

Optional

Pitat!I System

Increase efficiency of rewinding inspection and defect elimination

Gallery Type C

Image filing & defect data analyzing system

Labeler

Label marks on the edge of sheet

Pitat!II System

Increase efficiency of defect elimination after in-line inspection

AI Defect Classification

Auto defect classification for filing
Voice notification of defect kind

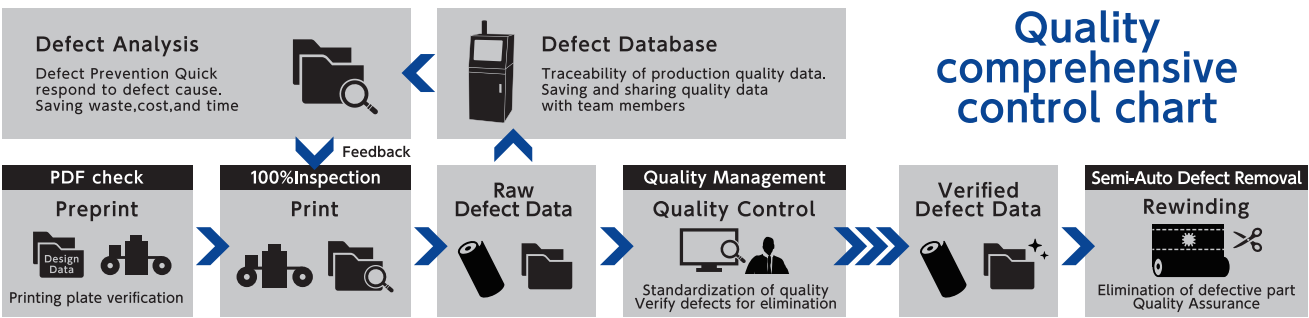
BEAT Vision

Web monitoring system with 2 mega-pixel camera

Voice Recognition

Operate inspection system with voice recognition

Flowchart



Specification

Model	XLCH402B(1300)	XCCH1201A
Inspection material	Film, Paper (Aluminum is discussed separately)	
Inspection width	1300mm	1200mm
Inspection repeat length	375~1000mm (For other than this repeat length, will be discussed separately.)	
Camera	CMOS 4K full color digital sensor ×2	Coco sensor ×1
Inspection Speed	Max.1000m/min	
Camera resolution	0.16mm	0.17mm
Defect image filing	Max 130 images/sec (blink display, in order of size)	
Power consumption	600VA (1KVA is required in consideration for transient property)	
Ambient temperature	5-40°C (install in a way avoiding vibration)	
Ambient humidity	20-80% (Without condensation)	

We also have Trinity / Prenity series for special requirement or specification.

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Change the factory

Evolution Begins

HS
Crossover

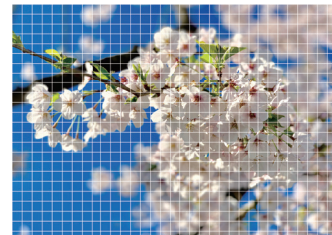
Crossover HS ,The Best Inspection System Specialized in Web Printing



Watch DAC
product movies

High Speed Scanning

Crossover HS, named for its high speed, has been further enhanced by the use of hardware acceleration technology and the newly developed ultra-high speed LSI. Display resolution and inspection resolution are the same, and 100% inspection at high resolution of 1:1 (0.16mm x 0.16mm) pixel aspect ratio, even at high speed is achieved.



Digital camera 170MHz
Crossover HS



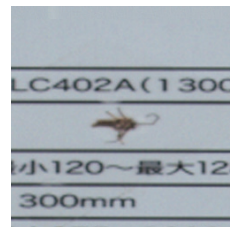
Digital camera 70MHz
Crossover

AI super resolution improves display images greatly

AI based super resolution technology and high speed scanning technology have greatly improved the image quality. The sharpness and clearness of images does not change even images are enlarged. The more realistic images help operator to identify defects easier.



Crossover HS



Crossover

Carrying on compact configuration to Crossover HS

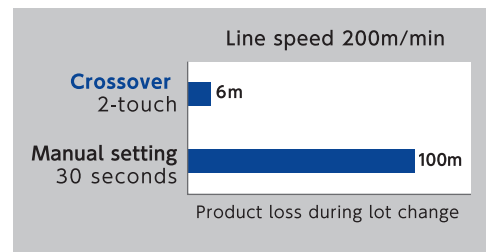
Crossover's all-in-one camera unit has been highly evaluated since it was first released in 2009. Crossover does not need additional intermediary power box or any other units to be placed on the floor.

Crossover HS, inheriting the same compact configuration with conventional Crossover, does not occupy the valuable space in the factory and secure the operators' flow line freely to increase work efficiency.



Outstanding simple operation (2 touch operation)

We developed the simple operation with the aim of making the inspection system for smooth production work. The simple operation which automatically adjusts the width and repeat length of sheet shortens the time to start inspection and minimizes product loss at lot change. All detected defect images are recorded in the history folder and operators can use filtering function to quickly classify defect images according to their size and kind for next process such as checking and elimination.



Voice recognition(*1)[optional]

The latest voice recognition technology provides smart support for a variety of situations, such as when operators are busy with other tasks, when their hands are full, or hands are dirty with inks. It enables operation from a distance(*2) without going back to the monitor and can be used in noisy factories.(*3)

(*1)The gravure industry's first voice recognition

(*2)Valid distance is 30 meters or less depending on the radio wave environment

(*3)Noise level: 80dB or less

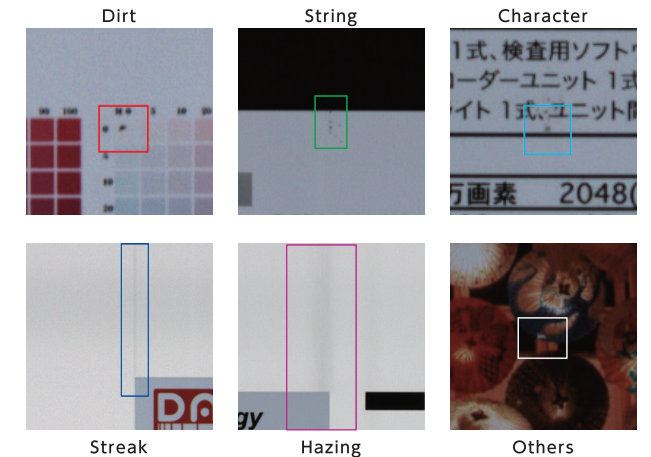
Six inspection circuits specializing in gravure printing

Crossover does not use general image processing software to inspect but with **in-house developed image processing board** (LSI). And six special inspection circuits designed for gravure printing inspect dirt, string, character, streak, hazing, and other defects with high resolution at high speed.

AI defect classification(*1)[optional]

DAC's AI technology, **Auto Defect Classification Function**, subdivides detected defects into groups and it helps operator to review defects data quickly and more efficiently. In addition, it is also possible to announce the classified defects with voice notification.

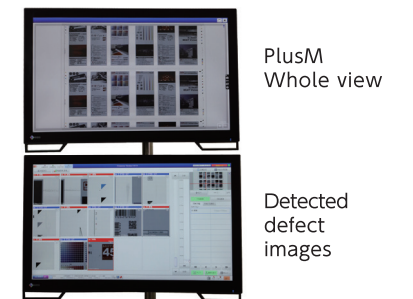
(*1)The gravure industry's first defect classification and voice announcement function



Dual monitor (Plus M)

Additional web monitoring display, Plus M, enables for operators to check the state of the sheet in real time with full HD screen during inspection. Display can easily be navigate to the designated location to view the entire image or enlarged image just by tapping screen.

With Plus M, it is possible to check the print status, registration status, and continuous defects all the time.



Coco sensor can be installed anywhere

Compact sensor unit with integrated lighting, Coco sensor, **can be installed in narrow spaces** without mounting large brackets. And it also can reduce the cost of additional rolls to change paths for surface printing and reverse printing.(*1)

Unlike camera lens, Crossover Coco's distortion-free sensor enables perfect comparison between captured sheet image and design data image.(*2) Design data comparison ensures the quality of printing plate and master image on pre-printing process.

(*1)Patent pending (*2)Using MERCY-touch



Remote Support

IoT technology allows DAC Remote Support Center(*1) to connect to Crossover HS, supports quick identification of equipment failures and other situations for appropriate response. Real-time support minimizes the loss and operators can use the system with confidence.

(*1) A maintenance support contract is required