Ar-Ion, Kr-Ion, and Excimer Laser Mirrors

NB1-J02

Specifications

- **Substrate Material:** Fused Silica
- **Clear Aperture:** >80% of Diameter
- **Front Surface Flatness:** λ/10 at 633 nm
- **Front Surface Quality:** 10-5 Scratch-Dig
- **Back Surface:** Fine Ground
- **Diameter Tolerance:** +0.0/-0.1 mm
- **Thickness:** 6.0 ± 0.2 mm
- **Parallelism:** ≤3 arcmin
- **Chamfers:** 0.50 mm x 45° (Both Sides)

External-cavity laser mirrors are designed to provide high reflectance at specific laser wavelengths. Each optic is individually tested to ensure better than λ/10 flatness and surface finishes of 10-5 scratch-dig. The coating has a high-damage threshold suitable for use with the output beam from large-frame high-power lasers.

Ar-Ion λ = 244 – 257 nm, Damage Threshold = 1 kW/cm² (CW)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-H02	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	244 – 257 nm	25.4 mm (1")	0°	R_{avg} >99.5%
NB1-J02	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	244 – 257 nm	25.4 mm (1")	45°	R_{avg} >99.5%

Ar-Ion λ = 300 – 308 nm, Damage Threshold = 1 kW/cm² (CW)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-J05	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	300 – 308 nm	25.4 mm (1")	45°	R_{avg} >99.5%

Ar-Ion λ = 333 – 364 nm, Damage Threshold = 1 kW/cm² (CW)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-H07	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	333 – 364 nm	25.4 mm (1")	0°	R_{avg} >99.5%
NB1-J07	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	333 – 364 nm	25.4 mm (1")	45°	R_{avg} >99.5%

Ar-Ion λ = 458 – 528 nm, Damage Threshold = 1 kW/cm² (CW)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-H10	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	458 – 528 nm	25.4 mm (1")	0°	R_{avg} >99.5%
NB1-J10	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	458 – 528 nm	25.4 mm (1")	45°	R_{avg} >99.5%

Kr-Ion λ = 520 – 647 nm, Damage Threshold = 1 kW/cm² (CW)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-J11	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	520 – 647 nm	25.4 mm (1")	45°	R_{avg} >99.7%

Excimer ArF λ = 193 nm, Damage Threshold = 3 J/cm² (10 ns Pulse)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-H01	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	193 nm	25.4 mm (1")	0°	R_{avg} >98.0%

Excimer KrF λ = 248 nm, Damage Threshold = 5 J/cm² (10 ns Pulse)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-H03	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	248 nm	25.4 mm (1")	0°	R_{avg} >97.0%

Excimer XeF λ = 352 nm, Damage Threshold = 5 J/cm² (10 ns Pulse)

ITEM #	$	£	€	RMB	WAVELENGTH RANGE	DIAMETER	ANGLE OF INCIDENCE	REFLECTIVITY
NB1-H09	$ 120.00	£ 86.40	€ 104,40	¥ 956.40	352 nm	25.4 mm (1")	0°	R_{avg} >99.5%