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World's First EcoSonic® ESD Self-Seal Bubble Bags Powered by Nano-VpCI® a Breakthrough Packaging Invention for the Electric Vehicle Industries

Most ESD managers in the electronics industry understand the serious threat of electrostatic discharge to the integrity of electronic components during manufacturing, shipping, and storage. However, many do not realize that it is possible to get corrosion protection at the same time by combining ESD with VCI (Vapor Corrosion Inhibitor) film and bag technology. Furthermore, these two benefits are available in the form of self-seal bubble bags now available through Cortec® Advanced Films in Cambridge, Minnesota.

EcoSonic® ESD Self-Seal Bubble Bags

EcoSonic® ESD Self-Seal Bubble Bags powered by Nano VpCI® combine Vapor phase Corrosion Inhibitors with self-seal cushioning bubble bags and ESD protection to safeguard sensitive electronics from three threats: triboelectric charge generation, corrosion, and physical damage. In addition to standard ESD protection that is typically a must-have in the electronics industry, EcoSonic® ESD Self-Seal Bubble Bags provide corrosion protection to metal components by saturating the enclosed airspace with Vapor phase Corrosion Inhibitors. These form a protective molecular layer on all packaged metals without leaving behind a noticeable film or residue. Finally, the bubbles serve as cushioning, dunnage, and void fill material.

Why Combine Corrosion Protection with ESD Packaging?

But why add corrosion and ESD protection to a bubble bag? The answer is that electronics are highly complex, sensitive components that may contain multiple metal types in one unit. Quality standards are high, and any discoloration—let alone corrosion—on a component may cause the end user to reject it due to the possibility of failure. In a dry environment, there would be little to no concern. However, when electronics must be shipped cross-country or exported around the world, they encounter unpredictable and extreme environments of fluctuating temperatures and humidity that could easily cause condensation and corro-

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-James "Jim" Bonner
Compliance Coordinator- Retired
Alabama Power



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Developed in conjunction with major power companies for use in extreme heat conditions, the **A.R.C. Hybrid Cooling System** uses liquid cooling to reduce fatigue, injury, and heat stress related illness.

Designed specifically for use by linemen, the **A.R.C. Hybrid Cooling System** features a compact design with a custom woven strap mounting system. The use of S-hooks offers the versatility of mounting inside or outside of the bucket.

Designed with portability in mind, measuring **6" x 6" x 20"** and weighing in at **less than 10 lbs dry**. The unit is entirely self-contained and built to last with a 20,000 hour pump.



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sion within the electronics package. Good storage options can also be expensive and difficult to find in hot and humid climates where it is not uncommon for large computer companies to require climate-controlled warehousing for electronics. Combining corrosion protection with ESD packaging and bubble wrap tackles three threats at once for greater convenience and efficiency in electronics packaging.

How to Use EcoSonic® ESD Self-Seal Bubble Bags

EcoSonic® ESD Self-Seal Bubble Bags are easy to use. Simply place the item in the bag, peel off the white strip, and fold the top of the bag over to seal. Metals protected include:

- Carbon steel
- Aluminum
- Copper
- Silver
- Brass
- Stainless steel

The corrosion inhibitors in EcoSonic® ESD Self-Seal Bubble Bags have no adverse effects on plastic (lexan), optics, elastomers, and other non-metallics. They also create no interference with subsequent

processing (i.e., welding, cleaning, soldering). After the bag has been used, it can be recycled at facilities that accept #4 recyclable products. Electronic components that may benefit from the ESD and corrosion protection of EcoSonic® ESD Self-Seal Bubble Bags with cushioning include the following:

- Hard drives
- Processors
- Video graphics cards/boards
- Memory sticks/modules
- Networking cards/boards
- Other circuit boards

Choose a Convenient Packaging Solution and Be Done!

ESD managers or electronics packaging engineers looking for new options should be sure to consider EcoSonic® ESD Self-Seal Bubble Bags for a quick packaging solution. With these, protection against triboelectric charge, corrosion, and low degrees of physical impact is as easy as slipping the part inside the bag, sealing it, and being done! Contact Cortec® to learn more about EcoSonic® ESD Self-Seal Bubble Bags, which are also available in a non-ESD version:

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SYLVANIA LED Lamps and Fixtures Light the Way for Portland Transit Services

Providing bus, light rail, and commuter rail transit services to the Portland, OR metro area since 1969, the TriMet transit system has been connecting people with their community, easing traffic congestion, reducing air pollution, and enhancing lifestyles in and around Portland for over half a century.

Serving between 1-2 million riders weekly, the leading transit system has also long been on the forefront of sustainability, as demonstrated by such progressive initiatives as its fleet of 'MAX' electric buses fully powered by renewable energy, as well as its solar panel installations, eco-track project, and investment in the emerging field of regenerative braking.

Thousands of older HID and fluorescent lamps illuminated the many bus and rail garages, yards, and parking lots where TriMet bus and rail vehicles came for repairs, maintenance, engine rebuilds, and body work, and where drivers came to receive their assignments. "We underwent an annual inspection in 2020 at our central bus yard and were informed that we needed to enhance the fasteners in our fixtures to make them code-compliant," shared Karen Powell, TriMet's Director of Facilities Management. "In addition to creating dark spots in our space, our lights were difficult to access and maintain, requiring the scheduling of a bucket truck and the rearrangement of transportation operations. We realized it made no sense to fix those aging fixtures," she said. "We knew that an upgrade to safe, high-quality, and energy-efficient new LED lighting technology would benefit our employees, passengers, and community members alike."

The \$2.4 million upgrade project kicked off September 2020, covered 585,000 square feet of TriMet space, and involved the installation of approximately 10,000 LED products, with around 70% of them being SYLVANIA LED lamps and fixtures from LEDVANCE. The new lighting design involved everything from SYLVANIA LED retrofit strip kits to exterior area lights, wall packs, wide body vapor tights, and linear high bay systems in TriMet's wash bay and fuel house.

"The safety and comfort of our employees is paramount and our new SYLVANIA LED products have delivered everything from improved productivity and safety to reduced energy consumption and better-quality lighting – all of which have truly transformed our space. Our team has commented on how the new lighting has made them feel even more positive in their workspaces. We have also seen a reduction in trespassing incidents due to the improved lighting," TriMet's Powell confirmed.

Visit LEDVANCEUS.COM to learn more.

SYLVANIA 

Company Profile • LANshack

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We offer full pre-terminated plug and play network solutions which include the fiber optic backbone or main assembly that typically takes place between buildings or other similar network extensions, the fiber optic enclosures, which house the connections or couplings, and patch cables to go into your equipment such as SFPs and network switches. We also offer custom ethernet patch cables, patch panels, keystone jacks, modular plugs, and all the tools needed to complete your installation. Not only do we offer full network solutions, but we also offer any jacket type, fiber type, and strand count. We can terminate assemblies from 1 strand through 288 strands and offer jacket types such as indoor, indoor/outdoor, OSP outside plant in non-armored and armored for direct burial use. For installers or an installation in which pre-terminated fiber doesn't work, we also offer bulk fiber, fiber optic pig tails, and fusions splicers.

LANshack has worked with all branches of the government and other critical network installations seen in aerospace, space, SATCOM, fiber to the antenna, and more. We are ISO9001 certified, and all of our custom fiber optic and Ethernet cables are made here in the USA with ultra-fast lead times. We keep you notified throughout the ordering process. When you place your order you will get confirmation, then a ship date within 24 hours, and an email with tracking once your order ships out. Over the years we've work with electrical contractors throughout the USA that have never installed fiber optic cabling before due to lack of knowledge or expertise of fiber optic cabling. We've guided them along the way and have helped countless contractors to expand their business. We also offer tiered discounted pricing for installers, resellers, government, and educational buyers. At LANshack we can help you get the cabling you need to bid the next fiber optic cable installation job that comes your way. If you can pull cable, then you can install a fiber optic network. We make IT that easy. They next time you come across a potential fiber optic installation, give us a call. We're here to help and want to help you expand your business!

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Starrett Introduces Enhanced, Highly Accurate Electronic Indicators

The L.S. Starrett Company, a leading global manufacturer of precision measuring tools and gages, metrology systems and more, has introduced a new line of full-featured Electronic Digital Indicators, an enhanced version of its 2900 series. The new Indicators including 2900 electronic, and W2900 electronic wireless models are made in the U.S.A., feature true absolute sensor technology that minimizes the chance of data loss, glass scales, high accuracy to ± 0.00005 " and IP67 protection from hostile shop environments including coolant, chips and dirt. The indicators are also now available in fully wireless models, a newly designed 4" (100 mm) inch range model, and all indicators feature rechargeable batteries.

"Our new line of over 40 new electronic indicator models provides the utmost in features, accuracy and reliability with true absolute sensor technology," said Tim Cucchi, Starrett Product Manager

Precision Hand Tools. "And they are made right here in Athol, Massachusetts to renowned Starrett quality standards."

Starrett 2900 and W2900 Indicators offer users a choice of features from basic to advanced or selectable resolution, and all models feature data output for statistical process control (SPC).

The indicators have an intuitive design and layout that is easy to learn and use, in addition to positive, tactile-feel button activation and a large, easy to read LCD display. Selectable



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resolution models, fixed ratio measurement systems, one micron resolution and metric-only versions are also available. Models feature long battery life, but are also rechargeable, have origin set and zero set, counting direction switching (\pm), true absolute sensor technology in 2900-1 and 2900-6 models, are compatible with 25 series indicator backs, and all indicators

are CE compliant.

Starrett 2900 Series Indicators are equipped with RS232 output and compatible with 2900 SCM, SCU and SCKB cables, while Starrett W2900 Series Indicators, which have all the same features and capabilities of the 2900 series, are fully wireless and equipped to send

data for SPC analysis at the push of a button with no cables required. Both the 2900 and W2900 series are available in 1/2", 1", 2" ranges and new 4" range models, inch-metric models in 1/2", 1", 2" (12 mm, 25 mm and 50 mm) and metric only models in 12 mm, 25 mm and 50 mm ranges.

Starrett 2900 Series Indicators are ideal for use with industry data collection devices and systems such as Starrett Data-Sure® 4.0, the most scalable, secure, robust data acquisition solution with unprecedented range and capabilities and for leveraging data for SPC and Industry 4.0 applications.

For complete specifications of Starrett 2900 Indicators, visit www.starrett.com/2900-indicators •



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ICM532	3-PHASE	DELTA 600VAC or WYE 347/600VAC	TYPE 1 & TYPE 2	UL LISTED	NEMA 4X RATED	150,000 AMP
ICM533	3-PHASE	DELTA HIGH-LEG 120/240VAC	TYPE 1 & TYPE 2	UL LISTED	NEMA 4X RATED	150,000 AMP

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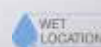
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GREAVES

Pulsafeeder's Pulsatron MP Series



Pulsafeeder's Pulsatron MP Series now features an optional 4-20mA output signal that provides a remote indication of pump speed, you can now remotely confirm the pump's speed is adjusting to your process parameters, and more accurately estimate chemical usage over time. The pump transmits a 4-20mA signal proportional to the actual speed of the unit and is factory calibrated for easy installation in the field.

The Pulsatron Series MP is a true microprocessor-controlled instrument delivering precise and accurate metering control. Packed with standard features, the Series MP includes automatic control via 4-20mA or 20-4 mA inputs, an external pace function with a stop feature, and a graphical LCD display with support for English, French, German, and Spanish languages. With models capable of flows ranging between 3 GPD (0.5 LPH) and 504 GPD (79.5 LPH) and pressure ranges from 20 PSIG (1.3 BAR) to 300 PSIG (21 BAR), and a turndown ratio of 1000:1, there is a Pulsatron MP Series pump to fit your process perfectly.

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Greenlee® Introduces Overhead Remote Cable Cutter for High Voltage Work

The new tool from Greenlee, a part of Emerson's professional tools portfolio, gives the user total operational control and provides easier access to hard-to-reach areas





Greenlee®, part of Emerson's professional tools portfolio, introduces the ES20LXR Overhead Remote Cable Cutter developed in conjunction with utility professionals to help "remove the target" in high voltage cutting applications.

Allowing unprecedented access to hard-to-reach overhead areas, the ES20LXR weighs less than 5 pounds with battery, has a 350-degree rotating head and is designed to give the user total operational control while cutting hard metals in utility distribution environments.

A universal remote with handheld and remote usage settings is compatible with all Greenlee remote tools. Visual indicators provide tool status with forward-stop-reverse at any point and the patented trigger jacket helps secure the tool with universal spline connection to the hot stick.

"The Greenlee ES20LXR Overhead Remote Cable Cutter is our latest tool solution designed to improve the safety of high voltage workers," said Ryan Berg, director of product management, Greenlee for Emerson. "This tool not only keeps users in the safe zone while cutting, its lightweight design and rotating head put less strain on the body to help reduce user fatigue."

The 2.0Ah Makita® battery in the ES20LXR charges in under 25 minutes, provides more cycles per charge and pairs with the Greenlee Link mobile app for performance tracking.

The ES20LXR is the latest tool in Greenlee's complete line of remote cable cutters for the high voltage industry. Learn more by visiting Greenlee.com/RemoteCutter. Find a local Greenlee distributor by visiting Greenlee.com/where-to-buy. For more information about Greenlee, visit Greenlee.com.

Emerson's professional tools business includes Greenlee, as well as the RIDGID® and Klauke® brands and provides the industry's broadest

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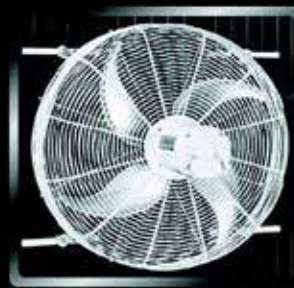
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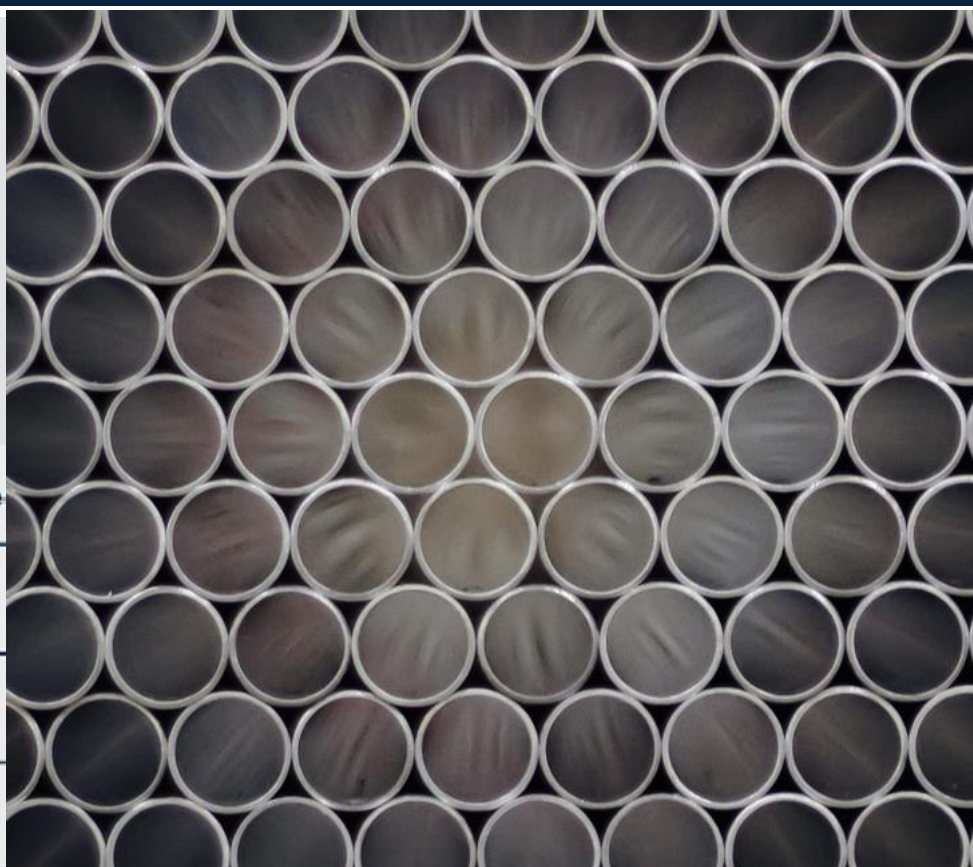
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