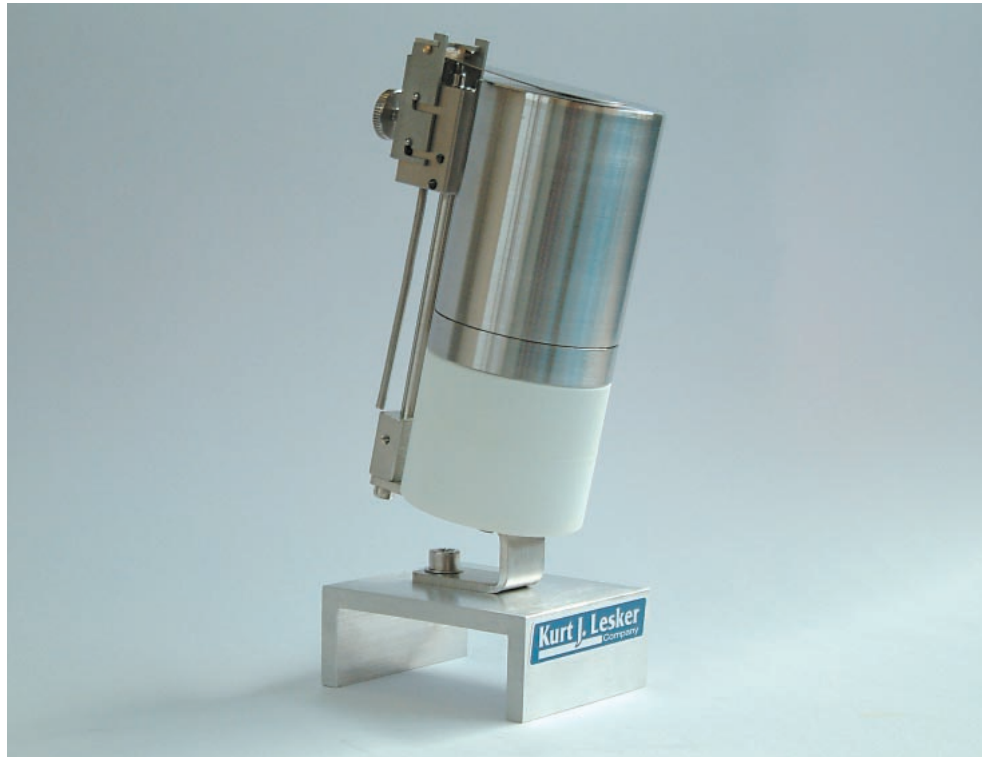
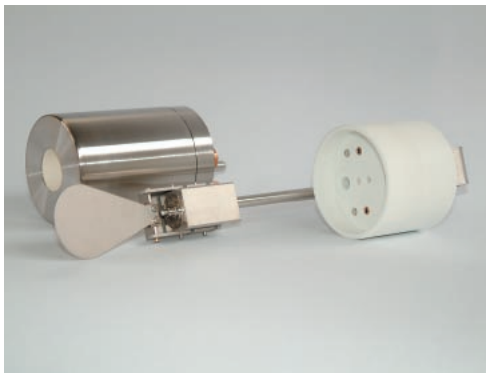


OLED

Low Temperature Evaporator

The Lesker Low Temperature Evaporation Source provides the ability to deposit volatile organic materials for the fabrication of OLEDs, Photovoltaic Cells and other organic devices. Temperature Control to $\pm 0.1^\circ\text{C}$, and uniform SCR-based power output from the KJL Temperature Controller allows for precise deposition rate control. PID control prevents temperature overshoot and assures a high quality, uniform film. Multiple sources may be arrayed in order to co-deposit dyed or doped films for colour displays.



SOURCE

- Designed for use with low temperature volatile organics
- Thermocouple in contact with base of crucible to give accurate temperature readings
- Efficient heater winding to ensure optimum heating profile
- Operates at low temperatures with PID control in the range $50 - 600^\circ\text{C}$
- Low cost compared with conventional Knudsen Cell
- Easily removable source cover for crucible exchange
- Plug in source for efficient removal from vacuum for cleaning and recharging in confined space of a Glovebox
- Base mounted connection for power and thermocouple
- Easy to install with dual bolt fixing
- Alumina crucible evenly distributes temperature and reduces organic spitting
- Plume configuration distributes material evenly across substrate
- Performance: Ability to grow 5% uniformity films on a 150mm substrates at greater than 5 Angstroms/sec.

OLED SOURCE SPECIFICATIONS

Height	15 cm with plug in base and shutter
Diameter	6 cm source only
Standard Crucible	15cc high purity Alumina
Charge Capacity	10cc
Temperature Range	50°C to 600°C

TYPICAL RATES AT 300 MM THROW DISTANCE

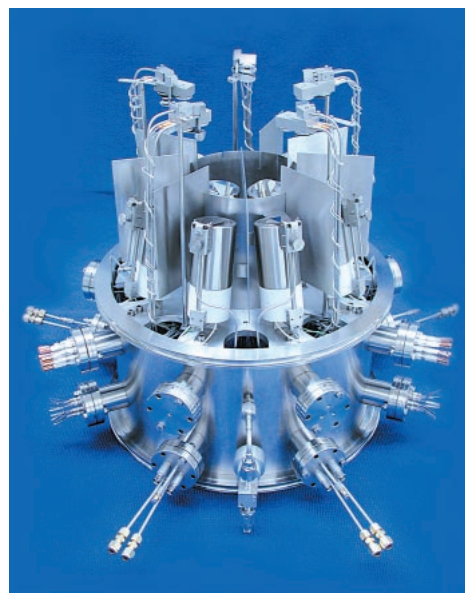
Alq3	50 Angstroms/sec
PTCDA	0.2 to 2 Angstroms/sec
CuPc	0.2 to 2 Angstroms/sec
C ₆₀	0.2 to 2 Angstroms/sec

FLIP SHUTTER

- Integral Pneumatically actuated Flip Shutter
- Shutter assembly easily removable from the actuator body for cleaning.

The Lesker OLED

Low Temperature Evaporator



LOW TEMPERATURE POWER SUPPLY:

- Single Channel and Four Channel sequential control options available
- Temperature control with Eurotherm 2408 PID Controller with control to $\pm 0.1^{\circ}\text{C}$
- Multiple stored programs for multiple organic materials and vacuum preparation routines
- Auto tuning modes and no temperature overshoot
- Adjustable alarm conditions
- RS232 Communications
- Rate control input compatible with commercially available deposition controllers
- CE approved
- 4U half rack.

LESKER OLED SOURCE: ORDER INFORMATION

Part Number	Description
LTESC01	Low Temperature Controller Single Channel
LTESC04	Low Temperature Controller Four Channel
LTEMK1	Half Rack Mount Kit
LTE10CCPB	Low Temperature Source 10cc Type K thermocouple
PFS005000C	Flip Shutter OLED Source
TFT1KY2C304	1" Bolt Hole Feedthrough, Power and Thermocouple
TFT1KY2C302	1.33 CF Feedthrough, Power and Thermocouple
OLED0019	Crucible, Alumina (One included with each evaporator)



Kurt J. Lesker
Company Ltd

VACUUM SCIENCE IS OUR BUSINESS