

SPECTOR-HT Ion Beam Deposition System

Ion Beam Optical Film Quality at Physical Vapor Deposition Rates



- Up to 400% increased system throughput
- 200% increase in lot size
- Reduced time-to-process
- Optimized tool geometry improves material uniformity
- Optical endpoint control on planetary fixtures for improved yield
- Up to 300% target material utilization improvement



Innovation. Performance. Brilliant.

SPECTOR-HT Ion Beam Deposition System

Veeco's SPECTOR-HT™ Ion Beam Deposition System achieves unprecedented levels of productivity by offering the highest throughput for precision optical thin films. Building on the Veeco's proven ion beam deposition technology, the SPECTOR-HT increases deposition rate, lot sizes, target utilization and reduces time to process. SPECTOR-HT achieves ion beam quality films at physical vapor deposition (PVD) rates.

Specifications

Pump-Down	2x10 ⁻⁶ in 22 minutes 8x10 ⁻⁷ in 35 minutes
Uniformity Masking System	Two (2) user configurable masks with recipe controlled movement
Dimensions	108.6" (276cm) Wide 90.6" (230cm) Deep 91.1" (232cm) High
Deposition Source	RF Gridded with filamentless neutralizer
Deposition Rates	4-7 Å/second material and fixture dependant
Four-Planet Fixture: 310mm each	
Substrate/Palette Diameter	Four (4) up to 310mm diameter (3000 cm ² coating area)
Radial Uniformity	≤±0.25% across 310mm diameter planet
OMS Enabled	Yes
Two-Planet Fixture: 400mm each	
Substrate/Palette Diameter	Two (2) up to 400mm diameter (2500 cm ² coating area)
Radial Uniformity	≤±0.5% across 400mm diameter planet
OMS Enabled	Yes



Planetary fixture with four 310mm planets

SPECTOR-HT Applications

- Beam Splitters
- Anti-Reflective Coatings/High-Reflective Coatings
- Fluorescence Filters
- Band Pass Filters
- Notch Filters
- Ultra-Low Loss Mirrors
- Chirped Laser Mirrors
- Short/Long Wave Pass Filters

Worldwide Customer Support from the Industry Leader.

Veeco is the global leader in Process Equipment technology used to develop and manufacture optoelectronics, LEDs, solar cells, hard disk drives and other devices. Our products combine innovative technological solutions with highest capital efficiency to drive our customer's critical manufacturing processes. Veeco serves our world-class global customer base through our dedicated sales and service organization strategically located throughout Asia, Europe, and North America.



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