

ARGUS 54



PRECISION MAGNETRON SPUTTERING

For Optics... and More



The ARGUS optics sputtering system combines excellent process stability, ultra-precise coatings, and uncommonly high throughput. It is designed for high quality optical coatings with low absorption and scattering. These optical properties will allow you to produce the most demanding filters. The Ultimate In Process Stability, paired with in-situ optical monitoring will enable you to change the future of optical coating.

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PROCESS TECHNOLOGY

Metal oxide layers with high and low refractive indices are deposited with Pulsed DC-Magnetron Sputtering in combination with a reactive-assist process using a low energy RF plasma source. Thin metal layers are deposited by DC-Magnetron sputtering and get fully oxidized by passing through an oxygen plasma created by the plasma source. The ARGUS also offers Co-Sputtering of high and low index materials which enables the creation of any refractive index between the two materials.

PRODUCTION

The stability of the Pulsed DC-Magnetron Sputtering process is ideal for high volume production of all types of optical filters. The transfer from filter designs into production is rapid since calibration runs are not needed.

A planetary system with six 16-inch diameter planets is installed in the ARGUS. The thickness uniformity across each planet is $\pm 0.25\%$.

Three round magnetrons are installed to optimize rates. The deposition rates are comparable to IAD processes.

FEATURES:

- Pulsed DC-Magnetron
- Sputter-Up Configuration
- Extremely Stable Process
- Complete Oxidation
- High Capacity, High Throughput
- Extremely high process stability
- Co-Sputtering; Blended coatings
- Fast Pump down

TECHNICAL DATA:

Coating System	ARGUS 54
Process Technology	Plasma Assisted – Pulsed DC-Magnetron Sputtering
Coating Material	All Dielectric Materials and Metals
Capacity	6 x 400 mm (16") other configurations available upon request
Sputtering Sources	3 x 8" DC-Magnetron Sources
Plasma Source	CCR Copra DN400, 266 mm Extraction, 13.56MHz RF Source

LAYER MONITORING

Time Control	Yes
Optical Monitoring	Single Wavelength / Broadband / Combination

FLOOR PLAN LAYOUT

System width	1806 mm (71.10")
System length	1734 mm (68.27")
System height	2569 mm (101.14")

SITE REQUIREMENTS

Power	65 kVA
Line Voltage	208 VAC, 3 phase 50/60 Hz
System weight	2636 kg (5800lbs)

Many more details available at www.vptec.com



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