



## Summer Sales!!!

To reward our valuable customers, we offer summer sales promotion during the period of August - Sept 2014 for all stock items.

- All ZNSE Optics, Si Optics, Cu Reflector
- CO2 Beam Expanders, F-Theta Scan Lens
- Fibre Laser Optics and Protection Windows

Contact our sales engineer at [info@wavelength-tech.com](mailto:info@wavelength-tech.com) for more product information and promotion. Promotion is valid while stock last!!!

## ZnSe Protection Window

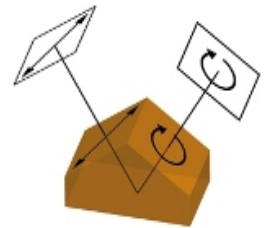
Large area marking for textile industry or signage products requires 3D dynamic laser system. However due to harsh working environment such as smoke and ashes, laser scan head tends to be contaminated easily without proper protection.

Wavelength provides big ZNSE window to protect expensive galvo head. These windows are flat surface with durable AR coating at different size fitted to scan head.

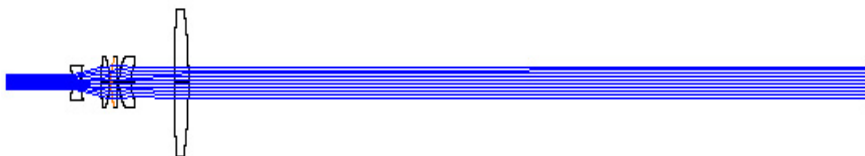


## ZNSE Prism Waveplate

Wavelength produces high precision prisms from ZNS material. The Fresnel prisms and rhombs utilize the principle that when light undergoes total internal reflection, there is a relative phase change between the s and p polarization components. This effect is only weakly dependent on wavelength. As a result, these components are ideal for those working at either multiple distinct wavelengths or with broadband sources in the 8 to 12  $\mu\text{m}$  region. By manipulating the rhomb's geometry, devices which produce quarter-wave, half-wave, or virtually any required retardation can be constructed.

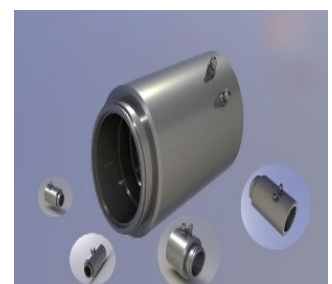
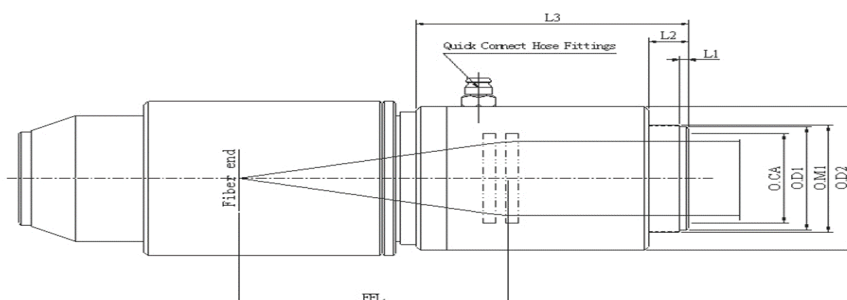


## Galilean type zoom expander (manual and motorized)



Galilean design beam expander has no internal focal point to avoid high energy intensity inside the components. We provide Zoom Expanders for full wavelength and broad band. These includes 10.6 $\mu\text{m}$ , 9.3 $\mu\text{m}$ , 1550nm, 1064nm, 650nm, 532nm, 355nm, 266nm as well as 400-700nm. It comes with motorized version and manual version. The advantage of Zoom expander is to offer variable expansion at one expander. It is good for lab use and industrial system where beam expansion is a

## Fiber collimator with QB connector



The collimator is suitable for fiber laser cutting, welding applications as a collimating lens in its optical system. The special feature of this product is to handle thousand watt of high power laser.

## F-theta Scan Lens made by Fused Silica for High Power Laser application

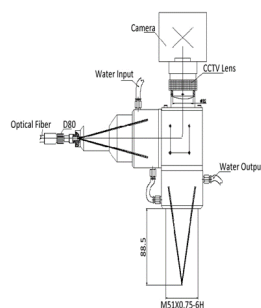
Part No.	EFL (mm)	Scanning Angle ( $\pm^\circ$ )	Scan Length (mm)	Scan Field (mm)	Ent. Pupil (mm)	Length (mm)	WD (mm)	Screw Thread	Window Size
SL-HF-142-277	277.0	21.0	200.0	142x142	15.0	66.1	347.5	M85x1	96x2.5
SL-HF-280-420	420.0	13.5	396.0	280x280	14.0	66.6	506.3	M85x1	110x2.5
SL-1064-112-163Q	163.0	25.0	158.4	112x112	10.0	79.5	203.7	M79x1	-
SL-1064-215-340Q	340.0	25.0	304.0	215x215	20.0	174.6	203.82	M85x1	140x3.5

## Telecentric Scan Lens made by Fused Silica for High Power Laser application

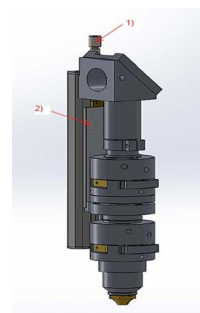
Part No.	EFL (mm)	Scanning Angle ( $\pm^\circ$ )	Scan Field (mm)	Ent. Pupil (mm)	Length (mm)	WD (mm)	Wavelength (nm)	Window Size
TSL-1064-20-82Q	82.0	10.0	20*20	15.0	102.0	85.0	1064	-
TSL-1064-50-100Q	100.0	21.0	50*50	10.0	108.0	126.1	1064	94x2.5
TSL-1064-100-D25	100.0	18.0	40*40	25.0	139.1	73.0	1064	100x2

## Laser Cutting /Welding Head

Wavelength produces cutting or welding head for industrial application. These heads are small and compact attached to robot arms with height sensing unit. Applications are cutting automobile parts, or kitchen appliance, or PCB soldering.



**Coaxial Laser  
Welding Head**



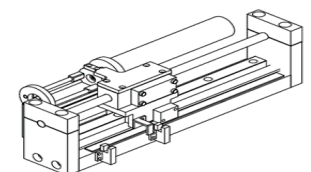
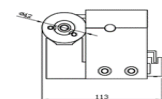
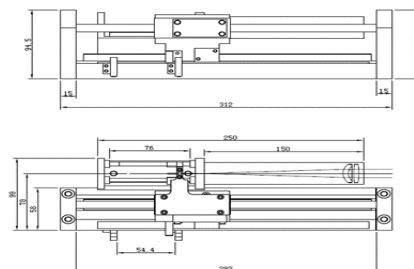
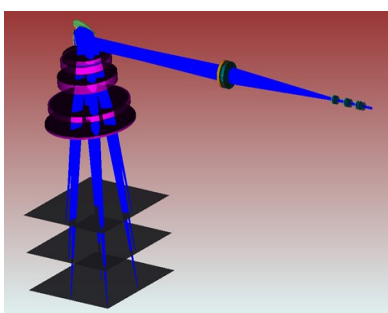
**LDH Series**



**Fiber Laser Smart  
Cutting Head**

## 3D Scanning Solutions

At Wavelength, our engineers are listening to your requirements, making solutions to overcome the challenges ahead of you and us. We offer typical 3D printing solutions including optical, electrical, motion control etc.



A 3-Axis dynamic scanning system normally offers the following advantages:

- Adjustable range of scanning field size from 100mmX100mm to 2000mm x 2000mm
- Achieve smaller focused spot size compared to the pre-object scanning systems;
- Enhanced uniformity of the focused spot size from the center to the edge of the scanning field.

Part No.	Wavelength	Scan area (mm*mm)	D (mm)	Input Beam (mm)	WD (mm)	Spot Size ( $\mu\text{m}$ )
3D-10.6-2000*2000-9	10.6um	100*100-2000*2000	93.45-165.99	9.0	137.4-2747.5	140-1440
3D-10.6-500*500-8	10.6um	500*500	97.419	8.0	700.0	240
3D-10.6-800*800-15	10.6um	300*300-800*800	98.91-114.46	15.0	582.8-1554.2	210-500
3D-1064-1000*1000-4	1064nm	100*100-1000*1000	91.637	4.0	609.0	110
3D-355-1000*1000-0.6	355nm	1000*1000	110	0.6	1300.0	200