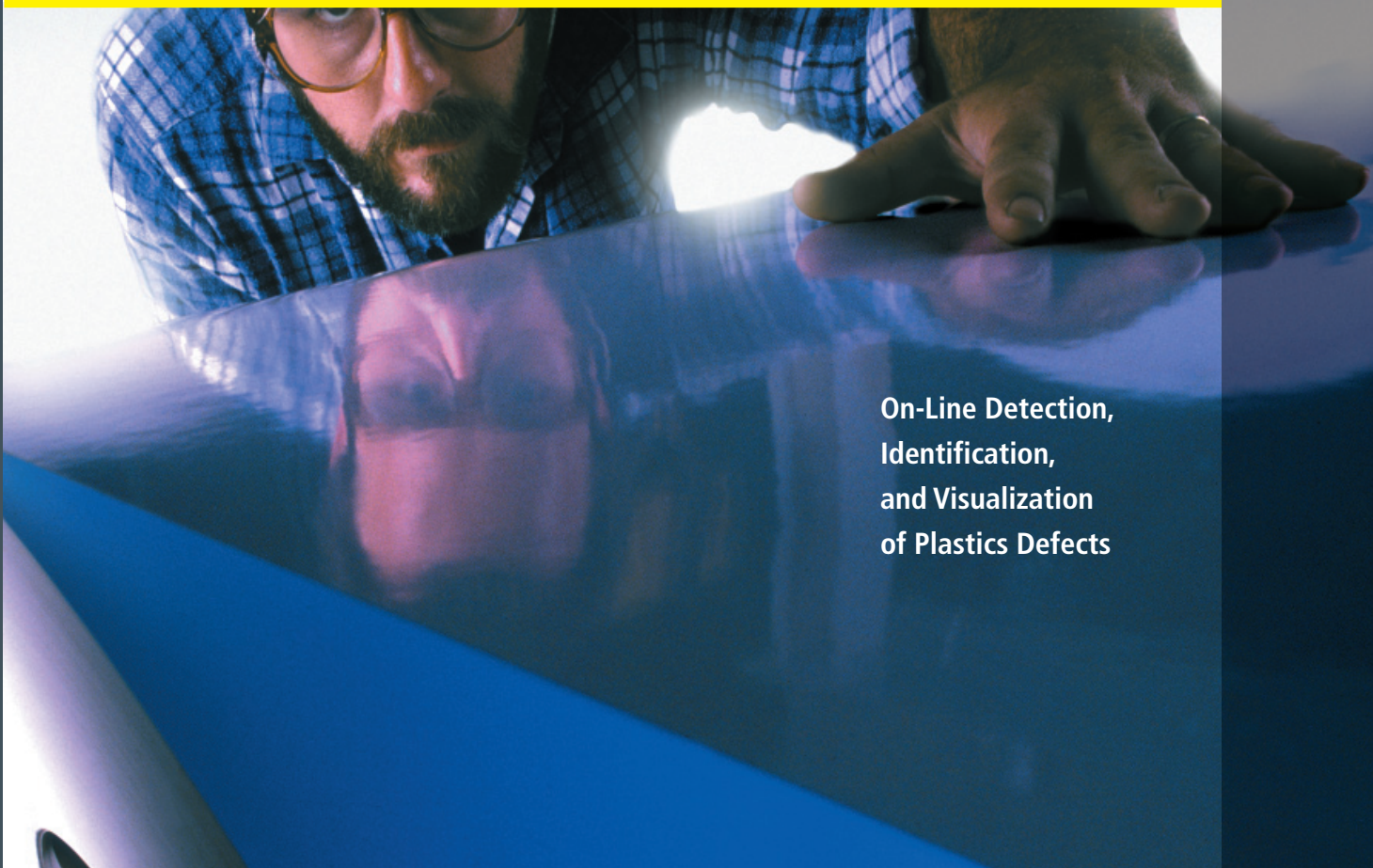


COGNEX



On-Line Detection,
Identification,
and Visualization
of Plastics Defects

SMART VIEW[®]

PLASTICS

SmartView® Plastics

In today's highly competitive marketplace, increasing demands are being placed on manufacturers to increase efficiency, improve quality, and certify defect-free product. The SmartView® Plastics web inspection system helps you to meet these goals by providing comprehensive inspection and reliable defect detection, identification, and visualization. Today this information about the quality of the product is essential in maximizing the yield on any line.



Cognex Can Help...

The shift in today's global economy has affected all segments of the plastics, film, and converting industries, and many companies are experiencing a changing demand for product across all applications. This shift in supply and demand has resulted in higher yield expectations. Plastics manufacturers and converters are under pressure to run more efficiently, but as lines run at faster speeds, the occurrence of defects can significantly increase. Although quality is essential in any economy, it has never been more vital than now. Manufacturers can't afford to make inferior products. And, if material is shipped with undetected defects, companies not only risk upsetting their customers — they risk losing them.

Cognex Systems Inspect Millions of Meters of Plastics Every Day.

We have been successfully inspecting various grades of plastic and film for more than a decade. In fact, Cognex systems inspect millions of square meters of plastic film and sheet every day. We have vast experience in applications ranging from clear films, to opaque sheets, to glass, and foils. Our SmartView® Plastics web inspection system can help you to reduce overall operational costs and optimize processes. Additionally, the SmartView Plastics system helps you to:

Increase process efficiency

Improve product quality

Maximize yield

Ensure more thorough and accurate grading of materials

Detect, identify, and visualize defects BEFORE you ship

Generate inspection reports

Decrease the number of customer returns

Increase efficiency of downstream converting processes



Superior Detection, Identification, and Visualization.

With over 20 years of experience in challenging machine vision applications, Cognex uses the right combination of lighting, image capture and image processing software. Only Cognex's advanced inspection technology ensures real time detection of all defects on your web, while our special web inspection software can be easily configured to provide unparalleled, automatic identification and visualization of your defects.

Early Detection Is the Key.

In the manufacturing process, it is crucial to detect defects early. The sooner you find the problems, the sooner you can fix them. For example, detection of gels can indicate processing problems in filters or extruders. Detection and reporting of defects and their locations can enable you to optimize converting operations. Ultimately, this leads to less scrap and greater yield. Additionally, it keeps you from passing bad material on to value-added processes, thus reducing scrap and customer returns, again increasing yield.

Just as it is critical for you to find defects in the first stages of plastics manufacturing, it is also critical that the front-end processing of a web inspection system is optimized to provide accurate and useful information, so that the back-end processing, such as defect identification, visualization, and reporting, will provide you the most accurate, complete, and reliable information.

Cognex uses processing technology that is scalable and uniquely tailored to detecting surface defects on your product. We emphasize the quality of the defect images gathered by the SmartView Plastics system, and the speed in which we process those images. This is why Cognex uses cameras specially designed for web inspection and image capture.

PLASTIC FILM AND SHEET

Applications:

Porous Film Optical Film Acrylic Sheet Laminated Film
Oriented Film Cast Film Blown Film Extruded Film

Typical Defects:

Gels Carbon Specs Holes Contaminants Edge Cracks
Wrinkles Inclusions Scratches Die Lines

CONVERTING

Applications:

Slitting Coating Sheeting Metalizing

Typical Defects:

Coating Voids Wrinkles Repeating Defects Folds
Edge Cracks Streaks Scratches Blisters

SPECIAL SURFACES

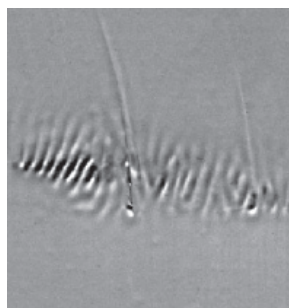
Applications:

Coated Textiles Coated Cylinders Foils Glass

Typical Defects:

Scratches Dents Coating Voids Inclusions Spots

Wrinkles



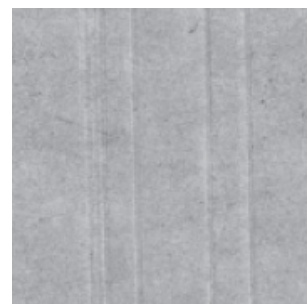
Gels



Coating Voids



Streaks



Maximize Results — from Factory Floor to Front Office!

On-Line Users

Each user performs a different function within the plant and needs job-specific information. The user interface of the SmartView web inspection system is easily configured so that operators, inspectors, process engineers, and production managers have the information they need at their fingertips, when they need it, and in the format that they want.

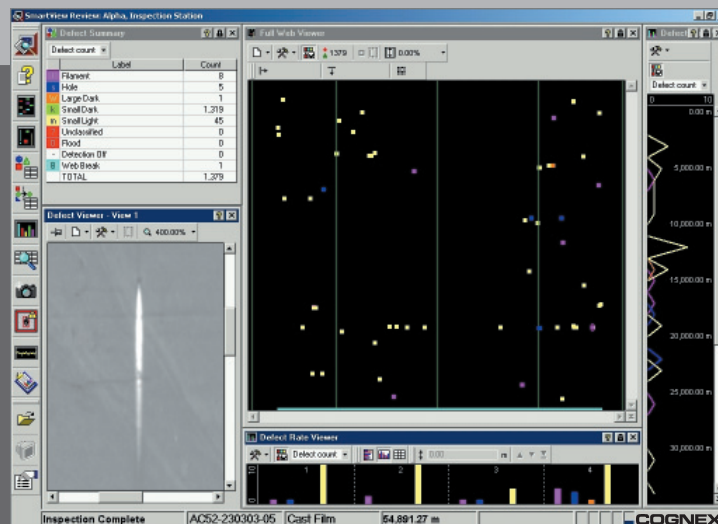
Information Systems

The Windows®-based SmartView system, connected to your network, provides information for plant-wide users, from the manufacturing floor to the front office. The SmartView Plastics system uses industry standards like OPC and ODBC to ensure easy integration with other plant production and quality assurance systems. A real time operator interface shows current inspection results on-line all the time. The Open Network Inspection Viewer, distributed across the plant network, enables any user to view current or historical inspection results remotely.

Application Focus

The SmartView Plastics system is highly modular, allowing the use of the appropriate technology for your application, using standard system components. While many web inspection systems are designed to be - one size fits all - systems, Cognex recognizes that each production line has unique needs, and provides best-in-class technology to build the right solution. Cognex offers the most comprehensive selection of lighting options in the industry, applying collimated, diffused, or side lighting, depending on your application. We build systems using optimal cameras, lenses, and lighting, as well as optimized software packages to provide superior detection, identification, and visualization of your defects.

View
Real Time
or
Historical
Defect
Images
and Data.



Since 1981, Cognex Corporation has achieved industry leadership by focusing its expertise exclusively on vision inspection technology. The success of our surface inspection division is enhanced by Cognex's financial stability and continued commitment to Research & Development, with more than 300 vision engineers worldwide. Our network of service and support professionals has made us the world's leading supplier of machine vision systems. Our goal is to exceed our customer's expectations by providing real, lasting value through innovative surface inspection solutions. Let Cognex ensure your success and guide you through your next generation of quality improvements.



Cognex Corporation designs, develops, manufactures, and markets machine vision sensors and systems, or devices that can "see". Cognex vision sensors are used in factories around the world to automate the manufacture of a wide range of items and to assure their quality. Cognex is the world's leader in the machine vision industry, having shipped more than 350,000 machine vision systems, representing over \$2 billion in cumulative revenue, since the company's founding in 1981. In addition to its corporate headquarters in Natick, Massachusetts, Cognex also has regional offices and distributors located throughout North America, Japan, Europe, Asia, and Latin America. Visit Cognex on-line at <http://www.cognex.com/>.

COGNEX

SURFACE INSPECTION SYSTEMS DIVISION

Corporate Headquarters

Cognex Corporation
One Vision Drive, Natick MA 01760-2059 USA

United States
Phone: +1 508-650-4141 Fax: +1 508-650-3344
www.cognex.com

Europe
+49 721-66390
www.cognex.de

Japan
+81 3 5977-5400
www.cognex.jp