



# NWR193

FOR ALL THE MOST  
CHALLENGING  
APPLICATIONS

## Features

Reliable Coherent ExciStar XS laser

Rugged frame design

Infinitely Variable Aperture (IVA)

Rotating XY Shutter (XYR)

ActiveView2 Software

 **Elemental Scientific**  
LASERS  
INNOVATION TO ILLUMINATE

Accurate and precise results on even  
the most challenging sample types

Guaranteed for 500 million shots

Optimum stability and mobility

Spot size selection in 1µm increments and  
rotating rectangular craters for greater  
flexibility

Intuitive, feature rich laser ablation control  
software designed around your workflows  
with improved ICP-MS compatibility

Multi-layered viewing for greater sample  
control in less time

# NWR193

## Specifications summary

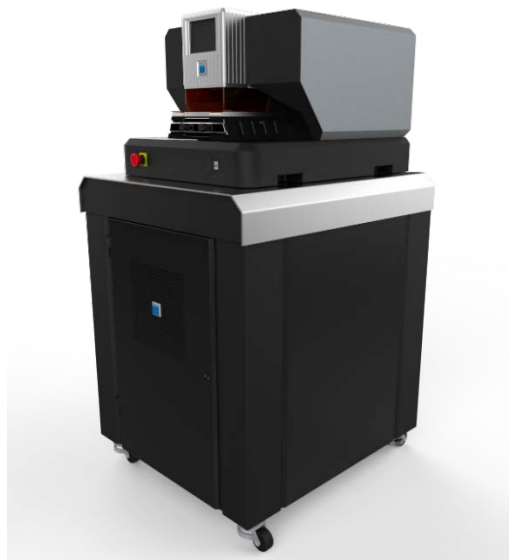


### Performance Specifications

Laser	Coherent ExciStar XS excimer laser @193nm
Beam profile	Flat-top beam profile from proprietary diffuser technology
Repetition Rate	1-200 Hz (500Hz optional)
Laser Attenuation	Closed-loop, high resolution attenuation of beam energy at the fundamental wavelength with ~1000 positions
Fluence	>15 J/cm <sup>2</sup> at the sample surface
Spot Sizes	Aperture Imaged: 13 circular spots 1-150µm
Ablation chambers	Two Volume ablation chamber - TwoVol1
XY Stage	100mm x 100mm, 1µm resolution
Mass flow controllers	Standard: 0 – 1 L/min He MFC
Triggering	Bi-directional hard triggering Software plug-ins with ICP-MS systems for greater control and automation
Primary viewing system	Full HD 1080p digital camera with 15x to 60x objective-to-camera magnification
Secondary viewing system	25mm field of view for macro navigation
Lighting	3 high-intensity, LED light sources (coaxial, ring and transmitted) Fully software controlled
Polariser	Software-controlled rotating cross polarizer
Software	Class leading ActiveView2 software

### General Specifications

Safety Classification	Fully interlocked Class 1 system
Warranty	12 months
Dimensions	89cm x 79cm x 150cm (35" x 31" x 59") DxWxH
Weight	270kg (600lb)
Cooling	Air Cooled
Platform	Ultra-stable bridge design on Ultra Compact cart



### Site Requirements

Temperature	21°C ±3°C (70°F ±10°F)
Relative Humidity	20% - 65% non-condensing
Power Requirements	100-110V (AC), 6A, 50/60Hz 220-240V (AC), 3A, 50/60Hz

### Additional Options

TwoVol2 Sample Chamber	Significantly higher performance in precision, accuracy, purging and washout - Available as 100mm or 150mm
CryoCell	Liquid N <sub>2</sub> cryocell – operates down to -100°C
IVA	Infinitely variable aperture – gives circular spot sizes from 1µm to 150µm in 1µm steps
XYR	X and Y rotation aperture – gives square and rectangular ablations, independently adjustable in 1µm steps in X and Y, plus rotational adjustment in 1° increments
Mass flow controllers	Optional: 0 – 100 mL/min N <sub>2</sub> MFC Optional: 0 – 1 L/min Ar MFC
DCI	Dual concentric injector – ultra-fast washout for single-shot and imaging analysis
Warranty extension and service contract	Available on request

