VISCOM vision technology

# S3088 *ultra chrome* | SPI system

**Extremely high throughput due to FastFlow Handling**

**Enhanced quality and speed of inspection**

**Four angled views for shadow-free inspection images**

**High reproducibility**

**Very easy operation: color images for verification and efficient program generation**

**Viscom Quality Uplink for best first-pass yield results**

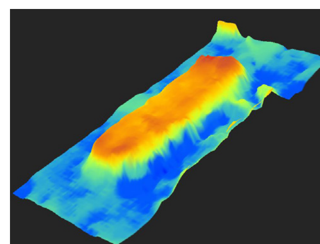
3D SPI

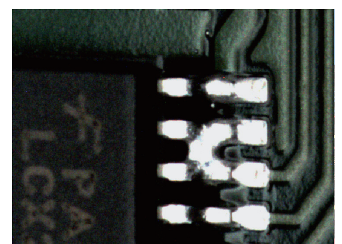
## High throughput 3D solder paste inspection with maximum inspection quality

The S3088 *ultra chrome* is a 3D SPI system that offers unbeatable advantages to maximize cost efficiency in SMT production. Key features include an inspection speed of 90 $cm^2/s$ and a field of view size of 58.2 mm by 58.2 mm. The orthogonal optical resolution is 10 µm and is combined with four angled views to deliver perfect, shadow-free inspection results – which are key for very small inspection areas. Viscom's optional FastFlow handling offers extremely high throughput rates. Assemblies are synchronously infed and outfed at high speed.

This system, configured to meet optimum cost/benefit aspects, is based on the unique and proven XM camera technology from Viscom and combines precise defect detection with the highest inspection speed. The S3088 *ultra chrome* inspects all quality criteria for solder paste deposits, including volume, shape, surface, height, offset, paste bridges and paste smearing.

Evaluating the 3D measurement data and linking the results via Quality Uplink with the paste printer, placement system, AOI and AXI allows for effective process control and sustainable quality improvement. In this way, Viscom's 3D SPI system delivers indications of process weaknesses that can be automatically adapted, e.g. adjusting the screen cleaning cycles or correcting print displacement or placement offset.


Color-assisted 3D solder paste volume calculation


Paste bridge after soldering

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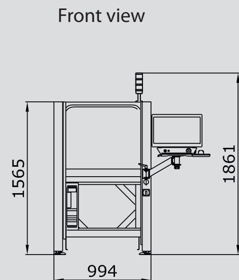
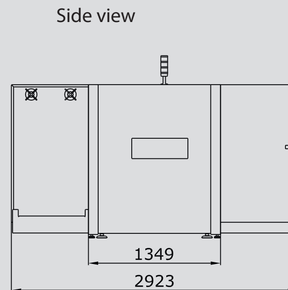
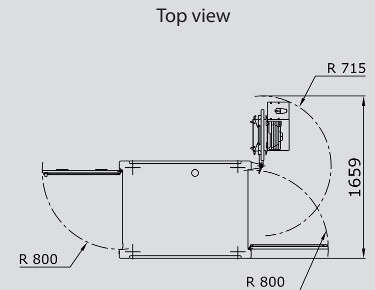
# Technical specifications




Dimensions in mm

| | | **S3088 *ultra chrome* \| SPI system** |
|---|---|---|
| **Inspection scope** | 3D SPI | Inspection of solder paste possible deposits, stencil printing and dispensing technology (up to pad sizes for 01005 components) as well as sinter paste; inspection of component presence, surface, height, print displacement (X/Y offset), paste smearing and, as options: shape, coplanarity, open area analysis, OCR and DCM |
| **Camera technology** | **3D camera technology** | |
| | Measuring procedure | Fringe projection process |
| | Z-resolution | 0.1 µm |
| | **Angled view cameras** | |
| | Number of megapixel cameras | 4 |
| | **Orthogonal camera** | |
| | Resolution | 10 µm high resolution, 20 µm standard resolution |
| | Field of view size | 58.2 mm x 58.2 mm (2.3" x 2.3") |
| **Performance data** | Repeat accuracy of height measurement | 2 µm (on certification target), height <<10% @ 6 σ (on certification target) |
| | Paste height | max. 4,000 µm |
| **Software** | User interface | Viscom vVision/EasyPro |
| | Statistical process control | Viscom SPC/vSPC, open interface (optional) |
| | Verification station | Viscom vVerify/HARAN |
| | Remote diagnosis | Viscom SRC (software remote control) (optional) |
| | Programming station | Viscom PST34 (optional) |
| **System computer** | Operating system | Windows® |
| | Processor | Intel® Core™ i7 |
| **PCB handling** | Transport concept | Single lane (dual lane as S3088 DT system) |
| | Printed circuit board size (L x W) | 508 mm x 508 mm (20" x 20"), LongBoard option available |
| | Transfer height | 850 - 950 mm ± 20 mm (33.5" - 37.4" ± 0.8") |
| | Width adjustment | Automatic |
| | PCB clamping | Pneumatic |
| | Upper transport clearance (max.) | 50 mm (2") |
| | Lower transport clearance | 50 (2") mm, up to 85 mm (3.3") optional (with Fastflow 49 mm (1.9")) |
| **Inspection speed** | | Max. 90 cm²/s |
| **Other system data** | Positioning unit | Synchronous linear motors |
| | Interfaces | SMEMA (standard), IPC Hermes standard, other interfaces on request |
| | Power requirements | 400 V (other voltages on request), 3P/N/PE, 8 A, 4–6 bar working pressure |
| | System dimensions | 994 mm x 1565 mm x 1349 mm (39.1" x 61.6" x 53.1") (W x H x D) |
| | Weight | 720 kg (1587 lbs) |

Specifications subject to change without notice. Windows® and Intel® Core™ i7 are registered trademarks.

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