

## 930 INSPECTION SYSTEM

### SYSTEM CAPABILITIES

- Card Size Inspected:** Standard CR80 and Smart Cards  
**Card Thickness Inspected:** 0.3 mm (0.012") – 1.0 mm (0.040")  
**Card Type:** Colored, white, clear, printed, blank  
**Card Movement:** Single file, back of card inspected while being moved to conveyor and front of card inspected while on conveyor
- Card Spacing & Positioning:** Not critical  
**System Inspection Rate:** Variable speeds up to 450-500 cards/minute  
27,000-30,000 cards/hour

Will detect simultaneously and at full speed:

- Missing holograms, signature panels, magnetic stripes
- Voids in printing, magnetic stripes, holograms, and signature panels.
- Missing letters
- Print hickeys, ink spots
- Color spots, white spots
- Card dimension variation—length and width
- Bubbles, blisters, dents with irregularly shaped perimeters
- Placement accuracy of magnetic stripes and printing
- Scratches

### CARD INSPECTION PROCESS

There are two cameras per inspection station:

- Surface inspection
  - Monochrome camera
  - Three-dimensional defects emphasized such as scratches, dust, dents
  - Edge-to-edge inspection
  - Easy, fast setup
  - Printing suppressed by optical configuration
- Pattern inspection
  - Color camera
  - Train system on good cards
  - Comprehensive color pattern inspection with simple setup
  - Process control feedback



### System Measures

- Position/orientation of printed pattern with respect to card edges
- Card shape/size
- Color or key regions of brightness

### System Detection

- Localized flaws
- Registration errors
- Subtle color or brightness shifts
- Multiple inspection windows to ignore or accent specific areas of card

### Put the Spartanics Advantage to Work For You!

- Single Run Inspections Reliable Every Time
- Total Card Edge-to-Edge Inspection
- Stability in "Real World" Plant Conditions
- Smart Self-Learning System
- Online Changes to Defect Tolerances
- Scratch-Free Handling
- Perfect Card Positioning Not Necessary
- Color or Monochrome Camera Combination Options
- Ultra Stable & Reliable Lighting
- Remote Diagnostics & Networking Capability
- Modular Design

### Spartanics Service covers every aspect of your production process...

- On-site training
- Field service technicians
- Modular loaners
- One year warranty

## 40 years of Proven Experience

Since 1961, Spartanics has specialized in engineering, manufacturing and marketing automated equipment, using sophisticated electro-optical cell technology to increase accuracy, efficiency and security in counting flat stock and in punching and die cutting of decorated sheet and coil materials.



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WHEN ACCURACY COUNTS...  
COUNT ON SPARTANICS



## 930 CARD INSPECTION SYSTEM

World's first intelligent single run  
edge-to-edge Card Inspection System



## FEATURES & BENEFITS

### Single Run Inspections Reliable Every Time

- Find bad cards before adding value with expensive holograms and signature panels.
- Stop throwing away good cards.
- No more extra labor hours spent inspecting cards again and again.
- No more customer complaints or returns for unacceptable cards.

### True Card Edge-to-Edge Inspection

- Monitor card size variations.
- Ensure that color bleeds extend to the edge of the card.
- Detect defects closer to the card edge than possible with units that do not inspect the full card.

### Stability in “Real World” Plant Conditions

- Eliminate headaches from card inspection systems that require precise card placement.
- Stable LED strobe lighting—constant intensity and color.
- Inspect thin cards without the need to refocus or to shim conveyor belts.

### Smart Self-Learning System

- Load the desired image and let the inspection system take it from there.
- Reduce production changeover time.
- Easy to use touch screen interface.

### Automatic & Scratch-Free Handling

- Synchronized rotary handling eliminates scratches.
- Spartanics’ proven expertise simplifies material handling.
- Cut labor costs and free up operators.

### Online Changes to Defect Tolerances

- Quickly evaluate alternate inspection parameters.
- Find the flexibility you need to meet production goals and maintain standards.
- Save the master card image and setup data for repetitive runs.

The advanced engineering of Spartanics 930 Card Inspection System delivers the most sensitive inspection while allowing for normal process variation. You will no longer generate large quantities of false rejects that require multiple re-inspections to complete the order. Card runs only require one inspection.

Spartanics 930 Card Inspection System is the world’s first true edge-to-edge inspection system that monitors variations in dimensional tolerances. This is important for all manufacturers of size-sensitive cards.

To prevent tedious setups and constant adjusting during operation, Spartanics 930 Card Inspection System uses ultra-stable solid state LED lighting where short 200 micro second LED strobe pulses freeze card motion. This form of illumination is proven to be the world’s most reliable and stable lighting. There is no longer a requirement for extremely consistent placement of the card about to be inspected. Now, Spartanics 930 can routinely inspect cards that are not perfectly positioned. The result is an easier to operate, more accurate inspection system designed for the plant floor.

Operators do not have to program the specifications for every area to be inspected. Spartanics 930 Card Inspection System learns what good cards look like and programs itself automatically.

Spartanics 930 Card Inspection System unique continuous rotary destacking system prevents scratching the product by cleanly picking cards off the stack and wheels cards into place for inspection. This vastly minimizes the problems that arise when cards slide across one another for placement in an inspection system.

It is not necessary for the operators to shut the system down in order to adjust tolerances that define acceptable product. Spartanics 930 Card Inspection System allows operators to make adjustments in defect tolerances as often as desired while the system is still running.

**Vision Camera —  
Front of Card**

**Dual Lane  
Output Conveyor**

**Card Loading**

**Vision Camera —  
Back of Card**

