Industrial Inspection System

Below, an operator is watching the video monitor of the new LIXI® Conveyor x-ray system to spot defects in the products being inspected. The installation pictured is in the processing plant of a company offering a totally boneless chicken product. Manufactured by Lixi, Inc., Downers Grove, Illinois, the LIXI Conveyor has a high resolution imaging system that can distinguish small bone fragments in the chicken (right), allowing immediate rejection of the defective package.

An important feature of the system is its ability to inspect 100 percent of the product right on the production line, not in a quality control laboratory. The LIXI Conveyor is synchronized with standard line speed; packages enter a totally sealed and waterproof x-ray chamber and a real time image is presented on the monitor. The system can detect defects measuring less than a millimeter.

The system can be configured with various options to suit different products and applications. It is designed to accommodate products up to 18 inches in length that might have defects not easy to distinguish from surrounding non-defective areas. Among examples of applications are food products, medical devices, printed circuit boards, electronic components and small parts.

The LIXI Conveyor, produced by Lixi, Inc. under NASA license, is the latest in a long line of spinoff devices that trace their origins to a portable x-ray instrument developed in the late 1970s by Goddard Space Public Safety
Flight Center. Called the Low Intensity X-ray Imaging Scope, it was designed to use less than one percent of the radiation required by conventional x-ray devices. That feature, plus its portability, made it attractive for a broad variety of industrial and medical applications.

Lixi, Inc. has used the NASA technology to build a thriving business serving a growing list of U.S. and international customers. The company manufactures certain standard systems, but it is primarily a systems integration firm developing a variety of custom configurations employing x-ray technology as the core component and including such other technologies as image enhancement, videography, thermal printing, materials handling, computers and software. Lixi produces a number of types of industrial inspection systems: hand-held and portable units for security applications; and battery-powered hand-held x-ray devices for medical use in remote areas of the Third World.

*LIXI is a registered trademark of Lixi, Inc.*