

# Guardian PQV

## 100% PRINT QUALITY VERIFICATION



The Guardian Inspection System™ PQV provides true 100% print quality verification using high resolution line-scan cameras, and can be installed on any type of printing press or inspection rewinder. The Guardian PQV is designed for “One-Touch” master image training to provide quick and easy setup of new jobs. After the master image is trained the system will compare every image against the master and automatically highlight defects for the operator.



**PC INDUSTRIES** Achieving Quality Through Technology

# Guardian PQV 100% Print Quality Verification

## EASY TO USE

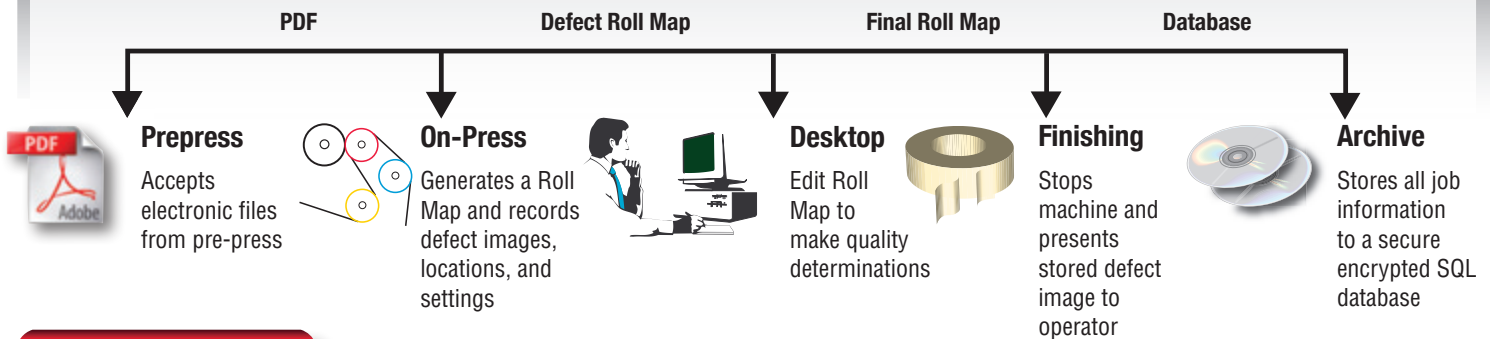


### DEFINE OBJECTS



### INSPECT

## Total Quality Management System



## FEATURES

### Accurate

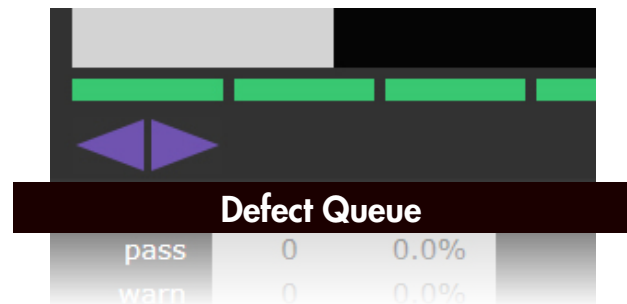
The Guardian PQV is capable of detecting a missing period down to a 3-point font and can detect the slightest color variations. The Guardian provides fixed pixel resolution, which guarantees the same minimum defect size detection capability regardless of web speed.

### Fast

New job setup typically takes less than 30 seconds and the Guardian PQV will store all of the master images, sensitivity and job settings. The operator can instantly “Quick Zoom” to magnify the color-coded highlighted defect. When a defect is detected the operator can also flip to the master image to compare the differences detected.

### Advanced

- “Defect Queue” displays the down web position of defects - allows operator to click and view upcoming defects
- PDF master input option
- Multiple zones with independent sensitivity settings
- Web/Sheet skew correction (web guide not required)
- Zero speed and variable speed inspection
- Warn tolerances alert operator prior to defects
- Uninterrupted inspection while presenting/displaying defects
- Unlimited defect image storage while presenting defects
- “Auto Train” text and die cut areas
- Optical Character Recognition (OCR) option
- Sequential and matching inspection option
- 1D and 2D bar code reading option
- ANSI/ISO bar code grading option
- Dimensional gauging and measurement option
- 21 CFR Part 11 compliant option
- Remote technical support and training



## INTERFACE



Guardian PQV.3

## BENEFITS

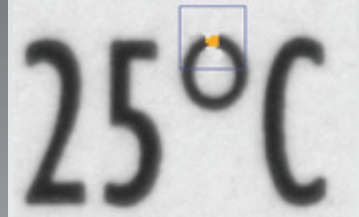
### Detect Errors ...

- Initiated during PDF artwork creation
- Introduced during pre-press step and repeat process
- Created during raster image processing (RIP)
- Produced during the plate-making process
- Caused by incorrectly mounting printing plates
- Created during plate washing
- Due to press accuracy
- Related to press operation error
- Before producing costly scrap
- Prior to shipping defective product with potential liability

### Types of Defects Detected:

- Missing, filled-in and broken text
- Print and die mis-register
- Unremoved or partially removed matrix
- Defects in graphics areas: logos, vignettes and process printing
- Color variation
- Ink spots, smears and streaks
- Incorrect or poor quality bar codes
- Human readable and bar code sequential errors (duplicate or missing)
- Positional tolerance errors (Die to liner, die to perforation, die to die, print to die)

## Sample Defects



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## SPECIFICATIONS

<b>Operating System</b>	Windows 7 32/64 Bit
<b>Computer</b>	High-performance industrial computer suitable for production environments
<b>Remote Support Access</b>	Via Internet or Modem
<b>Types of Cameras</b>	Line scan
<b>Resolution</b>	Up to 16K line scan cameras
<b>Camera Options</b>	Color or grayscale
<b>Maximum Number of Cameras</b>	Up to 8 cameras. Available Configurations: Side by side, front and back, unwind, and rewind for re-inspection after web editing
<b>Lighting Options</b>	Solid-state L.E.D. (White, U.V., I.R., Back Light) lighting
<b>Maximum Web Speed</b>	Dependent upon web width and number of cameras
<b>Maximum Web Width</b>	100" (2,540mm)
<b>Maximum Repeat Length</b>	Unlimited
<b>Minimum Defect Size</b>	Dependent upon web or sheet width and number of cameras
<b>Master File Formats</b>	PDF, TIF, BMP
<b>Fonts</b>	Compatible with all fonts and foreign languages
<b>Material Types</b>	Labels, paper, film, carton, foil, transparent
<b>Control Outputs</b>	Programmable dry contacts or high speed opto couplers
<b>Output Devices</b>	3 Color alarm light stack (pass, warn, fail) with audible alarm, marking and flagging devices, machine jog/stop and diverters
<b>Input Devices</b>	Touch-screen monitor, mouse and keyboard
<b>Machine Integration</b>	Web-fed or sheet-fed printing presses, inspection and slitting rewinders, tabletop rewinders, inkjet, and thermal transfer printers
<b>Power Supply</b>	100-240VAC, 50-60Hz
<b>Options</b>	Mobile cart, report printer, roll label printer, bar code scanner, ANSI Grading module, Specialized Lighting module (holograms, metallized, clear labels, RFID tags)

## Other Products from PC Industries:

Off-line Proofing • Digital Web Inspection • Strobe Lights  
Register Controls • Bar Code Verification and Grading • Repeat Length Monitoring

 **PC INDUSTRIES**

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