

# NWR213

STATE-OF-THE-ART  
APPLICATION  
FLEXIBILITY



Suitable for a wide range of applications with simplicity, reliability and low cost of ownership

## Features

Infinitely Variable Aperture (IVA)  
Rotating XY Shutter (XYR)

ActiveView2 Software

Spot size selection in 1  $\mu\text{m}$  increments and rotating rectangular crater options to match a wide variety of sample shapes

Intuitive, feature rich laser ablation control software – designed around your workflows

Multi-layered viewing for greater sample control in less time

Improved ICP-MS compatibility

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## Specifications summary

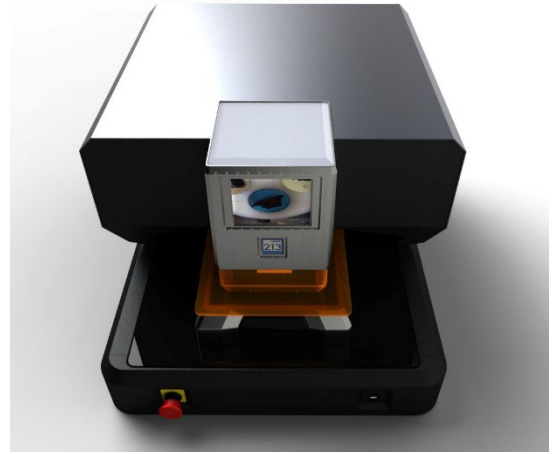


### Performance Specifications

Laser	ESI designed and built Nd:YAG @ 213 nm
Beam profile	Internally homogenised at fundamental wavelength for improved stability
Repetition Rate	1-20 Hz
Laser Attenuation	High resolution attenuation of beam energy with ~1000 positions
Fluence	> 30 J/cm <sup>2</sup> at the sample surface
Spot Sizes	Infinitely Variable Aperture: Circular spot sizes 4-110 µm in 1 µm steps Extended Range: Up to 250 µm
Ablation chamber	Two Volume ablation chamber – TwoVol2 (100 or 150 mm)
Beam profile	Internally homogenised at fundamental wavelength for improved stability
XY Stage	100 mm x 100 mm, 0.16 µm resolution
Mass flow controllers	Standard: 0 – 2 L/min He MFC
Triggering and plugins	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	25 mm field of view for macro navigation (4.3x magnification)
Lighting	3 high-intensity, LED light sources (coax, ring, trans) – fully software controlled
Polarizer	Software-controlled rotating cross polarizer
Software	Class leading ActiveView2 software including ImageLock for unparalleled stage reproducibility (< 1 µm error in stage return)

### General Specifications

Safety Classification	Fully interlocked Class 1 system
Warranty	24 months
Dimensions	81 cm x 61 cm x 48 cm (32" x 24" x 19") D x W x H
Weight	91 kg (200 lb)
Cooling	Closed loop distilled water system
Platform	Ultra-stable bridge design



### Site Requirements

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

### Additional Options

TwoVol3 Sample Chamber	Ultra-fast two volume ablation chamber (< 1 ms peak widths) with switchable ablation cups (imaging and analytical) for application versatility
CryoCell	Liquid N <sub>2</sub> cryocell – operates down to -100°C
XYR	X and Y rotation aperture – gives square and rectangular ablations independently adjustable in 1 µm 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

