

Today's

February 2016

Industrial Products & Solutions™

The Complete Purchasing Guide for Today's Industrial Market

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Manufacturers
Make Automated
3D Part Inspection
a Competitive
Advantage

Easing the
Transition to
GHS Label Compliance



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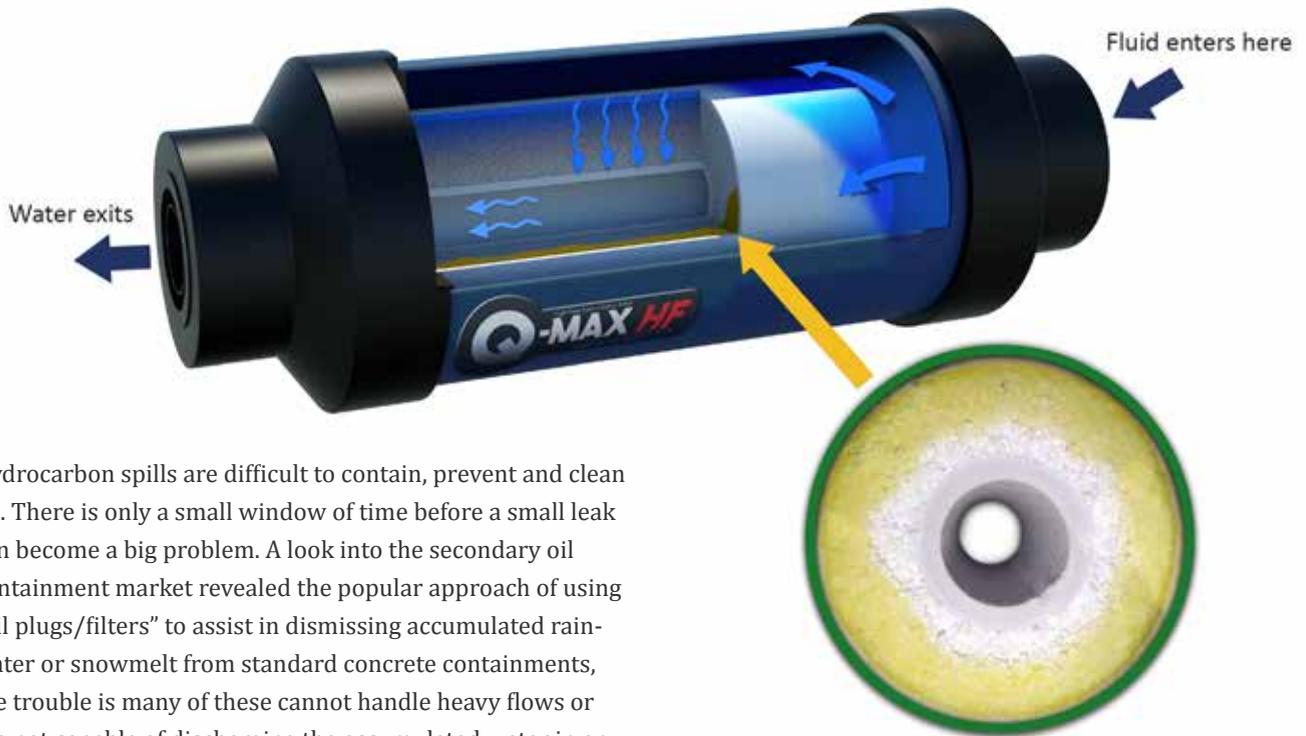


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Albarrie Geocomposites Introduces An Exciting New Product!



Hydrocarbon spills are difficult to contain, prevent and clean up. There is only a small window of time before a small leak can become a big problem. A look into the secondary oil containment market revealed the popular approach of using “oil plugs/filters” to assist in dismissing accumulated rain-water or snowmelt from standard concrete containments, the trouble is many of these cannot handle heavy flows or are not capable of discharging the accumulated water in an effective timeframe sometimes requiring many hours or several plugs to do the job. Add to these issues the requirement for pre-filters and maintaining those clean and free of debris. When was the last time your maintenance personnel did this? Luckily, Q-MAX HF does all the reacting for you! Once installed, you can feel confident that you’re receiving the highest protection available with the least amount of maintenance.

Q-MAX HF is a high efficiency hydrocarbon filter, with a reactive “needle punched fiber” core. This unique design provides 360° of filtration surface area and gives Q-Max the highest flow rates in the industry coupled with a longer filter life.

This innovative device has dual functionality it not only traps hydrocarbons on contact while allowing water to continuously flow through but if there is a high enough concentration of hydrocarbons present the filter acts as an automatic shut off system stopping the flow completely.

Albarrie Geocomposites uses only the highest quality components in every one of our products and the Q-MAX HF is no exception! The inner core of the system is packed with our coveted highly reactive polymer, guaranteeing the ultimate protection against hydrocarbon leaks.

The real genius behind Q-MAX HF is it’s free-flow abilities. Water can easily pass through the core without disrupting its effectiveness when subjected to hydrocarbons.

Shown in the diagram below, the inner core has absorbed and trapped the oil (yellow ring demonstrates congealed polymer), while a clean layer of white polymer remains completely unaffected! This is due to its extraordinary absorption capabilities, ensuring that no oil ever gets through.

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Easing the Transition to GHS Label Compliance



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PRECAUTIONARY STATEMENTS

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RESPONSE

If swallowed: Immediately call a poison center/doctor. Do not induce vomiting.

If on skin: Remove clothing. Rinse skin with water. If irritation occurs, seek medical attention.

If inhaled: Remove to fresh air. If breathing is difficult, get medical attention.

If in eyes: Rinse with water for 15 minutes. Remove contact lenses if present and easy to do. Get medical attention.

In case of fire: Use water, alcohol or chemical extinguisher.

STORAGE: Store in a cool, well-ventilated area. Keep container tightly closed.

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Lot No. 12345678

Fill Weight: 55 Gallons
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DRUM 1 OF 10



*Flexible, lower cost
options enable
organizations to
print durable GHS
labels on demand*

At the 5.3 million organizations exposed to hazardous chemicals in the U.S., managers in charge of safety, purchasing, facilities or operations must now ask if their chemical labels are GHS compliant.

The “Globally Harmonized System” (GHS) was established by the United Nations to create a unified system for identifying and communicating hazardous chemicals. In the U.S., OSHA set a June 2015 deadline for chemical manufacturers to use GHS compliant labels, followed by a December 2015 deadline for distributors, and June 2016 deadline for end users.

Chemical manufacturers must re-classify their hazardous chemicals based on a common chemical classification system defined by GHS. They must update their safety data sheets and use GHS-compliant labels to identify their hazardous chemicals.

Chemical importers and distributors, in turn, must ensure the hazardous chemicals they sell have GHS-compliant safety data sheets and GHS-compliant labels.

Employers with hazardous chemicals in the workplace, for their part, must ensure they have safety data sheets and labels for their exposed workers, and train them to handle the chemicals properly.

On each GHS label, six specific items of data are required: Product Name or Identifier; Hazard Statement; Signal Word; GHS Pictogram symbols; Precautionary Statement; and Supplier Information.

In place of the familiar black and white pictogram symbols previously used in safety labeling, it is important for Environmental Health and Safety (EHS) managers to realize that GHS labels now require pictogram symbols that convey hazard information with a red diamond border.

Implementing GHS labeling can seem daunting, particularly to small and medium sized businesses, but it does not have to be. While large organizations can hire integrators to automate GHS software with a bank of printers tied into high-end ERP infrastructure, small and medium sized businesses do not require this approach.

Instead of investing in costly dedicated printer/label/software systems, small to medium sized organizations are easing the transition to GHS label compliance. More are turning



to flexible, lower cost options, such as industrial-grade labels from Avery, that allow printing durable GHS labels on demand with existing laser printers and certain inkjet printers.

While Avery has been a leading label brand in the office market for decades, it has just recently expanded into the industrial market and developed industrial-grade labels designed to be GHS compliant, such as its UltraDuty GHS Chemical Labels.

Unlike standard labels, industrial labels are used in harsh environments like warehouses, manufacturing facilities, and in the field so must be very durable and able to withstand exposure to chemicals, abrasion, tearing, moisture, sunlight, and extreme temperatures.

The challenge, however, is that to be GHS compliant, labels must stay reliably affixed without fading or becoming unreadable despite harsh indoor or outdoor conditions including international shipping. This requires not only a durable label substrate but also a marine-grade adhesive.

As such, Avery designed its UltraDuty GHS Chemical Labels to meet the most rigorous GHS requirements. The durable synthetic labels are chemical resistant, tear resistant, abrasion resistant, and constructed with a marine-grade adhesive that is waterproof and passes a 90-day seawater submersion adhesion test. Unlike typical labels, which crack and harden in harsh conditions, they are UV resistant with 2+ years of outdoor UV life. They are also temperature resistant, can be applied as low as 10° F, and used as high as 220° F in the field when printed from color laser printers or

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300° F when printed from inkjet drum label printers.

“Staying GHS compliant will not only help organizations to avoid OSHA fines, sanctions, or auditing, but also will help them to open new global markets since GHS is a global standard,” says Glen Markham, Vice President of Business Development at RightAnswer.com, Inc., a chemical compliance and information specialist.

Markham notes that remaining GHS label compliant depends on the durability of the appropriate label substrate, getting the label content right, and effective document management.

To help small and medium sized organizations print GHS-compliant labels from their existing printers on demand, some companies provide label-printing software along with their labels.

Avery, for instance, is one of the only compaies that provides such GHS-compliant label software at no cost. The Avery Design & Print GHS Wizard makes it easy for employees to create and print their own GHS labels from pre-designed templates or to create them step-by-step on demand at their

A conceptual image featuring a man in a dark suit standing with his back to the camera, looking at a large, glowing screen. The screen displays various business and safety-related icons and text, including a world map, a lightbulb, a bar chart, a flowchart, a business plan, insurance, and a plane. The overall theme is professional engineering and safety.

“Our approach to any design must consider all possible outcomes, especially the safety of the individuals for whom and through whom our designs are intended.”

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Lind's Isolated Power Adapters are built to work with most existing laptop brands and models. These adapters can also be designed for custom applications. Contact Lind to discuss solutions for your exact mobile power needs.



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desk. Most employees will find the process intuitive, since it resembles creating an office document from pre-designed templates.

The free software includes all the pictograms and GHS compliant statements needed for GHS labeling; easy insertion of company logo or other images; customizable text; simple generation of 18 types of barcodes; and a sequential numbering feature to add lot numbers or other variable data.

No download is required since the software operates from Avery's website (www.avery.com/GHS), and GHS labels can be securely saved online or to a computer. Besides GHS compliant labels, the software is also capable of printing other safety labels such as ANSI, OSHA, NFPA, and DOT labels.

The GHS labels are available in a range of sizes to fit drums, totes, pails, cans, jugs, containers, and even small bottles. They can be applied to a variety of surfaces such as metal, plastic, glass, ceramic, polycarbonate, painted surfaces, and more. Similar to Avery's office labels, the

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GHS labels retain Easy Peel, smudge-free, and jam-free capability.

For labeling that requires the durability of extra lamination, the company also offers Easy Align Self-Laminating ID Labels, which come with a clear laminate so no lamination machine or additional layer of tape is needed. The material is UV and water resistant, and resists scuffing, tearing and smudging, making them ideal for use in warehouses, storage areas and worksites.

To help companies stay compliant for GHS and other regulatory situations, including OSHA safety communication, Avery has partnered with RightAnswer. Through a portal in Avery's website, RightAnswer offers comprehensive online access to over 100 proprietary, government, and EHS data sources with over 11 million documents covering more than 400,000 chemical substances, all integrated and available through a single interface.

"For organizations that keep asking EHS managers to do more with less, Avery's partnering with RightAnswer can help them stay not only GHS label compliant, but also up to date on the chemical issues they're concerned about," says Markham. "It's an online one-stop chemical compliance and information solution that's offered at a discount through the Avery website portal."

www.avery.com/GHS •



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Hougen Manufacturing's New HMD927 Portable Magnetic Drill

Hougen Manufacturing, Inc (Swartz Creek, MI) has released a new model of portable magnetic drill, the power feed HMD927. This new model offers a major performance improvement to the mid-range line of Hougen magnetic drills. The HMD927 has the power to drill holes up to 1-5/8" (41mm) in diameter and offers great power to weight ratio by giving steel fabricators more strength and torque while still maintaining the small lightweight footprint.

The HMD927 has a number of new features and innovations not seen on previous models of Hougen drills. The newest innovation is the mag drill pilot light. The LED light is built into the base of the magnet and allows the operator to more efficiently and quickly line up the pilot with the holes center location in low light or no light conditions. Powering the drill is a proprietary two speed Hougen motor. The two speeds help maximize tool life and increases torque when using larger diameter cutters. The addition of a two stage magnet increases magnetic holding power by 30% when the drill motor is turned on. This saves energy and increases magnet life. A new arbor system utilizes a 5/8" slot drive for more rigidity, hole accuracy and quicker use of accessories such as drill chucks and tapping attachments.

The power feed HMD927 has many additional features that make the drill easier to use; an integrated coolant bottle which is conveniently located and does not add to the width of the drill, a more robust housing design with an ergonomic carrying handle, a spot to hold the hex wrench, and a d-ring on the back of the magnet for quickly attaching the safety chain. The drill also includes positive slug ejection and a swivel base magnet is also available.

Power feed mode is engaged with a hub in the center of the feed handles. The new drill incorporates solid-state circuitry that monitors and adjusts the self-feed action to continuously maintain optimum drilling performance throughout the entire length of cut. This helps to provide predictable productivity, long tool life and lower tooling costs, and excellent hole quality. The drill can also be used in a manual feed mode to utilize many of Hougen's magnetic drill accessories.

The HMD927 weighs just 43 lbs (19.5 kgs), measures 22-13/16" H x 8-3/4" W x 14-11/16" L and provides drilling capacities from 7/16" to 1-5/8" (12-41mm) diameter and 2" (50mm) depth of cut. The drill has an electrical rating of 10A and 250/450 RPM motor.

For safety the HMD927 incorporates Hougen's exclusive features to insure a safe work environment—including a no-adjustment safety switch, which shuts down the drill motor if lift of the magnetic base is detected...plus an LED indicator that monitors this sensor and alerts if the switch is not engaged. A two stage power on switch prevents drill rotation unless the magnet has first been engaged, and, in the case of a power interruption, safety circuitry will keep the drill motor off after power is restored until the start button is manually depressed. The HMD927 is made in USA.

www.hougen.com •



CBS ArcSafe® Introduces RSA-184 For Cutler-Hammer FDPW Fusible Panelboard Switch

- 30, 60, & 100 A



CBS ArcSafe®, a leading manufacturer of remote racking and switching solutions for low- and medium-voltage switchgear, introduces its remote switch actuator (RSA) for Cutler-Hammer FDPW fusible panelboard switches. The lightweight, portable CBS ArcSafe RSA-184 allows technicians to remotely close or trip the circuit breaker from a safe distance of up to 300 feet while remaining stationed outside the arc-flash boundary.

Installation and operation do not require any modifications to the existing electrical equipment thanks to CBS ArcSafe's magnetic latching system. The RSA-184 is compatible with 30, 60, and 100 A twin, horizontal fused switches with 5.375" height. Typical applications of these circuit breakers include commercial, industrial, and service entrance applications to protect and switch feeder and branch circuits. The RSA-184 is a cost-effective solution for keeping operators safe when compared to other arc-flash mitigation alternatives.

Optional features include radio remote with range up to 300 feet, 24 V DC LED light, wireless video camera system with LCD monitor, and rugged protective case assembly. All RSA

units are portable, fast and easy to set up, offer mechanical and/or electrical safety protection, are adjustable to fit unique electrical equipment configurations, reduce the requirements for personal protection equipment (PPE), and help customers with NFPA 70E arc-flash safety compliance.

All CBS ArcSafe products are manufactured in the U.S. at our manufacturing facility in Denton, Texas. For more information, visit CBSArcSafe.com or call 877-4-SAFETY.

About CBS ArcSafe®

CBS ArcSafe offers the electrical industry's largest inventory of remote racking and switching solutions for low- and medium-voltage switchgear that do not require modification to existing equipment for operation and allow technicians to operate equipment from a safe distance of up to 300 feet. All our equipment is manufactured in the U.S. at our Denton, Texas, manufacturing facility. CBS ArcSafe offers 24/7/365 emergency support and is happy to develop custom remote racking and switching solutions for customers. Learn more at CBSArcSafe.com, or call toll-free at 877-4-SAFETY.

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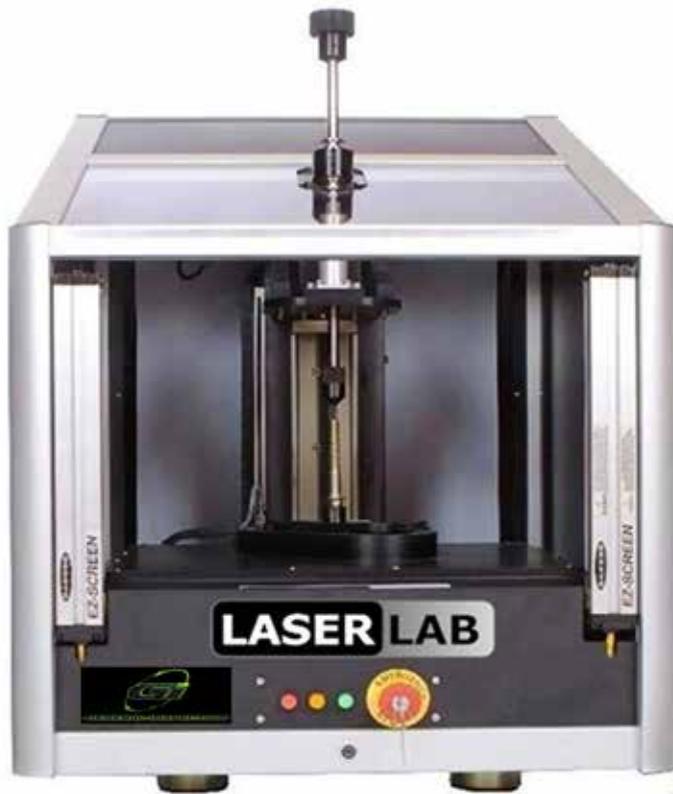


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Manufacturers Make Automated 3D Part Inspection a Competitive Advantage



Rapid three dimensional first part inspection is reducing scrap, increasing quality, cycle time, and improving overall equipment efficiency up to 20%



Whether manufacturers pursue lean production, Six Sigma, or their own quality assurance program, measuring is at the heart of quality and foundational in Six Sigma's goal to Define Measure Analyze Improve and Control (DMAIC) production processes. Yet excess waste remains when the measurement is completed by slow human subjective means such as traditional hand gauges and optical comparators, which can lead to a myriad of errors in production processes.

With manual methods, first part inspection can take up to 45 minutes, incoming inspection audits can take

hours, the Production Part Approval Process (PPAP) can take days, and accuracy can be less than desired.

"Even if micrometers and calipers are calibrated properly, measurement will vary from person to person depending on how they are held, squeezed, and interpreted," says Rocky Pinheiro, PhD, Vice President of Quality, North American Operations at Acument Global Technologies, a manufacturer of value-added screws, bolts, nuts and cold formed components for the automotive, industrial, aerospace, and defense markets.

Inspection equipment that provides a two dimensional (2D) or cross sectional view of parts can also be insufficient for today's demanding quality control requirements. "Parts do not exist in a 2D, but a 3D world," says Pinheiro. "Every part manufactured must properly mate and function with other components in three dimensions."

For these reasons, proactive manufacturers are turning to precise, objective, 3D inline inspection that can measure and record dozens of part features in a fraction of the time it would take to do manual inspection. This is enabling manufacturers to turn automated 3D

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part inspection into a competitive advantage that is capable of significantly increasing quality and cycle time, reducing scrap, and improving overall equipment efficiency up to 20%.

Automated 3D Part Measurement

“With LaserLab we are completing up to twenty measurements per part in three dimensions within 30 seconds for first part, hourly, and final inspection,” says Pinheiro. “It gives us feedback on 90% of the elements we want to measure. From length, diameter, radius, and head height to corners, shoulders, and other dimensions it is very accurate.”

LaserLab, a 3-dimensional laser gauging system that can measure over twenty critical part features within 20 seconds down to 2 microns in diameter, is offered in laboratory and shop floor versions by General Inspection (www.generalinspection.com), a developer of high-speed measuring and fastener inspection sorting systems.

“We are seeing a 10-20% improvement in overall equipment efficiency (OEE) for set up and changeover, and are making parts much faster with LaserLab,” adds Pinheiro. “We are also significantly reducing first time scrap and downstream sorting while increasing production cycle time.”

Because the patented laser technology accurately measures with exact repeatability every time, it greatly reduces part-to-part variability by eliminating operator error. A comprehensive, built-

in thread database provides instant tolerances for each thread characteristic, and after every pass the laser beams are automatically calibrated to NIST standards to ensure accuracy.

As such, LaserLab provides real-time manufacturing process control with more precise, repeatable measurements than possible manually. This allows more frequent part measurement that significantly improves product quality and reduces scrap.

According to Pinheiro, Acument Global Technologies previously used operator manual inspection to determine first part quality, which required about 10 minutes to check part dimensions.

“Using the 3D laser gauging system has cut our inspection time to less than 30 seconds per part, a twenty-fold time savings,” says Pinheiro. “We ensure our process is performing within specifications so we’re continuously manufacturing good parts.”

True to the tenets of lean production and Six Sigma, the 3D laser gauging system has streamlined accurate data collection and Statistical Process Control (SPC), putting Acument Global Technologies on a virtuous cycle of better production measurement, analysis, improvement, and control.

“Instead of operators hand measuring part dimensions and writing the data on paper to enter in Excel, LaserLab’s output goes directly into Excel electronically,” says Pinheiro. “This eliminates operator bias, error, as well as the production bottleneck of operators stopping to measure product, which allows us to manufacture with more continuous flow.”

As Acument Global Technologies begins using LaserLab for incoming part identification and validation at distribution

centers, Pinheiro expects to see further benefits. The process will verify that the correct parts are actually in the containers. It will also verify key part characteristics such as length, diameter, flats, corners and head height.

“We have found that the 3D laser gauging system (LaserLab) reduces incoming part identification and validation cycle time from 3-4 minutes to about 20 seconds,” says Pinheiro. “The efficiency allows staff deployment to other areas while ensuring part quality and accuracy for our end customers.”

While the company’s PPAP process typically took about 90 minutes to measure several parts with manual gauges such as micrometers or calipers, LaserLab has saved about one hour per PPAP. “The efficiency has freed up about a day per month for my PPAP coordinator to further enhance quality control,” says Pinheiro.

According to Pinheiro, Acument Global Technologies is also realizing very strong Earnings Before Interest and Taxes Accrued (EBITA) performance compared to last year. “This tells me that even if we are not directly measuring some the benefits of the 3D laser gauging system they are flowing to the bottom line,” he says.

“Any company that manufactures parts where dimensional accuracy is crucial should look into a 3D laser gauging system,” says Pinheiro. “We achieved ROI in one year on our units and are still realizing greater efficiencies.”

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