



Grounding Applications Brochure

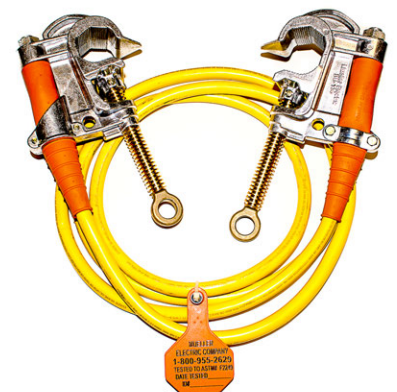
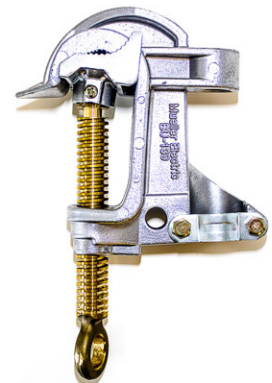
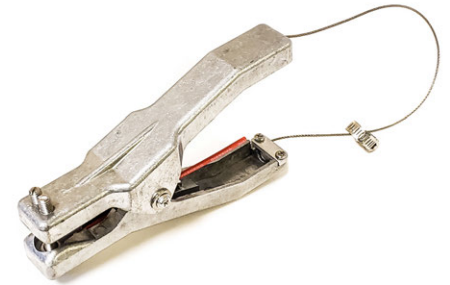


A DESCO CORPORATION COMPANY, SINCE 2011

The Industry Source for High-Quality Electronic Products & Assemblies

Over 110 years in business, and quality is still #1. Mueller products are manufactured to our own, higher standards, creating products that are rugged, durable, and provide an excellent value.

MuellerElectric.com
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F: 216-771-3068
sales@muellerelectric.com





About Mueller Electric:

In 1908, Ralph Mueller invented the “alligator clip”. Ever since, Mueller Electric has been synonymous with the highest quality, durability, and reliability in the industry. In 2011 Desco Corporation acquired Mueller and vowed to maintain the tradition and service established during the past century. Desco Corporation is a privately held company with global manufacturing, distribution and sales employing over 1,200 people. For further information please visit us at www.descocorporation.com.

With over 110 years in business, **QUALITY** remains our number one focus. Manufacturing to the highest standards Mueller Electric has facilities located in Akron, OH, USA. Nottingham, UK and Shanghai, China to meet the demands of any cable manufacturing requirement. This diversity allows Mueller Electric to offer short lead times, fast responses, and engineering support, along with tremendous cost saving opportunities and domestic stocking programs.

Grounding Clamps, Bonding Clamps and Grounding Assemblies for Industry and Aerospace Applications

In industry, static charge can be generated by machinery where there is any kind of friction or contact and separation, as well as in instances where there are rapid heat changes. People can build up their own charges simply by the friction created when they walk, so when they move within proximity to a machine, they can receive a shock or a spark can ignite flammable materials.

Some specific sources of static in industry will be discussed in more detail in this whitepaper. Most static electricity in industry results from operations that involve friction, such as:

- Liquid or powder flowing through a pipe, hose, or opening blending or mixing
- Spraying or coating
- Filling operations
- Conveyer belts

Static hazards can be minimized by taking appropriate safety measures to control the accumulation of static charges. One of the important ways to control electrostatic buildup is by properly grounding and bonding.



Section A: Protective Ground Clamps

Mueller's grounding clamps used as temporary protective grounds used on de-energized electric power lines and equipment.



BU-138

2.4" Aluminum "C" Type
Flat lower Jaw with Acme
threads

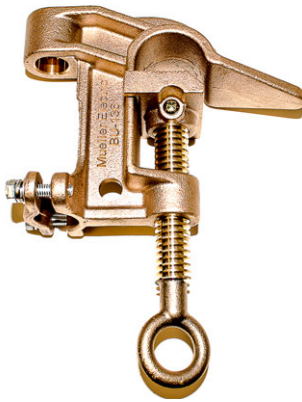
ASTM Grade / Class : 5 / A
Current Rating: 400 RMS
Amps, 60Hz



BU-139

1.5" Aluminum "C" Type
Serrated Jaws with Acme
threads.

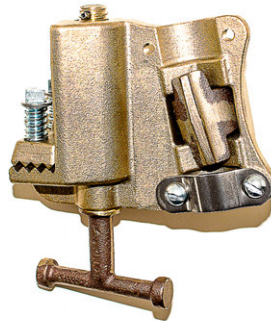
ASTM Grade / Class: 5 / B
Current Rating: 400 RMS
Amps, 60Hz



BU-136

Bronze "C" Type Serrated
lower Jaw with Acme
threads

ASTM Grade / Class: 5 / B
Current Rating: 400 RMS
Amps, 60Hz



BU-145

Tower and flat face
ground clamp
Tee handle
Max Jaw opening: 1.5"
Max Fault Current rating:
43KA@15 CYCLES
30KA@ 30 CYCLES



BU-146

Aluminum Duck Bill Clamp
Smooth Jaws
Include eyescrew with fine
threads
ASTM Grade / Class: 5 / B
Current Rating: 400 RMS
Amps, 60Hz

Section B: Protective Grounding Cable Sets

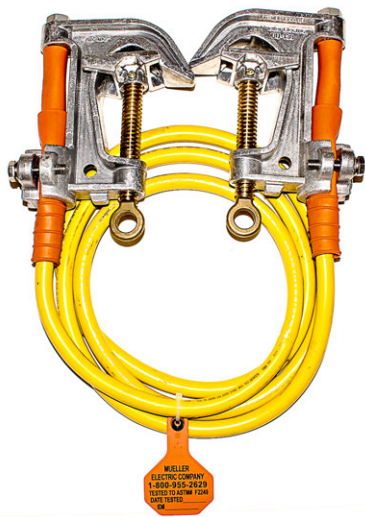
Mueller also specializes in grounding cables, specialized cables and almost any connectors that hooks up to a wire.

****All of our protective grounding cable sets are manufactured to ASTM F855-19 and tested to ASTM standard F2249-03****

Our best seller of Protective Grounding Cable Sets:



Part Number	Description
AI-000508-X	1/0 Cable With 1.5" Aluminum "C" Type Serrated Jaws Clamps (BU-139)



Part Number	Description
AI-000514-X	1/0 Cable With 2.4" Aluminum "C" Type Smooth Jaws Clamps (BU-138)
AI-000509-X	2/0 Cable With 2.4" Aluminum "C" Type Smooth Jaws Clamps (BU-138)
AI-000515-X	4/0 Cable With 2.4" Aluminum "C" Type Smooth Jaws Clamps (BU-138)

**Mueller Electric Cable Division 2850 Gilchrist Rd.
Building 5A, Akron, OH 44305
Phone: 800-955-2629 E-mail: sales@muellerelectric.com**

Section B: Protective Grounding Cable Sets



Part Number	Description
AI-000510-X	1/0 Cable With Bronze "C" Type Serrated Lower Jaw Clamps (BU-136)
AI-000511-X	2/0 Cable With Bronze "C" Type Serrated Lower Jaw Clamps (BU-136)



Part Number	Description
AI-000512-X	1/0 Cable With Aluminum Duck Bill Clamp (BU-146)
AI-000513-X	2/0 Cable With Aluminum Duck Bill Clamp (BU-146)



We also offer grounding cable bags at your demand.

Features:

- (1) Made of 1680D Oxford cloth
- (2) Constructed with heavy-duty snaps
- (3) Can hold up to 50 lbs
- (4) 20"D x 15" W

BAG20DX15W

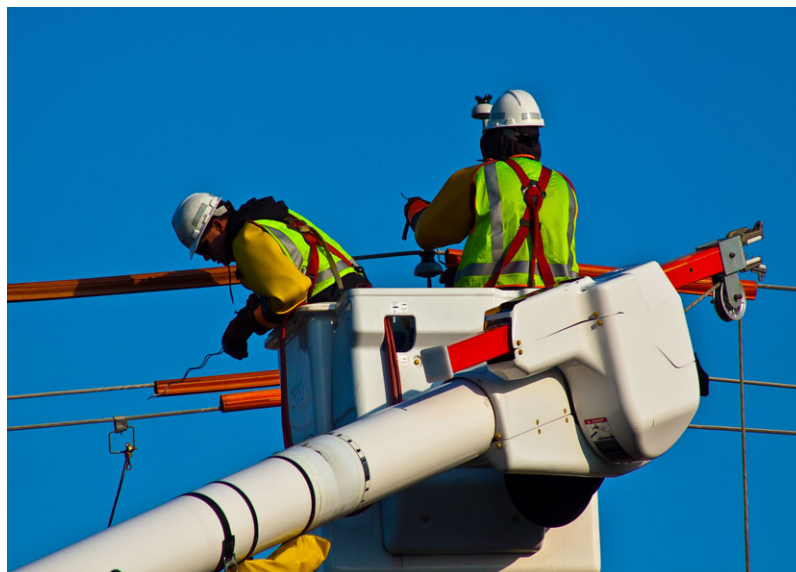
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Section B: Protective Grounding Cable Sets

Can't find what you are looking for? Use this chart to customize one!

(You can email/fax this chart to us!)

Choose your Own from 1-6						The one you want	Quantity
1. Clamp	BU-136 Bronze "C" Type Serrated lower Jaw	BU-138 2.4" Aluminum "C" Type Smooth Jaws	BU-139 1.5" Aluminum "C" Type Serrated Jaws	BU-145 Tower and Flat face ground clamp	BU-146 Aluminum Duck Bill Clamp Smooth Jaws		
2. Ferrule	BU-138-F M16 Aluminum 2/0 Ferrule	BU-139-F M16 Aluminum 1/0 Ferrule	BU-138-4F M16 Aluminum 4/0 Ferrule				
3. Insulator	BU-137-A Adjustable Orange Ground Insulator	BU-137-B Straight Orange Ground Insulator					
4. Rod	BU-138-R Aluminum						
5. Cable	AW80091 1/0 Copper Standard Yellow	AW80092 2/0 Copper Standard Yellow	AW80101 4/0 Copper Standard Yellow				ft
6. Label	AM10679 F2249 Grounding Label Orange						



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Section C: Protective Grounding Cables Testing Procedure

Quality means a lot to us, we test every cable and document it before given to customers.



1. Pick up the cable from storage.



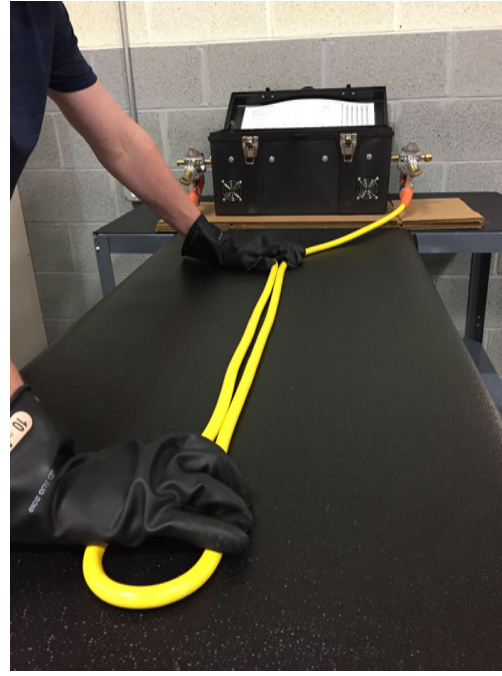
2. Make sure table is cleaned



3. Cable insulation is inspected



4. Clamp ends are cleaned



5. Grounding cable sets are tested to ASTM standard F2249-03. Current is applied on GT400HDXL Tester and the voltage drop measured



6. Document serial number, voltage and date

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Section D: Grounding Clamps

BU-131 Cast Aluminum Grounding Clamp



Perfect for grounding and/or bonding of drums, machinery, large and small containers, and personnel in areas containing flammables and dust. Used for Static Electricity, good corrosion resistant. Will not twist. Point-to-point connection to pierce paint. Strong clamp pressure.

BU-131-A Cast Aluminum Ground Clip with Rounded Serrated Jaws



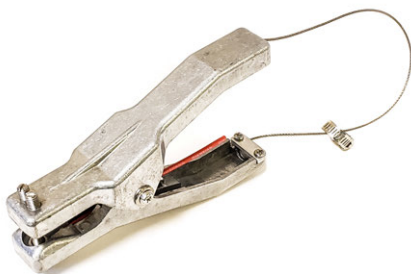
Perfect for grounding and/or bonding of drums, machinery, large and small containers, and personnel in areas containing flammables and dust. Will not twist. Used for Static Electricity, good corrosion resistant. Strong Clamp Pressure. Will break paint. Strong grip on round objects.

BU-131-B Cast Aluminum Ground Clip with Serrated Jaws



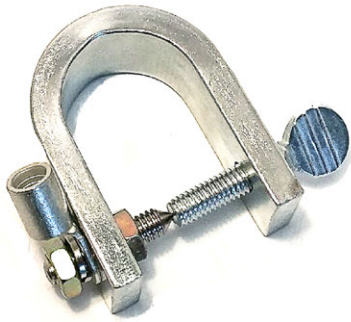
Perfect for grounding and/or bonding of drums, machinery, large and small containers, and personnel in areas containing flammables and dust. Will not twist. Used for Static Electricity, good corrosion resistant. Strong Clamp Pressure.

BU-133 Aluminum Static Grounding Clamp



Mueller's BU-133 is for Static Grounding used on a wide range of containers, drums, and machinery. Strong spring pressure and double Stainless-Steel points allows the clamp to penetrate multiple layers of paint or corrosion build-up so that the proper contact can be made. Quick-release harness helps open the clamp when pulled by the cable and minimizes strain on the cable connection. Will break paint.

Section D: Grounding Clamps



BU-123 Heavy Duty Grounding C-Clamp

Clamps onto material up to .75 inches (19mm) thick. It is designed to break paint and used in many OSHA metal on metal required applications. Includes a 4 AWG X 1/4 inch Crimp/Solder Lug.



BU-124 Heavy Duty Grounding Clamp - Large

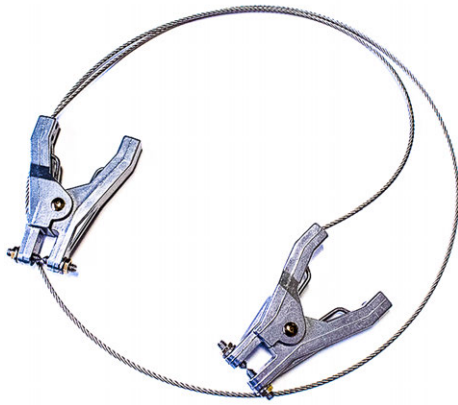
Clamps onto material up to 2.5 inches (63.5mm) thick. It is designed to break paint and used in many OSHA metal on metal applications. Includes 4 AWG X 1/4 inch Crimp/Solder Lug. Lug accepts a 4 gauge wire.



BU-119-P Large Grounding Clamp

The BU-119-P is one of Mueller's largest grounding clamp. It is designed for applications requiring a strong clamp pressure while grounding larger objects. Perfect for grounding and/or bonding of drums, machinery, large and small containers, and personnel in areas containing flammables and dust.

Section E: Grounding & Bonding Assemblies



AI-000656

Grounding & Bonding Assemblies with Cast Aluminum Grounding Clamps / C Clamp

Perfect for grounding and/or bonding of drums, machinery, large and small containers, and personnel in areas containing flammables and dust. The clamps will not twist. Used for Static Electricity, good corrosion resistant. Strong Clamp Pressure and will break paint. Clamps can be BU-131, BU-131-B, BU-133 or BU-119-P. Standard cable is 1/8 inch stainless steel wire rope. Other cable sizes, insulation and color are available. Lengths can be customized to fit any application.



AI-000483-C

Customize your requirements: When ordering select a cast aluminum clamp, wire type and size and length of the assembly and which C-Clamp (BU-123 or BU-124). A quote will be prepared based on your customized selections.

We also have more Grounding-Bonding cables. The cable length is in "inch" as is designate by the "X" in the part number. Standard length are -18, -36, -48,-72,-120.



AI-000151-X



AI-000474-X



AI-000483-X



AI-000500-X



AI-000503E-X



AI-000501-X

Section E: Grounding & Bonding Assemblies

Grounding & Bonding Assemblies with Retractable Coil Cords



Grounding assemblies with retractable coil cords are also perfect for grounding and/or bonding of drums, machinery, large and small containers, and personnel in areas containing flammables and dust especially in areas of high traffic. Once disconnected the coil will retract and the assembly will position itself out of the way of harm reducing the possibility of tripping over bulky, loose or tangled grounding cables. These assemblies utilize a corrosion resistant, orange vinyl jacket cable and can be fitted with any of our clamps .



Aircraft / Aerospace Grounding Assemblies

Mueller Electric offers a complete line of aircraft / aerospace grounding assemblies, clamps and plugs. These products offer proper grounding of aircraft during refueling or maintenance.

- Clamp - BU-131 or BU-131-A or B
- Plug - BU-125 and BU-125H (Hex)
- Cable - 1/8" Stainless Steel Wire Rope
- Other configurations are available

Aluminum C Clamps

Mueller Electric also offers three sizes C clamps for multi grounding applications. These clamps could secure wire by using the nut and bolt which are included.

BU-132-1 accepts wire up to 3/8" in diameter.

BU-132-2 and BU-132-3 accepts wire up to 1/2" in diameter.



Small Aluminum C Clamp
BU-132-1



Medium Aluminum C Clamp
BU-132-2



Large Aluminum C Clamp
BU-132-3