. Equipment/Engineering Name: SP1-DLS

II. Budget (Project) No.:

Equipment/Engineering/Process Specifications

3-1 Facility requirements:

Utility	Gauge	Remarks
Phase/Voltage/Frequency (HZ)	200-240VAC50/60Hz (8.0kVA peak usage) 3 phase	
Current/Power	30A	
Air gas source (type)	Type: 1. VACUUM Tube diameter: 1/4 "Pressure: 635.4 mm (25" + -5%)	

3-2 Equipment specification:

1. Sender station & Receiver station 2 Load Port, One is for 8",Another one is for 12".
2. Vacuum handler robot.
3. 18 "monitor LCD (external hanging) (adjustable screen size).
4. Computer system (include network card).
5. Operating System: Windows NT 4.0 OS above.
6. Application System: software version 4.1 above.
7. Light Tower.
8. The data uploading and Uploading scanned images.
9. Measuring range and specification:

Supported Sizes: 200 mm & 300 mm

Dual Dark Field Collection Channels

Bright Field Collection Channels

Enhances the ability to capture and distinguish all variations of pits including crystal originated pits, or COPs from particles.

Defect Sensitivity (bare Si substrate @ > 95% capture rate): (PSL wafers prepare by)

Illumination Normal and Oblique

Normal Illumination-0.0083 Defect Sensitivity

Oblique Illumination-0.060 Defect Sensitivity

XY Coordinates (optional): (XY wafers prepare by)

95th percentile illumination = 15 um radius, normal or oblique, high Sensitivity Mode

95th percentile illumination = 50 um radius, normal or oblique, High Throughout Mode

Repeatability:

Count: CV * = 1.0% (Mean count > 5000, 0.155 um diameter latex spheres)

Sizing: CV* = 1% for calibrated sphere < 0.3 um

CV* ≤ 5% for calibrated sphere sizes ≥0.3 um

* CV = coefficient of variance, s/u

TFT FLAT PANEL Display

Parallel Printer Port

Defect Map and Histogram with Zoom

Micro View Measurement Capability

Clear Side Panels for Wafer Environment Protection

Cassette Size recognition

Ulpa Filter and Blower Unit for Wide Handling Module for class 1

Ionizer Bar

Edge Exclusion

≥3 mm for all wafer sizes and illumination modes

Contamination

= 0.001 particles (Fig. ≥0.12 um)/cm2/pass

3-3 Capacity calculation: (PSL wafers prepare by)

200 mm & 300 mm (Vacuum Handling Configurations):
125 WPH 8 "65 nm (wafer per hour) under high throughput mode.

3-4 Communication protocol of device:

Item	Yes	None	Remarks
1. Provide GEM/SECS communication ability, and the detailed functions shall comply with the provisions of SEMI organization	■	□	
2, to provide the ability of PLC to obtain console data through the network, the following functions are required	■	□	
2-1 Recipe ID	■	□	
2-2 Ownership range/measurement parameters (mainly related to process monitoring)	■	□	
2-3 Stand Status (Run, Down, Warning... Isostate) changes over time as recorded	□	■	
Code No. of Alarm/Warning occurring at 2-4 consoles (Or Message)	□	■	
Event Code No. (Or Message)	□	■	
If 2-6 production console has the conversion of production Step, it is necessary to report Step Name	□	■	
2-7 Key In and reporting of Lot ID	■	□	
2-8 requires Ethernet or RS 232 online module	■	□	
3, the console can save the data into a text file and provide the way of network neighbor or FTP to be obtained externally.	■	□	

3-5 Equipment safety conditions:

Item	Yes	None	Remarks
1. Protection against operating noise of console	■	□	
2. Power supply overload protection	■	□	
3, overtemperature protection	□	■	
4, Interlock security interlock mechanism	■	□	

5. Abnormal light sign and sound display	■	□	
6, leak-proof liquid level detection	□	■	
7. Leakage-proof device	□	■	
8. Safety protection warning mark (required to be bilingual in Chinese/English)	■	□	
9, with shock/dumping protection device function	□	■	
10, emergency stop button (EMO) (required in Chinese/English)	■	□	
11. Those with current protection and electric heating devices shall comply with the electric safety regulations and specify the application	■	□	

IV. Delivery Conditions:

Item	Yes	None	Remarks
1. test whether the function is normal according to the design specification and provide data	■	□	
2. provide test materials to test the bench	■	□	
3. provide a record form of equipment pipeline pressure holding test	□	■	
3. Whether the product test rig meets the process requirement standards and capacity requirements	■	□	The request listed criteria on the spec

V. Acceptance Conditions:

Item	Yes	None	Remarks
1. report on mechanical accuracy of equipment	□	■	
2. compliance with product acceptance criteria	■	□	
3. The shelf life can only be calculated after acceptance (half a year)	■	□	
4. list of spare products	■	□	
5. maintenance tools	■	□	
6. calibration instrument	■	□	
7. test data of equipment trial operation	■	□	
8. operation manual and maintenance manual (Chinese or English version is required)	■	□	
9. mechanical surface	□	■	
10. circuit control diagram	□	■	
11. software backup (operation, control)	■	□	
12. education and training on process equipment maintenance	■	□	