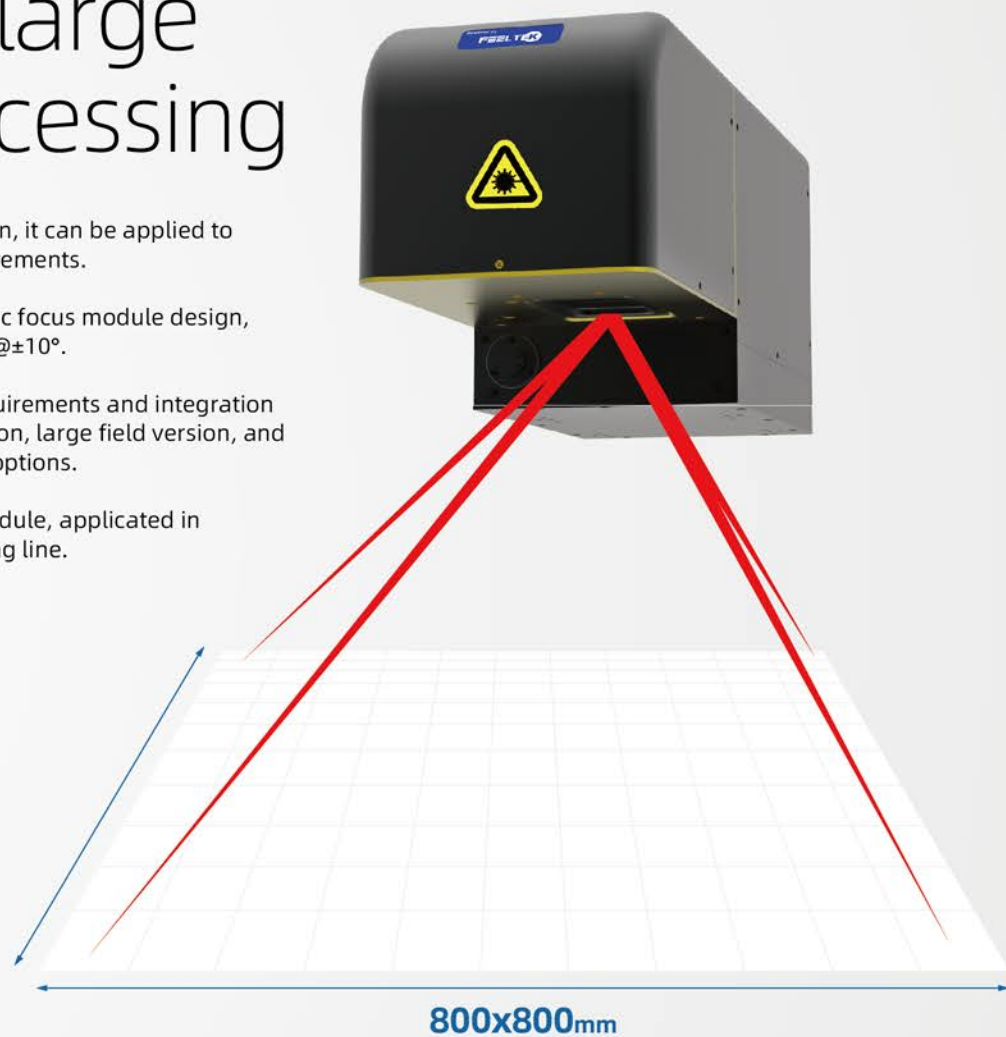


# 3D FR30-C

Support wavelength: 10640nm, 10200nm, 9400nm

## High-end industry application Regular large field processing

- Optional water cooling design, it can be applied to high-temperature drift requirements.
- Double driving Z axis dynamic focus module design, response frequency  $\geq 100\text{HZ} \pm 10^\circ$ .
- According to application requirements and integration space, there are curved version, large field version, and multiple mechanical design options.
- The optional off-axis CCD module, applied in positioning marking in moving line.



800x800mm



FR30-C Linear Beam  
Standard system.



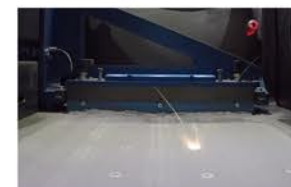
FR30-C Folded Beam (Left-Right)  
Specific for ODM integration in space limited workshop.



FR30-C compact  
Better heat dissipation, compact structure, suitable for high temperature and space limited workshop.

### High light application: 3D printing

FR30-C applies with the dynamic focus system control, it can be applied in SLS, SLM.



#### High Precision

As the number of processing layers increases, the dynamic axis coordinately adjust the focus and adjust the spot in real-time. The minimum spot of FR30-C can directly reach 0.11mm.

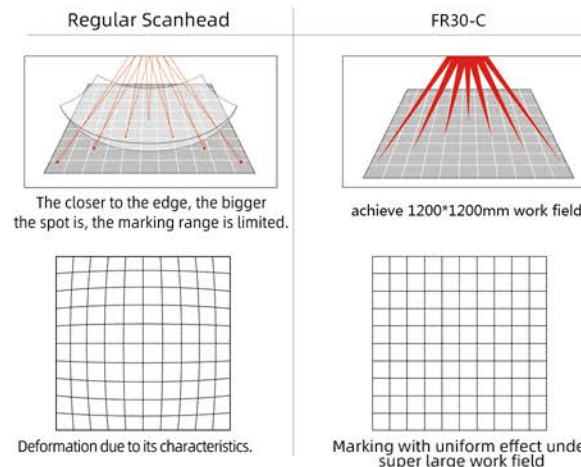


#### High Efficiency

To improve higher processing efficiency, FEELTEK develops the multi-scanheads solution, as well as its corresponding platform.

### Flexible large field processing

Through the dynamic focus system control, it can be operated from 300\*300mm to 1200\*1200mm work field.



### Application Highlight



- Laser cutting
- Laser marking
- Cleaning
- High speed fly processing
- 3D application
- 3D printing
- Laser scribing
- Filming
- Curved surface moving line marking



Moving line marking (Yoga mat)



3D surface marking



Large field marking (Jeans)



Jeans laser marking



Leather marking



3D printing

Product Technical Information

Technical Info.		Specifications		
Version		FR30-C Linear Beam	FR30-C Folded Beam	FR30-C Compact
Items	Output Voltage(VDC)	±24	±24	±15
	Current(A)	10A	10A	10A
	Protocol	XY2-100 Protocol	XY2-100 Protocol	XY2-100 Protocol
	Weight (KG)	15	21	13.5
	Size(mm)	538*200*242.5	528*200*206	422*145*163
Optical Specifications	Aperture Size(mm)	30	30	30
	Input beam diameter(mm)	7.5、9	7.5、9	7.5、9

Galvanometer Specifications	Product line	Standard	Pro	P2
	Scan Angle(°)	±11	±11	±11
	Repeatability(μrad)	8	8	5
	Max.Gain Drift(ppm/k)	100	100	50
	Max.Offset Drift(μrad/k)	30	30	15
	Long-term drift over 8h(mrad)	≤0.2	≤0.2	≤0.1
	Tracking Error(ms)	≤0.44	≤0.44	≤0.44
	Max.processing speed(characters/s)	350@300×300	350@300×300	350@300×300

FR30-C Linear Beam

Working Field & Spot Diameter	Working Field(mm)	300×300×100	400×400×120	500×500×120	600×600×120	750×750×150	800×800×150	1200×1200	1600×1600	
	The Min.Spot Diameter@1/e <sup>2</sup> (mm)	0.230	0.280	0.330	0.390	0.460	0.490	Customized version		
	Focal length(mm)	366	466	566	676	838	936			

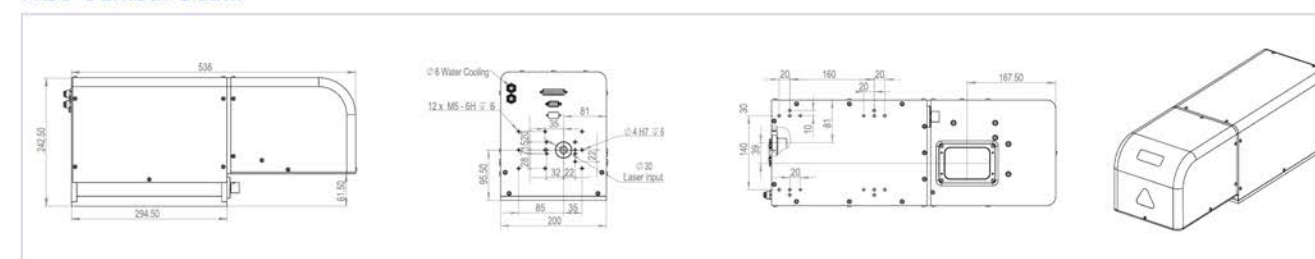
FR30-C Folded Beam

Working Field & Spot Diameter	Working Field(mm)	300×300	400×400	500×500	600×600	750×750	800×800	1200×1200	1600×1600	
	The Min.Spot Diameter@1/e <sup>2</sup> (mm)	0.230	0.280	0.330	0.390	0.460	0.490	Customized version		
	Focal length(mm)	362.5	462.5	562.5	672.5	834.5	932.5			

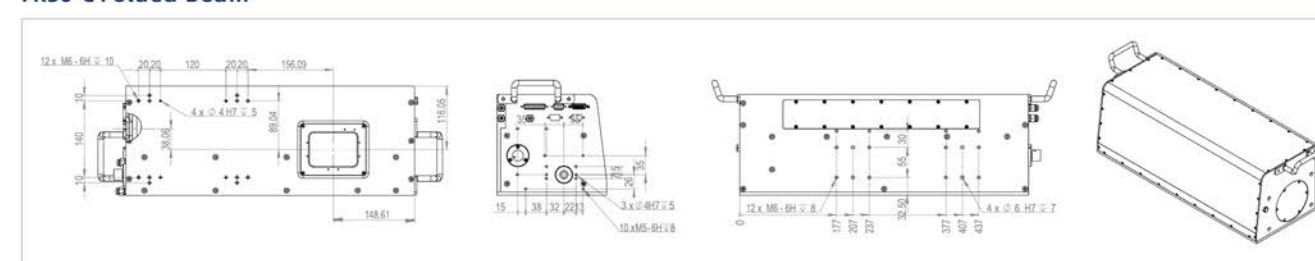
FR30-C Compact version

Working Field & Spot Diameter	Working Field(mm)	100×100×30	200×200×60	300×300×100	400×400×120	500×500×120	600×600×120	1200×1200	
	The Min.Spot Diameter@1/e <sup>2</sup> (mm)	0.110	0.160	0.210	0.270	0.320	0.360	Customized version	
	Focal length(mm)	171	271	371	471	571	681		

FR30-C Linear Beam



FR30-C Folded Beam



FR30-C Compact

