

## Linewidth Specifications

Dispersion Option	Tuning Range	Linewidth		Efficiency
Three Quartz Prisms	370 nm .. 920 nm	0.15 nm <sup>1)</sup>	5 cm <sup>-1</sup> @ 570 nm	24 % <sup>2)</sup>
1800 lines / mm, 60 mm	400 nm .. 920 nm	3.6 pm	0.1 cm <sup>-1</sup> @ 625 nm	12 % <sup>3)</sup>
1800 lines / mm, 90 mm	400 nm .. 920 nm	2.4 pm	0.06 cm <sup>-1</sup> @ 625 nm	12 % <sup>3)</sup>
2400 lines / mm, 60 mm	350 nm .. 760 nm	2.7 pm	0.08 cm <sup>-1</sup> @ 570 nm	12 % <sup>2)</sup>
2400 lines / mm, 90 mm	350 nm .. 760 nm	1.8 pm	0.06 cm <sup>-1</sup> @ 570 nm	12 % <sup>2)</sup>
3000 lines / mm, 60 mm	350 nm .. 620 nm	2.0 pm	0.06 cm <sup>-1</sup> @ 570 nm	12 % <sup>2)</sup>
3000 lines / mm, 90 mm	350 nm .. 620 nm	1.4 pm	0.05 cm <sup>-1</sup> @ 570 nm	12 % <sup>2)</sup>
Dual 1800 lines / mm	410 nm .. 900 nm	1.7 pm <sup>4)</sup>	0.05 cm <sup>-1</sup> @ 625 nm	10 % <sup>3)</sup>
Dual 2400 lines / mm	370 nm .. 710 nm	1.2 pm <sup>4)</sup>	0.04 cm <sup>-1</sup> @ 570 nm	10 % <sup>2)</sup>
Dual 3000 lines / mm	370 nm .. 580 nm	1.0 pm <sup>4)</sup>	0.03 cm <sup>-1</sup> @ 570 nm	10 % <sup>2)</sup>

<sup>1)</sup> for wavelength < 660 nm

<sup>2)</sup> resonator, pre- and main amplifier at 570 nm (peak Rhodamine 6G) pumped at 532 nm

<sup>3)</sup> resonator, pre- and main amplifier at 625 nm (peak DCM) pumped at 532 nm

<sup>4)</sup> exact linewidth depends weakly on wavelength; value given for 450 nm

## Wavelength and Beam Characteristics

Absolute Wavelength Accuracy	< 15 pm	(prism models: 0.5 nm)
Wavelength Resetability	< 2 pm	(prism models: 0.05 nm)
Wavelength Stability	< 1.5 pm / °C	(prism models: 10 pm / °C)
Divergence (typical)	1.0 mrad	
Polarization	> 98 %	(vertical)
ASE	< 0.5 %	
Pump Energies (grating models)	8 .. 150 mJ @ 532 nm	
	8 .. 130 mJ @ 355 nm	
Pump Energies (prism models)	8 .. 230 mJ @ 532 nm	
	8 .. 230 mJ @ 355 nm	

## Requirements

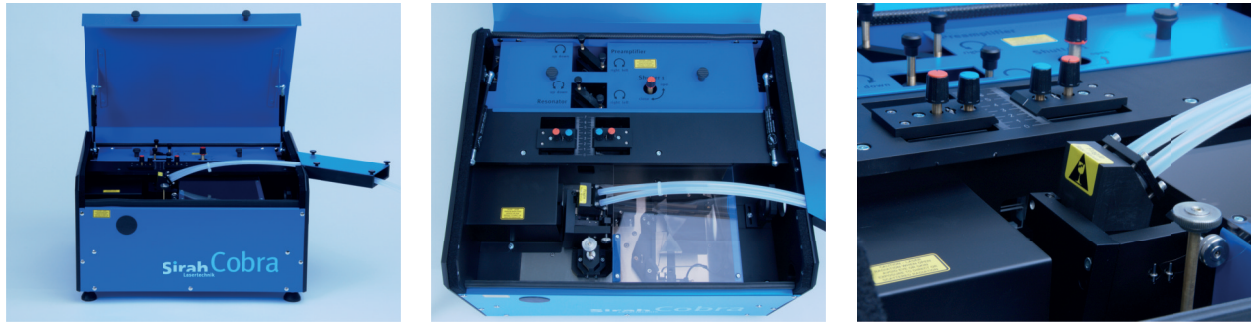
Voltage	110 .. 230 V, single phase, 50 Hz / 60 Hz
Computer Control	XP / Vista / Windows 7 / Windows 8 / Windows 10, USB port

## Options

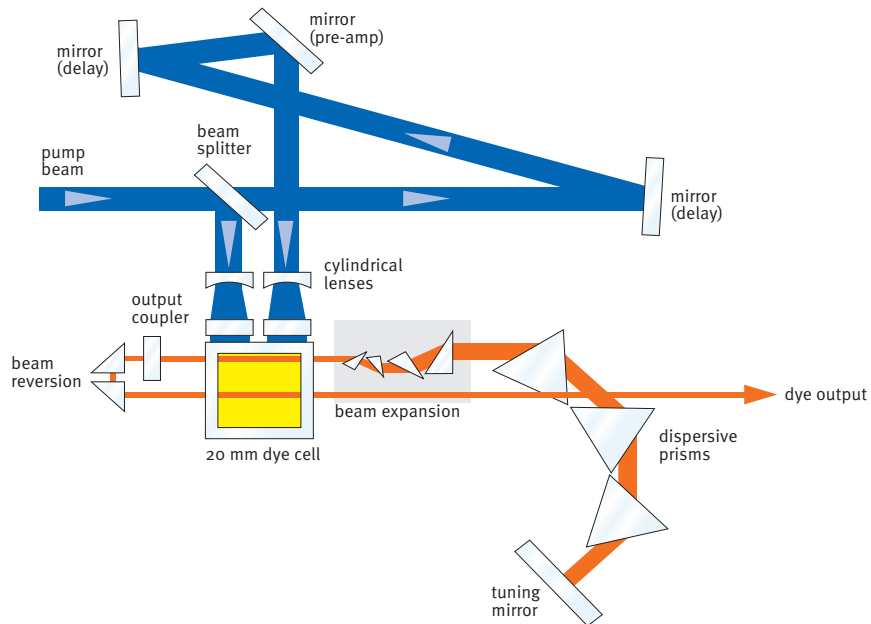
- Double wavelength pump optic (532 nm, 355 nm)
- Frequency doubling / mixing units (external housing)
- Automatic exchange of gratings
- Piezo wavelegth control
- Dynamic mode option
- Double bandwidth option

# Cobra Dye Laser

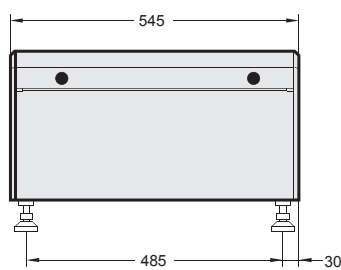
## Cobra Dye Laser



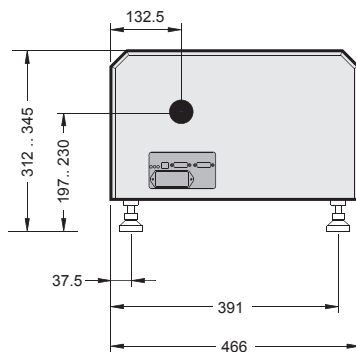
## Optical Layout



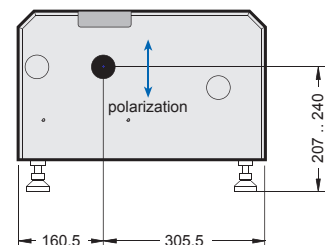
## Dimensions



Cobra (side view)



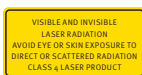
Cobra (pump laser input end)



Cobra (dye laser output end)

All Dimensions in mm

Specifications are subject to change without notice



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