

NAVIGATOR 1100LL

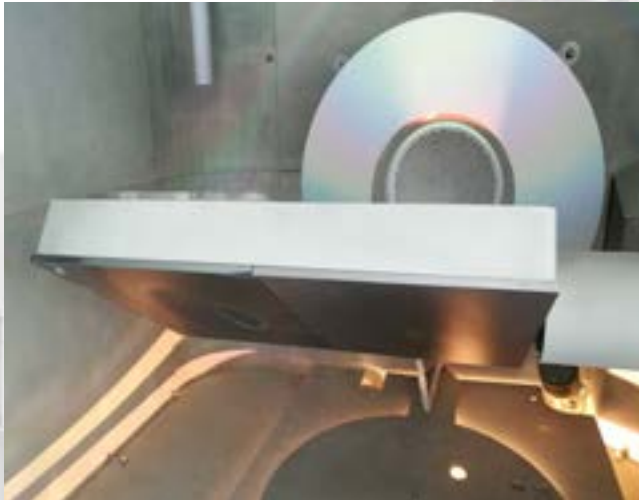
Load-Lock Production Line

Full Size IBS Coating System
for Industry Scale Serial Production



Major Features:

- *Tunable refractive index by genuine blending by using two zone targets, up to four coating materials in one coating run for innovative designs*
- *Production of complex filters with gradient-index profiles and Rugate-filters, extended recipe database software*
- *Highest performance ion source for ultimate uniform coating area*
- *Broad-Band optical monitoring system for high precision thickness control, complete integration into system control*
- *Higher throughput due to integration of load-lock system, low particle contamination , process chamber stays under stable conditions*



System Configurations:

Standard Configuration	NAVIGATOR 1100LL
<i>Chamber volume</i>	1100 l
<i>Prepump (dry pumps)</i>	70 m ³ /h
<i>High Vac. Pump (N₂)</i>	10000 l/s(Process chamber); 1300l/s(load-lock chamber)
<i>Ion Source Type</i>	RF-coupled (2 MHz), filament free, inert gases and O ₂ capable
<i>Extraction Grid / Output</i>	3 grids, 15 cm diameter, up to 2 kV, 750 mA
<i>Assist Plasma Source</i>	RF-coupled (2 MHz), filament free, up to 300 V, 500 mA output
<i>Assist Source Gases</i>	Inert gases and O ₂ capable
<i>Neutralization</i>	RF Neutralizers, up to 1000 mA electron current
<i>Targets</i>	4 Materials (metal/oxide) forming two zone targets
<i>Substrate Palettes</i>	Ø 350mm substrate palettes
<i>Uniform Coating Area</i>	Ø 350 mm with uniformity better 1%, no masks
<i>Substrate Movement</i>	Single rotation system, up to 120 rpm
<i>Optical Monitoring</i>	Broad-Band VIS/NIR spectrometer, fully integrated design
<i>Mechanical Design</i>	Clean room compatible, chamber door and control panel can be located in clean room
<i>Electrical Design</i>	Peripheral I/O-terminals, integrated bus system
<i>Control System</i>	PC/PLC control with all functions accessible over HMI systems on touch panel display

System Options	NAVIGATOR 1100LL
<i>Optical Mon. DUV Upgrade</i>	Additional DUV spectrometer, fully integrated design
<i>Optical Mon. IR Upgrade</i>	Additional IR spectrometer, fully integrated design
<i>Multiple Monitoring Substrates</i>	Chip-changer for up to six test substrates for the precise production of extreme thick filters
<i>Thickness Monitoring</i>	Quartz crystal monitoring system, fully integrated design
<i>Big Substrate Palette</i>	Up to Ø500mm Palette can be used without load-lock chamber
<i>Uniformitz Mask Upgrade</i>	0.1% uniformity with masks upgradeable