

## In-Line 3D Solder Paste Inspection System

# BF-3Si

### Compatibility with Saki BF-2 AOI Systems

The user-friendly Saki's BF2 operating system allows network compatibility with all Saki BF2 AOI series.



### High Speed and Precision Inspection System

The newly developed Phase Measurement Profilometer Technology with LCOS(Liquid Crystal On Silicon) ensures high inspection repeatability. The height and volume inspection repeatability is rated +/- 3µm, with a Gauge Repeatability and Reproducibility(GR&R) of less than 10%. BF-3Si is one of the world's fastest solder paste inspection systems in 2 projection solder paste inspection systems.

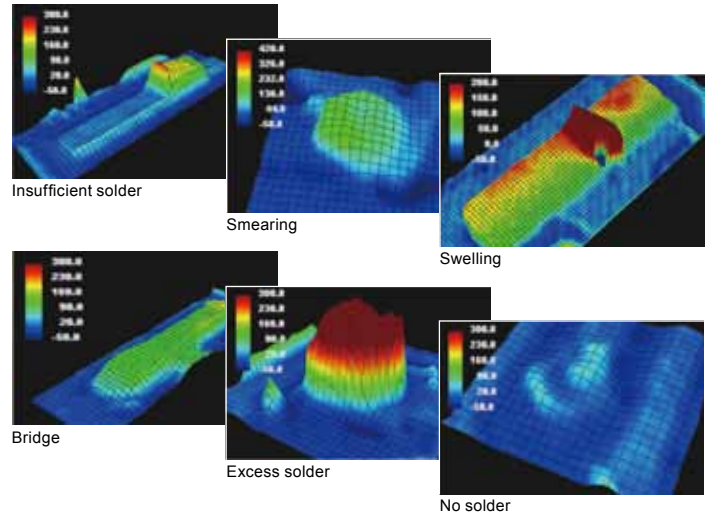
### Closed Loop Function

Not only measuring the shape solder paste, BF-3Si enables to feed back inspection data to front-end process which extremely minimize solder defects to the post-process.



### Solder Paste Inspection based on 3D data

Advanced analysis capability is achieved by integrating original, state-of-the-art Saki 3D measurement technology. This allows the system to easily rotate, enlarge, and reduce images.



### Data Analysis

Process-control chart can be shown in real time, and past data can be shown by the hour.

### 2D and 3D Inspection

BF-3Si inspects PCB with a combination of 2D images and 3D images. The coordinates adjustment is corrected by detecting fiducial mark from 2D images and the height information is accurately calculated by zero point adjustment of each PAD from 3D images.



Black & White Image

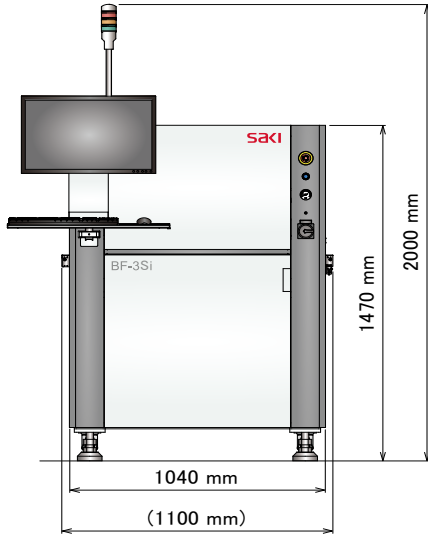


Color Image

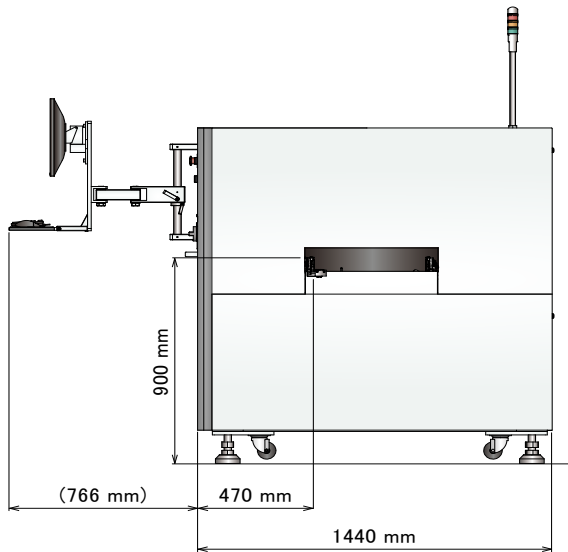


**External View**

■ Front View



■ Side View



**Product Specifications**

Model Name	BF-3Si
Horizontal Resolution	18 $\mu$ m
Vertical Resolution	0.33 $\mu$ m
Repeatability	2 $\mu$ m (3 $\sigma$ ) or less
PCB Size	50 x 60 - 460 x 510 mm
PCB Thickness	0.6 - 3.2 mm
PCB Warp	+/- 2 mm
PCB Clearance	Top : 40 mm Bottom : 40 mm
Inspection Categories	Height, Volume, Area, Bridge, Shift, Form
Camera(Image capture)	CMOS Area Camera
Lighting	2-way Projection System with Multistage Ring Light
FOV Size	36 mm $\times$ 36 mm
Inspection Speed	33.75 cm <sup>2</sup> /s
PCB Load/Unload Time	Approx. 5 sec.
Conveyor Method	Flat Belt Transfer
Conveyor Height	900 +/-20 mm
Width Adjustment	Automatic
Operating System	Windows 7 English Version

**System Requirements**

Electric Power	Single Phase ~ 200 to 240V +/-10%, 50/60Hz
Power Consumption	1.3kVA
Air Requirement	0.5 MPa, 5 L/min (ANR)
Usage Environment	15°C (59°F) to 30°C (86°F) / 15 to 80% RH (Non-condensing)
Dimensions W x D x H	1040 x 1440 x 1470 mm (40.94 x 56.69 x 57.87 in.)
Weight	Approx. 870 kg (1,918 lbs)

**Optional Systems**

BF2-Editor
BF2-Monitor

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