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# Foundry Services

World Leading  
Supplier Of  
Lithography  
Solutions

# Foundry Service

## Highlights

Obducat can act as your manufacturing partner for continuous production if you follow a fables strategy. Obducat also offer the service to do initial pilot production for evaluation purposes, to enable a more data driven investment decision for the setup of your own internal production capability.

## Main offerings

- **Comprehensive Processing**  
All processes available up to 200 mm substrate size.
- **Full Capability Range**  
From substrate preparation and lithography processes to advanced pattern transfer.
- **Scalable Production**  
Supporting prototyping to high-volume manufacturing.





# Capabilities

## Modeling & Design

- Multiphysics device modelling
  - *Analytical, numerical, FEM*
- Process emulation
- Mask design
  - *For various lithography techniques*

## Deposition

- PVD
- ALD
- Thermal oxidation
- CVD
- E-beam evaporation
- PE-CVD

## Dry etching

- Plasma etch (anisotropic or isotropic)
- ICP RIE for metals/oxides/dielectrics
- DRIE
- IBE for metals/dielectrics with SIMS end point detection

## Lithography

- Nanoimprint lithography
  - *UV-NIL/Thermal NIL*
- E-beam lithography
  - *Mask making*
  - *Direct-write lithography*
- Projection lithography
  - *I-line, KrF, ArF*
- Direct Write Laser
  - *Grayscale option*
- Resist processing
  - *Positive/negative resist incl. polyimide and SU-8*
- Lift-off masking

## Wafer bonding

- Anodic bonding
- Fusion bonding
  - *Si-Si, Silicon-On-Insulator*
- Thermal bonding
  - *Polymers, metals, etc.*
- Adhesion bonding
  - *Based on 5-10  $\mu\text{m}$  parylene*

## Wet etching

- Anisotropic wet etch
- Oxide etch
- Wet etch clean
- Acid etch for metals
- Resist strip

## Wafer backend

- Wafer dicing (Si & glass  $\geq 200\text{mm}$ )
- Si laser dicing and coring
- Wafer grinding/thinning and polishing

## Metrology & Testing

- SEM and FIB-SEM
- AFM
- Laser and Optical Microscopes
- Optical and mechanical profilometers
- Sheet resistance measurement
- Ellipsometry



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