

# Double Bandwidth Dye Laser

## General

The Double Bandwidth Option (DBO) permits operation of the Sirah pulsed dye laser resonator at two distinct bandwidths.

A special prism expander allows to change the laser expansion onto the grazing incidence grating by a factor of 3.6. Thus the dye laser linewidth can be switched from the Sirah's ultra narrow linewidth resonator limit, e.g.  $0.03 \text{ cm}^{-1}$  ( $1 \text{ pm}$ )<sup>1)</sup>, to an about four times higher bandwidth, here  $0.11 \text{ cm}^{-1}$  ( $3.6 \text{ pm}$ )<sup>1)</sup>. Applications are for example to adapt the laser linewidth better to the spectral properties of the species investigated in e.g. combustion research.

1) Value given for a double, 3000 lines / mm grating resonator at 560 nm.

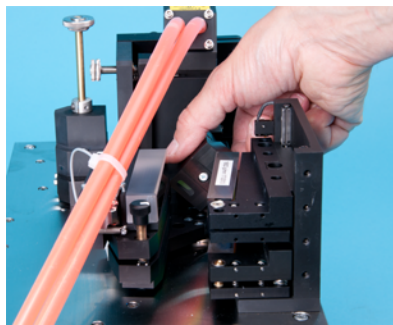
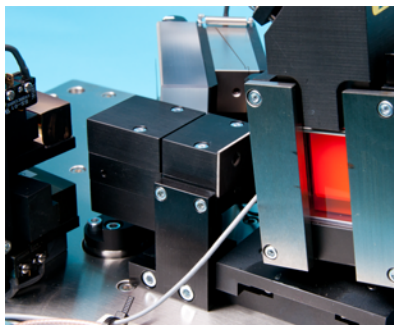
By rotating the unique DBO snap-in rotational prism expander stage, bandwidth switching requires a minimum of alignment and time. Wavelength shifts due to switching are smaller than 10pm, the calibration of the resonator and all other remaining Sirah resonator specifications are valid for both settings.

DBO is available for the complete line of Sirah pulsed dye resonators. Please note that DBO has to be ordered together with a new Sirah laser or an existing resonator has to be send to Sirah for the upgrade.

## Characteristics

Absolute Wavelength Accuracy after bandwidth change	< 10 pm
Supported Laser Models	Cobra
	Cobra-Stretch
	PrecisionScan
	Credo

## Double Bandwidth



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

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