

# PVD 75™

## Open Frame PRO Line Thin Film Deposition System



**Kurt J. Lesker**  
Company

**PROCESS EQUIPMENT™**  
DIVISION

### Applications

- Designed for university, industrial, and government lab R&D thin film deposition
- OLED/PLED and organic electronics applications
- Photovoltaics and semiconductor devices
- Optics and decorative coatings
- Small batch production

### Features

- Enclosed instrument rack and chamber base
- Box 304 stainless steel chamber with aluminum door and large viewport
- Manual touch-screen or recipe-controlled, PC based process automation
- Turbomolecular or optional cryogenic high vacuum pumping

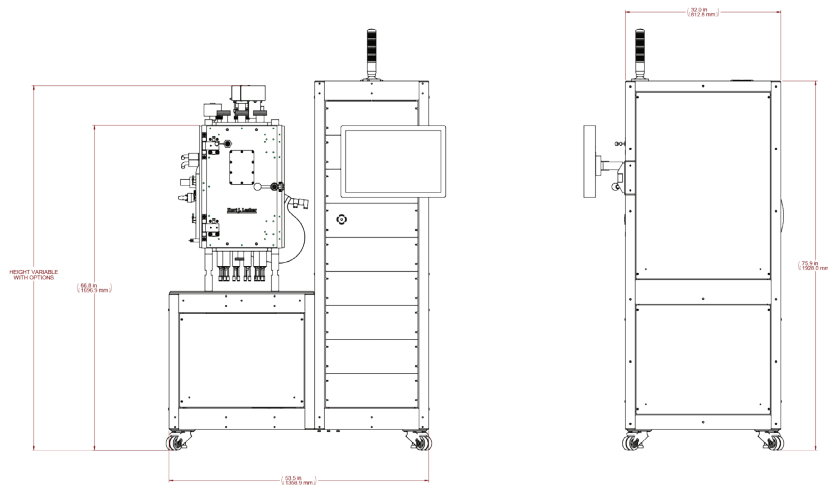
### Process Modules

- Magnetron sputtering: RF, DC, Pulsed DC, High-power pulsed magnetron sputtering (HiPIMS/HPPMS)
- Electron beam evaporation
- Thermal evaporation
- Organic materials evaporation
- Ion source substrate cleaning or assisted deposition

### Options

- Substrate heating, cooling, or biasing
- Planetary substrate fixturing
- Upstream or downstream pressure control
- Film thickness control
- Substrate load lock
- On-site installation and training

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Dimensions Approximate

## Specifications

Process Chamber Volume	100 liters
Process Chamber Geometry	Box Shaped 304L Stainless Steel chamber: 15.25" wide x 16.50" deep x 24" high (387.4mm wide x 419.1mm deep x 610mm high), internal dimensions. Aluminum, O-ring sealed, hinged, front access door O-ring sealed side plates (2), allow for maximum modularity and upgradeability
Process Chamber Construction	304L Stainless Steel with 6061 Aluminum Hinged Door
Cabinet Construction	Carbon Steel, Fully Enclosed Instrument Rack, Open Chamber Area, Gray Powder Coat Finish
Deposition Sources (Available in various combinations)	Up to (6) 3" Torus® Magnetron Sputtering Cathodes
	4-Pocket 8cc Electron Beam Source, 8-Pocket 12cc, and 6-Pocket 20cc Available
	Up to (4) 4" Thermal Evaporation Sources
	Up to 2 LTE Organic Material Evaporation Sources
Deposition Orientation	Sputter Up, Evaporation Up
Substrate Cleaning	Ion Source or Bias eH400 end-Hall ion source, KDC40 gridded ion source, or 100W RF bias
Substrate Size (max)	Single 6" (150mm) with 20 RPM Max Variable Rotation
Substrate Heating	Up to 850°C (150mm) or water cooled (150mm)
Standard Vacuum Pumping	790 l/sec Turbo Pump — $5 \times 10^{-7}$ torr ( $6.7 \times 10^{-7}$ mbar) 1250 l/sec Turbo or — $8 \times 10^{-8}$ torr ( $1.1 \times 10^{-7}$ mbar) 1500 l/sec Cryo Pump Available — $5 \times 10^{-8}$ torr ( $6.7 \times 10^{-8}$ mbar)
Gauging	Wide Range Vacuum Gauge
Process Gas	4 Channel Mass Flow Control with 3-position or variable position gate valve
System Control	PC-Based HMI, eKLipse™ advanced recipe control and datalogging
Required Power (typical, based on options)	208VAC, 3Ø, 50/60 Hz; Optional 380VAC, 3Ø, 50/60 Hz
Available Certifications, Markings	Systems within the European Economic Area (EEA) are CE marked and comply with the following EU directives: -Low Voltage Directive (LVD) 2014/35/EU -Electromagnetic Compatibility (EMC) Directive 2014/30/EU Systems outside of the EEA can be CE marked as required CSA and NRTL certification is available
Warranty	12 Months upon Shipment
Overall Dimensions (approx)	53.5" (1358.9mm) wide x 32" (812.8mm) deep x 75.9" (1928mm) high
Weight (approx)	1,800 lbs (816 kg)

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