

**NEW**

# Sirah PrecisionScan Dye Laser

## Linewidth Specifications

Dispersion Option	Tuning Range	Linewidth		Efficiency
1800 lines / mm, 60 mm	400 nm .. 920 nm	3.6 pm	0.1 cm <sup>-1</sup> @ 625 nm	30 % <sup>1)</sup>
1800 lines / mm, 90 mm	400 nm .. 920 nm	2.4 pm	0.06 cm <sup>-1</sup> @ 625 nm	30 % <sup>1)</sup>
2400 lines / mm, 60 mm	370 nm .. 760 nm	2.7 pm	0.08 cm <sup>-1</sup> @ 570 nm	30 % <sup>2)</sup>
2400 lines / mm, 90 mm	370 nm .. 760 nm	1.8 pm	0.06 cm <sup>-1</sup> @ 570 nm	30 % <sup>2)</sup>
3000 lines / mm, 60 mm	370 nm .. 620 nm	2.0 pm	0.06 cm <sup>-1</sup> @ 570 nm	30 % <sup>2)</sup>
3000 lines / mm, 90 mm	370 nm .. 620 nm	1.4 pm	0.05 cm <sup>-1</sup> @ 570 nm	30 % <sup>2)</sup>
Dual 1800 lines / mm	410 nm .. 900 nm	1.7 pm <sup>3)</sup>	0.05 cm <sup>-1</sup> @ 625 nm	27 % <sup>1)</sup>
Dual 2400 lines / mm	370 nm .. 710 nm	1.2 pm <sup>3)</sup>	0.04 cm <sup>-1</sup> @ 570 nm	27 % <sup>2)</sup>
Dual 3000 lines / mm	370 nm .. 580 nm	1.0 pm <sup>3)</sup>	0.03 cm <sup>-1</sup> @ 570 nm	27 % <sup>2)</sup>

<sup>1)</sup> at 625 nm (peak DCM) pumped at 532 nm

<sup>2)</sup> at 570 nm (peak Rhodamine 6G) pumped at 532 nm

<sup>3)</sup> exact linewidth depends weakly on wavelength; value given for 450 nm

## Wavelength and Beam Characteristics

Absolute Wavelength Accuracy	< 20 pm
Wavelength Resetability	< 4 pm
Wavelength Stability	< 2 pm / °C
Divergence (typical)	0.5 mrad
Polarization	> 98 % (vertical)
ASE	< 0.5 %
Pump Energies (grating models)	50 .. 650 mJ @ 532 nm (800 mJ <sup>4)</sup> ) 50 .. 400 mJ @ 355 nm (500 mJ <sup>4)</sup> ) 300 .. 1400 mJ @ 532 nm with 2 <sup>nd</sup> main amplifier 300 .. 1000 mJ @ 355 nm with 2 <sup>nd</sup> main amplifier

<sup>4)</sup> with enhanced beam profile (capillary) dye cell

## Requirements

Voltage	110 .. 230 V, single phase, 50 Hz / 60 Hz
Computer	single USB port
Operating System	Windows XP / Windows Vista / Windows 7

## Options

Automatic exchange of gratings

Second main amplifier for higher output energy

Internal autotracking frequency doubling

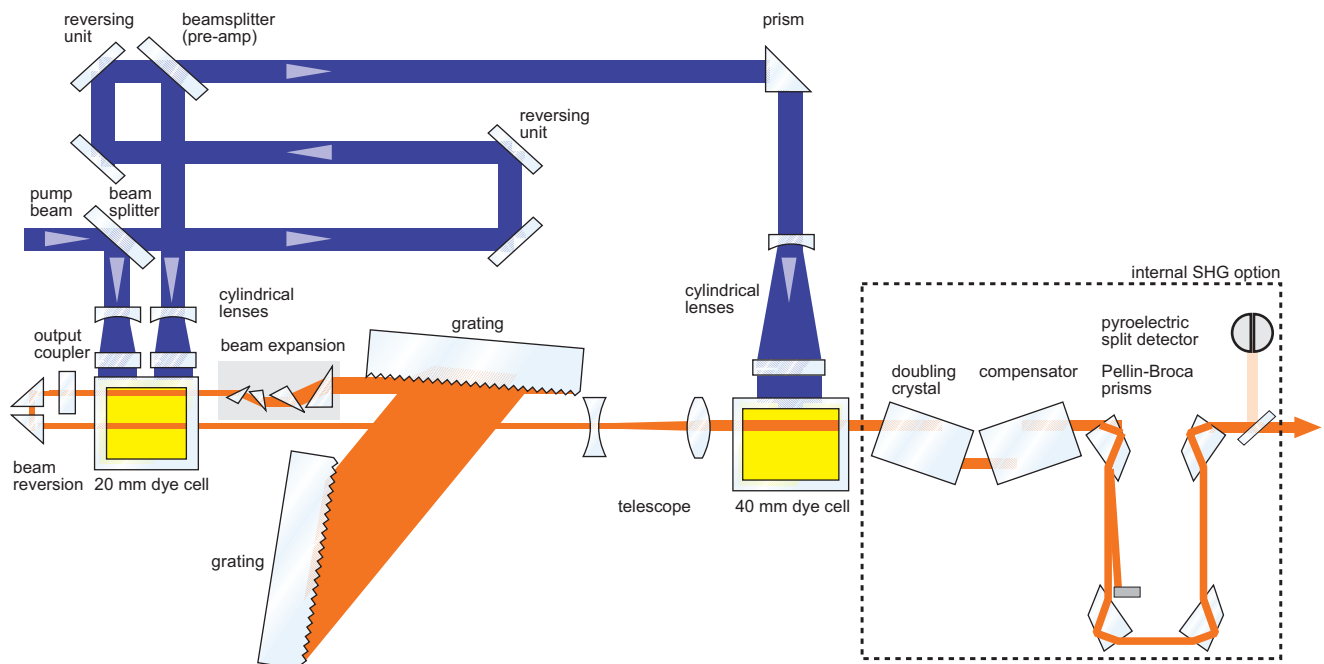
Internal open loop frequency doubling / mixing units (with 2<sup>nd</sup> main amplifier: external housing)

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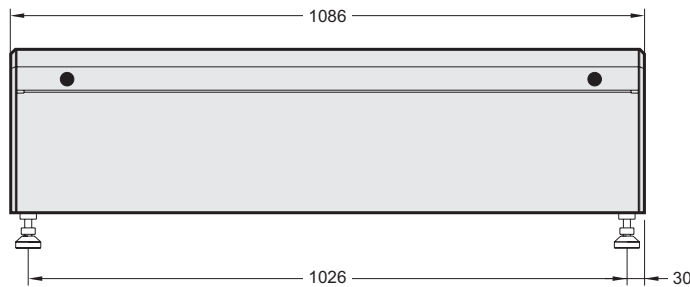
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## Optical Layout

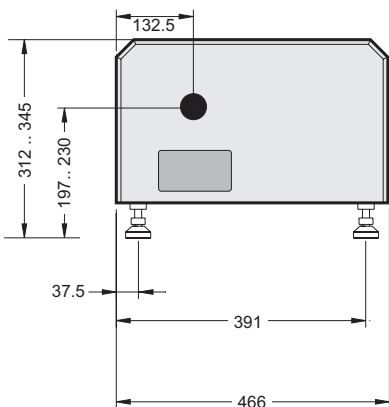
# Sirah PrecisionScan Dye Laser



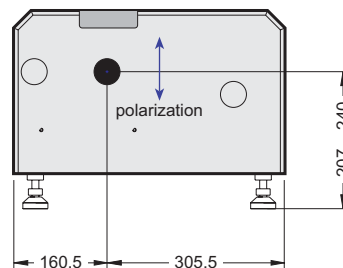
## Dimensions



PrecisionScan (side view)



PrecisionScan (pump laser input end)



PrecisionScan (dye laser output end)

All Dimensions in mm

Specifications are subject to change without notice



# Sirah

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