



SE100

Visual inspection machine

The challenge of “Not overlooking scratches”

Inspection and measurement technology provided by JUKI release you from visual inspection work at the field



Case example of SE100 instrumentation
(incorporation of inspection section)

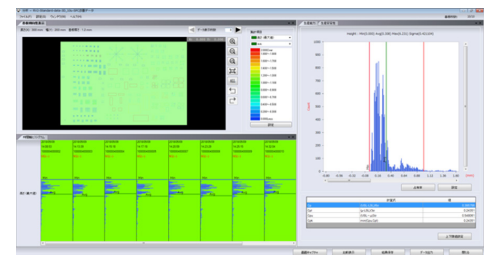
Building the quality traceability

Realizing the traceable inspection process



Quality improvement by utilizing DX

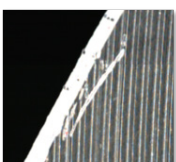
Production quality control by SPC



- Histogram and X-bar control chart (visualization of data)
- Identifying the location of cause from histogram outliers (improvement of quality)
- Comparing and displaying statistical results between lines to analyze the capacity differences between production lines

Typical defect detection example

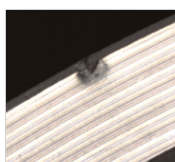
Scratch



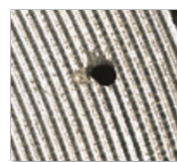
Dent



Chipping



Blowhole



Rust



Wall thickness
(overlay)

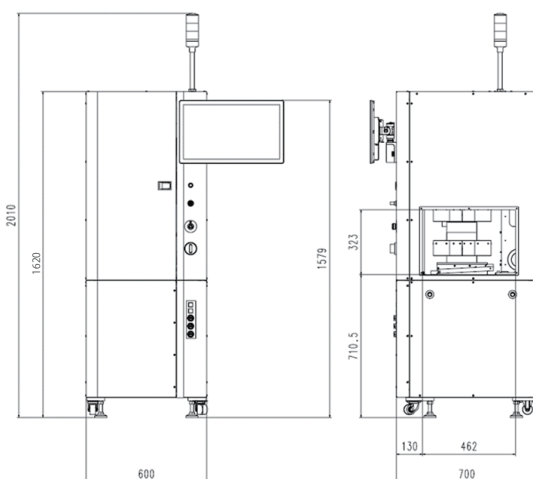
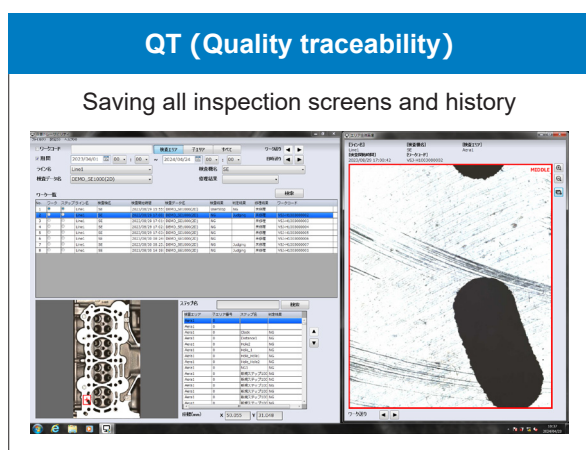


■ SE100 main specifications

Inspection unit	Camera		1200-million-pixel CMOS monochrome camera (standard)		1200-million-pixel CMOS color camera (OP)	
	Lighting unit		White LED 3 levels (top, middle, bottom) + coaxial lighting			
	Inspection resolution		11.5um (standard)	5.75um (OP)	12um (OP)	5um (OP)
	Depth of field		6mm	3mm	1.5mm	0.5mm
	FOV		46.0 x 34.0mm	23.0 x 17.0mm	48.0 x 36.0mm	20.0 x 15.0mm
	Inspection time		2D: 1.0 s or less, 2D + i3D: 2.4 s or less			
Common area	Size of workpiece that can be mounted		150 x 150 x 150mm, 20kg or less			
	Motion axis		Manual Z-axis (standard), Automatic Z-axis (OP)			
	Environment	During use	Temperature: ambient temperature + 15°C to +35°C, humidity: 30% to 65% (with no condensation)			
		During storage	Temperature: ambient temperature + 10°C to +60°C, humidity: 30% to 80% (with no condensation)			
	Device size		600mm × 700mm × 1,620mm (W, D, H) excluding signal tower			
	Device weight		210kg			
	Power supply		Single-phase 200V AC, 50/60 Hz, 0.6kVA			
	Air		None			
OP	Oil mist collector		Specifications			
	Power supply		Three-phase AC 200V to 230V, 50/60Hz, 0.55kw			
	Equipment weight		40kg			

■ Software options (TOPSS Total Operation Software System)

- Offline system software Creating an inspection program without using the actual machine (possible to confirm a program using creation and edit, and an offline image)
- Repair system software Post-correction process support function (possible to display defective part and defective content (image) and record the correction result based on the NG judgment result)
- CCC Remote concentrated judgment function (possible to execute inspection judgment on an online PC)
- SPC Possible to perform statistical management based on the information required for production quality management
- QT Quality traceability function (possible to save and search all inspection images and inspection result history)



External dimensions of device
 External dimensions W=600 D=700 H=1620
 * Excluding monitor / signal tower

Manufacturer / distributor
 Contact information

JUKI CORPORATION
GROUP BUSINESS COMPANY
INSPECTION & MEASUREMENT BUSINESS DEPARTMENT
 2-11-1, TSURUMAKI, TAMA-SHI, TOKYO 206-8551,
 TEL. +81-42-357-2279 FAX. +81-42-357-2380
<https://www.juki.co.jp/automation/solution/inspection/>



Dedicated website