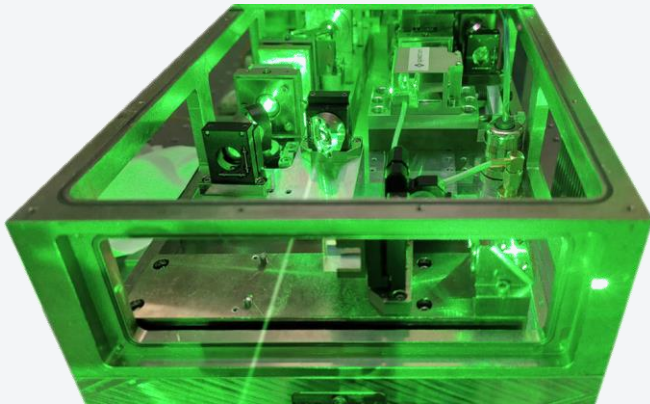


Diode Pumped Solid State Laser



Features

- Nd:YVO₄
- 100 - 300kHz
- active Q-switch
- short pulses
- Attenuator include

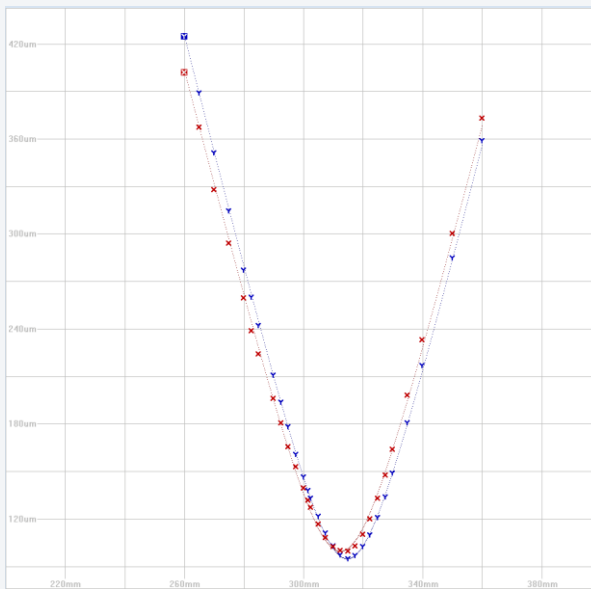
The TARBO is a highly repetitive diode pumped solid state laser which can be operated up to 300 kHz. Depending on version the system generates light radiation at 532nm in short laser pulses with an average power of 40W or 70W. The laser head consists of an optical and an electrical unit. There are all necessary parts for laser operation and communication included.



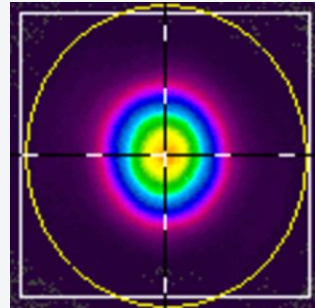
Applications

- Glass cutting and drilling
- Metal foil cutting
- Trimming

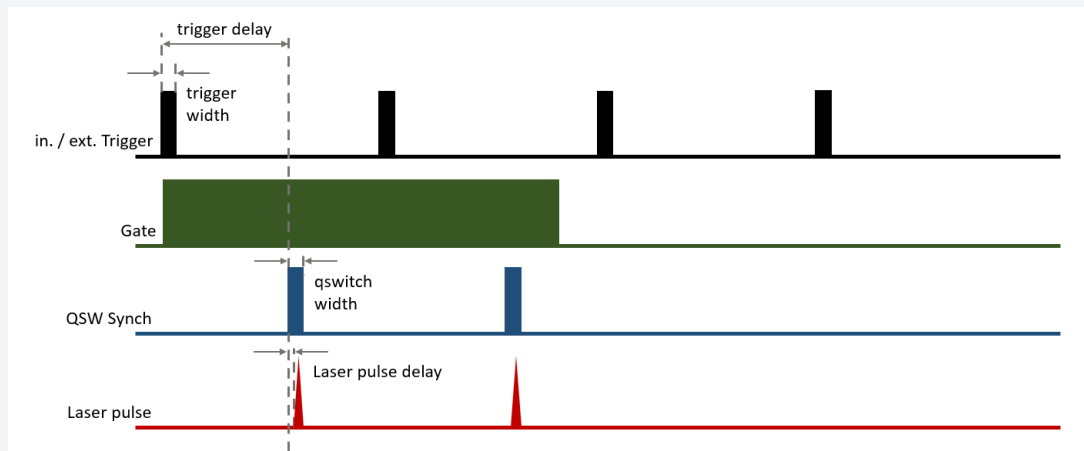
Beam Quality



—Laser—		Automated Stepping—	
Waist Width X	1.701e+03	um	
Waist Width Y	1.572e+03	um	
Divergence X	4.368e-01	mrاد	
Divergence Y	4.574e-01	mrاد	
Waist Loc X	-1533.30	mm	
Waist Loc Y	-1841.95	mm	
M ² X	1.097		
M ² Y	1.061		
BPP X	1.857e-01	mm mrad	
BPP Y	1.797e-01	mm mrad	
Rayleigh X	3893.65	mm	
Rayleigh Y	3436.79	mm	
Astigmatism	0.08		
Asymmetry	1.08		



Timing Diagram - Operational Modes



The timing diagram shows the relationship of the different timing events of the laser system which are either controlled by the Laser control unit in internal trigger mode or must be applied by the user in external trigger mode.

Specifications		
	Tarbo 532-40	Tarbo 532-70
Wavelength	532nm	
Power / Energy	> 40W @ 100kHz > 35W @ 200kHz > 25W @ 300kHz	> 70W @ 100kHz > 55W @ 200kHz > 40W @ 300kHz
Repetition Rate	100 - 300kHz	
Pulse Width	< 20 ns @ 100kHz	
Pulse to Pulse Stability (RMS)	< 5.0% rms @ 100kHz < 10.0% rms up to 300 kHz	
Spatial Mode	TEM00	
M ²	< 1.2	
Polarization	100:1 vertical	
Beam Diameter	2.0 mm ± %	
Beam Divergence (full angle)	< 0.5 mrad	
Beam Asymmetry	< 1.1 (> 90%)	
Operating Conditions		
DC Input Voltage (controller)	24 V DC, Typ.: 3 A, Max.: 10A	
DC Input Voltage (laser diodes)	48 V DC, Typ.: 12A, Max.: 20A	
Warm-up Time	10 min from standby; 40 min from cold start	
Temperatur Range (environment)	15 - 35°C	
Relative Humidity	5 up to 90 % (not condensing)	
Water Cooling Requirements	25°C ± 0.3°C; 3.0 l/min	
Power Consumption	Typ.: 300 W	Typ.: 650 W
Dimensions		
Laser Head (L x W x H)	710mm x 260mm x 200mm	
Weigth	24kg	

Mechanical Specifications

