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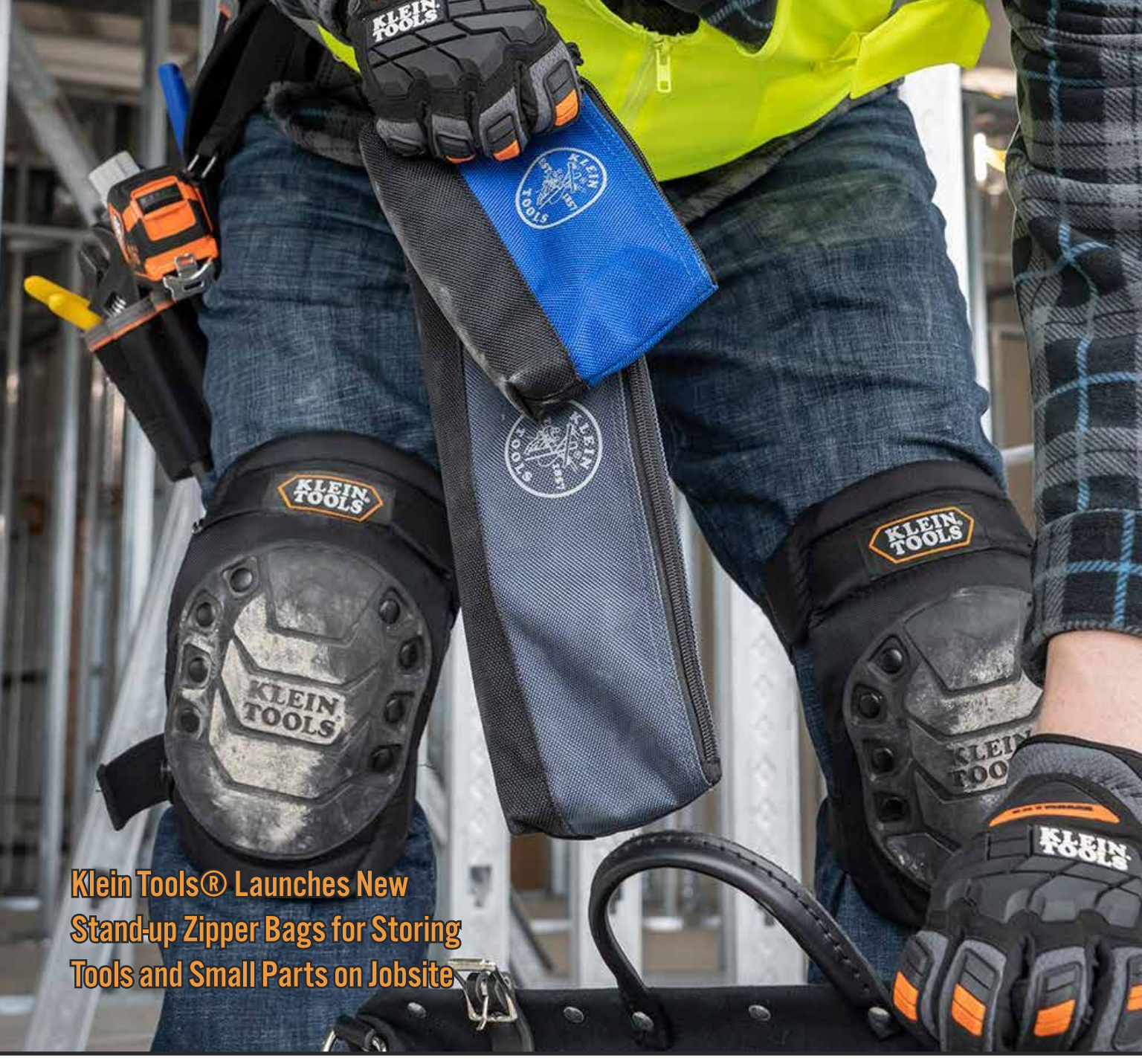

Klein Tools® Launches New Stand-up Zipper Bags for Storing Tools and Small Parts on Jobsite

Klein Tools (www.kleintools.com), for professionals since 1857, introduces new Stand-up Zipper Bags, in a 2-Pack with 7-Inch and 14-Inch sizes, both designed to handle tough jobsite conditions and stand up so tools and small parts can be easily accessed when working.

Stand-up Zipper Bags, 7-Inch and 14-Inch, 2-Pack (Cat. No. 55559)

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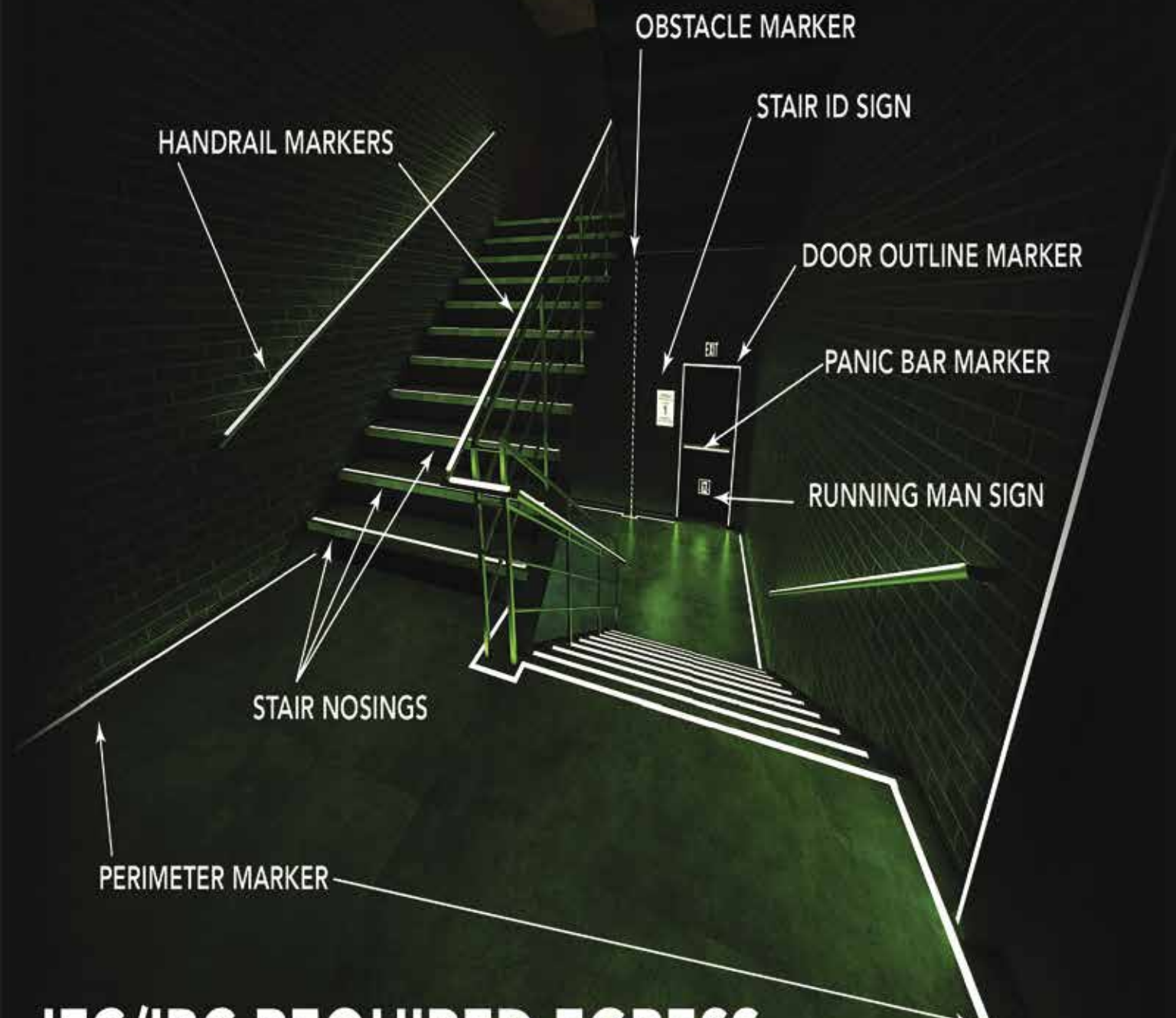

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- Heavy-duty, water resistant 1680d ballistic weave material
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- Durable zippers with string pull make opening and closing the bags easier, even with gloves on

"Trade professionals have to carry a variety of small tools and parts as part of their daily jobsite activities," says Scott Rabe, senior product manager at Klein Tools. "Klein Tools' new Stand-up Zipper Bags are designed to carry all of these small items, and are made of heavy-duty ballistic weave material, with reinforced bottoms to help prevent sharp tools and parts from wearing through. The bottoms are also gusseted to allow them to stand up, giving easy access to tools. On top of all that, the bags come together in a 2-pack, with 7-Inch and 14-Inch sizes, so you have options to choose what works best for your job."

For more information, visit www.kleintools.com/new-products or search for #NewKleins on social media.

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Award recognizes influential female business leaders in Silicon Valley

Acosta Sheet Metal Manufacturing, Inc., a family-owned sheet metal manufacturer based in San Jose, is proud to announce its vice president of operations and marketing Michelle Acosta has been named to the Silicon Valley Business Journal 2022 Women of Influence. This list encompasses women from every industry and profession — women who have made a difference in their communities, blazing a trail for others.

“The world is changing for women, especially in the Bay Area. It’s amazing to be included in this honor alongside so many powerful women,” said Acosta. “Female executives are truly making a mark in Silicon Valley.”

Already recognized as a leader in numerous collegiate, young professional, and nonprofit organizations, such as the Silicon Valley Young Professionals and Peoples Associates Structural Engineers, Michelle Acosta is a seasoned marketing professional with extensive experience in outreach within the manufacturing industry. In her spare time, she also serves at 99Bridges, a sustainable data exchange company.

“An emerging leader in our industry, it’s exciting to see Michelle gaining positive recognition within our

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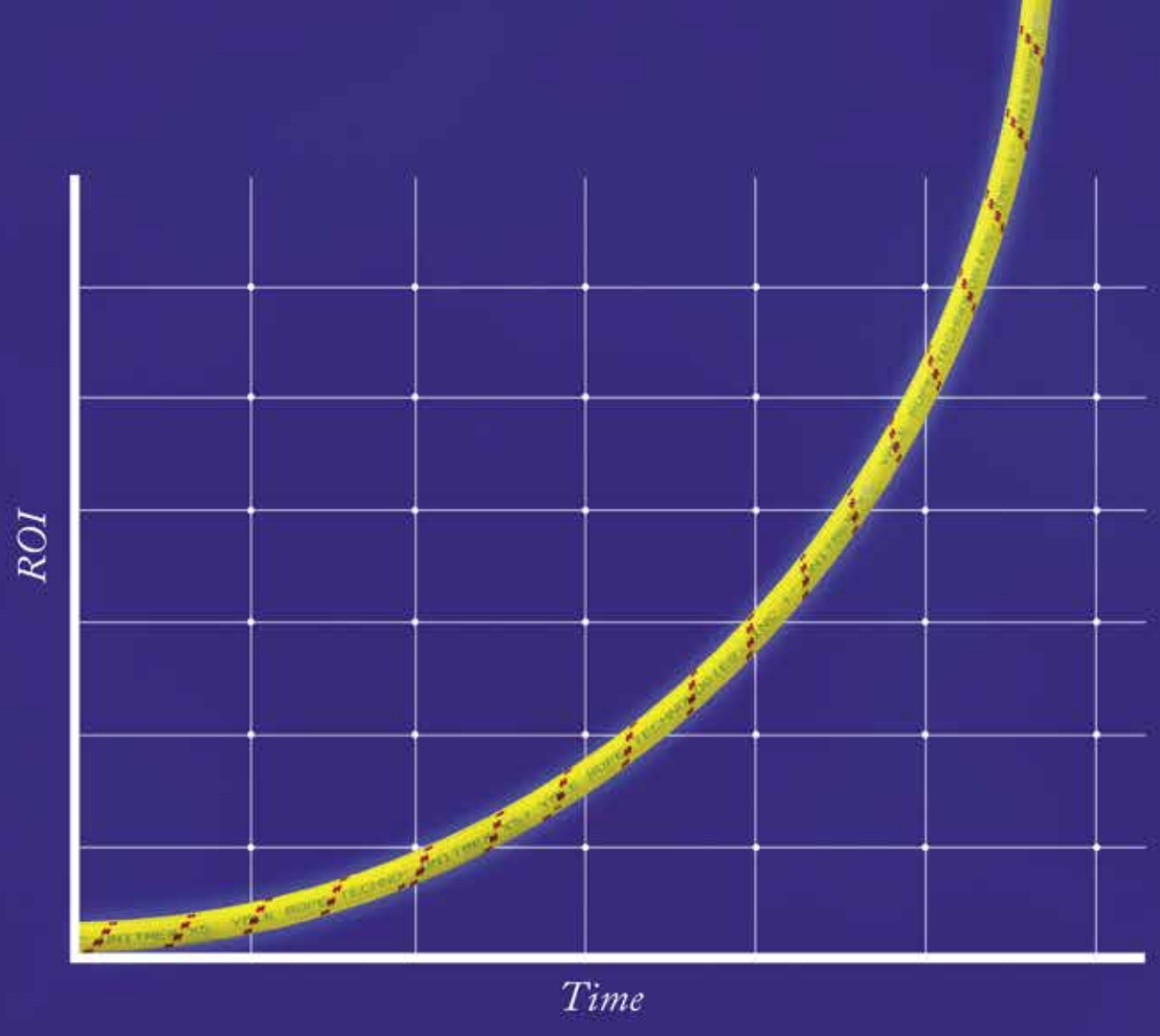
community," said Angela Simon, a 2017 Women of Influence honoree and past president of SMACNA. "She represents a new generation of leadership in the manufacturing industry."

About Acosta Sheet Metal Manufacturing
Serving the Bay Area and beyond with quality commercial and residential products backed by exceptional customer service, Acosta Sheet Metal Mfg. is a family-owned and operated sheet metal manufacturer known for offering a full-range of HVAC duct and fittings, roofing metals, and the ability to produce a variety of custom pieces from concept to completion.



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Production Monitor
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A manufacturer of automotive torque converters needed to increase quality and reduce scrap in their metal stamping operations. One of the main parts of the converter was created on a hydraulic stamping press, which created a series of indentations in a metal ring. In a stamping press, hydraulic cylinders force hardened rectangular punches into the metal blank displacing the met- al into a corresponding die; in this case, creating 136 separate indentations in each part. The hard- ened rectangle punches are subject to wear and breakage so they approached us for a production monitoring tool for these presses.

In this automated environment, where one part was turned out every 45 seconds, many defective parts could be fabricated before a visual inspection by the press operator detected that the indentations weren't being properly formed because of a worn punch or one that had failed. The plant ran multiple punching machines simultaneously with failures sometimes occurring as often as once per shift. This resulted in a great deal of scrap since the parts could not be reworked. Therefore, plant management needed a highly accurate data acquisition and control device that could continually monitor the punches in real-time for signs of developing breakage. A high-speed, real-time data acquisition solution was the answer.

Installation

The manufacturer installed a custom system designed by CAS DataLoggers incorpo-

-rating an ADwin-Light-16 Real-Time Data Acquisition System to measure the force generated during the stamp-

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ing operation. A pressure sensor was attached to each hydraulic cylinder used to drive the punches, providing data on the punch's force as the indentation was formed. Data was collected over a period of time to characterize the load signature from a properly operating press. This signal was coded into the ADwin and used as a reference against the real-time signatures collected during production. A start signal from the PLC used to control the press was fed into the ADwin's digital input to trigger the acquisition cycle. The force waveform was sampled at 1,000 samples per second over a period of several seconds during which the indentation was formed.

The ADwin immediately computed the maximum and minimum force and compared it to a stored load signature. If the operating curve was outside of the programmed tolerance, the ADwin used a digital output to send a signal to the PLC to indicate that there was a problem and to stop the machine. This eliminated the production of defective parts which had to be scrapped.

This ADwin-Light-16 features 8 16-Bit analog inputs, of which 3 were used to sample the pressure signal from the 3 hydraulic cylinders in the press. 2 of the 6 digital inputs/outputs were used for the interface to the PLC controlling the press. The system also has a 32-Bit SHARC real-time DSP with its own local memory to handle data acquisition, online statistical processing, and control of outputs.

Real-time development was performed using

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ADbasic software. With ADbasic, users can easily create event driven applications to capture and process data, generate output signals and provide open or closed loop control. ADbasic's functionality allows access to all the ADwin's I/O as well as implementing calculations, logic, state machines, and communication with a PC.

Benefits

The automotive manufacturer benefited significantly following the installation of the custom ADwin system for their production monitoring. The system provides real-time monitoring of the stamping operations and allowed the plant's broken punches to be detected immediately, greatly reducing scrap costs and wasted time. And, as more data was collected it became possible to identify tooling that had become worn prior to failure, which further reduced scrap and machine downtime. The early-warning system also reduced the once-constant need for operators to inspect each part for defects. The ADwin system was an economical solution that provided a near-immedi- ate ROI and greatly increased quality.

For more information on the ADwin-Light-16 real-time data acquisition system, or to find the ideal solution for your application-specific needs, contact a CAS DataLogger Application Specialist at (800) 956-4437 or www.DataLoggerInc.com.

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New Modbus TCP IO Modules from Brainchild Electronics

CAS Dataloggers is pleased to announce a new line of distributed I/O modules. Building on Brainchild's very successful family of RS-485 Modbus RTU devices, these new modules offer a built in Ethernet interface with support for Modbus TCP communications to offer remote inputs and outputs for data logging, data acquisition, control, and other applications. These modules are designed to be used with data loggers, HMI's, PLC's or other SCADA systems via the industry standard Modbus protocol.

Features:

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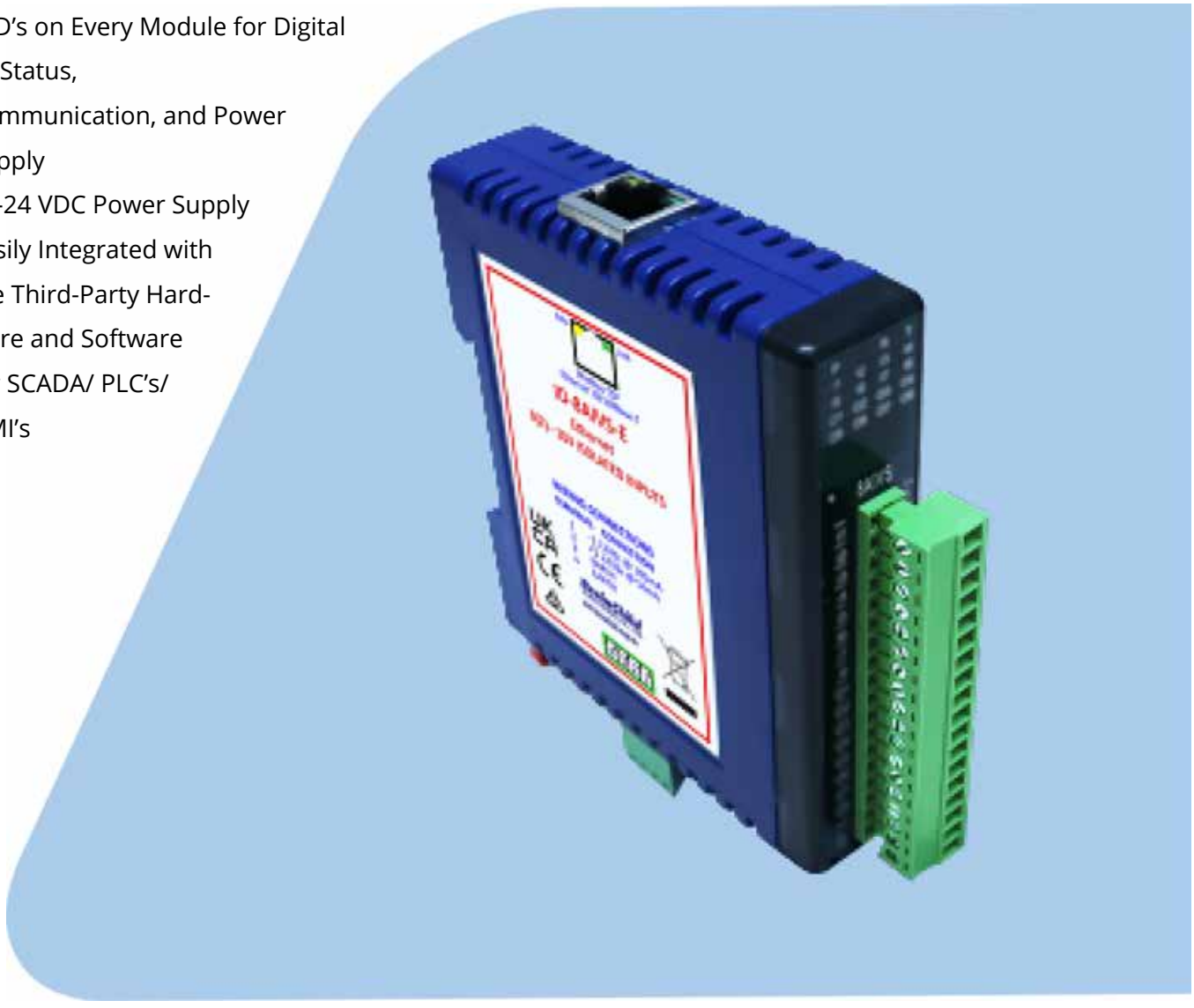

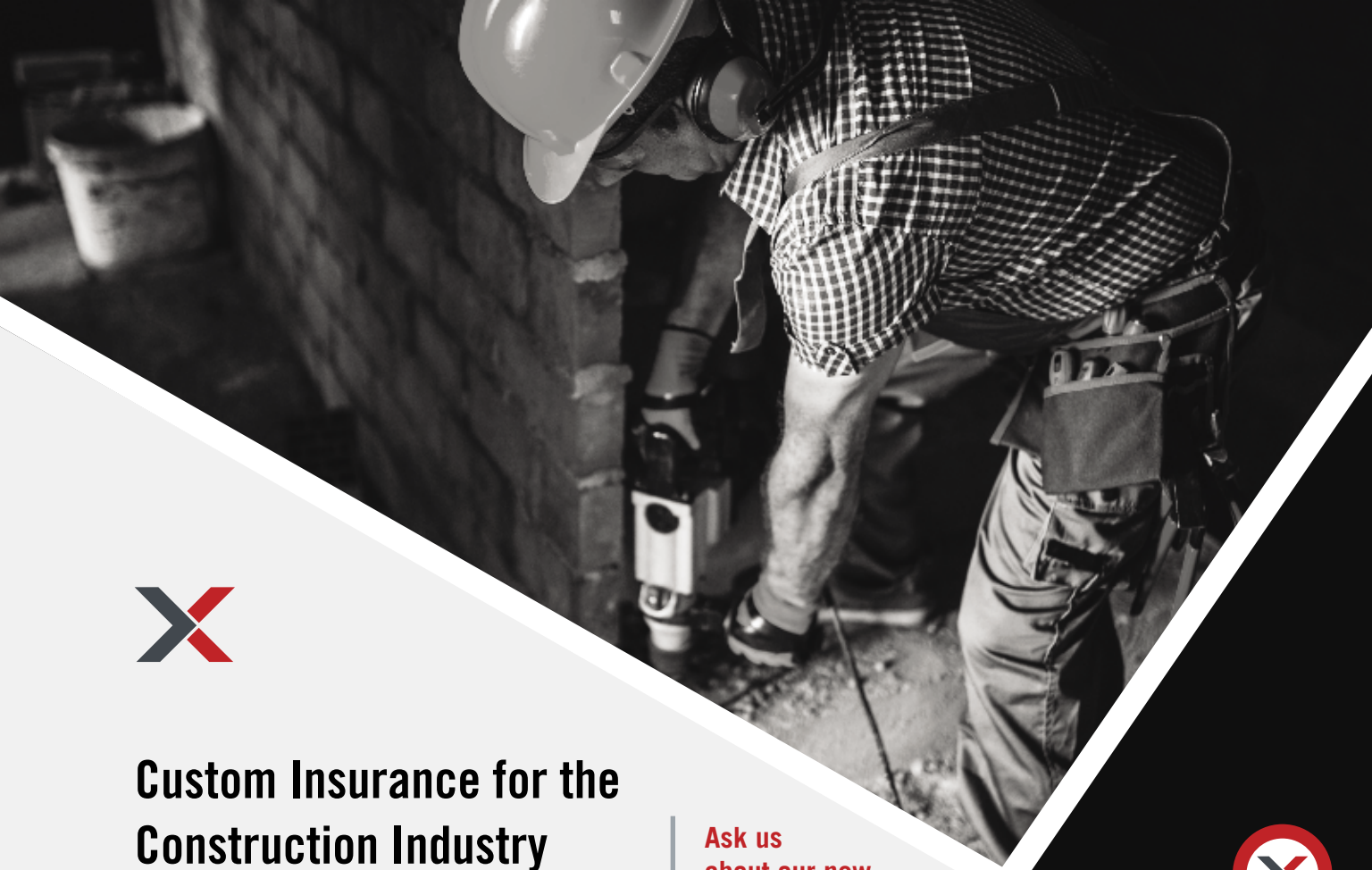

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Hypertherm Announces Release of ProNest 2023 CAD/ CAM Nesting Software

Hypertherm, a U.S. based manufacturer of industrial cutting systems and software, today announced a major version update to ProNest® 2023, its advanced CAD/CAM nesting software for automated cutting. This new release contains a collection of new features and on-going enhancements designed to help customers improve their operational efficiency while reducing non-value-added tasks.

ProNest 2023 includes full functionality for PlateSaver™, a SureCut™ technology that combines the arc stability of X-Definition® plasma with specialized software parameters to dramatically increase material utilization when cutting mild steel. In addition, it contains enhancements to ProNest's Production Manager, a web-based module that seamlessly integrates with Hypertherm's EDGE Connect® CNC to automatically capture real-time machine data. Enhancements include the ability to edit production times for completed nests, set job status changes, and search for nests by customer. There is also a feature that merges XPR setups. The

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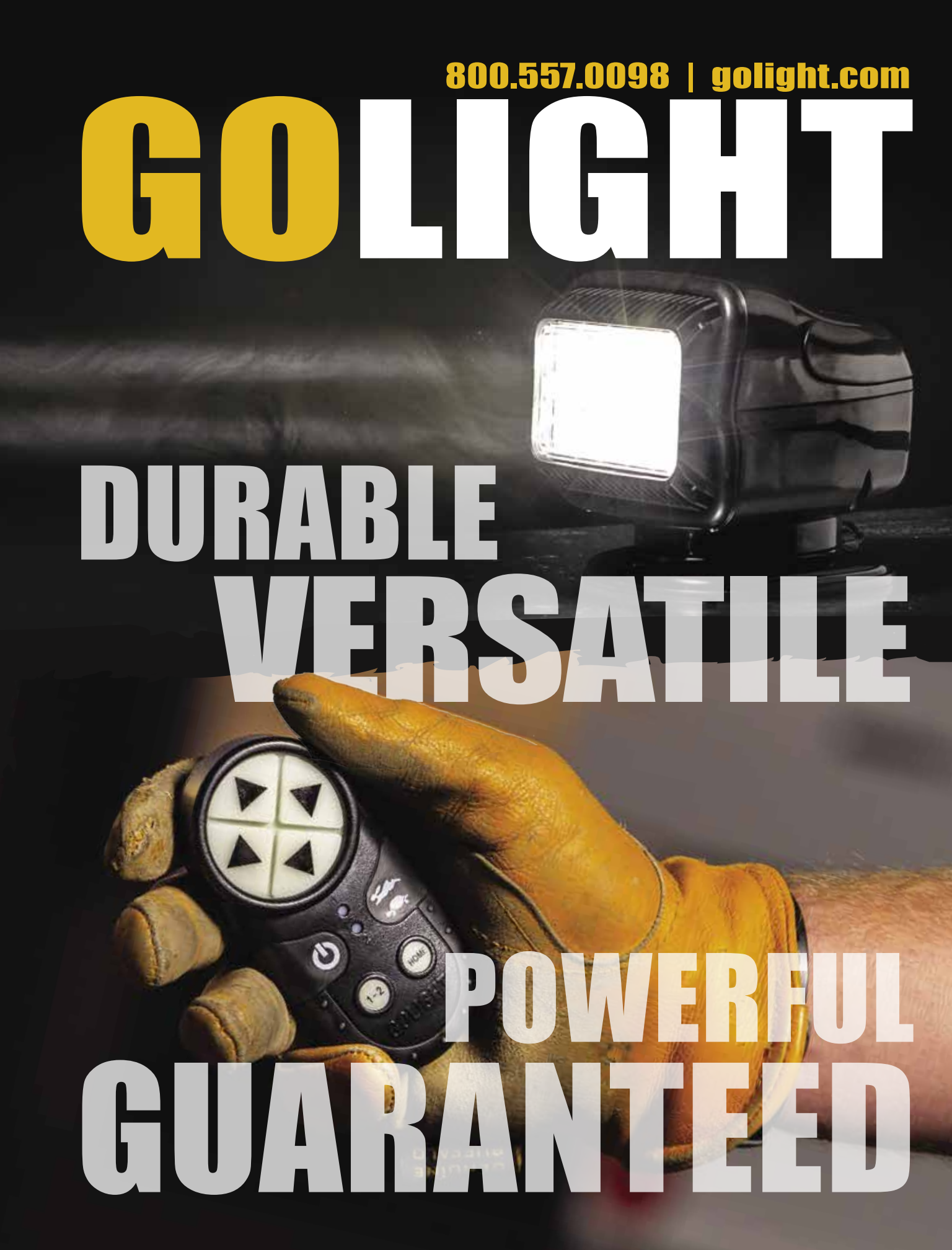

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software will now automatically detect and merge changes made to the process parameters or bevel spreadsheets into a new setup during installation. Customers can choose to use their existing customizations or the latest factory cut charts.

Finally, the software is even easier to use. Changes to the user interface include a new welcome screen and customizable ribbon. The welcome screen contains an informative dashboard that highlights training videos, application tips, and other valuable resources while the ribbon allows users to add, remove and rearrange tabs. Customers can save different ribbon configurations and easily switch between them as needed, to best fit their workflow.

"Our software developers have really focused on reducing the waste inherent in most cutting operations. Features like PlateSaver do this by maximizing the number of parts on a plate so customers have to buy fewer plates and waste less metal," said Tom Stillwell, Product Marketing Manager for Hypertherm CAD/CAM software products. "At the same time, the internet of things has allowed us to make great strides in manufacturing automation. Data that we've never had before is now easily at our fingertips. Tools like our Production Manager module will help customers look at their operations more holistically, providing insight to help them work smarter, faster, and more profitably."

Hypertherm designs and manufactures industrial cutting products for use in a variety of industries such as shipbuilding, manufacturing, and automotive repair. Its product line includes cutting systems, in addition to CNC motion and height controls, CAM nesting software, robotic software and consumables. Hypertherm systems are trusted for performance and reliability that result in increased productivity and profitability for hundreds of thousands of businesses. The New Hampshire based company's reputation for cutting innovation dates back 50 years to 1968, with Hypertherm's invention of water injection plasma cutting. The 100 percent associate owned company, consistently named a best place to work, has more than 1,400 associates along with operations and partner representation worldwide. Learn more at ***www.hypertherm.com*** •

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Monitoring and Control of Vacuum Processes Made Easy

In process engineering, the exact observance of pressures in vacuum-assisted processes is an important parameter for ensuring optimum efficiency and the best possible product quality. VACTEST vacuum measurement equipment from Busch is designed to combine the latest advances in vacuum measurement technology with exceptional manufacturing quality – providing an innovative and comprehensive portfolio of active vacuum gauges and controllers. This makes it possible to match the right measurement technology to each and every process.

Robust construction, reliability and measurement accuracy are key features of these devices, making them the ideal choice to monitor and control your vacuum process, whether it is in industry or research. These state-of-the-art technologies allow a wide measurement range from 1600 to 5 · 10-10 millibar covering all vacuum levels with accuracy. All sensors comply with international standards and regulations such as CE and RoHS.

A number of different sensor technologies in the VACTEST series cover the entire range between rough vacuum and ultra-high vacuum. They can basically be divided into two main categories: direct and indirect pressure measurement. The direct measurement principle is independent of the process gas and is based on the pressure that the molecule flow exerts on a membrane. This method is mainly used for rough and medium vacuum processes. At a higher vacuum level, indirect measurement principles are used, based on special properties of the process gas, such as thermal conductivity or ionization probability. Unlike the direct measurement method, these principles depend on the type of process gas. For this reason, a specific correction factor must be applied for each process gas – except for air and nitrogen.

A number of factors must be taken into account when selecting the correct sensor. In addition to the process and ambient conditions, the pressure range, required accuracy and gas composition play a key role in achieving optimum

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measurement results. With three product lines available, Busch VACTEST meets accuracy, measurement range and functional requirements of every vacuum system or process.

VACTEST digital transmitters are high-end gauges coming with a full range of options as standard. Their intelligent micro-controller architecture allows an optimum sensor control, as well as many setting options, making them the ideal solution for a variety of applications. VACTEST digital transmitters are based on Pirani sensor technology or on combinations of Pirani / cold cathode or Pirani / hot cathode technologies.

VACTEST analog transmitters feature a compact, rugged and functional design. Thanks to their excellent measurement accuracy and stability, these transmitters are ideal for centralized monitoring and control systems.

VACTEST mobile gauges are the perfect hand-held solution for quality assurance with vacuum processes and maintenance. These battery-operated gauges offer various functions, such as a USB interface for data export and display, as well as a data logger. They can even be used under vacuum. For example, these gauges can be sealed in vacuum packaging to measure the pressure within the packaging.

VACTEST active sensor controllers, which are compact control units designed for the simultaneous operation of several vacuum gauges, round off the product series. Used either as a table-top device or rack-mounted, they allow intuitive menu navigation and ensure full control of each transmitter. Parameters, such as gas type correction factor, pressure units, setpoints and other beneficial functions are easily adjustable.

In addition to the measuring devices, the VACTEST Viewer is also available. It is a free Bluetooth monitoring application for mobile devices with an Android operating system. It can be used to display the pressure values of up to 16 connected sensors. The tool was designed for Bluetooth data exchange between software and sensors and is ideally suited for maintenance and calibration purposes. Visual and sound alarms can be preset for maximum and minimum pressure values.

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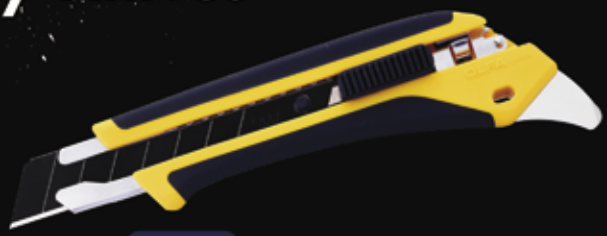

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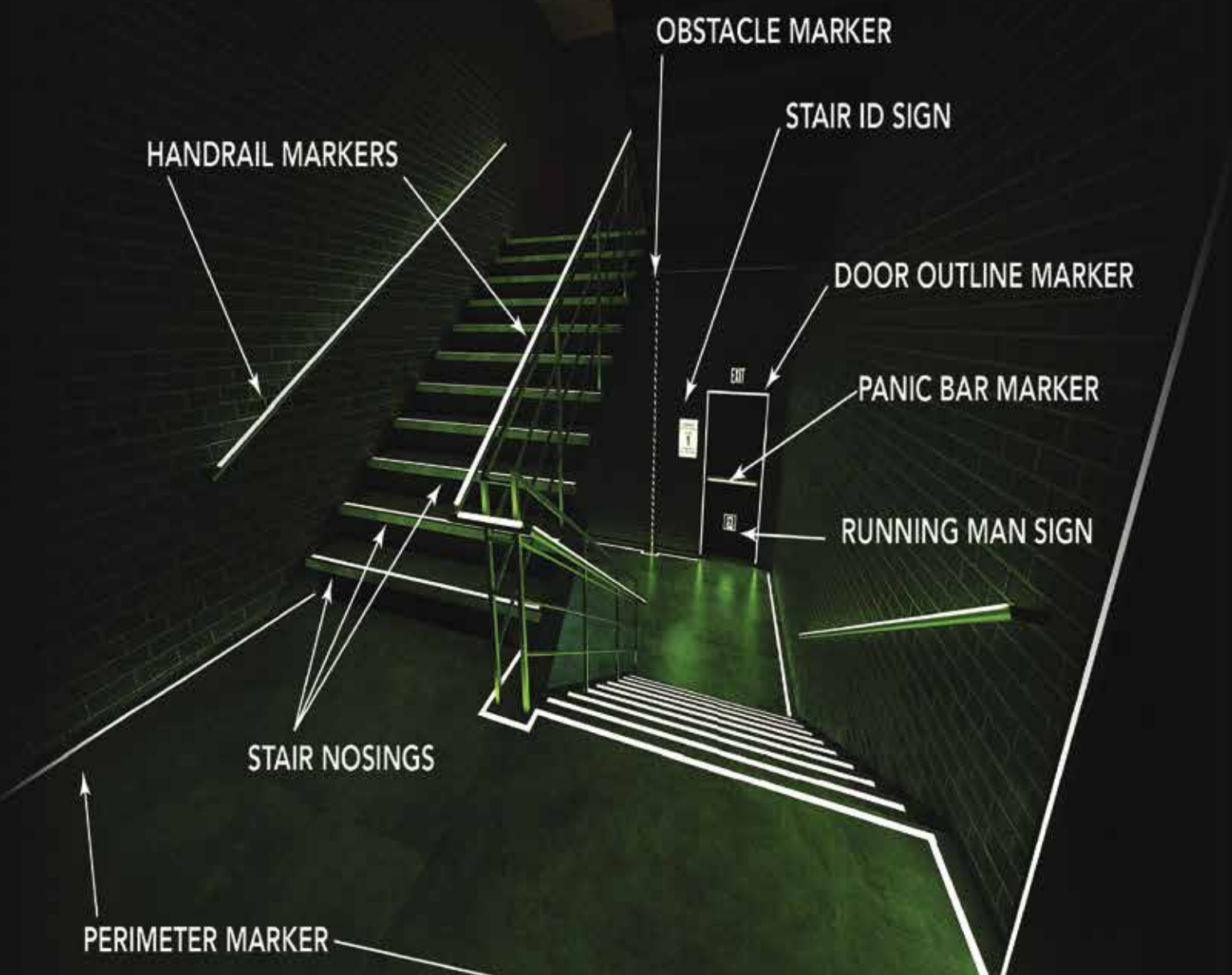

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