Ultimate Rating Capacity ^{CD} , Symmetrical kA | | | | |
| | | | | | RMS, 60 Hz | | | RMS, 60 Hz | | | | |
| | lbf-in. | n-m | lbf-in. | n-m | 15 cycles (250 ms) | 30 cycles (500 ms) | Copper Cable Size | 15 cycles (250 ms) | 30 cycles (500 ms) | 60 cycles (1 s) | Maximum Copper Test Cable Size | |
| 1 | 280 | 32 | 330 | 37 | 14 | 10 | #2 | 18 | 13 | 9 | 2/0 | 200 |
| 2 | 280 | 32 | 330 | 37 | 21 | 15 | 1/0 | 29 | 21 | 14 | 4/0 | 250 |
| 3 | 280 | 32 | 330 | 37 | 27 | 20 | 2/0 | 37 | 26 | 18 | 4/0 | 300 |
| 4 | 330 | 37 | 400 | 45 | 34 | 25 | 3/0 | 47 | 33 | 23 | 250 kcmil | 350 |
| 5 | 330 | 37 | 400 | 45 | 43 | 30 | 4/0 | 59 | 42 | 29 | 250 kcmil | 400 |
| 6 | 330 | 37 | 400 | 45 | 54 | 39 | 250 kcmil or 2 2/0 | 70 | 49 | 35 | 350 kcmil | 450 |
| 7 | 330 | 37 | 400 | 45 | 74 | 54 | 350 kcmil or 2 4/0 | 98 | 69 | 48 | 550 kcmil | 550 |

^A Withstand and ultimate short circuit properties are based on performance with surges not exceeding 20 % asymmetry factor (see 9.1 and 12.3.4.2).

^B Yield shall mean no permanent deformation such that the clamp cannot be reused throughout its entire range of application.

^C Ultimate rating represents a symmetrical current which the assembly or individual components shall carry for the specified time.

^D Ultimate values are based upon application of Onderdonk's equation to 98 % of nominal circular mil area allowed by Specifications B 172 and B 173.

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A copy of the complete standard may be obtained from ASTM, www.astm.org

ASTM F855-09 TABLE 2 - GROUNDING CABLE FERRULE AND ASSEMBLY RATINGS

TABLE 2 Ultimate Assembly Rating for High X/R Ratio Applications

| High Asymmetrical Test Requirements | | | | | |
|-------------------------------------|---------|---------------------------|---|------------------------------|------------------------|
| Grade | Size | Rating Rated Current (kA) | X/R = 30 1st Cycle Current Peak (kA) X 2.69 | Last Cycle Current Peak (kA) | Test Duration (cycles) |
| 1H | No. 2 | 15 | 41 | 23 | 15 |
| 2H | 1/0 | 25 | 65 | 37 | 15 |
| 3H | 2/0 | 31 | 84 | 46 | 15 |
| 4H | 3/0 | 39 | 105 | 58 | 15 |
| 5H | 4/0 | 47 | 126 | 70 | 15 |
| 6H | 250 MCM | 55 | 148 | 82 | 15 |
| 7H | 350 MCM | 68 | 183 | 101 | 15 |

NOTE 1—The above current values are based on electromechanical test values.

NOTE 2—Assemblies that have been subjected to these shall not be re-used.

NOTE 3—For use with currents exceeding 20 % asymmetry factor.

NOTE 4—See X4.7.2 for additional information.

NOTE 5—Alternate testing circuits are available for laboratories that cannot achieve the above requirements. See Appendix X4 for details.

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A copy of the complete standard may be obtained from ASTM, www.astm.org









TEMPORARY PROTECTIVE GROUNDING EQUIPMENT **safety line**



TEMPORARY PROTECTIVE GROUNDING EQUIPMENT

safety line

ADDITIONAL SCREW OPTIONS AVAILABLE WHERE DESIGNATED

| | | | | | | | |
|--|--|--|--|--|---|---|---|
|  |  |  |  |  |  |  |  |
| B | E | EB | PG | QC | RT | T | TB |
| Bayonet | Stainless Steel Eye | Bronze Eye | Posigrip | Quick Change | Removable T-Handle | Stainless Steel T-Handle | Bronze T-Handle |



Bayonet Ferrule

Installs/removes ground heads equipped with bayonet studs.

98B Quick Change 1 lbs. (0.45 kgs)

Add suffix "U" for Universal, "Q" for Quick Change

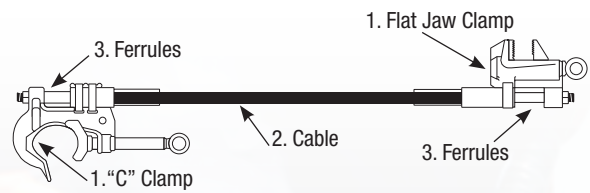
NOTE:

Salisbury by Honeywell's Safety Line grounding equipment offers solutions for all applications. This line of temporary protective grounding equipment offers a wide variety of products to meet many individual needs. These products are available in complete assemblies or individual components.

PLEASE NOTE: When ordering assemblies of grounding products, please make sure all items included in the assembly are only from the product line found within this section. Including items from other grounding equipment sections of this book will add additional shipping time.

SAFETY LINE TEMPORARY PROTECTIVE GROUNDING EQUIPMENT

GROUND SET CHECKLIST



1. Specify the clamps. Two are required for a complete assembly. The maximum amperage of the clamp is designated by the ASTM grade of each clamp. Be sure that the clamp will meet or exceed the maximum amperage rating of the ground cable that it will be used with.

2. Specify the cable. Once the short circuit capacity of the system has been determined, choose the appropriate size cable. Specify the cable length and the color of the jacket desired.

3. Specify the ferrules. One pair of ferrules is required per assembly. The size of the ferrule must match the size of the cable that it will be used with. Specify copper or aluminum and shrouded or non-shrouded.

4. Specify the options. List any optional equipment that is desired. This can include hanger studs, contact studs, heat shrink tubing, markings, clear strain relief, etc.

Options also include a ground set label. These optional labels include the date of manufacture and are available upon request when ordering.

HOW TO SPECIFY TEMPORARY PROTECTIVE GROUNDING ASSEMBLIES.

A grounding assembly in its basic form consists of two clamps, one pair of ferrules and a length of cable.

The clamps can be identical to each other or quite different depending on each grounding application. Because of this, ground clamps are sold individually, not in pairs. Salisbury offers a wide variety of clamps including C-clamps, flat jaw clamps, socket clamps, duckbill clamps and specialty clamps for unique situations. Clamps are offered in either bronze or aluminum alloys and are manufactured to meet the current specifications of ASTM F 855.

To attach a clamp to the grounding cable requires the use of a ferrule. Ferrules are compressed on the strands of the cable to provide a low resistance permanent connection. The size of the ferrule is determined by the size of the cable. Ferrules are available in aluminum or plated copper. Plated copper ferrules can be used with either aluminum or bronze clamps. Two ferrules are required for each assembly therefore they are sold in pairs. Ferrules are manufactured to the specifications of ASTM F855.

The final component that makes up a ground set is the grounding cable itself. The size of the cable is dependent on the short circuit current capacity of the system being grounded. Once this is determined, only the length of the cable and the color of the jacket need to be specified to complete the assembly.

Salisbury by Honeywell is your complete source for grounding equipment and assemblies.

DUCK BILL GROUNDING CLAMPS

1.13" AND 1.63" SIZES



767E



768E

Open Duck Bill Clamp: Includes springs that keep jaw open for easy application.



760SRS6E



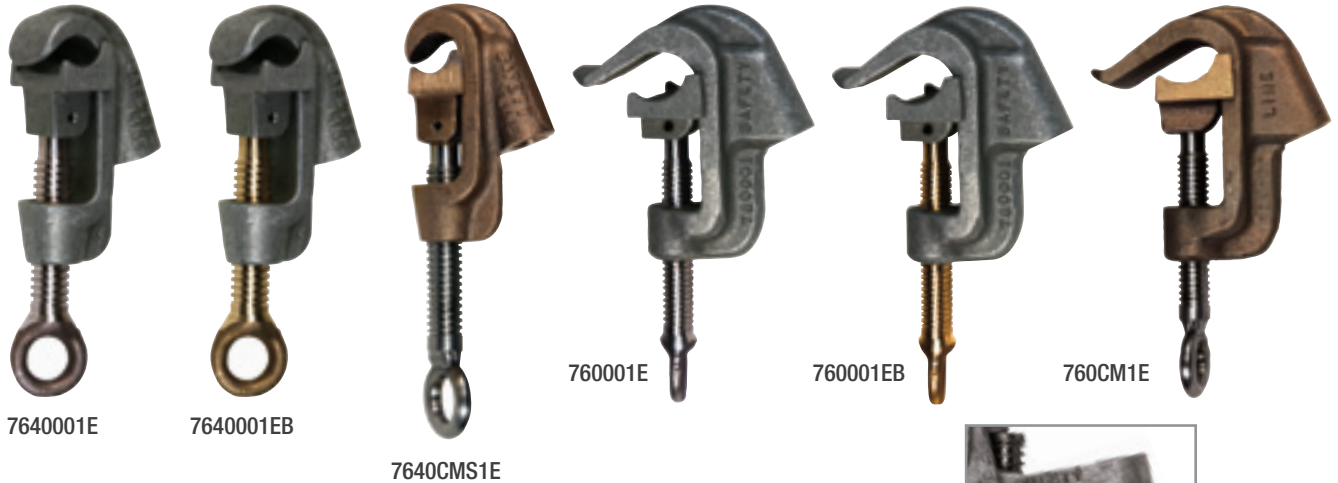
Strain Relief System

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|--|--|-----------------------|---|------------------------------|--------------------------|
| 1.13" SMOOTH JAW ALUMINUM DUCK BILL CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 767E | Stainless Steel Eye, Smooth Jaw | 3 / A | 795 MCM ACSR to #6 .19" - 1.13" (4.8 mm - 28.7 mm) Dia. | 300 RMS Amps, 60Hz | 1.4 (0.63) |
| 768E | Stainless Steel Eye, Open Clamp, Smooth Jaw | 3 / A | | 300 RMS Amps, 60Hz | 1.4 (0.63) |
| 1.63" SMOOTH JAW ALUMINUM DUCK BILL CLAMPS - THREADED | | | | | |
| 760006E | Stainless Steel Eye, Smooth Jaw | 5 / A | 954 MCM ACSR to #6 .19" - 1.63" (4.8 mm - 41 mm) Dia. | 400 RMS Amps, 60Hz | 3.0 (1.36) |
| 760SR6E | Stainless Steel Eye, Smooth Jaw w/ strain relief system | 5 / A | | 400 RMS Amps, 60Hz | 2.2 (1.00) |
| 760SR6PSE | Stainless Steel Eye, Smooth Jaw, w/ AL Parking Stand & Strain Relief System | 5 / A | | 400 RMS Amps, 60Hz | 1.6 (0.73) |
| 760SRS6E | Stainless Steel Eye, Serrated Jaw w/ Strain Relief System | 5 / B | | 400 RMS Amps, 60Hz | 2.2 (1.00) |
| 1.63" SMOOTH JAW ALUMINUM DUCK BILL CLAMPS - PIN - W/O STRAIN RELIEF SYSTEM | | | | | |
| 761E | Stainless Steel Eye, Smooth Jaw w/ AL Parking Stand | 3 / A | 954 MCM ACSR to #6 .19" - 1.63" (4.8 mm - 41 mm) Dia. | 300 RMS Amps, 60Hz | 1.4 (0.63) |

Additional screw options available. See page J-2 or contact your local Salisbury Representative for more information.

“C” TYPE GROUNDING CLAMPS

.75” AND 1.25” SIZES



| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|---|-----------------------|---|------------------------------|--------------------------|
| 0.75" ALUMINUM "C" CLAMP - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7640001E | Stainless Steel Eye, Smooth Jaw | 5 / A | 2 Ø MCM ACSR to #6 .19" - .75" (4.8 mm - 19 mm) Dia. | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 7640001EB | Bronze Eye, Smooth Jaw | 5 / A | | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 76400S1E | Stainless Steel Eye, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 76400S1EB | Bronze Eye, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 0.75" BRONZE "C" CLAMP - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7640CM1E | Stainless Steel Eye, Smooth Jaw | 5 / A | 2 Ø MCM ACSR to #6 .19" - .75" (4.8 mm - 19 mm) Dia. | 400 RMS Amps, 60Hz | 3.0 (1.40) |
| 7640CMS1E | Stainless Steel Eye, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 3.0 (1.40) |
| 1.25" ALUMINUM "C" CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 760001E | Stainless Steel Eye, Smooth Jaw | 5 / A | 900 MCM ACSR to #6 .19" - 1.25" (4.8 mm - 131.8 mm) Dia. | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 760001EB | Bronze Eye, Smooth Jaw | 5 / A | | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 760001RT | Stainless Steel Removable T, Smooth Jaw | 5 / A | | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 760001T | Stainless Steel T-Handle, Smooth Jaw | 5 / A | | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 760001PSE | Stainless Steel Eye, w/ Parking Stand, Smooth Jaw | 5 / A | | 400 RMS Amps, 60Hz | 1.3 (0.59) |
| 760001CS | Stainless Steel Eye, w/ Steel Parking Stand, Smooth Jaw | 5 / A | | 400 RMS Amps, 60Hz | 1.3 (0.59) |
| 7600S1EB | Bronze Eye | 5 / B | | 400 RMS Amps, 60Hz | - - |
| 1.25" BRONZE "C" CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 760CM1E | Stainless Steel Eye, Smooth Jaw | 5 / A | 900 MCM ACSR to #6 .19" - 1.25" (4.8 mm - 31.8 mm) Dia. | 400 RMS Amps, 60Hz | 3.3 (1.50) |
| 760MS1E | Stainless Steel Eye, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 3.3 (1.50) |

"C" TYPE GROUNDING CLAMPS

2.13" AND 2.5" SIZES



76600S1PG



7660001E



7512B

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|--|---|-----------------------|--|------------------------------|--------------------------|
| 2.13" ALUMINUM "C" CLAMP - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7660001E | Stainless Steel Eye, Smooth Jaw | 5 / A | 3000 MCM ACSR to #6 .25" - 2.13" (6.4 mm - 54 mm) Dia. | 400 RMS Amps, 60Hz | 2.0 (0.91) |
| 76600S1E | Stainless Steel Eye, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 2.0 (0.91) |
| 76600S1PG | Posigrip, Stainless Steel, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 2.0 (0.91) |
| 2.5" ALUMINUM "C" CLAMP - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7512B | Stainless Steel Bayonet, Smooth Jaw | 5 / A | 2.0" I.P.S. to #6 0.5" - 2.5" (12.7 mm - 63.5 mm) Dia. | 400 RMS Amps, 60Hz | 4.0 (1.82) |
| 7512E | Stainless Steel Eye, Smooth Jaw | 5 / A | | 400 RMS Amps, 60Hz | 4.0 (1.82) |

Additional screw options available. See page J-2 or contact your local Salisbury Representative for more information.

BUS BAR AND BUS BAR ALLIGATOR CLAMPS

.5", AND 4.4" SIZES



7575FE



7542E



7542B



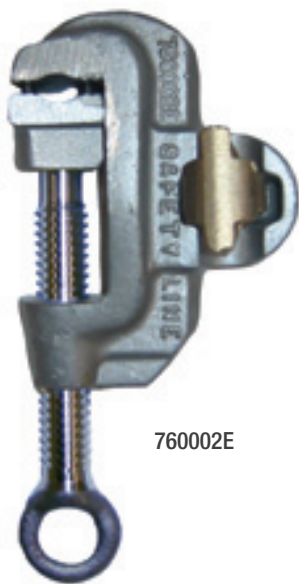
7541T

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|---|-----------------------|---|------------------------------|--------------------------|
| 0.5" BRONZE BUS BAR ALLIGATOR CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7575FE | Stainless Steel Eye, Smooth Jaw | 2 / A | .0234" - .05" (6 mm - 12.7 mm) Dia. | 250 RMS Amps, 60 Hz | 2.0 (0.91) |
| 7575FEST | Stainless Steel Eye-T, Smooth Jaw | 2 / A | | 250 RMS Amps, 60 Hz | 2.0 (0.91) |
| 7575FGA | Grip-All, Stainless Steel, Smooth Jaw | 2 / A | | 250 RMS Amps, 60 Hz | 2.0 (0.91) |
| 7575FPSE | Stainless Steel Eye, w/ Parking Stand, Smooth Jaw | 2 / A | | 250 RMS Amps, 60 Hz | 2.0 (0.91) |
| 0.5" BRONZE BUS BAR ALLIGATOR CLAMPS WITH TEETH - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7575FTGA | Stainless SteelGrip-All, Serrated Jaw | 2 / B | 0.234" - .05" (6 mm - 12.7 mm) Dia. | 250 RMS Amps, 60 Hz | 2.0 (0.91) |
| 4.4" ALUMINUM BUS BAR CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7541E | Stainless Steel Eye, Serrated Jaw | 5 / B | 0.31" - 4.25" (7.9 mm - 112 mm) Dia. | 400 RMS Amps, 60Hz | 2.0 (0.91) |
| 7541T | Stainless Steel T-Handle, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 2.0 (0.91) |
| 4.4" ALUMINUM BUS BAR CLAMPS - PIN - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7542B | Stainless Steel Bayonet, Serrated Jaw | 5 / B | 0.31" - 4.25" (7.9 mm - 112 mm) Dia. | 400 RMS Amps, 60Hz | 2.0 (0.91) |

Additional screw options available. See page J-2 or contact your local Salisbury Representative for more information.

GROUNDING CLAMPS FOR FLATS & ANGLES

1.4" AND 1.5" SIZES



760002E



760CM3E



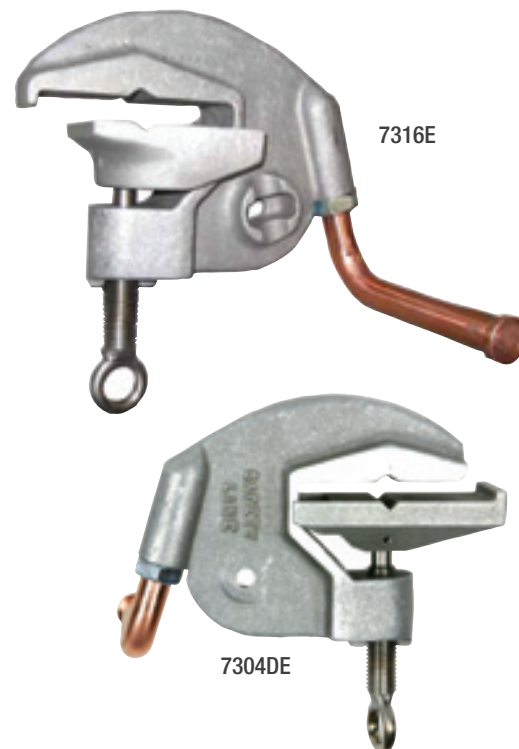
760CMSR3E

| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|--|--|-----------------------|---|------------------------------|--------------------------|
| 1.4" ALUMINUM FLAT FACE CLAMPS - PIN - W/O STRAIN RELIEF SYSTEM | | | | | |
| 760002E | Stainless Steel Eye, Serrated Jaw | 5 / B | 0.19" - 1.4" (4.8 mm - 35.6 mm) Dia. | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 760002T | Stainless Steel T-Handle, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 1.0 (0.45) |
| 1.4" BRONZE FLAT FACE CLAMPS - THREADED | | | | | |
| 760CMSR3E | Stainless Steel Eye, W/ Strain Relief System Serrated Jaw | 5 / B | 0.19" - 1.4" (4.8 mm - 35.6 mm) Dia. | 400 RMS Amps, 60Hz | 4.5 (2.0) |
| 1.5" ALUMINUM FLAT FACE CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 760003E | Stainless Steel Eye, Serrated Jaw | 5 / B | 0.19" - 1.5" (4.8 mm - 38 mm) Dia. | 400 RMS Amps, 60Hz | 1.2 (0.54) |
| 1.5" BRONZE FLAT FACE CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 760CM3T | Stainless Steel T-Handle, Serrated Jaw | 5 / B | 0.19" - 1.5" (4.8 mm - 38 mm) Dia. | 400 RMS Amps, 60Hz | 3.2 (1.40) |
| 760CM3E | Stainless Eye, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 3.2 (1.40) |

Additional screw options available. See page J-2 or contact your local Salisbury Representative for more information.

GROUNDING CLAMPS FOR FLATS & ANGLES

2.5" AND 4" SIZES

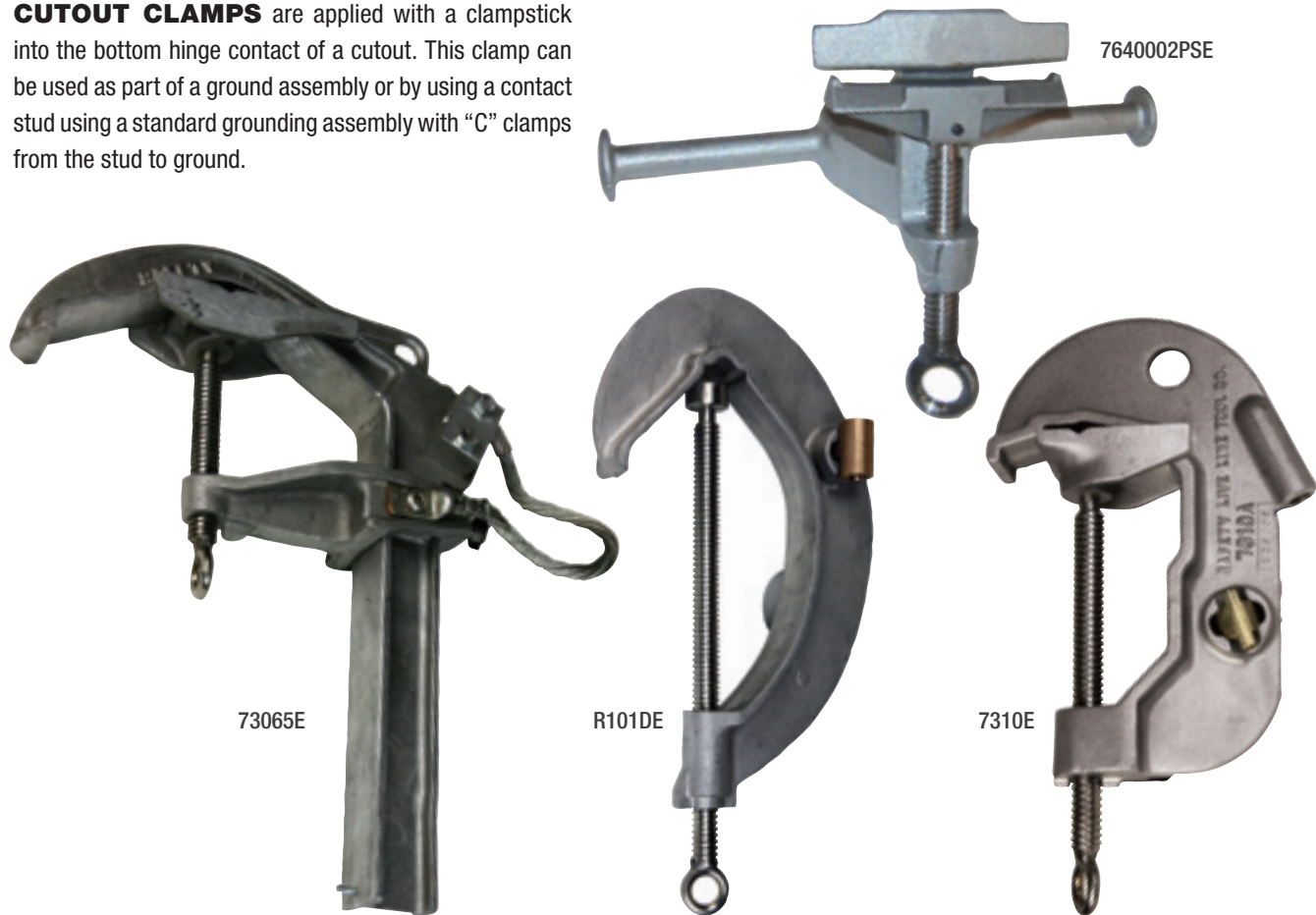


| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---|--------------------------------------|-----------------------|--|------------------------------|--------------------------|
| 2.5" ALUMINUM ALL ANGLE CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7315E | Stainless Steel Eye, Serrated Jaw | 5 / B | 2" I.P.S. to #4 0.25" - 2.5" (6.4 mm - 54 mm) Dia. | 400 RMS Amps, 60Hz | 4.3 (2.00) |
| 7315PG | Bronze Posigrip, Serrated Jaw | 5 / B | | 400 RMS Amps, 60Hz | 4.3 (2.00) |
| 2.5" ALUMINUM TOWER ANGLE CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 73025T | Stainless Steel T-Handle, Smooth Jaw | 5 / A | 0.3" - 1.6" (8-41 mm) Dia. | 400 RMS Amps, 60Hz | 2.5 (1.14) |
| 4" ALUMINUM TOWER ANGLE CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7304T | Stainless Steel T-Handle, Smooth Jaw | 5 / A | 0.25" - 0.94" (6-24 mm) Dia. | 400 RMS Amps, 60Hz | 3.3 (1.50) |
| 4" ALUMINUM TOWER ANGLE CLAMPS - PIN + THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7314T | Stainless Steel T-Handle, Smooth Jaw | 5 / A | 0.25" - 0.94" (6-24 mm) Dia. | 400 RMS Amps, 60Hz | 3.3 (1.50) |
| 4" ALUMINUM TOWER ANGLE CLAMPS WITH COPPER PARKING STAND - RATED FOR 49KA FOR 15 CYCLES W/ X/R=25 | | | | | |
| 7316E | Stainless Steel Eye, Smooth Jaw | Exceeds Grade 5 | Outside Angle Clamp 4" max. | - | - |
| 7304DE | Stainless Steel Eye, Smooth Jaw | Exceeds Grade 5 | Inside Angle Clamp 4" max. | - | - |

Additional screw options available. See page J-2 or contact your local Salisbury Representative for more information.

LARGE SUBSTATION BUS CLAMPS & CUTOUT CLAMPS

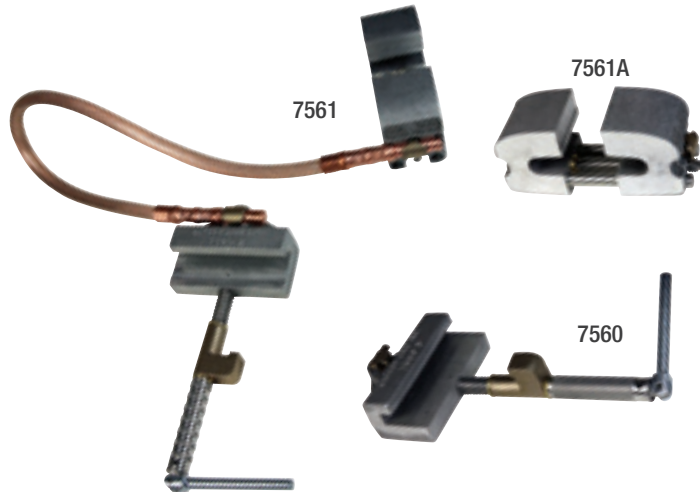
CUTOUT CLAMPS are applied with a clampstick into the bottom hinge contact of a cutout. This clamp can be used as part of a ground assembly or by using a contact stud using a standard grounding assembly with "C" clamps from the stud to ground.



| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|--|--|--------------------|---|---------------------------|-----------------------|
| 4.5" ALUMINUM SUBSTATION BUS CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7311E | Stainless Steel Eye, Smooth Jaw | 5 / A | 0.5" - 4.5" (12.7 mm - 114 mm) Dia. | 400 RMS Amps, 60Hz | 4.0 (1.82) |
| 4.5" ALUMINUM SUBSTATION BUS CLAMPS - PIN - W/O STRAIN RELIEF SYSTEM | | | | | |
| 7310E | Stainless Steel Eye, Smooth Jaw | 5 / A | 1/2" I.P.S., 0.5"-4.5" (12.7 mm - 114 mm) Dia. | 400 RMS Amps, 60Hz | 4.0 (1.82) |
| 6" ALUMINUM SUBSTATION BUS CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| R101DE | Stainless Steel Eye, Serrated Jaw | 5 / B | 1 Ø I.P.S., 0.5" - 6" (12.7 mm - 152 mm) Dia. | 400 RMS Amps, 60Hz | 4.0 (1.82) |
| 7" ALUMINUM SUBSTATION BUS CLAMPS - THREADED - W/O STRAIN RELIEF SYSTEM | | | | | |
| 73065E | Stainless Steel Eye, Smooth Jaw | 5 / A | 0.4" - 7" (10.2 mm - 178 mm) Dia. | 400 RMS Amps, 60Hz | 6.7 (3.00) |
| 1.63" ALUMINUM CUTOUT CLAMPS - THREADED - W/O STRAIN RELIEF SLEEVE | | | | | |
| 7640002E | Stainless Steel Eye, Smooth Jaw | 3 / A | 0.188" - 1.63" (4.77 mm - 41.4mm) Dia. | 300 RMS Amps, 60Hz | 1.0 (0.45) |
| 7640002PSE | Stainless Steel Eye, w/ Al. Dbl. Parking Stand, Smooth Jaw | 3 / A | | 300 RMS Amps, 60Hz | 1.2 (0.5) |
| 7640002PSEB | Bronze Eye, w/ Al. Dbl. Parking Stand, Smooth Jaw | 3 / A | | 300 RMS Amps, 60Hz | 1.2 (0.5) |

Additional screw options available. See page J-2 or contact your local Salisbury Representative for more information.

RUNNING RAIL CLAMPS & BALL & SOCKET SYSTEM



The **RUNNING POWER RAIL GROUND SET** is made up of 7561A power rail clamp and 7560 running rail clamp connected with three feet (91.4 cm) of 4/0 PVC-jacketed copper cable. Set includes one 10024BC, 1" x 24" (2.5 x 61 cm) fiberglass handle with bayonet to operate the power rail clamp.

The **BALL AND SOCKET GROUNDING SYSTEM** has a lightweight compact design and allows for variable angle accessibility. These clamps are made from bronze alloy and have a socket size of 1" (25.4 mm) with a threaded bore boss of 5/8"-11 UNC. There are fixed grounding points on the socket clamp.

See page K-3 for ball socket studs and accessories available.



| CAT. NO. | EYE & CLAMP DESCRIPTION | ASTM GRADE / CLASS | MAIN LINE RANGE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|--|--|--------------------|-----------------|---------------------------|-----------------------|
| 5.75" ALUMINUM RUNNING RAIL CLAMP - PIN | | | | | |
| 7560 | Stainless Steel Toggle Handle, Smooth Jaw | 5 / A | 5" - 5.75" | 400 RMS Amps, 60Hz | 5.0 (2.27) |
| 4" ALUMINUM POWER RAIL CLAMP - PIN | | | | | |
| 7561A | Stainless Steel Bayonet, Smooth Jaw | 5 / A | 0" - 4" | 400 RMS Amps, 60Hz | 7.0 (3.17) |
| TRAVELING GROUND | | | | | |
| 7561 | Running Power Rail Ground Set | 5 | - | - | 15 (6.80) |
| 1.63" ALUMINUM TRAVELING GROUND CLAMPS - PIN/THREADED | | | | | |
| 78000 | Stainless Steel Eye, w/ Contact Stud, Smooth Jaw | 3 / A | 0.125" - 1.63" | 300 RMS Amps, 60Hz | 10 (4.54) |

| CAT. NO. | DESCRIPTION | ASTM GRADE | CONTINUOUS CURRENT RATING | WEIGHT EA. lbs. (kgs) |
|---------------------------------|---|------------|---------------------------|-----------------------|
| BALL & SOCKET SYSTEM | | | | |
| 7542CM1B | Smooth Jaw, Threaded, w/ Stainless Steel Bayonet | 5 | 400 | 1.5 (.68) |
| 7542CM1E | Smooth Jaw, Threaded, w/ Stainless Steel Eye | 5 | 400 | 1.5 (.68) |
| 7542CM1PG | Smooth Jaw, Threaded, w/ Bronze Posigrip | 5 | 400 | 1.5 (.68) |
| 7542CM1T | Smooth Jaw, Threaded, w/ Stainless Steel T-Handle | 5 | 400 | 1.5 (.68) |

Additional screw options available. See page J-2 or contact your local Salisbury Representative for more information.

THREADED & PIN FERRULES FOR SAFETY LINE SETS

For **THREADED FERRULES** (Terminals) the recommended torque applied during installation of jam nut for threaded ferrules is 20 ft.-lb. These threaded ferrules include one brass jam nut and one lock washer. For **PIN TERMINALS** the recommended torque applied during installation of pin ferrule eye bolts is 28 ft.-lb.

GROUNDING CABLES are made with extra flexible strand of soft drawn #30 AWG (.01") copper and are available in three different jackets.



| CAT. NO. | CONDUCTOR SIZE | STYLE | STUD SIZE | BODY DIE CODES | SHROUD DIE CODES | LENGTH STRIPPED INCHES |
|------------------------|----------------|----------|-----------|----------------|------------------|------------------------|
| COPPER SHROUDED | | | | | | |
| 760001CT40 | #2 | Threaded | 5/8-11 | U27RT | U27ART | 1-5/8 |
| 7600011CT41 | 1/0 | Threaded | 5/8-11 | T&B 66 | B75-AH | 1-15/16 |
| 7600011CT42 | 2/0 | Threaded | 5/8-11 | T&B 66 | B75-AH | 2 |
| 76CT43 | 4/0 | Threaded | 5/8-11 | T&B 66 | B75-AH | 2 |
| 760001PT40 | #2 | Pin | 11/16 | U27RT | U27ART | 1-5/8 |
| 7600011PT41 | 1/0 | Pin | 11/16 | T&B 66 | B75-AH | 1-15/16 |
| 7600011PT42 | 2/0 | Pin | 11/16 | T&B 66 | B75-AH | 2 |
| 76PT43 | 4/0 | Pin | 11/16 | T&B 66 | B75-AH | 2 |

Add suffix "T" to the catalog number when requesting tin-plated copper.

| | | | | | | |
|--------------------------|-----|----------|--------|--------|---|--------|
| COPPER UNSHROUDED | | | | | | |
| 98132022 | #2 | Threaded | 5/8-11 | U243 | - | 1-5/16 |
| 98132023 | 1/0 | Threaded | 5/8-11 | U243 | - | 1-5/16 |
| 98132024 | 2/0 | Threaded | 5/8-11 | T&B 60 | - | 1-5/16 |
| 98132025 | 4/0 | Threaded | 5/8-11 | T&B 62 | - | 1-5/16 |
| 98132022P | #2 | Pin | 11/16 | U243 | - | 1-5/16 |
| 98132023P | 1/0 | Pin | 11/16 | U243 | - | 1-5/16 |
| 98132024P | 2/0 | Pin | 11/16 | T&B 60 | - | 1-5/16 |
| 98132025P | 4/0 | Pin | 11/16 | T&B 62 | - | 1-5/16 |

SINGLE POINT DISTRIBUTION GROUNDING SET & BALL SOCKET 4-WAY CONNECTOR SETS



Grounding Sets



75420010236

SETS FOR GROUNDED “Y” SYSTEMS provide all the equipment required to safely ground a variety of structures on grounded “Y” distribution systems. Factory assembled kits are for conductors ranging from #6 to 1-1/2” (3.8 cm) diameter, with serrated jaw “C” clamps with threaded terminals. All clamps are supplied with eye screws for installation with clampstick (not included). Other lengths and configurations are available.

STANDARD EQUIPOTENTIAL GROUNDING SETS provide all the equipment required to safely ground a variety of structures on delta distribution systems. Factory assembled kits are for conductors ranging from #6 to 1-1/2” (3.8 cm) diameter, with smooth or serrated jaw clamps with threaded terminals. All clamps are supplied with eye screws for installation with grip-all clampsticks (not included). Other lengths and configurations are available.

BALL SOCKET 4-WAY CONNECTOR SETS are designed for variable angle accessibility, three-phase grounding. It is supplied with three-foot leads and six feet of cable from a common connection to ground. Upper heads are ball socket clamps (7542CM1E). Lower ground head is a standard “C” type ground head (760001E) with a range of #6 to 1-1/4” (32 mm). Ball studs needed but not included.

| CAT. NO. | CABLE SIZE | FAULT DUTY 15 CYCLES | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|----------|------------|-------------------------|---------------|--------------------------|
|----------|------------|-------------------------|---------------|--------------------------|

GROUNDED “Y” SYSTEMS

| | | | | |
|--|-----|-------|---|------------|
| 763S011 | 2/0 | 27 kA | 3 | 69 (31.3) |
| 763S45 | 4/0 | 43kA | 5 | 110 (49.9) |
| Complete Grounded “Y” Set Includes | | | | |
| 3 - 6’ (1.83 m) Line Jumpers | | | | |
| 1 - 12’ (3.66 m) Line to Ground Jumper | | | | |
| 1 - 60’ (18.3 m) Ground Lead | | | | |
| 1 - Pole Band | | | | |
| 1 - Pole Band Extension | | | | |
| 1 - Flat Face Clamp (760003E) | | | | |
| 1 - Protective Bag | | | | |

EQUIPOTENTIAL DELTA

| | | | | |
|--|-----|-------|---|------------|
| 7600011 | 2/0 | 27 kA | 3 | 62 (28.1) |
| 760045 | 4/0 | 43 kA | 5 | 100 (45.4) |
| Complete Delta Set Includes | | | | |
| 2 - 6’ (1.83 m) Line Jumpers | | | | |
| 1 - 12’ (3.66 m) Line to Ground Jumper | | | | |
| 1 - 60’ (18.3 m) Ground Lead | | | | |
| 1 - Pole Band | | | | |
| 1 - Pole Band Extension | | | | |
| 1 - Flat Face Clamp (760003E) | | | | |
| 1 - Protective Bag | | | | |

BALL SOCKET 4-WAY CONNECTOR SETS

| | | | | |
|--------------------|-----|---------|---|-----------|
| 75420010236 | #2 | 14.5 kA | 1 | 9 (4.08) |
| 75420011036 | 1/0 | 21 kA | 2 | 12 (5.44) |
| 75420012036 | 2/0 | 27 kA | 3 | 14 (6.35) |

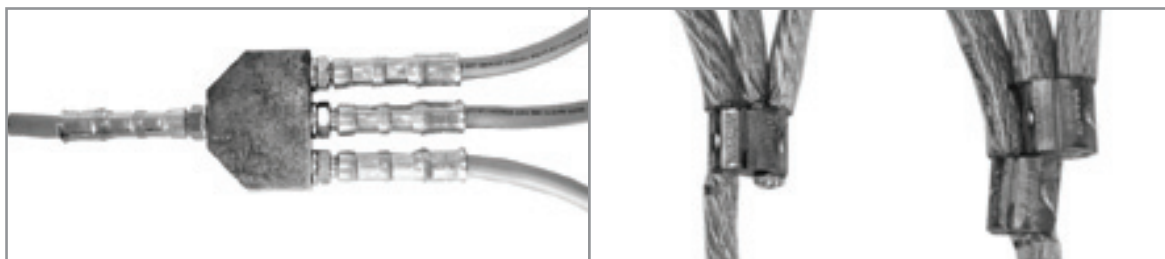
Optional ground set label available upon request when ordering.

GROUNDING SETS

4 WAY CONNECTOR SET, 4 WAY CONNECTOR AND SQUEEZE-ONS

The **4-WAY CONNECTOR SETS** are made with #2 clear-jacketed, extra flexible cable, three 8-foot (2.44 m) leads from the heads to the common connection and one 50-foot (15.25 m) lead from the common connection to the ground connection. The grounding 4-way connector set has a fixture to raise and lower the set which can be easily tied onto the pole. The 752076 grounding 4-way connector set is also supplied with 3 fiberglass handles (10078BC) and a bag. The 752576 grounding 4-way connector set requires a clampstick. Sets come with bags. Other lengths and configurations available. Meets ASTM F 855 Grade 1 specifications. Maximum fault duty is 14.5 kA for 15 cycles.

4-WAY CONNECTORS are used to create a common connection between the conductor leads and the ground lead of a ground set.



| CAT. NO. | DESCRIPTION | MAX. OPENING in. (cm) | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|-----------------------------|---|--------------------------|---------------|--------------------------|
| 4 WAY CONNECTOR SETS | | | | |
| 752076 | 4-Way Connector Set w/ "C" Type Clamps, Bayonet | 1 1/4 (3.2) | 1 | 32 (14.5) |
| 752576 | 4-Way Connector Set w/ "C" Type Clamps, Eye | 1 1/4 (3.2) | 1 | 39 (17.9) |

| CAT. NO. | DESCRIPTION | QTY. REQUIRED | WEIGHT lbs. (kgs) |
|-----------------------------------|--------------------------------|------------------|----------------------|
| CONNECTORS FOR GROUND SETS | | | |
| 76630882 | Squeeze-on for #2 Cable | 1 | 0.25 (0.113) |
| 76630782 | Squeeze-on for 1/0 - 4/0 Cable | 2 | 0.25 (0.113) |
| CB36 | 4-Way Set Block , Copper | 1 | 0.187 (0.085) |
| CA36 | 4-Way Set Block, Aluminum | 1 | 0.125 (0.056) |

QUICK GRIP GROUND CLAMPS & GROUNDING SETS



QUICK GRIP CLAMPS are specifically designed and ideally suited for temporary grounding where spacing and orientation of components limit the use of traditional ground clamps. The Quick Grip Ground Clamp is available with a Grip-All eye or a Bayonet fitting for installation with a live line tool.

- Available in both the traditional style (VG01) and a hotstick operated version (VG01GA and VG01B).
- Available in a single lead ground jumper or grounding set with 1, 3 or 4 leads for grounding of single or three-phase secondary terminals.
- Fitted with a copper overlay, riveted to the stationary jaw and connected to a grounding jumper with a one hole NEMA connector to assure a low resistance connection.
- The grounding set connection is made using standard copper compression connectors and all connections are covered with a heat-shrink tube to reduce fatigue at stress points.
- The locking jaw pliers are equally suited for flat or rounded terminals.

Optional flat jaw available.

| CAT. NO. STANDARD | CAT. NO. FLAT JAW | DESCRIPTION | CABLE LENGTH FT. (M) | ASTM GRADE | WEIGHT lbs. (kgs) |
|--|----------------------|--|-------------------------|---------------|----------------------|
| QUICK GRIP GROUND CLAMPS & GROUNDING SETS, CLAMP OPENING: MIN. 0.125" - MAX. 1.5" | | | | | |
| VG01 | VG01 | Locking Pliers, Cu Overlay | N/A | 3 | 1.5 (0.68) |
| VG01B | VG01B | Locking Pliers, Cu Overlay. Bayonet | N/A | 3 | 1.6 (0.73) |
| VG01GA | VG01GA | Locking Pliers, Cu Overlay. Grip-All | N/A | 3 | 1.6 (0.73) |
| VG01033 | VG01033 | Grounding Set, 3 Leads, 1/0 x 3' with VG01 | 9 (2.743) | 3 | 10.5 (4.77) |
| VG01034 | VG01034 | Grounding Set, 4 Leads, 1/0 x 3' with VG01 | 12 (3.657) | 3 | 13.2 (5.99) |
| VG11013 | VG11013 | Single Lead, 1/0 x 3' with VG01GA | 3 (0.914) | 3 | 3.7 (1.68) |
| VG11033 | VG11033 | Grounding Set, 3 Leads, 1/0 x 3' with VG01GA | 9 (2.743) | 3 | 10.8 (4.9) |
| VG11034 | VG11034 | Grounding Set, 4 Leads, 1/0 x 3' with VG01F | 12 (3.657) | 3 | 13.6 (6.17) |
| VG11034B | VG11034B | Grounding Set, 4 Leads, 1/0 x 3' with VG01GB | 12 (3.657) | 3 | 13.6 (6.17) |

Optional ground set label available upon request when ordering.

GROUNDING SETS

INDUSTRIAL GROUND 4-WAY GROUND SETS

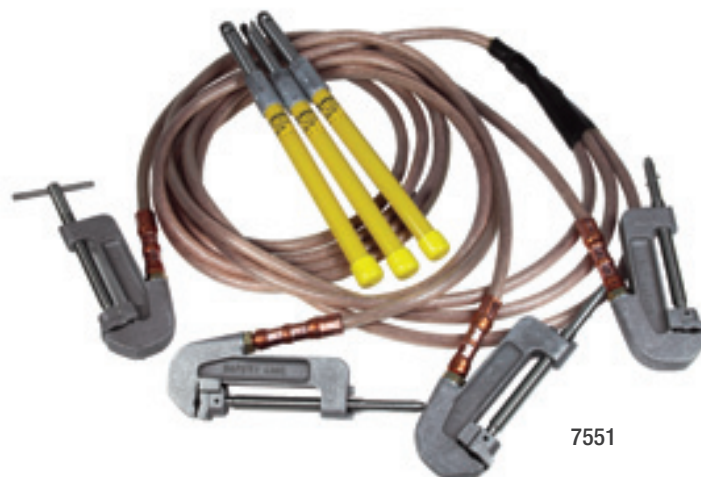
The **INDUSTRIAL GROUND SET** consists of three upper ground heads, one lower head, visible trifurcation, six-foot (1.83 m) leads to common connections and a twenty foot lead from common to ground connection. All ground heads (7541B and 7541T) will accept 4"x 4" (10.2 x 10.2 cm) copper or aluminum bus configurations.

Also includes a bag for installation at the main disconnect point. The 7551 includes a one-foot fiberglass handle (10012BC) for installing upper heads.

NOTE: 8106C clampstick (not included) must be used to apply 7551GA grounds. Other lengths available. Conductor size is 2/0 copper. Meets ASTM F-855 Grade 3 specifications. Maximum fault duty is 27kA for 15 cycles.

LIGHTWEIGHT INDUSTRIAL GROUND SETS

are designed for smaller conductor size applications. Clamps used include screws with eyes (GA attachments) for use with a clampstick. A #2 extra flexible copper ground cable is used throughout. The 75FGT0266 has six-foot (1.83m) leads to the common connection and a six-foot lead from the common connection to ground. The 7640244GA uses 4' (1.22 m) leads throughout. Sets include a bag. Other lengths and configurations are available.



7551



75FGT0266

| CAT. NO. | DESCRIPTION | ASTM GRADE | WEIGHT lbs. (kgs) |
|-------------------------------|---------------------------------------|---------------|----------------------|
| INDUSTRIAL GROUND SETS | | | |
| 7551 | Industrial Ground Set - with Bayonet | 1 | 35 (15.8) |
| 7551GA | Industrial Ground Ser - with Grip-All | 3 | 35 (15.8) |

| CAT. NO. | DESCRIPTION | CLAMP USED | FAULT DUTY 15 CYCLES | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|---|-------------------|---------------|-------------------------|---------------|--------------------------|
| LIGHTWEIGHT INDUSTRIAL GROUND SETS | | | | | |
| 7640244GA | Ultra Lightweight | 7640001E | 14.5 kA | 1 | 13 (5.90) |

Optional ground set label available upon request when ordering.



GROUND SETS include three upper heads and are easily and safely attached to the line with the fiberglass handles. The ground heads have a maximum opening of 1-3/4" (4.4 cm) and can be applied to angle irons, flat buses as well as on-line wires. A tight, four-point contact is made with the quick adjusting screw. The handles are easily removed when necessary. The lifting fixture provides ease when raising and lowering the set and eliminates hanging the entire ground set's weight on the conductor. Other lengths and configurations available.

PARKING STUDS provide a temporary location to attach ground clamps when raising or lowering multiple ground leads.

SHRINK TUBE for terminal connection strain relief fits #2 through 4/0 terminals and ground cable.

| CAT. NO. | DESCRIPTION | WEIGHT lbs. (kgs.) |
|----------------------|----------------------------------|-----------------------|
| PARKING STUDS | | |
| 76000APS | Single Stud | 0.187 (0.085) |
| SHRINK TUBE | | |
| 761ST | 6" (15 cm) for Shrouded Ferrules | 0.375 (0.170) |

| CAT. NO. | CABLE SIZE | FAULT DUTY 15 CYCLES | ASTM GRADE | WEIGHT EA. lbs. (kgs.) |
|--|---------------|-------------------------|---------------|---------------------------|
| 766FG | #2 | 14.5 kA | 1 | 42 (19.0) |
| 7661FG | 1/0 | 21 kA | 2 | 43 (19.5) |
| Standard Ground Set Includes | | | | |
| 3 - Upper Heads | | | | |
| 1 - Lower Head | | | | |
| 1 - Leather, Lace and Lifting Ring | | | | |
| 74 - Cable only with 8-Foot leads to common connection | | | | |
| and 50' from common connection to ground connection | | | | |
| 3 - 6'6" (1.98 m) Fiberglass Handles | | | | |
| 1 - Bag for Handles | | | | |
| 1 Bag for Ground Set | | | | |

URD ASSEMBLY, NEUTRAL JUMPER ASSEMBLY & UNDERGROUND DEAD BREAK SET

The **CONCENTRIC NEUTRAL JUMPER ASSEMBLY** is used for bonding purposes on non-jacketed cable. It is usually installed across a portion of cable to be cut, repaired or spliced. The assembly is left in place until the concentric neutral is spliced. As a safety precaution, follow all of your organization's applicable rules and/or policies pertaining to faulted cable, spiking and grounding.

Made with two ground clamps and 4 feet (1.22 m) of 1/0 clear jacketed extra flexible copper cable, the concentric neutral ground clamp is spring pressured. The assemblies have a continuous current rating of 250 amps and fault rated to ASTM Grade 1, 14 KA for 15 cycles. Other lengths are available. Bag not included.

The components of the **UNDERGROUND DEAD BREAK GROUND SET** provide safe and simple grounding methods on padmount transformers or any related URD equipment. These grounds can be ordered in complete sets or individual components. The jumpers are made with 6 foot (1.83m) lengths of #2, clear-jacketed, extra flexible cable. Clamps (7640001E) supplied include an eye for a grip-all insulating stick application.

The **URD GROUNDING ASSEMBLY** is used for underground personal protective grounding elbow used for grounding pad-mounted equipment, switches and transformers when performing de-energized maintenance on URD distribution systems, and draining DC capacitive charges from de-energized URD cables.

| CAT. NO. | DESCRIPTION | FOR CABLE DIAMETER in. (cm) | WEIGHT lbs. (kgs) |
|---|---------------------|--------------------------------|----------------------|
| CONCENTRIC NEUTRAL JUMPER ASSEMBLY | | | |
| 7603 | Assembly | 3/4 to 2 (1.9 - 5.1) | 12 (5.44) |
| 7603GA | Grip-All Assembly | 3/4 to 2 (1.9 - 5.1) | 12 (5.44) |
| PARTS | | | |
| 7603C | Clamp with Wing Nut | | 4 (1.81) |
| 7603CGA | Clamp with Grip-All | | 4 (1.81) |
| 7604C | Clamp with Wing Nut | | 4 (1.81) |
| 7604CGA | Clamp with Grip-All | | 4 (1.81) |

15 KV UNDERGROUND DEAD BREAK GROUND SET

LOCAL LOOP

| | | |
|---------------------|------------------------|-----------|
| 764156STGESO | Full Assembly with Bag | 21 (9.52) |
|---------------------|------------------------|-----------|

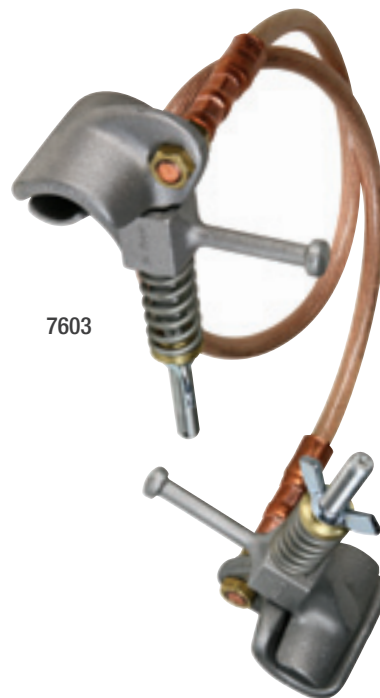
ASSEMBLY INCLUDES:

| | | |
|-------------------|---|----------|
| 764156234H | 3 - Ground Jumper, 6' (1.83 m) | 6 (2.72) |
| 764000ST | 3 - Ground Stud for Low Profile Transformer | 1 (0.45) |
| 764015GE | 3 - 15 kV Ground Elbow | 1 (0.45) |
| 764015SO | 3 - 15 kV Ground Standoff with Spring Bail | 1 (0.45) |
| B1715 | 1 - Protective Bag | 2 (0.91) |

UNDERGROUND GROUNDING ASSEMBLY

| | | |
|--------------------|---------------|------------|
| ES10Y615LB | Single, 15 kV | 9 (4.08) |
| ES1Y21015LB | Set, 15 kV | 22 (9.98) |
| ES10Y625LB | Single, 25 kV | 10 (4.53) |
| ES1Y21025LB | Set, 25 kV | 23 (10.43) |

Optional ground set label available upon request when ordering.



7603



ES10YB615LB



764156STGESO

GROUNDING BUSHING SETS & ELBOW GROUNDING SETS

200 AMP



EB100615

The **SINGLE GROUNDED BUSHING SET** is a single lead made from 6 feet (1.83 m) of 1/0 cable. The bushing set consists of 3 bushing assemblies connected together with 3-foot (0.92 m) leads to a common connection, and 10 feet (3.05 m) from common connection to ground. The conductor is made of 1/0 clear jacketed copper stranded cable. The ground clamp (7640001E) can be applied with a clampstick. Sets come complete with bag; single leads do not. All sets are rated for 10 kA for 10 cycles. Other lengths and configurations are available.



EB1021015

GROUND BUSHINGS WITH CONNECTIONS (parking stands for 'J' boxes or padmounts) provide a safe, convenient ground for elbows and a "positive" test to ensure a de-energized elbow.



EB1021015LB

The **ELBOW GROUNDING SET** includes a single lead made from 6 feet (1.83 m) of 1/0 cable. This set consists of 3 elbow assemblies connected together with 3-foot (0.92 m) leads to a common connection, and 10-feet (3.05 m) from a common connection to ground. The conductor is made of 1/0 clear jacketed copper stranded cable. A ground clamp (7640001E) can be applied with a clampstick. Sets are rated for a maximum fault current of 10,000 amps for 10 cycles. Sets come complete with bag; single leads do not. Other lengths and configurations are available.



764150025LSO

764015S0



ES1021015LB

| CAT. NO. | DESCRIPTION | WEIGHT lbs. (kgs) |
|----------|-------------|----------------------|
|----------|-------------|----------------------|

200 AMP ELBOW GROUNDING SETS

DEAD BREAK

| | | |
|-----------|---------------|-----------|
| ES100615 | Single, 15 kV | 8 (3.63) |
| ES1021015 | Set, 15 kV | 20 (9.30) |

LOAD BREAK

| | | |
|-------------|------------------|------------|
| ES100615LB | Single, 15 kV | 9 (4.08) |
| ES1021015LB | Set, 15 kV | 22 (9.98) |
| ES3LY635 | Set, 35 kV | 23 (10.43) |
| ES100625LB | Single, 25/35 kV | 10 (4.53) |
| ES1021025LB | Set, 25/35 kV | 23 (10.43) |

200 AMP GROUNDED BUSHING SETS

DEAD BREAK

| | | |
|-----------|---------------|-----------|
| EB100615 | Single, 15 kV | 8 (3.63) |
| EB1021015 | Set, 15 kV | 20 (9.30) |

LOAD BREAK

| | | |
|-------------|---------------|------------|
| EB100615LB | Single, 15 kV | 9 (4.08) |
| EB1021015LB | Set, 15 kV | 22 (9.98) |
| EB100625LB | Single, 25 kV | 10 (4.53) |
| EB1021025LB | Set, 25 kV | 23 (10.43) |

200 AMP GROUNDED BUSHINGS WITH CONNECTIONS

DEAD BREAK

| | | |
|----------|-------|----------|
| 764015S0 | 15 kV | 1 (0.45) |
|----------|-------|----------|

LOAD BREAK

| | | |
|--------------|-------|----------|
| 764150015LSO | 15 kV | 2 (0.91) |
| 764150025LSO | 25 kV | 4 (1.81) |

Optional ground set label available upon request when ordering.



ASTM F855-09 TABLE 1 - PROTECTIVE GROUNDING CLAMP RATINGS

TABLE 1 Protective Ground Cable, Ferrule, Clamp and Assembly Ratings for Symmetrical Current

| Grade | Grounding Clamp Torque Strength, min | | | | Short Circuit Properties ^A | | | | | | | Continuous Current Rating, A RMS, 60 Hz |
|-------|--------------------------------------|-----|----------|-----|---------------------------------------|--------------------|--------------------|---|--------------------|-----------------|--------------------------------|---|
| | Yield ^B | | Ultimate | | Withstand Rating, Symmetrical kA | | | Ultimate Rating Capacity ^{CD} , Symmetrical kA | | | | |
| | | | | | RMS, 60 Hz | | | RMS, 60 Hz | | | | |
| | lbf-in. | n-m | lbf-in. | n-m | 15 cycles (250 ms) | 30 cycles (500 ms) | Copper Cable Size | 15 cycles (250 ms) | 30 cycles (500 ms) | 60 cycles (1 s) | Maximum Copper Test Cable Size | |
| 1 | 280 | 32 | 330 | 37 | 14 | 10 | #2 | 18 | 13 | 9 | 2/0 | 200 |
| 2 | 280 | 32 | 330 | 37 | 21 | 15 | 1/0 | 29 | 21 | 14 | 4/0 | 250 |
| 3 | 280 | 32 | 330 | 37 | 27 | 20 | 2/0 | 37 | 26 | 18 | 4/0 | 300 |
| 4 | 330 | 37 | 400 | 45 | 34 | 25 | 3/0 | 47 | 33 | 23 | 250 kcmil | 350 |
| 5 | 330 | 37 | 400 | 45 | 43 | 30 | 4/0 | 59 | 42 | 29 | 250 kcmil | 400 |
| 6 | 330 | 37 | 400 | 45 | 54 | 39 | 250 kcmil or 2 2/0 | 70 | 49 | 35 | 350 kcmil | 450 |
| 7 | 330 | 37 | 400 | 45 | 74 | 54 | 350 kcmil or 2 4/0 | 98 | 69 | 48 | 550 kcmil | 550 |

^A Withstand and ultimate short circuit properties are based on performance with surges not exceeding 20 % asymmetry factor (see 9.1 and 12.3.4.2).

^B Yield shall mean no permanent deformation such that the clamp cannot be reused throughout its entire range of application.

^C Ultimate rating represents a symmetrical current which the assembly or individual components shall carry for the specified time.

^D Ultimate values are based upon application of Onderdonk's equation to 98 % of nominal circular mil area allowed by Specifications B 172 and B 173.

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A copy of the complete standard may be obtained from ASTM, www.astm.org

ASTM F855-09 TABLE 2 - GROUNDING CABLE FERRULE AND ASSEMBLY RATINGS

TABLE 2 Ultimate Assembly Rating for High X/R Ratio Applications

| High Asymmetrical Test Requirements | | | | | |
|-------------------------------------|---------|---------------------------|---|------------------------------|------------------------|
| Grade | Size | Rating Rated Current (kA) | X/R = 30 1st Cycle Current Peak (kA) X 2.69 | Last Cycle Current Peak (kA) | Test Duration (cycles) |
| 1H | No. 2 | 15 | 41 | 23 | 15 |
| 2H | 1/0 | 25 | 65 | 37 | 15 |
| 3H | 2/0 | 31 | 84 | 46 | 15 |
| 4H | 3/0 | 39 | 105 | 58 | 15 |
| 5H | 4/0 | 47 | 126 | 70 | 15 |
| 6H | 250 MCM | 55 | 148 | 82 | 15 |
| 7H | 350 MCM | 68 | 183 | 101 | 15 |

NOTE 1—The above current values are based on electromechanical test values.

NOTE 2—Assemblies that have been subjected to these shall not be re-used.

NOTE 3—For use with currents exceeding 20 % asymmetry factor.

NOTE 4—See X4.7.2 for additional information.

NOTE 5—Alternate testing circuits are available for laboratories that cannot achieve the above requirements. See Appendix X4 for details.

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ASTM F855-09 TABLE 1 - PROTECTIVE GROUNDING CLAMP RATINGS

TABLE 1 Protective Ground Cable, Ferrule, Clamp and Assembly Ratings for Symmetrical Current

| Grade | Grounding Clamp Torque Strength, min | | | | Short Circuit Properties ^A | | | | | | | Continuous Current Rating, A RMS, 60 Hz |
|-------|--------------------------------------|-----|----------|-----|---------------------------------------|--------------------|--------------------|--|--------------------|-----------------|--------------------------------|---|
| | Yield ^B | | Ultimate | | Withstand Rating, Symmetrical kA | | | Ultimate Rating Capacity ^{C,D} , Symmetrical kA | | | | |
| | | | | | RMS, 60 Hz | | | RMS, 60 Hz | | | | |
| | lbf-in. | n-m | lbf-in. | n-m | 15 cycles (250 ms) | 30 cycles (500 ms) | Copper Cable Size | 15 cycles (250 ms) | 30 cycles (500 ms) | 60 cycles (1 s) | Maximum Copper Test Cable Size | |
| 1 | 280 | 32 | 330 | 37 | 14 | 10 | #2 | 18 | 13 | 9 | 2/0 | 200 |
| 2 | 280 | 32 | 330 | 37 | 21 | 15 | 1/0 | 29 | 21 | 14 | 4/0 | 250 |
| 3 | 280 | 32 | 330 | 37 | 27 | 20 | 2/0 | 37 | 26 | 18 | 4/0 | 300 |
| 4 | 330 | 37 | 400 | 45 | 34 | 25 | 3/0 | 47 | 33 | 23 | 250 kcmil | 350 |
| 5 | 330 | 37 | 400 | 45 | 43 | 30 | 4/0 | 59 | 42 | 29 | 250 kcmil | 400 |
| 6 | 330 | 37 | 400 | 45 | 54 | 39 | 250 kcmil or 2 2/0 | 70 | 49 | 35 | 350 kcmil | 450 |
| 7 | 330 | 37 | 400 | 45 | 74 | 54 | 350 kcmil or 2 4/0 | 98 | 69 | 48 | 550 kcmil | 550 |

^A Withstand and ultimate short circuit properties are based on performance with surges not exceeding 20 % asymmetry factor (see 9.1 and 12.3.4.2).

^B Yield shall mean no permanent deformation such that the clamp cannot be reused throughout its entire range of application.

^C Ultimate rating represents a symmetrical current which the assembly or individual components shall carry for the specified time.

^D Ultimate values are based upon application of Onderdonk's equation to 98 % of nominal circular mil area allowed by Specifications B 172 and B 173.

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A copy of the complete standard may be obtained from ASTM, www.astm.org

ASTM F855-09 TABLE 2 - GROUNDING CABLE FERRULE AND ASSEMBLY RATINGS

TABLE 2 Ultimate Assembly Rating for High X/R Ratio Applications

| High Asymmetrical Test Requirements | | | | | |
|-------------------------------------|---------|---------------------------|---|------------------------------|------------------------|
| Grade | Size | Rating Rated Current (kA) | X/R = 30 1st Cycle Current Peak (kA) X 2.69 | Last Cycle Current Peak (kA) | Test Duration (cycles) |
| 1H | No. 2 | 15 | 41 | 23 | 15 |
| 2H | 1/0 | 25 | 65 | 37 | 15 |
| 3H | 2/0 | 31 | 84 | 46 | 15 |
| 4H | 3/0 | 39 | 105 | 58 | 15 |
| 5H | 4/0 | 47 | 126 | 70 | 15 |
| 6H | 250 MCM | 55 | 148 | 82 | 15 |
| 7H | 350 MCM | 68 | 183 | 101 | 15 |

NOTE 1—The above current values are based on electromechanical test values.

NOTE 2—Assemblies that have been subjected to these shall not be re-used.

NOTE 3—For use with currents exceeding 20 % asymmetry factor.

NOTE 4—See X4.7.2 for additional information.

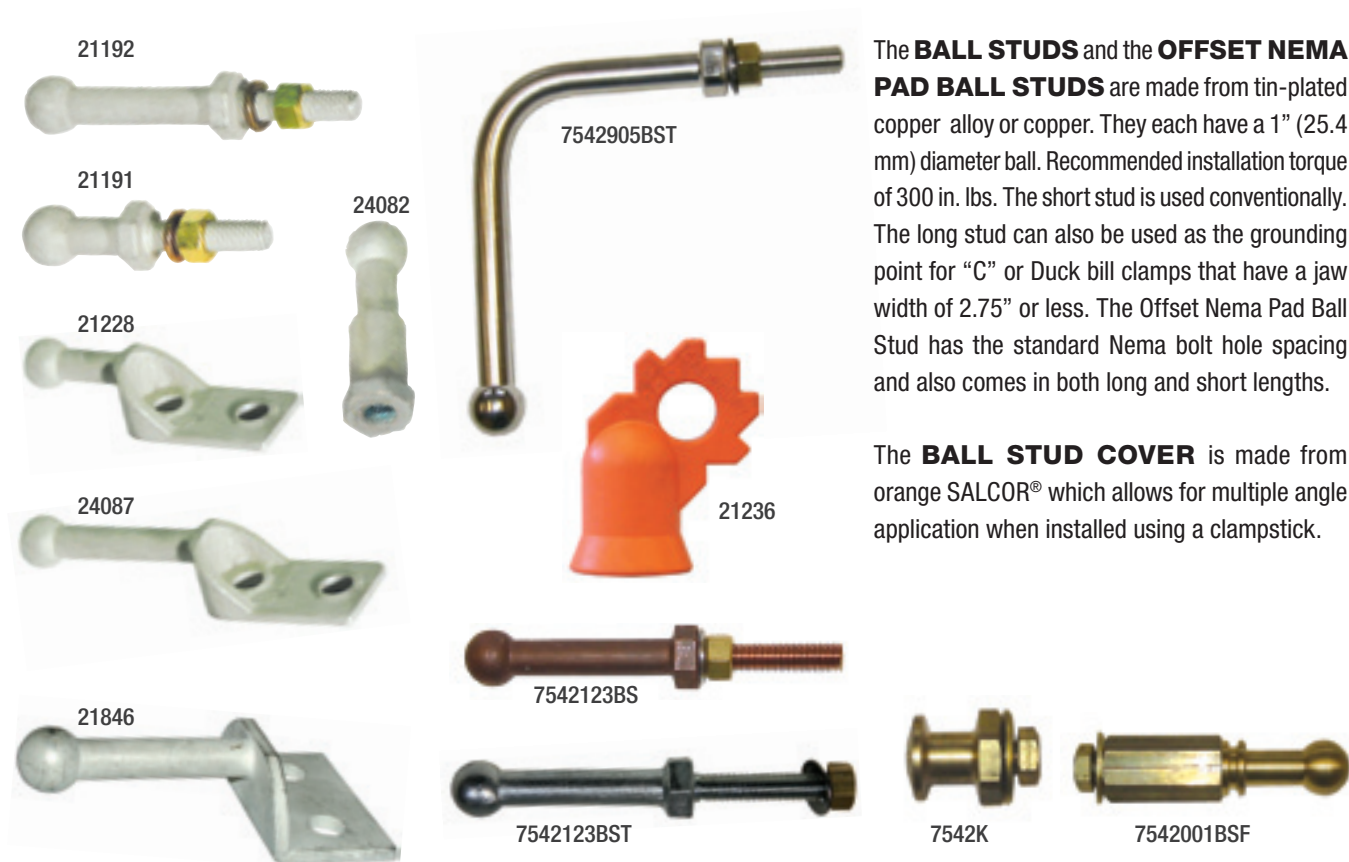
NOTE 5—Alternate testing circuits are available for laboratories that cannot achieve the above requirements. See Appendix X4 for details.

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BALL & SOCKET SYSTEM

BALL STUDS



The **BALL STUDS** and the **OFFSET NEMA PAD BALL STUDS** are made from tin-plated copper alloy or copper. They each have a 1" (25.4 mm) diameter ball. Recommended installation torque of 300 in. lbs. The short stud is used conventionally. The long stud can also be used as the grounding point for "C" or Duck bill clamps that have a jaw width of 2.75" or less. The Offset Nema Pad Ball Stud has the standard Nema bolt hole spacing and also comes in both long and short lengths.

The **BALL STUD COVER** is made from orange SALCOR® which allows for multiple angle application when installed using a clampstick.

| CAT. NO. | DESCRIPTION | OAL | DIMENSIONS in. (mm) THREAD | SHANK | ASTM GRADE | WEIGHT EA. lbs. (kgs) |
|---|--|--------------------|-------------------------------|-------------------|---------------|--------------------------|
| THREAD SIZE - 1/2" - 13 UNC - 2A | | | | | | |
| 21191 | Ball Stud Short, Tin-Plated Copper Alloy | 4.38 (111) | 2.12 (54) | 1 (25) | 5 | .53 (.24) |
| 7542121BS | Ball Stud, Copper Alloy | 4.7 (119) | 2.25 (57) | 1 (25) | 5 | .56 (.25) |
| 21192 | Ball Stud Long, Tin-Plated Copper Alloy | 6.13 (156) | 2.12 (54) | 2.75 (70) | 5 | .81 (.37) |
| 7542123BST | Ball Stud, Tin-Plated Copper Alloy | 6.78 (172) | 2.5 (64) | 2.875 (73) | 5 | .81 (.37) |
| 7542123BS | Ball Stud, Copper Alloy | 6.78 (172) | 2.5 (64) | 2.875 (73) | 5 | .81 (.37) |
| 7542905BST | 900 Ball Stud, Tin-Plated Copper Alloy | 7 (178)x 5.2 (132) | 2.12 (54) | 5.5 (140), 2 (51) | 3 | 1.25 (.57) |
| THREAD SIZE - 3/8" - 16 UNC - 2A | | | | | | |
| 7542385BST | Ball Stud, Tin-Plated Copper Alloy | 9 (229) | 2.12 (54) | 5.5 (140) | 5 | 1 (.45) |
| NEMA PADS AND POTHEAD STUD | | | | | | |
| 21846 | 90° Offset Nema Pad, Tin-Plated Copper Alloy | 5.75 (147) | - | 2.7 (69) | 5 | 1 (.45) |
| 21228 | Offset NEMA Pad Short, Tin-Plated Copper Alloy | 5.14 (131) | - | 1 (25) | 5 | .84 (.38) |
| 24087 | Offset NEMA Pad Long, Tin-Plated Copper Alloy | 6.9 (175) | - | 2.7 (69) | 5H | 1 (.45) |
| INTERNAL THREAD - 1/2" - 13 UNC - 2A | | | | | | |
| 24082 | Internal Thread Ball Stud, Tin-Plated Copper Alloy | 3.85 (98) | 1.5 (38) | .75 (19) | 5 | .54 (.25) |
| 7542K | 3/4" Ground Knob, Brass | 1.4 (36) | 1 (25) | .75 (19) | 3 | .38 (.17) |
| 7542001BSF | Female Ball Stud, Brass | - | 1.5 (38) | 1 (25) | 2 | .88 (.40) |
| 21236 | Cover for Ball Stud | 3 (76) | n / a | n / a | n / a | .09 (.04) |

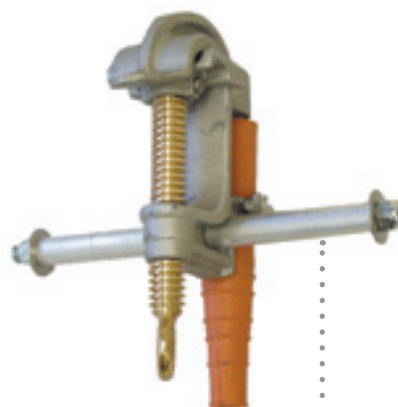
GROUNDING CLAMP HANGER STUDS

HANGER STUDS are designed to be used with all “C” and Duck Bill ground clamps. Hanger Studs are used to hold one clamp of a set while the other is being installed on the de-energized line. Hanger Studs are not designed or tested to carry current.

21754 Grounding Clamp Hanger Stud can only be placed on clamps designed with a screw down strain relief system.

| CAT. NO. | STUD | FOR USE WITH | WEIGHT EA. lbs. (kgs) |
|----------|---------------|---|--------------------------|
| 1858 | Hanger | Aluminum Duck Bill 1", 1.25", 1.66" | .5 (.2) |
| 1928 | Hanger | Aluminum "C" Clamps 1.25", 1.5", 2.4", 3.5" | .5 (.2) |
| 2427 | Double Hanger | Aluminum "C" Clamps 1.25", 1.5", 2.4", 3.5" | .5 (.2) |
| 2537 | Hanger | Aluminum "C" Clamps 1" | .5 (.2) |
| 2093 | Hanger | 556 Bronze Duck Bill, 477 Brz. "C" Clamp | .5 (.2) |
| 9983 | Hanger | Brass 1", 1.25", 2.4" "C" Clamps | .5 (.2) |
| 21754* | Hanger | Bronze 1", 1.25", 2.4" "C" Clamps | .5 (.2) |

*For use with only Plain Ferrule Clamps and Threaded Ferrule Clamps with a screw down strain relief restraint system.



2427



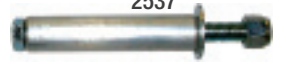
9983



1928



2537



21754*



ADAPTERS & TRUCK GROUNDING REEL



760001HDL



7300ABC



7310G



7300AET

The **“T” HANDLE ADAPTER** allows the user to quickly and easily change an eye screw into a “T” handle screw.

ADAPTERS are used on any pin type ground clamps. Meets ASTM F-855 Grade 5 specifications. Maximum fault duty is 43 kA for 15 cycles.

| CAT. NO. | DESCRIPTION | WEIGHT lbs. (kgs) |
|-----------------|-------------------------|----------------------|
| ADAPTERS | | |
| 7300ABC | Pin to Threaded Adapter | 0.5 (0.21) |
| 7310G | Eye Bolt Assembly | 0.5 (0.21) |
| 7300AET | Pin to Threaded Adapter | 0.5 (0.21) |

“T” HANDLE ADAPTER

| | | |
|------------------|--------------------|------------|
| 760001HDL | “T” Handle Adapter | 0.5 (0.21) |
|------------------|--------------------|------------|



HCR0250

TRUCK GROUNDING REELS are designed to provide a secure and efficient way to ground trucks and equipment when working on or near energized lines. Bolt-down design allows easy removal of reels for installation on vehicles. Heavy duty construction for rugged field use. Independently tested to 14.5 kA for 30 cycles. Reels with factory installed cable include 6-foot equal gauge and frame bonding jumper. Other end must be attached to frame of vehicle.

| CAT. NO. | CABLE LENGTH | CABLE SIZE | FAULT DUTY 15 CYCLES | ASTM F-855 GRADE | WEIGHT lbs. (kgs) |
|--|-----------------|---------------|-------------------------|---------------------|----------------------|
| TRUCK GROUNDING REEL SPRING REWIND, 760001E CLAMP | | | | | |
| HSCR0250 | 50' (15.2 m) | #2 | 14.5 kA | 1 | 42 (19.0) |
| HSCR1040 | 40' (12.2 m) | 1/0 | 21 kA | 2 | 48 (21.7) |
| HSCR1050 | 50' (15.2 m) | 1/0 | 21 kA | 2 | 53 (24.0) |

TRUCK GROUNDING REEL HAND REWIND, 760001E CLAMP

| | | | | | |
|----------------|--------------|-----|---------|---|-----------|
| HCR0240 | 40' (12.2 m) | #2 | 14.5 kA | 1 | 36 (16.3) |
| HCR0250 | 50' (15.2 m) | #2 | 14.5 kA | 1 | 39 (17.7) |
| HCR1050 | 50' (15.2 m) | 1/0 | 21 kA | 2 | 51 (23.1) |

REELS WITHOUT CABLE

| | | | | | |
|-------------|------------------------|--|-------|---|-----------|
| HCR1 | Reel only, hand rewind | | 21 kA | 2 | 25 (11.3) |
|-------------|------------------------|--|-------|---|-----------|

NOTE:

- Reel model HCR1 will store a maximum length of 150 feet (45.8 m) of #2 cable and 85 feet (25.9m) of 1/0 cable.

GROUNDING ACCESSORIES

POLE MOUNTED CONTACT BARS are designed to act as a convenient common point for electrical connections and also as a hanger for grounding sets during installation and removal. Supplied with a chain and an adjustable wheel binder that will accommodate most common pole diameters. Catalog #20880 has one 5/8-11UNC tapped hole for the permanent connection of a ground lead. The Salisbury 21840 is a lighter-weight pole mounted contact bar.

The **POLE BAND** is lightweight and easy to install. It is a required component of equipotential zone grounding systems.

TRUCK GROUNDING KIT contains 2/0 cable, 24 inches (61 cm) long, with a chassis/frame attachment on one end and a grounding stud on the other for Cat. No. 7542TGK. Brings body and chassis to the same ground potential. Other lengths are available. Meets ASTM F-855 Grade 3 specifications.

The Salisbury 2103 **SCREW TYPE TEMPORARY GROUND ROD** is used when an adequate system ground is not available. The design incorporates a copperweld rod with bronze fittings screwed and pinned on both ends. The terminal on the handle is designed to accept cables equipped with a 5/8-11 UNC threaded ferrule. As an alternative, a "C" clamp may also be attached directly to the ground rod shaft.

| CAT. NO. | DESCRIPTION | WEIGHT lbs. (kgs) |
|----------|-------------|----------------------|
|----------|-------------|----------------------|

TRUCK GROUNDING KIT

| | | |
|---------|-----------------------------|----------|
| 7542TGK | Truck Grounding Kit w/ Stud | 2 (0.91) |
|---------|-----------------------------|----------|

SCREW GROUND ROD

| | | |
|------|-----------------|---------|
| 2103 | 75" (1.9m) long | 8 (3.6) |
|------|-----------------|---------|

| CAT. NO. | DESCRIPTION | FAULT DUTY 15 CYCLES | GRADE | WEIGHT lbs. (kgs) |
|------------------|--------------|-------------------------|-------|----------------------|
| POLE BAND | | | | |
| 760001PB | Aluminum Bar | 27 kA | 3 | 4 (1.81) |
| 760045PB | Copper Bar | 43 kA | 5 | 5 (2.27) |

| CAT. NO. | ASTM GRADE | DESCRIPTION | WEIGHT EA. lbs. (kgs) |
|----------------------------------|---------------|---|--------------------------|
| POLE MOUNTED CONTACT BARS | | | |
| 9998 | 5 | Contact Bar No Connection 40" Chain w/ Adjustable Wheel Binder | 9.1 (4.1) |
| 21840 | 5 | Contact Bar No Connection 40" Chain w/ Adjustable Wheel Binder | 7 (3.3) |
| 20880 | 5 | Contact Bar One Connection 40" Chain w/ Adjustable Wheel Binder | 9.1 (4.1) |

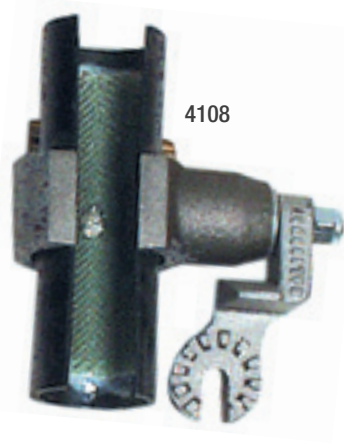




4110



4337



4108



4113



4112



4111

TUBULAR BRUSHES are preferred when rubber gloving or when working on de-energized conductors. The steel bristles are internal to prevent damaging rubber gloves. The 2.5" tubular brush is used in confined areas such as between two connectors or clamps.

The **"V" TYPE WIRE BRUSHES** are available with epoxy-coated handle or universal attachment that can be used with hotsticks. Replacement brushes are available.

| CAT. NO. | DESCRIPTION in. (mm) | WEIGHT EA. lbs. (kgs) |
|----------|---|--------------------------|
| 4108 | Universal Tubular | 1.3 (0.6) |
| 4110 | 5" (127) Tubular | 0.4 (0.2) |
| 4111 | Universal "V" Line Cleaner | 1 (0.5) |
| 4112 | "V" Type handle w/ brushes | 1.2 (0.6) |
| 4113 | "V" Type carton of 10 replacement brushes | 3 (1.4) |
| 4337 | 2.5" (63.5) Tubular | 0.2 (0.1) |

GROUND ELBOW & ACCESSORIES

200 AMP & 600 AMP

The **200 AMP GROUND ELBOW WITH CONNECTIONS** may be used on single phase or three phase installations. Grounding sets come complete with extra flexible cable and connections. Elbows are rated for a maximum fault current of 10,000 amps for 10 cycles. All the clamps come with grip-all eyes for use with a clampstick.

The **200 AMP AND 600 AMP ELBOW CONNECTOR TOOLS** are designed to fit all of the 15 kV and 25 kV rated loadbreak and non-loadbreak elbows. The jaws are contoured to provide a positive grip and not interfere with the contact interface area, allowing the elbow to operate properly while connecting or disconnecting.

The **INSULATED ELBOW REMOVER** is used by inserting a hook in the loop on the back of any elbow while applying a hammering action. This tool can also be used to seal elbows when installing them. Other lengths may be available upon request.

| CAT. NO. | DESCRIPTION | WEIGHT lbs. (kgs) |
|---|-------------|----------------------|
| 200 AMP GROUND ELBOW WITH CONNECTIONS DEAD BREAK | | |
| 764015GE | 15 kV | 1 (0.45) |

| | | |
|--|--------------------------|----------|
| 200 AMP GROUND ELBOW WITH CONNECTIONS TLOAD BREAK | | |
| 764150015LGE | 15 kV | 1 (0.45) |
| 764150025LGE | 25/35 kV Small Interface | 2 (0.91) |

| | | |
|-------------------------------------|----------------------|----------|
| 200 AMP ELBOW CONNECTOR TOOL | | |
| 9202Q | Quick Change Fitting | 2 (0.91) |
| 9202GA | Grip-All Fitting | 2 (0.91) |

| | | |
|-------------------------------------|-------------------------------------|----------|
| 600 AMP ELBOW CONNECTOR TOOL | | |
| 9206Q | Quick Change | 2 (0.91) |
| 9206U | Universal | 2 (0.91) |
| 9206GA | Grip-All | 2 (0.91) |
| 9206GAS | With Insert Pair for 200 AMP Elbows | 2 (0.91) |
| 9202I | Insert Pair | 8 (0.22) |

| | | |
|--------------------------------|-------------------------|-----------|
| INSULATED ELBOW REMOVER | | |
| 9206HIP | 6' (1.83 m) with 9202HQ | 11 (4.99) |
| 9208HIP | 8' (2.44 m) with 9202HQ | 12 (5.44) |

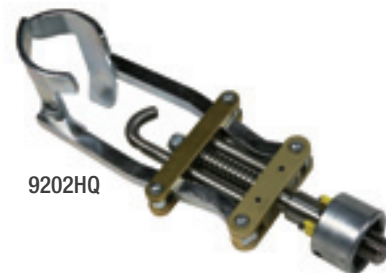
| | | |
|----------------|---|----------|
| PARTS | | |
| 9202HQ | Elbow Remover Head with Quick Change | 2 (0.91) |
| 12524HH | Insulated Stick for 2' (0.61 m) Remover | 2 (0.91) |
| 12548HH | Insulated Stick for 4' (1.22 m) Remover | 3 (1.36) |



764150015LGE



9206GAS



9202HQ

UNDERGROUND GROUNDING STUDS



The 1712 and 1725 grounding stud series are used for grounding when the fault duty on the 600 amp Deadbreak elbow/ "T" body exceeds the rating of a 200 amp grounding elbow, as rated by IEEE 386 at 10kA for 10 cycles. Grounding studs consist of a 10" conductor stud with male or female threads for replacing 200 amp bushing wells and/or insulating plugs and a ground clamp bar for use with regular grounding jumper assemblies. After the cable has been proven de-energized, the stud is installed and a ground is applied.

The **1725001** grounding stud is made of 7/8" diameter copper with a 5/8-11 female thread on one end and a 1" (2.5 cm) hex drive on the other end. This stud is fitted with a tapered guide and a 3/8" diameter copper cross bar perch used for installing the ground. A socket drive is used for installation. For application, use catalog number 5900CS captured socket.

The **17250003**, **17250004** and **17250005** are steel grounding plugs and studs with one 5/8" diameter perch. The perch has a sturdy lip to ensure clamp contact during faults. These models are supplied with grip-all attachments for application with insulated clampstick tools and connectors. These studs are used for grounding equipment such as non load-break connectors or power distribution connectors.

The **1735** grounding stud is made of 7/8" diameter copper with a 5/8-11 female thread on one end and a 1" (2.5 cm) hex drive on the other end for application with a socket drive. The cross bar perch is 3/4" diameter copper, providing heavy duty service. This ground plug also comes equipped with a tapered guide and the yellow protective cap.

| CAT. NO. | DESCRIPTION | THREADS | MATERIAL (Stud) | ASTM F855 | | WEIGHT lbs. (kgs) |
|-----------------------------|--|------------|--------------------|-----------|-------------------------|----------------------|
| | | | | GRADE | FAULT DUTY 15 Cycles | |
| UNDERGROUND GROUNDING STUDS | | | | | | |
| 1725001 | Copper Electrode, Female, Hex Drive, w/Guide | 5/8-11 (F) | Cu | 1 | 17 kA | 2.2 (1.0) |
| 17250003 | Steel Electrode, Male, Grip-All, w/Guide | 5/8-11 (M) | Steel | 3 | 27 kA | 2.0 (0.9) |
| 17250004 | Steel Electrode, Female, Grip-All, w/Guide | 5/8-11 (F) | Steel | 3 | 27 kA | 2.0 (0.9) |
| 17250005 | Steel Electrode, Male, Grip-All | 3/4-10 (M) | Steel | 3 | 27 kA | 1.8 (0.8) |
| 1735 | Copper Electrode, Female, Hex Drive, w/Guide | 5/8-11 (F) | Cu | 4 | 35 kA | 3.5 (1.6) |
| 5900CS | Captured Socket for 1725001 and 1735 | - | - | - | - | - |

UNDERGROUND TOOLS & GROUND ADAPTER DEVICE KIT

The **PADMOUNT SWITCH HOOK** is designed to operate the secondary switch on a padmount transformer. Also used as a standard switch hook for cutouts. Weight - 1 lbs. (0.45 kgs).

The **UNDERGROUND SPANNER WRENCH** is designed for installing and removing the connector bushing, and reducing bushing inserts. Can be used when the conductor is de-energized, but not grounded. The tool is used one way for installation, and turned over for removal. A universal toggle and spring is used with this tool and should be ordered separately (5900Q). Weight -1 lbs. (0.45 kgs).

The **PLUG INSTALLING TOOL** is used to install or remove 600 amp reducing plugs. Weight:2 lbs. (0.91 kgs).

The **GROUND ADAPTER DEVICE KIT** enables application of personal grounds up to a 600 amp separable pre-molded component system when used with a clampstick.



1720



190UGU



172300



76174459

| CAT. NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|

PADMOUNT SWITCH HOOK

| | |
|--------|-------------------|
| 190UGQ | With Quick Change |
| 190UGU | With Universal |

UNDERGROUND SPANNER WRENCH

| | |
|------|-----------------------|
| 1720 | For 600 AMP Connector |
|------|-----------------------|

PLUG INSTALLING TOOL

| | |
|---------|-----------------------------------|
| 172300 | 1/2" (1.3 cm) Female Square Drive |
| 172300Q | Quick Change |

| CAT. NO. | DESCRIPTION | QTY | WEIGHT lbs. (kgs) |
|----------|-------------|-----|----------------------|
|----------|-------------|-----|----------------------|

GROUND ADAPTER DEVICE KIT - NON-LOAD BREAK

| | | | |
|----------|------------------------------------|---|----------|
| 76174459 | Ground Adapter Device Kit with Bag | 1 | 15 (6.8) |
|----------|------------------------------------|---|----------|

EACH SET INCLUDES THE FOLLOWING:

| | | | |
|---------|-------------------------------------|---|-----------------|
| 44C | Ratchet Wrench with Ball and Ring | 1 | 2 (0.91) |
| 5900Q | Universal Toggle and Spring | 1 | 1 (0.45) |
| 5900CS | Captured Socket with Friction Balls | 1 | 8 oz (0.22 kgs) |
| 9206GAS | Elbow Connector Tool with Inserts | 1 | 2.5 (1.1) |
| 1725001 | Ground Stud | 3 | 2.5 (1.1) |
| B1715 | Protective Bag with Zipper | 1 | 1 (0.45) |



The **HYDRAULIC CABLE SPIKE** is designed to verify that underground cable, up to 1000 MCM, is de-energized before cutting, repairing, splicing or replacing.

The cable spike, a solid brass body with a stainless steel piercing tip, is fitted to hydraulic compression tools so that the cable can be accurately spiked from a safe distance. An anodized aluminum insert is included to position the cable precisely.

The **CABLE PENETRATING GROUND CLAMP** is designed to be used either as a tool for “spiking” jacketed cable or as a part of a grounding assembly used to bond both ends of an opened cable. The 7/8” long plated steel point is inserted into the eye screw making a low resistant one piece spear. If one point becomes blunted it may be sharpened or replaced with a new spear. Clamps are aluminum body with either smooth or serrated upper jaws. The hard aluminum serrated insert makes optimum contact with the stranded neutral shield.

Adapter fits the following tools:

- Huskie EP610H
- Burndy Y46
- Brock 13-H



WARNING: ELECTRIC SHOCK HAZARD
THIS TOOL IS NOT INSULATED. USE ONLY CERTIFIED, NON-CONDUCTIVE HOSES, DIELECTRIC FLUIDS, AND PROPER PERSONAL PROTECTIVE EQUIPMENT WHEN USING THIS UNIT. FAILURE TO DO SO COULD RESULT IN SEVERE INJURY OR DEATH.

| CAT. NO. | CABLE LENGTH ft (m) | DESCRIPTION SPIKING TOOL & GROUNDING ASSEMBLY: | WEIGHT EA. lbs. (kgs) |
|----------|------------------------|---|--------------------------|
| 24320 | 6 (1.8) | Cable Spiking Tool & Insert 4388 C Clamp | 9.5 (4.3) |
| 24321 | 8 (2.4) | 2139 4/0 Cu Cable 2025 4/0 Cu Ferrules (Pair) | 11.2 (5.1) |
| 24322 | 10 (3) | 616 Bag US Patent # 544 7450 | 12.9 (5.86) |
| RPT1 | - | Replacement Piercing Tip | 1 oz (28 g) |

| CABLE PENETRATING GROUND CLAMP - ACME THREAD - POINTED LOWER JAW | | | |
|--|---|---|----------|
| 2607 | - | Aluminum 1.5” Opening, Class B, Serrated Jaw | 1.7 (.8) |
| 20867 | - | Aluminum 2.40” Opening, Class B, Serrated Jaw | 2.2 (1) |
| 4290 | - | Aluminum 2.40” Opening, Class A, Smooth Jaw | 2.1 (1) |

HYDRAULIC GROUND, BLADE, & CABLE SPIKE CLAMPS



1715EPP



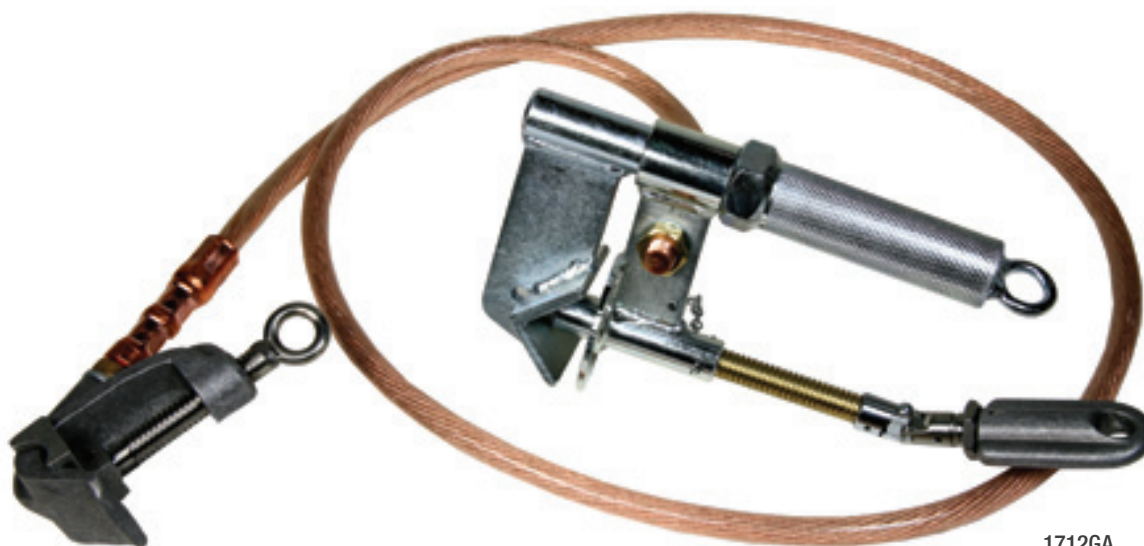
17150066

| CAT. NO. | DESCRIPTION | PUMP MDL / P.S.I. | CABLE ASSEMBLY CABLE | ASTM FAULT / DUTY CYCLES / GRADE | WEIGHT lbs. (kgs) |
|---|----------------------------|----------------------|-------------------------|--|----------------------|
| HYDRAULIC GROUND SPIKE CLAMPS: CLAMP CAT. NO. 760001E, SPIKE DEPTH 1 5/8", CONDUCTOR MIN. 1" - MAX. 3" | | | | | |
| 1715EPP | Spike Point w/ Eye Screw | 1715PE / 1200 | 1/0 Clear | 14.5 kA / 15 / 1 | 28 (12.7) |
| 17150060EPP | Spike Point w/ Eye-T Screw | 1715PE / 1200 | 1/0 Clear | 14.5 kA / 15 / 1 | 28 (12.7) |
| 17150060PFP | Spike Point w/ Eye-T Screw | 1715PE / 1200 | 1/0 Clear | 14.5 kA / 15 / 1 | 32 (14.5) |

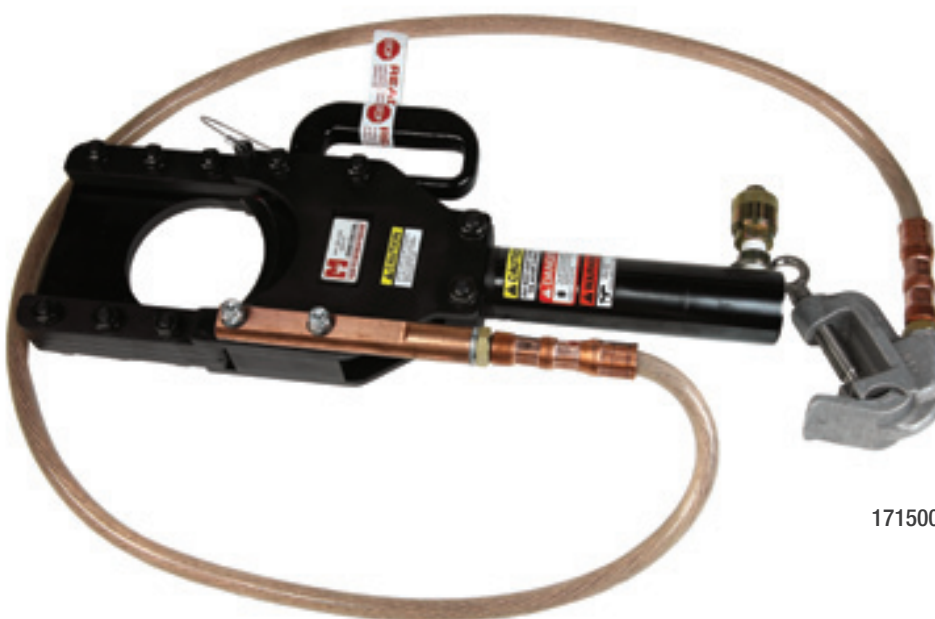
| CAT. NO. | PUMP MDL / P.S.I. | SPIKE DEPTH IN. (CM) | CONDUCTOR MAX CYCLES / GRADE | CABLE ASSEMBLY CABLE | ASTM FAULT / DUTY | WEIGHT lbs. (kgs) |
|---|----------------------|----------------------------|------------------------------------|-------------------------|----------------------|----------------------|
| HYDRAULIC BLADE SPIKE CLAMPS: SPIKE BLADE W/ EYE SCREW, CLAMP CAT. NO. 760001E | | | | | | |
| 17150063EPP | 1715EP25 / 2500 | 3" | 2 1/4 (5.7) | 1/0 Clear | 14.5 kA / 15 / 1 | 30 (13.6) |
| 17150063PFP | 1715PF25 / 2500 | 3" | 2 1/4 (5.7) | 1/0 Clear | 14.5 kA / 15 / 1 | 34 (15.4) |
| 17150066 | 1715P392 / 10000 | 6" | 4 1/2 (10.8) | 1/0 Clear | 14.5 kA / 15 / 1 | 85 (38.6) |

NOTE: Suffix EPP = Enerpac Pump Suffix PFP = Porter Ferguson Pump

HAND OPERATED GROUND SPIKE & HYDRAULIC CUTTER SPIKE



1712GA



17150050

| CAT. NO. | DESCRIPTION | CABLE ASSEMBLY CABLE / CLAMP CAT. NO. | ASTM FAULT / DUTY CYCLES / GRADE | WEIGHT lbs. (kgs) |
|----------|-------------|--|--|----------------------|
|----------|-------------|--|--|----------------------|

HAND OPERATED GROUND SPIKE: SPIKE DEPTH 1 3/4", CONDUCTOR MIN. 1" - MAX. 3 1/2"

| | | | | |
|--------|------------------------|---------------------|------------------|----------|
| 1712CS | 3' FG Hndl, Toggle /GA | 1/0 Clear / 760001E | 14.5 kA / 15 / 1 | 15 (6.8) |
| 1712U | Spike Point w/U | 1/0 Clear / 760001E | 14.5 kA / 15 / 1 | 10 (4.5) |
| 1712GA | Spike Point w/GA | 1/0 Clear / 760001E | 14.5 kA / 15 / 1 | 10 (4.5) |

| CAT. NO. | DESCRIPTION | PUMP MDL / P.S.I. | CABLE ASSEMBLY CABLE CYCLES / GRADE | ASTM FAULT / DUTY | WEIGHT lbs. (kgs) |
|----------|-------------|----------------------|---|----------------------|----------------------|
|----------|-------------|----------------------|---|----------------------|----------------------|

HYDRAULIC CUTTER SPIKE: CLAMP CAT. NO. 760001E, CONDUCTOR MIN. 0" - MAX. 3 1/2"

| | | | | | |
|-------------|-------------|------------------|----------|------------------|-----------|
| 17150050 | Huskie Head | N/A / N/A | #2 Clear | 14.5 kA / 15 / 1 | 23 (10.5) |
| 17150050WPH | Huskie Head | 1715P392 /10,000 | #2 Clear | 14.5 kA / 15 / 1 | 52 (23.6) |

ACCESSORIES FOR UNDERGROUND SPIKE TOOLS

| CAT. NO. | DESCRIPTION |
|----------|-------------|
|----------|-------------|

SPIKES, BLADES AND TOOL HEADS

| | |
|--------------|---|
| 1710E | Spike Point Complete for 1710 |
| 1712E | Carbide Spike Point Only |
| 1715E | Spike Point Complete for 1715 |
| 1715GS | Ground Shaft Complete for 1715 (Includes Shaft and Spike Point) |
| 171550SP100A | Huskie Cutter Head Only |



1710E



1715GS

HYDRAULIC PUMP ASSEMBLIES AND PUMPS

| | |
|--------------|---|
| 1715PE | Enerpac Pump w/ Fittings, 1200 psi |
| 1715P142 | Enerpac Pump Only, 1200 psi |
| 1715PE25 | Enerpac Pump w/ Fittings, 2500 psi |
| 1715PE14225 | Enerpac Pump Only, 2500 psi |
| 1715PE100 | Enerpac Pump w/ Fittings, 10000 psi |
| 1715P392 | Enerpac Pump Only, 10000 psi |
| 1715PF | Porter Ferguson Pump w/ Fittings, 1200 psi |
| 1715SM0033 | Porter Ferguson Pump Only, 1200 psi |
| 1715PFSD | Porter Ferguson Pump w/ 1/4" Fittings, 1200 psi |
| 1715PF25 | Porter Ferguson Pump w/ Fittings, 2500 psi |
| 1715SM003325 | Porter Ferguson Pump Only, 2500 psi |



1715PF

HYDRAULIC HOSE ASSEMBLIES AND HOSES

| | |
|----------|--|
| 1715H | 30' Non-conductive Hose w/ Fittings, 3000 psi |
| 1715H1 | 30' Hose Only, 3000 psi |
| 1715HSD | 30' Non-conductive Hose w/ 1/4" Fittings, 3000 psi |
| 1715HSD1 | 30' Hose Only, 3000 psi |



1715H

HYDRAULIC RAM ASSEMBLIES AND RAMS

| | |
|--------------|---|
| 1715R | Enerpac Ram w/ Fittings, 1 5/8" Stroke |
| 1715RCH121 | Enerpac Ram Only, 1 5/8" Stroke |
| 1715RSD | Enerpac Ram w/ 1/4" Fittings, 1 5/8" Stroke |
| 171561RCH123 | Enerpac Ram Only, 3" Stroke |
| 17150066R | Enerpac Ram w/ Fittings, 6" Stroke |
| 1715RCH306 | Enerpac Ram Only, 6" Stroke |

PROTECTIVE BAGS

| | |
|-----------|---|
| B1710 | Bag for 1710: 52" x 15" Yellow Vinyl Strap Tie Bag, 4 Tool Compartments, Outer Pocket |
| B1715 | Bag for 1712, 1715, 17150060: 20" x 14" x 5" Yellow Vinyl, Zipper, Outer Pocket, Straps |
| B17150050 | Bag for 17150050, 17150063: 26" x 12" x 8" Yellow Vinyl, Zipper, Outer Pocket, Straps |
| 1370BF1 | Storage Box for 17150066: 44" x 12" x 15" Wooden, Hinged, Latched, Forklift Stringers |



B1715