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March 2021

Electrical

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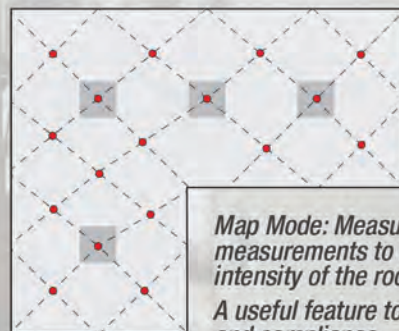


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Generator InterLock Technologies, LLC

Generator InterLock Technologies, LLC, is a small-based company that manufactures and sells its products across the country. The company was founded after Hurricane Isabel hit the east coast in 2003. The product was developed to meet the need for a safe way to use portable generators to power homes in the event of power loss.

The initial inspiration for the product came from a persistent friend of an electrician working for Master Electrical Services. As electrical contractors, they had seen various unsafe and illegal methods that people had used to try to power their houses with their portable generators. The electrician set out to develop a product that would meet National Electrical Code requirements and at the same time be cost effective and convenient for the homeowner. From that original inspiration came a new company: Generator Interlock Technologies or GIT.

The Interlock Kit is a simple safety product that locks out the Main breaker in the existing home panel and allows for the portable generator to power the home through a back feed generator breaker. While many electrical inspectors liked the product; they all agreed that the product would have to be listed to UL standards. After thousands of dollars in fees, rigorous tests, a year of changes and modifications, the Interlock Kit was finally approved for production to be used with panels listed under UL Standard 67.

The company started filling orders in early 2005, using Master Electrical Services as its basis for customer awareness.

Starting with a few kits that fit the most recent Square-D and Cutler Hammer panels, the offerings grew to over 30 different models in less than one year. Generator Interlock Technologies now has kits for panels from 30 years ago to the most current and they continue to add new kits to meet their customer's needs. While contractors in Florida and the North East are the biggest customers, Interlock Kits have been sent throughout the United States and parts of Canada. Whether the power loss is due to coastal hurricanes or from crippling ice storms in the northern , GIT has a kit that will allow customers to keep the power on in their homes.

The Interlock Kits are designed to be installed by licensed electricians and are cost effective for both the customer and the installer. Other products on the market such as generator sub-panels and transfer switches require extensive rewiring of the home panel, often taking the electrical contractor 6 to 8 hours to install. With the Interlock Kit, a qualified electrician can install a complete system in 2 hours or less by simply mounting the correct kit to the face of the panel and wiring a gen-



erator convenience outlet to a breaker installed in the panel.

To use their portable generator, a homeowner plugs an extension cord from their generator to the new generator convenience outlet. He then starts the generator, turns off the main breaker, slides the Interlock Kit, turns on the generator breaker and selects the circuits for use up to the capacity of the generator.

Generator Interlock Technologies' Kit is a defining safety product that has been recognized as a Innovation Award Winner by *Electrical Contracting Products* magazine and one of the Top Products by *Electrical Products and Solutions* magazine.

Generator Interlock Technologies, LLC, has taken a problem of safety and convenience and developed a system to keep danger and expenses to a minimum. Starting with an idea of helping a friend in need, to helping thousands across the country, GIT continues to grow due to its commitment to deliver a quality product. Visit www.interlockkit.com for a complete list of products and details. □

With the Interlock Kit, a qualified electrician can install a complete system in 2 hours or less by simply mounting the correct kit to the face of the panel and wiring a generator convenience outlet to a breaker installed in the panel.

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Updated Arc Flash PPE Hoods and Face Shields Improve User Comfort and Safety

Ventilation, wider field of vision, and lift-front shields keep users safer than ever from arc flash hazards

BY FRANKO GREGORY AND DWAYNE SOMERS,
CEMENTEX PRODUCTS, INC.

ARC FLASH INCIDENTS are of major concern for personnel working with energized equipment. When first adopted by OSHA in 2006¹, the arc flash Personal Protective Equipment (PPE) worn by these personnel was often hot, uncomfortable, and cumbersome. Innovations in arc flash PPE, however, are maintaining and even increasing user safety while also improving users' experience of comfort and visibility. Improved ventilation systems and the addition of hi-calorie lift front face shields help to reduce the cumbersome nature of PPE while keeping personnel safer than ever on the job.

Arc Flash Basics

Arc flash incidents can occur in energized equipment due to a number of causes: inadequate safe work practices, faulty insulation, improper grounding, loose connections, defective parts, ground faults in equipment, unguarded live parts, or even small animal incursion. Regardless of the cause, and though rare, arc flash incidents can be very hazardous to personnel working in energized environments, averaging 30,000 incidents every year according to the Industrial Safety and Hygiene News ^{2,3}.

During an arc flash event, the extreme heat generated by the flash can ignite clothing and cause burns. Depending on conditions, a blast or explosion may oc-

cur, leading to further harm. Proper clothing is required to protect personnel working within arc flash boundaries; while proper clothing resists heat and burns cleanly away, helping to protect wearers' skin, improper attire can melt, causing clothed areas to be burned even more severely than just exposed skin. What's more, arc flashes can lead to UV damage to eyes, hearing loss, extreme pressure on the body, and exposure to toxic fumes.

PPE Helps Prevent Arc Flash Injuries

Personal Protective Equipment specially designed for arc flash hazard areas can protect workers who are exposed to arc flash events,

(CONTINUED ON PAGE 10)





Protect Yourself

Miller Safety Consultants — *A Leader in Arc Flash Protection*

Vince Miller started Miller Safety Consultants, a veteran owned business in 1999. The goal of the business was to provide cost effective safety consulting, employee training such as: confined space entry, fall protection, electrical safety and provide sales of electrical shock and flash protective equipment and fall protection equipment to businesses in the Washington DC area.

Reliance Industries provided fall protection products and much of the sales and training was on behalf of the supplier. In 2000, the owner decided to retire from his business, and Vince decided to discontinue the fall protection line of his business and concentrate more in the electrical training and products.

Vince had been a distributor for Certified Insulated Products (CIP), a manufacturer of electrical insulated tools and electrical arc flash clothing manufactured by Otex in Rochester, New York. As a distributor, Vince provided sales through his internet website and much through relationships with electrical contractors. His training was a classroom environment and was provided directly to customers but he also taught as a sub-contractor for other safety consulting companies and the

Chesapeake Safety Council in Baltimore, Maryland. In 2005, Vince partnered with Vivid Learning Systems in Cascades, Washington to provide on-line training in safe work practices.

Training in electrical safe work practices is still provided locally in the Washington DC area and as a partner with an electrical engineering firm and online. The training is based on the Occupational Health and Safety Administration (OSHA) standards and the National Fire Protection Association (NFPA) 70E standard.

Miller Safety Consultants is now a distributor for Cementex USA, Burlington, New Jersey, for insulated tools and equipment and clothing from OTEX Protective, Rochester, New York.

The majority of his sales of products are from the web-based store. Cementex is

nationally known for their quality equipment. Otex Protective is becoming more known for their quality clothing. For years, they have manufactured their products under other provider labels. Vince chose to not create his clothing line, but to sell the manufacturer product.

Vince has worked with many electrical company employees to fine-tune the clothing to be more comfortable for the user. Working closely with the manufacturer, they have made slight changes in how the cloth pattern was modified to meet final production. An example is the lightweight 40 Calorie vented hood offered by Otex.

The material is of the latest technology. The vented assembly is constructed for balance on the back of the hardhat and the airflow is 27 CFM to prevent fogging of the face shield and provide cooling to the worker. It took over a year to develop the product with the user prior to having the hood "flash tested". This product is now standard issue with many electrical contractors.

Being a small business and having quality providers has resulted in satisfied customers for Miller Safety Consultants. Being a direct supplier for OTEX Protective, another small business means customized customer needs can be met. □

*For more information, visit
Miller Safety Consultants at:
www.electricalsafetysupply.com, email
Vince at: sales@millersafetyltd.com
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Outer Layer: DuPont® Protera
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regardless of their cause. Properly designed PPE takes time to burn cleanly away from the body, thus reducing the likelihood and severity of skin surface burns to personnel. This, in turn, increases incident survivability and eliminates the hazards of melting clothing.

Arc flash PPE is regulated to ensure personnel safety. NFPA 70E® Article 130 – Work Involving Electrical Hazards – says, “Employees exposed to electrical hazards when the risk associated with that hazard is not adequately reduced by the applicable electrical installation requirements shall be provided with, and shall use, protective equipment that is designed and constructed for the specific part of the body to be protected and for the work to be performed.”

These regulations state that when in use, arc rated clothing must both cover all ignitable clothing and allow for movement and visibility. The type of PPE required varies by the possible severity of an arc flash event, and thus by voltages of the energized equipment; in highly energized equipment where arc flash events may be severe, hoods and face shields are particularly important for protecting workers heads and faces from burns and UV light damage. These hoods must cover the wearer’s entire neck, while the face shield must wrap around to protect the face, chin, forehead, ears and neck. These hoods and face shields can be very hot and cumbersome, and can be inconvenient to put on and remove as needed during work and breaks or consultations.

Innovations in Hood and Face Shield Technology

Two innovations in arc flash PPE technology, specifically for hoods and face shields, can help to improve comfort and ease of use in hazardous arc flash environments. These improvements are a ventilation system throughout the PPE suit, and a lift-front face shield integrated into the hood.

The Cementex ventilation system features a durable Kydex™ shell and runs on AA batteries for 6 hours, reaching thirty five CFM.

The ventilation system improves comfort by increasing the amount of overall oxygen flowing suit; what’s more, on the extremely hot days the airflow assists in cooling workers’ skin and thus extending time between water breaks and reducing the risk of overheating.

The other major innovation is in the introduction of lift-front face shields integrated into arc flash PPE hoods. Take, for example, the lift-front face shields for the hoods in the Cementex Ultralight Series of Arc Flash PPE. The lift-front hoods provide a larger viewing area and provides personnel (who move out of the Arc Flash Boundary) with the ability to lift the face shield. By enhancing the area of view to see potential hazards and users’ peripheral vision, the new lift-front hood design helps to minimize accidental contact with energized, hazardous conductors. Outside the arc flash boundary with the face shield safely lifted, the personnel can consult with supervisors or coworkers, drink wa-

ter, or allow greater airflow while taking a break without needing to remove the entire hood. Afterwards, it is simple to pull the face shield back down, return to the work zone, and continue working while adequately protected from arc flash hazards in a timely manner.

Cementex’s lift front hoods remain compatible with its innovative hood ventilation system, thus ensuring the greatest possible safety of personnel in environment around energized equipment.

Any worker who is not diligent in their safety practices could fail to replace the hood to its protective configuration. As a result, retraining personnel to build up habits of securely latching the face shield before entering the arc flash boundary is important to ensuring the greatest possible safety.

Cementex PPE hoods are unique within the Arc Flash Protective Equipment landscape, as the hood completely covers users and is worn over a hard hat, with a headlight available on the top. This hood design enables the use of the ventilation system and provides greater overall protection to users. The lift-front face shield design enhances these innovative hoods even further.

Arc Flash PPE is Critical to Keeping Personnel Safe

Arc flash PPE is critical to keeping personnel working with energized equipment safe in the occurrence of an arc flash or arc blast hazard. Innovations in arc flash PPE help users to maintain safe practices near energized equipment, reducing the risk of injury, while also providing a more comfortable, easier to use PPE experience. What’s more, these updates to arc flash PPE offerings also help protect users from secondary hazards like dehydration and overheating. The greater field of vision offered by some new arc flash face shields also helps users to maintain better visibility while working with energized equipment, thus reducing the risk of accidents and improving safety as well. □

¹ https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=interpretations&p_id=25540#:~:text=10%2F18%2F2006%20%2D%20Incorporation,70E%2D2000%20into%20OSHA%20standards.

² <https://www.cdc.gov/niosh/mining/userfiles/works/products/videos/arcflash/afa.pdf>

³ <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Electrical/RFArcFlashOccData.ashx?la=en>

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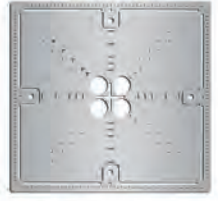
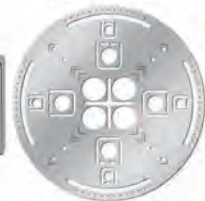
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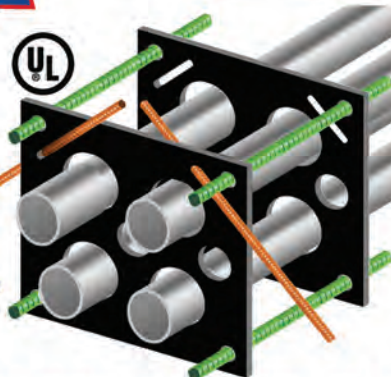


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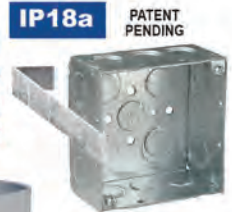


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Five Electricians Share the Tools They Can't Live Without

Tradespeople are known to have a soft spot for their tools, and electricians are no exception. Five pros, from Apprentice to Master Electrician, told Kelly Patrick, Sr. Product Manager — Building, Construction, and OEM at Shurtape Technologies, LLC, about the tools that are always by their side.

Martin Flaherty's **Shurtape® EV77** **White Electricians Tape**

"White electrical tape. I always have a roll or two in my pocket because I use it a lot in the pre-fab shop—for marking things, for bundling things and for wrapping wires. We all work for the same company, but the guys in the field are kind of our customer. The guys in the shop have to make sure things get to the jobsite in a way that's easy to work with. White tape is a big part of that. A good white tape is very sticky so it won't fall off, but it never leaves a residue when you remove it, so everything looks nice and neat."

Martin Flaherty
Pre-Fab Shop Foreman
Bedford, MA



Matt Tilley's **Klein® Universal Combination Pliers**

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Matt Tilley
Service Manager
Waco, TX



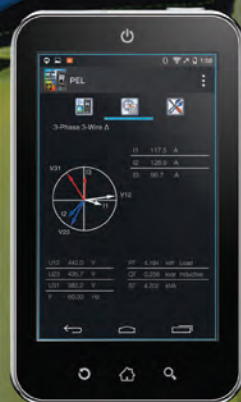
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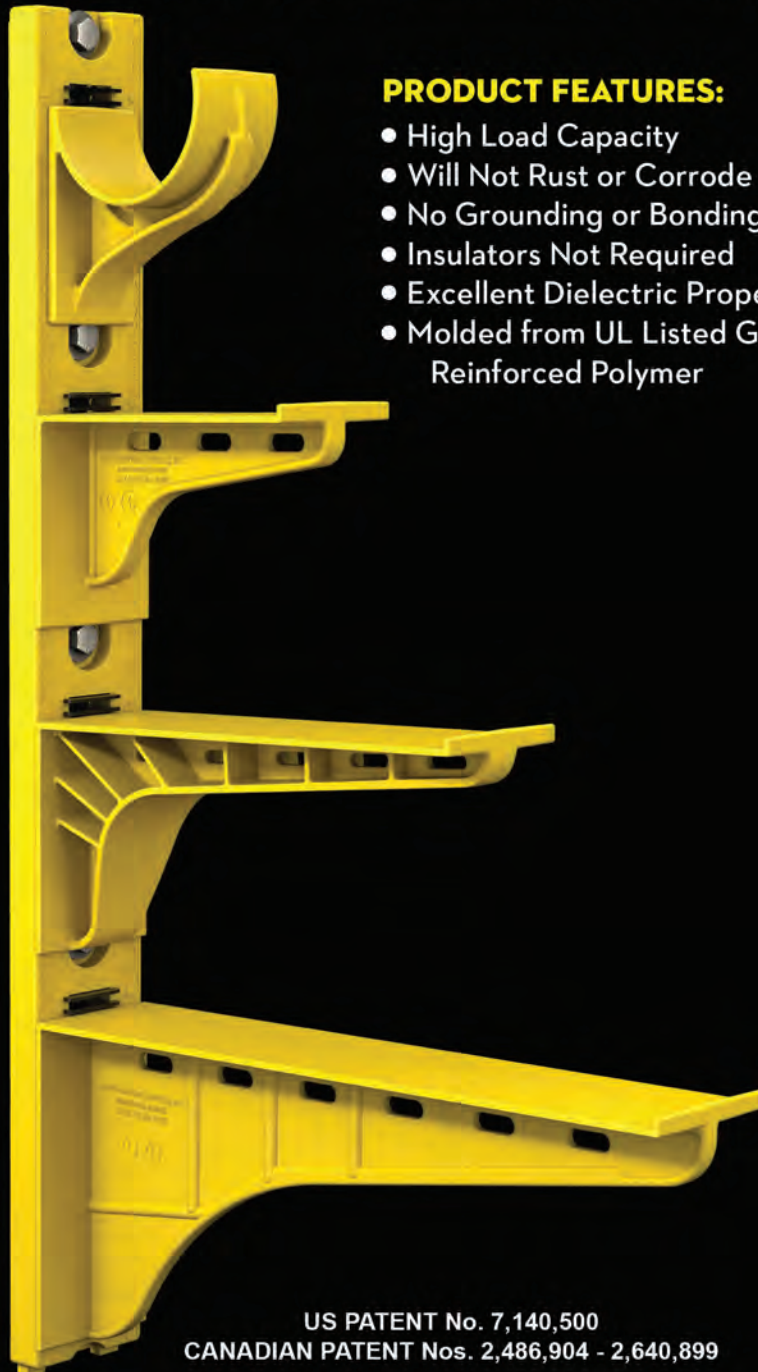
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RA04 Arm and CR36-B Stanchion



3HDS - 3" throat saddle shown with
a cable secured by cable ties.



RA08 - 8" arm shown with three
cables secured by cable ties.

US PATENT No. 7,140,500
CANADIAN PATENT Nos. 2,486,904 - 2,640,899

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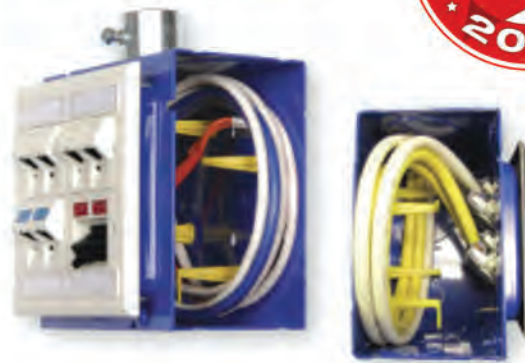
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- SAVE LABOR...INCREASE PROFITS
- FACILITATES MIN. BEND RADIUS REQUIREMENTS
- SUPPORTS CURRENT AND EVOLVING SYSTEMS
- SUPPORTS PoE PLUS
- SPECIFIED BY ENGINEERING FIRMS, HOSPITALS, UNIVERSITIES & GOVERNMENT AGENCIES





Steve Hajjar's **Stanley® FatMax® 25'** **Tape Measure**

"My Stanley® tape measure. It's a no-frills standard tape measure, but it's the first brand I ever bought, and I've stuck with it. It's durable and it has a long standout. In my role out in the field, a tape measure dictates everything for me. I'm always dealing with the measurements on blueprints or scaling off a print—measuring heights for ceilings and light fixtures. It's the only thing I have on me all the time: my tape measure on my hip and a pen and a Sharpie® marker in my pocket."

Steve Hajjar
Master Electrician, Construction Foreman
Canton, MA



Shane Carter's **DeWalt® Cordless Cable** **Stripper Kit**

"It's not exactly something I can't live without, but there is a new tool we're using that I like. DeWalt® makes a wire stripper on a drill platform that you can set to a specified distance and it will strip each wire to the same length. It makes everything very uniform, but it also keeps you from working in a cramped area with an open knife blade. As Safety Director, a tool that is more efficient and cuts down on injuries is high on my list."

Shane Carter
Journeyman Electrician, Safety Director
Houston, TX



David Culton's **Klein® Wire Strippers**

"My wire strippers. I spent more on that than any other tool, but I knew I would need it to last and be reliable. I use one from Klein® Tools. It has all the sizes I need right there so I never need to run back to my truck or my toolbox to get another."

David Culton
Electrical Apprentice
Ephrata, PA



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conduit to fit



STEP 3
Snap in
place

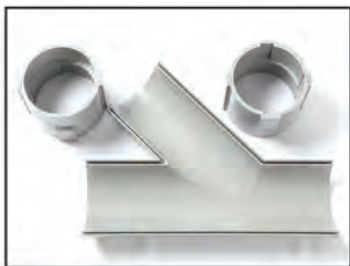
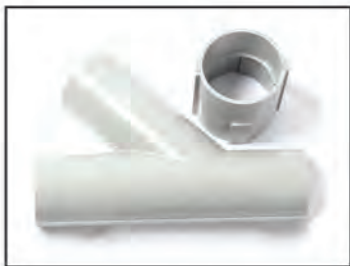


STEP 4
Attach
adapters



STEP 5
Finish job in
record time

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Conduit Repair Systems, Inc.

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CITYSPACE 1321, The Panoramic
By Panoramic Interests



Student Living in San Francisco, **The Panoramic**



The second CITYSPACE® micro-apartment project, The Panoramic is a dense (761 du/acre) mixed-use project located in the heart of SoMa (across the street from Twitter HQ). With 120 dormitory rooms and 40 dormitory suites, it has a rooftop garden and study lounges on every floor.



The Panoramic at 1321 Mission Street, San Francisco, is an excellent example of state-of-the-art construction practices being utilized to provide highly functional living spaces for university students in a modern, thriving city. The developer, Panoramic Interests, employs micro-apartment construction methodology to streamline the construction process and provide best-in-class amenities.

Can you see motor testing solutions in your future?



MTR-TC kit

The MTR-TC kit – complete with the MTR105 rotating machine tester and TC3231 thermal camera – is a part of your predictive, preventative, and troubleshooting motor testing solution.

Built for your convenience, the MTR105 combines a suite of motor testing and fault diagnostic tools all in one hand-held unit, including the following tests:

- 1kV Insulation resistance (with temperature measurement and compensation) as insulation resistance varies with temperature
- DLRO (Digital Low Resistance Ohmmeter)
- Inductance and capacitance
- Voltage and resistance
- Motor direction, plus supply phase rotation

When used in combination with the TC3231 thermal camera, you can easily identify hot spots, loose connections, and bearing issues. Combining the convenience of an infrared thermometer with the visual advantage of a thermal imager, the TC3231's infrared heat map is the perfect troubleshooting compliment to the MTR105.

No crystal ball is needed when using the MTR-TC kit, a cost effective addition to your motor testing line-up!



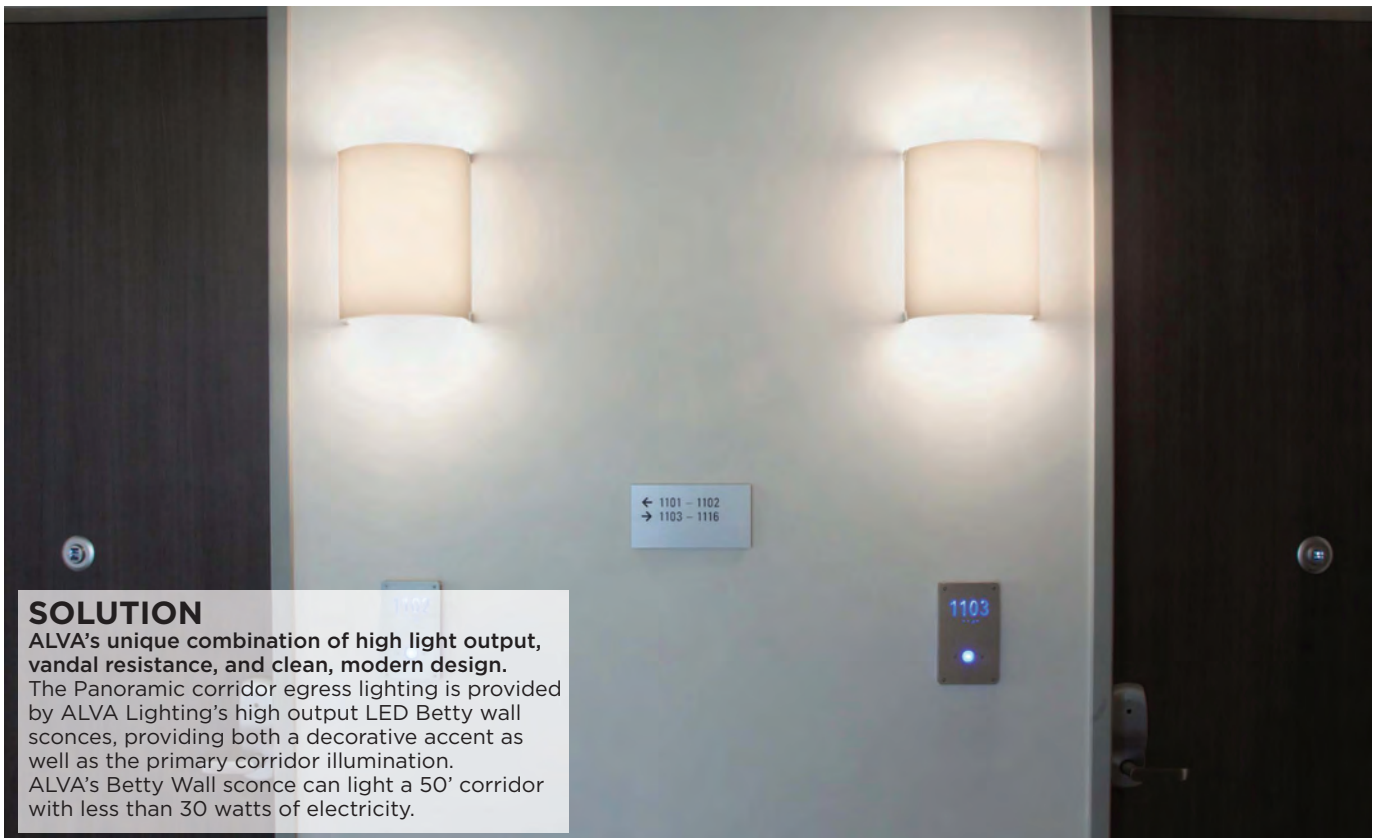
For your free Application Note & Motor Testing booklet, visit us.megger.com/getbook.

Reference Code: MTR-TC_EPS_MAR

Megger[®]

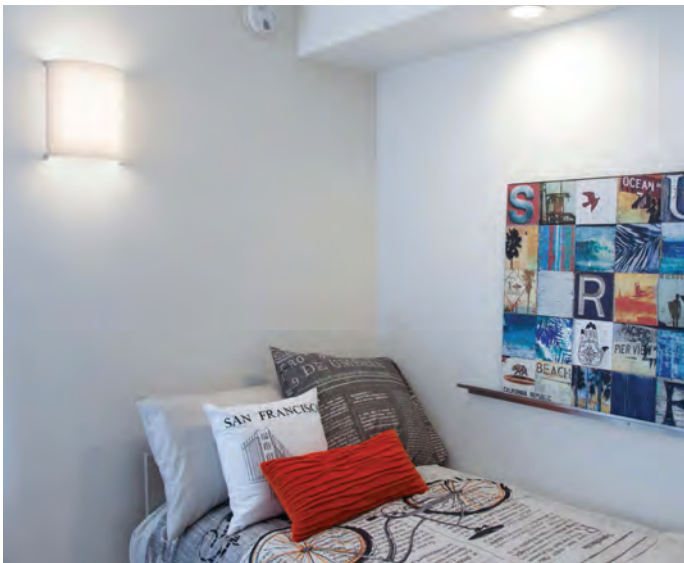
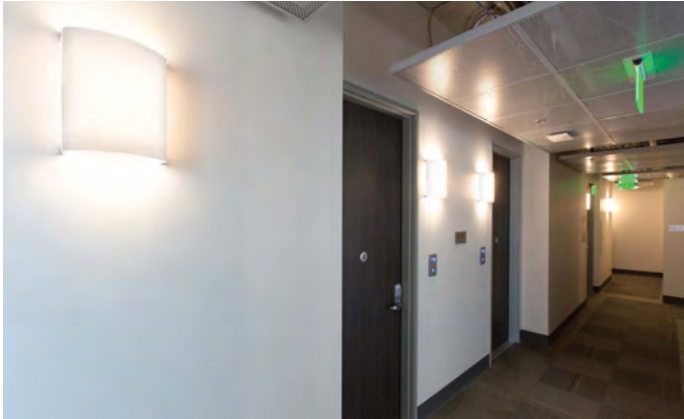
DESIGN CHALLENGE

How To Safely Light High Traffic Corridors And Common Spaces Without Recessed Can Lighting
The building's modular construction technique utilized concrete ceilings for corridors, limited the use of recessed can lighting in high traffic areas.



SOLUTION

ALVA's unique combination of high light output, vandal resistance, and clean, modern design.
The Panoramic corridor egress lighting is provided by ALVA Lighting's high output LED Betty wall sconces, providing both a decorative accent as well as the primary corridor illumination. ALVA's Betty Wall sconce can light a 50' corridor with less than 30 watts of electricity.



Vandal Resistant & Safe

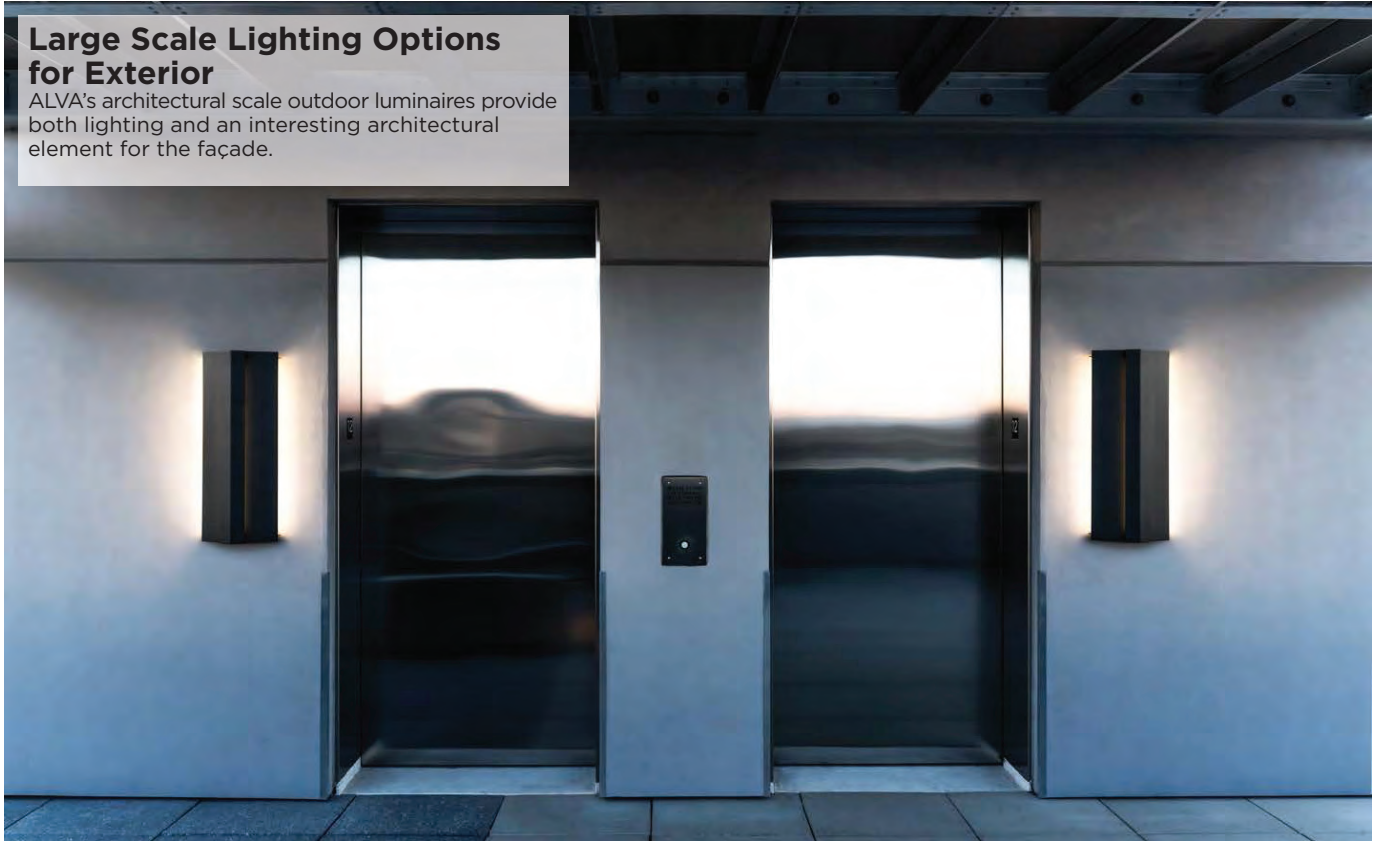
Alva's vandal resistant resin shades are virtually indestructible. Made from environmentally friendly, translucent resin with embedded fabric & natural materials, Alva shades create ambiance while providing excellent impact strength/chemical resistance for high traffic dormitory common areas. Shades are 100% recyclable, and made from 40% post-consumer recycled content.

ALVA's healthcare grade resin shade material allows for daily cleaning with disinfectant or diluted bleach should the facility be used for temporary quarantining purposes



Large Scale Lighting Options for Exterior

ALVA's architectural scale outdoor luminaires provide both lighting and an interesting architectural element for the façade.



ALVA's unique combination of timeless modern design, vandal resistance, and long life-time rated LED illumination provides specifiers for education facilities with an outstanding solution for their projects.



alva

Affordable test equipment for 2021



Spitfire - Buried Low Voltage Cable Fault Locator

- ◆ Accurate
- ◆ Easy to use
- ◆ High energy output
- ◆ Proven reliability
- ◆ Compact design
- ◆ Lightweight

Wayfind'r - Impulse cable tracer

- ◆ Accurate
- ◆ Easy to use
- ◆ Connects directly to energized cables
- ◆ Distinct signal for easy tracing
- ◆ Traces direct buried and cables in conduit
- ◆ Rugged, compact design

Impulse Phaser - Cable / phase system

- ◆ Accurately identifies cables in trenches, vaults, conduits and enclosures
- ◆ Accurately identifies phases in multi-conductor cables
- ◆ Identifies jacketed, shielded, cables, even in pipe
- ◆ Easy to understand and use



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www.timcoinstruments.com



NFPA Addresses Arc Flash Events in Additional Interview for Faces of Fire Electrical Hazard Awareness Video Campaign Series

The National Fire Protection Association (NFPA) and the Phoenix Society for Burn Survivors introduce an additional, final video interview of its Faces of Fire/Electrical series, which features personal stories of people impacted by electrical incidents and demonstrates the need for continued education and awareness about electrical hazards in the workplace and at home.

In August 2004, Don Johnson, an electrician from Florida, was at work connecting a client's backup generator for use during an impending hurricane when a failure of his rotation tester or a loose clip shorted out in a 4,000 amp/480-volt switchgear section he was working on, creating an arc flash event that destroyed much of the equipment and blew him against a wall nearly killing him. Johnson survived but suffered third-degree burns on his face, neck and arms, and spent years recovering from his injuries.

Arc flash, also known as flashover, is the light and heat produced as part of an arc fault, and a type of electrical explosion or discharge that results from an unintended electrical connection through the air to ground or another phase of the electrical system. An arc flash is one of the most devastating and deadly electrical hazards present in today's workplace; it can produce temperatures as high as 35,000 degrees Fahrenheit and cause severe burns, hearing loss, eye injuries, skin damage from blasts of molten metal, lung damage, and blast injuries. An NFPA report estimates that five to 10 arc flash incidents occur

every day, and more than 2,000 people are treated annually in burn centers with arc flash injuries.

"Electrical professionals face numerous hazards every day on the job, including shock, electrocution, arc flash, and arc blast, therefore it is critical that employers and workers take a shared responsibility for safety protection including the creation and implementation of an electrical safety program," said Lorraine Carli, NFPA's vice president of

Faces of Fire/Electrical features personal stories of electrical burn survivors whose lives have been forever altered and how more understanding, training, and a change in work culture could have significantly impacted these outcomes. Woven into these stories of resilience is an additional interview with a physician dedicated to the complete physical and emotional healing of patients suffering from a burn injury. A recent NFPA Podcast features three renowned doctors whose research

and work with electrical burn patients helps explain what a powerful shock can do to the body, the treatments available, and how an understanding of these injuries is continuing to evolve. Through these interviews, written profiles, and related information, Faces of Fire/Electrical is a resource for electrical and non-electrical workers, and the general public to learn more about the importance of electrical safety.

While many electrical injuries prove fatal, those that are not can be particularly debilitating, oftentimes involving complicated recoveries and lasting emotional and physical impact. The Faces of Fire/Electrical campaign ultimately works to help build a safer world by teaching others and supporting the burn survivor community in advancing lifelong healing, optimal recovery, and burn and injury prevention.

Since his injury, Johnson has returned to his company as a service manager and continues to advocate for electrical workplace safety.

Visit www.nfpa.org/facesoffire to watch the videos. □



Outreach and Advocacy. "The Faces of Fire/Electrical campaign reminds us that ignoring even basic safety rules can lead to serious injuries and death."

Both shock and arc flash, in addition to other electrical hazards have been the focus of NFPA 70E®, Standard for Workplace Electrical Safety® and OSHA standards since the late 1970s. NFPA 70E emphasizes the importance of performing a solid risk assessment that examines all aspects of the hazards to which employees are exposed and provides a valuable tool to determine how best to mitigate the potential danger.

ABOUT THE NATIONAL FIRE PROTECTION ASSOCIATION® (NFPA®)

Founded in 1896, NFPA® is a global self-funded nonprofit organization devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards. The association delivers information and knowledge through more than 300 consensus codes and standards, research, training, education, outreach and advocacy; and by partnering with others who share an interest in furthering the NFPA mission. For more information, visit www.nfpa.org. All NFPA codes and standards can be viewed online for free at www.nfpa.org/freeaccess.



MaxLite Names New Representatives in Eastern United States and Canada

MaxLite announces the appointment of four new agents to represent its award-winning portfolio of energy-efficient lighting solutions and 10-year warranty program.

One Source/Paolicelli Associates now represents MaxLite in western Pennsylvania and West Virginia. Founded in 1981 as Paolicelli & Associates, the agency has supported the electrical market with a strong dedication to product knowledge and commitment to quality customer service for 40 years. In 2016, Paolicelli & Associates merged with One Source Associates to offer the markets it serves “one source” for construction and design needs. One Source/Paolicelli Associates has a team of professionals and 65,000-square-foot warehouse located in Carnegie, Pennsylvania, in addition to associates throughout the region. One Source/Paolicelli Associates may be reached at (www.paolicellionea.com) or 412-276-8816.

MaxLite has also expanded its representation in Tennessee, with the addition of two leading lighting agencies to its independent sales network. Factory Sales Agency (FSA Lighting) will cover the

“We are very pleased to be working with such experienced and dedicated teams of lighting professionals.”

— Jeff Bristol

Senior Vice President of Commercial and Industrial Sales and Corporate Marketing



eastern and middle regions of the state, while Spectrum Lighting and Controls will drive sales in the west. Serving the electrical market since 1954, FSA Lighting has branches located in Nashville, Knoxville and Chattanooga. To contact FSA Lighting, visit www.fsalighting.com.

Spectrum Lighting and Controls, based in Cordova, prides itself on a customer-centric approach to service for the wholesale, contractor and design communities. Spectrum Lighting and Controls may be reached at www.spectrumlightco.com or 901-590-1750.

Lazar Lighting has been appointed to grow MaxLite sales in Canada. Offering more than 15 years of experience in the lighting industry, Lazar Lighting

will focus on Ontario and Quebec provinces. Located in Woodstock, Ontario, Lazar Lighting may be contacted at www.lazarlighting.com or 519-290-2200.

“We are very pleased to be working with such experienced and dedicated teams of lighting professionals,” said Jeff Bristol, senior vice president of commercial and industrial sales and corporate marketing. “All four agencies share MaxLite’s commitment to providing unparalleled product selection, service and support to lighting distributors and their customers. We look forward to expanding our capabilities in these key territories and building relationships that will mutually grow the MaxLite business for our agents and distributor partners.” □

ABOUT MAXLITE

MaxLite has been committed to providing energy-efficient lighting products since 1993. One of the first movers into LED technology in the industry, MaxLite offers an extensive line of quality, certified indoor and outdoor LED lamps and luminaires. A five-time recipient of the ENERGY STAR Partner of the Year Award for its industry leadership, MaxLite continues to be at the forefront of energy-efficient technologies through the innovative research and development capabilities of its teams and facilities in New Jersey, Indiana, California, and globally. MaxLite is a nationally certified Minority Business Enterprise (MBE) by the National Minority Supplier Diversity Council. For more information, call 800-555-5629, email info@maxlite.com, or follow us on LinkedIn, Facebook, Twitter and Instagram.



Topaz Enhances the Essentials New Low-Profile Center Basket Troffers

Topaz Lighting presents the perfect combination of lighting performance, energy efficiency and incredible value with the introduction of their new Low-Profile Center Basket Troffer line.

Topaz's LED Low-Profile Center Basket Troffers offer a lightweight and slim design, making them an ideal go-to product for recessed grid lighting applications. Designed to be aesthetically pleasing while saving energy and maintenance costs, these fixtures are ideal for use in offices, hospitals, retail, and other commercial applications.

Mohammed Ali, Topaz's Senior Product Line Manager said, "Topaz's commercial fixture line has seen tremendous, continual growth over the last several years. Our troffer line has received excellent support from the industry, so we wanted to enhance this product and design an attractive and stylish fixture that provides smooth visual optical performance and offer outstanding energy savings."

Additional accessories are also available, including surface mount frame kits, sheetrock flange kits, emergency drivers and 0-10V dimming switches for increased energy savings.

As an additional incentive, Topaz's Low-Profile Center Basket Troffers are rebate-eligible in major markets across the country including: New York City, Phoenix, Dallas, Los Angeles, Chicago, San Antonio, and Las Vegas. All rebates must be verified by the local utility provider. Please visit www.topaz-usa.com/rebate-finder to see if rebates are available in your market.



**For more information, visit
www.topaz-usa.com**

A.L.P. Introduces DASSL™ Surgical Lighting Lens

Lighting is critical in surgical settings to maximize visibility, minimize eye fatigue, and enable the medical team to focus on the surgical operation. A.L.P. recently introduced the DASSL™ (Diffuse Asymmetric Symmetric Surgery Lens) for recessed or surface mounted luminaires in operating rooms.

The new biased diffuse microstructure lens provides improved LED hiding power, smooth distribution, and both symmetrical (along axis) and asymmetrical (cross axis) lighting distributions. This optical distribution directs more light on a targeted work surface. Unlike linear optic lenses, lamp alignment has less impact on distribution.

"Surgical lighting is overdue for optical improvements," states Tom Barnes, Vice President and Business Unit Manager for A.L.P.'s LexaLite brand. "DASSL lenses replace traditional linear prismatic lenses by taking advantage of microstructure optics," he adds.

DASSL lenses are designed for 2' x 4' fixtures, but custom sizes are also available. An optional RFI shielding grid also is offered to protect from electromagnetic interference. RFI Shielding allows fixtures to comply with the MIL-STD-461(E) standard. Samples are now available.

A.L.P. is a leading global supplier of lighting components, offering a diverse line of products and services for lighting OEMs and the aftermarket. From LED to legacy applications, A.L.P. offers the industry's most comprehensive line of LED fixture kits, vapor-proof enclosures, unwired fixture bodies, louvers and reflectors. A.L.P. Brands include Steel Craft, LexaLite®, and Reflek®.



**For more information, visit
alplighting.com**



Featuring state-of-the-art technology and modern aesthetics, the sensors use passive infrared (PIR) detection to monitor a room for occupancy through a segmented lens. Automatic-ON and Manual-ON models are available, providing whole home-solution options for bathrooms, hallways, basements, laundry/utility rooms, garages, pantries and walk-in closets.

“With enhanced performance and fast, easy installation and programming, the re-designed Leviton Decora Motion Sensors offer convenience, security and smart energy saving solutions for many areas within the home,” said Tom Babich, product manager, Leviton. “Flexible wiring options and interchangeable line and load wires reduce the likelihood of miswiring, saving time and making installation a DIY-friendly project. Updated aesthetics and a low-profile design allow the devices to blend in with walls for a discreet appearance.”

The new Leviton Decora Motion Sensors can replace any standard switch and control LED, CFL, incandescent, halogen, magnetic low voltage and electronic low voltage lighting loads, as well as motor loads. The adjustable delayed OFF time feature can be set for one minute, five minutes, 10 minutes or 20 minutes.

**For more information, visit
www.leviton.com/sensors**

Leviton Introduces New Decora® Motion Sensors

Devices feature flexible wiring options, easy installation and modern design

Leviton recently announced a new line of Decora® Motion Sensors designed to provide users optimal management of lighting and motor loads with enhanced detection functionality for accurate switching. The new occupancy and vacancy sensors offer flexible single pole or 3-way installation options, wiring with or without a neutral conductor, and a slim profile with the shallowest depth on the market today for easy installation in new construction and retrofit applications.



**New Mogul Conduit Body,
Showing Everyone Who's Boss**

NO PAIN, NO GAIN

Topaz's Friendly Tip #5

Topaz is not only the easiest company to do business with, but the friendliest too. Our dedicated sales and customer service teams are always on stand-by to offer friendly tips and strong support to your **lighting and electrical fitting needs**.

Technical or installation questions? Need help quitting the cookies and ice-cream? Give us a call at 888-996-8858 or shoot us an email at friendlytip@topaz-usa.com. Someone will answer, we promise.



and friendliest
The easiest company to do business with
www.topaz-usa.com

Three Compact Testers from Megger Make Taking Measurements Easier

The MET1000, TPT420 and DPM1000 are designed for use by electricians and electrical engineers

Megger now offers three easy-to-use, lightweight, handheld testers designed for use by electricians and electrical engineers. The MET1000 multi-functional tester, TPT420 voltage meter and DPM1000 power clamp meter are perfect when performing installation and maintenance.

MET1000

The MET1000 is a versatile and robust handheld, all-in-one meter with detachable test leads. This multi-functional, auto-ranging voltage and current tester can measure AC/DC voltage to 1000V and can measure AC current up to 200 A. It offers a true RMS reading on the ACV/ACA range for greater measurement accuracy. The unit also includes a phase rotation test and both inrush current and a built-in single pole voltage test.

Used in commercial, industrial and domestic environments, the MET1000 features both LED and LCD displays to aid in working in poorly lit areas and an IP65 casing that features a protective finger guard, ergonomic design and instrument carrying case. The unit is in compliance with IEC/EN 61243-3:2014.



TPT420

The TPT420 is an easy-to-use voltage tester that was designed to warn users that there are dangerous voltages even after the batteries in the unit are exhausted. This compact unit provides both AC and DC voltage measurements ranging from 12 to 1000 V AC and up to 1500 V DC. A continuity test function ranging from 0 to 500 k Ω comes standard with the unit and has visual and acoustic indicators.

The tester's simplified phase rotation indication test helps to avoid crossing test probes, adopted by some 2 pole testers. The TPT420 can also perform a single pole voltage indication test.

This voltage tester is rated at CAT IV 1000 V with an IP64 housing. It also conforms to the latest IEC/EN 61243-3 and DIN VDE 0682-401 standards. It can be used in a wide variety of applications, including electrical installations, automotive, fire alarm and solar/PV systems.

DPM1000

The DPM1000 power clamp combines the functionality of a power meter, harmonics meter and data logger into one easy-to-use instrument. Used to measure power quality and applications in the development, installation, maintenance and repair of equipment in power electronics and engineering, this new clamp features an LCD display and can measure DC, AC, pulsed and mixed currents up to 1000 A and AC/DC voltage up to 1000 V. It offers a true RMS reading for greater measurement accuracy.

The clamp has a smart data-hold that expands the unit's standard hold function. A min/max function on the unit automatically stores the lowest and highest readings taken.

The DPM1000 not only measures voltage and current, but it also measures resistance to 100k Ω , watts to 1MW, power factor, diode, harmonic, harmonic distortion, capacitance, temperature and frequency.

The free Megger Link App is available for use with this meter. The measurement value obtained by the clamp meter can be remotely monitored on a smart device using the unit's built-in Bluetooth.

**For more information, visit
megger.com**



Polywater® BonDuit® Conduit Adhesive

Polywater BonDuit is a UL recognized component for creating strong, watertight, and airtight bonds with HDPE conduit.

Polywater® BonDuit® is recognized by UL for indoor and outdoor use. It complies with the requirements of Polymeric Materials for use in Electrical Equipment. BonDuit is tested under CCN QOQW2 using UL Method 746A.

Bonduit joins polyethylene duct (PE pipe) to PVC, fiberglass, and metal conduits. This product offers a superior, easy-to-apply alternative to joining conduits using mechanical couplings. The rapid-cure, two-part resin adhesive forms a strong watertight and airtight seal and helps you to meet the NEC 353 code for transitioning above ground and to PVC or galvanized rigid steel.

Polywater BonDuit® XL provides an excellent option for 3-inch (75 mm) conduits and larger. The XL version comes in a larger package and allows a longer work time.

All adhesive kit types deliver a durable bond that can withstand movement and vibration, and are ideal for installation along roadsides or near electrical equipment like transformers or switchgear.

**For more information, visit
www.polywater.com**

Vertiv Boosts Range of Industry-Leading Lithium-ion UPS Portfolio in the United States and Canada

Vertiv™ Liebert® PSI5 Lithium-Ion single-phase line targets manufacturing, education and edge applications needing long battery life

Vertiv (NYSE: VRT), a global provider of critical digital infrastructure and continuity solutions, recently expanded its portfolio of uninterruptible power supply (UPS) systems with lithium-ion battery options through extensions to the 120V Liebert® PSI5 lithium-ion line-interactive UPS family. A new 2200VA rack/tower model and the industry's first 1500VA lithium-ion line-interactive mini-tower configuration join the existing 1500VA and 3000VA rack/tower models. Targeted for edge and distributed IT applications, Liebert PSI5 lithium-ion models are available to order in the United States and Canada through local Vertiv sales offices and value added resellers.

In comparison to valve-regulated lead acid (VRLA) batteries, lithium-ion battery life is up to 2-3x longer, they are rated to function at higher temperatures, are smaller, lighter and deliver longer runtimes. The Liebert PSI5 Lithium-ion family will provide approximately 7-9 minutes of battery backup at full load compared to an estimated 3-5 minutes for a standard UPS with VRLA batteries.

"The benefits of lithium-ion are undeniable and rapid market adoption has pushed prices down to the point that the lifecycle costs clearly favor lithium," said Jeff Kessen, senior vice president for global product transformation at Vertiv. "We've seen adoption increase steadily in the data center, and as more lithium-ion UPS options become available for edge locations, that pattern is repeating."

The Liebert PSI5 Lithium-ion UPS comes with a five-year warranty on the electronics and battery. It is accompanied by a range of start-up and on-site service options. Vertiv also offers a trade-in program that includes removal, recycling and disposal of old UPS systems when replacing with a Vertiv™ UPS. The rack/tower models are currently available at a promotional price similar to competitive VRLA systems.

In addition to the single-phase Liebert® PSI5, Vertiv offers lithium-ion battery cabinet options for several of its three-phase UPS systems, with capacities supporting up to a 2.4MW load.

Vertiv is introducing the new Liebert PSI5 Lithium-ion models and highlighting its expanding lithium-ion UPS portfolio during the CRN Xchange virtual event in the Vertiv virtual booth. For information on using lithium-ion batteries with single-phase UPS systems, download the Vertiv white paper, The Advantages of Using Lithium-Ion Batteries as A Backup Power Source in Single-Phase UPS Applications for Remote and Edge Data Centers.



**For more information, visit
Vertiv.com**



Klein Tools® Launches GFCI Receptacle Tester with LCD

Klein Tools, for professionals since 1857, introduces the GFCI Receptacle Tester with LCD, to detect common wiring problems, display voltage and inspect GFCI's including time to trip breaker.

GFCI Receptacle Tester with LCD (Cat. No. RT250)

- GFCI Receptacle Tester features a large backlit LCD readout of voltage and clear indication of wiring conditions
- LCD readout shows the time required to trip a GFCI device
- Detect and identify common wiring faults
- Patent pending detection of Open Neutral/Open Ground wiring fault
- Auto-Hold is convenient for hard-to-reach outlets
- Bright green and red LEDs illuminate for visual indicators
- CAT II 135V safety rating
- For use on 3-wire, North American 120V electrical outlets only

"The RT250 was designed with unique features to make testing electrical outlets safer and easier," said Sabrina Kalsi, product manager at Klein Tools. "The RT250 features auto-hold, which keeps the reading on the screen so that users can remove the tester to view the display. This saves time and effort when working with receptacles in orientations with limited sight lines. An additional safety test includes the amount of time to trip a GFCI device, a feature not often found in GFCI testers at this price point."

**For more information, visit
www.kleintools.com/new-products**

Milwaukee® Announces Their Largest PACKOUT™ Solution Yet – The PACKOUT™ XL Tool Box

Milwaukee Tool continues to expand their highly popular PACKOUT™ Modular Storage System* with the new PACKOUT™ XL Tool Box. Featuring a 100lb weight capacity and an extra-large depth, this tool box will fit large power tools and equipment with ease.

The XL Tool Box features modular connectivity with all PACKOUT™ components via integrated locking cleats and is the largest storage solution within the PACKOUT™ system to date. It is constructed with impact-resistant polymers and metal reinforced corners to withstand harsh jobsite conditions and an IP65 rated weather seal protects tools and accessories from rain and other jobsite debris. This tool storage solution is complete with an interior organization tray allowing users to keep hand tools and accessories organized to fit their needs.

With the addition of the new PACKOUT™ XL Tool Box, the Milwaukee® PACKOUT™ Modular Storage System now has over 35 solutions for users to choose from to build out their custom storage solution – making PACKOUT™ the most versatile and durable modular storage system in the industry.

*The PACKOUT™ Modular Storage System is the most versatile and durable modular storage system in the industry. An intuitive and quick attachment mechanism gives users the freedom to stack and lock PACKOUT™ tool boxes, organizers, totes, and bags of different sizes in numerous configurations that best suit their needs.



**For more information, visit
www.milwaukeetool.com**



NORA Lighting® M2 2" LED Downlight Series Features New Elbow, No Housing Needed

Nora Lighting expands its highly versatile M2 Mini 2" LED Downlight Series with the introduction of a recessed round elbow in matte black or matte powder white finish.

The elbow rotates 345° horizontally, extends up to 70° and delivers 500 lumens at 2700K or 3000K. The round downlight can be converted to a square with optional accessories. Each luminaire includes field changeable optics for precise illumination.

Designed for residential or commercial applications, the M2 Series also features downlight or adjustable gimbal models with an exceptional range of trims that allow customization. Trims are offered in round and square, pinhole, wall wash, baffle and shower (wet) with matching or contrasting finishes.

M2 luminaires do not require housings and are IC and air-tight rated for new construction or remodeling applications. All M2s mount in three easy steps: cut the ceiling, wire the junction box

and insert the luminaire in the ceiling cavity. Quick disconnect cables allow for extended lengths.

Downlight and adjustable gimbal models are available in three lumen packages: 400lm, 600lm and new 850lm. The entire M2 family includes a dimmable Triac or ELV driver and is ENERGY STAR® certified. Series can be used to comply with 2019 Title 24 Part 6 high efficacy LED light source requirements.

Nora Lighting has served the lighting industry for more than 30 years and is a recognized leader in the development and introduction of LED products. Nora offers one of the industry's most comprehensive lines of LED luminaires, including: commercial, architectural and residential downlights; track and rail lighting; panels and troffers; MLS (multi-lighting systems); linear and under cabinet lighting; RLM, pendants and cylinders; tape lights; step lights; and emergency / exit signs.

**For more information, visit
www.noralighting.com**

DEWALT® Announces Highest Capacity Batteries Dedicated To 12V MAX* and 20V MAX* Platforms

DEWALT announces new 12V MAX* 5.0 Ah (DCB126) and 20V MAX* XR® 10.0 Ah (DCB210) batteries, each of which will be the highest capacity batteries fully dedicated to the 12V MAX* and 20V MAX* Systems. Each battery will extend the runtime of most tools within its respective 12V MAX* or 20V MAX* System.

In comparison to existing DEWALT 12V MAX* batteries, the 12V MAX* 5.0 Ah battery includes twice the number of lithium ion cells, contributing to increased run time and expanding the capabilities of the 12V MAX* System. The pack is compatible with most 12V MAX* power tools and chargers and includes a 2-year limited warranty.

Utilizing 21-mm large format lithium-ion cells, the 20V MAX* XR® 10.0 Ah battery (DCB210) is ideal for contractors who require long-runtime applications on a single charge and is designed to reduce the number of battery packs needed on the jobsite. The battery is compatible with most 20V MAX* power tools and chargers and has less than a 10-Oz. weight difference versus the 20V MAX* XR® 5.0 Ah battery (DCB205). Like the 20V MAX* XR® 6.0 Ah battery (DCB206) and 20V MAX* XR® 8.0 Ah battery (DCB208), the 20V MAX* XR® 10.0 Ah battery supports the high-performance level of DEWALT XR® POWER DETECT™ tools. The 10.0 Ah pack comes with a 3-year limited warranty.

These new battery offerings are available where DEWALT products are sold in early 2021.

**For more information, visit
www.DEWALT.com**



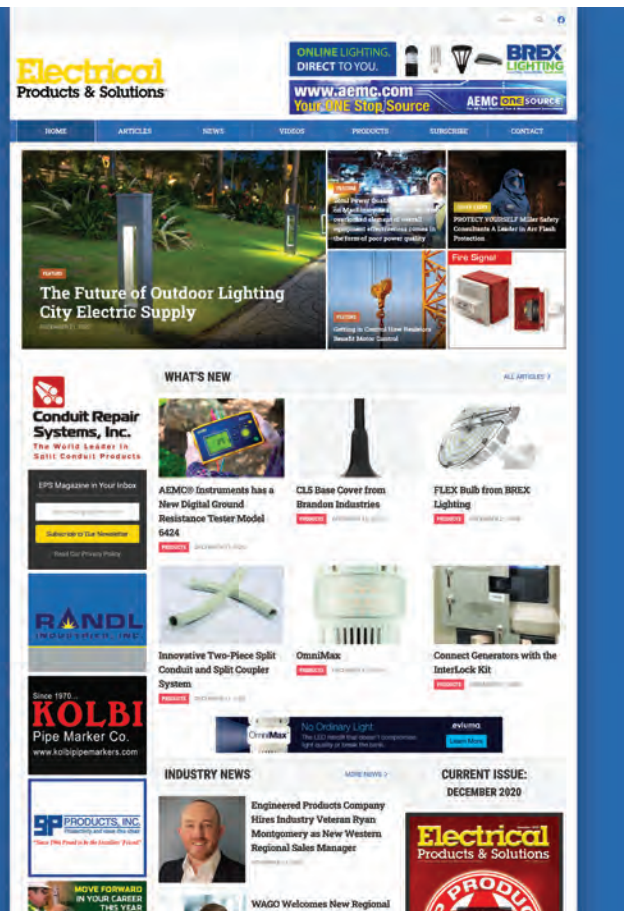
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Electrical

Products & Solutions™
The Purchasing Guide for Electrical Contractors

www.epsmag.net



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