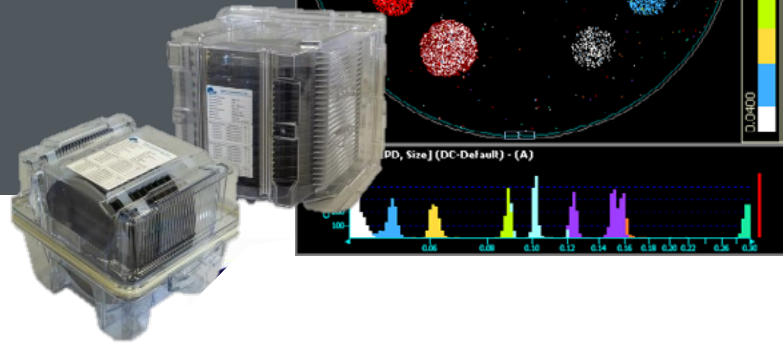




# SPx Calibration Standards



## Traceable, Consistent, Convenient

SPx Calibration Standards are precision-engineered tools for the calibration, verification and re-qualification of the most common wafer surface inspection systems (like Surfscan® from KLA) used in semiconductor manufacturing. These standards play a crucial role in ensuring the accuracy and reliability of inspection equipment, which is essential for maintaining high yields and quality in mature nodes of semiconductor fabrication.

Based on a combination of industry-leading equipment knowledge and particle deposition expertise, MSP provides a comprehensive line of NIST-traceable SPx Calibration Standards, including documentation of manufacturing processes and controls, inspection reports using a Surfscan® tool, and other certification guarantees. This ensures that customers receive best-in-class standards with the narrowest particle distributions, highest particle size accuracy for their critical surface inspection applications.

MSP's Cal-Dep™ portfolio ensures that this industry workhorse inspection equipment is calibrated to factory standards so fabs can continue to operate at peak performance.

## Applications

- Inspection tool qualification
- Inspection tool calibration
- Process tool monitoring
- Bare silicon wafer IQC/OQC
- Advanced Process Control (APC)

## Features

- NIST traceability
- Multiple wafer sizes
- Highest accuracy calibration standards
- Competitive pricing
- Designed for fab environment

## Benefits

- Fast delivery (off the shelf)
- Easy ordering
- Conforms to OEM calibration requirements
- Particle sizes matched to original calibration curves

## Specifications

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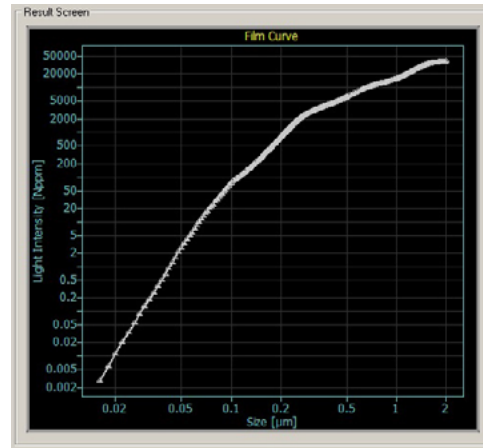
### Specifications

- Low-haze 200mm or 300mm bare silicon wafer
- PSL or SiO<sub>2</sub> spheres
- Cert of conformance
- Deposition summaries
- Particle traceability
- Particle counts +/- 25%
- Spot wafers: 20 mm spot diameter

Nominal SP2 Cal Diameter [nm]	NIST -Traceable Diameter [nm]
40	44
50	55
60	65
83	86
102	105
126	128
155	155
204	204
304	304
360	360
1112	1112
3040	3040

### Platform Offerings

- Individual full (blanket) deposited wafers, one calibration size each
- Cal-Dep sets of full-deposited wafers
- Multispot deposits of calibration sizes on a single wafer



KLA Surfscan® Calibration (Film) Curve



Surfscan is a registered trademark of KLA Corporation

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MSP - Visit our website [www.tsi.com/msp](http://www.tsi.com/msp) for more information.

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