

Western United Electric Supply Corporation

The Supplier

Volume 9, Issue 2

April 2016

The Supplier

A Quarterly Publication of
Western United Electric
Supply Corporation

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WESTERN UNITED MISSION STATEMENT

**To be the distributor of
choice for all electric
utilities in the Rocky
Mountain Region**

**Serving CO, WY, NM, NE,
UT, AZ, NV & KS**

WUE is pleased to announce the opening of our newly built warehouse in Albuquerque, NM serving valued members and customers in New Mexico and Arizona.



The 16,000 square foot warehouse and office situated on 2 plus acres of land is located at 7311 LaMorado Pl NW, in Albuquerque (the northwest quadrant of I25 and I40 off of Unser Drive) and will allow for a further increase in the amount of inventory held for sale in that market area. Additionally, the large amount of



warehouse space and outside storage space will allow for greater efficiency in receiving and shipping of electric utility materials. WUE has achieved significant support from its member base in that geographical area during the past five years and strives to become the distributor of choice among electric utilities in that market area. Please visit our new location if traveling through the area.

WUE anticipates an open house later this year.

WUE UPDATE

WUE is pleased to announce that Mohave Electric in Bullhead City, AZ has purchased a new Tantalus AMI system (with Itron meters) from WUE. Installation on their complete distribution system is projected to occur over the next five years.

WUE has been approved as a distributor for Saft-T-Guard Products.

WUE has been approved as a distributor for Cobham M2M Terminals.

Elastimold (Thomas & Betts) recommends the use of SL-5 Silicone Lubricant for use on all 200A Loadbreak and 600A Deadbreak products (including elbows, connectors, bushings and splices). Long term aging tests have revealed that there is no detrimental interactions between the grease and the molded parts when in long term contact with each other. The use of this grease will insure a correct and successful mating of two rubber parts. Remember not all silicone lubricants are created equal and equivalent. Only use T&B silicon grease. Stocked by WUE for immediate shipment.

WUE has been approved as a distributor for IMCORP. IMCORP is a 40 year old company that provides offline 50/60 Hz PD testing of medium and high voltage electric utility underground cables and terminations, either for determining future performance of existing installations or to verify the integrity of initial installations. The testing conducted by



the company is designed to find simi-con damage, overheating, incorrect cutback dimensions, insulation cuts, insulation voids, lack of void fuller, cutback issues, foreign objects/contaminants, and water trees in cable and terminations. All testing is conducted per the manufacturers standards: Terminations per IEEE 48, Splices and Joints per IEEE 404, Separable Connectors per IEEE386, MV cable per ANSI/ICEA S-97/94-682/649 and HV cable per ANSI/ICEA S-108-720. The tests can determine defects within +/- 1 meter or .1% of the cable length. Please see your WUE account manager for more information on the IMCORP testing program or to set up an appointment with the factory rep.



HENDRIX

Hendrix, a long time industry leader in pin type poly insulator technology (with a lifetime warranty) has now introduced a line of post type poly insulators. Stronger than porcelain (won't chip, crack or break), designed for use with all tie products and conductor types (up to 1.75") , resistant to impact damage, breakage and vandalism, high flashover values from optimized shed design, the product is available for 15KV (C and F neck), 25KV (F neck) and 35KV (F neck) systems with a 3/4" thread. See you WUE account manager to see a sample or for more information.



Electrical, Mechanical & Physical Data

	Porcelain		HENDRIX	Composite	
ANSI Class	57-2	57-3	HPI-LP-14	51-3F	51-4F
Insulator Neck	F	F	F	F	F
Typical Application, kV			25/35		
Leakage Distance, in.	22	29	31.4	22	29
Dry-arc distance, in.	9.5	12.25	13.8	9.5	12.25
Cantilever strength, lbs.	2800	2800	>4,000	2400	2240
Specified Tensile Load, lbs.	N/A	N/A	>4,000	2000	2000
60 HZ dry flashover, kV	100	125	128	100	125
60 HZ wet flashover, kV	70	95	94	70	95
Positive impulse flashover, kV	160	200	217	160	200
Max RIV @ 1MHz, μV	100	200	≤ 26	100	200
Reference Height, in.	12	15	14	15.7 ± 2.5	18.1 ± 2.5
Max. Conductor OD, in.			1.75		
Part Weight, lbs.			9.4		

Top Ten Safety Practices

1. Keep Yourself Grounded

Grounding cables and jumpers should be inspected daily to ensure that they are free from structural defects. Clamps should be free of sharp edges, splits, cracks and should be able to be operated smoothly by hand with no loose parts (see ASTM F855-09, 10.1-10.5, 23.1-23.2, 36.1-36.2). Special care should be taken to ensure that the grounding cable is not breaking or that the shrink tubing is not weakened and broken where it meets the clamp. When having new ground sets built, the use of clear grounding cable offers an easy inspection of cable strands and making inspections easier. Any ground set with suspected damage should be taken out of use and sent in for cleaning, inspection, recertification, and repair.

2. Cleaning of Rubber Goods

Water and dirt are both enemies to electrical line workers because both conduct electricity. Daily contact with oils, greases, and petroleum based products can weaken rubber, and reduce its protective properties. Cleaning should occur regularly, and can be done with wipes or cleaners formulated for use on rubber. Mild soap and water can be used, but ensure enough drying time is allowed before using or storing. Gloves should be dried with fingers up to avoid water pooling inside.

3. Daily Inspection of Rubber Goods

Per ASTM standards, rubber goods should be visually inspected before every use (See ASTM F496-08, F479-06, F478-06). When beginning your inspection, check for a current test date. If a valid date stamp is present, continue on to a visual inspection of the rubber. Inflating gloves with a field inflator can make this process easier, or a field inflation tool can be used to loosely roll the rubber. Make sure the inside and outside is inspected and also inspect between glove fingers. You will be looking for scratches, punctures, chemical blooms or swelling, hard spots, cracking and dry rot (ASTM F1236-96, 7). Electrical current can pass through weak spots in rubber and cause harm to the user. For this reason, if rubber is expired or any damage is suspected, the rubber should be taken out of use and should be sent in for recertification by a test lab, like the WUE lab in Brighton CO.

4. Wear and Care for your FR Clothing

In the event of an arc incident, it takes only 3 seconds to receive third degree burns. Arc flash clothing is designed to provide protection in the event of exposure to heat and flame. PPE should be worn in according to your company's safe work practices and is designed to give you additional time to escape a 2nd explosion, plus minimize the severity of a burn injury. Arc flash clothing is designed to not ignite, burn, and melt like ordinary clothing that is typically made of synthetic fibers which often melts into the skin, causing more extensive injuries. To care for your arc flash clothing, make sure you read manufacturer care instructions before use, and keep track of how old it is. As with other forms of PPE, arc flash clothing should be kept clean, because dirt and oils can reduce the level of protection in the event of an accident. Wash clothing on a gentle wash cycle, without the use of bleaches. Keeping five sets of arc protection (one for each day of the week) will allow you to clean each piece once a week and will prolong the life of the gear. Each cleaning will reduce the protective properties of PPE. When not in use, arc flash gear should be hung or loosely folded in a protective bag. Before use, arc flash clothing should be inspected for any signs of wear, including holes, tears, or wear spots. Any damage should result in the PPE being removed from use.

5. 100% Continuous Fall Protection

The U.S. Bureau of Labor Statistics listed "Falls" as one of the four most fatal injuries in the workplace. OSHA standards require the use of a fall arrest system if there is any risk that a worker may fall from an elevated position, defined as six feet or more (OSHA 1926.959). Before each use, fall protection should be thoroughly inspected. On belts, going from one end to the other, roll the belt in a U-shape, and inspect for cracking, fraying, pulled or frayed stitches, cuts, chemical damage, or burns. Hardware, locking snaps, and buckles should be checked for any cracking, wear, binding, and bending. Rivets should be flat against the material, not bent, which will cause them to fail. Lubricate snaps at least once a week to maintain smooth operation. Ropes and lanyards should be checked for fraying and cuts. Any variation in diameter of the rope, color, or texture should result in the removal of this fall protection from use.

6. Proper Cleaning of Fiberglass

Just like with other PPE, fiberglass should be kept clean and dry to reduce electric conductivity. Fiberglass tools and hotsticks can become electrically unsafe due to dampness, surface dirt and a loss of surface glossiness. Daily cleaning of hotsticks is required per OSHA standards (see OSHA 1926.951(d)(2)). Specially designed hotstick wipes not only clean, but are often infused with silicone to give the stick a water repellent coating. Waxing fiberglass, as needed to maintain a glossy surface, is recommended in order for water to bead off of the surface and creates a protective barrier from dirt (IEEE 978-1984, 5.5). Clean and waxed fiberglass is also easier to inspect for surface damage.

7. Daily Inspections of Fiberglass

Fiberglass inspection should occur before every use. The external surface of the fiberglass should be free of abrasions, scratches, blemishes, and surface defects (see ASTM F711-02, 8.1). If any damage is present, OSHA requires the fiberglass to be removed from use and examined and tested before further use. Proper testing of fiberglass would consist of applying 75,000 volts per foot of length for 1 minute, under wet conditions. Fiberglass tools are also required to be removed from service every 2 years for full recertification, even if no damage is suspected (OSAH1910.269(j)(2) (ii)).

8. Eye and Head Protection

According to the United States Department of Labor, thousands of people are blinded each year from Work-related eye injuries. The American National Standards Institute states that eye protection must suitably protect against workplace hazards, fit properly and be reasonably comfortable to wear, in addition to being durable and cleanable. Additionally, eye protection should provide unrestricted vision, movement, and functioning of any other required PPE (ANSI Z87.1-1989). Factors like heat, humidity, and human exertion can create lens fogging at any time, also restricting vision.

8. Eye and Head Protection (Continued)

Temporary layers of anti-fog can be easily applied with a anti fogging cloth and can resolve the safety risks associated with fogged protective wear. Fogging is the main reason why protective eyewear is not worn in the workplace, and can lead to potential OSHA fines for non-compliance. Furthermore, OSHA requires the use of a protective helmet, designed to reduce electrical shock hazard when near exposed electrical conductors and when working in areas where there is a potential for injury to the head from falling objects or impact (OSHA 1910.135(a) (1) 1910.135(a) (2)). Proper head gear should fit appropriately, and should not slip, fall off, or irritate the wearer. A correctly fitting hardhat will also allow clearance between its shell and suspension system, allowing for distribution in the event of impact and also ventilation.

9. Proper Storage

Protect What Protects You Proper storage is key in prolonging equipment life, reducing replacement costs, and most importantly, guards safety equipment from the type of damage that reduces its protective properties. All equipment should be stored only when clean, in a temperature-controlled environment. Often times, the equipment needed most is tossed on a dashboard in direct sunlight or just in the back of a truck- it is these types of practices that cause seen and unseen damage. For example, fiberglass hotsticks should be cleaned after use and kept in hotstick bags. Rubber goods should be kept in canvas bags or tubes, and should never be folded to fit in their containers, as this could cause weak points in the rubber. Rubber gloves should be clean then stored, fingers up, with protectors removed, and both gloves and sleeves should also be hung up for storage (ASTM F496-8 section 8, 8.6 and F478- 09, section 8, 11.4). Gas meters and voltage detectors should be kept in protective cases when not in use, as improper handling can affect electronic components and circuitry, leading to incorrect readings.

10. Be Aware

Always be aware of your surroundings, review the job to be undertaken before you begin work, observe all safety practices and policies.