A modular stand-alone quality control solution for the inspection of intaglio, litho, screen print, serial Numbers and barcodes, watermarks, security thread and foils on printed sheets. The system has a vacuum belt based transport, pallet feeder, alignment table, reject gates and stackers and a good work pile stacker. Inspection options are sheet front side, sheet back side, transmissive, IR, UV and numbering inspection stations.

The Full Sheet Inspection System is used to inspect for:

- Smears and smudges
- Streaking and wiping marks
- Print voids
- Ink splashes and spots
- Holes, tears, creases and folded corners
- Miss-registration
- Missing print
- Over and under inking
- Color variations
- Other printing related and substrate defects

Typical Applications

- Bank Notes
- Tax Stamps
- Cheques
- Passports
- Certificates
Technical Information

- Maximum sheet width 1060 mm
- Maximum sheet length 1200 mm
- Maximum speed up to 12,000 sheets per hour
- Minimum defect size: 0.165mm x 0.165mm
- Minimum defect contrast: 2.5%
- Pile height typically 1500mm
- Alignment table accuracy +/- 0.15mm

Benefits and Options

- Modular design for customization and upgradeability of machine and inspection stations
- Additional inspection stations can be added
- Designed for low maintenance and durability
- Easy to set up for job changes
- Individual tolerance and sensitivity settings for each inspection
- Separate settings for each region of interest
- Can be linked to other devices for process management
- LAN connection for remote access control and data collection
- Detects, identifies and visualises defects prior to next process or shipment
- High level of automation for maximum process reliability
- Reduced inspection headcount and cost
- Sheet count verification
- Improves operator confidence
- Maximises yield and efficiency
- Optional inkjet printing
- Individual inspection units are also available for on-line inspection on web and sheet presses

Additional Details

- High performance industrial computer(s)
- Touch screen monitors for setup, data input, display of results, and live display of images during inspection
- High resolution cameras
- High power LED illumination
- Alarm outputs
- Digital I/O’s and Communication Ports
- Microsoft Windows® operating system
- Ergonomic operator console

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Full Sheet Inspection System

Full Sheet Inspection and Sorting Machine
FSIS Sorting Capabilities

The Full Sheet Inspection and Sorting Machine not only performs multiple inspection and verification tasks on security print sheets but also sorts these sheets into multiple bins according to an operator selectable sorting criteria.

Sorting by column or row: The FSIS has multiple sorting capabilities selectable by the operator.

The purpose of these are to provide the possibility to salvage sheet sections with no errors. Sheets with errors only in specific columns (or rows) can be selected to be deposited in specific bins. These can then be numbered, on a numbering press, in e.g. only the good columns. It is also possible to sort by “good” columns or rows. Sheets with multiple "good" columns can be selected for a specific bin.

Dynamically selected overflow bins: A bin that is not selected is automatically used as a “Dynamically Allocated Overflow Bin”. These are used to collect sheets, destined for a specific bin, when the original bin is full. The operator is alerted, on a touchscreen monitor, that the sheets in this bin were originally destined to a specific bin number. After emptying the original bin, the operator adds the sheets from the overflow bin to the stack from the original bin.

Very frequently there is only one bad note on e.g. a 50 subject sheet. Salvaging most of the remaining sheet can provide great cost savings considering the cost of the substrate, security features and all printing processes that have already been applied. Customers have calculated that the savings generated by this sorting capability can easily pay for the machine in 6 to 12 months.

So even though the inspection and verification capabilities of this machine already provide great value to a customer, the sorting capabilities provide the opportunity to offset the cost of the machine with savings generated from salvaging product, within a short time.

You will be buying less substrate, less ink, less security foil, and free up expensive press time.