

# WaferLase II

## Wafer Processing System

The WaferLase II is designed to meet the most stringent requirement of wafer processing assuring precise scribe lines. Employing the Coherent SmartCleave Fi processing the system produces scribes that have no negative influence on the subsequent manufacturing steps with clean, high-precision break lines at less than one micron surface finish on the fracture surface.

### FEATURES & BENEFITS

- Granite based system
- High precision
- Process speeds up to 600 mm/sec
- Automatic handling
- 200 or 300 mm diameter wafer processing
- SECS/GEM compliant
- Two-sided, top and bottom processing
- Complete vision system
- Wafer ID read capable

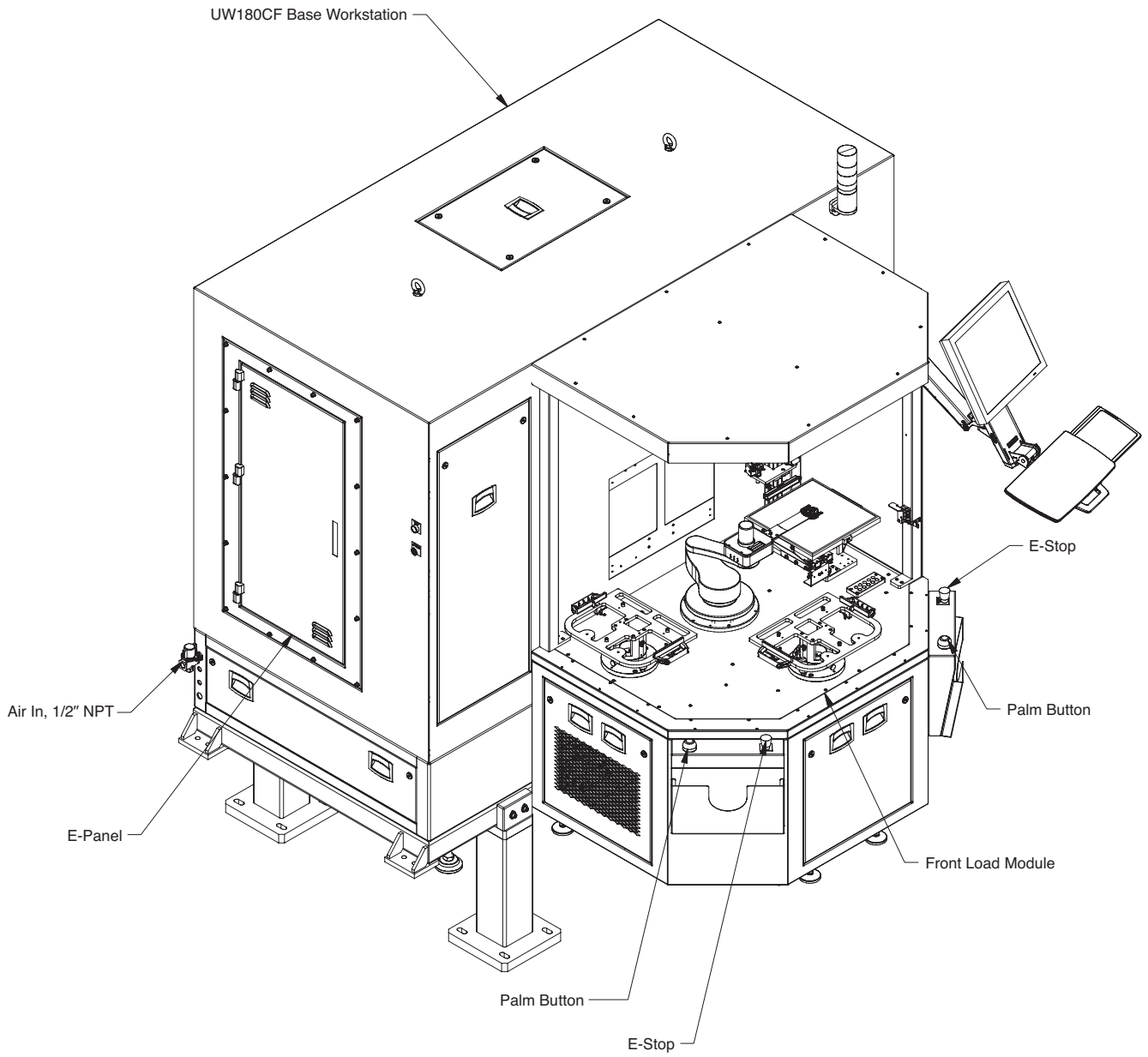
### APPLICATIONS

- Wafer Processing



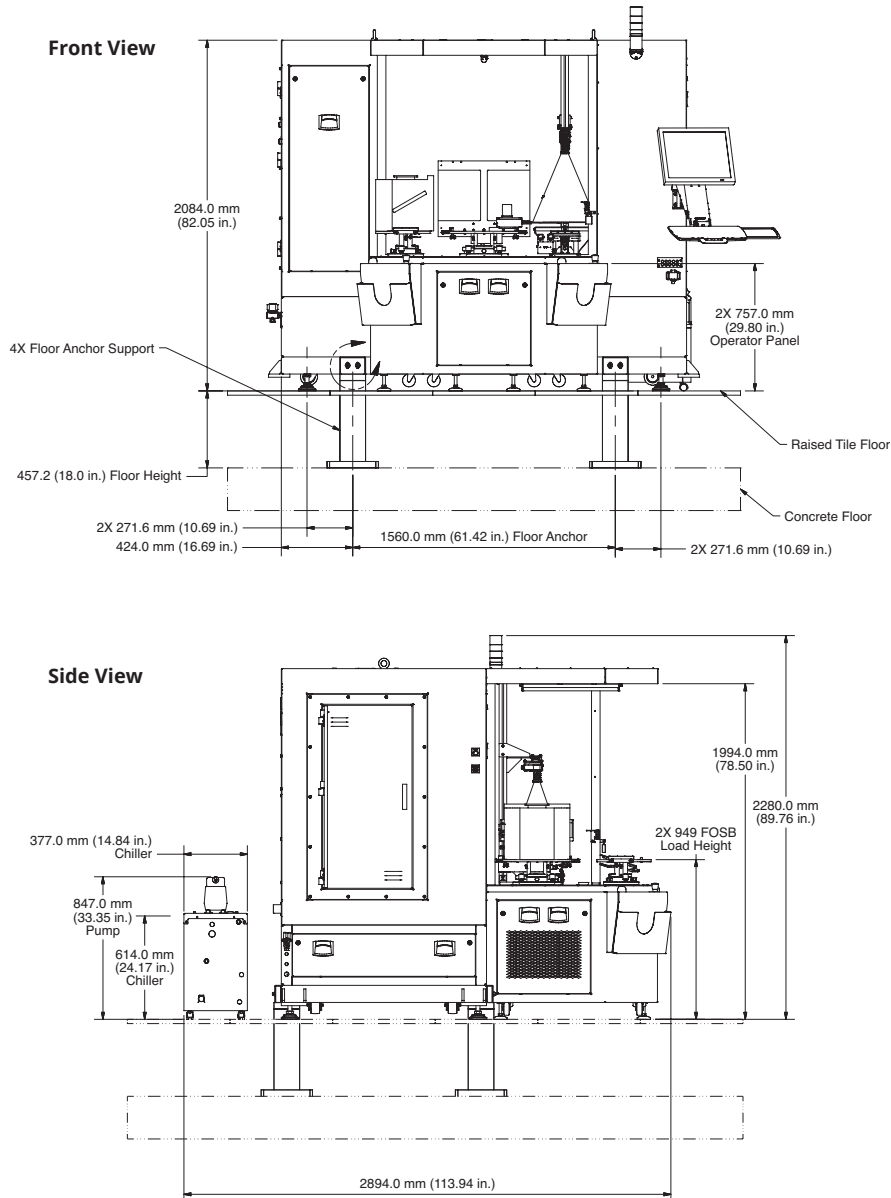
<b>WORKSTATION REQUIREMENTS</b>		<b>WaferLase II</b>
Input Power		1-phase, L1 + L2 with safety ground
Voltage		220 VAC, 60 Hz ±5%
Current (A)		40
Motion & Beam Delivery Purge Air		Class 5.5.4 according to DIN/ISO 8573-1, but max 3 mg/m cubed residual oil, at least 7 bar, max 25 degrees C, (supply: compressed air)
Compressed Air Quality		100-80 PSI, 35-1150F, ISO8573.1 Class 5.5.5 or better (particles <40 µm, max 450F, pressure dew point and <25 mg/m3 oil/oil vapor)
Weight (kg)		2800
System Storage (°C)		5 to 40 ±5
Ambient Temperature (°C)		28 to 32, air conditioned, oil free, debris free
Relative Humidity (%)		10 to 65 relative humidity; non-condensing
Vibration		VC-C
<b>WORKSTATION SPECIFICATIONS</b>		
Classification		Class I Laser System, CE compliant
Automation		Fully automatic
Mechanics		Machine base with solid granite motion base
HMI		Touch Screen, Coherent Laser FrameWork Glass Processing Software Interface
Machine Vision		Sub-pixel level processing; approximately ±2 µm
Motion Control		CNC control driven by Coherent Laser FrameWork Software, Windows 10 OS
Axis Travel		X/Y/Z, 450 mm x 450 mm x 150 mm
Axis Speed		up to 1000 mm/sec
Product Carrier		FOUP, Front load module, Cassettes
Prodcut Size		200 or 300 mm diameter wafer; 300 mm x 300 mm glass panel
Dimensions (W x L x H)		2560 mm x 2315 mm x 2084 mm
Laser Source		Coherent ultrashort pulse lasers
Processing Head		SmartCleave Fi process head, fixed optics, Precision Galvanometer/scanner
Evacuation		Powered by Workstation; 800 CFM minimum required, application dependent
Vacuum		Generated by workstation

WaferLase II



## MECHANICAL SPECIFICATIONS

### WaferLase II



Coherent, Inc.,  
 5100 Patrick Henry Drive Santa Clara, CA 95054  
 p. (800) 527-3786 | (408) 764-4983  
 f. (408) 764-4646

[tech.sales@coherent.com](mailto:tech.sales@coherent.com) [www.coherent.com](http://www.coherent.com)

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all WaferLase II Systems. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative. MC-001-21-0M0121 Copyright ©2021 Coherent, Inc.

