PRODUCT SPOTLIGHTS
Adhesives & Lubricants, Material Handling, Assembly and more
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PROBLEM SOLVERS
A DIY Cobot Project
Page 6

The new lean, mean manufacturing machine - Page 36

Look Inside for 75+ Products in this Issue!
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-Gregg Bryan
Facility Manager, Southeastern Packaging
Charlotte, NC

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Energy Solutions Since 1996
EXAIR manufactures a complete line of static eliminators to remedy common static problems. Many use our engineered airflow products to minimize air use and noise while delivering maximum results by moving more static eliminating ions to the product surface.

Prevent Shocks, Jamming, Tearing and Static Cling!
As humidity decreases, static electricity problems will increase.

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• Webs and films cling to themselves
• Electronic sensors fail, making false readings

• Hazardous sparks or shocks
• Product clings to itself, rollers, machine beds
• Dust attraction ruins surface finishes

EXAIR manufactures a complete line of static eliminators to remedy common static problems. Many use our engineered airflow products to minimize air use and noise while delivering maximum results by moving more static eliminating ions to the product surface.
Columbus McKinnon Offers SPRAT Rope Training

Columbus McKinnon Corporation, a designer, manufacturer and marketer of motion control products, technologies and services for material handling, is now offering professional SPRAT rope access training and certification. Held at Columbus McKinnon's state-of-the-art training facility in Rock Lititz, PA, this course is designed to provide the necessary skills for Level 1, 2 or 3 SPRAT certification.

Rope access is a vital skill required for a variety of industries and applications, including wind energy, construction, high-rise building maintenance and bridge inspection, as well as theatrical, arena, circus and outdoor live-event productions.

“As a SPRAT member company, Columbus McKinnon designed this comprehensive training course to closely follow SPRAT certification requirements,” said Paul Smielecki, Marketing and Training Manager – Industrial Equipment Group, North America. “Each training session, taught by our professional trainers, consists of four days of training and evaluation on the fifth day. Then, we utilize independent evaluators for the certification process.”

Raymond Helps Support 150+ Nonprofit, Educational Orgs in 2018

In 2018, The Raymond Corporation contributed to over 150 nonprofit and educational organizations with monetary contributions, forklift donations and voluntary participation. These ranged from food donations to the local area food pantry close to its headquarters in Greene, NY, to supporting causes ranging from cancer awareness, veterans rehabilitation and animal rescue.

APLEX Assembly & Fabrication Celebrates 85 Years

APLEX Assembly & Fabrication celebrated 85 years in operation in December, 2018. The product line was originally formed under APLEX Machine and Tool Company in 1933, manufacturing bits and sockets for automotive production floors that were building Packards, Fords and Buicks during the depression.

Over the decades, the APLEX brand has introduced numerous innovations that helped modernize America’s production lines. APLEX design teams led the development of iron band universal wrenches, collapsible sockets and extensions, market sockets, combination sockets, and u-GUARD safety and anti-mar products. These innovations opened the door for improved efficiency, speed, accuracy and safety, not only for automakers but for a wide range of heavy-duty industrial production as well.

New Pig Study Suggests Mats Lower Environmental Impact

New Pig Corporation, provider of products that keep floors clean and safe, recently determined that its Pig Grippy Floor Mat has a 92 percent lower environmental impact than laundered rental mats. Conducted by environmental studies experts from the renowned Golsiano Institute for Sustainability (GIS) at the Rochester Institute of Technology, the study compared the environmental and energy impacts of Grippy Mat and traditional rental mats.

Specifically designed to eradicate same-level slips, trips and falls, Grippy Mat is the world’s first adhesive-backed absorbent mat solution on the market. Unlike rental rugs, Grippy Mat lays flat, sticks tight, and never bunches, ripples or shifts. According to the company, it’s also extremely durable and built to last up to three months before change outs, eliminating the environmentally harmful laundering process used with rental mats.
Montreal is the second largest city in Canada and the leading urban center of the province of Quebec. It has long been a transportation, manufacturing and financial center due to its strategic location on the St. Lawrence River. It continues to be considered a modern, dynamic and exciting destination to visit. Despite having a robust railway system, Montreal has seen over the last 50 years a steady rise in automobile usage and traffic congestion, like many urban centers in North America. One of the little-talked about consequences of high traffic areas are the vehicular accidents that, at times, damage Montreal’s traffic lights.

Montreal’s Traffic Light Repair Problem

For a long time, the City of Montreal had experienced delays in repairing traffic lights that were damaged by accidents. These delays were often due to waiting for the electric utility, Hydro-Quebec, to dispatch a repair crew to disconnect power at the traffic light’s control box, which is required prior to work being performed.

This has caused a long-standing problem: the city’s union electricians would often wait a long time for Hydro-Quebec to arrive at the work site, which delayed the repair and, more importantly, created traffic flow disruptions. For years this problem was waiting for a solution until MELTRIC, a leading manufacturer of industrial plugs and receptacles, came along.

The MELTRIC Solution

MELTRIC contacted the City of Montreal with what it believed was a solution to its problem: install MELTRIC’s Switch-Rated plug and receptacle between the utility’s incoming power line and the traffic light’s electrical control box. Since the plug and receptacle features an integral switching mechanism that can be operated safely by any qualified worker, power could be disconnected without Hydro-Quebec on site.

MELTRIC’s switch-rated plugs and receptacles combine the safety and functionality of a disconnect switch with the convenience of a plug and receptacle. They have a dead-front design and enclosed arc chambers to ensure that the power is safely disconnected, and that all live parts are isolated from the operator, before the plug can be removed. This design guarantees that operators are protected from exposure to live parts and arc flash while making and breaking power connections.

The switch-rated plug’s contacts are deenergized within the enclosed arc chamber before the plug can be physically removed. When the receptacle’s red-colored OFF button is pushed, the spring-loaded operating mechanism within it instantly opens the contacts to break the circuit, ejecting the plug to its OFF position. It takes about 15 milliseconds to break open the contacts in the enclosed arc chamber, which minimizes arcing.

MELTRIC DSN60, switch-rated plugs and receptacles are now specified on all traffic light applications in the City of Montreal. Trelec (MELTRIC’s sales representative in Quebec) helped the Montreal’s city engineer design a special box to mount the DSN60 between the concrete base and the pole. It is typically installed between the point of contact with Hydro-Quebec and the Connection Enclosure. Trelec performs the pre-assembly of the product, including a special cable gland with labeling on the MELTRIC device to accommodate the 3-conductor #6 conductors from the utility.

In November 2012, the first order of MELTRIC Switch-Rated devices was for only two units. Today, about 600 units have been purchased by the City of Montreal with another over 100 other devices currently on order.
What's holding your electrical connections together?

Don't let poor electrical connections sabotage your safety program.

Injuries, fines and higher insurance premiums from electrical accidents can unravel your profits.

Strengthen your bottomline with MELTRIC UL/CSA Switch-Rated plugs and receptacles.

www.meltric.com/electricalsafety_ien

The BOOMER Industrial Sewer Vacuum Hose

Kuriyama (Schaumburg, IL) introduces its new Alfigomma T704HA Series: THE BOOMER Industrial Sewer Vacuum Hose. This hose is made with a 1/4” thick red gum rubber tube for abrasion-resistance. The corrugated black conductive SBR/NR blend cover provides abrasion and ozone-resistance. This is an ideal hose for dry or wet abrasive materials and can be grounded. Popular in the vacuum truck industry where a rugged and durable hose product is needed, this is available in 2”, 3”, 4”, 5”, 6”, 8” and 10” ID sizes.

www.kuriyama.com; 847-755-0360

Temperature Measurement Solution for Steels

AMETEK Land (Sheffield, UK) has developed an innovative new pyrometer for accurately measuring the temperature of galvannealed and galvanized steel strip. The SPOT GS steel application pyrometer provides continuous and accurate temperature measurement of coated steel strip during the galvanneal reaction. This enables steel producers to accurately measure the temperature in a galvanneal furnace, allowing it to run at optimum throughput rates in order to ensure consistent, high-quality, premium-coated steel demanded by the automotive industry. SPOT GS enables automated furnace management to provide close control of the reaction and position of the reaction zone, delivering tighter control of product quality. By maintaining control of the reaction zone, the steel application pyrometer accommodates rapid changes of line speed and furnace power with variations to substrate or coating weight. This allows for furnace optimization, reducing heating costs, maximizing throughput and avoiding excessive over-reaction and powdering or flaming of the coating during subsequent forming operations.

www.ametek-land.com
SmartPipe Helps Prevent Compressed Air Loss

With the recent release of SmartPipe+ in five sizes between 3/4” and 2-1/2”, SmartPipeXL from Kaeser Compressors (Fredericksburg, VA) offers options 3”, 4”, 6”, and 8” pipes. These are ideal for headers and branch lines, and coupled with the SmartPipe+ can provide a complete piping network all the way down to the point of use. SmartPipeXL is made from smooth, calibrated aluminum and will not rust. Other benefits include:

- A low coefficient of friction, providing the best possible laminar flow.
- Full bore fittings to minimize pressure drop, while the leak-free connectors prevent costly compressed air loss.
- The ability to be easily integrated into existing steel, copper or aluminum systems, and can be modified to accommodate changing needs.
- A 10-year warranty.

www.kaeser.com; 877-586-2691

New Angle Sensors with Easy Mounting

Novotechnik, U.S. (Southborough, MA) introduces the Vert-X 2900 Series of sensors that measure angular position. These sensors are available in single or redundant versions. Elongated holes make mounting easier. Features include the following:

- Users can specify configurations including start- and end-angles for less than 360° maximum range, index point, cw or ccw indication and non-linear curves.
- The measurement range is up to 0 to 360° with repeatability of 0.1°; mechanical range is 360° continuous. Available analog outputs are 10 to 90% of supply voltage and 5 to 95% of supply voltage.
- Other key Vert-X 2900 Series specifications include sample rate up to 5 kHz. The sensors are sealed to IP 67, life is ≥ 50 million movements and MTTF is over 650 years.
- These sensors are ideal for industrial, medical and off-highway vehicle applications with an operating temperature range of -40 to +125°C and high immunity to emissions – meeting or exceeding five EN 55022 and EN 61000 standards.

www.novotechnik.com/vx29; 508-485-2244

Miniature Optical Encoder with 1000 CPR

The E4T and S4T miniature optical encoders from US Digital (Vancouver, WA) are now available at even higher resolutions than before. With two new CPRs of 512 and 1,000, the resolution has been doubled while keeping the housing unchanged. Utilizing state-of-the-art transmissive optical sensing technology, these newly announced resolutions now support applications requiring up to 4,000 pulses per revolution. This substantial increase in resolution was achieved without any compromise to package form factor, electrical characteristics or output signal robustness. Specifically:

- The E4T line of encoders is available in both single-ended and differential signal outputs for applications where noise immunity is critical.
- The 512 and 1,000 CPR options retain the E4T’s efficient push-on hub disk assembly process, helping US Digital customers keep installation time, assembly cost and complexity to a minimum.
- When space is limited, the E4T and S4T miniature optical encoders are the perfect fit for motion control.

usdigital.com/e4t; usdigital.com/s4t

Low to Zero Noise Power Supplies

Triad Magnetics (Perris, CA) recently re-released the WAU AC and WDU DC Series of power supplies. These electrifying products offer low to zero noise performance along with greater reliability and longer life than switching power designs. Designed exclusively for commercial and industrial markets, the series are not subject to US Department of Energy regulations for External Power Supplies.

The 120V/60Hz WAU AC Series of transformers and WDU DC Series of linear, external wall plug-in power supplies are available with output voltages ranging from 4.5 volts DC to 24 volts AC. The units are available in power levels to support all types of commercial and industrial equipment and come equipped with 6-foot-long cords for flexible installation. These devices are UL Listed, minimizing the need for safety testing of the end equipment.

www.triadmagnetics.com; 951-277-0757

Solve Changing Evolving Crane Needs

When manufacturing needs change, crane needs may change as well. Don’t lock in your decision for crane location into a building structure. Modular NOMAD® Free Standing Crane Systems are also perfect solutions when overhead crane installation is either difficult or impractical.

With bolted assembly, the NOMAD is easily dismantled, relocated and reassembled.

For lower capacity workstation crane solutions up to 2,200 lbs, ask about nomadic AL SYSTEMS™.
Call: (330) 220-8600 www.emhcranes.com
New Safety Light Grids for the Food Industry

The Schmersal Group (Hawthorne, NY) has developed a new product line for safety light grids and curtains eminently suitable for use in hygiene-sensitive sectors, such as the food industry, pharmaceuticals and meat and milk processing.

The new product line SLC/SLG 440 IP69K is resistant to all daily cleaning processes prevalent in such industries. Thanks to a sophisticated, detailed design, this product line achieves the protection rating IP69K and is thus protected against ingress of water during close-range high-pressure and high-temperature spray downs. Other features include:

- Greater availability and a long service life for safety light curtains and grids, also allowing a compact design for encapsulated safety sensors since the protective tubes are a mere 50 mm in diameter.
- Additional functions such as double confirmation, contactor control and integrated beam blanking, which allows moving parts to be conveyed through the protection field without triggering the stop signal.
- A dirt indicator. A visual warning message is displayed if the sensor reception signal becomes weaker. This allows the user to take action before the machine comes to an unscheduled standstill.

For unsurpassed quality, performance and variety...

Look to Lubriplate® Compressor Fluids

Lubriplate’s complete line of premium-quality compressor fluids has been formulated to deliver unsurpassed performance in a wide range of compressors. They meet and exceed the performance specifications of most compressor manufacturers and interchange directly with most OEM fluids. Available products include...

- SYN LUBE SERIES 22-100
  - 100% SYNTHETIC
  - High-performance, 100% synthetic, polyalphaolefin (PAO)-based fluids.
  - Provides extended drain intervals up to 8,000 hours in most compressors.
  - Fully compatible OEM fluid replacement. ISO grades 22, 32, 46, 68 & 100.

- SYNAC SERIES
  - 100% SYNTHETIC DIESTER-BASED FLUIDS
  - High-performance, 100% diester-based synthetic air compressor fluids.
  - Formulated to eliminate varnish buildup in high temperature applications.
  - Allows extended drain intervals up to 8,000 hours.

- SYNCOOL FG
  - NSF H1 Registered and NSF ISO 21469 Certified - Food Machinery Grade.
  - 100% synthetic, ISO 46 grade, high-temperature polyglycolester-based fluid.
  - Eco-friendly - readily biodegradable (Pw1).
  - Fortified with Lubriplate’s proprietary anti-wear additive XTRA®.

- SFCD ULTRA SERIES 22-68
  - NSF H1 Registered - Food Machinery Grade.
  - 100% synthetic, PAO-based fluids for food processing and bottling plants.
  - Available in ISO viscosity grades 22, 32, 46 and 68.
  - Fortified with Lubriplate’s proprietary anti-wear additive XTRA®.

- SYNXTREME AC SERIES
  - ECO FRIENDLY
  - 100% SYNTHETIC POLYOLESTER-BASED
  - High-performance, 100% synthetic polyolester (POE)-based fluids.
  - Provides extended fluid change intervals up to +10,000 hours.
  - Eco-friendly - readily biodegradable (Pw1).
  - ISO grades 32, 46 and 68.

- SYNCOOL
  - ECO FRIENDLY
  - 100% SYNTHETIC POLYOLESTER-BASED FLUIDS
  - High-performance, 100% synthetic, polyglycolester-based fluid.
  - Eco-friendly - readily biodegradable (Pw1).
  - For high-temperature applications. ISO 32/46 grade.

- PETROLEUM OIL-BASED FLUIDS
  - High-quality, petroleum-oil based, anti-wear fortified compressor fluids.
  - Formulated to reduce carbon and varnish build-up.
  - They effectively fight friction, wear, heat and foaming.
  - Available in six ISO viscosity grades for a wide range of conditions.

- TURBINE OIL 32
  - High-quality, zinc-free, petroleum-oil based fluid.
  - Formulated to meet the requirements of most centrifugal air compressors.
  - Provides excellent oxidation resistance.
  - ISO viscosity grade 32.

www.schmersal.com; 888-496-5143

FOR UNSURPASSED QUALITY, PERFORMANCE AND VARIETY...

Protective Eyewear Offers Style, Comfort

Workers need protection, but they also care about how they look. Maverick Eye Protection, the first eyewear created for the Kimberly Clark Professional’s KleenGuard Brand (Roswell, GA), delivers confident protection without compromising style or comfort. Maverick Eye Protection was an award winner in the “Best in Show” New Product Showcase at the 2018 National Safety Council (NSC) Congress & Expo. As with all KleenGuard Brand solutions, Maverick Eye Protection is designed with human-centric engineering that enables rather than inhibits – allowing for maximum productivity and safety. Features include:

- Anti-glare coating to reduce eye strain and fatigue.
- Premium anti-fog and anti-scratch performance.
- Comfort touch points to prevent slippage and reduce pressure.

www.kcprofessional.com/kleenGuardpower; 770-587-8000

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To learn more visit us at www.lubriplate.com

www.ien.com
**Ball Check Valve**

Flomatic Corporation (Glens Falls, NY) introduces its new Model 508S6 Ball Check Valve: a simple, yet reliable 316 stainless steel check valve. Among others, it features a full-ported valve seat uniquely designed to allow a strong phenolic ball to seat on a Nitride (Buna-N) seat. For vacuum or anti-flooding valve applications, an optional “floating” rather than “sinking” ball is used. Due to its simple, flow-efficient design, the valve is virtually maintenance-free. This valve is commonly used in submersible wastewater lift station applications, and the optional vacuum breaker mounted on the access port reduces hydraulic shocks (water hammer).

Rated at 150 PSI and a MAX 180° F, Model 508S6 is now available for immediate ordering on 1 ¼”, 1 ½” and 2” sizes.

www.fiomatic.com; 800-833-2040

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**Low-Cost, Variable-Flow Peristaltic Pump**

APT Instruments (Elkhorn, NE) offers a compact pump that provides variable-flow and exceptional life performance in a small attractive package. Enjoy the self-priming, run-dry, reversible, fluid-only-in-tubing benefits of a peristaltic pump in your fluid transfer or metering application. Features include:

- Flow rates available up to 320 ml/min (5.07 gph) with a choice of motor speeds and tubing sizes.
- A wide range of tubing material selections for sterile operation, general purpose transfer or chemical handling.
- A splash-resistant housing that mounts easily on the wall or on the bench.
- Manual and remote-control options.

www.aptinstruments.com; 877-324-6444

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**Rugged, High Pressure Hydraulic Hose**

Heavy duty, hydraulic applications call for the Kurt Tuff Hose from Kurt Hydraulics (Minneapolis, MN). Designed for rugged, high pressure applications, Kurt Tuff hose has 6,500 PSI capacity using less installation space. Kurt Tuff Hose has a unique design allowing bending twice as tight as standard SAE hose with half the bend radius. Reinforced internally with two braided layers of high tensile steel wire, this hose retains flexibility with enhanced durability. With an abrasion resistant outer cover (10 times as resistant compared to standard hose cover), Kurt Tuff hose is rated to 1 million impulse cycles. Additional features include:

- A light weight compared to other hose in its pressure range.
- The ability to withstand temperatures from -40°F up to 250°F.
- An oil and abrasion resistant synthetic outer cover.
- Great UV rating as compared to other hoses.
- The ability to meet or exceed SAE DIN 20023 requirements; also meets flame resistant MSHA designation.

Applications for Kurt Tuff hose include a wide range of spiral hose installations with high pressure ratings. Equipment benefiting from the rugged qualities of Kurt Tuff hose include off highway vehicles, oil drilling equipment, trucks, construction equipment, large machinery and most heavy-duty hydraulic applications.

www.kurthydraulics.com; 866-257-7995

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**Linear Voice Coil Motor**

The GVCM-051-025-01 Linear Voice Coil Motor from Moticont (Van Nuys, CA) features high acceleration/deceleration, high speed, high reliability, zero backlash, high accuracy, high repeatability and a 0.5 inch (12.7 mm) stroke length. Also referred to as an Electric Cylinder, this linear actuator is an ideal low cost, high accuracy replacement for hydraulic and pneumatic linear actuators. This clean, compact, voice coil motor has a high force to size ratio with 5.3 lbs (23.5 N) continuous force and 16.7 lb (74.4 N) of peak force at 10% duty cycle with a housing measuring just 2.00 in. (50.8 mm) dia. x 1.00 in. (25.4 mm) long.

www.moticont.com; 888-785-1894

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**THE BOOMER™ T704HA Series CORRUGATED Industrial Sewer Vacuum Hose**

- Hose is made with a 1/4” thick red gum rubber tube for abrasion-resistance.
- The corrugated black conductive SBR/NR blend cover provides abrasion and ozone-resistance.
- Ideal hose for dry or wet abrasive materials and can be grounded.
- Popular hose for vacuum truck industry where a rugged and durable hose product is needed.
- Available in 2”, 3”, 4”, 5”, 6”, 8” and 10” ID sizes.

www.kuriyama.com; sales@kuriyama.com; 847.755.0360
**Multi-Hazard Hand Protection**

Ansell (Iselin, NJ) announces the launch of AlphaTec 58-735, a new innovative multi-hazard nitrile glove solution offering a combination of both chemical and cut protection, as well as providing exceptional comfort and grip. It has been developed for use in a broad range of industries including chemical, food, life sciences, oil and gas and machinery manufacturing environments where high chemical and high cut protection are demanded. The green outer nitrile shell has excellent chemical resistance to a wide range of chemicals including acids, alkalis and organic solvents. As a soft, comfortable hand protection solution that effectively resists chemicals and cuts, workers across a wide range of industries are more likely to wear the glove, ensuring greater levels of compliance. Additional benefits include:

- A Hi-Viz Intercept yarn used on the inside of the glove, providing high performance cut protection coupled with exceptional comfort and dexterity.
- If the outer shell of the glove is compromised due to mechanical action then the user has an indicator to be able to see that the chemical barrier is no longer there and should replace the glove.
- A Type A chemical protection under new EN ISO 374:2016, cut level ‘ISO C’ according to EN 388:2016 or ANSI cut A3. It is also tested to cut level 4 according to EN 388:2003.
- The unique ANSELL Grip Technology has been added to the palms and fingers. This technology allows for less force and optimal control and confidence when gripping in wet or oily environments, further reducing hand fatigue and enhancing worker comfort.

Completing the multi-hazard protection offering of AlphaTec 58-735, this glove is also tested to EN 1149 for antistatic and EN ISO 374-5 for viral risks.

www.ansell.com/feel.equipped; 800-800-0444
New Products

**Co-Bot Handles Random Box Packaging**

Universal Robots (Boston, MA) recently unveiled its XPAL ROBOX, described as the first solution for random robotic case construction. Features include:

- The ability to randomly erect any box on-demand without changeover.
- A company-cited 60 percent reduction in equipment footprint for a similar machine that uses more conventional robotic technology.
- A UR10e cobot arm that picks a flat box from one of two magazines, squares the case, folds and seals the bottom flaps with 2” tape.
- Additional magazine and custom box conveyance options that allow for integrating into other packaging environments.

**AEON LED Flood Lighting**

According to AEON, its AEON Flood Luminaire is the most powerful LED flood light in the industry. AEON, a division of HyLite LED Lighting (Fort Mill, SC) is the ultimate flood light for versatility and efficiency, and the AEON Flood Luminaire is designed for an incredibly long lifespan of over 100,000 hours. Features include:

- Five different LED delivered lumen packages: 33,100lm, 44,100lm, 62,100lm, 73,500lm & 105,000lm.
- Multi-Voltage options: 100-277VAC and 347-480VAC.
- A fully enclosed design that will withstand extreme conditions, protecting sensitive electronic components from any external exposure, and is suitable for use in corrosive environments.
- A proprietary and patented Thermal Management System that allows for continuous air flow, keeping critical electronic components cool. Revolutionary patented aerodynamic design allows for maximum wind resistance, reducing vibration and subsequent flickering of light.

With CRI>85, the AEON Flood Luminaire has the highest CRI in its class at a staggering 140 delivered Lumens per Watt.

**Inspect Confined Spaces Without Entry**

The Industrial Zoom Inspection System from Zistos (Holbrook, NY) allows the operator to remotely inspect areas that may be inaccessible or dangerous to enter such as vats, tanks, hoppers and other confined spaces, while performing a visual assessment for corrosion, residual heel, contaminants and delamination — without entry. The system increases the safety and efficiency of necessary inspections for quality control, hygienic conditions and maintenance. Features include:

- A rugged design.
- Battery operation.
- A self-illuminating, true 10x optical zoom camera and articulating pole that can rotate 180°, and be immersed in water.
- A 5.6” LCD display with built-in DVR that can record live video or still images to an SD card for documentation.

**Portable Gas Analyzers**

Nova Analytical Systems (Niagara Falls, NY) introduces its new portable gas analyzer family, the NovaNOW portables. These latest gas analyzers combine durability and ease of use, and include:

- New lithium ion batteries and a universal touchscreen display, allowing up to 6 gases to be measured in a cabinet that is almost half the size and weight of its predecessor.
- On board USB data storage, application specific calculations and built-in troubleshooting guides to complement standard options such as on-board printer, analog and digital outputs.
- Accurate data analysis in rugged environments such as environmental and ambient air monitoring and other unique applications.

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   - Reduce tripping accidents and lost work time.

3. **Increase productivity**
   - No more tangled hoses improves efficiency.

4. **Reduce hose wear**
   - Hose and cord can last up to 5 times longer on a reel.

5. **Minimize leakages**
   - Reduce costs of air and water leakages.

**AEON LED Lighting**

www.aeonledlighting.com; 803-336-2230

**Zistos**

www.zistos.com; 631-434-1370

www.nova-gas.com; 800-295-3771

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www.ien.com
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Do Something to Make Pallet Loading Faster, Safer, and Easier

Until Automation Does it All visit SouthworthProducts.com for ideas on how to make work faster, safer, and easier.

Drum Cover Keeps Bulk Material Free of Contaminants

A new fine mesh non-woven drum cover from EXAIR (Cincinnati, OH) is designed for use on 55- or 30-gallon drums. The breathable material allows the air from an EXAIR Line Vac air operated conveyor to circulate whether moving material in or out of a drum. The drum cover prevents contamination of material and keeps material contained in the drum for a cleaner and safer work environment. Since it is fabricated to fit 55- or 30-gallon drums, it is the simplest of solutions when needing a containment vessel for transferred scrap, trim waste, parts, chips or pellets. It is suitable for conveyance hoses from ¼ inch (19.1mm) up through 3.4 inches (86.4mm) outside diameter. Line Vac conveyors are the low-cost way to transport complex shapes, bulk solids and waste - with no moving parts or electricity. Units eject a small amount of compressed air to produce a vacuum on one end and high output flows on the other with instantaneous response. Air speed is easily controlled by regulating inlet air pressure. Line Vacs are available in aluminum, Type 303SS, Type 316SS and hardened alloy to resist abrasion in sizes from 3/8 inch (10mm) through 5 inches (127mm).

www.exair.com/33/d_cover.htm; 800-903-9247

New Products

New, ¼” Male, Quick-Fit PCB Tabs on Continuous Reel

Keystone Electronics (New Hyde Park, NY) has introduced a new packaging for its diverse selection of Quick-Fit, PCB terminals. These new, male tab terminals are specifically designed on a continuous reel (strip) to be compatible with standard automated insertion equipment – reducing assembly and processing time. Manufactured from Brass with Tin-plating, these new Quick-Fit Terminals ensure easy installation and soldering to a PCB and are packaged on reels as a “drop in” replacement for existing product.

www.keyelco.com; 800-221-5510
New PRODUCTS

Portable Handscope Oscilloscope Kits

The compact, shockproof Handscope from AEMC Instruments (Dover, NH) can be comfortably held in one hand. It is an ergonomically designed instrument equipped with a full color display and LED backlighting for precise, crisp data display. Integrated help screens are available at all times to make it simpler to use. The Model OX5042 is equipped with 2 fully isolated 600V CATIII rated channels and combines three instruments in one:

• 40MHz oscilloscope, range 5mV to 200V/div.
• Dual independent 8000-count multimeter.
• Built-in harmonic analyzer out to their 31st harmonic (fundamental between 40Hz and 450Hz).

Additional features include:
- Two fully isolated inputs 600V, CATIII rated channels.
- Scope, Multimeter and Harmonics analysis modes at the press of a button.
- 8-hours of battery life.
- Rechargeable batteries with charger isolated from the input channels for improved accuracy and safety.
- Full color dual channel 3.5” LCD screen, with up to 100 screenshots stored and viewable to the display.

www.aemc.com;
800-343-1391

NEW Oscilloscope OX5042 Kit

Filter Cartridge for Industrial Dust Collection

Camfil APC (Jonesboro, AR) introduces the Gold Cone X-Flo (GCX) Filter Cartridge for high-efficiency industrial dust collection. Building on the proven performance of HemiPleat Gold Cone technology, GCX filters stay cleaner and last longer than conventional pleated filters. GCX filter cartridges use a proprietary inner pleat pack with an open-bottomed, inner-cone of media that greatly expands the usable surface area of the cartridge. Because the HemiPleat design exposes more media to the airstream, more dust is loaded on the filter and released during pulse cleaning. These filters are available in a selection of regular or nano fiber media and are guaranteed to meet EPA particle emission requirements.

GCX filters were designed specifically for Camfil APC’s new Gold Series X-Flo (GSX) dust collector. Used together, says Camfil APC, the GSX collector and GCX filter are the most powerful and cost-efficient dust collection system on the market.

www.camfilapc.com;
800-479-6801

Full Brim Safety Helmet

The Serpent safety helmet family by Gateway Safety (Cleveland, OH) now includes a full brim version. The new product extension features the same sleek design as the original cap style safety helmet, with a wraparound brim to provide 360 degree sun and rain protection for workers in the field. Both vented and unvented models offer unique benefits. The vented version is great for those working in hot environments, as it allows heat buildup to escape through the vents in the shell, keeping workers cooler. For anyone working around electrical safety risks, the unvented Serpent is an ideal Class E head protection solution. Features include:
- A high quality suspension system, with eight points and six straps for exceptional comfort and impact absorption.
- A cloth brow pad and unique rotating ratchet adjustment, which makes the helmet extremely easy to wear.
- Availability in white, yellow, red, blue, green, hi-viz orange and hi-viz limon.

Like the cap style, the full brim Serpent has been independently tested to meet ANSI Z89.1, Type 1.
- The vented version meets Class C and the unvented model meets Classes E, G & C. Serpent full brim helmets also meet the ANSI Z89.1 voluntary standards for lower temperature, higher temperature and high visibility (hi-viz limon and orange colors).

www.gatewaysafety.com;
800-822-5347

Premium Portable Power Stations

EnerVision Inc. (Cary, NC) introduces two power stations that are more environmentally friendly and more portable with higher capacity for the consumers – the EV200 and EV450. The EV200 is compact, weighing in at only 3.2lbs, but has a high battery capacity of 190Wh. The EV450 comes in at only 7.94-lbs but with a capacity of 444Wh, which is powerful enough to jumpstart a car. EV450 has a unique Type C charging port, and both products are the smallest and lightest portable power stations. Features include:
- A 500 life cycle (80% residual capacity).
- The ability to be charged via solar panel for more eco-friendly boost.
- Reduced environmental impact, through the use of premiere Li-ion battery cells from LG Chem and ATL.

www.enervisionbattery.com

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With such a broad range of equipment including hydraulic, pneumatic, floor height, portable, tandem, high-rise, and even_rotate, we can handle any challenge from routine to extreme.

800-343-9322 - Presto-ECOA.com

www.presto-ecoa.com
New Synthetic Coolant for Machining

JTM Products, Inc. (Solon, OH) has announced a new line of full synthetic metalworking coolants. SynMAX coolants benefit from a radically different chemistry to exceed the performance of semi-synthetic fluids but without oil and without the historical drawback of past generations of synthetics. The result for operators is maximized machining output yielding more parts per hour while machining steel, aluminum and difficult-to-machine alloys. SynMAX coolants are formulated to cut aluminum as efficiently as steel, making them an ideal choice for multi-metal shops. Benefits include:

- The elimination of staining of sensitive metals, as well as surface and vapor phase corrosion. Parts and machine tools remain clean, with a light oil-like film to lubricate surfaces.
- An excellent choice for through-the-tool coolant delivery, for difficult-to-machine alloys (such as in medical or aerospace applications), and wherever precision tolerance and high finishes are required.
- An exceptionally well-suited formulation for when cycle time improvement is needed or when tool life improvement is desired.
- A unique BioArmor Technology that delivers built-in resistance to bacterial growth, without bactericides. They enjoy exceptionally long sump life, while eliminating the stench.

Three SynMAX coolants are available. All meet Boeing BAC 5008 Revision U for steel, aluminum and titanium and are REACH compliant.

Bio-Stable Micro-Emulsion Metalworking Fluid

Monroe Fluid Technology (Hilton, NY) has announced the immediate availability of Astro-Cut Micro EP-XBP, a metalworking fluid concentrate for today’s demanding machining processes. Astro-Cut Micro EP-XBP is a heavy duty, bio-stable, semi-synthetic, high-pressure metalworking coolant. It combines the superior chemical flexibility of synthetics with mineral oil and the efficiency of micro emulsion technology. Other features include:

- Exceptional foam control, hard water stability and tramp oil rejection.
- Outstanding extreme-pressure lubricity for machining and grinding virtually all metals, particularly Aluminum, stainless steels and other hard-to-machine alloys.
- No DCHA.

Astro-Cut Micro EP-XBP is designed for use in high and low pressure metal removal operations such as all CNC milling, turning, drilling, tapping, grinding and sawing.

Two Part, Addition Cured Fluorosilicone Offers Excellent Chemical Resistance

MasterSil 980 from Master Bond (Hackensack, NJ) is a two part fluorosilicone system for high performance bonding, sealing, coating and potting applications. It withstands harsh chemicals such as gasoline, diesel fuel, motor oil, ethanol and many solvents. After testing, chemical resistance for MasterSil 980 was far superior when compared to standard type silicone systems. Features include:

- An elongation of 100-200% at 75°F, providing enhanced flexibility while maintaining resistance to aggressive thermal cycling and mechanical shock.
- A wide service temperature range from -85°F to +465°F.
- The ability to bond well to a wide variety of substrates including metals, composites, ceramics, glass, rubbers, plastics as well as other silicones.
- An electrically insulative formulation, with a dielectric constant of 6.4 (measured at 75°F, 60Hz) and a volume resistivity of more than 1014 ohm-cm.

Upon mixing, MasterSil 980 yields a moderate viscosity with good flow and a user-friendly open time of 6-9 hours at room temperature for a 50 gram batch.

Engine Care Products

Motosel (Chicago, IL) manufactures and distributes automobile motor oil, heavy duty diesel oil, automatic transmission fluid, gear oil, hydraulic fluids, greases and more in four global and one domestic plant. Packaging is done on-site, so Motosel can provide any standard size from 946ml to 1040L, and everything in between, to ensure all quantities meet its customers’ diverse product needs. A domestic plant location allows Motosel to focus on its domestic customer base and price point. Due to its global presence, the company adheres to – and surpasses – the majority of global auto manufacturers’ lubrication standards.

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www.jtmproductscinc.net; 800-229-6744

www.floors.com; 833-668-6735

www.masterbond.com; 201-343-8983

www.masterfluid.com; 800-828-6351

www.monroefluid.com; 800-828-6351

www.motosel.com; 833-688-6735

www.oileater.com; 800-528-0334
Inflatable Dock Shelter for Versatility, Durability

Responding to the needs of facilities whose loading docks service a wide variety of truck and trailer configurations, Rite-Hite (Milwaukee, WI) has introduced the Uni-Dox Inflatable Shelter. The unique design of the Uni-Dox shelter allows it to rapidly inflate after the truck is docked and deflate before it leaves. The Uni-Dox inflates 50 percent faster than other inflatable shelters, thanks to its advanced air bag and connector designs (which hold air better during inflation). Its deflation and retraction efficiency is also enhanced by the use of a counterweight retraction system instead of a motorized return. Features include:

- Conforming, non-inflatable draft pads to reduce the risk of damage and leaks. Not only do these draft pads diminish wear and tear on the inflatable bags, they improve the overall effectiveness and reliability of the seal.
- The head and side bags of the Uni-Dox, which inflate around the top and sides of the truck trailer, respectively, after the trailer is secured to the loading dock. Through manual activation, the air bags are then deflated and retracted behind a protective structure before the trailer pulls away from the dock. A single-phase blower fills the air bags.
- An interconnection system, such as the Dok-Commander loading dock control panel, which offers additional feedback to reduce the risk of damage if the air bags have not been deflated before a trailer pulls in or out.
- The PitMaster Under-leveler Seal, which completes an effective seal beneath and around the dock leveler and bumpers, helping to prevent the infiltration of outdoor debris and pests.

www.ritehite.com; 800-456-0600

Heavy-Duty Casters

Showcasing unrivaled durability, the Hercules Caster from Caster Concepts (Albion, MI) features reinforced legs to protect against severe side impact. Its smooth rotating action and extended lead reduce operator push force, decreasing the amount of stress on operators. According to Caster Concepts, the Hercules was designed to reduce maintenance costs. Engineers included a maintenance-free swivel seal section with sealed precision ball bearings in the wheels for extended use, reducing the need for multiple repairs and replacements. In fact, the Hercules can last years without needing major maintenance. Additional benefits include:

- A design to maneuver with ease on inconsistent floors, through potholes and over floor debris.
- Smooth rotating action and extended lead, reducing the ergonomic forces for operators pushing a cart.
- Availability with a toe guard, top plate or swivel lock, depending on your needs.
- Custom polyurethane formulations, developed in Caster Concepts’ own facility.

www.casterconcepts.com; 888-781-3379

Custom Picking Cart for e-Commerce Application

Creform Corporation (Greer, SC) has developed a custom picking cart for an e-commerce company. Working in a collaborative effort with Creform engineers on the form, fit and function, the customer created a “standard” cart for its operation. The Creform designed and built cart features eight compartments to keep multiple garment orders clean and separated. Its framework uses Creform 28mm plastic coated steel tubing and clamping components, developed in Caster Concepts’ own facility.

Creform carts can be customized and are available with options such as shelf position label holders, supply bin, towing hitches, scanner gun holders and more.

www.creform.com; 800-839-8823

Powered Lift Table

The ET-105 Powered Lift Table from Power Pusher (a division of Nu-Star, Inc., Shakopee, MN) provides a productive, safe work environment allowing easier maintenance, warehousing, shipping and supplies management. The ET-105 – a mobile, walk-behind table with powered scissor lift, drive and adjustable height – has a 1,100-lb capacity serving multiple functions. It is a combination of a powered platform and scissor lift in one unit. The ET-105 can operate as a workstation or it can hold and raise equipment and parts, making a variety of tasks more manageable while increasing ergonomic benefits. Additional features include:

- A platform that can be raised to any height with the hydraulic lift operated by electronic hand controls.
- A fingertip release, allowing for smooth lowering at any weight within the table’s 1,100 capacity descending slower as weight increases.
- The max throttle adjuster, allowing the operator to adjust for slower or faster speed depending environment.
- Two swivel casters equipped with brakes and two rigid polyurethane casters provide efficient movement over multiple surfaces.
- A rust-resistant frame and platform made of stainless steel with a powder coat finish for lasting integrity.

www.powerpusher.com; 952-445-8295
Air Technical Industries (ATI; Mentor, OH) offers a series of Portable Jib Cranes that are self-supportive and can be used indoors or outdoors without installation. The Portable Jib Crane has a counterweight built in to the base for stability and fork pockets for portability. When the job is done, the crane can be easily moved out of the way, since it is not bolted to the concrete floor, as it is in the case with traditional jib cranes.

Features include:
- A convertible design that can be detached from the base and mounted to the floor.
- A 360° boom rotation, manually operated. An optional powered boom rotation is available.
- The ability to be equipped with a manual hoist or electrical powered hoist, 110 volt single phase or 240-480 volts, 3 phase. For hazardous areas, air powered pneumatic spark proof hoists are available.
- A heavy duty industrial welded steel construction for safe and long-lasting use. The rotation is on a heavy-duty Timken roller bearing and precision-built cam followers for smooth, effortless rotation.
- Available capacities of 500, 1,000 or 2,000 lbs with a span length of 6 to 12 feet and an under-beam height of up to 24 ft.

The cranes feature 2 different counter balance designs, one is counterweight built into the enlarged base for stability and the other is mounted on the rotating beam so that counterweight is always on the opposite side of the payload. The specially designed counterweight base has 4-way fork pockets for easy accessibility from any side.

www.airtechnical.com; 888-857-6265

Akro-Mils Introduces 2019 Catalog

Akro-Mils (Akron, OH) introduces its newest material handling catalog. The full-line catalog showcases Akro-Mils’ complete range of products for industrial, medical, retail and home settings, including:
- Storage Bins.
- Racks and Hanging Systems.
- Totes and Containers.
- Small Parts Storage.

www.akro-mils.com; 800-253-2467


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Vardex Suction Hose Turns 60

Vardex, the steel reinforced, transparent PVC suction hose from NewAge Industries (Southampton, PA), was introduced in 1956. Since then it’s been the protective conduit for millions of gallons of fluids and has transported air and other gases. It’s a heavy-duty product that has been reliably moving fluid from point A to point B for decades. Vardex offers spiral steel wire reinforcement, as well as kink and crush resistance and vacuum capabilities. Vardex is suitable for applications such as chemical transfer, air supply, floor cleaning equipment, material handling, water feeds and discharge, vacuum lines and food and beverage supply, air supply, floor cleaning equipment, material handling, water.

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http://www.newageindustries.com/vardex.asp; 800-506-3924

Steel Containment Systems

Prevent objects from falling off loaded pallet racks by using JESCO PalletGard panels from JESCO Industries (Litchfield, MI). Constructed with 10 gauge 2” x 1” woven wire mesh welded in 1.25” structural angle, this installs with simple hand tools. Panels come 1’-12” wide by 4’-5’ high, and interconnecting hardware is included. Clips are designed to fit most standard drilled pallet rack spaces 2” on center, and custom size clips/panels are available.

www.jescoonline.com; 800-455-0019

Plastic Toolboxes with Metal Latch

Featuring a compact design, and suitable for long-handled tools, this toolbox from Urrea (San Antonio, TX) is designed for heavy use and made with a high resistance plastic. Additional features include:

- A 15 1/16 "metal handle for superior durability.
- High-strength metal fasteners.
- Side handles.
- A reinforced body for maximum strength.
- A 19 59/64” long hinge.
- A 110° opening angle cap for easier use.

www.urreaprofessionaltools.com; 800-366-6911

Direct-Drive Fan for Tight Spaces

Tight workspaces, crowded floors and ceiling areas make it difficult to get cooling airflow to workers who need it, but the Pivot 2.0 from Big Ass Fans (Lexington, KY) is designed to bring comfort to these hard-to-reach work areas. Thanks to a virtually infinite number of speeds and versatile mounting options, you’ll get precisely the airflow movement you want, where you want it. Pivot 2.0’s direct-drive motor means you can count on it to always operate quietly and efficiently. Features include:

- Pivot 2.0’s easy-to-install, durable steel cage, designed to keep workers safe.
- Cooling air up to 120 feet from fan thanks to a 6-ft diameter and powerful motor.
- Versatile installation with ceiling, beam and column mounting options.
- Air in the right spot with 73 airflow positions and variable speed controls.
- Quiet operation with a direct-drive motor and balanced airfoils.
- Worry-free performance thanks to a 3 year warranty.
- Lifetime on hub and airfoils.

www.bigassfans.com; 877-244-3267

Pit Mount Parts Washer

The Renegade FL 9000 6048 Front Load Pit Mount Parts Washer from Service Line, Inc. (Reedsburg, WI) is a customized heavy-duty solvent-free solution for industrial applications. Renegade automatic front load cabinet washers operate with a durable gear-driven turntable and provide easy access to the wash zone. Parts such as bearings and races are cleaned of grease, oil or lubricants in a high temperature and high-pressure environment. Designed for pit mounted installation, the custom options for the Renegade FL 9000 6048 Front Load Pit Mount Parts Washer include Gas Heat Immersion System, Sludge Conveyor and Parts Tree with specially made nozzle and spray manifold configuration. Additional features include:

- PLC/HMI touch screen controls.
- Sixty-inch turntable.
- 3,500-pound load capacity.
- 2,000-gallon tank volume.

Applications include transit, fleet and railroad maintenance operations, heavy-duty truck, industrial parts cleaning, large casting CNC machining facilities, machine shop, mining equipment, production engine shops, production machining facilities, remanufacturing facilities, transmission machine shops and transportation production centers.

www.renegadepartswashers.com; 800-774-7900
**Premium-Efficiency, Cast-Iron Three-Phase AC Motors**

IronHorse MTCP2 industrial duty motors from AutomationDirect (Cumming, GA) meet the premium efficiency requirements of the Energy Independence and Security Act of 2007. MTCP2 motors are offered in T-Frame (1 to 300 hp) and TC-Frame/C-Face (1 to 30 hp). C-face kits are available for motors over 30hp. Specifically:

- These motors are available in 1200, 1800 & 3600 RPM and have TEFC (Totally Enclosed Fan Cooled) enclosures with cast iron frame and ribbed design for maximum cooling.
- The motors feature full length, cast iron mounting feet, steel fan cover and cast iron junction box with rubber gasket and rubber dust cover.
- MTCP2 motors have premium quality ball bearings (1-75 hp) or roller bearings (100-300 hp) with maintenance free bearings on 10 hp and below.
- V-ring shaft seals are used on the drive end and opposite drive end.
- The motors are electrically reversible and have Class F winding insulation.
- MTCP2-series motors have a two-year warranty, and are CSA and CE approved. Available accessories include bases, junction boxes, fans and fan shrouds.

**Stainless Steel Fittings, Cord Grips**

Anamet Electrical (Mattoon, IL) now has a line of 316 Stainless steel SEALTITE, fittings and cord grips. These conduit and fitting combinations provide a complete solution to protect sensitive wiring components in corrosive environments. Benefits include the following:

- The 316 stainless steel core and liquid tight jacket on the conduit provides longer protection against fluids, corrosive contaminants, bumps and abrasions.
- After 672 hours in a neutral salt spray atmosphere, 316 stainless steel fittings greatly outperformed standard galvanized and zinc plated fittings.
- The combination of 316 stainless steel fittings and SEALTITE will achieve an IP67 rating.
- Anamet Electrical is the only manufacturer to offer a UL listed 316 stainless steel cord grip.

“With the Vortex enclosure cooler…our control panels don’t shutdown anymore…that means we don’t lose production time.”

...Vortec brought “not only a better engineered solution, but one that is more cost effective.”

**INNOVATIVE COMPRESSED AIR TECHNOLOGIES**

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Vortec was the first company to develop technology for converting the vortex tube phenomenon into practical, effective industrial cooling solutions.

Since then, Vortec has continued to refine and expand vortex tube applications, from cold air guns to enclosure cooler solutions, including multiple hazardous location coolers. Vortec also manufactures air amplification products for more efficient use of compressed air in blow off, cleaning and conveying applications.

Our products have no moving parts and are backed by a best-in-class 10 year warranty*.

* restrictions apply to JetFX coolers

www.automationdirect.com/premium-cast-iron; 800-633-0405

www.automationdirect.com/pr-premium-cast-iron; 800-633-0405

www.automationdirect.com/pr-premium-cast-iron; 800-633-0405

www.anametsealtite.com; 800-230-3718
New Products

**Galvo Scanner Controller**

The GL4 scanner controller from Aerotech (Pittsburgh, PA) is optimized for Aerotech's family of AGV scanners to provide industry leading settling times, long-term thermal stability and micron-level tracking accuracy due to advanced features such as full state feed-forward, 192 kHz servo rates and look-ahead-based velocity control. The GL4 uses advanced interpolation electronics to provide up to 26-bits of effective resolution while onboard real-time 2D calibration ensures accurate beam placement over the entire field of view. Features include:

- The ability to accurately place a laser spot as a function of X/Y axis position is a key feature of Aerotech's linear positioning tables for laser processing applications. With the release of the GL4, this functionality is now available for scanner applications.
- The ability to accurately trigger the laser as a function of position removes the need to program mark, jump and polygon delays, resulting in reduced programming complexity. By using the Position Synchronized Output functionality, scanner-based processes can now be programmed in the same fashion as traditional X/Y stage-based applications.

www.aerotech.com; 412-963-7470

**Rugged Laser Level Platform**

Pacific Laser Systems (PLS; Everett, WA), a Fluke company, introduces a new product platform — including 11 new point, line and rotary laser levels — with improved durability, accuracy and performance. These new professional-grade tools are engineered to meet the demands of often harsh construction environments while easing interior and exterior layout work. The new lasers provide bright, crisp reference points and lines for quick and accurate layout, helping to complete projects on time. Included in the upgrades are:

- Design and engineering changes to make the tool more dust and water resistant.
- A build that’s tough enough to withstand a one-meter drop test.
- A new pendulum lock on the handheld tools that lets a worker protect this moving part during transport to avoid potential wear, thus increasing longevity.

Rather than launch small sets of tools over time, the platform change allows the product line to be upgraded all at once and enables laser level owners to take advantage of common accessories, such as the floor stand, wall mount and the all-new UB9 Universal Ceiling/Wall Bracket. The platform also allows for the addition of new features to benefit customers in the future.

www.plslaser.com; 800-601-4500

**Dust Collectors for Dry Processing**

According to Tri-Mer Corp. (Owosso, MI), the Whirl Wet Dust Collectors perform at exceptionally high efficiencies: 99%+ range for a broad variety of soluble and insoluble particulate. Units are self-cleaning; particulate is deposited at the bottom of the unit as a dense filter cake. The patented design has no moving parts, does not use “maintenance” components such as nozzles or pumps, and consumes minimal water. Additional benefits include:

- A design where energy generated inside the unit will not allow the system to clog under any operating conditions; the agglomeration and sticky residues that plug other dust collectors are not an issue with Whirl Wet.
- Several models, each tailored to the dust loading, including the Model MCD, which operates continuously, without shut-down.
- Capacities of 500 cfm to 50,000 cfm.
- PVC, polypropylene, stainless steel or alloy material construction.

www.tri-mer.com; 989-723-7838

**Rugged, Ultra-High-Resolution Vision Systems**

Cognex Corporation (Natick, MA) has announced the release of the In-Sight 9000, a series of ultra-high-resolution vision systems. The In-Sight 9000 series acquires exceptionally detailed images for high-accuracy part location, measurement and inspection over large areas — even when mounted at long distances. The In-Sight 9000 series consists of two models, the 9902L (2K line scan) and the 9912 (12MP area scan), both IP67-rated for use in harsh factory environments. This unprecedented combination of large image size and rugged design is available for the first time as a fully configurable, standalone In-Sight vision system, offering users a single-camera solution to view large areas while preserving accuracy. According to the company, it also allows users to inspect, measure and identify multiple features within a single view without programming complicated PC- or controller-based systems.

www.cognex.com/InSight-9000; 855-4-COGNEX

**New Products**
Direct Incandescent Replacement LEDs

Visual Communications Company (VCC; Carlsbad, CA) is rolling out two new LED Lamps for its distribution channels. The T-2 and T-1 3/4 Miniature LED replacement lamps were added to VCC’s portfolio during its acquisition of Display Products, Inc. (DPP) in Q3 of 2017. Designed to be simple replacements for outdated incandescent bulbs — especially for mission-critical applications — the T-2 and T-1 3/4 Miniature LED lamps offer many noteworthy benefits for manufacturers and designers, such as:

• Fitting directly into standard incandescent sockets.
• Operating at significantly lower temperatures.
• Utilizing up to 90 percent less energy than incandescent lamps.
• Lasting up to 100,000 hours, or 10 years.
• Delivering improved and reliable indication.
• Ensuring shock and vibration resistance.
• Eliminating downtime due to bulb replacements.
• Providing instant-on illumination.
• Allowing for fast and easy installation.

www.vclite.com; 800-522-5546

Kaeser (Fredericksburg, VA) has upgraded all ASD models with IE4 Super Premium efficiency drive motors. This motor decreases both power consumption and motor temperature. Specific power is improved from 0.75% to 1.5%, further reducing input kW. Cooler operating temperatures contribute to even better reliability and uptime. The updated models include the standard 25, 30, and 40 hp units, as well as the T-series with optional integral refrigerated dryers.

us.kaeser.com; 877-417-3527

Optimized for OEM requirements at a lower price.

PHD, Inc. is setting a new standard in pneumatic actuators. PHD Optimax® products are designed and tested to meet the demands of the industrial market for optimum price savings. These economical, efficient and reliable actuators complement PHD’s option-rich product lines.

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www.vclite.com; 800-522-5546

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Series OCG Pneumatic Cylinder
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- Imperial & Metric Models

Series OSV Compact Pneumatic Slide Table
- 4 Sizes, Incremental Travels

Series OSH Compact Pneumatic Slide Table
- 4 Sizes, Incremental Travels

Series OSP Compact Pneumatic Thruster Slide
- 8 Sizes, Incremental Travels

Series OSW Dual Bore Pneumatic Table Slide
- 6 Sizes, Incremental Travels

Series OSX Light Duty Pneumatic Slide
- 5 Sizes, 7 Travels

Series OCV Pneumatic ISO Cylinder
- 3 Sizes, 4 Strokes

Series OSD Thruster Pneumatic Slide
- 3 Sizes, 4 Travels

Series OCQ Pneumatic Compact Cylinders
- 10 Sizes, Incremental Travels
Redesigned Compressor Saves Energy

Atlas Copco (Rock Hill, SC) has released a redesign of its GA11+-30 oil-injected rotary screw compressors. The new models feature a variety of technologies to reduce energy consumption, including:

• A new fan from Atlas Copco’s VSD+ technology that offers 13 percent more energy savings than the previous design.
• A Siemens IE4 high efficiency motor that helps lower emissions and operating costs.
• A larger inlet filter, repositioned to reduce pressure drop and provide easier serviceability.
• A new controller offering touchscreen technology.
• SMARTlink remote monitoring and connectivity.

www.atlascopcogroup.com; 800-962-6532

Forklift Activated Projector

ALERT Safety (Cincinnati, OH) offers its newest innovation in a long line of forklift warning technology: Project ALERT. It warns pedestrians of approaching forklift traffic at dangerous corners and pedestrian walkways, and incorporates the following:

• The projector is activated only by approaching forklifts — not by pedestrians or forklifts exiting the area.
• Several models accommodate different distances, background colors and ambient light.
• The flashing message can be customized.
• The image can be projected on floor or wall.
• Easy installation; low power 50,000 hour LED, 24VDC & 120VAC.
• Projectors integrate with other ALERT Safety warning devices.

www.alertsafetyproducts.com; 800-783-4290

Metal-Detectable, NSF-Certified Stainless Steel Knife

OLFA (Rosemont, IL) OLFA recently unveiled its SK-14 Rounded-Tip Stainless Steel Knife. Features include:

• A 100 percent stainless steel construction, making the tool metal detectable.
• A rounded tip to reduce potential contamination from broken blades.
• Certification by the National Sanitation Foundation.
• An open-blade channel for easier cleaning.
• A slip-resistant handle that notches at the base to help improve grip and control.
• A wider blade actuator, which lets users reveal the self-retracting blade more easily.

www.OLFA.com; 800-962-6532

Machine for Forming Rifling Grooves in Gun Barrels

The DeHoff G560-B1 from Kays Engineering (Marshall, MO) is a custom machine designed to form the rifling grooves in gun barrels. The barrel is rotated by a 3-jaw chuck while a rifling button tool is pulled through the barrel by a hydraulic cylinder. The button tool deforms the rifling grooves into the internal bore of the barrel using a swaging process. All the rifling grooves are cold-formed in a single pass.

The G560-B1 can machine barrels from 17 caliber up to 50 caliber, and has a slide travel of 60 inches (1524 mm). It features a pneumatically-operated chuck with programmable “twist rates.”

www.kays-dehoff.com/dehoff/gun-barrel; 660-886-9929

Oily Water Cleanup Towels

New Pig (Tipton, PA) has introduced the PIG Oily Water Cleanup Towels in Vac-Pack. Different than conventional oil-only spill products, these absorbent towels allow water to pass through during outdoor cleanups and oily tool wipedowns – capturing oils, fuels and hydrocarbons. Packaged in convenient and space-saving vac pacs, the towels are ideal for use in outdoor, wet and rainy conditions to clean up and wipe down oily tools where oil has collected in cracks and crevices. The towels float to remove oil on water (even the sheen) and their white color shows absorbed oil to indicate saturation level. Other benefits include:

• A lightweight yet durable material that conforms to irregular surfaces and is tough enough to scrub concrete, rocks and asphalt.
• The ability to be wrung out after use to reduce waste, or for fuels blending or incineration.

www.newpig.com; 800-HOT-HOGS
Home of Hubble Picks Bowman XRF

Goddard Space Flight Center, home to Hubble operations, the upcoming James Webb Telescope – as well as the nation’s largest organization of scientists and engineers dedicated to spacecraft and the study of the solar system – has chosen Bowman (Schaumburg, IL) as its supplier of choice for XRF thin film measurement technology.

The Bowman XRF measurement system selected is a Model P, a system with the capability to measure an exceptionally wide range of sample sizes and shapes. At Goddard, the Model P will precisely analyze ENIG, ENEPIG and alloys on printed circuit boards.

Goddard engineers have extensive capability for designing and building sensitive instruments; one of the main factors that led to the purchase was Bowman’s IPC 4552A capability and the instrument’s ability to precisely determine phosphorus composition in electroless nickel through the gold layer for incoming PCBs. The Model P measures up to 5 coating layers simultaneously; in addition to plating thickness measurement, it also performs elemental and solution analysis.

Bowman XRF systems also serve in other NASA facilities, and at Los Alamos National Laboratory, Sandia National Lab and the Department of Defense Repair Center.

Chemcoaters Acquires Eco Green Coatings

Chemcoaters, a coil coater and manufacturer of proprietary coating chemistries, now owns Eco Green Coatings. Effective immediately, Eco Green Coatings has become a wholly owned subsidiary of Chemcoaters. The announcement was made by Chemcoaters at the company’s headquarters in Gary, IN.

Eco Green Coatings is the creator of InterReactive coatings and the developer of the InterCoat Chemguard family of coatings. As part of InterReactive coatings, InterCoat Chemguard is an innovative corrosion resistant and adhesion-enhancing coating that creates a permanent covalent reaction with any zinc or zinc-alloy coated substrate. InterCoat Chemguard can be used as a stand-alone corrosion resistant coating or can be applied as a Hybrid Pretreatment that enhances corrosion resistance while simultaneously improving adhesion of prepaints, post paints and powder coatings.

Harley Approves Asterion Zinc Plating Systems

Asterion, LLC is pleased to announce that Harley-Davidson has approved TECHNIBRITE alkaline and acid zinc plating systems for providing optimum corrosion protection on the company’s legendary motorcycles. Specifically, the TECHNIBRITE systems have met the stringent specifications of Harley-Davidson’s “Zinc Plate and Seal per ESPEC 805-050,” and “Zinc Plate per ESPEC 805-051” for use on powertrain components.

The approved zinc plating systems include the use of TECHNIBRITE AZ 130 alkaline, non-cyanide zinc or TECHNIBRITE ZN 200 chloride acid zinc, followed by TECHNICOAT ZnBl 360 trivalent passivate, TECHNIGUARD F 108 sealant is employed to meet the ESPEC150 specification. The rigorous testing was completed at Harley-Davidson Powertrain Operation in Menomonee Falls, WI.

Blair Vandiver, President and CEO of Asterion said, “We are honored to have earned the trust of Harley-Davidson. The work by our sales和技术 teams, in partnership with our valued distributor Hydrite Chemical Company, demonstrates our commitment to ‘combining high tech with high touch,’ to Harley-Davidson and all our customers to maximize product performance.”
XRF Measurement System

Bowman (Schaumburg, IL) has debuted an important addition to its suite of benchtop XRF plating measurement systems. Bowman’s G Series XRF is a robust system that’s ideally suited for the analysis of precious metals – also tin or nickel – on printed circuit boards, wafers, connectors and other electronic components. Its two most distinctive features are “bottom-up” measurement using a motorized Z-axis with laser-based autofocus, and precision video imaging. An available manual XY stage with 1.5 X 1.5” travel facilitates easy positioning of small and large parts. Benefits include:

- A standard configuration which includes a single fixed collimator, solid-state PIN detector and long-life micro-focus x-ray tube. As with all Bowman models, the components can be upgraded to include multiple collimators, a variable focal camera or an SDD detector.
- The capability for instruments to simultaneously measure up to 5 coating layers, 10 elements in each layer, up to 25 elements in all. Element range is Al (13) through U (92).
- Advanced Xralizer software, to quantify coating thickness from the detected photons. Xralizer combines intuitive controls with time-saving shortcuts, extensive search capability and “one-click” reporting.

Bowman’s G Series desktop XRF is ideal for quality labs and production environments. It is highly advantageous for users with limited benchtop space - or budget limitations. G Series XRFs are ideal for both plating thickness and solution analysis.

www.bowmanxrf.com; 847-781-3523

500°F Special Universal Oven

No. 856 from Grieve Corporation (Round Lake, IL) is a 500°F (260°C), special universal oven, currently used for curing composite parts in vacuum bags at the customer’s facility. Workspace dimensions of this oven measure 42” W x 40” D x 50” H. 48 KW are installed in Incoloy sheathed tubular heating elements, while a 4200 CFM, 3-HP recirculating blower provides universal airflow to the workload. Additional features include:

- 4” thick insulated walls and Type 430 stainless steel interior.
- An integral leg stand and 4 (four) levels of 2 (two) 3/8” NPT pipe ports connected to common manifold.
- A vacuum gauge and ball valve on each port.

Controls on the #856 include a digital, microprocessor based, thermocouple actuated, indicating temperature controller, motor control push buttons, an on-off heat switch and LED pilot lights.

www.grieve corp.com; 847-546-8225

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Cleaning Laser

The CleanTech Handheld LPC-200CTH is a high performance, industrial-grade, fast, precise and incredibly productive laser cleaning tool from Laser Photonics (Orlando, FL). The newly released CleanTech systems offer a non-abrasive cleaning process that is safer and more eco-friendly. Most other systems are providing a single line sweeping pattern which causes unwanted overlapping finishes along with surface damage. The Multi-pattern manual handheld laser surface cleaning model LPC-200-CTH is currently being used for industrial applications such as nuclear power energy holding tanks, injection molds, food processing, cosmetics equipment, power turbine generator components, different exhaust systems with critical requirement to maintain its original surface finish, and much more.

www.laser photonics.com; 844-44-LASER

High Torque Dry Polishers

Metabo Corporation (West Chester, PA) announces two new Variable Speed High Torque Dry Polishers: the PE 15-20 RT and PE 15-30, made in Germany. A key target market for the Extra High-Torque Dry Polisher with Rat-tail (PE 15-20 RT) is the automotive/paint finishing market. While the High-Torque Dry Polisher (PE 15-30) has been created for heavy duty applications, like stone and concrete polishing. Also, because of its speed range, the PE 15-30 can also be used for stainless-steel polishing. Specifically:

• The Extra High-Torque Variable Speed Dry Polisher with Rat-tail (PE 15-20 RT) has a no-load speed of 3001,900 rpm, 133 in-lbs. of torque and 13 Amps. The position of the rat-tail handle combined with soft hand grip and rubberized cover allows for maximum ergonomic comfort for day-long polishing of metal.
• The High-Torque Variable Speed Dry Polisher (PE 15-30) has a no-load speed of 800-3,000 rpm with 13 Amps. This tool includes an adjustable loop handle for optimal control.

The PE 12-20 RT and PE 15-30 include VTC (variable-tacho-constamatic) - Metabo’s exclusive technology that maintains RPM under load. It both protects the end-user and extends the life of the tool. Both tools also have overload protection, which keeps the motor from overheating, prolonging the tool's life.

www.metabo.com/us/enus; 800-638-2264

Airspray Tanks

SAMES KREMLIN (Plymouth, MI) has announced the release of new Airspray Tanks. The new Airspray Tanks offer multiple solutions to match a variety of needs, including:

• Capacity from 2L to 50L
• Maximum pressure from 3.5 Bar to 7.0 Bar.
• Material: Aluminum, carbon steel or stainless steel.
• Bottom or top output.
• With or without agitator.

The new Airspray tanks are all CE, ASME, and ATEX certified. Partner the new FPro Manual Airspray Spray Gun with the new Airspray tanks for a reliable and complete solution. The simple and reliable technology of the Airspray tanks are nearly maintenance free.

www.sames-kremlin.com; 800-573-5554

Combat Finishing Tank Leaks

According to Tecnoplast USA (Anderson, IN), metal finishing tanks should not be viewed as a commodity; proper engineering and quality materials are critical for tank life. And since 75% of metal finishing tank users have reported experiencing tank leaks, it’s clear that tank life and quality are critical considerations in the purchase of a new finishing tank.

Many of Tecnoplast’s clients are frustrated with the high cost of lost production and chemical waste due to leaks. Often, they are angry about tank failures resulting in worker exposure, overcoming of secondary containment, and the environmental or clean-up liability. If you feel you should consider a new tank, Tecnoplast USA would like the opportunity to demonstrate how they can save you time and money.

www.tecnoplastusa.com; 765-778-0943

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Taking Control of Wastewater Treatment

Companies should consider environmental impact and other motivating factors to go beyond mere compliance

By Tim Hanna, VP of Business Development, PRAB

On a global level, wastewater treatment is an increasingly critical topic of discussion that has been addressed at the very highest levels of government and major corporations. In order to find a sustainable approach, companies can employ many different strategies to help themselves go beyond mere compliance and begin the process of positively impacting global water quality.

According to UN.org, more than 80% of all the wastewater from industry, homes, cities and agriculture flows back into the ecosystem via lakes, rivers and other bodies of surface water. This process repeats every day across the planet, polluting the environment while losing valuable nutrients and other recoverable materials in the process.

Each year in March, World Water Day serves as a reminder from the United Nations that a daily commitment is necessary for the successful reduction and reuse of wastewater. Guy Ryder, the director-general of the UN International Labor Organization (ILO) and the Chairperson of UN-Water, believes that in order to make a difference, there must be a commitment to improve management of wastewater from both the business community and the general public.

With this commitment, Ryder hopes to achieve the UN’s 2030 Agenda for Sustainable Development, which targets halving the proportion of untreated wastewater and increasing safe water reuse by 2030. Often taken for granted, water is a finite resource with increasing international demand. Wastewater treatment has become an increasingly critical part of plant operations over the last decade, and manufacturing companies across all industrial sectors are prioritizing the reduction of water consumption.

Motivating Factors Beyond Compliance

Compliance with ever-tightening federal regulations for wastewater treatment, handling and disposal – such as the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA) and the Safe Drinking Water Act (SDWA) – requires plant management to be focused on the wastewater issue. There are additional regulations on the state and local level that companies must adhere to as well.

Companies must pay for handling, trucking and treatment by their local Publicly Operated Treatment Works (POTW). Adding to the expense is the clean water required to replace the initial volume.

Water disposal costs can vary based on:

- Local water supplies
- Fuel prices
- Trucking prices
- Edicts of the POTW

The obvious goal should always be to recycle coolant, wash water and other fluids internally. This will increase tool life, improve product quality, reduce maintenance, and prolong the usage of working fluids. Having a fluid recycling process in place means when the time comes to dispose of waste water and fluids, companies will have a lower volume to discard, or a concentrated stream they can treat themselves for lower cost handling at the POTW.

While it certainly makes business sense to implement such a process, for companies that are unfamiliar with the treatment and re-use of in-house wastewater, it can appear to be a daunting task. On the surface, up-front costs often associated with adding a wastewater treatment system can seem prohibitive.

At the heart of any system is the equipment. For companies that are concerned about the impact their wastewater has on both the environment and their bottom line, there are a variety of options available, each designed to perform a variety of options available, each designed to perform

Top Wastewater Equipment, Benefits & ROI

The following list includes the seven most common types of wastewater equipment, how they operate, and how they impact a business’ profitability:

1. Ultrafiltration (UF) Systems

Ultrafiltration (UF) is a pressure-driven process that uses a membrane to remove emulsified oils, metal hydroxides, emulsions, dispersed material, suspended solids, and other large molecular weight materials from wastewater, coolant and other solutions. UF excels at the clarification...
of solutions containing suspended solids, bacteria, and high concentrations of macromolecules, including oil and water.

UF systems are designed to reduce oily water volumes by as much as 98%, without the use of chemical additives. These systems are also capable of removing small fines in deburring and tumbling operations, which allows the water and soap solution to be recycled and reused. When calculating both heating and disposal expenses, companies can also see a reduction of wash water and detergent costs by as much as 75% and a reduction in waste disposal costs by as much as a 90%. For these reasons, UF membrane technology is quickly becoming the process of choice over conventional filtration methods.

2. Vacuum Evaporation and Distillation

Evaporation is a natural phenomenon and a clean separation technology recognized as a Best Available Technique (BAT) in several wastewater treatment processes. Because it removes the water from the contaminants, rather than filtering the contaminants from the water, it is distinct from other separation processes.

No other technology can attain such high water-recovery and concentration rates as vacuum evaporators, which accelerate the natural evaporation process to treat and distill industrial wastewater amounts from 1 to 120 tons per day. They are capable of achieving residual total solids concentrations of more than 85%.

The three primary vacuum evaporators are:

- Heat Pumps – Flexible and versatile with low electrical energy consumption and superior reliability
- Hot Water/Cold Water – Reduce operating costs by utilizing existing excess hot water/steam and cooling water
- Mechanical Vapor Recompression (MVR) – Engineered for the treatment of large wastewater flow rates with low boiling temperatures for reduced energy consumption

3. Reverse Osmosis Systems

Reverse Osmosis (RO) technology removes dissolved solids and impurities from water by using a semi-permeable membrane, which allows the passage of water but leaves the majority of dissolved solids/salts and other contaminants behind. The RO membranes require a greater-than-osmotic pressure and high-pressure water to achieve the desired result. The water that passes through the RO membrane is called the permeate, and the dissolved salts that are rejected by the RO membrane are called the concentrate.

A properly designed and operated RO system can remove up to 99.5% of incoming dissolved salts and impurities, as well as virtually all colloidal and suspended matter from the most challenging waste and feed water applications. Typically for industrial, metalworking and surface treatment applications, RO technology is the final process after ultrafiltration or the chemical treatment of waste and feed water.

4. Paper Bed Filters

These types of filters work by gravity and utilize disposable paper media or permanent filter media to produce a positive barrier, which removes solids from all free-flowing industrial process liquids. Paper bed filters are suitable for applications involving low- to medium-stock removal of ferrous and non-ferrous metals, as well as organic and inorganic contaminants such as glass, rubber and plastic. Paper bed filters can extend coolant and tool life by an average of 27%, in addition to increasing surface finish quality.

Standard paper bed filtration units are available with (or without) magnetic separation and can handle flow rates of up to 130 gallons per minute (GPM). Different classes of filter media allow for adjustments of micron clarity. A drum-type model, which can process up to 500 GPM of fluid, occupies one-third the floor space of a paper-bed filter.

5. Solid Bowl Centrifuges

These units utilize centrifugal force (instead of consumable media) to separate solids from liquids in metal processing applications where removal of fines is important for recycle and reuse goals. Process liquid is either pumped or gravity-fed to the centrifuge inlet. Process solids are then centrifugally separated from the liquid phase and collected in an easily removable rotor, also known as a liner. Clarified liquid overflows the rotor into the outer case and is returned by gravity to the process, which minimizes the cost of hauling waste coolants and water away from the facility.

Solid Bowl Centrifuges provide high-performance liquid/solid separation for all types of particles – metallic and nonmetallic, ferrous and non-ferrous – and are available in both manually cleaned rotor style (with a reusable liner) and fully automatic self-cleaning designs.

6. Tramp Oil Separators

In this wastewater treatment solution, contaminated fluid flows through a series of baffles and a porous media bed, where free- and mechanically dispersed oils are separated from the fluid. The clarified fluid then flows over the clean media vacuum filters to reduce tramp oils to less than 1% in a single pass while utilizing no consumable products.

Tramp oil separators can also:

- Reduce new fluid purchase costs up to 75% (including synthetic and semi-synthetic coolants, soluble oils and wash waters)
- Reduce the cost of wash water detergents, heating and disposal
- Reduce hazardous waste volumes up to 90%
- Achieve system payback (ROI) in 6 months or less

7. Vacuum Filters

Capable of continuous operation, vacuum filtration systems can eliminate significant downtime. Virtually maintenance-free and delivering high-sludge-volume elimination, these systems will also deliver lower production costs. Disposable media vacuum filters utilize a vacuum chamber to draw contaminated coolant through the disposable filter media. By applying the proven principle of optimal filtration through contaminant or sludge build-up, a filter cake forms on the media. These units are capable of impressive flow rates of up to 2,000 GPM.

Semi-permanent vacuum filters further reduce operation costs by eliminating the need for disposable media. Back flushing with clean coolant keeps the filter clean without requiring large volumes of air. The back-flushed solids drop from the filter element and settle into a tank, where they are removed via a chain dragout/tight arrangement. These units require minimal floor space and are completely self-contained, simplifying maintenance and operation.

Conclusion

Considered an increasingly critical topic of global concern, wastewater treatment is something industrial manufacturing operations can address with any number of existing, efficient and effective systems. Companies can employ many different strategies to help themselves go beyond mere compliance and begin the process of positively affecting water quality. This can simultaneously bolster their brand, their ROI and their bottom line.

About the Author

Tim Hanna is the Vice President of Business Development for PRAB, a leading designer and manufacturer of wastewater recycling systems as well as engineered conveyors and equipment for processing turnings, chips, and metalworking fluids. Since graduating from Northwood University with a Marketing degree in 1970, Hanna has worked closely with companies and communities around the world who take advantage of the latest fluid filtration and chip handling technologies to both lower cost and increase environmental stewardship.
A compact and self-contained design, so installation consists of simply locating the unit opposite the door of the CNC machine it tends, bolting it to the floor and connecting electrical power, air supply and Ethernet. Affordably priced and easy to use, Load & Go enables CNC shops to automate labor-intensive loading and unloading with a minimal investment that will reduce cost-per-part and deliver fast ROI.

www.automationwithinreach.com
**NITRA Hybrid PVC Hose for Air and Water Use**

A new hybrid PVC/rubber hose introduced by AutomationDirect (Cumming, GA) is suitable for air and water use. NITRA Hybrid PVC Hose is a blend of PVC and rubber with a polyester braid reinforcement. The PVC gives light weight, color stability and hardness for higher working pressures while the rubber gives improved flexibility and operating temperature range. Specifically:

- The black with green stripe color hose works with air or water (non-potable) and is strong, flexible, kink resistant and has a Shore A 62 hardness rating.
- The hybrid PVC hose is available in 1/4” and 3/8” hose inside diameters and is sold with or without ¼” male NPT nickel-plated brass rigid fittings (additional fittings may be purchased separately).
- The hose is available in 25- and 50-foot hose lengths with fittings, and in 100, 250 and 500-foot bulk hose lengths without fittings.

www.automationdirect.com/hybrid-pvc-hose; 800-633-0405

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**Black SJT Cable**

Interpower (Oskaloosa, IA) has announced that it now manufactures 2 x 18 AWG SJT cable, expanding the current line of North American cable. The black SJT cable, P/N 86060190, supersedes P/N 86030240. The fixed operating temperature is rated -35°C to 105°C. This type of cable is recommended for use with certain kinds of household appliances and where ungrounded two wire cable is needed.

Interpower has no minimum order or dollar requirements and offers a 1-week U.S. manufacturing lead-time on non-stock Interpower products with same day shipping on in-stock products. Blanket or scheduled orders are available. Interpower also offers value-added services, along with free technical support.

www.interpower.com; 800-662-2290

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**Coveralls with Skid-Resistant Boots**

Slips, trips and falls account for 35 percent of all workplace incidents in the U.S. and more than 95 million lost workdays per year. The new and improved boot material on Kimberly Clark (Roswell, GA)’s KleenGuard A30 and A45 Coveralls can help reduce these risks. Features include:

- Better traction.
- Better durability.
- Better visual compliance.

KleenGuard protective clothing is designed with human-centric engineering that enables rather than inhibits – allowing for maximum productivity and safety. Additionally, KleenGuard A30 and A45 Coveralls with Skid-Resistant Boots can be diverted from landfills through The RightCycle Program, the first large-scale recycling program for non-hazardous lab, cleanroom and industrial waste. The RightCycle Program turns used apparel, gloves and protective eyewear into new consumer goods.

www.kcprofessional.com/kleenguardpower

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**Hot Glass Handling Solutions**

PHD, Inc. (Fort Wayne, IN) offers drop-in replacement grippers and pusher slides designed to move extremely hot glass containers from a forming machine onto a conveyor. PHD has the actuators of choice to keep your glass bottle forming machines running while increasing productivity and reducing downtime and scrap. This GGA Tong Head Gripper offers a rugged design and long life for hot glass bottle transferring applications. The glass pusher slide provides longer life and faster retract speed due to special quick exhaust valve.

www.phdinc.com; 800-624-8511

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Ergonomic Certified Industrial Glove Series

Ansell (Italex, NJ) announces its best selling HyFlex 11-93x series has been certified as the First Ergonomic Certified Industrial Glove Series after a thorough and comprehensive study performed by ergonomics tester, US Ergonomics. HyFlex 11-931, 11-937 and 11-939 gloves have been demonstrated to reduce muscle fatigue, increase grip performance, maximize hand and finger flexibility and improve wrist posture and overall dexterity. The HyFlex 11-93x glove series actively works against risk factors for musculoskeletal disorders (MSDs), significantly reducing hand muscle effort and improving wrist posture while performing tasks, even compared to barehanded movements. Benefits of ergonomic certified gloves include:

- Increased efficiency through improved grip performance and durability.
- Fewer workplace hand-related injuries.
- A reduced need for workers to require time off to recover from hand-related issues.

In addition to the ergonomic benefits, the HyFlex 11-93x series is the lightest weight, cut-resistant plus oil-repellent glove on the market, engineered to deliver hand protection from sharp, oil-coated objects while providing enhanced worker comfort and strategically reinforced ‘high wear’ regions for longer glove use and uninterrupted focus on the task at hand.

www.ansell.com/comfortzone; 800-800-0444

DHS Electronic Air Main Charging Valve Offers Monitoring

Removal of moisture, particulates and hydrocarbons from the compressed air system is vital in order to protect pneumatic equipment, minimize downtime and reduce scrap and inferior product. The DHS from Kaeser Compressors (Fredericksburg, VA) helps ensure that dryers and filters perform to specification. This electronic intermediate control acts on a pressure signal to accommodate nearly any system.

- Availability in eight sizes from 1-inch ball to 8-inch butterfly valves to accommodate nearly any system.
- High visibility LED indicators to communicate status at a glance. They can also be wired to dryers and drains so that in case these fail or are shut down, the DHS closes to prevent contamination from getting downstream.
- Remote monitoring/control by connecting the DHS to plant monitoring systems or Kaeser Sigma Air Manager 4.0 if present.
- Availability in eight sizes from 1-inch ball to 8-inch butterfly valves to accommodate nearly any system.

www.us.kaeser.com; 877-417-3527

360-Degree Static Eliminator is CE, UL and RoHS Certified

The new Gen4 Super Ion Air Wipe from EXAIR (Cincinnati, OH) provides a uniform 360-degree ionized airstream that clamps around a continuously moving part to eliminate static electricity and contaminants. It is ideal for removing dust, particulates and personnel shocks on pipe, cable, extruded shapes, hose, wire and more. This engineered product has undergone independent laboratory tests to certify it meets the rigorous safety, health and environmental standards of the USA, European Union and Canada that are required to attain the CE and UL marks. It is also RoHS compliant. New design features include:

- A metal armored high voltage cable to protect against abrasion and cuts.
- A replaceable emitter point.
- Integrated ground connection.
- Electromagnetic shielding.

The Super Ion Air Wipe uses a small amount of compressed air to entrain high volumes of room air. Two shockless ionizing points powered by a UL Component Recognized 5kV power supply fills the airstream with static eliminating ions. That airflow attaches itself to the surface of the material running through the air wipe and neutralizes the charge.

www.exair.com/g4siaw.htm; 800-903-9247

Safety Field Box

The Schmersal Group (Hawthorne, NY) announces plans to launch its new safety field box, SFB-PN-IRT-8M12-IDP, onto the market in 2019. The safety field box for PROFINET/PROFIsafe systems is suitable for simple plug-and-play installation of up to eight safety devices. Thanks to its universal device interface with an 8-pole M12 connector, it can be used to connect a wide variety of safety devices, including:

- Electronic and electro-mechanical safety interlocks.
- Switches.
- Sensors.
- Light curtains.
- Operation panels.

This easy-to-use safety field box is ready to be utilized without the need for individual configuration and programming, as the SFB-PN-IRT-8M12-IDP is suitable for simple plug-and-play installation of up to eight safety devices. The safety field box from Schmersal comes with the CE and UL marks and is RoHS compliant. It has undergone independent laboratory tests to certify it meets the rigorous safety, health and environmental standards of the USA, European Union and Canada that are required to attain the CE and UL marks. It is also RoHS compliant. New design features include:

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www.schmersal.com; 888-496-5143

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**Electronics Manufacturing Capabilities**

Blonder Tongue Laboratories (Old Bridge, NJ) is an OEM specializing in video distribution, fiber optics and communications equipment. With a team of innovative experts, the sky’s the limit for what Blonder Tongue make — from automotive interface devices to power supplies. Some options include:

- Sheet metal fabrication: The shop is capable of punching, forming, and fastener assemblies for electrical boxes, chassis, or enclosures; U.S.-sourced sheet metal is always in supply.
- Printed circuit boards: Blonder Tongue will take delivery of your pre-purchased kit or receive your Bill of Materials and find the best components for your design. Multi-layered board designs are no problem.

Blonder Tongue Laboratories’ on-site lab performs UL/ETL testing to standard 62368, and is also ISO 9001:2015 certified.

www.blondertongue.com; 800-523-6049

**Partnership Provides Additive Repair Solutions**

Optomec (Albuquerque, NM) has announced that it has signed a partnership agreement with Phillips Federal. The agreement will enable Phillips Federal to resell the Optomec Laser Engineered Net Shaping (LENS) systems to US government facilities. The Optomec LENS family offers a full range of additive manufacturing solutions for creating, enhancing and repairing metal components using high-powered lasers to build structures layer by layer directly from powdered metals, alloys, ceramics or composites.

Optomec LENS systems use a form of metal 3D printing known as Directed Energy Deposition (DED), which is complementary to the more common form of metal printing called Powder Bed Fusion (PBF), or Selective Laser Melting (SLM). Using DED, LENS is able to print full parts at a fraction of the time and cost of systems based on PBF/SLM, yet with better material and mechanical properties and less material waste. Additionally, LENS is uniquely able to add metal to existing parts for repair and coating applications that cost-effectively extend the useful life of components.

www.optomec.com; 505-761-8250

**Turnkey Service for Processors**

To help processors implement continuous processing effectively and easily, process equipment manufacturer Readco Kurimoto, LLC (York, PA), has unveiled a turnkey service approach. With Readco Turnkey Services (RTS), the company offers to manage the design, engineering, testing, procurement and installation of entire continuous processing lines including upstream equipment from the storage silos, feeders and pumps through to mixing, blending and downstream to extrusion or cooling.

Integrating controls for each element into a single, touch-screen panel for system-wide operation and monitoring, the RTS approach streamlines development of the continuous processing lines for faster installation and startup while ensuring the compatibility of all specified equipment, and that the end product meets target requirements.

Devised to offer value-added access to the company’s expertise in upgrading batch processing lines to continuous processing lines, the turnkey service approach is ideal for food, chemical, plastics, pharmaceutical, and other companies involved in mixing, blending, reacting, drying, crystallizing and other solid-liquid processes.

www.readco.com; 800-395-4959

**Entrust Launches New OEM Production Division**

Entrust Manufacturing Technologies (Menomonee Falls, WI) has announced the launch of Vortakt, a new component manufacturing division specializing in OEM partnerships for gundrilling applications. Vortakt leverages the deep-hole drilling expertise and equipment produced by the UNISIG division of Entrust to provide world-class solutions for high-volume production. Vortakt handles mass production runs that other services find difficult to manage, and its calculated approach to production gundrilling uses a tried-and-true set of processes — as well as industry-leading manufacturing technology from UNISIG — to offer exceptionally precise gundrilling and the additional steps necessary to produce rifle barrels.

In addition to providing contract production to its firearm customers, Vortakt also assists OEMs in all industries with application assistance and design expertise. Although Vortakt frequently produces components from customer-supplied dimensions or to internationally recognized standards, Vortakt also works directly with customers to help them develop ideal solutions to manufacturing needs.

www.entrustmt.com; 262-252-3802
Anti-Mar Covers Protect Work

Patented u-GUARD anti-mar covers from Apex Tool Group, LLC (Dayton, OH) provide a protective barrier between genuine APEX fastener tools and the finished workpiece on a production line, delivering protection against in-system damage. Advantages include:

- Low durometer, thermoplastic urethane material that resists dents during incidental side impacts.
- The ability to absorb side impacts, and does not produce raised burrs when impacted.
- A non-removable cover to prevent tampering on the line.
- Low sustained coefficient of friction between the cover and the tool produces minimal loss of tool efficiency.
- Signature orange color, making fastener contact easier and station monitoring smoother.
- Part numbers clearly marked for ease of identification.

The product line has grown to include u-GUARD gap covers which eliminate the gap between a socket and an extension or between the right-angle power tool and a socket extension, improving operator safety.

www.apex-tools.com; 800-845-5629

ProPneumatic Flange Nut/Bolt Driver Set

Mayhew Steel Products, Inc. (Turner Falls, MA) announces new ProPneumatic Four Piece Flange Nut/Bolt Driver Set, Part No. 32080. This unique set of counter-bored drivers was specifically designed to drive flange-head nuts to either push out or push in flange-head bolts. Each driver fits over the hex head on the flange nut or bolt and drives them using the flange making them ideal for multi-purpose applications where driving any rod, pin or bolt is needed without sliding off that fit within the counter-bore. Included in the set are a 10mm, 13mm, 15mm and 18mm drivers - which fit M6, M8, M10 and M12 threaded flange nuts and bolts respectively. All are made in the USA and backed by a Lifetime Warranty. Specific use for the tools includes, but is not limited to:

- Driving the flange head hex bolt of a hub without damage.
- Loosen nuts and/or use nut to push bolt out.
- Put pins back in; driving them in without damaging hex nut.
- Separate frozen hub assembly from steering knuckle.
- Drive against loosened retaining bolts to separate assembly without damaging either.

All of the tools in the set feature a .401 Turn Type Parker Shank and are made of an alloy steel that has been hardened and tempered. Their black oxide finish prevents corrosion and rust, reinforcing the tools long-lasting durability. For convenience and accessibility, the tools are packaged in a self-contained, reusable storage tray that fits most tool boxes.

www.mayhew.com; 800-872-0037

INSIGHT Connect Mobile App

Ingersoll Rand (Davidson, NC) has released the INSIGHT Connect mobile app to enhance the simplicity and flexibility of interfacing with Ingersoll Rand QX Series cordless assembly tools. Now, instead of being tethered to a desktop to program and adjust the settings on tools, operators can use the INSIGHT Connect app to set and edit basic torque & angle control fastening strategies on all QX Series tools. The INSIGHT Connect app programs Ingersoll Rand QXC, QXM, QXN and QXX fastening tools without the need for additional technical training, special software, plant network permissions or a laptop computer.

Working from a smartphone or tablet, operators can use the app to quickly set up one basic torque and angle control strategy, clone settings from one tool to another, and review cycle and audit logs. Other benefits include:

- The capability for the INSIGHT Connect app to operate offline, so it can function in large facilities where network access may be a problem, mitigating downtime in manufacturing settings where productivity is essential.
- The INSIGHT Connect Back-up & Restore feature, where operators can back-up all the settings of the tool in the app. When needed the user can restore these settings to a new tool and be online in less than 60 seconds. Operators can also use the app to retrieve cycle data from a tool for analysis.

The INSIGHT Connect app is free to download now in the Google Play store.

www.ingersollrandproducts.com

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PRODUCT SPOTLIGHT

Hot Melts

Hot melts from Ellsworth Adhesives (Germantown, WI) are economical adhesives that have a long shelf life, cure quickly, are non-toxic, and can be disposed of easily. When combined with base materials like silicone or polyurethanes, hot melts provide an increased bond strength, added chemical/moisture resistance, and multiple service temperatures and cure times for applications such as gap filling, potting and encapsulation.

www.ellsworth.com; 877-454-9224

Bits with Lifetime Tip Warranty

Milwaukee Tool (Milwaukee, WI) continues to re-define extreme driver bit performance and wear resistance with the introduction of SHOCKWAVE MATRIX CARBIDE, a new line of premium driver bits backed by a Lifetime Tip Warranty. According to the company, driving up to 2,800 more screws than other premium driver bits in testing means SHOCKWAVE MATRIX CARBIDE is the new industry benchmark – and users no longer have to sacrifice wear resistance to gain impact durability. Benefits include:

- The combination of proprietary Matrix Carbide Steel and optimized Shockzone technology, to deliver extreme wear resistance while still being able to absorb the peak torque of an impact driver.
- Optimization with a unique Shockzone geometry in varying lengths and thicknesses, to absorb peak torque and prevent breaking. The new SHOCKWAVE MATRIX CARBIDE driver bits will include a variety of bit lengths and kit configurations in Phillips, Square, and Torx tips.

www.milwaukeetool.com; 800-SAWDUST

Adjustable Work Table for Grommet Attaching

METALgrommets.com (Dighton, MA) has introduced a new ergonomic work table that was especially designed for its portable pneumatic grommet attaching machine. The ClipsShop Adjustable Work Table for the CS-TIDY-41 Pneumatic Grommet Machine is designed to increase user comfort and accommodate the different physical dimensions and requirements of various projects. Features include:

- Three machine-to-table surface position options including a recess to make the height of the grommet attachment surface flush with the table.
- Two durable recessed molded acrylic bins to hold the grommets and washers.
- Telescopic legs and leveling feet.
- Adjustability of the top surface from 25” to 33” H.
- A tilted installation bar for the foot pedal, to increase user comfort and allows the pedal to be placed either on the right or left.
- A 24” W x 12” D x 3/4” thick textured laminate wood top and powder-painted steel construction.

www.ellsworth.com; 877-454-9224

www.METALgrommets.com; 508-802-6024

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FDA-Compliant Linear Guide Liner

Igus (East Providence, RI) has developed an FDA-compliant liner made from high-performance plastic that meets the special hygienic requirements of the food and beverage industry. The liner, made with igus’ iglide A160 material, is also EU-compliant. The integrated, maintenance-free and wear-resistant liners used in the carriages enable the guides to glide without lubrication. The liners also offer high media and contamination resistance, and is available in eight dimensions for all drylin W housing bearings and carriages, as well as for all drylin R round guides.

Non-Destructive Leak Detection

Inficon (Syracuse, NY) recently unveiled the Contura S400 leak detector with features that include:

• A non-destructive testing approach that the company feels is more reliable than water bath testing.
• A design for food applications that include coffee, meat and poultry, baked goods, snack foods, confectionery/candy, cheese, grains and cereals, prepared food and produce that are contained in Modified Atmosphere Packaging (MAP) and flexible packaging.
• The ability to detect micro and gross leaks, eliminating risks from a package with a tear or non-welded sealed seam that might be incorrectly identified as airtight.
• A stainless steel housing and dirt-resistant protective cap.
• A patented high precision vacuum gauge measures this change to calculate the package’s leak rate, delivering results in seconds.

Drop Zone Safety Gates

The Pallet Drop Zone (DZ) Safety Gate from Wildeck (Waukesha, WI) is a double-sided gate that offers maximum protection to workers accessing large pallet loads at elevated levels. When one side of the DZ gate is raised the other closes, keeping the elevated edge protected at all times. In contrast to similar double-sided gate designs, the DZ gate utilizes more than one pivot point on the pivoting arms. This results in vertical articulating movement that can minimize overall footprint and maximize the efficiency of the vertical and horizontal storage space. Other benefits include:

• A design that is balanced both vertically and horizontally for smooth operation.
• Arm geometry that is uniquely designed for single or double pallets up to 72 inches high. This level of design flexibility makes the DZ gate a preferred solution in racking systems and other environments where space optimization is key.
• The ability to be installed directly onto rack structures or by itself as a freestanding unit bolted to the deck.
• Compliance with OSHA and Cal-OSHA regulations.

Greater Food Packaging Consistency

Multivac (Kansas City, MO) recently unveiled its X-Line Thermoform Packaging Machine which, according to the company, offers a more consistent package quality and higher level of process speed. Additional features include:

• A comprehensive sensor system and networking with the Multivac Cloud and Smart Services.
• The ability to change package configurations in less than 10 minutes.
• The connection to the Multivac Cloud, which gives users access to Pack Pilot and Smart Services, providing a constant connection and up-to-date information on software, film availability, machine settings and other data.
• X-MAP, a gas flushing process that can be precisely controlled for packing with modified atmosphere.
• The ability to be operated through its HMI 3 multi-touch interface that corresponds with the operating logic used by mobile devices. The HMI 3 can also be set up for individual operators.

Save Space and Time with the MCRT® 48200V Compact Torque Transducer

The highly economical MCRT® 48200V digital torque meter offers high accuracy, low noise, and a wide temperature range. State-of-the-art strain gage sensing and non-contact signal transfer suit them for control, laboratory and production use.

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Contact us today for more details and to speak with one of our experts.
Wide Bag Packaging Systems

Automated Packaging Systems (Streetsboro, OH) has introduced two new Autobag bag packaging systems with advanced engineering technology for flexibility and efficiency in large bag applications. The new Autobag 600 and Autobag 650 Wide Bagging Systems will accommodate a range of Autobag bags-on-a-roll and bags-in-a-box material up to 16 inches wide by 27 inches long.

- The Autobag 600 is a semi-automatic filling and sealing machine designed for packaging large products at speeds up to 65 bags per minute. An innovative engineering design has eliminated the need for light curtains or double-palm switches, while the adjustable six inch pass-through enables faster, more efficient cycle times.
- The Autobag 650 is the same wide bagging system with a fully-integrated next-bag-out printer that eliminates the need for a separate labeling operation, increasing speed and accuracy in mail order ecommerce, prescription-by-mail, catalog order fulfillment, and frequent changeover, variable data applications. The Autobag 650 prints and packs at speeds up to 40 bags per minute.

AIRSHIELD Removes Oxygen from Rigid & Flexible Packages

Approved by the U.S. FDA in 2017 for direct food and beverage contact applications, AIRSHIELD, from Performance Packaging (Las Vegas, NV), removes oxygen from rigid and flexible packages, thus extending the shelf life of food and beverages. Additional advantages include:

- Providing greater efficiencies of oxygen removal and volume levels.
- Saving money.
- A self-triggering design once package-filling begins.

The AIRSHIELD additive costs only a fraction of a cent per unit. It scavenges (removes) the oxygen that is trapped during the filling process and then acts as an enhanced-O2 barrier to keep the oxygen out of the container (which results in extending the product’s shelf life).

AIRSHIELD remains dormant until the package is filled with product. Additionally, it removes oxygen and is an oxygen barrier all in one product.

As a result of the AIRSHIELD oxygen barrier properties, it can continuously remove oxygen from products that release their own oxygen into the package.

Medium Duty Power and Light Cord Reels

The lightweight and compact Series LG cord reels from Reelcraft (Columbia City, IN) are constructed from a durable, impact resistant composite material. Three new models have been added to this medium duty line of cord reels with two new cord endings. The new power cord reel option features circuit breaker protected, quad grounded NEMA 15 outlets with LED power “on” indicator light. The quad outlet reel is available with 65’ of 12/3 cord or 75’ of 14/3 cord. The new light cord reel option features a 1300 Lumen LED light with bright COB illumination, a grounded 12 amp outlet and an on/off switch on the handle. The LED reel model is supplied with 50’ of 14/3 cord. All three new Series LG models are ETL listed.

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See the full story at richway.com
The New Lean, Mean Manufacturing Machine

By Bill Leedale, Senior Advisor, North America, IFS

DDMRP is gaining popularity and quickly reshaping lean manufacturing principles for industrial manufacturers—enabling them to better react to changing consumer demand.

According to the Demand Driven Institute, DDMRP (Demand Driven Material Requirements Planning) is a formal multi-echelon planning and execution method to protect and promote the flow of relevant information through the establishment and management of strategically placed decoupling point stock buffers.

DDMRP therefore, departs from a traditional forecasting process, which originates with a defined customer order or a forecasted demand. DDMRP uses what real demand exists and how that demand could put your buffer at risk and not what might happen based on a single number sales forecast. This approach requires planning around a range of values, rather than a definite outcome. DDMRP offers a straightforward approach of identifying constraints in the production process and placing buffers in those areas.

This obviously may increase inventory for strategic purposes on some parts, but should reduce inventories overall because the bullwhip effect is mitigated by these strategic buffers, where traditional lean manufacturing initiatives may be measured on inventory reduction. Here is how DDRMP relates to existing lean manufacturing approaches.

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BOM Takes on a New Look
Most discrete manufacturing organizations rely on a bill of material (BOM) to understand demand for component parts and materials required to manufacture products and satisfy orders or projected demand. DDMRP, however, does not use a bill of materials explosion to determine how the manufacturing of a part is conducted. DDMRP recognizes that demand fluctuations can leave a business flat-footed in its ability to respond to the customer or prospect and seeks to smooth out lumps in demand to a greater extent than traditional lean manufacturing processes. Lean is built around the assumption that a nice, smooth schedule is the goal. DDMRP lets you make adjustments quickly as things change and can increase agility of supply chain and manufacturing processes.

Instead of traditional BOM-driven planning and scheduling where a planner will try to determine if they have enough of a part to fulfill a given demand, under DDMRP they will look at inventory levels and determine what level of demand they can respond to, given inventory on hand or on order. DDMRP also adds buffers in strategic parts of the value flow.

What is the best place for those strategic buffers? Some of that is based on how common a part is in the BOM and at what point in a manufacturing process you would run out. Buffered inventory is not treated as excess or as waste, but rather as a way to store potential to meet demand, and when that demand materializes, the inventory is then pulled through the system.

DDMRP in Practice
IFS customers have already expressed interest in the capabilities of DDMRP, even if they did not initially use the term itself. What they are asking for is a way to shrink lead times and respond faster to opportunities. They need that ability to produce on time and meet customer requirements to a degree not possible with MRP alone. They can do this by buffering their parts intelligently to mitigate risk. Only then can they handle unanticipated demand without sacrificing existing or anticipated orders.

Although useful in a process environment, for practical purposes, DDMRP will be more useful in discrete manufacturing. Let’s look at a discrete setting such as industrial manufacturing. One pain point industrial manufacturers typically struggle with is reacting to demand shifts, and DDMRP is an excellent solution to this problem. DDMRP could make these manufacturers more competitive because they can turn around projects faster and win more business. After all, if you can commit to satisfying an order and your competitor can’t, you will win the business and they won’t.

Make-to-stock discrete manufacturers selling through distribution channels can also benefit from DDMRP. For instance, if you are supplying a large chain store, the retailer needs to keep a buffer in the stores to meet their daily requirements. The manufacturer or retailer may also have a small buffer in their warehouses. But the manufacturer is separated from the end customer by the retailer, and often a wholesaler or distributor, so they need to watch for demand signals from the market that will indicate they need to prepare for changes in order volume and adjust strategic buffers accordingly. These buffers are monitored and adjusted and by adjusting the unprotected lead times.

Enterprise Resource Planning Needs a Facelift
As DDMRP becomes more common, ERP must evolve to deliver functionality that streamlines and formalizes DDMRP in the system of record. Yet not all ERP software can cope with the introduction of DDMRP, so you need to look for some key criteria. The software must be able to ability to build-in protected versus unprotected lead time and the average daily usage rates for parts. It will need tools to help you calculate those. There must also be a way to identify what demand is real by designating qualified demand versus unqualified demand—with qualified orders linked to a customer order and unqualified demand tied to anticipated demand fluctuations.

The software must carry the ability to add DDMRP features to certain parts but not others and also identify which parts require buffers. It needs the level of visibility to buffer inventory and get the best possible outcomes, with the flexibility to quickly adjust those strategic buffers so they stay in an optimal range.

Strike While the Iron is Hot
DDMRP holds tremendous promise for manufacturers in industries where demand can fluctuate—which is almost any industry in the current consumer climate. DDMRP is rapidly replacing lean manufacturing principles and is here to stay. Before you take the first step on the journey, why not start with materials from the Demand Driven Institute. Carol Ptak and Chad Smith have written a very useful guide, available for download or hard copy through amazon.com—just make sure you aren’t hamstrung by rigid software support.

Bill Leedale has more than 30 years of experience leading large-scale implementation and business process reengineering engagements for global companies. Leedale holds a B.A. in Business and Economics from Wittenberg University in Springfield, Ohio and an M.B.A. from Ohio State University in Columbus, Ohio.

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As factories become more modernized and interconnected than ever before, long standing legacy equipment can be overshadowed by new, high tech machines. These future-facing industrial assets are usually readily accessible to the Industrial Internet of Things (IIoT) — a new technology paradigm that is helping manufacturers improve competitiveness, increase profitability and reduce downtime through interconnectivity and data collection.

Overhauling old systems for modern alternatives may seem idyllic, but this would be far too costly and unfeasible for most businesses in the US. Additionally, when you consider the huge amount of time required to source new parts, uninstall current equipment and re-train employees, the time investment alone is enough to put businesses off the rip-and-replace approach.

This begs the question — how does legacy equipment fit into Industry 4.0? Put simply, to leverage the benefits of new technology, factories must have an IIoT ecosystem that integrates with legacy assets. The problem doesn’t lie with the age of existing equipment, but the skills of workers. Many of the experts in running and maintaining legacy equipment are retiring, leaving younger workers to face the challenge of working with both old and new technology. But this, in and of itself, isn’t enough reason to get rid of old parts if they are working optimally. Even broken obsolete parts can be replaced with the help of the right obsolete parts supplier.

Ironically, new technology is helping older equipment by extending its lifespan through retrofit sensors and condition monitoring. This software means the health of assets can be tracked accurately, allowing predictive maintenance schedules to be put in place.

Connecting legacy machines to the IIoT is challenging, but not impossible. Retrofit, or ‘wrap-and-extend’ solutions, involve using third party, IoT-ready products such as IoT gateways, OPC servers and sensors. This out-of-the-box connectivity can be installed with no interruption to uptime.

This approach can be entirely tailored to the business’s needs, meaning only useful sensors are put in place. Compare this with buying brand new equipment, which would include hundreds of inbuilt sensors that aren’t all necessary.

These retrofit sensors can track parameters such as temperature and vibration, to provide valuable insight, with the help of software, into the current condition and the future condition of a part.

For example, a higher temperature could provide engineers with an advanced warning of lubrication breakdown. Similarly, by monitoring the vibration spectrum for change, it is possible to discover and monitor signs of wear, by comparing to baseline values. A trained vibration analyst can detect the presence of a bearing defect, a broken impeller blade and much more.

By sending this data to the cloud, it can join the other IIoT data generated by the internal sensors of new machines. Software can then parse this collection of data, with little discrimination regarding whether this data came from a new or old part.

Most factories will take a phased approach to implementing this third-party technology. We’ll see businesses reap the benefits of tackling problematic legacy equipment first, and with this success, retrofit condition monitoring programs can then be rolled out to other legacy equipment progressively over time.

After tackling the troubled assets, high-value, critical and hard-to-reach legacy assets can then benefit from retrofit condition monitoring too.

Many legacy machines have been built to last, and this is definitely a positive. It’s great that businesses have the option to keep this equipment around, rather than be forced to pay for costly rip-and-replace schemes to overhaul run down systems.

New technology means the lifespan of this legacy equipment can be elongated even further through preventative maintenance. The message is clear — don’t exclude your legacy equipment from your IIoT infrastructure.

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- Operating Temp: -20°C to 60°C
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- Dimension: 238 x 148 x 130mm

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Four (4) Ways to Move Goods Between Shop Floor and Mezzanine Levels – New Literature

Advance Lifts is proud to announce their new Mezzanine lift brochure. Advance Lifts is leading the way with their full line of Mezzanine access lifts. This new brochure discusses the four main ways to transport goods from your shop floor to a mezzanine or second story with or without a lift operator riding with the load. For more information please request your copy of the brochure today.

http://www.advancelifts.com/mezzanine-access-lifts/

Helwig Carbon announces a new bearing protection solution – the BPK-S. The sealed bearing protector kit is ideal for all motors exposed to potential contamination or outside elements. The silver graphite brush is enclosed ideal for all motors exposed to potential contamination or outside elements. The silver graphite brush is enclosed within the bearing protector kit is the BPK-S. The sealed bearing protector kit is designed to provide protection against contamination and other environmental factors.


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Betenbender’s catalog describes hydraulic shears and press brakes that are easy to operate and engineered for simplicity. Overdriven and underdriven, 1/8 to 1 in. hydraulic shears come with 36 in. power backgauge with inch/metric LED readout; options include 5 station NC go-to positioner. Press brakes, 17 ton–350 ton, come with 2- or 3-speed ram; manual, front reading 24 in. backgauge with mechanical readout is optional.

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5806 Quality Ridge Rd.
Box 140
Coggan, IA 52218
319-435-2378
Fax: 319-435-2262
sales@betenbender.com www.betenbender.com

Industry News Reviews

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MAIN Manufacturing’s new 6-page Catalog 66 is useful in describing special hydraulic flanges & components that many times are available as off-the-shelf items from MAIN’s extensive inventory. When not, items are generally available within a week of order acceptance from several grades of carbon and stainless steel, or other commercial materials for very competitive prices. Manufactured in the USA for over 58 years.

MAIN Manufacturing Products, Inc.
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info@MAINmfg.com
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Oil-Rite Corporation
920-682-6173
sales@oilrite.com
www.oilrite.com

JESCO Industries Inc of Litchfield, MN announces a new bearing protection solution – the BPK-S. The sealed bearing protector kit is ideal for all motors exposed to potential contamination or outside elements. The silver graphite brush is enclosed for protection and provides the lowest resistance path to ground to keep damaging electrical currents away from the bearings. The kits are easy to install, and one size fits all motors.

http://www.jescoOnline.com / www.jescoOnline.com

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Helwig Carbon announces a new bearing protection solution – the BPK-S. The sealed bearing protector kit is ideal for all motors exposed to potential contamination or outside elements. The silver graphite brush is enclosed for protection and provides the lowest resistance path to ground to keep damaging electrical currents away from the bearings. The kits are easy to install, and one size fits all motors.


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NEW PRODUCTS

USB 3.0 Type C IP67 Cables for Industrial & Medical Designs

OCP Group Inc. (San Diego, CA) has announced the latest addition to a growing family of USB 3.0/3.1 external Cable Assemblies with compatible Panel Mount Assemblies. These positive retention “Press Fit” assemblies feature a waterproof connection up to 1 meter with a withdrawal force of 8N and 30V DC with up to 10Gbps rated signal. They are ideally suited for industrial, outdoor or marine applications. Specifically:

- They can be custom tooled for unique applications requiring wearable or portable power.
- A growing interest in the Medical Device market the Video transmission properties of USB 3.0 has also inspired several ISO 10993 Biocompatible configurations of the product.
- The new type “C” connector can be plugged in either direction due to its elegantly simple redundant design.
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The term is usually “spring” cleaning, but it already seems that 2019 is the year to start early.

With the recent launch of a new Netflix series, a star was born in Marie Kondo, a Japanese lifestyle consultant whose show “Tidying Up with Marie Kondo” focuses on the why and how of decluttering. Strategies stemming from chapters in her book focus on everything from organizing and folding techniques to eliminating the items in your home that don’t “spark joy.”

In one of the 13,000+ Amazon reviews of Kondo’s book, The Lifechanging Magic of Tidying Up, a reader called it “truly a life-changing experience.” Another said it was “the best $10 I’ve ever spent.”

Why are people declaring such profound love for the decluttering process? Partly because it feels good to free yourself from those anxiety-inducing piles and clowing closets. But there’s another reason: dumping a drawer packed with chaos and refilling it with much less means more effective use of your stuff because you can actually find what you’re looking for. The same logic applies to an industrial business, where “clutter” can jam up the works on an otherwise straightforward process.

Unfortunately, not all areas of waste are as simple to realize (or acknowledge) needed fixing. And the great part is, you don’t “spark joy” and I can bet I know what the answer is. According to Lawrence Siff, founder of Neptune Advisors, a consultancy for family businesses, unprofitable customers consume more resources than they pay for. In order to untangle the mess, he says that business owners need to analyze customers as to whether they drive both the top and bottom line. If they’re not adequately impacting your bottom line, then it’s time to take emotion out of the equation. Instead of looking at how long the customer has been working with you, ask how long it takes before you decide you’re at max capacity, consider vertical storage or mezzanines.

Staffing: Finding workers to cover missed shifts can be a huge time suck for a business and definitely adds to the daily “clutter” of an operation. A study by Quickbooks said that one in 10 employers claim they deal with “no-call, no-shows” each day. The company, makers of scheduling software, pin some of the blame on shift-based work and how its sometimes-unpredictable nature can result in poor work-life balance for employees and, thus, higher absenteeism. They suggest small changes to create a happier workforce who is more likely to show up consistently. This includes providing fresh, healthy snacks and a clear break area, as well as providing a comfortable work environment (lighting, air quality).

Customers: It’s a sad reality, but every business has a few customers who aren’t actually very profitable. Marie Kondo would probably ask whether these clients “spark joy” and I can bet I know what the answer is. According to Lawrence Siff, founder of Neptune Advisors, a consultancy for family businesses, unprofitable customers consume more resources than they pay for. In order to untangle the mess, he says that business owners need to analyze customers as to whether they drive both the top and bottom line. If they’re not adequately impacting your bottom line, then it’s time to take emotion out of the equation. Instead of looking at how long the customer has been working with you, ask how long it’s been an unprofitable account.

Tidying up can be a lot of work. But if you’re doing it right, it can reveal areas of your business that you didn’t realize (or acknowledge) needed fixing. And the great part is, you can address these one section at a time.

If you’re feeling a little hesitant to crack open the worm can, maybe start at home first. It’s definitely simpler to donate a box of ill-fitting clothing than to overhaul your plant layout, but it might give you the courage you need to kick off. And if you don’t find any “lifechanging magic,” at least you’ll find the bottoms of some drawers.
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