

## PVD Magnetron Sputtering Service

### New Product Development Testing

Materion offers an in-house PVD magnetron sputtering service to assist our customers. With our extensive knowledge and experience, state-of-the-art equipment and high-quality materials, we are the perfect partner to support new product research and development.



Conducting test sputtering while developing a new product can be expensive and time consuming, especially when working with precious metals. Given the time and resources needed to set up a short run, a developer may not have the proper sputtering equipment and/or materials to ensure accurate testing during the research and development phase.

Benefits of this service include:

- Zero interruption to current production
- Elimination of time spent reconfiguring and/or cleaning a vacuum chamber
- Material testing before purchasing full size sputtering targets
- Custom pricing based on sputtering target supplier and target material
- Assistance from Materion product development experts

#### Available Deposition Options

- Static or dynamic deposition
- Metallic or reactive sputtering
- Gas options: Ar, O<sub>2</sub>, N<sub>2</sub>, Ar/H<sub>2</sub>
- DC-etching
- Substrate heating up to 400°C
- Depending on material, options include coating of a triple stack system without any vacuum break in PK75 & PK500 configuration

#### Tool Configuration Types

- Dual rotatable, length: 500mm, DC-single or MF-dual mode
- 3x PK500 Planar Targets, length x width: 488mm x 88mm, DC-single mode
- 3x PK75 Planar Targets, Ø 75mm, DC-single or RF mode

#### Power Supply Options

- DC or DC pulsed-mode: AE Pinnacle+, 20kW
- MF-mode: Hüttinger TIG20, 20kW (for dual rotatable only)
- RF-mode: Hüttinger PFG1000, 1kW (for one PK75 only)

#### Benefits

- Materion offers 85+ years of experience in metal refining, recycling and recovery.
- One stop solution for metal management
- Certificate of Analysis
- Accreditations: ISO 9001, ISO 14001, ISO 17025, LeanSigma

#### Related Services

##### Thin Film Analysis

- Thickness: AlphaStep (D 500)
- Resistance: 4-point-probe (NAGY SD-510)
- Optical data: reflectance, transmittance (PerkinElmer Lambda35)
- Measuring of particles on wafers down to 0.8um

##### Precious Metal Management

- Refine & Recycle

##### New Product Development

- Dedicated team of technical experts
- Project support and consultation