

# Web Based Material Defects Detected

*Where the science of quality assurance is still an art!*

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Undetected defects often result in excessive costs for customer returns, repairs to sensitive production equipment, and machine downtime in today's high speed web manufacturing operations. The RKB machine vision inspection technologies, based on patented processing techniques, provides real time detection and categorization of holes, spots, dirt, coating streaks, and many other types of defects. Our technologies can be integrated with new or existing web manufacturing equipment and quality assurance systems. Our technologies help maximize the profitability of your manufacturing operations by providing production, maintenance, and setup personnel with immediate notification of defects and the information they need to quickly locate and correct defect producing conditions. Each system is designed to span the entire web width for 100% inspection of the web material. Now products can be fully qualified prior to shipment to customers. Our QAMS® Quality Assurance Management System software is also included with each system to provide complete data collection, analysis, reporting, setup, and diagnostic capabilities.

# DEFECT PICTORAL



Bad Edge

Bad Edge

Coating Skip

Coating Skip

Coating Skip



Coating Skip

Coating Skip

Coating Skip

Coating Skip

Coating Skip



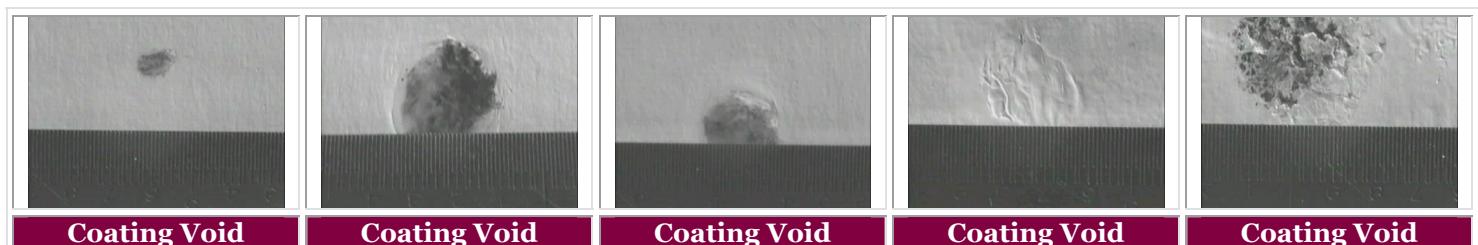
Coating Void

Coating Void

Coating Void

Coating Void

Coating Void



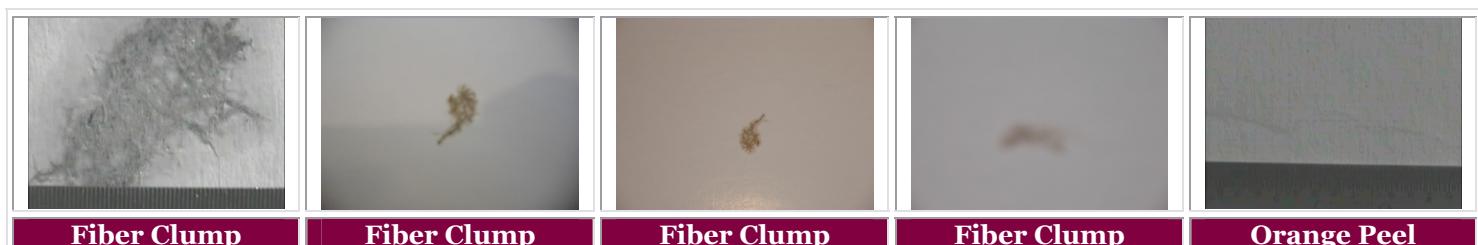
Coating Void

Coating Void

Coating Void

Coating Void

Coating Void



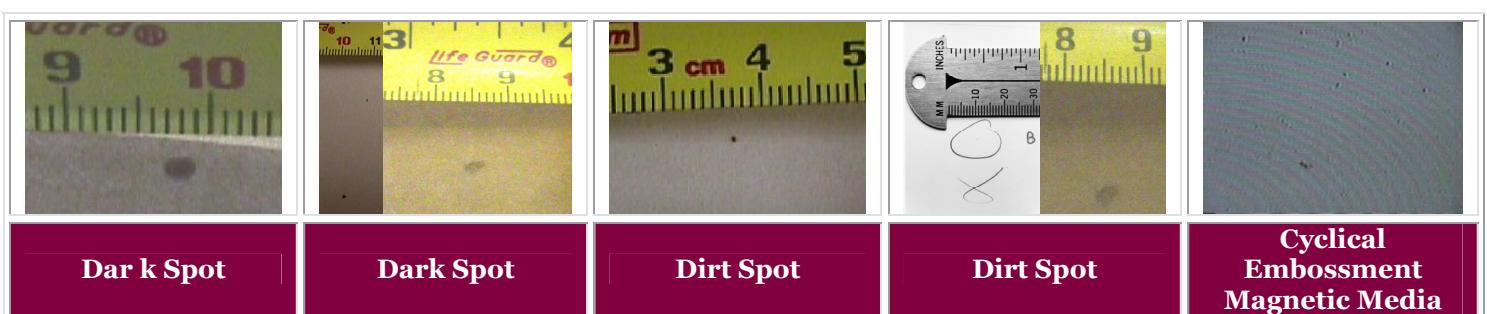
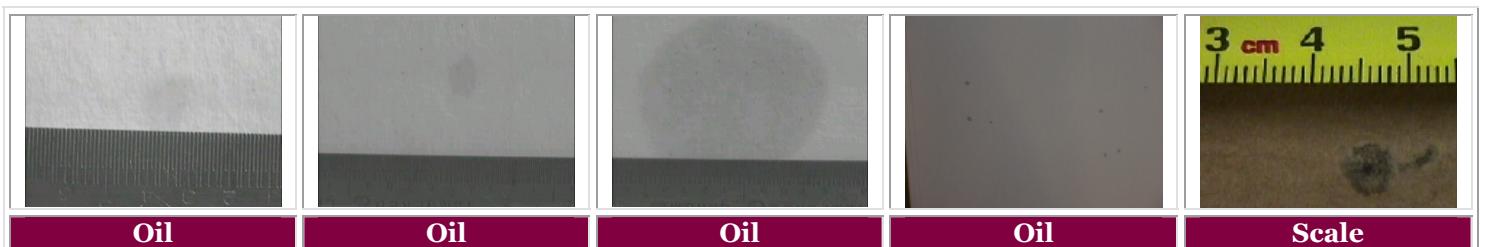
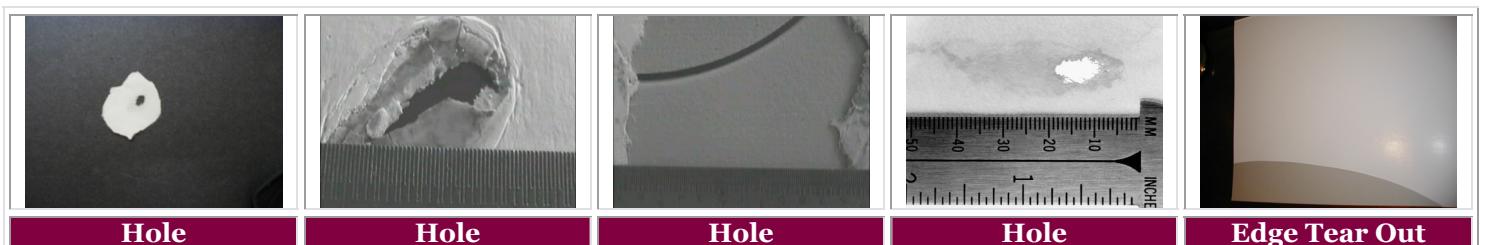
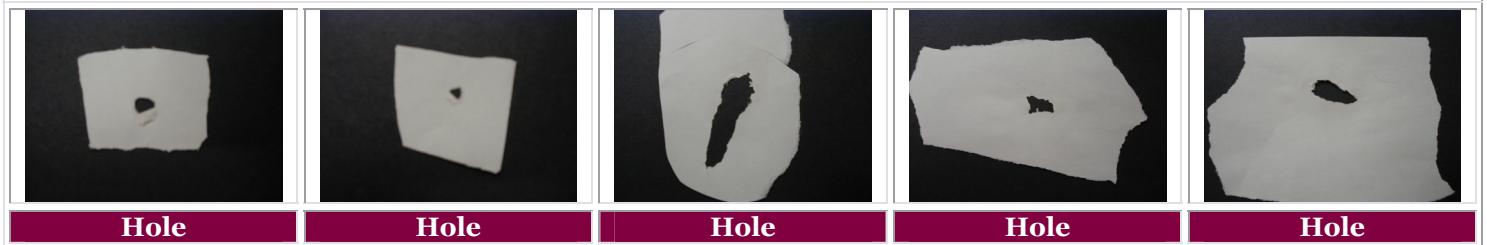
Fiber Clump

Fiber Clump

Fiber Clump

Fiber Clump

Orange Peel





**Unknown  
Magnetic Media**

**Cyclical  
Embossment  
Magnetic Media**

**Contamination  
Magnetic Media**

**Light Spot**

**Coating Streaks**



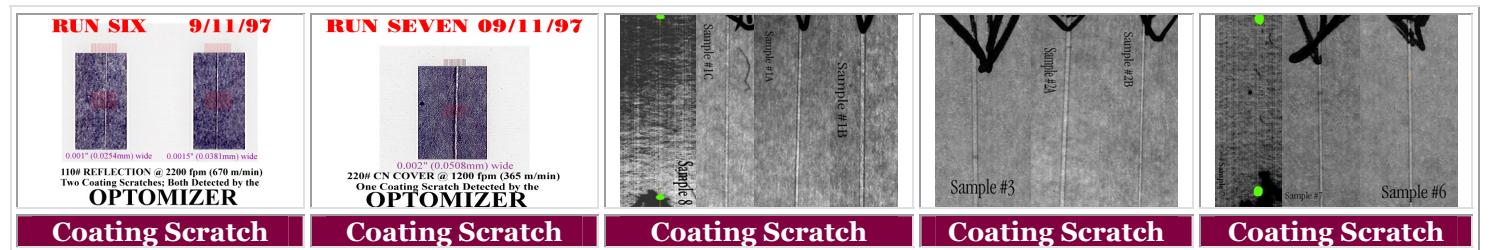
**Coating Scratch**

**RUN ONE 09/10/97**  
0.005" (0.127mm) wide  
110# REFLECTION @ 2200 fpm (670 m/min)  
One Coating Scratch Detected by the  
**OPTOMIZER**

**RUN TWO 09/10/97**  
0.005" (0.127mm) wide  
110# REFLECTION @ 2200 fpm (670 m/min)  
One Coating Scratch Detected by the  
**OPTOMIZER**

**RUN FOUR 9/11/97**  
< 0.001" (0.0254mm) wide  
110# REFLECTION @ 2200 fpm (670 m/min)  
One Coating Scratch; Detected by the  
**OPTOMIZER**

**RUN FIVE 09/10/97**  
0.004" (0.101mm) wide 0.005" (0.127mm) wide 0.007" (0.1778mm) wide  
110# REFLECTION @ 2200 fpm (670 m/min)  
Three Coating Scratches; Detected by the  
**OPTOMIZER**



**Coating Scratch**

**RUN SIX 9/11/97**  
0.001" (0.0254mm) wide 0.0015" (0.0381mm) wide  
110# REFLECTION @ 2200 fpm (670 m/min)  
Two Coating Scratches; Both Detected by the  
**OPTOMIZER**

**Coating Scratch**

**RUN SEVEN 09/11/97**  
0.002" (0.0508mm) wide  
220# CN COVER @ 1200 fpm (365 m/min)  
One Coating Scratch Detected by the  
**OPTOMIZER**

**Coating Scratch**

Sample #1A  
Sample #1B  
Sample #2A  
Sample #3

Sample #2B  
Sample #4  
Sample #5  
Sample #6



**Coating Streak**

**Coating Streak**

**Coating Streak**

**Coating Streak**

**Coating Streak**



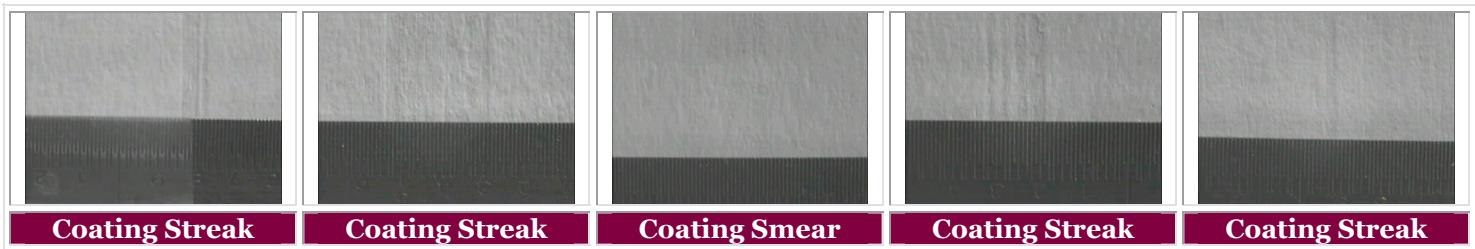
**Coating Streak**

**Coating Scratch**

**Coating Scratch**

**Coating Scratch**

**Coating Streak**



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