

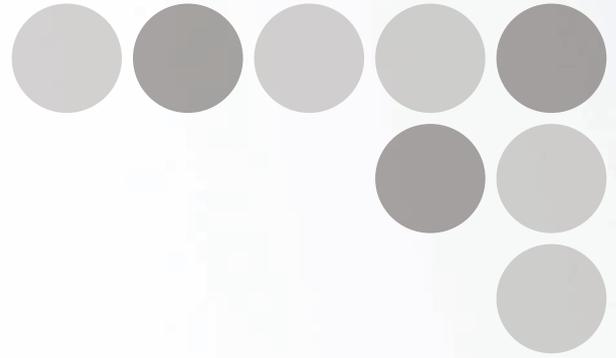
**NEW**

Inline PCB inspection system  
VT-S720

**OMRON**

Best Quality at the Minimum Q Cost!

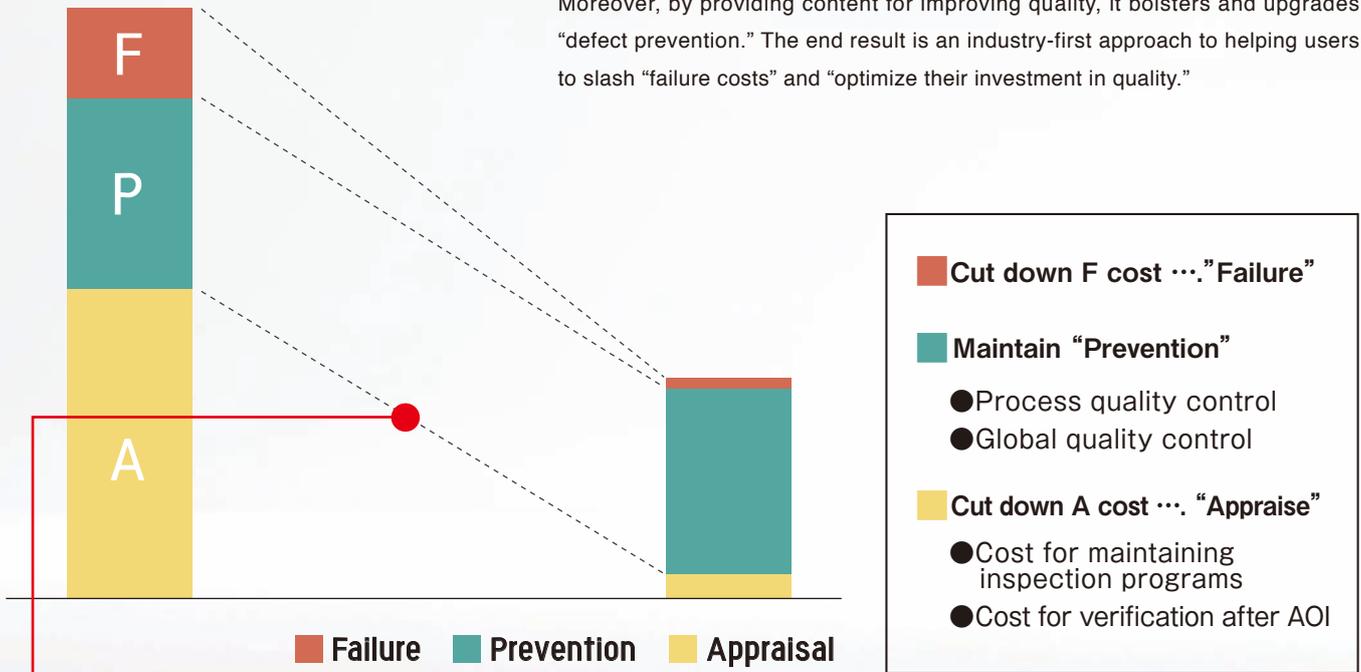
# VT-S720



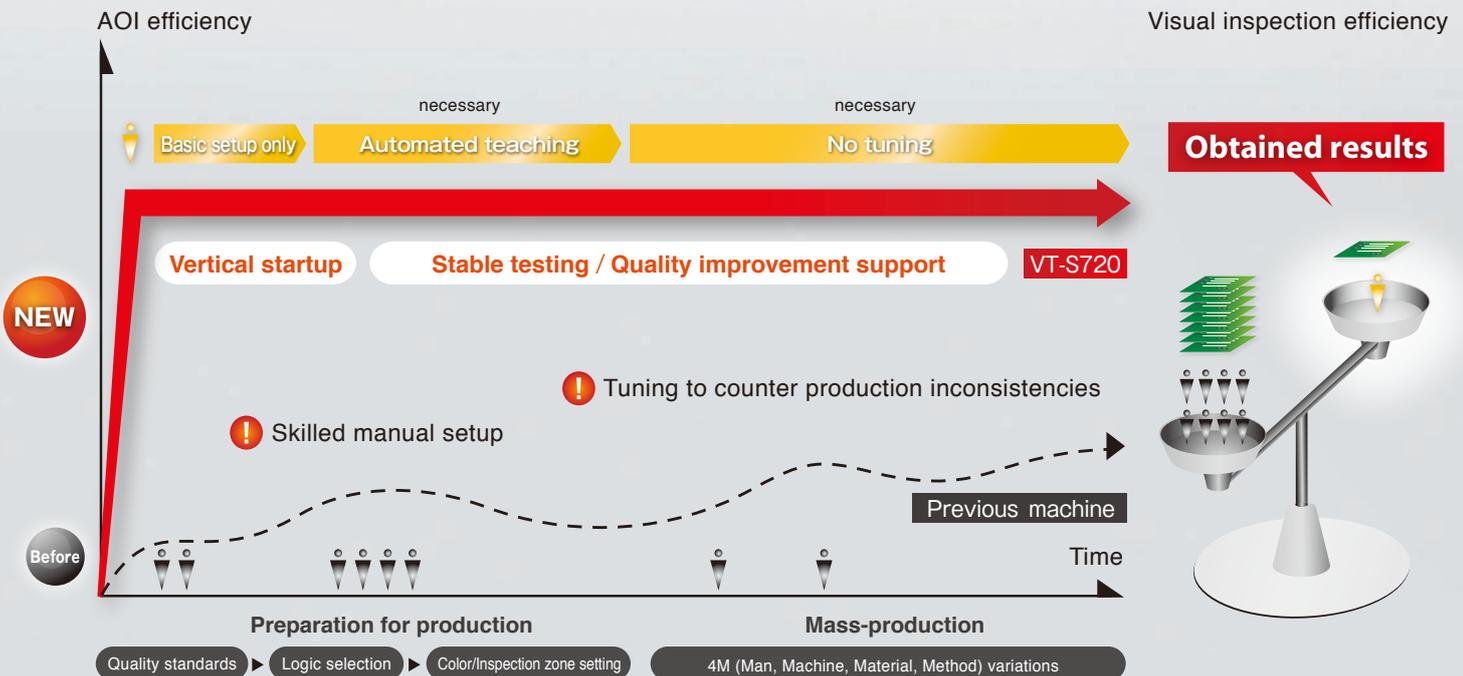
realizing

# Best Quality at the Minimum Q Cost!

The VT-S720 is a new concept in AOI. With a revolutionary inspection system, it greatly reduces “inspection costs” that have plagued AOI for some time. Moreover, by providing content for improving quality, it bolsters and upgrades “defect prevention.” The end result is an industry-first approach to helping users to slash “failure costs” and “optimize their investment in quality.”

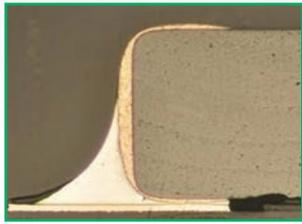


## A Reduction in inspection costs

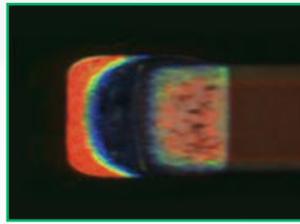


# Direct inspection of "fillet features"

Soldering reliability is determined by fillet shape.  
 The VT-S720 uses new image processing technology to automatically sample fillet topological features. **Patent Pending**



Actual image



Captured image

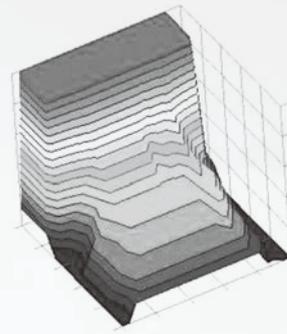


Image after internal processing

## Pass level definition

Features of passing products are input into the inspection machine as required quality levels.

**Patent Pending**



Teaching window

## Process monitoring

Constant monitoring of production makes it possible to spot inspection troubles instantly, giving users a system optimized for improving both productivity and quality.



Monitoring of process stability



Production status window



Monitoring of impact from product inconsistencies



Monitoring of process threshold adequacy

# Manufacturing that begins with quality

## Passing product ascertainment

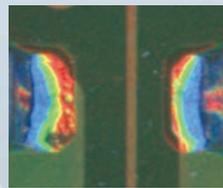
### Inconsistency monitoring

The VT-S720 absorbs inconsistencies in order to stabilize mass-production.



### Reduced noise impact

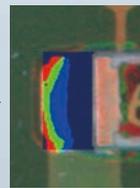
Parameters have been optimally set to pick up gradations unperceived by humans, and automatically separate good from bad products.



Example image of secondary reflection



Previous machine

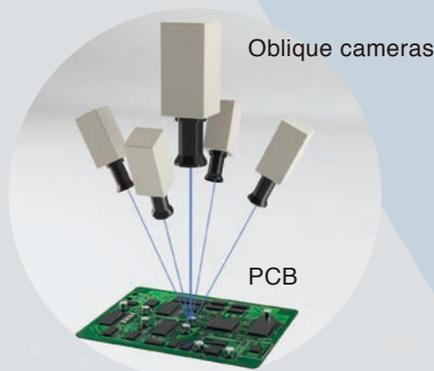


VT-S720

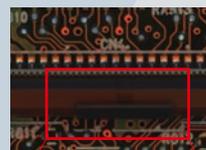
## AOI Inspection Coverage Expansion

### Oblique cameras

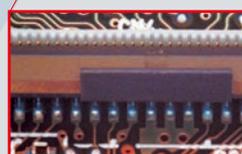
The camera array captures features that cannot be seen square on.



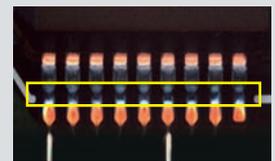
Oblique camera array



Oblique angle  
 Straight-on shot of connectors



Oblique image  
 (Red frame in straight-on shot)



PLCC  
 Oblique image  
 (Red frame in straight-on shot)



PLCC  
 Straight-on shot of connectors

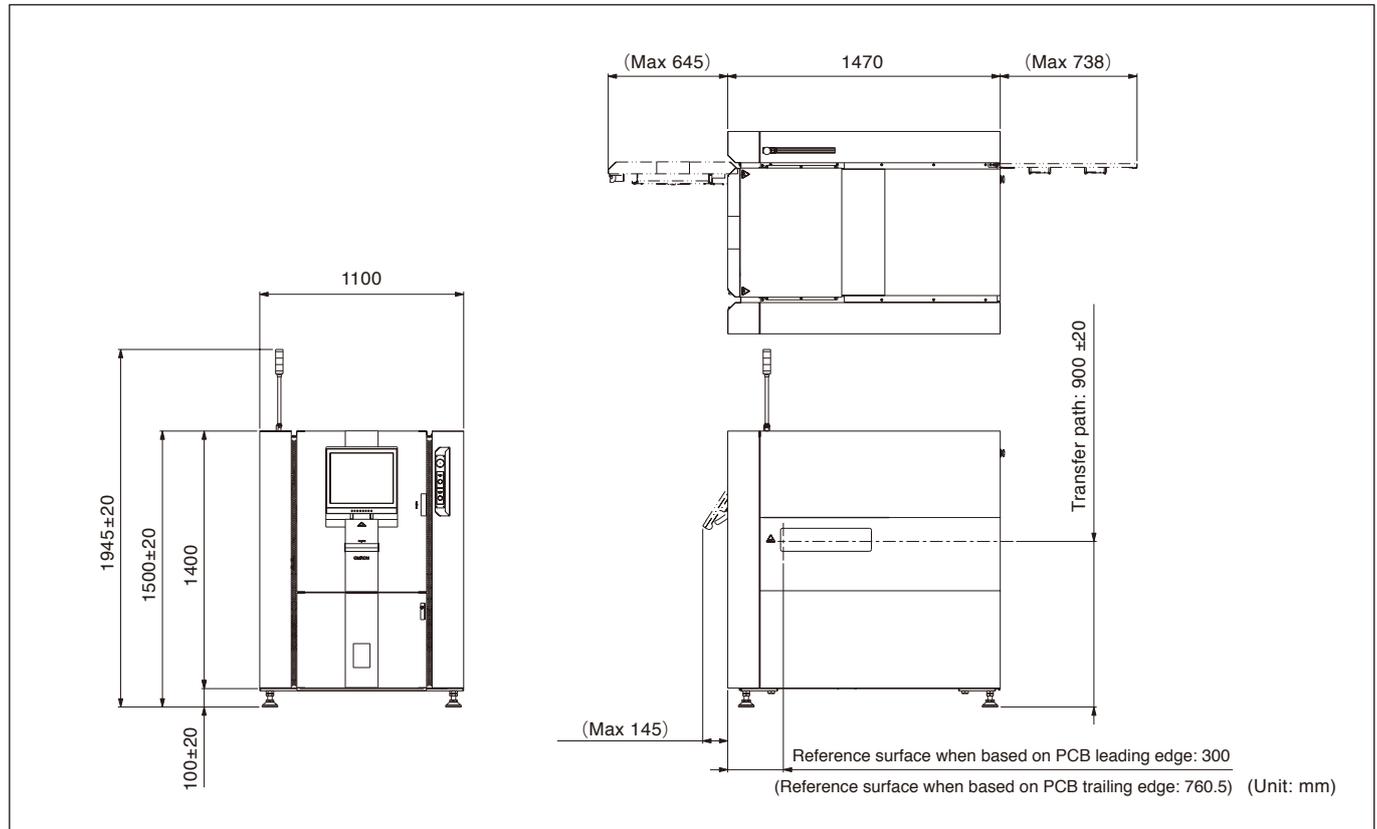
## Hardware Configuration

		L size
Image signal input unit	Camera	3-CCD camera/ Telecentric lens
	Illumination	Ring-shaped LEDs(R,G,B)
	Image resolution	20, 15 $\mu$ m
Main unit	Feed method	Belt
	Line height	900 $\pm$ 20mm Adjustment from adjustable feet
	PCB carrier width adjustment	Automatic
Power supply	AC200~240V(single phase) Fluctuation $\pm$ 10% (Rated power on model plate supplied)	
Air	0.3 to 0.6Mpa	
Ambient operating temperature	+10 to +35°C	
Ambient operating humidity	30% to 80%RH(with no condensation)	
Weight	Approx. 800Kg	
Dimensions	1100(W) $\times$ 1470(D) $\times$ 1500(H)mm	

## Functional Specifications

		L size
Inspectable PCBs	Type	Post-reflow
	Dimensions	50(W) $\times$ 50(D)~510(W) $\times$ 460(D)mm
	Thickness	0.4~4.0mm
Clearance	Above PCB : 40mm Below PCB : 40mm	
Inspection items	Missing components, wrong components, component shifting (X/Y/skewing), fillets (wettability angle, height, length, width of the tip, length of the side) Exposed land, Polarity shifting, Polarity lifting Solder balls, bridging, objects	
Number of inspection points	10,000 components/PCB max.	
Data storage	Special DB	
Communications	Ethernet, RS-232C	
PCB feed mode	Through	
Reference position	PCB feed direction : left or right Longitudinal : Front or back	

## Outer dimensions



- This document provides information mainly for selecting suitable models. Please read the Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.
- This product may cause interference if used in residential areas.

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