

espresso SI

— the best just got better!

WHY *espresso SI*?

Following the paper producer's continuing efforts to optimize their production processes, also web inspection technology must be enhanced continuously. Parsytec takes this challenge and offers the next generation of web inspection technology: *espresso SI* pushes the limits of web inspection up to new levels. The innovations incorporated in *espresso SI* make it the leading and most future-proof system available.

1. *espresso SI* hardware innovations comprise the first Web Inspection System (WIS) that is based on GBit Ethernet camera technology. This new hardware approach guarantees an availability of 99.5% without having spares on site.
2. *espresso SI* provides software innovations that include the possibility to operate via the Internet, extensive pre-settings, and ground-breaking tools such as classification wizards, web width measurement, and even calendar protection.
3. *espresso SI* also includes special solution services. Examples are: web break monitoring, defect tracking, or slitting optimization. If customers miss any special solution, *espresso SI* is flexible enough to be further developed and adapted to each and every single issue.

NEW TECHNOLOGY

Digital Camera Technology

espresso SI is the first web inspection system to employ Gigabit Ethernet cameras for matrix applications. This state-of-the-art technology achieves the doubling of the sensitivity, a 50% increase of the signal-to-noise ratio, and high contrast detection guarantees.

Ethernet System Architecture

All components of the *espresso SI* inspection system are connected via Ethernet. This enables a "plug and play" operation of the system. The benefit is twofold: first, the installation is straightforward and smooth. Second, the system performance can be enhanced by simply plugging new cameras to this architecture – at any time. Even more, this new architecture makes cabling between all components a "no-brainer"; it requires only one centralized electrical installation point and makes UPS

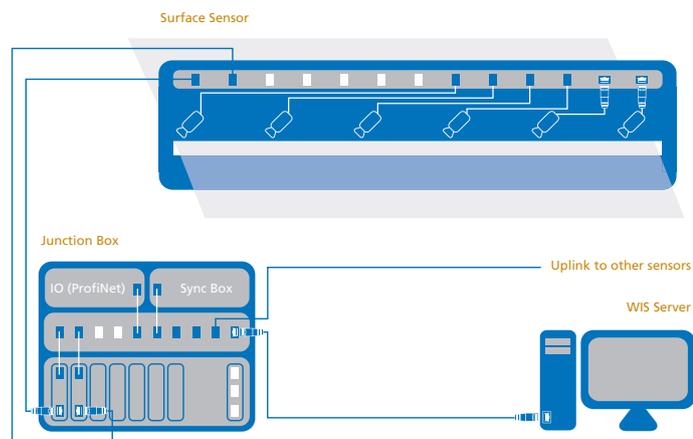
redundant. This setup allows the customer also to use the server and client software on their own hardware.

Lowest Total Cost of Ownership

espresso SI reduces the total cost of ownership to previously unheard of levels. It starts at installation, where the GBit Ethernet system architecture allows a fast plug and play system set-up. Commissioning is simplified with an easy-to-use drag and drop classifier. Finally, system operation and maintenance has become a "no-brainer": *espresso SI* virtually needs no proprietary spare parts so that customers can purchase all parts from their preferred local partners.

Web Access

espresso SI even makes accessing quality data via the company's intranet possible by means of a web-based browser. Two standard applications – the Quality Report and the Reel Report – are available immediately.



Plug'n'play system architecture: GBit Ethernet connects everything

Classification

Since its very first inspection systems, Parsytec always put highest attention to providing superior classification technology. Powerful classification equipment turns defect data into production optimization information. *espresso SI* again lifts classification to an unprecedented level: Parsytec’s high performance classification technology now gets enriched by the industry’s most user-friendly “classification front-end”. Similar to the GBit Ethernet “plug and play” approach, classification becomes feasible for everybody by applying classification wizards and by providing a “drag and drop” classifier front-end.

SOLUTION SERVICES

Web inspection does not stop at detecting and classifying web defects. Web inspection also means: turning these data into production benefits. Parsytec’s flexible software approach allows developing customer-specific applications for embedding the inspection data into daily production decisions. With *espresso SI*, the best practices of these applications have been bundled

into special solution services. They are now – as options – part of Parsytec’s offering.

Automatic Sorting

Whenever paper reels are cut to sheets, this solution enables the customer to automatically sort out the defective sheets. The sorting-out is triggered based on a specially trained classifier.

Calender Protection

This solution enables the automatic opening of calender rolls in case of harmful defects approaching.

Defect Tracking

Here, defects are tracked from the paper machine over various super calenders up to the winders. With a special operator software (ODIS), the operators can see at one glance, where exactly the defects were caused. This allows very targeted actions.

Dirt Count

The Dirt Count application calculates TAPPI and ISO dirt count at a pulp machine based on intelligent classification technology.

flexODIS

Do you want to display web and other quality data in a fully individual way? This is what the flexODIS provides.

Slitting Optimization

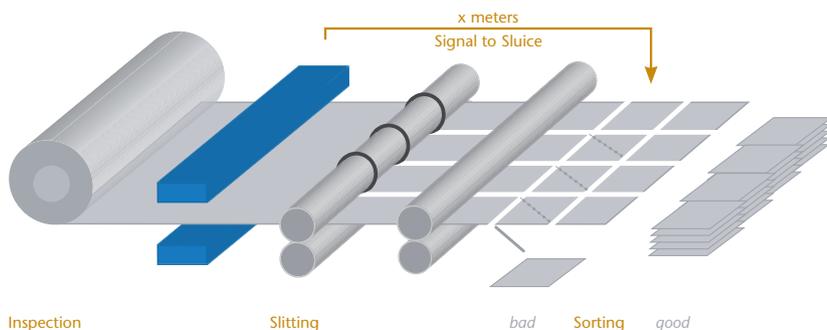
Before the reel comes to the slitter, the operators receive a reel map with the slitting plan displayed in it. This enables the operators to refine the cutting lines, if critical defects are located at the cutting positions.

Web Break Sync

Based on an intelligent classifier, this solution starts the video capturing of a web break system in case of critical defects. The data is provided via OPC interface.

Width Measurement

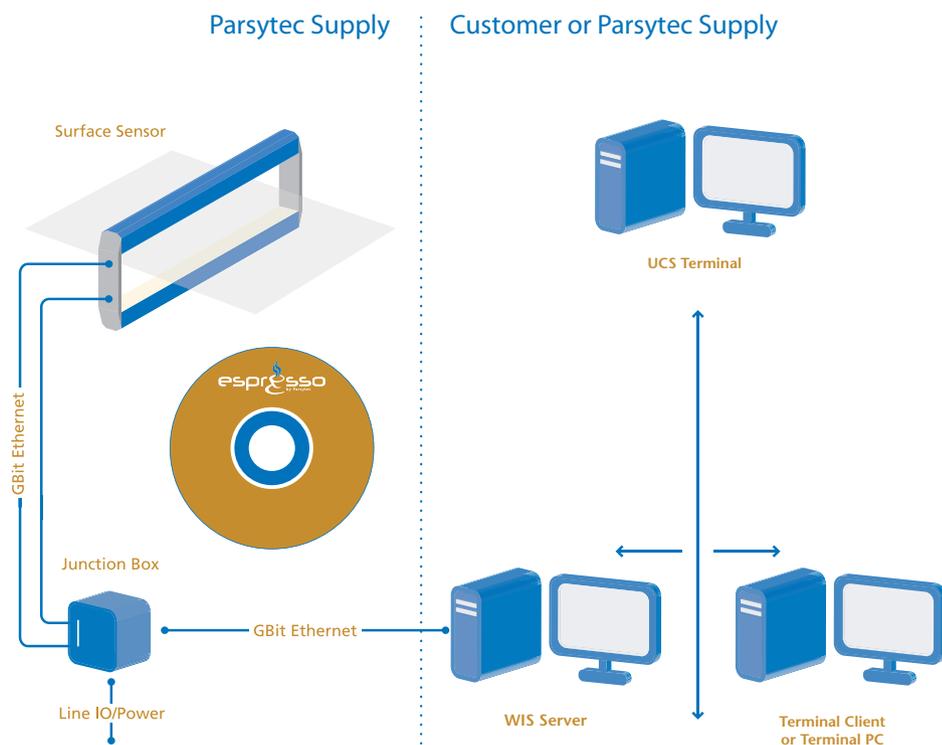
With *espresso SI*, the Parsytec inspection system unleashes strip width information that it takes in very short cycles. The information about the current strip width can be shown in the customer’s ODIS.



Automatic Sorting decides on the material’s quality

espresso SI

With *espresso SI*, Parsytec has created the most successful web inspection system for paper production. Based on more than eight years successful track record in paper inspection and with more than 188 installed WIS, Parsytec continuously pushes the limits of web inspection. Even more: *espresso SI* is the worldwide first system to apply GBit Ethernet camera technology, and *espresso SI* is the worldwide first inspection system to give access to all inspection results from everywhere with a standard internet browser. Above all, *espresso SI* offers the lowest total cost of ownership, as the purchase of spare parts optionally lies in the customer's scope of supply.



TECHNICAL DETAILS

- Compact and robust setup:** CE-compliant, cUL, GOST-R ratified, single-phase, wide-range power supply (85V–256V, 50/60Hz), no UPS required, centralized electrical installation point, camera processing based on CompactPCI, Gigabit Ethernet connection to the WIS Server.
- Digital camera technology:** Gigabit Ethernet camera, real 12 bit imaging, doubled sensitivity, increase of signal-to-noise-ratio by 50%, 4dB contrast detection performance.
- Environmental robustness:** ambient temperature 10°C – 60°C.
- High availability:** Basic system availability of about 99.5% without spare parts on site; system availability of about 99.9% with spares on site; spare parts can be purchased worldwide independent of Parsytec, no consumables.
- Inspection landscape:** Huge variety of inspection applications for paper, light weight coated paper, tissue, and many more.
- LED illumination:** lowest total cost of ownership, lifetime min. 10 years, power consumption max. 100W per meter inspection width.
- Straightforward inspection software:** intuitive user interfaces, easy commissioning, web access to inspection results, classification on entire defects, width measurement, customer-specific user screens.
- Sensor technology:** *espresso SI* offers a variety of inspection technology for transmission and reflection applications with infrared or yellow illumination. This is enriched by the Inspection Landscape as “best sensor compass”.