

# SPECTROS

OLED/PLED R&D SYSTEM

*Multilayer Capabilities*

*Four OLED Evaporation Sources*

*Two Evaporation Boats for Metals*

*Mask Storage Facility*

*Optional Glove Box Interface*

**Kurt J. Lesker**<sup>®</sup>  
Company

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[www.lesker.com](http://www.lesker.com)

# Kurt J. Lesker Company

## SPECTROS

### R&D System for OLED/PLED Devices

Processes Substrates with Exceptional  
Film Uniformity, Repeatability, and Reliability

## Substrate

- On-axis motor
- Integrated m
- Manual verti
- using manual lin
- Two substrat
- Two 50 micro

## Features:

**Versatile Process  
Development Tool**

**Modular and Flexible**

**Standard Platform**

**Organic and Metal  
Deposition Sources**

**Manual Mask  
Changing Capability**

**Glove Box Interface**

## Deposition Chamber

- 18" X 36" cylindrical 304 stainless steel chamber, top-plate and base plate
- O-ring sealed door on front wall for substrate introduction and source replenishment
- Motorized top-plate hoist
- Port for future addition of load lock chamber

## Vacuum Gauging

- KJLC Multi-Gauge controller
- One ionization gauge
- Two thermocouple gauges
- Two KJLC OLED evaporation power supplies with switching capability
- One KJLC EPS-2000 power supply with switching capability
- Three standard crystal heads



## Substrate Fixture

• Motorized rotation

• Mask storage facility

• Vertical motion of substrate fixture for mask changes

• Gear rack and pinion motion device

• Mask holders (4" x 4" or 2" x 2")

• Mounts on mask holders

## Optional Glove Boxes

- For sample preparation/packaging
- Attach to door on deposition chamber

## Vacuum Pumping

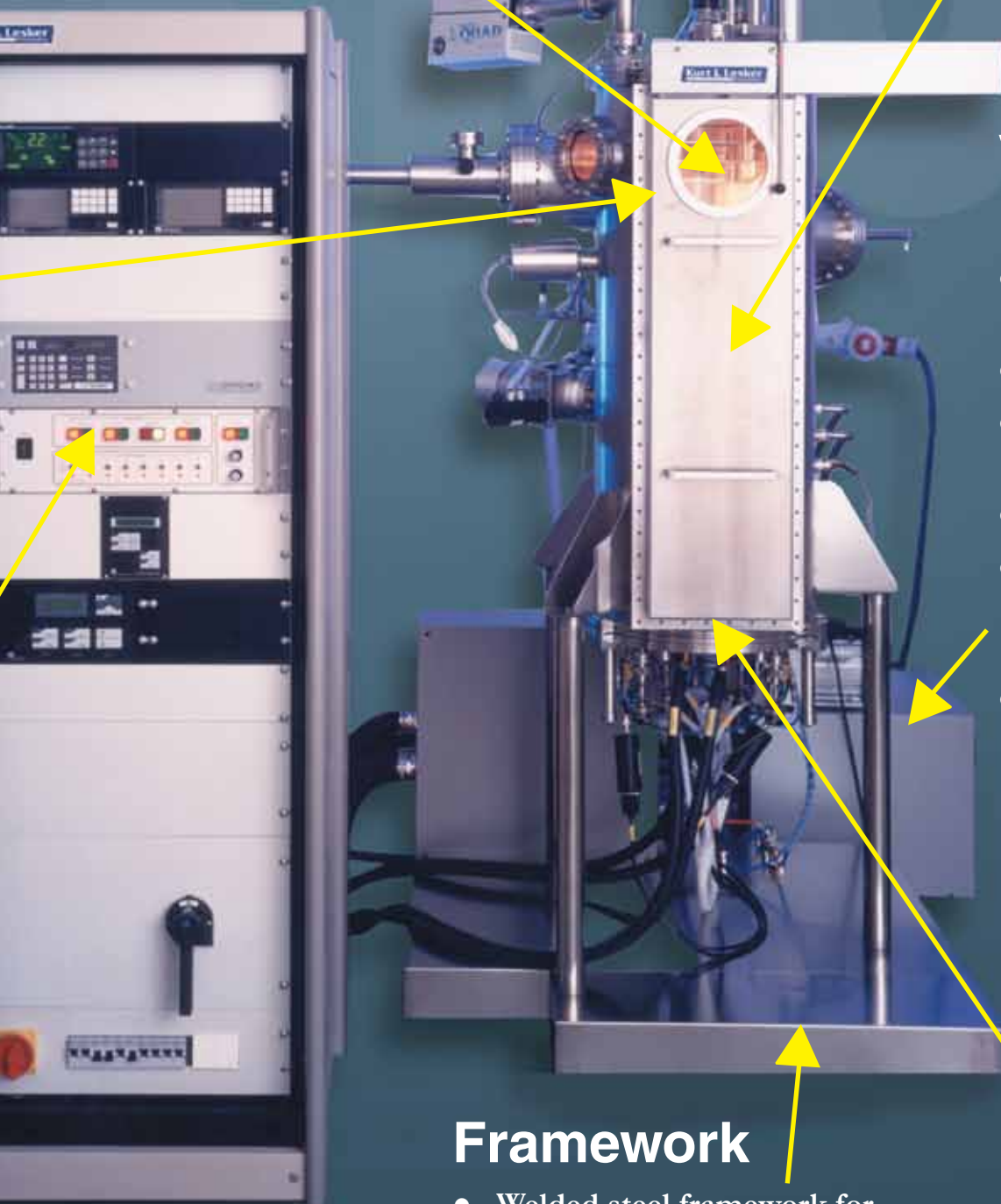
- 1500 l/s CTI Onboard-8 cryogenic pump
- Model 8200 compressor
- Mechanical roughing pump
- Pneumatic gate valve
- Roughing valve, purge valve, regeneration valve and vent valve
- Base pressure  $5 \times 10^{-7}$  Torr or lower

## Evaporation Sources

- Four KJLC OLED evaporation sources
- Two evaporation boats for metals
- Pneumatic shutter for each source

## Framework

- Welded steel framework for vacuum chambers and glove boxes
- 6' stand alone instrument racks



# GLOBAL VACUUM PRODUCT LINES

## VACUUM MART™ DIVISION

### Vacuum Valves & Hardware

- Flanges, Components, & Fasteners
- Gate & Angle Valves
- OFHC Copper Gaskets
- Bellows, Tubing, & Seals
- Semiconductor, PV, & FPD Process Valves

### Feedthroughs

- Power & High Voltage
- Viewports (Optical Feedthrough)
- Coaxial & Instrumentation
- Thermocouple
- Ferro-Magnetic Fluid Rotary Drives
- USB

### Vacuum Pumps & Accessories

- New & Remanufactured
- Rotary Vane & Piston
- Scroll & Diaphragm
- Screw & Roots Blowers
- Turbo & Diffusion
- Cryogenic & Ion
- Traps & Filters
- Complete Offering of Pump Repair Services

### Vacuum Fluids

- Full Line of Mechanical Pump Oils
- Fomblin® PFPE - Inert PFPE
- Galden® PFPE - Heat Transfer Fluid
- Vacuum Greases, Sealants, & Solvents
- Pump Oil with R/O Additives
- Silicon Diffusion Pump Oils
- Pump Oil Recycling

### Pressure Measurement

- Analog & Digital Active Gauges
- Pressure Indicators & Controllers
- Wide-Range Gauges
- Multi-Gauge Controllers
- Replacement Gauge Tubes
- MKS Baratrons®

### Sample Manipulation & Motion

- Rotary & Linear Motion
- Linear Positioners
- Wobble Sticks & Port Aligners
- XYZ Manipulators
- Multi-Axis Manipulators
- Sample Transfer Probes
- Sample Heating & Rotation
- Motion Control
- Sample Distribution Center

## Vacuum Services

- Full Line Pump Repair/Rebuild Services
- Pump Oil Recycling
- Technical Information
- Technical Consulting
- Decontamination
- Magnetron Cathode Service
- Contract Manufacturing

## PROCESS EQUIPMENT™ DIVISION

### Deposition Sources

- Torus® Magnetron Sputtering Sources
- Electron Beam Evaporation
- Organic Material Sources
- Electron Beam Sources
- Ion Sources
- Thermal Evaporation Sources

### Process Instrumentation

- Film Thickness
- Mass Flow Controllers
- RF & DC Power Supplies
- Pulsed DC Power Supplies
- Power Supplies for Evaporation

### System Components & Custom Engineered Solutions

- Turnkey & Partial Build Solutions
- Comprehensive Engineering Design Support
- Chambers, Frames, & Mounting Structures
- High Temperature & Bakeout Heater Assemblies
- Heater Power Supplies
- Substrate Load Locks & Transfer Vessels

### Vacuum Systems

- Thin Film Deposition Systems
- Cluster Tools
- Box Coaters
- General PVD Systems
- Computerized Systems
- Combinatorial Systems
- Organic Material Deposition Systems
- R&D Sputter Tools
- Vacuum Furnaces & Ovens
- Atomic Layer Deposition (ALD)
- Drum Coaters
- In-line & Linear Systems
- R2R Systems

## MATERIALS™ DIVISION

### Deposition Materials

- Sputtering Targets
- Precious Metals & Reclaim
- Evaporation Pieces
- Thermal Evaporation Sources
- E-Beam Crucible Liners
- Bonding Service
- Backing Plates
- Ceramic Materials Manufacturing (CMM)

## MANUFACTURING™ DIVISION

### Vacuum Chambers & Components

- Standard SS Cylindrical, D-Shaped, Spherical, & Box Chambers
- Standard Pyrex® Glass Bell Jars & Cylinders
- Standard Building Blocks to Customize Your System
- Custom Chambers
- Array of Finishes & Materials
- Easily Build Your Own Chamber with the Custom Chamber Configurator On-line

### Manufacturing & Fabrication

- State-of-the-Art CNC Machining
- Mechanical, Manufacturing, & Industrial Engineering
- Computer Based Scheduling & Routing
- CAD, CAM, & FEA Software
- Coordinate Measuring Machine Inspection (CMM)
- UHV Compatible Cleaning Process

We have a network of representatives around the world ready to service the international vacuum community.

Visit our website to find the representative nearest you, or contact our International Sales Department.

[www.lesker.com/locations](http://www.lesker.com/locations)

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