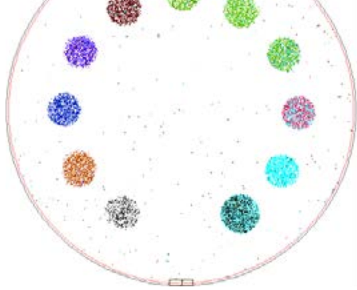


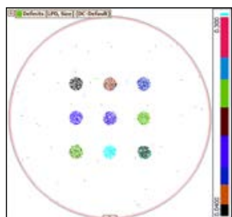
What MSP offers

Particle Deposit Attributes

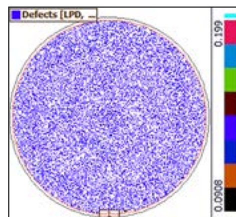
Attribute	Available Options or Ranges
Particle Type / Material	▪ PSL Size Standards ▪ SiO_2 Size Standards ▪ MSP Process Particles™ Suspensions[2] (AlF_3, Al_2O_3, Ni, Ru, Si, Si_3N_4, SiO_2, Sn, Ti, Ta, TiN, TiO_2, W, Y_2O_3)
Particle Size[3]	10 nm – 20 µm
Standard Particle Count	Minimum 400 particles per deposit
Pattern Width	Typically 10-30 mm. Range of Pattern Width (e.g., Spot Diameter) is dependent on Particle Size.

[2] Restrictions on particle size apply to all Process Particles™ Suspensions.
[3] Only PSL Spheres are available up to 20 µm. SiO_2 Spheres are available up to 16 µm.

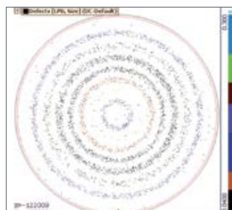
Pattern Type



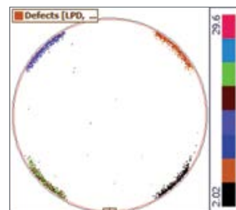
Spot Deposit



Full Deposition



Ring Deposition



Edge and Arc Depositions

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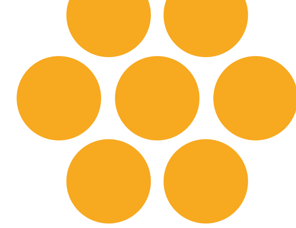
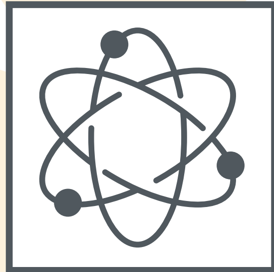
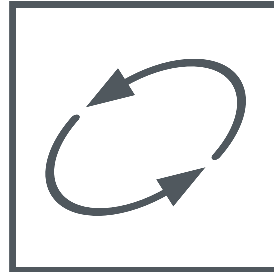
Deposition Services



MSP Has Programs Developed For Your Needs





Dev-Dep™

- Developmental deposition
- Designed around fast-paced R&D environment
- Accelerates product and process development
- Totally customized leading-edge solution
- Consult with industry experts

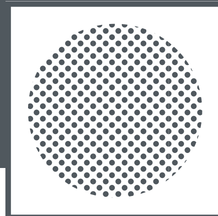
Qual-Dep™

- Qualification deposition
- Customer specific part number
  - Simplified purchasing process
  - Defined specification and consistent deliverable
  - Advantageous pricing
  - Shorter lead-times
- Developed for repetitive needs
- Shipped with inspection tool for Fab qualification

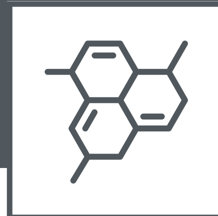
Metrology Department

- Provide end user with state-of-the-art inspection tool
- Trusted source
- Same inspection tool with high quality, consistent qualification substrate

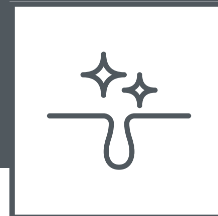
Introduction of Moore's law, 1965



Beginning of submicron, 1985



Airborne molecular contamination issue, 1990s



Need to identify "killer" particle contaminants has increased

EUV (Extreme Ultraviolet) wave of the future