

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 ⁻¹ @ 625 nm	30 % ¹⁾
1800 lines / mm, 90 mm	400 nm .. 920 nm	2.4 pm	0.06 cm ⁻¹ @ 625 nm	30 % ¹⁾
2400 lines / mm, 60 mm	370 nm .. 760 nm	2.7 pm	0.08 cm ⁻¹ @ 570 nm	30 % ²⁾
2400 lines / mm, 90 mm	370 nm .. 760 nm	1.8 pm	0.06 cm ⁻¹ @ 570 nm	30 % ²⁾
3000 lines / mm, 60 mm	370 nm .. 620 nm	2.0 pm	0.06 cm ⁻¹ @ 570 nm	30 % ²⁾
3000 lines / mm, 90 mm	370 nm .. 620 nm	1.4 pm	0.05 cm ⁻¹ @ 570 nm	30 % ²⁾
Dual 1800 lines / mm	410 nm .. 900 nm	1.7 pm ³⁾	0.05 cm ⁻¹ @ 625 nm	27 % ¹⁾
Dual 2400 lines / mm	370 nm .. 710 nm	1.2 pm ³⁾	0.04 cm ⁻¹ @ 570 nm	27 % ²⁾
Dual 3000 lines / mm	370 nm .. 580 nm	1.0 pm ³⁾	0.03 cm ⁻¹ @ 570 nm	27 % ²⁾

¹⁾ at 625 nm (peak DCM) pumped at 532 nm

²⁾ at 570 nm (peak Rhodamine 6G) pumped at 532 nm

³⁾ exact linewidth depends weakly on wavelength; value given for 450 nm

Wavelength and Beam Characteristics

Absolute Wavelength Accuracy	< 15 pm
Wavelength Resetability	< 2 pm
Wavelength Stability	< 1.5 pm / °C
Divergence (typical)	0.4 mrad
Polarization	> 98 % (vertical)
ASE	< 0.5 %
Pump Energies (grating models)	50 .. 650 mJ @ 532 nm (800 mJ ⁴⁾)
	50 .. 400 mJ @ 355 nm (500 mJ ⁴⁾)
	300 .. 1400 mJ @ 532 nm with 2nd main amplifier
	300 .. 1000 mJ @ 355 nm with 2nd main amplifier

⁴⁾ with enhanced beam profile (capillary) dye cell

Requirements

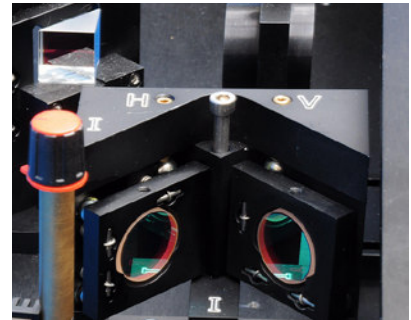
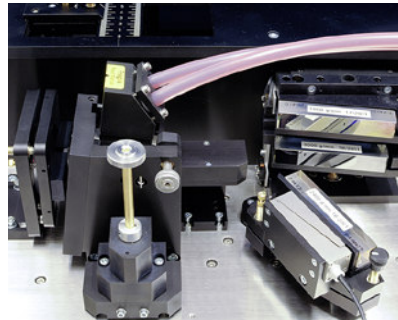
Voltage	110 .. 230 V, single phase, 50 Hz / 60 Hz
Computer Control	XP / Vista / Windows 7 / Windows 8 / Windows 10, USB Port

Options

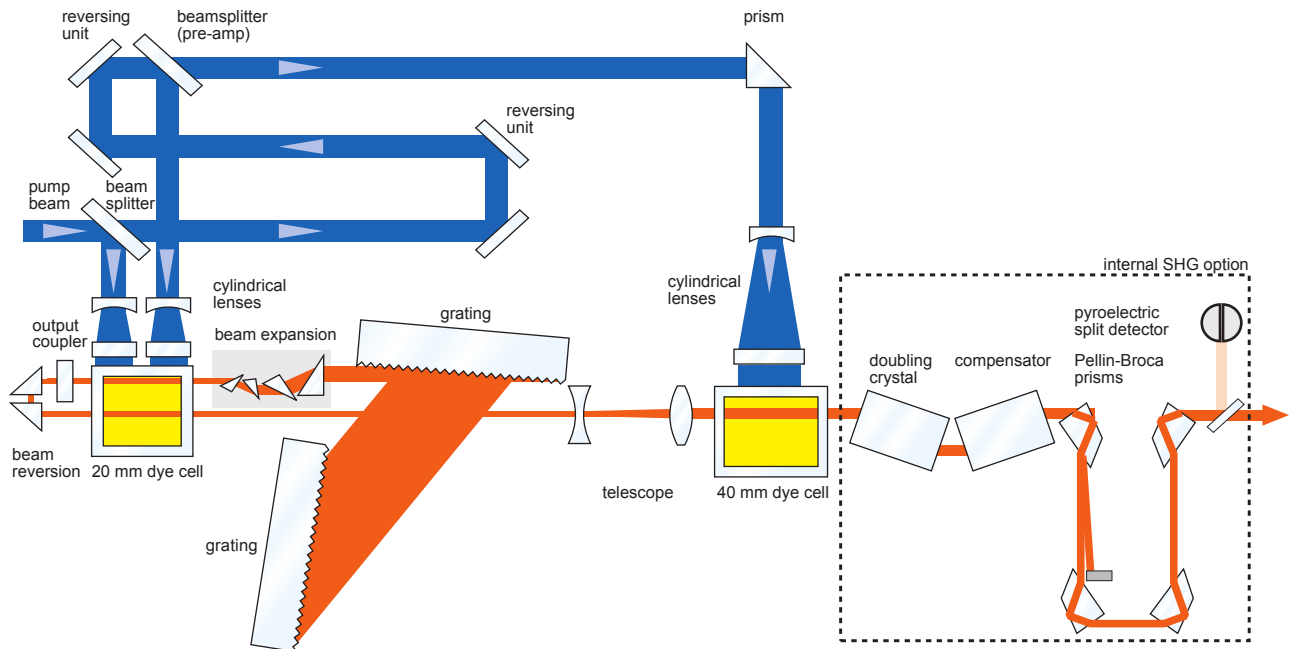
- Automatic exchange of gratings
- Second main amplifier for higher output energy
- Internal frequency doubling (with 2nd main amplifier: external housing)
- External mixing units
- Piezo wavelength control
- Dynamic mode option
- Double bandwidth option)

PrecisionScan Dye Laser

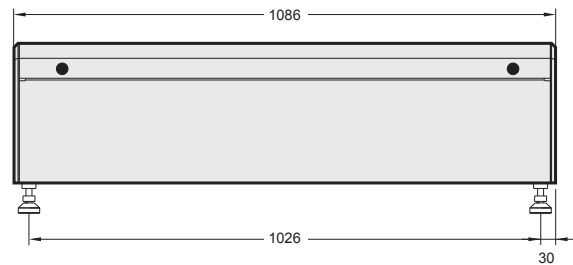
PrecisionScan Dye Laser



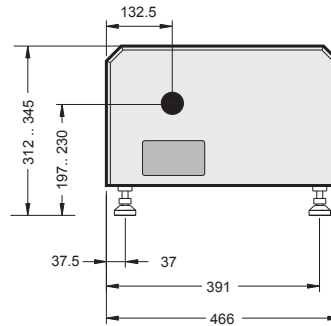
Optical Layout



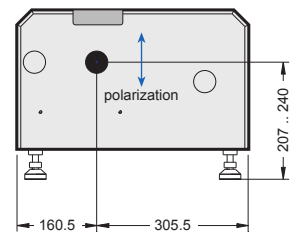
Dimensions



PrecisionScan (side view)



PrecisionScan (pump laser input end)



PrecisionScan (dye laser output end)

All Dimensions in mm
Specifications are subject to change without notice



VISIBLE AND INVISIBLE
LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

Heinrich-Hertz-Straße 11
D-41516 Grevenbroich

phone +49 21 82.82 98 18-0
fax +49 21 82.82 98 18-40