

6 REASONS WHY SMART TECH IS A SMART MOVE FOR ELECTRICIANS

January 2021

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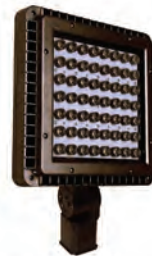
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CONTENTS

8



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COMPANY PROFILE

4 Generator InterLock Technologies, LLC

6 Protect Yourself Miller Safety Consultants *A Leader in Arc Flash Protection*

COVER STORY

8 Monitoring Carbon Dioxide (CO₂) as a check of the Quality of Ambient Air and Risk of Infection in indoor areas

BY JOHN OLOBRI

FEATURE

16 6 Reasons Why Smart Tech Is a Smart Move for Electricians

CASE STUDY

20 ALVA — TEX *YAKIMA Savings & Loan, Washington, Highlighting Tex Exterior*

DEPARTMENTS

23 INDUSTRY NEWS

26 NEW PRODUCTS

32 AD INDEX

ON THE COVER

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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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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:
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Monitoring Carbon Dioxide (CO₂)

as a check of the Quality of Ambient Air and Risk of Infection in indoor areas

BY JOHN OLOBRI

NUMEROUS SCIENTIFIC STUDIES HAVE PROVEN that aerosols are a major means of transmitting viruses, such as COVID-19. We know today that active virus particles can float in the air longer and further than originally thought and pose a potential danger. This is especially problematic in indoor locations where people typically gather, such as in meeting rooms, conference centers, hotels and lunchrooms to name a few.

Although there are still many questions about the transmission of viruses, aerosols are recognized as one of the transmission vectors.

Various scientific studies have now proven that a person infected with Covid-19 can emit numerous viral aerosols not only when sneezing and coughing, but also when speaking and even when exhaling. These aerosols can float in the air for minutes to hours. We tend to spend much more time indoors than outdoors and monitoring air quality becomes even more important than ever.

Coronavirus is airborne and transmitted through tiny droplets called aerosols that linger in the air much longer than the larger globs that come from coughing or sneezing especially in poorly ventilated indoor areas.

While larger droplets sink quickly at a

small distance from the ground, aerosols can float in the air over larger distances of up to almost 16 feet and, possibly, float in the air and distribute the virus. This was confirmed by the researchers of the University of Florida. However, it is difficult to determine how large the proportion of virus contaminated aerosols can be.

The fact that even completely asymptotically infected individuals can transmit the virus in this way is a concern that adds an additional layer of uncertainty about area contamination especially in enclosed environments.

A question that arises is compliance with whether the indoor distance rules are sufficient?

- Which measures are recommended?
- Which measuring devices are available to help identify and reduce the risk of infection?



Are the distance rules sufficient?

In enclosed spaces, the risk of infection is generally much higher than outdoors, where Covid-19 particles are dispersed by the wind.



In publicly accessible premises such as schools, day care centers, offices, seminar rooms, workshops, transport, hospitals, etc., the 6ft distance control alone is not sufficient, according to several studies.

A possible risk of infection via aerosols therefore exists predominantly in rooms which are not sufficiently ventilated or in which no air exchange is possible.

When is fresh air necessary?

In various studies, researchers have analyzed the relationship between the concentration of CO₂ and aerosols emitted during breathing. (CONTINUED ON PAGE 10)

Indoor CO₂ concentrations have been shown to be an indicator of the risk of respiratory infectious disease transmission due to the fact, that a person infected with Covid-19 will exhale pathogen contaminated aerosols and CO₂.

Generally speaking, the ambient concentration of CO₂ in a room is basically stable and constant. Any excess levels of

CO₂ will most often come from human exhalation .

According to Anna Hartmann and Martin Krieger of the Hermann Rietschel Institute of the Technical University of Berlin, the studies have shown that CO₂ is a good indicator of the functionality of the ventilation systems: “with a high air exchange, both low CO₂ concentrations

and low aerosol concentrations can be achieved. The lower the aerosol concentration, the lower the dose of aerosols that a person in the room inhales and therefore the risk of infection.”

With an understanding of this background information, the ability to monitor and document levels of CO₂ therefore becomes a good practical choice for assessing the quality and effectiveness of the air circulation in indoor areas. Proper air circulation and ventilation also means that the concentrations of contaminated aerosols will also be reduced.

One practical and cost-effective choice for this task is AEMC Instrument’s Air Quality Logger, model 1510.

It is an optimal device for permanent monitoring of aerosol concentration in closed rooms through CO₂, temperature and humidity measurement.


As already mentioned, an increased CO₂ concentration in indoor spaces indicates a strong occupancy of the room and an insufficient supply of fresh air. For this reason, monitoring the CO₂ concentration is an excellent indicator of air quality and a significant indication of the need for fresh air circulation.

The Model 1510 portable indoor air quality meter is easy and user-friendly to utilize and store the measured parameters. It determines the air quality in rooms based on the CO₂ concentration alone or on the basis of the three measured physical quantities (CO₂, relative humidity and temperature).

Important features to monitor air quality are the following:

- The model 1510 offers both audible and visual alerts of high CO₂ concentration
- Simultaneous monitoring and recording of CO₂, temperature and humidity values provides a full picture of room air quality
- The model 1510 is capable of storing up to 1 million readings which provides the ability to document in detail the air quality and effectiveness of the HVAC system, as well as potentially indicating the length of time that a room is occupied.
- Its compact size and mounting options make it easy to install for both permanent and temporary usage
- The model 1510 can operate with standard AA batteries or through a USB power adapter for

(CONTINUED ON PAGE 12)



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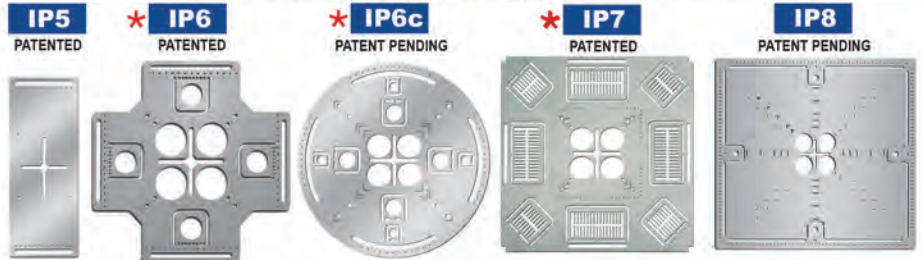
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IP28a 2 Box Flat Fixed Position

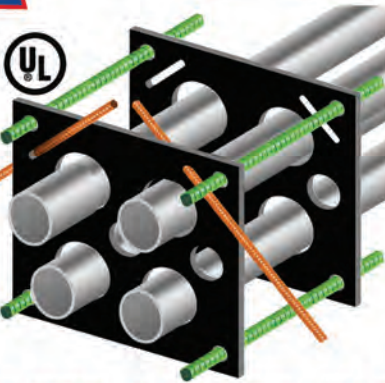
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continuous measurements

- The unit's display of indoor air quality level based on CO₂ content humidity and air temperature is easily visible
- Correct Ventilation with Model 1510 is detectable using the data logger function, it can be proven at any time, if necessary, whether potentially dangerous concentration values have or have not been exceeded during the entire measurement period. This provides a level of confidence that the premises have been properly ventilated.
- One important feature is the audible and visual warnings that effectively indicate and call to attention CO₂ hazardous levels. Under normal safe conditions the display has blue backlighting.
- The device has two programmable limits for CO₂ that will indicate warning levels and hazardous levels of CO₂ displayed in parts per million (ppm). The backlight turns orange at the warn-

ing level and red at hazardous concentration levels along with an audible warning when high concentrations of CO₂ are present.

The example below shows typical warning levels:

- At the warning CO₂ concentration above 1000 ppm, the indicator light flashes orange
- At the hazardous level above 1700 ppm, the indicator light flashes red and an audible signal sounds

To conserve battery life and optimize the recorded data, occupancy times can be programmed in the unit that will turn on monitoring at the start of the day and off at the end of the day when typically no people are in the area to be monitored.

Monitoring Carbon Dioxide concentration levels is a practical and cost-effective way of determining indoor air quality and

is an indicator of the effectiveness of the HVAC system.

The ability to record and create reports is an effective analysis tool for determining the safety level and to determine if servicing or upgrades to the system are needed. □

ABOUT THE AUTHOR:

John Olobri holds degrees in both Electrical and Industrial Engineering and has worked in the design and marketing of instrumentation for over 35 years. He has held positions of Service Manager, Product Marketing Manager and Sales Manager for several instrument manufacturers. For the past twenty-five years, John has been the Director of Sales and Marketing for AEMC® Instruments where he has been actively involved in the areas of Insulation Resistance, Ground Resistance testing, Power Quality Testing, Data Logging and Environmental Testing. He also conducts accredited seminars and on-line webinars on ground resistance testing.



PRACTICE TIP: HOW TO VENTILATE PROPERLY

As part of a study "Covid-19 prevention: CO₂ measurement and demand-oriented measurement", the environmental campus of one university has determined, among other things, that the CO₂ concentration in rooms can be reduced significantly faster during cross ventilation than during tilt window ventilation.

While aerosols are only slowly diluted during tilt window ventilation, a complete air exchange takes place during cross ventilation.

Cross-ventilation not only reduces the CO₂ concentration more quickly, but has a side benefit of saving a lot of heating energy, as walls and furniture do not cool down fast.

Monitor Your Indoor Air Quality

High CO₂ Levels are an Indication of Poor Ventilation

A possible risk of infection via aerosols exists predominantly in rooms which are not sufficiently ventilated or no air exchange is possible. AEMC® Model 1510 is the optimal device for permanent monitoring the potential of aerosol concentration in closed rooms through CO₂ measurement.

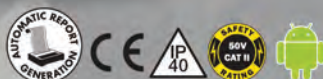
- Audible and visual alert of high CO₂ concentration with a distinctively red backlit display
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Air Quality Logger Model 1510

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6 Reasons Why Smart Tech Is a Smart Move for Electricians

WE HAVE SMART DEVICES, smart homes, smart offices, smart cities, and soon, even a smarter Wi-Fi network. With such a heavy focus on smarter connectivity, what does it mean for the electrical industry? More opportunities for electricians, for one.

*For all the benefits that **5G** is expected to bring, its impact on smart cities, smart technologies, and even just its deployment will offer electrical contractors a lot of job opportunities.*

We recently covered emerging smart tech trends and how this could open up more jobs for electricians. Here, we're looking at how electricians fit in this booming market and why they should start taking advantage of it right now — before it gets even bigger.

1 The Smart Home Market Is Growing

Today, there are more residential opportunities to work with high-tech systems than ever before. According to Frost & Sullivan, 66% of homeowners would prefer a professional installer to install their smart home systems. This doesn't just refer to swapping in a smart thermostat, either. Homeowners are turning to certified electricians to install smart lighting systems, smart security devices, backup power storage systems, and more.

"Contractors need to stay versed in the new items and technologies on the market," Mehs Ess said, who is the District Manager for the Austin Group at City Electric Supply.

"Tastes, demands, and availability are always changing in smart controls. Since a supplier should be the liaison between the electrical contractor and the manufacturer, he should introduce new products, be conscious of the applications, the costs, and help connect contractors with the tech support necessary to install these often complex systems."

And as the smart home market grows, that reliance on distributors is going to grow as well. Whether it's introducing contractors to smart controls or helping them get the support they need to install it, City Electric Supply and its branches are always ready to lend a helping hand.

2 Retrofit Applications

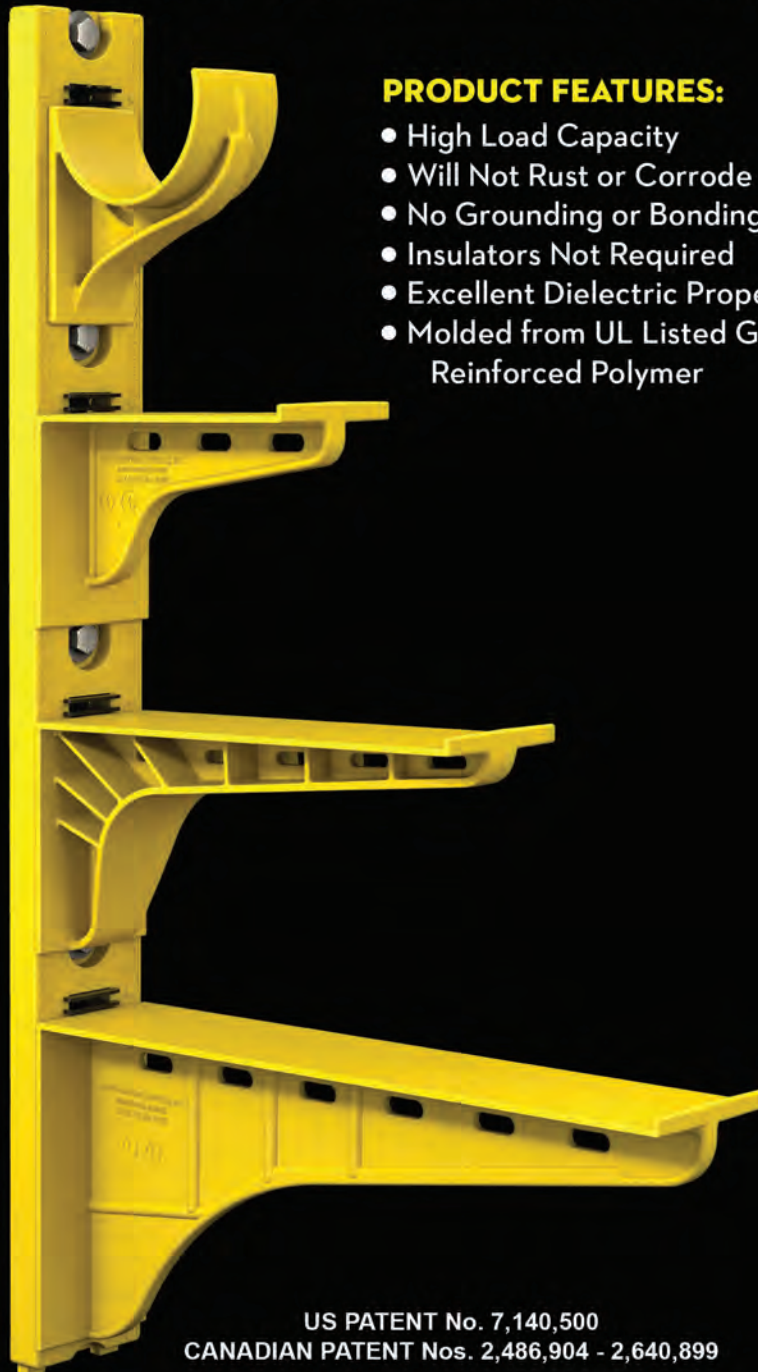
Smart lighting comes standard in new construction, which includes basic smart lighting features like time clock control, occupancy sensing, and remote access. But what about retrofitting?

For existing buildings and homes, integrating wireless features is a cost-effective entry point. (CONTINUED ON PAGE 18)

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HDL Arm Lock shown with
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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Remote lighting capabilities, daylight harvesting sensors, occupancy sensors — these features aren't just about efficiency, but integration with other smart technologies in a building's automated system. By installing smarter lighting systems, contractors are giving building managers and end users more control over how they manage their energy and light their spaces.

The even better news? Manufacturers of wireless lighting controls are focusing on making installations simple. That means more opportunity for work with little specialized training.

Staying up to date on the number of new smart lighting products hitting the market may be challenging, but it will provide electricians with the chance to upsell upgrades to a space with wireless controls for better energy and labor savings.

Of course, improved efficiency is a given. It might've been a groundbreaking development when this technology first hit the market, but now consumers are wanting more control for a better experience.

Fortunately, new features are being introduced about as rapidly as the new products themselves. Now, contractors can recommend products with fully customizable dimming and lighting controls as well as voice-assisted features to seal the deal.

3 Commercial Market

High-tech installations are mainly contracted in the commercial market. In fact, according to a survey by Klein Tools, 3 in 5 electricians have done smart tech installations, and 7 in 10 have seen an increase in smart offices just in their area.

What's the drive behind this growing demand for integrating more complex systems in new construction and retrofits? To put it simply, building managers want flexibility and convenience, occupants want a more productive, mood-enhancing environment.

In fact, over 80% of new construction features some smart tech connectivity that handles lighting, HVAC, and more. How is that shaping the role of electricians when it comes to the commercial market?

"Many commercial projects now include smart control packages nearly as expensive as the lighting package itself," said Mehs Ess.

Having that connectivity is a huge selling point, especially in new construction.

The best part? With easier installations being a focus for many manufacturers, contractors can now offer enhanced features like dimmability without having to run dimming wires.

4 5G and Smart Cities

The future is smart, it's full of 5G, and it's coming soon.

For all the benefits that 5G is expected to bring, its impact on smart cities, smart technologies, and even just its deployment will offer electrical contractors a lot of job opportunities.

From improved performance of lighting to more responsive building operations, 5G should introduce cutting-edge capabilities in the smart tech world. One of the main reasons for this? Greater sensor density — one of the most critical aspects of a smarter future.

Not only will 5G set up a faster network that can exchange information much more rapidly than is possible today, it will also allow for more information to be exchanged by increasing bandwidth.

While 4G towers will remain, 5G is going to rely mainly on "smart cells." These transmitters can be attached to a 4G tower, but they can also be mounted on power poles and even buildings themselves. The closer you are to a 5G sensor, the better the strength.

So how are we going to really maximize the potential of 5G? These small cells may need to be installed by the hundreds of thousands. By raising the number of sensors and transmitters, smart cities will have better functionality, better data-gathering capabilities, and a more powerful network overall.

5 Attracting a Younger Generation

The skilled labor shortage is a challenge, but it's nothing new to this industry. However, with advanc-

es in smart technology, that could very soon change.

Younger electricians and apprentices are entering the industry because they want a future-proof career that incorporates technology on the job and has the potential for future growth. Not only are these digital natives used to technology being available at their fingertips, but they expect to work with it, too.

This interest from young electricians is also part of the reason why training programs have included up-to-date information on high-tech installations. From 2016 to 2021, Klein Tools has committed \$2 million to ensure apprentices and students train with high-quality, professional-grade tools and materials while receiving the highest possible educational experience. Their partnership with the International Brotherhood of Electrical Workers (IBEW) and the National Electrical Contractors Association (NECA) is going straight to programs that integrate classroom learning, interactive simulations, and virtual exercises to efficiently prepare students for the industry.

6 High-Tech Systems High Job Satisfaction

Back in 2016, Klein Tools' State of the Industry survey found that 51% of electricians with at least 10 years of experience preferred working on high-tech installations. This was up from just 24% in 2015.

Working on more complex systems doesn't just present challenges that allow electricians to improve their craft, it also invites collaboration. On a commercial job site implementing a high-tech system, experienced electricians can mentor young electricians and apprentices, lessening the skills gap and even bringing new ideas to the forefront.

Today, electricians who install these high-tech systems have to be almost as knowledgeable as the engineers who design them.

As the smart tech industry is expected to double in size by 2025, it's only a matter of time until installing smarter control systems becomes just another part of the job. □

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A large, light gray watermark of the TCP logo is visible in the background, spanning the bottom half of the page. It features the same stylized leaf icon and the letters "TCP" with a registered trademark symbol (®).

TCP®



TEX

Our architectural grade exterior wall sconces are made in the USA to withstand the harshest weather environments. They are finished using an industrial grade primer and architectural finish designed for harsh exterior use.

ALVA's outdoor light fixtures are designed from the inception to be illuminated with state-of-the-art LED technology. This design approach allows ALVA to provide a unique combination of even illumination with no glare while also providing the industry's longest rated lifetime for the LED light source.

(CONTINUED ON PAGE 22)

KEY FEATURES:

- Large Scale Fixtures (Up to 60")
- Made in the USA. All fixtures are handcrafted out of heavy gauge aluminum in our California factory
- Industry-leading IP66 rating (can be power washed at close range for easy maintenance)



"As we contemplated the exterior lighting of the building, our hope was to find a fixture that accented the architecture of the building without dominating it."

WESCOTT L EDWARDS
BORArchitecture, pllc

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NO KIDDING!

*Designed especially for power, communications
and fiber optics.*



STEP 1
Remove damaged
conduit



STEP 2
Cut split duct
conduit to fit



STEP 3
Snap in
place

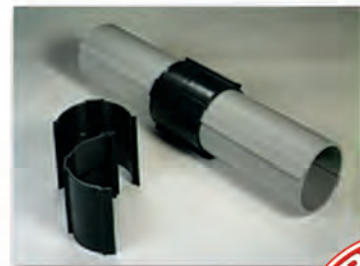
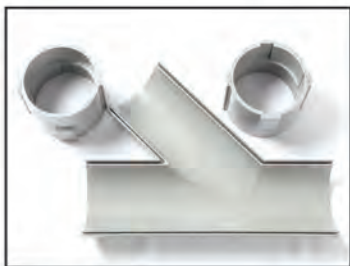
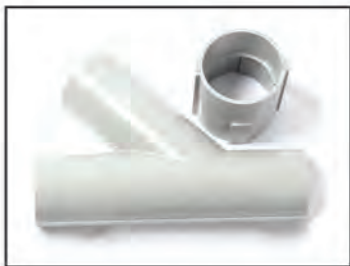


STEP 4
Attach
adapters



STEP 5
Finish job in
record time

"The World Leader In Split Conduit Products"



Conduit Repair Systems, Inc.

The World Leader In Split Conduit Products

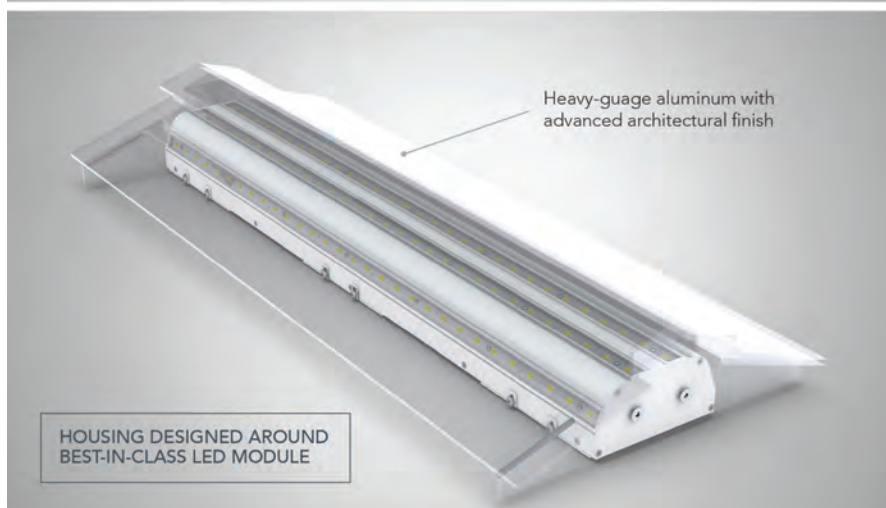


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ALVA'S IP66 RATED LED MODULE

ALVA's LED modules are designed to be outdoors in harsh environments from extreme cold to extreme heat. The module is made of heavy gauge aluminum to provide thermal management to the LEDs and internal electronics. □



"The final installed product exceeded our hopes. The color of the fixture also complimented the building materials brilliantly. The light level was ideal for accenting the stone pilasters without taking away from the other architectural features of the building."

WESCOTT L EDWARDS
BORArchitecture, pllc



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JOHNSON CONTROLS TO INSTALL PATHOGEN-FIGHTING UV LIGHTING FOR VERNON AREA PUBLIC LIBRARY

- UV grids in two of the library's air handling units (AHUs), alongside enhanced HVAC filtration solutions, will help reduce airborne contaminants as part of the OpenBlue suite of connected solutions and is part of Johnson Controls commitment to creating safe and healthy buildings that reduce risk and increase peace of mind
- Partially funded through CARES ACT, the project is part of the library's ongoing commitment to the health of the surrounding community and is the first of its kind for a library in the Chicago area for Johnson Controls

Johnson Controls, the global leader for smart and sustainable buildings, is committed to equipping buildings with indoor air quality (IAQ) solutions to create spaces that put people at ease. Johnson Controls has helped customers across the globe, including the Vernon Area Public Library in Lincolnshire, IL, identify strategies to create healthier air in buildings with, including the use of ultraviolet (UV) lighting solutions to kill viral organisms.

As part of Vernon Area Public Library's reopening strategy, Johnson Controls installed UV lighting in two of the library's existing air handling units (AHUs) that serve the majority of the occupied space. As a result, airborne contaminants, including the COVID-19 virus, will be neutralized, while improving the building's IAQ and creating a safer space for employees and visitors upon reopening. Partially funded by the CARES Act, this project is part of the library's ongoing strategy to provide a class-leading environment for the community, and part of Johnson Controls commitment to creating safe and healthy buildings that reduce risk and increase peace of mind.

UV lighting has proven to be effective in airborne disinfection, which kills contaminants and pathogens including the COVID-19 virus. Implementing UV lighting grids in the library's existing AHU's will provide long-term benefits to occupants through a 99.99% reduction in bacteria, rhino viruses and corona viruses. Johnson Controls also installed advanced MERV 13 filters to provide a comprehensive decontamination strategy.

"Our goal has been to do everything within our power to keep our employees and the community safe," said Stephen Territo, head of library operations at the Vernon Area Public Library. "The science is clear about the importance of addressing airborne transmission. We are pleased to be able to put this innovative and effective solution in place."

Selected for its expertise and technical leadership in the HVAC and COVID-19-mitigation space, Clean Air solutions are part of Johnson Controls broader approach to reimagining spaces and places. Its experts were able to make strategic implementation plans that align with the library's overall mission for safety and comfort. Johnson Controls has previously provided the library with HVAC, fire safety and security solutions through an ongoing service relationship, providing confidence that the UV lighting installation would be executed professionally, efficiently and without risking staff safety.

"The Vernon Area Public Library is our first library project in the Chicago-area that implements UV lighting as part of an IAQ improvement strategy," said Catherine Hawn, Account Representative of Building Services at Johnson Controls. "As part of our OpenBlue Clean Air suite of solutions, UV lighting helps our customers achieve healthy, safe and flexible buildings, and we're thrilled to help Vernon Area Public Library give the community increased peace of mind when they reopen."

Johnson Controls offers a full portfolio of products and solutions to improve

building IAQ and create safer, healthier facilities for customers:

York Air Handling Units: To reduce airborne pathogens within a building, mixed-air HVAC systems should focus on increasing outdoor air ventilation. York air handling units allow customers to maximize outside air to displace contaminated air and increase ventilation and air change rates.

Koch® Filters: Effective air filters are intrinsic to a successful infection control plan. Koch's clean air solutions include high efficiency air filters, HEPA filters, and portable HEPA solutions for increased building flexibility.

Critical Environment Controls: Room pressurization, air change rates, humidity, and temperature are vital components in reducing airborne contaminants and preventing cross contamination within healthcare and laboratory facilities. The Johnson Controls line of Critical Environment Controls includes the broadest suite of products in the industry.

UV-C Lighting: Disinfectant lighting solutions are necessary to reduce pathogens both on surfaces and in the air. Johnson Controls offers a comprehensive suite of disinfecting lighting products, including retrofit options to keep facility disruptions and installation costs to a minimum. □



ABOUT JOHNSON CONTROLS

At Johnson Controls, we transform the environments where people live, work, learn and play. From optimizing building performance to improving safety and enhancing comfort, we drive the outcomes that matter most. We deliver our promise in industries such as healthcare, education, data centers and manufacturing. With a global team of 100,000 experts in more than 150 countries and over 130 years of innovation, we are the power behind our customers' mission. Our leading portfolio of building technology and solutions includes some of the most trusted names in the industry, such as Tyco®, YORK®, Metasys®, Ruskin®, Titus®, Frick®, Penn®, Sabroe®, Simplex®, Ansul® and Grinnell®. For more information, visit www.johnsoncontrols.com or follow us @johnsoncontrols on Twitter.

Crescent Electric Supply Company Names Seth Erickson as Chief Transformation Officer

Crescent Electric Supply Company today announced that Seth Erickson has joined the organization as their new Chief Transformation Officer. As part of his role, Seth will oversee a number of strategic teams and initiatives, including eCommerce, IT, Marketing, Business Process Improvement, System Integration and the Project Management Office.

“Seth brings a wealth of experience in leading strategic, transformative initiatives across a wide range of organizations within our industry,” said Scott Teerlinck, President and CEO of Crescent Electric Supply Company. “As we embark upon Crescent’s second century of business, we are excited to leverage Seth’s leadership and transformation experiences to help us enhance how we support our customers before, during,

and after the sale, as well as how we partner with our vendors and their manufacturer representatives for improved collaboration and results.”

Prior to joining Crescent, Seth spent more than two decades leading teams and functional departments in the Industrial distribution market with McMaster-Carr, MSC Industrial, and W.W. Grainger. During that time Seth served as President of Zoro, Grainger’s MRO eCommerce marketplace, where he led their hyper-growth digital business for four years.

“I am excited about what lies ahead with Crescent and this role,” said Seth Erickson. “We have the opportunity to transform this company in a meaningful way, and I look forward to working across all Crescent businesses to develop



Seth Erickson

new ways to delight our customers and exceed their expectations.”

Seth holds an MBA from Northwestern University’s Kellogg School of Management, and a Bachelor’s Degree in Journalism from Michigan State University. □



ABOUT CRESCENT ELECTRIC SUPPLY COMPANY

Crescent Electric Supply Company is one of the largest electrical supply distributors in the U.S. The family-owned business has served contractors, institutional, and industrial customers with a broad line of electrical, industrial, and data communication products from 140+ branch locations in 26 states for over a century. In addition to the Crescent Electric brand, customers are served by BA Supply in Missouri, Interstate Electric Supply in Idaho, Mesco Electrical Supply in Ohio, Womack Electric Supply in Virginia and North Carolina, Stoneway Electric Supply in Washington, Oregon, and Idaho and National Electric Supply in New Mexico. The Company received the Best of the Best Overall Distributor Marketing Award for 2018 from the National Association of Electrical Distributors (NAED). For more information, visit www.cesco.com.

WAGO welcomes new Regional Sales Manager to the Atlanta Area

Marc Reed has been hired by WAGO as its new Regional Sales Manager Atlanta Region. A native of suburban Atlanta, Marc attended Auburn University.

Reed has an extensive background as a sales engineer working primarily in the automation field, which will make him a valuable resource to the WAGO team. Marc has worked in Georgia and Florida for the majority of his career. He started his career with Simco Technologies then after 12 years moved on

to IFM Efector for another 6. Just prior to making the move to WAGO, Reed spent the last year and a half with Mayer Electric.

Being able to go back to his roots is one of the reasons he took this position, “I am very excited to return home to Atlanta and begin to work with all my old customer base,” says Reed. “I bring 24 years of experience and can’t wait to join what seems to be an amazing group of people at WAGO.” □



Marc Reed

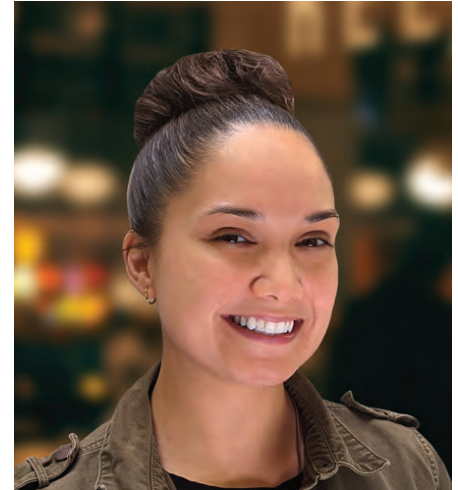


American PERMALIGHT®, Inc. Welcomes Aita Parkinson to the Team

American PERMALIGHT® Inc. is pleased to announce its recent hire of Aita Parkinson, who officially joined our organization in the middle of September. She will serve as Order Fulfillment Specialist, with a focus on growing relationships within the sign-making industry. Aita will educate sign-makers, digital printing companies, and screen printers on code-compliance, interior signage, and PERMALIGHT® photoluminescent printable substrates.

Aita said, "I am proud to be a part of

the team at American PERMALIGHT® because it is rewarding to educate our customers on our products and services as well as indirectly help save people's lives. I am motivated to inform as many people as possible about our code compliant signs and markings because they are an essential part of life safety. It is also exciting to see the sign-makers I've helped grow their business through lucrative photoluminescent stairway identification signage and egress path marking projects." □



Aita Parkinson

ABOUT AMERICAN PERMALIGHT® INC.

American PERMALIGHT® Inc. is a leading manufacturer of photoluminescent egress path marking products, exit signs, safety foam guards, and other safety products, and started as a California incorporation in March of 1988. The company is a fully owned subsidiary of Kroschke sign-international GmbH in Braunschweig, Germany. Kroschke is an ISO 9001 and ISO 14001 certified manufacturer. American PERMALIGHT® Inc. has over 32 years of experience and takes pride in being considered a leading photoluminescent manufacturer. Our quality products have been installed in the New York City World Trade Center, the International Space Station (ISS), and in hundreds of other locations across the United States.



Electri-Flex Launches New Specialty Conduit by Market Video



ELECTRI-FLEX COMPANY has recently launched a new video featuring Lique-tite® flexible electrical conduit that is ideally suited for the following markets: Food Processing & Pharmaceuticals, Rail & Transit, Wastewater Utilities, Mining, Oil & Gas Refineries, Data Centers, and Ship Building & Aerospace. These Lique-tite® varieties offer features above and beyond standard liquidtight conduit, and include additional properties such as corrosion-resistance, halogen-free, EMI/RFI shielding, high/low temperature, antimicrobial for food processing, lightweight, UV-resistance, and more.

Liquatite® flexible electrical conduits are ideally suited for a variety of markets, and with nearly 50 conduit types to choose from, they offer a wide selection, with varying sizes, types, and colors available. Product categories include jacketed metallic, nonmetallic, unjacketed metallic, EMI/RFI shielded, and stainless steel.

To view the Conduit by Market video visit: <http://www.electriflex.com/electri-flex-launches-new-specialty-conduit-by-market-video>. □



ABOUT ELECTRI-FLEX

Electri-Flex Company continues to be a leader in innovative conduit solutions and superior customer service for 65 years. Lique-tite® conduit offers the most diverse line of liquidtight flexible electrical conduit in the industry. The company provides custom design, engineering, cutting services, quality assurance and testing capabilities. For more information on Electri-Flex Company, call (630) 529-2920 or (800) 323-6174; e-mail: mktg@electriflex.com; visit: www.electriflex.com; or write: 222 West Central Avenue, Roselle, IL, 60172-1994.



Focal Point Launches AirCore Bridge™ Integrated Acoustic Ceiling System

New integrated system bridges the gap between acoustical ceilings and lighting with a selection of configurations that adapt to the requirements of each space

With AirCore Bridge, its new integrated ceiling system, Focal Point provides specifiers flexibility in designing for optimal sound management and lighting with linear baffle and luminaire arrays. AirCore Bridge spans light and sound by leveraging the acoustic performance of AirCore Blade and the powerful light engine of Seem® 1 with a variety of configurations that enhance architecture and human comfort.

AirCore Bridge is offered in three configurations: Truss, Cantilever and Cantilever Wave. Each uses the Seem 1 Suspended Direct luminaire as the primary structural support for the AirCore Blade baffles. Truss is a symmetric assembly where two Seem 1 luminaires running parallel constitute the rails that support perpendicular baffles, eliminating all baffle suspension points for quick and easy installation. Cantilever, as the name implies, has the acoustic baffles projecting from one linear luminaire with a suspension point at the other extremity, yielding the appearance of the baffles floating in the ceiling. Cantilever Wave adds to the visual effect with uneven length baffles resulting in a jagged edge at the suspended extremity. The slim apertures of the baffle and luminaire further contribute to the lightweight aspect of the structures.

“The new AirCore Bridge system truly exemplifies what a company that’s been involved in architectural lighting for over a quarter of a century can bring to this new and expanding integrated acoustic ceiling and lighting systems’ market. The quality of light is paramount and satisfies the expectations of lighting consultants, and the integration with our high-performance acoustical baffles is seamless,” states Michael McCoy, Director, Architectural Systems. “We leverage the strength of our engineering and manufacturing teams to provide integrated solutions that deliver performance, design flexibility, integration into interior architecture and, ultimately, enhance occupants’ comfort.”

**For more information, visit
focalpointlights.com/AcousticSolutions**

New LED Linear Vaportight from Barron Lighting Group

Barron Lighting Group, the parent company to Trace-Lite indoor and outdoor commercial and industrial lighting, announces the addition of the VPA Series LED Linear Vaportight.

“At Barron Lighting Group we are excited to expand our product family to include our newest lighting solution – the VPA Series LED Linear Vaportight. cULus Listed for Wet Locations and tested to meet IP65 requirements, the VPA is ideal for use in indoor and outdoor locations that need to be protected from dust, dirt and water,” said Heather McCune, Vice President, Sales Operations of Barron Lighting Group.

The VPA Series LED linear vaportight features robust construction with an IK08 impact-tested polycarbonate housing designed for easy installation with direct, toolless access to the driver compartment. With its UV-stabilized frosted polycarbonate lens.

the VPA Series offers impressive general illumination and is offered in both 4’ and 8’ configurations. Internal

switches allow the user to select the CCT between 3500K, 4000K and 5000K to provide project

flexibility. An optional integral microwave sensor, centered behind the lens, provides

two or three step/level dimming as well as light thresholds/daylight har-

vesting capability. A battery backup option provides emergency

egress lighting for 90 minutes. The VPA Series can be

used in a variety of indoor and outdoor applica-

tions including schools, parking garages, cov-

ered pathways, hospitals and stores and is

the perfect choice for both new construction

and retrofits.



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



Bridgeport Fittings' Color-Coded EMT Steel Connectors and Couplings Make Circuit Installation Easier and Quicker than Ever

Bridgeport's new, patented, color-coded connectors allow easy circuit identification from inside panels and boxes. With the Bridgeport solution, less material handling is required, compared to bundles of color-coded EMT. Also, the fittings' Tri-drive set screws are paint-free, promoting fast and reliable connections.

Bridgeport's easy circuit identification feature offers a color to meet every need, including, for example, Red for Fire Alarms, Blue for Datacomm, Green for Healthcare, as well as White, Orange, and Yellow. In addition, the fittings are painted with durable, lead-free thermosetting paint.

The new Bridgeport connectors are cULus Listed, per UL 514B, for equipment bonding and grounding and for use with aluminum EMT. Meanwhile the Bridgeport solution has just been made available in 1/2-inch, through 4-inch, trade sizes.

Bridgeport Fittings is a leading manufacturer of quality fittings to the industrial, commercial and residential channels of the electrical industry. Bridgeport's completely stocked selection of quality electrical fittings and innovative product solutions are available from major electrical distributorships across the U.S. and Canada.

**For information, visit
www.bptfittings.com**

Emerson LED Temporary Work Light Brings Improved Energy-Efficiency and Safety to Busy Jobsites

Appleton 100W LED unit is smaller, lighter, requires no maintenance, and consumes less power than old, inefficient HID temporary lighting

Installing an Emerson Appleton™ TL100C LED temporary work light gives contractors extremely bright, energy-efficient 360° illumination that is superior in performance to traditional High Intensity Discharge (HID) temporary fixtures or incandescent strings of lights. Plus, because the TL100C relies on LED technology, there are no moving parts or replaceable components, making it a true maintenance-free solution.

Built rugged for installation in construction and renovation sites, maintenance rooms, storage spaces and damp location rated areas, this 100W LED fixture yields daylight white 5000K light output of 12,000 lumens that is the retrofit equivalent of a 400W HID, yet requires less than 25 percent of the energy. As a result, only nine TL100C fixtures are required for full coverage of a 100 square-foot space at a 15-foot mounting height to meet OSHA minimum illumination standards. In addition, the LED technology provides the Appleton TL100C with an L70 rated operating life of 54,000 hours, saving the end-user maintenance time and expense. With no bulbs to break or replace, the Appleton TL100C light is always ready for work.

The Appleton TL100C fulfills commercial and industrial temporary lighting needs with its heavy-duty construction -- including a high-strength polycarbonate top and bottom, 6000V surge protection to prevent damages caused by unstable voltage, aluminum heat sinks, and painted steel guard -- to absorb shocks, vibration and rough use. Although rugged, it weighs a mere 4 lbs. and its low-profile measures less than 11 inches, so it stays up and out of the way of work activity.

Another key advantage to the TL100C is its daisy-chain feature that enables up to six 100W units to be linked up. Each unit has a built-in NEMA 5-15R receptacle, along with a 6-foot cord with a NEMA 5-15 plug, that connect in series to create a string of lights. A metal cable clip secures the plug when units are linked, while a door blocks off the linking port when not in use.

Backed by a five year warranty, the Appleton TL100C is cULus Listed and OSHA compliant for general construction area lighting (OSHA 1926.56) in the United States, plus meets CSA standards for portable lighting in Canada.



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

Klein Tools® Expands Line of Personal Protective Equipment with Reusable Face Masks

Klein Tools, for professionals since 1857, introduces a new reusable face mask, designed to offer basic protections against non-harmful common airborne irritants, both on and off the jobsite.

Reusable Face Mask with Replaceable Filters (Cat. No. 60442)

- Adjustable head and neck straps for comfort and nose clip for proper fit
- Vented for breathing comfort
- Mask includes one filter and one storage bag for extra filters and mask
- Replacement filters (Cat. No. 60443) sold separately, three pack
- Not NIOSH-approved

“Projects both on and off the jobsite can subject you to numerous airborne irritants,” says Craig Fransen, senior product manager at Klein Tools. “In designing these masks, we looked to provide protection against common irritants, like non-toxic dust, pollen, mold and dander. The adjustable straps and nose clip provide a comfortable fit, and the replaceable filters enhance the long-term use of the masks.”

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



KOHLER Unveils its Most Powerful Generator Sets Company launching 3500kW and 4000kW nodes as part of popular KD Series

Kohler Co. is pleased to release the top end of the much-anticipated KD Series diesel-powered generator sets that represent its most powerful generators on the market today at 3500kW and 4000kW (60Hz) / 4000kVA and 4500kVA (50Hz), respectively, and all powered by the KOHLER KD103V20 diesel engine.

In late 2016, KOHLER unveiled an entirely new range of large diesel industrial generators up to 2500kW (60Hz) / 2800kVA (50Hz) powered by a newly designed platform of KOHLER diesel engines represented by the K135 and K175 engine families. The range was subsequently extended to 3250kW (60Hz) / 3500kVA (50Hz) in 2018.

Today, based on a strong worldwide market response and an increasing demand on power in mission critical applications such as data centers, hospitals and water treatment facilities, KOHLER expands the top end of the KD Series with the rollout of these new 3500kW and 4000kW models.

Building on the proven excellence of the KD Series product line, the new generators are designed to deliver extreme durability and ultimate reliability in a variety of emergency and prime applications. This release expands the limits of standby generators and sets KOHLER apart with its breadth of product in this range.

“We are pleased to reach the culmination of the KD generator series that was designed from the ground-up including the KOHLER diesel engine platform,” said Brad Meissner, product manager at Kohler. “With a 4-megawatt generator, KOHLER can now offer customers the largest and most power-dense standby generator in the marketplace.”

Developed by the company’s global team of engineers, the new KD Series 3500kW and 4000kW gensets incorporate a powerful and sophisticated K175 diesel engine – the KD 103 liter, 20-cylinder model. From a design perspective, KOHLER kept many of the engine components the same as the KD Series predecessors including the control system, fuel system, and cooling system, to name a few.

The modular design of the KD103V20-powered generator sets is a bit larger than its V16 and V12 counterparts and delivers unprecedented power density and unrivaled performance.



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

Lind Equipment Launches Revolutionary Beacon360 Torch Handlamp

Lind Equipment, a 10-time innovation award-winning company is proud to announce the launch of the newest heavy-duty work light, the Beacon360 Torch Battery Operated Handlamp. This product produces bright, white light in four unique lighting modes while encased in an indestructible weatherproof unit. The Beacon360 Torch is truly unlike any other handlamp on the market today.

This premium 15W battery operated light works for you, so you can focus on the task at hand. With four distinct lighting modes, 360o High Mode, 360o Low Mode, 180o Mode and Flashlight Mode, each setting will hold a charge for a full workday without ever compromising on light quality. Need a flashlight to look down a drain pipe? Or a 360o light to illuminate a small utility room? The Beacon360 Torch can meet those light applications and more. Lind's powerful LEDs are rated for over 50,000 hours of 24/7 use and it comes with a 3-year warranty.

The Beacon360 Torch provides the user with multiple different mounting options on the job. The built-in magnet can be used to place the light on a steel electrical panel or on a metal water tank, and the built-in hook can be used to hang the Torch from attic beams or on ladders while working. This durable product is constructed with a rubber handle & bumpers, polycarbonate lenses and an IP65 weatherproof rating, it will survive anything thrown at it on the jobsite. At the end of the day, this versatile product can be charged using an AC wall charger, or a DC car charger.

"We designed the Beacon360 Torch to bring new life into the world of handlamp task lights. It has all the advancements of our award-winning Beacon products in a small form-factor that can easily fit in a tool bag. It's the ideal product for any industry." said Brian Astl, President of Lind Equipment.

**For more information, visit
www.LindEquipment.net**



Milwaukee® Announces the MX FUEL™ CARRY-ON™ 3600W/1800W Power Supply

Milwaukee Tool powers more on demand with efficient, quiet, and portable power anywhere with the MX FUEL™ CARRY-ON™ 3600W/1800W Power Supply. Part of the new MX FUEL™ Equipment System*, the power supply provides the best temporary power for the job. Supplying 3600 peak watts/1800 running watts of pure sine wave energy, the power supply powers everything from high demand 15A tools to sensitive electronics.

"Historically, generators have been a frustrating jobsite nuisance. Not only do they have to be operated outdoors due to excessive noise, but users must also worry about dangerous emissions, hazardous extension cords, gas prices, and engine repairs. Additionally, users who are reliant on shared power sources such as spider boxes are often met with the frustrations of tripped breakers, extension cords, and voltage drops" said Andrew Lentz, Director of Product Marketing for Milwaukee Tool.

"The MX FUEL™ CARRY-ON™ Power Supply is not only safer than gas-powered generators, but it can also be used indoors, eliminates the need for gasoline and extension cords, and doesn't require engine maintenance, thus reducing downtime and allowing users to get jobs done faster!"

The compact size, zero emissions, and quiet operation of the power supply allow users to safely operate the unit in confined, indoor spaces and a roll cage provides durability for outdoor jobsite use. With a push button start, users can start it in seconds, getting up and running faster than ever before by eliminating the repetitive motions of pull starts.

The MX FUEL™ Power Supply delivers enough power to run one 15 Amp tool and one lower wattage device simultaneously and can be powered by a single battery or two batteries for double the run-time.

As an added benefit, ONE-KEY™,** provides the ability to track the power supply with community tracking and alerts, complete inventory management, and industry leading smart-equipment technology to secure the user's investment.

Milwaukee Tool will remain unwavering in their commitment to delivering disruptive innovation by working alongside trade professionals to identify challenges and provide solutions that are unparalleled in enhancing jobsite safety and productivity. The future of the jobsite is cordless.



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

Nora Lighting® Releases 6" Regressed AC Opal LED Surface Mount with Recessed Appearance

Nora Lighting's trim 6" Regressed AC Opal LED luminaire installs over pancake and standard junction boxes, facilitating installation and presenting a more refined, recessed appearance.

As the newest model in Nora's Opal Series, the Regressed AC Opal can also be retrofitted with a 5" or 6" recessed housing and offers the same benefits of standard AC Opal surface mounts. It is designed for residential or commercial retrofits or new construction applications.

The Nora-designed white polymer lens eliminates any diode image and produces glare-free, even illumination with over 900 lumens at 13W. The fixture has a white finish and features 2700K, 3000K or 4000K at 90+ CRI.

An energy-efficient solution, the Regressed Opal AC is cETLus listed for wet locations, including bathrooms and laundry rooms, and is ENERGY STAR® certified. It complies with California Title 24 JA8-2019 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**



Russelectric, a Siemens Business, Announces New RTSCD Commercial Duty Transfer Switch

Cost effective option ideal for life safety systems and ensuring ongoing operations

Russelectric, A Siemens Business, a leading manufacturer of power control systems and automatic transfer switches, announces its new RTSCD commercial duty transfer switch, a cost effective option ideal for commercial spaces. Educational campuses, high-rise complexes, industrial plants, and manufacturing facilities can rely on the RTSCD to provide emergency power needed to keep critical operations online. Built to the same exacting standards around reliability and ease of operation for which Russelectric is well known throughout the industry, the RTSCD commercial duty transfer switch offers a superior product at an attractive price point. The RTSCD is currently available in 100A, 200A, 260A and 400A rated models.

The RTSCD features a user-friendly operator interface panel with an intuitive keypad that features text and icons, and comes standard with an historical event log. The product is available in 2, 3 and 4 pole models, with solid or fully rated

switched neutral. Featuring rapid and reliable arc quenching, the front connected RTSCD offers manual transfer with rapid arc interruption, as well as a permanently affixed handle and double throw mechanically held contactor. Contacts are easily accessible for convenient inspection.

Preloaded springs and an electric operator-driven over-center mechanism results in extremely quick switching operation. This unique design instantaneously opens and closes the contacts, providing rapid full arc interruption, even under maximum voltage and amperage. This design considerably reduces contact erosion and effectively increases the switch's useful life.

The RTSCD meets UL1008 up to 480 (VAC). It complies with NFPA 110, NEC Articles 700, 701, 702, Enclosure UL Type 1 and IBC 2018 and CBC2019 seismic standards.

Optional accessories include a power monitoring package, auto/load test key switch and load shed relay, selector switch for auto/manual, pushbuttons for manual transfer, and a space heater/thermostat.

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

Triplett Magnetic Field Meter Measures Electro-magnetic Fields in Variety of Applications

Meter specializes in extremely low frequency (ELF) electro-magnetic fields

Triplett Test Equipment, a leading maker of test equipment tools, announces the launch of the innovative EMF20 Magnetic Field Meter, an all-new handheld tool designed to measure extremely low frequency (ELF) electromagnetic fields in numerous applications.

The rugged, handheld EMF20 measures ELF electromagnetic fields (30 to 300Hz) produced from electric transmission equipment, power lines, microwave ovens, air conditioners, refrigerators, computer monitors, fans, hairdryers, and many other appliances that emit electromagnetic fields. Measurements have a guaranteed $\pm 2.5\%$ accuracy, and can be displayed in milligauss (mG) or μ Tesla (μ T).

Other helpful features of the EMF20 Magnetic Field Meter include its single axis sensor, max hold function for storing the highest reading, and included carrying case to keep the unit safe en route to the site. The EMF20 is also backed by a 1-year warranty.

For more information, visit
<https://www.triplett.com/emf20>

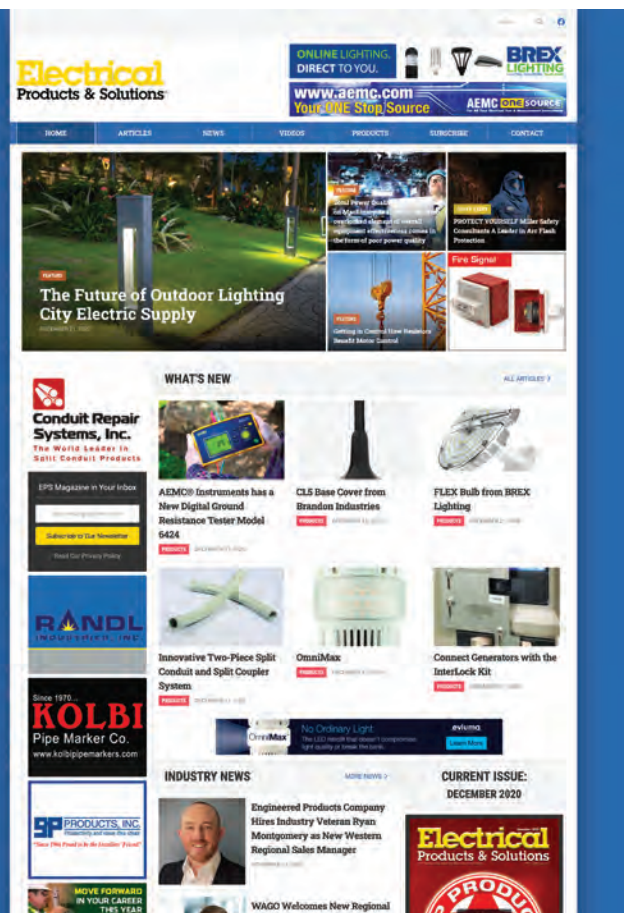


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BRANDON INDUSTRIES	3	MOBILE DESK	14
BREX LIGHTING	1	RANDL INDUSTRIES	15
CONDUIT REPAIR SYSTEMS	21	SP PRODUCTS INC	11
EVLUMA	BC	TCP	19
GENERATOR INTERLOCK TECHNOLOGIES	5	TENMAT	IBC
KRENZ & COMPANY	32	TOPAZ	10
KOLBI PIPE MARKER CO.	32	UNDERGROUND DEVICES	17

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