

Hunkeler Generation 8 Printer Online Paper Processing System WI8 Web Inspection System



Basic Equipment

- One "Compact Image Sensor" scan-bar (CIS) per surface
- 21" wide multi-touch LCD operator interface
- Includes speed kit enabling for inspection up to 500ft/min
- Allows to visually analyze scanned images on the screen
- Real time pan/zoom/freeze/rotate the displayed images
- Ready to be extended to automated inspection with optional SW-packages
- Ready to be extended to full, automated tracking with Hunkeler Control Platform

Purpose

The Hunkeler Control Platform represents a high-performance system for production monitoring and quality control. With the WI8 Web Inspection system you can check quality and content of the printing on each page in terms of colors, positions, contours, smearing, jet-outs, data validation, etc. It is possible to extend it to a complete tracking solution.

Method of operation

The system scans the entire width of the paper web, acquiring high-resolution images of each page at full speed and comparing them to a defined "golden sample" in order to carry out quality and content check. Printing quality and content errors are identified at an early stage, thereby triggering immediate action and reducing both downtimes and the amount of wasted paper.

Module options

- Speed kits to extend the maximum operating speed up to 350 m/min (1'050 fpm)
- Option for sharing the W18 operator console with the printer
- Base stand for the operator console
- Wall mounting for the operator console

Optional packages

Several optional software packages are available to expand the system with additional functions:

- Record & Replay option
- Production archiving option
- Printer oriented graphic controls
- User oriented graphic controls
- Full page image verification
- 1D, 2D and Postal barcodes verification
- OCR / MICR text verification
- Label verification
- Lottery verification

Supports automated inspection of up to 5 pages per side, 20 dynamic templates per page, 50 control regions per template

Technical variations

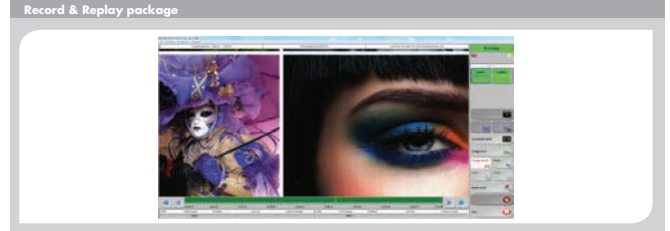
- Standalone simplex and duplex color version
- Integrated simplex and duplex color versions for the following devices and printers:
 - Hunkeler CS8 Cutter Stacker
 - Hunkeler DP8 Dynamic Perforator
 - Hunkeler WM8 Web Merger
 - Available as integrated solution into several printer Brands/Models

* Integration to other printers (also with 12", 22", 30" and 42" web width) and devices available upon request

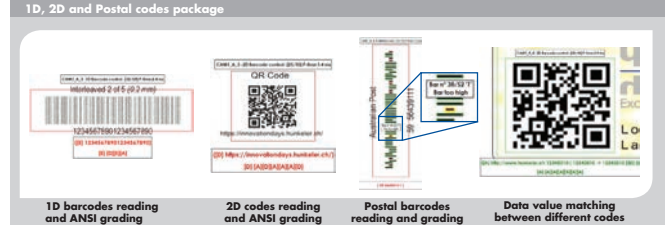
Main system characteristics:

- Compact CIS sensor for easy integration into any device:
 - No calibration needed.
 - Consistent and integrated lighting without any focal and/or geometrical distortions
 - Providing bright & sharp high resolution Images
- Easy installation & maintenance
- Intuitive user interface to display scanned images and detected errors.

Record & Replay



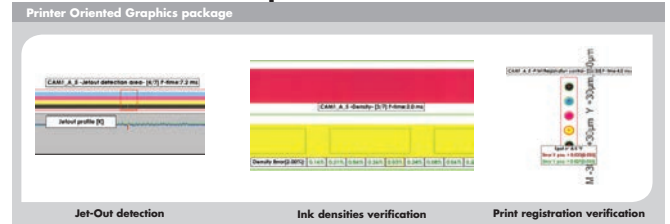
1D, 2D and Postal codes verification



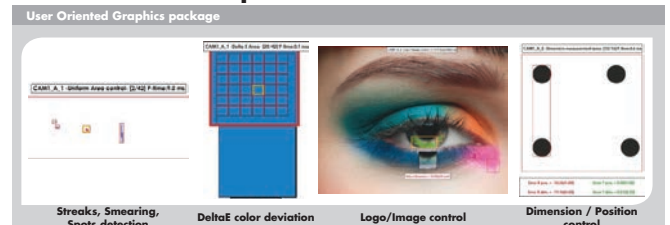
OCR and MICR codes verification



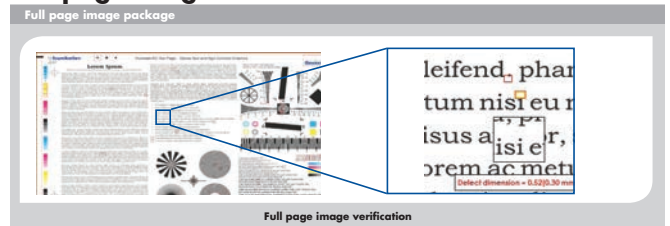
Printer Oriented Graphic controls



User Oriented Graphic controls



Full page image verification



Labels verification



Technology

Extremely compact web monitoring solution based on the latest CIS (Contact Image Sensor) technology, providing high speed / high resolution image capabilities. Because of the sensor's compact dimensions, the integration of different different modules and printers is possible.

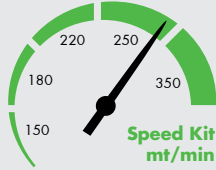
Swiss precision by Hunkeler with stable and reliable mounting for the CIS sensors, without requiring any adjustment and /or mechanical calibration, makes installation as well as maintenance very simple. Module is NRTL (UL), CE, GS, and ROHS certified.

The acquisition unit, integrated for example inside each print engine, is designed to provide easy access to the sensor protective glass for cleaning and maintenance (different integrated versions shown below):

W18 Base Module
includes all HW, Base display SW, up to 100 m /min


Options

Choose one speed kit option



100 m /min Speed Kit	<input type="radio"/>
150 m /min Speed Kit	<input type="radio"/>
180 m /min Speed Kit	<input type="radio"/>
220 m /min Speed Kit	<input type="radio"/>
250 m /min Speed Kit	<input type="radio"/>
350 m /min Speed Kit	<input type="radio"/>

Choose basic software option



Record & Replay option	<input type="radio"/>
+ Production Archiving option	<input type="radio"/>

Choose advanced software options

Automated inspection

• 1D, 2D, Postal Barcode verification	<input type="radio"/>
• OCR / MICR Text verification	<input type="radio"/>
• Printer Oriented Graphic Controls	<input type="radio"/>
• User Oriented Graphic Controls	<input type="radio"/>
• Full page Image verification	<input type="radio"/>
• High Resolution or Large Formats	<input type="radio"/>
• Labels verification	<input type="radio"/>
• Lottery verification	<input type="radio"/>



W18 with DP8



W18 with printer integrated



W18 with WM8



W18 with CS and external display

Technical data

Scanning device:

Scan bars:	CoaXpress® CIS scan bars (1 scanner for simplex, 2 scanners for duplex)
Scan bar description:	Full color CIS (Contact Image Sensor) with integrated illuminator and lenses
Scanning width:	587.2 mm 23.1 inches (14.4", 31.8" and 41.9" widths available on request)
Sensor details:	RGB trilinear CMOS with 3 x 13'824 pixels (40 µm per pixel cell)
Resolution:	600 DPI that can be binned down to 300, 200 and 150 dpi for higher speeds
Interface:	CoaXpress® Rev1.1 compliant with 4 x 6.25 Gbps channels (total 25 Gbps)
Max scanning rate:	41'800 lines second @ 600DPI 69'300 lines second @ 300DPI
Illumination:	Integrated, strobed dual white LED linear array illuminator
Focal distance:	12 mm from protective Glass to medium with ±1 mm DOF (Depth Of Focus)
MTBF:*	50'000 hours.

*The MTBF of the scanners is mainly determined by the illuminator LED lifespan, being strobed line by line the effective/elapsed lifespan of the LEDs is longer, as it is depending on effective printing operation and production speed.

Paper specifications:

Paper weight:	According to the printer/device
Max web width:	According to the printer/device
Max Scan width:	587.2 mm 23.1 inches
Max Scan length:	1'016 mm 40 inches

Electrical module data:

Voltage:	208 to 240 VAC ±10% 2LPE/LNPE
Rated current:	2.5 A
Effective output:	540 W
Apparent power:	575 VA
Heat dissipation:	1840 BTU/h (1944 KJ/h)
Weight:	265 kg (standalone version)

Mains connection:

Mains type 230V

Mains Type:	230 VAC ±10% LNPE
Frequency:	50 to 60 Hz
Fusing:	16AT, provided by the customer

Mains type 208V

Mains Type:	208/240 VAC ±10% 2LPE
Frequency:	50 to 60 Hz
Fusing:	15AT, provided by the customer

System speed/resolution grid

The system can be configured to scan images at the following resolutions at the indicated maximum media speed (requires appropriate speed kit option to be installed):

Resolution	Max. inspection width in millimeters (inches)	Inspection resolutions in dpi		Maximum scanning speed in m/min (fpm)	
		Horizontal	Vertical		
STD	587.2 mm (23.1")	300 (84.6 µm/pixel)	300 (84.6 µm/pixel)	350 (1'520)	
HIGH		600 (42.3 µm/pixel)	600 (42.3 µm/pixel)	400 (63.5 µm/pixel)	105 (450)
			400 (63.5 µm/pixel)	300 (84.6 µm/pixel)	156 (680)
			300 (84.6 µm/pixel)		218 (910)

All technical data subject to change.