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OCTOBER 2022

Electrical Products & Solutions™

The Purchasing Guide for Electrical Contractors

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**Electric Freeze
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Keep Wastewater
Treatment Plants
Flowing During
Winter Months**



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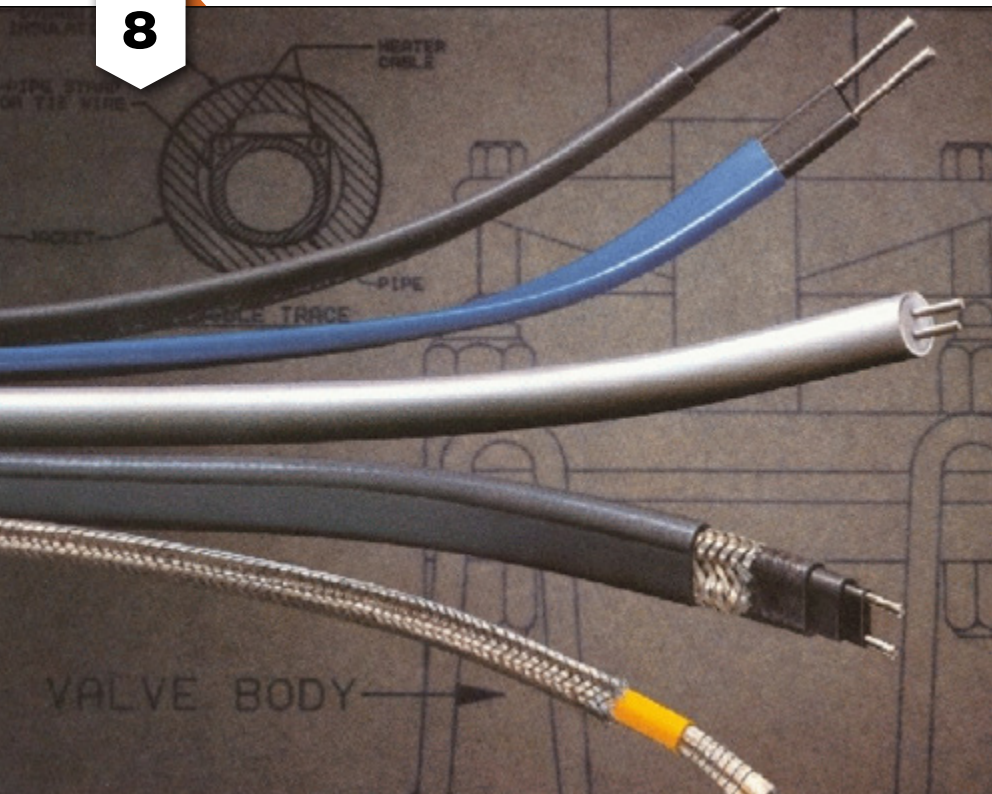
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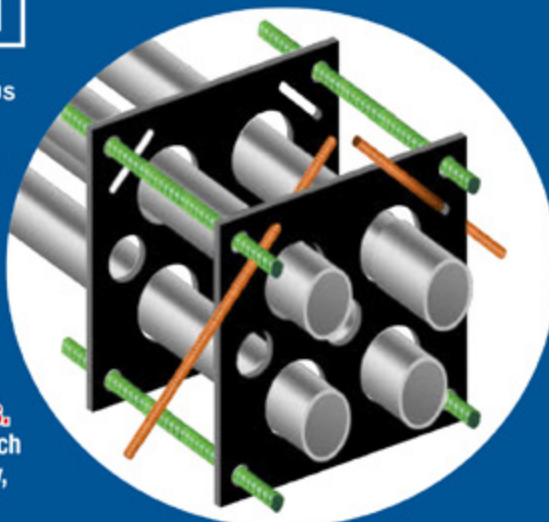
IP2



IP1



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IP13A-F

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conduit to fit



STEP 3
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place

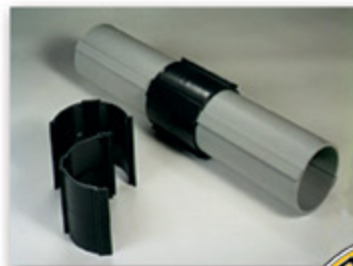
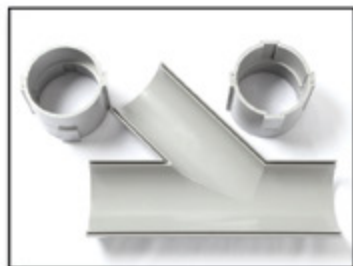


STEP 4
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Protect Yourself

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:
www.electricalsafetysupply.com, email
Vince at: sales@millersafetyltd.com.*



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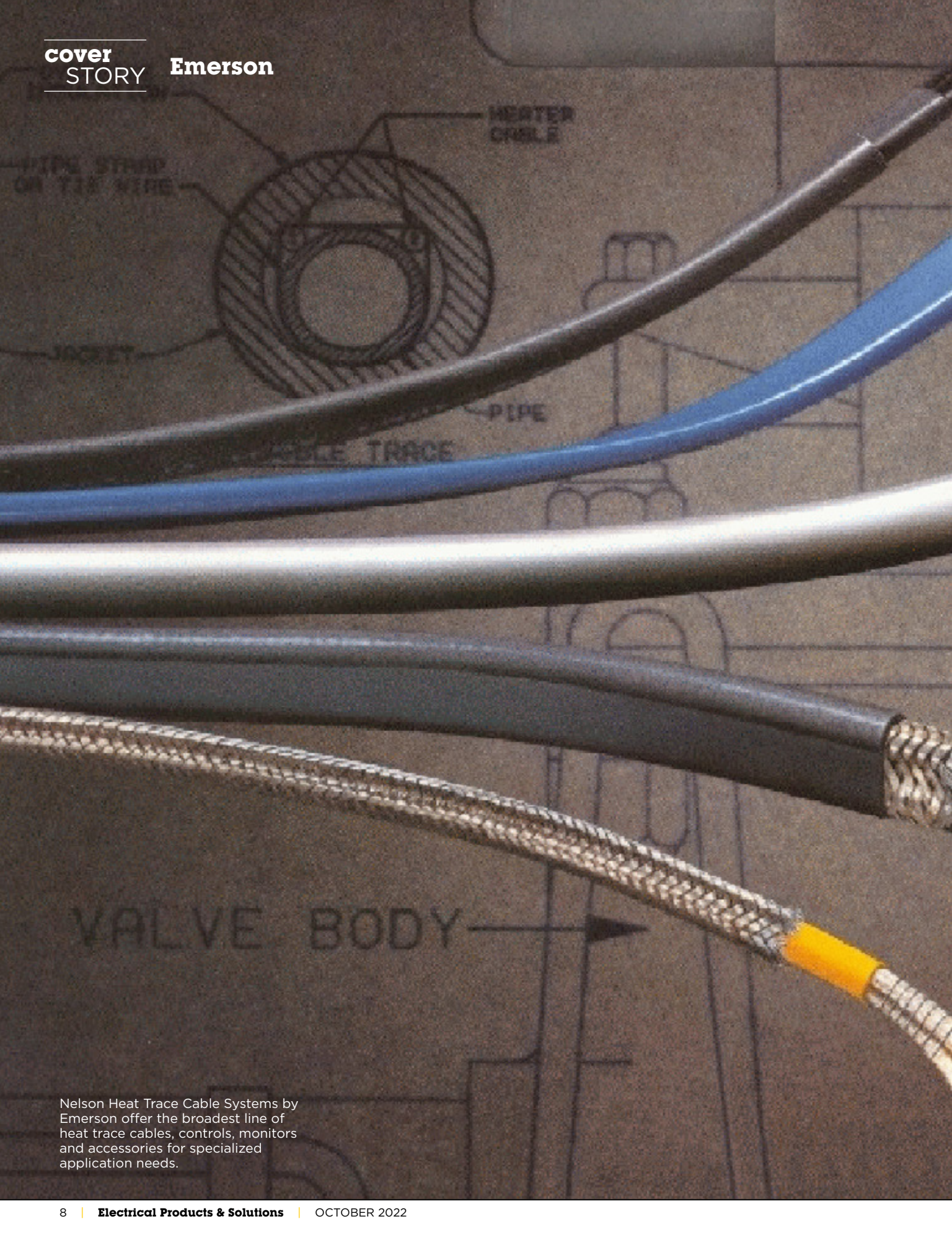
Inner Layer: Westex Ultrasoft
Color: Safety Orange



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Nelson Heat Trace Cable Systems by Emerson offer the broadest line of heat trace cables, controls, monitors and accessories for specialized application needs.



PART 1:

Electric Freeze Protection Cables Keep Wastewater Treatment Plants Flowing During Winter Months

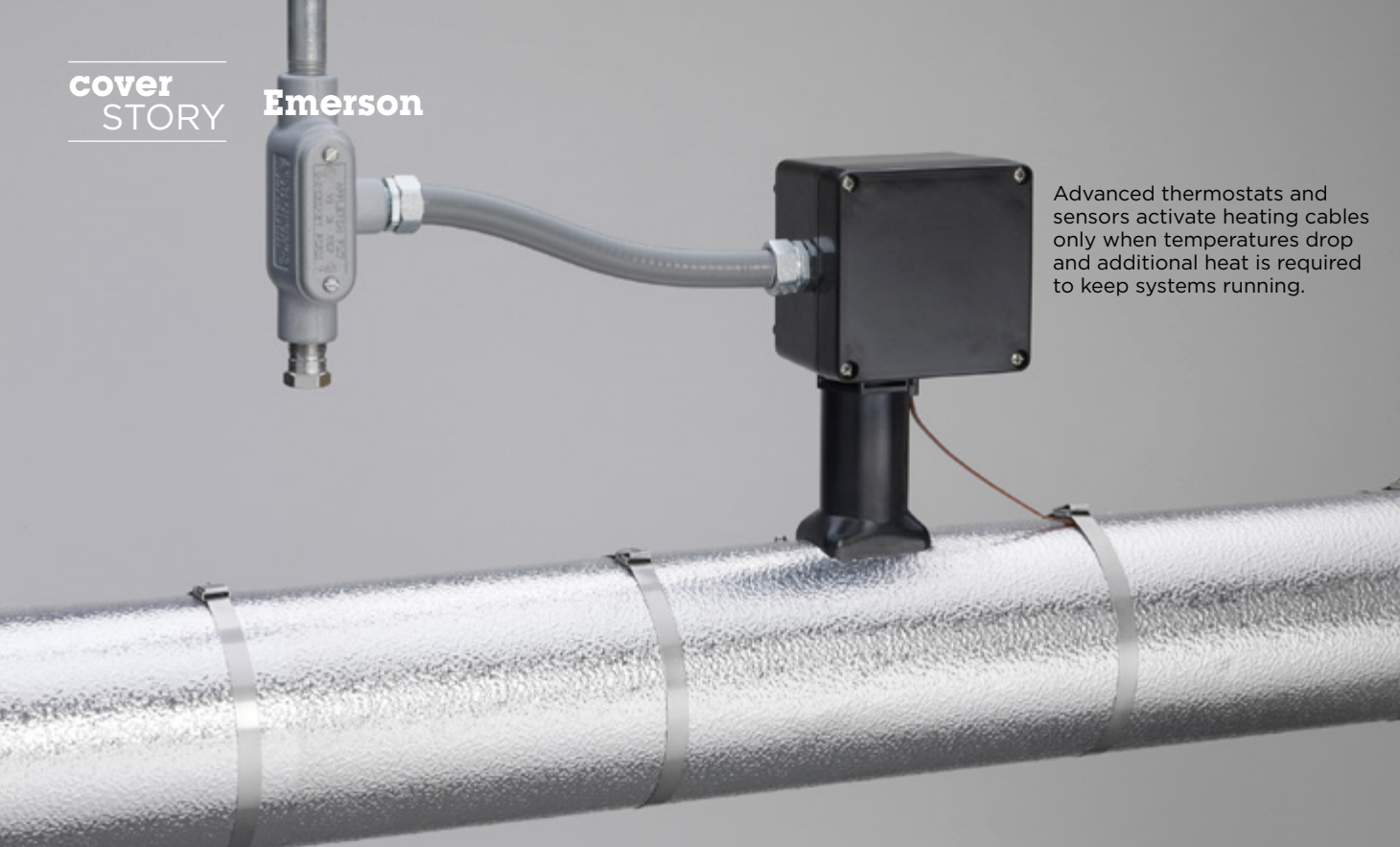
BY KELLY PIERCE, SALES CHANNEL MANAGER,
AND KEVIN GREEN, NATIONAL SALES MANAGER,
NELSON HEAT TRACE, EMERSON

FUNDAMENTAL TO LIFE, clean water is perhaps the most important natural resource on the planet. Unfortunately, with the increasing recurrence of droughts, poor management of resources, and climate change, a scarcity of clean water is reaching crisis status. Four billion people — almost two thirds of the world's population — experience severe water shortages for at least one month each year. (1) Even in countries with adequate water resources, water scarcity is not uncommon.

Water scarcity has made the operational reliability of wastewater treatment plants all the more urgent. Wastewater treatment ensures that contaminated water can be safely reused or returned to the water cycle, but never discarded. Wastewater (“sewage”) contains many harmful substances and cannot be discharged into the environment until it is treated. Therefore, the importance of wastewater treatment is twofold: to restore our water supply and to protect us from toxins. Since the Clean Water Act was issued in 1972, more than 15,000 publicly owned

wastewater treatment plants (WWTP) have been brought online in the United States, furnishing primary, secondary and tertiary levels of treatment to 34 billion gallons of wastewater each day. (2)

In this article, we address the serious challenges posed to WWTP by cold weather, specifically how freezing temperatures can jeopardize the piping infrastructures that enable plants to convert sewage into clean water. Piping systems are like the veins of a wastewater treatment plant, carrying water, sewage, chemicals, and mixtures from one location to another. Damage



Advanced thermostats and sensors activate heating cables only when temperatures drop and additional heat is required to keep systems running.

to one pipe can lead to a cascading effect onto the entire infrastructure. Unfortunately, the complexity of wastewater treatment systems often means that isolating, repairing, or replacing a single damaged or cracked pipe requires an expensive, time-consuming shutdown of machinery. Thanks to modern-day freeze protection technologies, specifically heat trace cables, WWTP have access to a solution, safeguarding mission-critical pipelines against severe cold weather events.

Winter Weather Challenges

As if the many variables of wastewater treatment aren't enough to keep a supervising technician busy, winter weather makes the task even more demanding. Snow, ice, and freezing rain can easily create obstacles that will prevent a plant from running at peak performance. Cold temperatures not only slow down the activity of the system's microorganisms, which do the important work of breaking down contaminants; but it also leads to frozen and cracked pipes, hoses, valves, pumps and process components, as well as ice formation on outside tanks and reservoirs, among other issues.

If left unprotected, just about any machine or component within a WWTP

can freeze. Once they do, the plant may need to be partially or completely shut down for repairs. Meanwhile, wastewater will continue building up until the facility restarts, or it may need to be released untreated into a nearby body of water leading to environmental contamination, hefty EPA fines, and bad publicity. A major cause of delays that extend downtime is waiting for vital replacement parts. Generally, these parts are ordered beforehand, however, emergencies like a frozen pipe or valve are rarely anticipated. Besides cracks and flooding, limited freezing of water or vapors in pipes can lead to changes in system conditions that can throw off the ratios of treatment products, rendering them less effective. Not only does this affect system health, but it also greatly reduces efficiency.

The Need for Freeze Protection

An overwhelming two-thirds of capital expenditures for conventional wastewater treatment plants can go toward pipelines and pumping stations to maintain flow. (3) Given this investment, extra measures need to be taken to keep this infrastructure performing at optimal efficiency during the cold weather months

When pipelines freeze in WWTP, the

consequences are severe. Leaks and bursts pose a danger to employee health, the environment, and the plant's financial and reputational status. A recent example is the historic 2021 winter storm in Texas. The brutal cold engulfed vast swaths of the Southwest, shuttering water treatment centers and hindering repairs. Some of the winter storm damages at Texas plants included broken pipes, valves, basins, and impacts to chemical feed systems. This led to service disruptions for water systems in more than 140 counties across Texas, affecting some 14.9 million people at its peak.

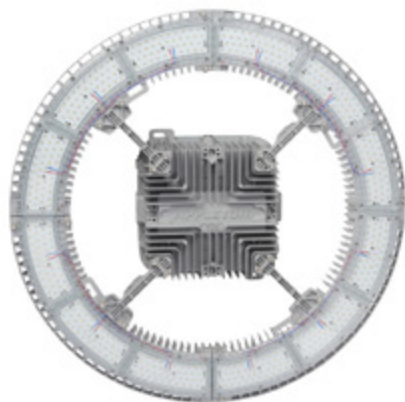
Heat Trace Cable

To ensure that wastewater treatment pipelines can operate during the winter, freeze protection needs to be applied. Electric heat trace cables play a major role, offering reliable, safe, and energy-efficient performance.

Heat tracing cables are designed to prevent pipes from freezing by use of a resistive element that heats up when electricity passes through it. Replacing lost heat allows the pipe and water/liquids inside to be kept at a constant temperature. If self-regulating, heat output is managed by the ambient temperature. This means that the heater cable will automatically alter the heat



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Keep safety systems safe. Fire suppression systems, especially wet pipe systems, are as vulnerable to freezing as any other pipe in a facility.

output in response to temperature changes across the pipe; it will increase the heat output as areas of the pipe cool, a decrease heat output in areas where the temperature is rising.

Areas of a WWTP requiring heat tracing include the headworks, supply pump stations, influent lift stations, filtration systems, and chemical feed systems (if located outside). Additional areas that should be considered are stairs/walkways, loading docks, and platforms to ensure employee safety. Faucets and washdown areas may also require heat tracing if exposed to the cold temperatures. However, areas such as reactors and digester systems have enough mass to prevent freezing without additional protection.

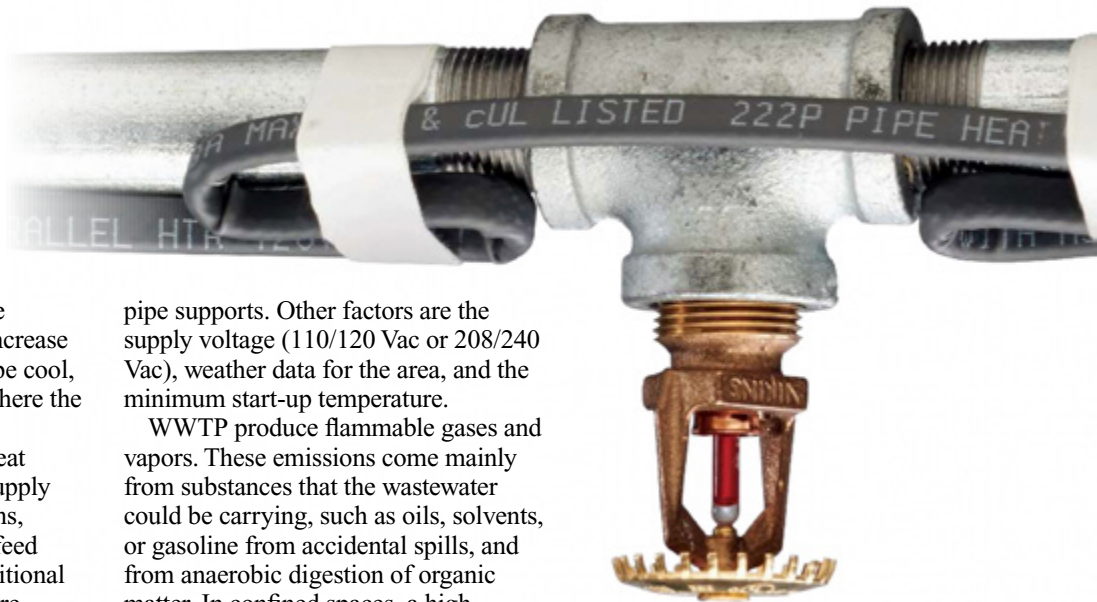
When you are specifying a heat trace cable, it is important to establish parameters. These parameters are determined by pipe sizes, lengths, material, number of valves and pumps attached to the pipes, and the type of

pipe supports. Other factors are the supply voltage (110/120 Vac or 208/240 Vac), weather data for the area, and the minimum start-up temperature.

WWTP produce flammable gases and vapors. These emissions come mainly from substances that the wastewater could be carrying, such as oils, solvents, or gasoline from accidental spills, and from anaerobic digestion of organic matter. In confined spaces, a high concentration of these gases can build up making the area particularly susceptible to an explosion from an electrical arc. NFPA 820-2020 (Standard for Fire Protection in Wastewater Treatment and Collection Facilities) determined that most pumping stations, spaces, and buildings that make up a WWTP must be considered hazardous locations. In North America, the heat trace cable you specify should be rated for hazardous locations as defined by the National Electrical Code (Article 500), which is broken down into Class, Division,

Group, and Zone based on their explosive concentration probabilities. When choosing a heat tracing cable solution for wastewater applications in Europe, ensure it is certified to ATEX, IECEx, CENELEC, EU or other regional hazardous location standards for both metal and non-metal pipes, tanks, and vessels.

Part 2 of this article will appear in the November issue of *Electrical Products & Solutions* magazine.

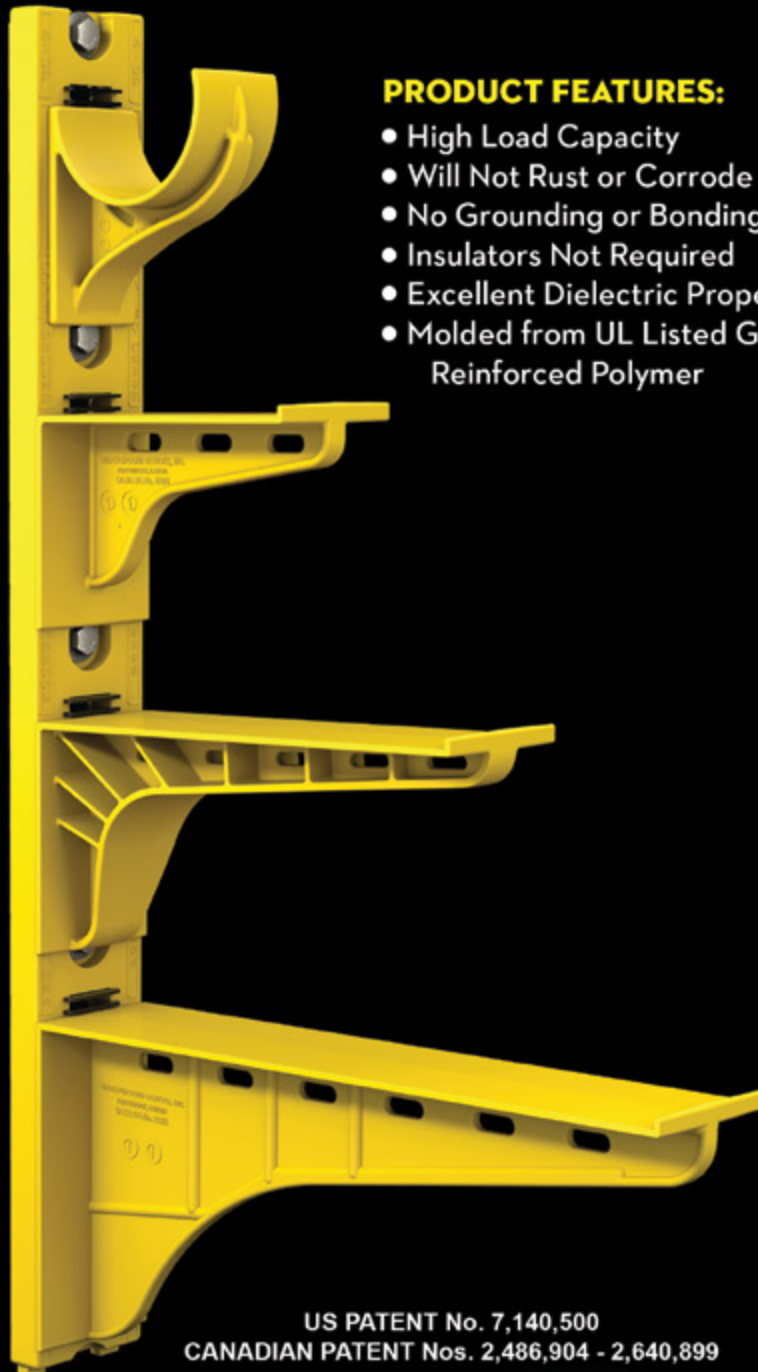


Insulation alone cannot always keep pipes warm. A Nelson Heat Trace System ensures pipes will not freeze, and can be used with insulation for additional protection.

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- Excellent Dielectric Properties
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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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HPS Unveils New Power Quality Lab

Hammond Power Solutions Inc. (“HPS”) has announced the opening of their new HPS Power Quality Lab. Located at their headquarters in Guelph, Ontario, the PQ lab allows HPS to demonstrate their wide range of power quality products through real-time testing.

The lab will primarily be used to host consultants, distributor specialists, partners and end users who want to experience the breadth and capabilities of HPS power quality products firsthand. It will also allow HPS Engineers to test new concepts and carry out qualification

testing on new products.

“We built the PQ lab as a showcase for our power quality products. Through acquisitions, partnerships and internal design efforts, we have built a substantial suite of products to address common power quality issues”, stated Robert Ellis, Senior Power Quality Application Engineer at Hammond Power Solutions. “It is a way for us to engage with technical personnel and decision makers to further the market penetration of our products.”

Customers can experience real-time testing and demonstration of line side power quality products such

as transformers, line reactors, active harmonic filters and passive harmonic filters, as well as load side products such as load reactors and various types of dV/dT filters with various cable lengths. Customers can request to bring other types of VFDs that are not already installed in the lab to test HPS power quality products on.

A typical session is roughly an hour in length and can include a tour of the Guelph plant. Customers can request a time slot beginning in October by contacting their local HPS representative or Regional Sales Manager. □

ABOUT HPS

Hammond Power Solutions Inc. (TSX: HPS.A) is a North American based leader in the design and manufacture of standard and custom electrical dry-type and cast resin transformers and reactors. Leading edge engineering capabilities, high quality products, and responsive service to customers’ needs have all served to establish HPS as a technical and innovative leader in the electrical and electronic industries. HPS has operations in Canada, United States, Mexico, and India, and is a Bronze Technology Partner with Rockwell Automation in the Americas and EMEA (Europe, Middle East & Africa).





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Learn more at: masteringled.com

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Tech Lighting Now Part of Vantage Lighting Fixture Alliance

Vantage Lighting Controls, LHUMAN Human Centric Lighting, and ELEMENT Lighting Fixtures Integrate to Offer Homeowners, Integrators, Architects, and Interior Designers Pristine Recessed Lighting

L egrand's lighting control brand

Vantage has added ELEMENT fixtures by Tech Lighting to its growing lighting fixture alliance. Tech Lighting is the premier lighting brand of choice for architects, lighting designers, and interior designers. Its portfolio includes architectural recessed downlights, linear LED channels and tape, and high-end decorative fixtures, delivering a complete lighting package. The alliance ensures that the company's fixtures pair seamlessly with Vantage's lighting control to offer a comprehensive and beautiful lighting design and user experience ideal for any new construction, remodel, or redecorating project.

Tech Lighting offers its ELEMENT specification-grade recessed lighting options, which deliver compact light fixtures engineered with greater agility, versatility, consistency, and responsiveness to suit any mood. The Tech Lighting Downlight portfolio also includes a wide range of products at varying price points including ENTRA and ENTRA CL to support budget and performance criteria.

"Lighting control gives any home a dynamic way to change the room," said Dave Keller, Business Development, Legrand Residential Shading & Controls. "Architects and designers who choose



ELEMENT can complement their designs with incredible control that can be fully customized. From our easy-to-program user interface to touch panels and keypads with *adore®* and *EasyTouch Glass* wallplates available in an array of finishes and colors, we provide the finishing touch to any design that homeowners will enjoy."

ELEMENT by Tech Lighting is engineered to ensure the highest quality housing components and assembly methods. The downlights are designed to provide exceptional illumination while also ensuring the space is clean, quiet, and undistracting at the ceiling. Unique features include a high-low lamp position, 361 degrees of rotation to avoid dead spots, and up to 40 degrees of tilt for maximum

adjustability. Downlights are available in multiple application styles, including adjustable, fixed, remodel, and wall wash – along with a multitude of flangeless wood ceiling options. The fixtures offer a range of static white, warm color dimming and programmable white options. Tech Lighting's Tunable White options allow homeowners to select different color temperatures for different spaces and at different times of day. When combined with Vantage's LHUMAN human centric lighting control solution,

featuring design-friendly Vantage control touch panels or keypads and automated shading from Legrand Shading Systems, architects, interior designers, and installers can intelligently render the perfect lighting environment homeowners need for any task or mood.

"Our mission is to help people fall in love with great lighting. Lighting is the one design element that impacts every other design element in the space. Lighting is also the only dynamic design element," said Josh Weiss, Executive Vice President for Tech Lighting. "Combining our premier light fixtures with exceptional lighting design and Vantage control, we can build layers of light that create a visually comfortable and visually interesting experience for the end user." □

ABOUT TECH LIGHTING

Part of Visual Comfort & Co., Tech Lighting is a leading brand for modern decorative and specification-grade architectural lighting. With a passion for innovation, original design and uncompromising quality, Tech Lighting delivers iconic and timeless indoor and outdoor lighting collections for the spaces in which people live, work, play, learn, shop and more. Since its founding in 1987, Tech Lighting has continuously led the adoption of emerging technologies and challenged traditional norms in lighting. By collaborating closely with lighting and interior designers to understand their needs and solve their toughest challenges, Tech Lighting has gained broad recognition for balancing a passion for every design detail with an appreciation for the way fixtures illuminate a space. Visit www.techlighting.com for more information.





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The SolaHD™ SCP-X Series Standalone IP67 Power Supplies by Emerson can be mounted almost anywhere on a machine, conveyor, or wall. With no enclosure required they offer safety against arc flash hazards.

Quick-connect cables ensure the IP67 rating and eliminate costly wiring. Available from 100 Watts to 240 Watts, the SCP-X Power Supplies meet the diverse needs of automotive manufacturing, conveyor systems, and equipment where 24 Vdc power is required for geographically dispersed devices.

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Different lighting scenes can be achieved with Seem 1 Louver direct/indirect in this conference room, supporting the diverse needs of the occupants.



Focal Point Expands Seem 1 Family with High-Performance Louvered Optics

Seem 1 Louver with ID+ technology marries the best of linear luminaires and downlights into a flexible, configurable system

THE BROAD SEEM® 1 PRODUCT PORTFOLIO has long been a staple for specifiers who desire a sophisticated, narrow-aperture luminaire that can support their creative impulses and the lighting needs of each application with recessed, surface mount, wall mount, and suspended linear luminaires. Plus, the broad family offers unique opportunities for visual and acoustic comfort with products such as Seem 1 Point Source, Seem 1 Lit End Caps, Seem 1 Acoustic, and Seem 1 Acoustic Trio.

Focal Point is now adding a new tool to the lighting professionals' arsenal with Seem 1 Louver. As the name, implies, louver cells with a multitude of beam spreads and finishes can now be

integrated with lensed illumination or in entirely louvered luminaires.

"I'm excited to bring a premier louvered luminaire to the market," states Christoph Miller, Product Manager.

"Focal Point took a high-tech approach by incorporating the ID+ technology used for our downlights into our linear luminaires. This means deeply regressed light sources resulting in a 60° cut-off for visual comfort, a diversity of louver finishes to tailor how the light is perceived and experienced, a variety of beam spreads to support applications ranging from task lighting to general ambient illumination, and shared light sources with our ID+ Downlights and Cylinders, translating into a consistent light quality. This opens up additional design possibilities to light a space while keeping the ceiling very quiet

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IP26 Flat "Big O" Box Support Plate



PATENT PENDING



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Prefabricated Assemblies

SAVE More Than \$15.00 per Wall Outlet

PFA3



Conduit & Box Support Plates



PATENT PENDING

IP5 PATENTED

* IP6 PATENTED

* IP6c PATENT PENDING

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IP8 PATENT PENDING



Support From Only ONE Rod Plus Eliminates Conduit Clamps
Save More Than One Hour per Installation! *

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IP28a PATENTED



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IP13a-13h

Transition Couplings



a

PVC to PVC

b

PVC to EMT

c

PVC to Rigid

d

PVC to Flexible

e

PVC to Aluminum

f

PVC to Stainless

g

PVC to Liquefite

h

PVC to EMT Comp.

Sizes 1/2" thru 6" Schedule 40/80 Conduit

IP15 1 Piece Reaming Bit

PATENT PENDING 1/2" thru 6"

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- Use For Entire Job - Not Just for Repair!

IP19 4-Conduit Block

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Support up thru 4 conduits From ONLY 1 ROD!

SAVE OVER 30 MINUTES PER INSTALLATION



IP21a QwikBlock Box Support

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NEW



Accepts Both 1/4" & 3/8" Threaded Rod

NEW

Snap-ON Adjustable Back Box Support

IP18a PATENT PENDING



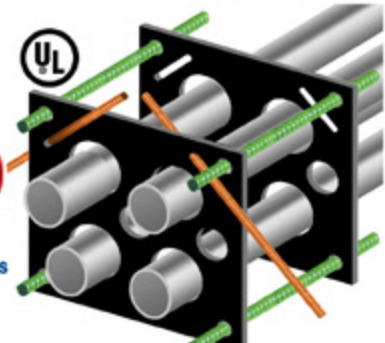
IP1

QwikDuct HDPE CUSTOM TEMPLATES

LOWER CONDUIT FROM ABOVE
NO WORKERS BELOW PREVENTS INJURIES OR DEATHS
4,000 PSI TENSILE STRENGTH AT BREAK
OVER 12X FASTER THAN SPACERS & CHAIRS

PATENT PENDING

NECA SHOW STOPPER 2000



IP3a End Bell Adapter



Smooth Edges Allow Trouble Free Wire Pulls.
PVC Schedule 40 & 80
Sizes 1/2" thru 6"

IP3b

PVC Offset

1/2" thru 6" Conduit
1/2" thru 2" Offset
PATENT PENDING



Plus More That Do Jobs **SAFER BETTER FASTER** Constantly Being Invented!



SPProducts.com 800-233-8595 info@SPProducts.com



Powerful illumination makes Seem 1 Louver ideal for high-ceiling or multi-story applications.

and lends specifiers peace of mind when using the luminaires within the same space.”

Seem 1 Louver was engineered as a flexible system that allows specifiers to combine louvered cells, lensed illumination, and unlit faceplates in multiple configurations, many of which are pre-designed, thus orderable directly from the cut sheets and available within standard lead times. Lambertian and batwing distributions are offered for lensed direct illumination while indirect illumination offers the choice between Lambertian, batwing, and asymmetric light distributions. The louver cells offer beam angles from Narrow Flood (20°), to Flood (29° & 43°), to Wide Flood (67°), as well as a Louver Mixing Chamber (68°). Independently controlled light sources support the creation of precise lighting scenes, completely transforming spaces with the use of a single, purposely configured luminaire.

Color temperatures of 2700K, 3000K, 3500K, and 4000K are available at CRI 80 or 90, with lumen

Seem 1 Louver guides visitors and provides task lighting in this entryway.



Seem 1 Louver provides discrete illumination while integrating beautifully in wood ceilings.

professional tremendous freedom to not only design singular luminaires in individual units, continuous runs, or patterns, but also to transform spaces with various lighting scenes and to modulate how occupants perceive the light. “We hope the lighting design community will explore the unique effects that can be achieved with Seem 1 Louver and will push the limits of what our team dreamed up,” expressed Miller.

Seem 1 Louver pairs cohesively with all Seem 1 luminaires to bring harmony and a glowing elegance to interior spaces with nominal 1.5” lines of light. Layers of light are best achieved using Seem 1 Louver or Seem 1 Point source combined with ID+ Downlights, and specifiers can go beyond illumination with Seem 1 Acoustic luminaires.

For more information about Seem 1 Louver and the Seem 1 portfolio, visit www.focalpointlights.com/Seem1. □



First there was 4 square... and now the **REVOLUTIONARY 5 Square®** Box!!

You've struggled with 4 Square boxes for years - you know how small, cramped and time consuming they are. Finally, there is a solution that allows you the space you have always needed.

The **5 Square®** Boxes (5" x 5" x 2-7/8") provide up to 88 in³ of interior volume which more than doubles that of most existing boxes on the market.

Create a robust and unrivaled infrastructure for the life of your facility with the **5 Square®** Products!

Fire Signal



- TWICE THE VOLUME AS MOST BOXES
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- ELIMINATES TROUBLESHOOTING TIME AND COST
- FULLY UPGRADEABLE SYSTEM
- SPECIFIED BY ENGINEERING FIRMS, HOSPITALS, UNIVERSITIES & GOVERNMENT AGENCIES
- AVAILABLE IN ZINC OR RED

Telecommunications



- INTEGRAL CABLE MANAGEMENT
- 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



SolaHD Mini-Tower UPS Fits Easily in Control Cabinets

UPS Outputs Fully Conditioned Power to IT and Automation Equipment

Emerson has introduced the SolaHD SSW Mini-Tower Line-Interactive UPS, a highly economical choice for preventing costly damage to IT and industrial automation devices from electrical surges, spikes, lightning strikes and blackouts.

Available in capacities from 700VA to 1440VA, the SolaHD SSW ensures optimum waveform for equipment stability and longevity with its battery sinewave output. Automatic Voltage Regulation (AVR) topology adjusts high and low voltages to a safe level, providing sensitive electronics with reliable power while preserving the life of the UPS battery. It performs the vast majority of power disturbance corrections without ever transferring to its internal battery, therefore preventing critical backup power from draining. Built-in surge suppression and Active Tracking® Filters shield connected equipment from damage caused by surges and EMI/RFI line noise introduced on the input power source.

Space is always at a premium in control cabinets. That's why engineering will appreciate the SolaHD SSW's small footprint and minimal depth. The mini-tower shape fits easily into crowded cabinets and other tight spaces. Packing more protection into less space means added room for future infrastructure scaling.

By pairing the SolaHD SSW with Emerson's UPSwatch™ monitoring software, operation teams are given remote visibility into the status of the UPS and its loads. Whenever UPSwatch™ detects a supply voltage variation or a total power loss, it can execute command scripts including automatic shutdown to prevent equipment damage and additional production downtime. The SSW UPS also comes with a battery test function. Should the battery fail this test, the UPS will display a warning to indicate that the "hot-swappable" battery needs to be replaced.



For more information, visit
www.emerson.com/en-in/automation/solahd

Supporting the Pros: DEWALT® Introduces 20V MAX* 3x360 Green Line Laser Delivering More Than 10 Hours of Runtime for Long-Lasting Jobsite Performance**

New Green Line Laser provides visibility and long-reaching range in bright conditions and on expansive worksites



DEWALT, a Stanley Black & Decker (NYSE: SWK) brand and leader in total jobsite solutions, today announced a new 20V MAX* 3x360 Green Line Laser (DCL34031) that provides users the benefit of 11 hours of runtime** enabling long, uninterrupted time on the job.

The laser is ideal for framing, drywall, MEP, building and remodeling applications and is compatible with DEWALT 20V MAX* 2.0Ah, 4.0Ah, and 5.0Ah batteries.

Incorporating DEWALT green beam diode technology, this powerful tool delivers optimal visibility in bright environments and on extensive jobsites. The laser provides accuracy of up to 1/8-In. at 30-Ft. with a 130-Ft. visible distance, and on average, a 330-Ft. max range when used with the DW0982G green line laser detector (sold separately). With a strong internal magnetic connection, the mount supports the laser when paired with up to a 5.0Ah 20V MAX* DEWALT battery (sold separately).

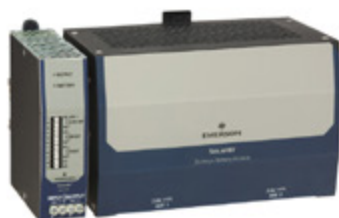
The individual laser line on/off buttons put the user in control of which lines to activate with the benefit of extending run time when only select lines are in use. For convenience, the laser also utilizes last mode memory which illuminates the beams last used to quickly begin work again. A pendulum lock is designed to help safeguard internal components while transporting the laser between tasks and jobsites.

The DEWALT 20V MAX* 3x360 Green Line Laser is available now as bare unit (tool only) and as a kit where DEWALT products are sold.

For more information, visit
www.DEWALT.com



Compact and Easy to Install DC UPS for Harsh Industrial Locations



Solahd™ SDU DC - B Series DIN Rail UPS

The Solahd™ SDU DC - B Series DIN Rail UPS by Emerson are perfect for mitigating power quality issues, minimizing loss of data and downtime.

The SDU DC - B UPS combines an industry leading compact design, wide operation temperature range -15 °C to +50 °C (+5 °F to +122 °F), enhanced communication and unique installation options to solve common application problems.

Learn more at: www.solahd.com

SOLAHD™

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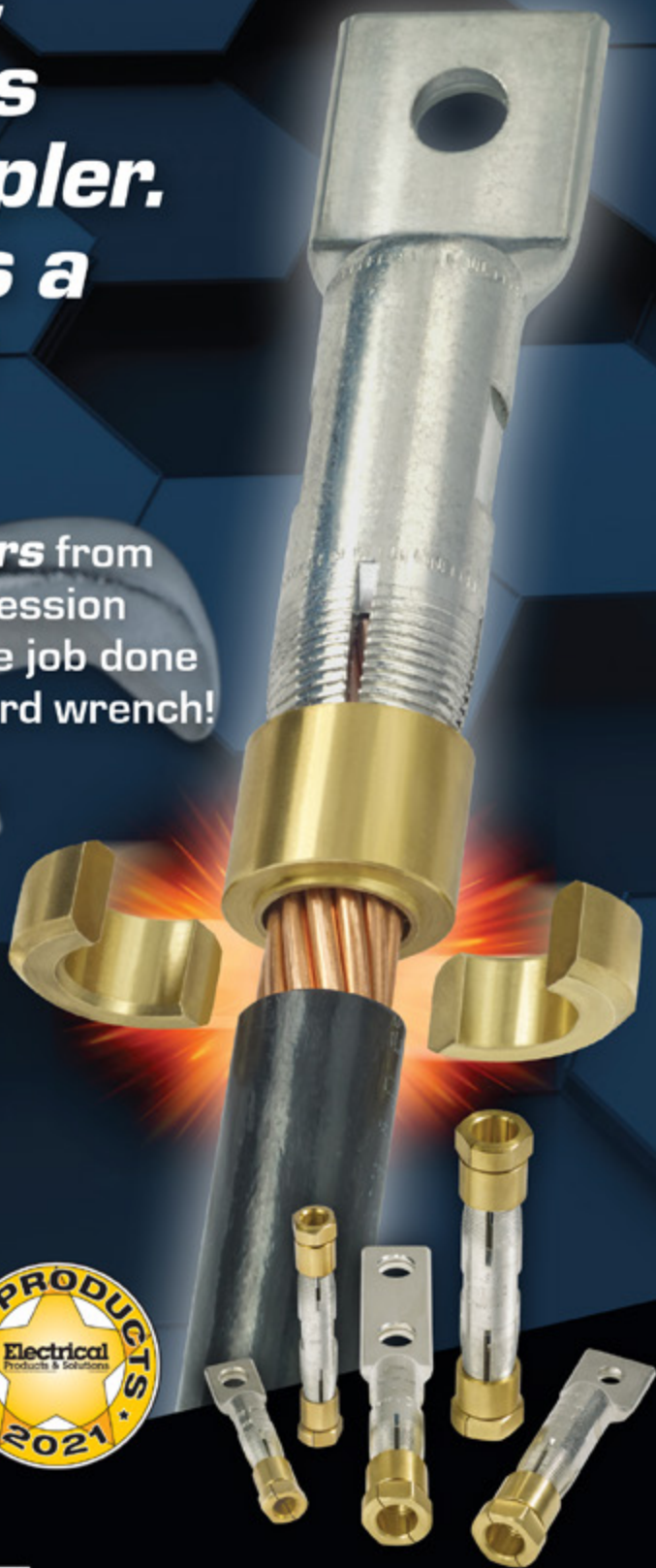


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Making perfect connections has never been simpler. In fact, now it's a **SNAP!**

NEW **SNAP Connectors** from Greaves. A revolutionary compression connector concept that gets the job done with just a few turns of a standard wrench!

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- ▶ No bulky and costly tools and dies



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Dynamic® Introduces 28-Piece Insulated Tool Set

The Dynamic® tool brand has introduced a 28-piece insulated tool set to meet the growing needs of commercial and residential electricians, industrial maintenance professionals, mobile/field service technicians, and electric vehicle (EV) mechanics. Each tool within the set has been tested to 10,000 AC and is VDE certified to 1,000 VAC in compliance with IEC 60900.

Dynamic's new insulated tool set includes a 1/2" drive ratchet with a selection of extensions and six-point metric sockets. It also contains open-ended metric wrenches, slotted screwdrivers, Phillips screwdrivers, side-cutting pliers, lineman's pliers and long-nose pliers. All pieces are precision machined to meet the needs of the most demanding professionals.

For secure storage, the set comes with a lockable case. The case has two foam organizers with labeled cutouts, which allows for easy tool identification, compliance with 5S work environments and added safeguarding against foreign object damage (FOD).

"This set is the latest addition to one of the broadest insulated tool assortments on the market," said Dragos Baicoianu, Brand Manager for Dynamic. "Our company prides itself on environmental responsibility, and we're excited for this product to help support the transition of various industries to clean energy, manufacturing and transportation. The tool set fills the need for industrial-quality insulated tools at budget-sensitive pricing, and we stand behind it by offering a limited lifetime warranty through our parent company, Gray Tools."

Introduced in 2009, the Dynamic® tool brand was created by Gray Tools, a renowned North American manufacturer and distributor of premium hand tools founded in 1912, to meet the need for high quality tools at a budget-friendly price. Today, the Dynamic line consists of more than 2,500 products, including sockets, wrenches, pliers, hammers, chisels, locking tools and clamps, which are fully serviced and warranted by Gray Tools.



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



Klein Tools® Launches Foam Earplugs for Convenient Hearing Protection

Klein Tools, for professionals since 1857, introduces Foam Earplugs, a new hearing protection solution, to its expanding line-up of personal protective equipment.

Foam Earplugs

- Noise Reduction Rating (NRR) of 33 decibels
- Soft, disposable foam design conforms to the ear canal for optimal comfort and a snug fit
- Disposable and latex free
- Tested in accordance with ANSI S3.19-1974 standards
- Available in two different package options
 - » 10-pair Resealable Pouch (Cat. No. 6054010)
 - » 50-pair Dispenser Box (Cat. No. 6054050) holds 50 individually wrapped pairs

"Hearing protection is one of the most important aspects of personal protection, especially on noisy job sites where hearing damage is a daily risk," says Chandler Duchaine, product manager at Klein Tools. "These Foam Earplugs are Klein's first products in the 'passive hearing' space and are designed to be a simple and easy solution for hearing protection, with a Noise Reduction Rating of 33 decibels. The Earplugs come in a 10-pair resealable pouch as well as a 50-pair dispenser box, to suit your jobsite needs."

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

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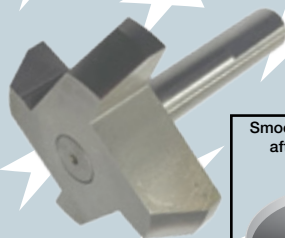


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IP15a

Chamfer Bit for PVC SCH 40/80



PATENT
PENDING

Smooth Beveled Edge
after Chamfering



IP27b

Electro Post EP-10 Box Support Bracket



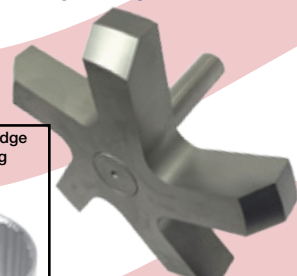
Mounts on all standard stud widths
of 2-1/2", 3-5/8" or 6"



PATENT
PENDING

IP15b

Chamfer Bit for Aluminum EMT



PATENT
PENDING

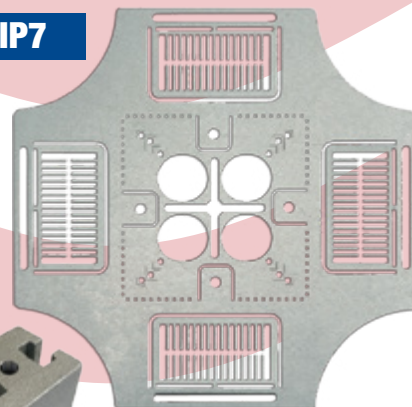
Smooth Beveled Edge
after Chamfering



**NEW
PRODUCTS**

4-WAY CONDUIT & BOX SUPPORT PLATE with Split Fingers for Horizontal or Vertical Installation

IP7



IP19/20

4-Conduit Block
PATENTED

IP21a

QwikBlock
PATENT
PENDING



PATENTED

Use 4-Conduit Block
(IP19 or IP20)
with QwikBlock
(IP21a)

PVC Running Thread SCH 40/80 Up to 30" Long

PATENT
PENDING

IP3d



NEW Transition Fittings

Saves a Great Deal of Time Repairing Conduit
The Inside Diameter Remains the Same
Allows for Trouble Free Wire and Cable Pulls

IP13p

3/4" MC Cable
to PVC



IP13q

PVC
Reducer
PATENT PENDING



IP13k

Inside PVC to
Inside PVC
PATENT PENDING



Male Threaded PVC Offset

IP3c

1/2" thru 3" Offset
for Conduit Sizes
1/2" thru 6"

PATENT
PENDING



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Leviton Introduces New Data Acquisition Server for the VerifEye™ Submetering Solutions Line

New EMHXD Data Acquisition Server (DAS) delivers a plug-and-play data collection solution

Leviton today announced the new VerifEye™ EMHXD, an intelligent, flexible data acquisition server (DAS) that collects energy data from meters and environmental sensors through flexible inputs and Modbus RTU/TCP protocols. Designed to connect to IP-based applications such as enterprise energy management, demand response, and smart grid programs, the EMHXD allows users to connect thousands of energy points, benchmark energy usage, and reduce energy costs.

“With a faster processor, more memory and data storage, and an improved user interface for data collection, the EMHXD delivers an expanded capacity and flexibility to address a broad range of energy management applications,” said Tom Leonard, vice president of controls at Leviton. “This makes it ideal for tenant billing in residential MDUs, code compliance in commercial and industrial applications and renewable energy applications.”

The EMHXD collects data from connected (wired or wireless) devices based on user-selected intervals. Compatible with virtually all front-end software and reporting tools, users can easily access the data through any web browser. No software is required.

The EMHXD can be leveraged for tenant billing, accessing energy information from local or remote sites, benchmarking building energy usage, and viewing “real-time” performance data. Additionally, the EMHXD allows the user to more accurately track energy use and peak demand for demand response programs, monitor the performance of critical systems, such as lighting, HVAC, PDUs and inverters, and set alarm notifications for data points above or below target levels.

Dual Modbus (RS485) ports also double the capacity for Modbus devices, and dual Ethernet (LAN) ports provide enhanced security and easy commissioning.



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



Milwaukee® Reaches New Lengths with High-Speed Ratchets

Milwaukee Tool continues to expand their industry leading line-up of fastening solutions with the introduction of their new M12 FUEL™ 3/8" and 1/4" Extended Reach High Speed Ratchets. These solutions deliver the most access in tight spaces, while providing the fastest ratcheting speeds and up to 35 ft-lbs of max torque.

Featuring the longest reach and smallest head size, users can complete critical applications around automobile and heavy-duty equipment. The extended neck design provides 20% more reach than competitive ratchets. The compact head profile and recessed forward-reverse shift knob reduces the width, providing best in class access at 0.76".

Delivering 450 RPM, these tools provide speeds up to 35% faster than other cordless ratchets. The high speeds increase a technician's daily productivity and reduce fatigue by allowing them to remove and fasten more bolts back-to-back throughout the day. Providing up to 35 ft-lbs of max torque, these ratchets offer pneumatic performance without the hassle of hoses, cords, or routine tool maintenance. In addition, the M12 FUEL™ 3/8" and 1/4" Extended Reach High Speed Ratchets deliver the same torque as pneumatic solutions to break free and run stubborn fasteners.

The new M12 FUEL™ 3/8" and 1/4" Extended Reach High Speed Ratchets join the M12™ Cordless System, the largest sub-compact system on the market, focused on delivering industry-leading durability and the power to complete applications in the tightest spaces. Currently the M12™ System is made up of more than 125 solutions.

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

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Philips MainsFit CorePro PLED lamps

Philips MainsFit (Type B) CorePro Adjustable Color Temperature PL-C/PL-T replacement lamp family provides a unique solution to end users by providing three color choices in one lamp.

Benefits

- Proven over 40% energy savings¹ over fluorescent systems.
- Lifetime delivered average life rating of 30,000 hours² means satisfied customers.
- Ballast Bypass – UL Type-B.
- Adjustable Color Temperature choose from 3000K, 3500K, or 4000K to suit the needs of end users
- Optimized light distribution available in horizontal or vertical lamp configuration to work in all applications
- Light quality and performance predictability providing consistent light output and no flicker which results in satisfied customers and no wasted time redoing a job.
- Proven product history from a company with a long history of innovation and reliability in the lighting industry.

- ✓ Adjustable colors
- ✓ Energy saving
- ✓ Flexibility

For more information, visit
www.usa.lighting.philips.com

Reliable Light for Halls and Warehouses Powerful Tridonic LED Driver

Tridonic introduces a new LED driver in the high-power category for industrial applications. The combination of high power output and excellent software results in efficient, reliable and connected lighting even in demanding industrial environments.

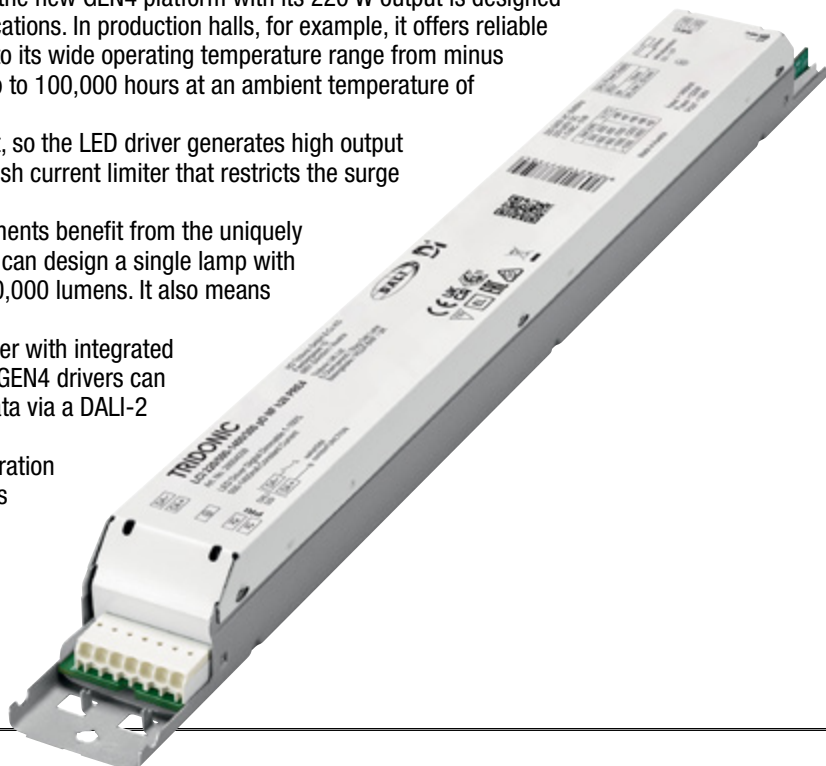
The LCI 220/500-1400/300 pD NF h28 PRE4 driver from the new GEN4 platform with its 220 W output is designed for use in harsh environments, especially in industrial applications. In production halls, for example, it offers reliable lighting even at very high or very low temperatures thanks to its wide operating temperature range from minus 40 to plus 75 degrees Celsius. Service life is specified as up to 100,000 hours at an ambient temperature of 65 degrees Celsius.

Industrial halls with high ceilings require high light output, so the LED driver generates high output power. The 220 W driver is equipped with an integrated inrush current limiter that restricts the surge of the inrush current.

Manufacturers of luminaires for use in industrial environments benefit from the uniquely high power range of up to 220 W. With the PRE4 driver they can design a single lamp with a single driver to deliver enormous luminous flux of up to 40,000 lumens. It also means luminaire production is simpler and less costly.

The new GEN4 driver is a dimmable constant current driver with integrated DALI bus power supply for D4i luminaires. Each of the new GEN4 drivers can provide DiiA standardized lighting, energy and diagnostic data via a DALI-2 interface.

The new 220 W Generation 4 driver offers simple configuration via the NFC interface for dimmable industrial drivers. Thanks to companionSUITE software from Tridonic, programming is simple. Multiple devices can be programmed simultaneously to save time in production.



For more information, visit
www.tridonic.com

New Gaming UPS Delivers Power Protection for PCs and Consoles, Allowing for Continuous Gameplay and Streaming

Gamers can monitor real-time power draw via dynamic RGB LED strips

Power management company Eaton today announced a new innovation in backup power for video gaming with the North American launch of its Pure Sine Wave Gaming uninterruptible power supply (UPS). The new Tripp Lite by Eaton solution delivers clean, reliable power in AC and battery backup modes and is designed to prevent game crashes and audio/video problems.

“Whether you’re a casual gamer or a seasoned pro, no one wants to have their experience interrupted by power problems,” said Rusty Scioscia, product manager, Eaton. “Our Pure Sine Wave Gaming UPS was designed with gamers in mind to regulate voltage irregularities and provide reliable battery backup to make sure play continues without disruption.”

The new line-interactive UPS provides 600 to 1500 VA of pure sine wave power that is compatible with active PFC power supplies, high-performance gaming components and other sensitive devices. Automatic voltage regulation (AVR) corrects abnormal voltage conditions to prevent instability. Surge protection shields connected equipment from damaging power spikes.

Battery backup ensures uninterrupted play and streaming during short outages. With the addition of an external battery pack (sold separately), the 1500 VA model provides up to 50 minutes or more of battery runtime.

The Pure Sine Wave Gaming UPS monitors the connected PC’s true power draw in real time and displays voltage, wattage and battery level data on the detachable wireless LCD control panel. Four strips (two banks) of programmable RGB color LEDs coordinate with gaming setups and can respond to the PC’s power draw with user-definable colors and lighting modes. The LEDs are controlled via the detachable LCD or a free downloadable software utility.



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

DON'T MISS OUT!

Does your product help to increase profits or improve safety and overall working conditions for the electrical contractor? If so, don't forget to submit your product for nomination as one of *Electrical Products & Solutions'* “TOP PRODUCTS OF 2022”.

All the winners will be featured in our December issue.

Deadline: December 9, 2022

Requirements:

Submit a high resolution photo (300 dpi) of your product, along with a brief description (up to 150 words). *Please note on your submission that it is for consideration for Top Products.*

E-mail: danny@epsmag.net

or mail to: Electrical Products & Solutions

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IP5

"The Original"

Enter Any KO on
Both Sides of the Box



PATENTED



IP19/20

4-Conduit Block
PATENTED



IP21a

QwikBlock
PATENT PENDING



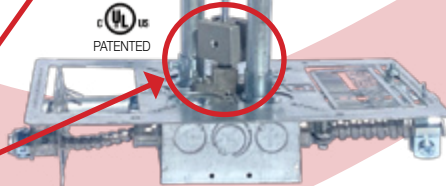
Use 4-Conduit Block
(IP19 or IP20)
with QwikBlock
(IP21a)

IP6d

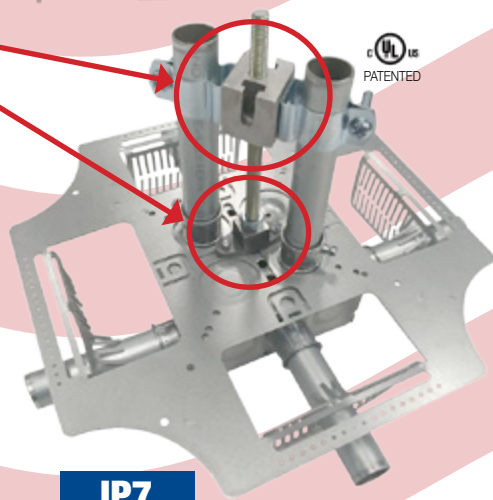
2-Way
with Split Fingers
for Horizontal or
Vertical Installation



PATENTED



PATENTED

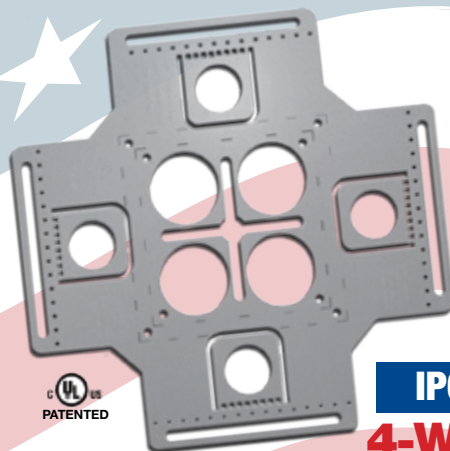


**Our Family of
Conduit & Box
Support Plates
Saves Valuable
Time & Money!**

IP6

4-Way

Enter Any KO on All 4 Sides
of the Box Plus 4 Large Open
KOs in Center Allows Entering
Back of Box

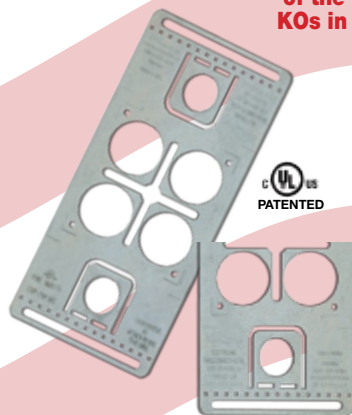


PATENTED

IP6a

2-Way/Half

Enter Any KO on 1 or 2 Sides
of the Box Plus Large Open
KOs in Center Allows Entering
Back of Box

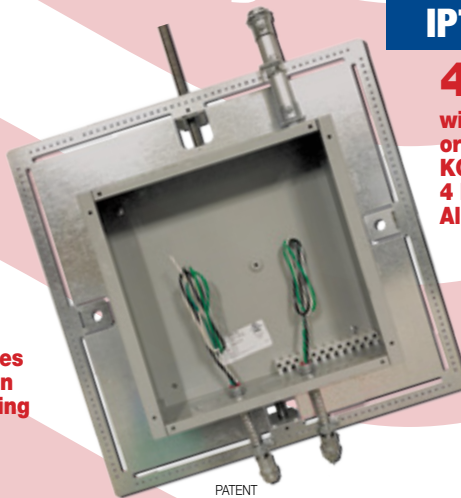


PATENTED

IP7

4-Way

with Split Fingers for Horizontal
or Vertical Installation. Enter Any
KO on All 4 Sides of the Box Plus
4 Large Open KOs in Center
Allows Entering Back of Box.



PATENT
PENDING

IP8

Mount Horizontally or Vertically
from One Single Support

20 x 20

Supports up to 12 x 12 J-Box

28 x 28

Supports up to 20 x 20 J-Box

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