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
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 cm² 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 cm² coating area)
- **Radial Uniformity**: ≤±0.5% across 400mm diameter planet
- **OMS Enabled**: Yes

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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