

2006 Product Innovation Award



AWARD DESCRIPTION

The Frost & Sullivan Award for Product Innovation is presented each year to the company that has demonstrated excellence in new products and technologies within its industry. The recipient company has shown innovation by launching a broad line of emerging products and technologies.

RESEARCH METHODOLOGY

To choose a recipient of this award, the analyst team tracks all new product launches, R&D spending, products in development, and new product features and modifications. This is accomplished through interviews with all the market participants, and extensive secondary and technology research. All new product launches and new products in development in each company are compared and evaluated based on the degree of innovation and customer satisfaction. Companies are then ranked by the number of new product launches and new products in development.

MEASUREMENT CRITERIA

In addition to the methodology describe above, there are specific criteria used to determine final competitor rankings in this industry. The recipient of this award has excelled based on one or more of the following criteria:

- Significance of new product(s) in the industry
- Competitive advantage of new product(s) in the industry
- Product innovation in terms of unique or revolutionary technology
- Product acceptance in the marketplace
- New product value-added services provided to customers



Product Innovation Award Recipient: DIMACO UK LIMITED

Frost & Sullivan's 2006 Product Innovation Award in the field of food inspection and traceability solutions goes to Dimaco UK Ltd., the UK-based member of the Colruyt Group, in recognition of the company's development of a novel label identification, placement, and verification system called 'Veri-PACK'. Such an end-of-line quality control system could help reduce product recall and ensuing supermarket fines, by forestalling incorrectly labeled food products from gaining entry into supermarket shelves.

The increasing emphasis on food safety and the measures employed for countering bioterrorism and other threats to the food supply chain have resulted in the growing popularity of food traceability systems. Much research has been focused on tracking cattle from the farm to the slaughterhouses to keep a check on the emergence of diseases such bovine spongiform encephalopathy (BSE), tracing food shipments to reduce pilfering and tampering; and developing traceability systems to educate consumers about the composition, country of origin, etc, of food product labels. In several parts of the world, there is a growing trend of using short-shelf life fresh and convenience foods making over-printed data even more critical in food packs.

In this regard, Dimaco's 'Veri-PACKs' key innovation. It checks labels on food packages and validates the over-printed data at line speeds. It does the checking and validation at very high speeds - of the order of 200 labels per minute in the case of moving product inspection processes. It is this speed that makes the systems suitable for use on fast processing lines, as encountered in the food and beverage industry. However, because of certain differences between industries/sectors, Veri-PACK has been designed with variants inclusive of both online and offline inspection systems.

Enclosed in a stainless steel housing with IP65 protection against water and dust ingress, the Veri-pack inspection system is equipped with a single optical head camera and an illumination source integrated within the optical head. Analysis of every package is carried out by means of the advanced image processing technologies and hidden vision tools that are based on

sophisticated algorithms. Using such technology, this system is able to ascertain whether correct labels have been applied on food packs, in addition to checking for over-printed data such as sell-by/use-by dates, pricing information, weight information, the country of origin, and tracing codes and help maintain quality control standards.

The label, batch code, and date are checked against a network database. Furthermore, it is able to quality check a wide variety of labels — ones produced by means of thermal transfer, inkjet or even laser printing. In order to prevent label mix-ups, the system ensures that every pack is assigned a correct label that is appropriately placed on the pack. It also helps ensure that over-printed data on labels is correct and legible, and that the over-printed barcode is readable.

The system can also be conditioned to monitor the absence, presence and the correctness of promotional labels as well as the use of rogue labels. Once over-printed data has been verified, the system archives it in order to provide food processors cover from any future litigation claims. An optional remote vision support package (RSVP) facilitates Dimaco's service team to quickly respond to customer technical queries.

In case of packages that do not comply with the preset quality standards, the system promptly rejects those from the line; ensuring that only inspected and validated packs are processed further. Identification of defects on rejected products is accomplished by means of the logical diagnostics. Then Veri-PACK reduces the re-work by supplying feedback on the performance of the labelers and raises an alarm when yields are too low. In all the system helps reduce the number of expensive manual checks, reduces wastage of fresh products, permits automatic capture and less re-work. All these features make it suitable for enhancing food safety while providing better food traceability.

In conclusion, Frost & Sullivan acknowledges Dimaco (UK) Ltd. for its contributions to the field of food inspection and traceability and, in particular, its development of an innovative quality control and inspection system called the 'Veri-PACK' and recognizes the company with the Product Innovation Award.