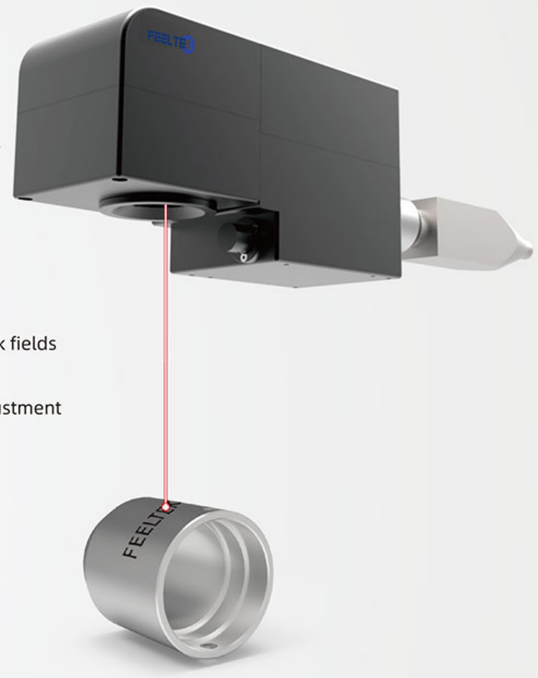
3D FR10-F

Support wavelength: 1064nm

3D Dynamic Focus System

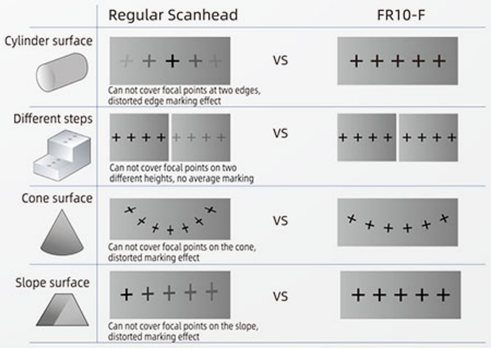
Entry priority for the industry



- Compact design, easy for integration.
- Focal length data preservation when switching work field.
- The adjustment knob is used to switch between different work fields without replacing any parts.
- The optical adjuster could solve the common difficulty of adjustment from QCS interface optical offset.
  Once adjusted, accurate to the central point.

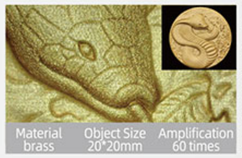
3D Surface Processing

The FR10-F applies dynamic focus control technology, breaks the limitation of traditional marking, and can do no distortion marking in the large-scale surface, 3D surface, steps, cone surface, slope surface and other objects.



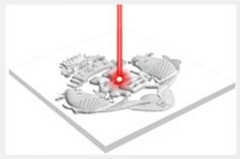
Engraving

The dynamic axis collaborates with the XY axis scanhead, can easily achieve layered relief, deep carving and texture etching.



High Precision

With the increasing processing layer, the dynamic focus axis jointly adjusts the focal length and spot in real-time to ensure that the focus spot controllable during the whole processing process, which can achieve higher accuracy compared with traditional scanhead.



High Efficiency

The dynamic axis is fully coordinated with the XY axis, and the hierarchical focus compensation is completed with in microseconds with a more efficient job.

Application Highlight

APPLICATIONS

- 3D marking
- Engraving
- Cleaning
- Precision mould
- Surface treatment
- Texture etching
- PCB Marking

3D marking

3D surface tracking code marking

3D surface engraving

Male&Female mould engraving

Special material deep engraving (material: SIC)

Product Technical Information

	Technical Info.	Specifications	
Items	Output Voltage(VDC)	±15	
	Current(A)	10A	
	Protocol	XY2-100 Protocol	
	Weight（KG）	7	
	Size(mm)	292*115*152.8	
Optical Specifications	Aperture Size(mm)	10	
	Input beam diameter(mm)	8.5	
Galvanometer Specifications	Product line	Standard / Pro	
	Scan Angle(°)	±10	
	Repeatability(μrad)	8	
	Max.Gain Drift(ppm/k)	100	
	Max.Offset Drift(μrad/k)	30	
	Long-term drift over 8h(mrad)	≤0.2	
	Tracking Error(ms)	≤0.13	
	Max.processing speed(characters/s)	600@100×100	
Working Field & Spot Diameter	Working Field(mm)	100×100×15	200×200×80
	The Min.Spot Diameter@1/e²(mm)	0.025	0.0415
	Focal length(mm)	114	234