

# RVSI WS-3800 Wafer Inspection System



## EQUIPMENT DATASHEET

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### Tool Configuration :

Item List		Notes
Manufacturer:	RVSI Inspection	
Model:	WS-3800	
Wafer Size:	200mm/300mm	
Vintage:	2007	
Part # / Name	72000	
Serial No:	WS-3029	
Rated voltage:	1 Phase 120V $\pm$ 10%	
Rated Frequency:	50/60Hz	
Rated Current CB1:	30A	
Interrupting Capacity:	10,000A CB1-CB6	
Typical load:	16A	
Maximum Load:	22A	
Rating Of Largest Load:	10A	
Tool Condition:	Used	
Other:	<ul style="list-style-type: none"><li>➤ Weight: 1883kg</li><li>➤ Width: 1817mm</li><li>➤ Depth: 1277mm</li><li>➤ Height: 2159mm</li></ul>	

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### The descriptions of major assemblies & components :

- |                                       |                            |
|---------------------------------------|----------------------------|
| 1. Wafer handler system               | 9. Scanner module (upper)  |
| 2. Load-port A and load-port B        | 10. Electronics module     |
| 3. Computer keyboard                  | 11. Scanner module (lower) |
| 4. Monitors                           | 12. System front panel     |
| 5. Emergency machine off switch (EMO) | UPS power control switch   |
| 6. Beacon                             | Key switch                 |
| 7. (Optional) Mini-environment        | E-stop switch              |
| 8. Filtering assembly                 |                            |

### Minimum size for surface defect detection :

Lens magnification	Pixel size	Minimum defect
2.5X	5.2 $\mu$ m	10 $\mu$ m
5X	2.6 $\mu$ m	5 $\mu$ m
10X	1.3 $\mu$ m	2.5 $\mu$ m

### System performance specifications :

Features	Minimum requirements
Minimum bump diameter for spherical bumps	50 $\mu$ m
Minimum bump length & width for rectangular bumps	50 $\mu$ m
Minimum bump height	10 $\mu$ m
Height resolution (3D option)	0.25 $\mu$ m
Depth of field (3D option)	400 $\mu$ m
Communication interface	SECSII/GEM
Part change-over time	Software-controlled, menu-selectable
Wafer handling	Fully automatic wafer load/unload from standard cassettes
3D structured light, CDRH class 1 "eye-safe"	(3D option)

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## Solder bump measurement accuracy & repeatability :

Measurement	Accuracy	Repeatability
Bump height (standard sensor)	$\pm 1.0\mu\text{m}$	$\pm 1.5\mu\text{m}@3\sigma$
Bump coplanarity (standard sensor)	$\pm 1.0\mu\text{m}$	$\pm 1.5\mu\text{m}@3\sigma$
Bump height (enhanced gold bump sensor)	$\pm 0.5\mu\text{m}$	$\pm 0.75\mu\text{m}@3\sigma$
Bump coplanarity (enhanced gold bump sensor)	$\pm 0.5\mu\text{m}$	$\pm 0.75\mu\text{m}@3\sigma$
Bump diameter, length & width	$\pm 2.8\mu\text{m}$	$\pm 2.8\mu\text{m}@3\sigma$
Bump global true position	$\pm 2.8\mu\text{m}$	$\pm 2.8\mu\text{m}@3\sigma$

## Photos :

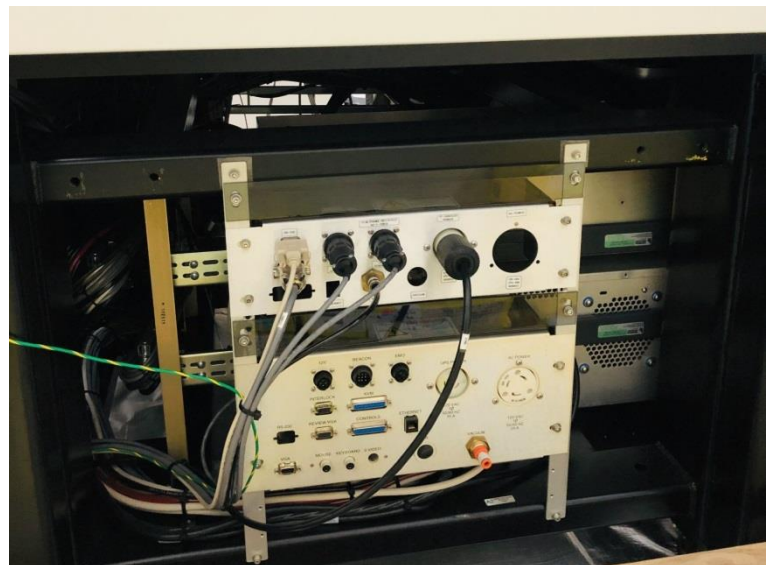


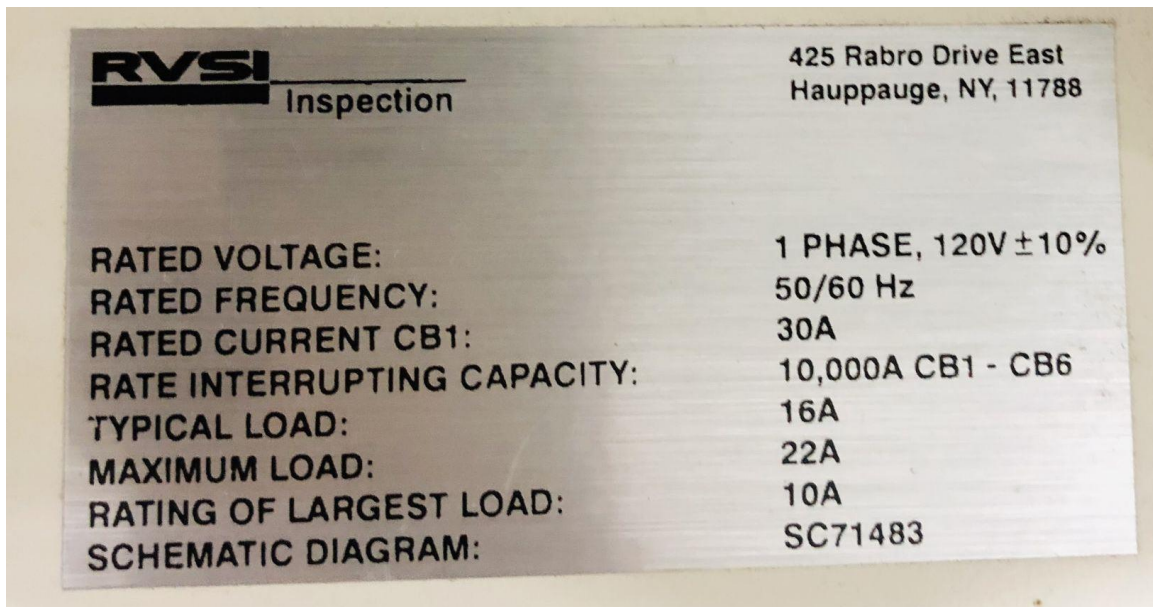
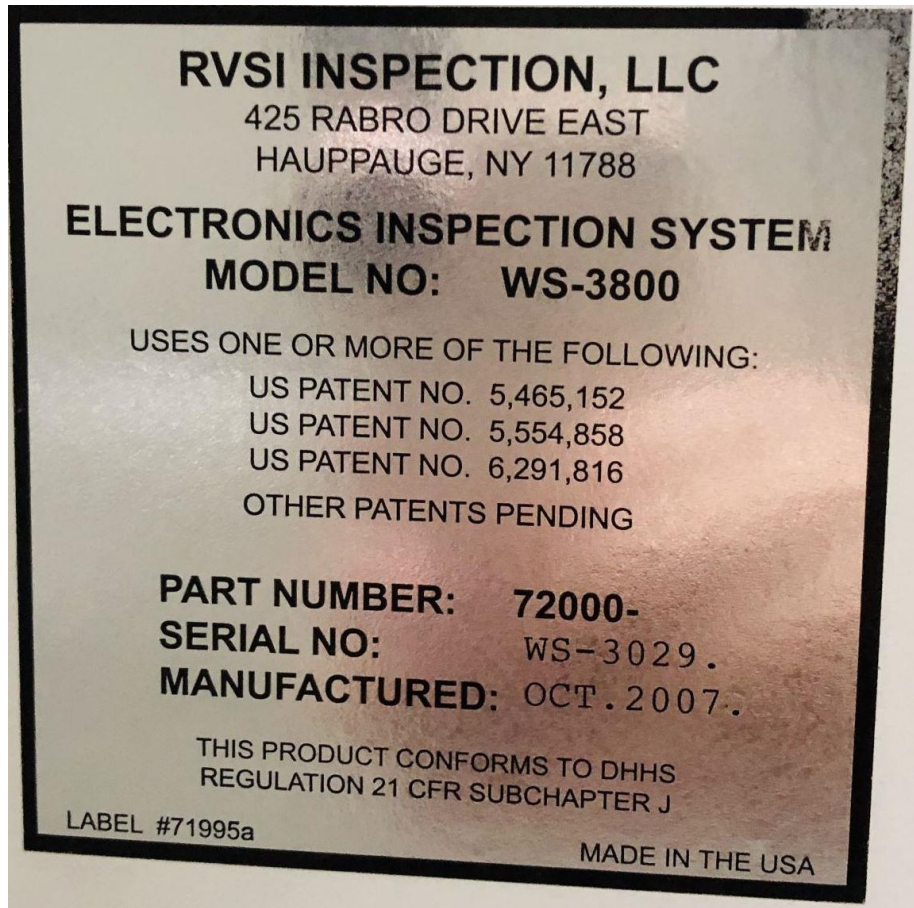




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