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Proactive Steps Essential To Prevent Food Safety Problems and Improve Product Traceability

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With the proliferation of recalls in the food industry as well at the enactment of the U.S. Food and Drug Administration's Food Safety Modernization Act (FSMA), food manufacturers are recognizing that minimizing consumers' health risks, maintaining their products' reputations, and minimizing their liability depends on preventing food safety problems and improving product traceability. In addition, many companies are undertaking initiatives to achieve ISO 22000 certification to achieve higher food safety standards and to respond to consumer demand for detailed ingredient labeling. By taking proactive steps and working with industry respected suppliers, food manufacturers have an opportunity to address all these factors and strengthen their market position, enhance their images, maintain customer loyalty, and safeguard the public's health.

Food safety issues converge

The U.S. Food and Drug Administration recognized the need for more stringent food safety regulations and developed FSMA after a flood of national recalls of contaminated food products ranging from eggs and peanuts to spinach and herring. The act, which was signed into law by President Obama in January 2011 to ensure that the U.S. food supply is safe, shifts the focus of federal regulators from responding to contamination to preventing it. The law authorizes the FDA and the Secretary of Health and Human Services to increase inspections of many domestic food facilities, enhance detection of food borne illness outbreaks, and order recalls of tainted food products. It requires most food companies to write and implement new safety protocols to mitigate potential hazards.

While FSMA has been established, the act's specific standards are in the process of being developed. As food manufacturers anticipate what the actual

requirements will be, they have an opportunity to put existing technological solutions in place to prevent food contamination and improve product traceability to ensure that compliance is expeditiously achieved.

FSMA coupled with many food manufacturers' goals to achieve ISO 22000 certification has increased demand for food safety solutions. ISO 22000 is an international standard that specifies the requirements for a food safety management system that includes compliance with the principles of the Hazard Analysis and Critical Control Point (HACCP) system and application steps developed by the Codex Alimentarius Commission. Hazard analysis is the key to an effective food safety management system, since conducting a hazard analysis assists in organizing the knowledge required to establish an effective combination of control measures.

Another factor impacting food manufacturers is that today's consumers want more information about the products (such as sell by or use by dates) and their ingredients. Since there has been an 18 percent increase in allergies among individuals in the last decade, a larger portion of the consumer population now relies on complete and accurate labeling to guard against undesirable and at times life threatening reactions to consuming products.

Production environment

The environment in which food products are produced can cause contamination. Compressed air is commonly used in food processing plants to provide safe power delivery for a host of critical production tasks. Food manufacturers that rely on oil-lubricated air compressors risk end product contamination, creating unnecessary waste and downtime, possibly producing an avoidable heath risk, and polluting the environment.

However, oil-free air compressors enable food manufacturers to eliminate the concerns of potential oil contamination. It is important to be aware that only

ISO 8573-1 Class Zero oil-free compressors technically certified by a third party provide clean oil-free air to the highest standards, virtually eliminating the risk of oil contaminated food products and packaging materials. Oil-free compressors also provide a number of options for energy saving, through heat recovery and variable speed drive technology. Oil-free compressors also reduce the wastewater stream as the condensate discharge is devoid of oil contributions.

Tracking and traceability requirements

Under FSMA food manufacturers will be required by federal law to provide tracking and traceability information to a central database to ensure that recalls can be issued accurately and quickly. In today's environment, large companies are particularly vulnerable to lawsuits. Consequently, it is extremely important to be able to trace food products to the exact times of manufacture so they can be quickly removed from the market to minimize consumer risk.

To comply with the law, food companies will be required to label products in such a way that identifies the supplier of the ingredients, where the product was made, and provides complete production data. This enables products purchased by individual consumers to be tracked as well as other manufacturers who may incorporate the product into their own goods.

Continuous ink-jet (CIJ) printers that can provide a data log are the most popular for small-character product marking offer an ideal solution for meeting those requirements. CIJ is the preferred method for coding products because it is non-contact and thus does not affect product line speed. Additionally, it has extreme flexibility for message content and the amount of information that can be printed in a single pass. The printers can provide serialized numbers that identify what production line the product was produced on, time and date stamp information, what plant the product came from, and even the name of the operator responsible for the line. Although currently it is not known if the bar codes required will be alphanumeric, 2D, which allows more information to be

stored in a small machine-readable format, lineal or a combination of all three. Food manufacturers who want to put equipment in place to meet the new standards can position themselves to comply with whatever labeling requirements are enacted by choosing an ink-jet printer with the flexibility to produce all three types of bar codes.

Leverage supplier's strengths

As food manufacturers evaluate how to choose the best solutions to meet the impending regulations, industry standard initiatives, and accommodate consumer demand for increased food safety, they can gain added value by not only investigating the product solutions available, but also the application expertise of suppliers.

When companies consider the host of suppliers that are offering food safety and track and traceability solutions, it is important to look at the supplier's ability to understand the legislative and environmental regulations food manufacturers face and provide optimal application-specific solutions. By working with a globally known company with a reputation for high quality, reliable products with a very low cost of operation, food manufacturers will gain an increased level of confidence in the products they buy as well as the assurance that technical and support services are readily available.

A supplier who understands the importance of eliminating contaminants from the production environment and the critical need for cost effective, efficient track and trace capabilities has the insight and expertise to add value to food manufacturers' operations. Partnering with experienced, environmentally conscious suppliers enables companies to make an investment their in ability to meet regulatory compliance goals, achieve industry standards of excellence, earn and retain consumer confidence, and most importantly, minimize public health risks.

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