

# *Leybold Optics LTE 700*

## *Long Throw Evaporation System for High Precision, no Sidewall Coatings*

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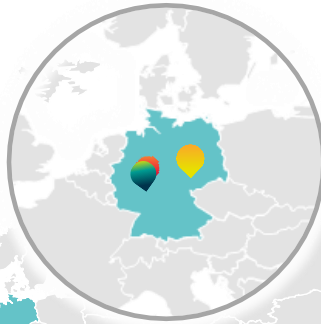
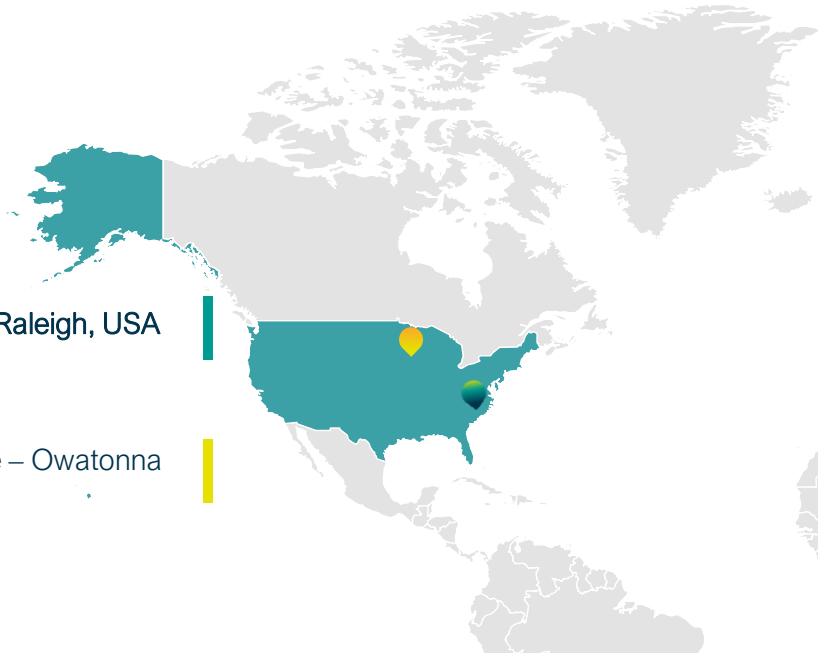


# Leybold Optics at a glance



**Leybold Optics Hub – Raleigh, USA**  
• Application center

**Center of Competence – Owatonna**  
• Sputtering components



**Leybold Optics Hub – Alzenau, Germany**  
• Application center

**Center of Competence Leipzig**  
• Ion Beam figuring & trimming  
• Measurement technology

**Center of Components Hasselroth**  
• Fabrication of key technology components



**Leybold Optics Hub – Beijing, China**  
• Application center



310mCHF  
Turnover



650  
FTE employees  
worldwide



3500+  
Installed system



5%  
of turnover for  
innovation

# Precision Optics Product Portfolio

Figuring

Coating

IBT

IBF

HELIOS

IBS

NESSY

SYRUSpro

ARES

DLC



Technologies

Light spectrum

Ion Beam  
Trimming

Ion Beam  
Figuring

EUV - IR

Sputtering

EUV - IR

EUV

EUV - IR

Evaporation

UV - IR

PECVD

IR

EUV

UV

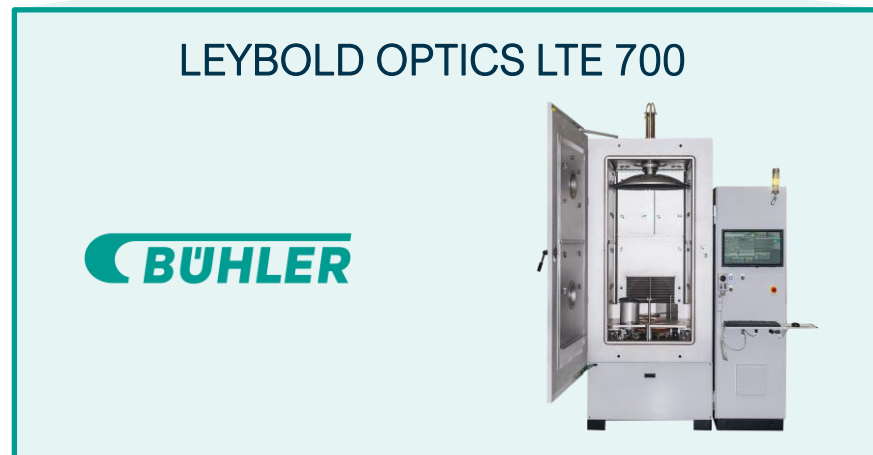
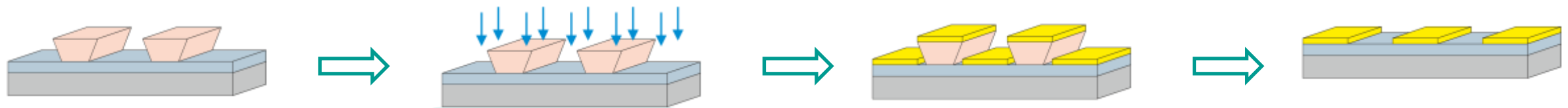
VIS

IR

# LEYBOLD OPTICS LTE 700

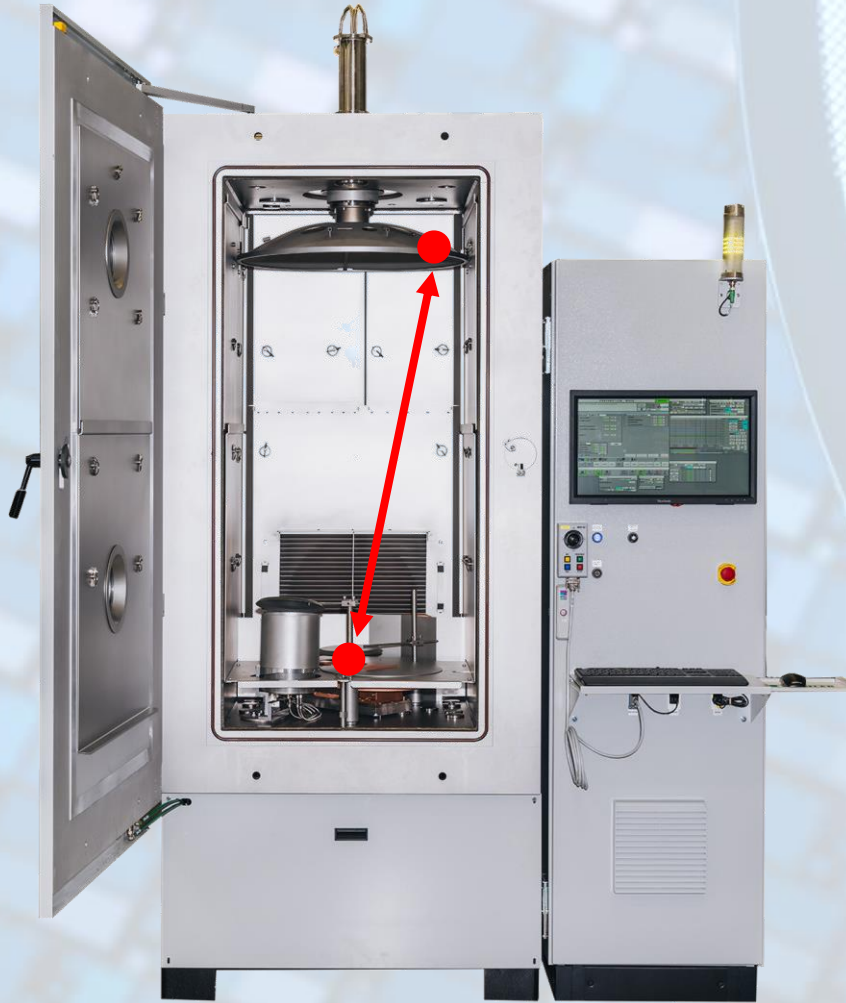
## The Lift-Off Principle

- In microelectronics, Lift-Off is a typical technique to design structured features onto a substrate
- In additive processes, a photoresist with open areas where the evaporated species is deposited. It is important that the evaporated areas are produced perpendicularly to the substrate, so no side-walls coating occurs
- Upon removal of the resist, (Lift-Off process), the final desired patterned is formed on the substrate

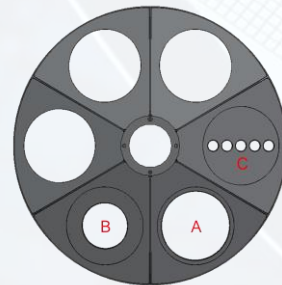
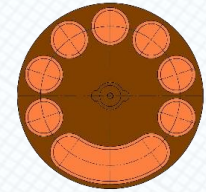
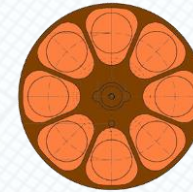
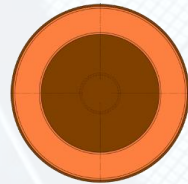


- Substrate
- Photoresist
- Film/Pattern 1
- Film/Pattern 2

# LEYBOLD OPTICS LTE 700

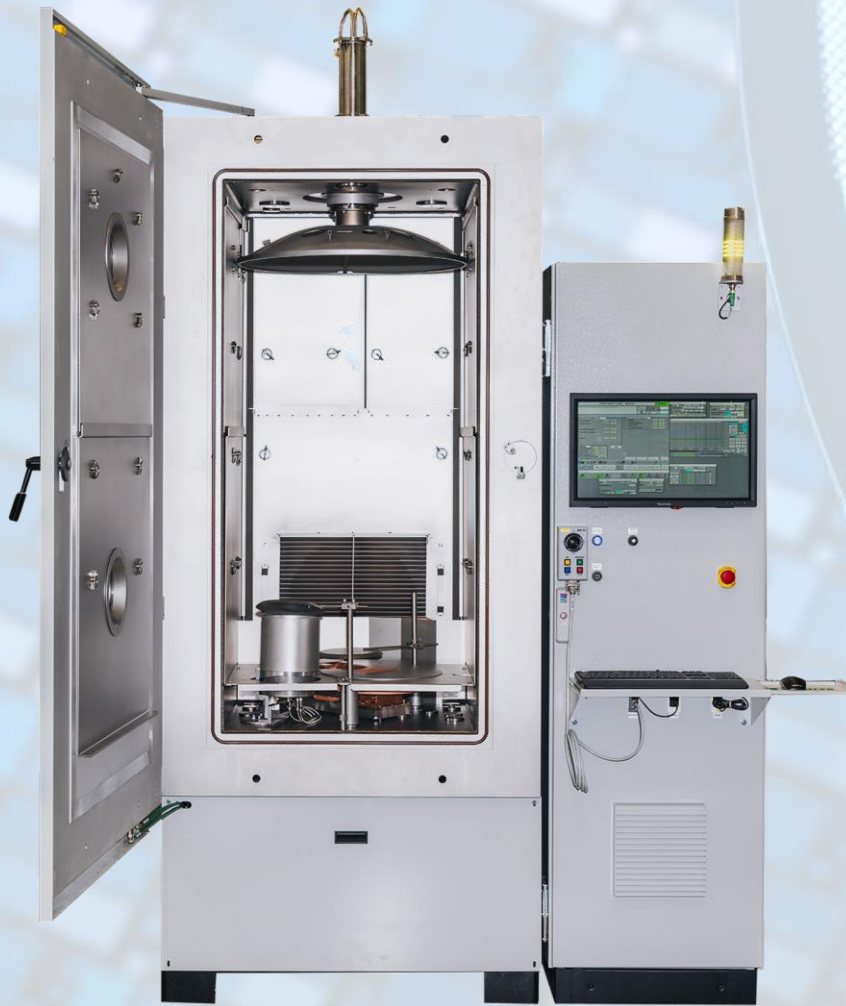


- ✓ Source-to-Substrate distance above 1.3 meters (~52 inches)
- ✓ Electron-beam gun at center of the chamber with multiple crucible configurations
- ✓ Adaptable dome for substrate sizes up to 6x 6 inch
  - ✓ 8 and 12 inch on request
  - ✓ Angle deviation in 1inch substrate of 0.6 degrees



- A – inset for 6inch substrates
- B – inset for 4inch substrates
- C – inset for 1inch substrates

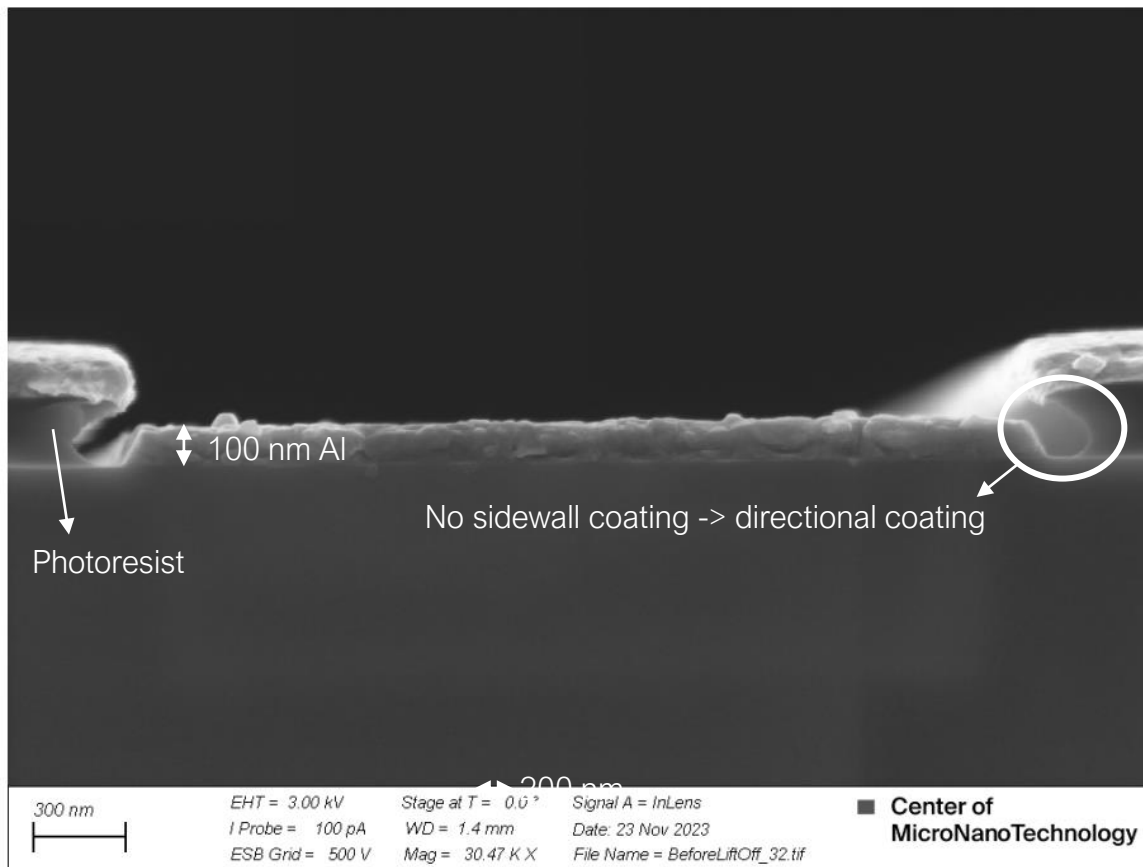
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  - ✓ Angle deviation in 1inch substrate of 0.6 degrees
- ✓ Ion Assisted Deposition or Surface Treatment via high 3-grid RF Ion Source
- ✓ Cryo Pump + Meissner Trap with cooling system to optimize vacuum performance
- ✓ Compact layout - integration to cleanroom with minimal space requirements
  - ✓ 2.0 m x 2.0 m x 2.8 m (W x L x H)

# LEYBOLD OPTICS LTE 700

## Performance Results



SAVE  
THE DATE

OFFICIAL PRODUCT LAUNCH  
LEYBOLD OPTICS LTE 700

7<sup>th</sup> May 2024  
09:30 AM, 05:30 PM (CET)



Register Here:

