peaXXus

Lossless beam splitting with variable energy distribution

Applications:

- Welding
- Cladding
- Brazing
- Multi-spot processing

Features:

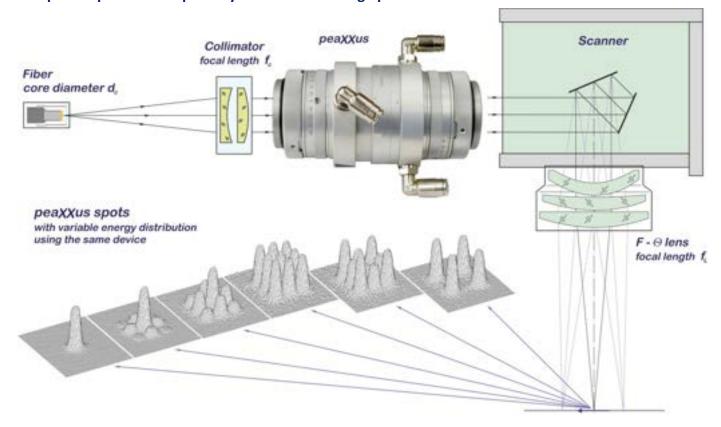
- Splitting in 3 x 3 square spot matrix
- High transmission
- Lossless operation
- CA 30 mm
- TEM₀₀ and multimode lasers
- Power up to 6 kW
- Free of thermal lensing effects
- Operation with scanners
- Various wavelengths



Specifications

Common for peaXXus optics Description	 lossless beam splitting in several foci perpendicular to the optical axis to be applied between a Collimator and a Focusing Lens can be used with scanning optics variable energy distribution in the peaXXus-spot independence of operation from beam quality and size insensitive to misalignments 		
Number of foci	9		
peaXXus-spot layout	3 x 3 square matrix		
Input	Collimated or low divergent/convergent beam		
Clear aperture	30 mm		
Laser	TEM ₀₀ or multimode, any M ² or BPP, any beam size within clear aperture		
Maximum laser power	6 kW		
Spectrum	near-IR, visible, near-UV		
Angular field of view	±3°		
Adjustment rings	Supplied with angular scale, fixation using a screw		
Water cooling	by 6-1/8 fittings		
Diameter	71 mm		
Length	135.5 mm		
Mounting	External threads M47 x 0.75 entrance and exit		
Features	Splitting angle, mrad		Constral band are
	square full side	square full diagonal	Spectral band, nm
peaXXus_1.8_sq_D30_1070	1.84	2.6	1065 – 1075
peaXXus_1.25_sq_D30_1070	1.22	1.72	
peaXXus_0.9_sq_D30_1070	0.92	1.3	
peaXXus_1.8_sq_D30_515/532	1.84	2.6	512 – 518 / 529 – 535
peaXXus_0.9_sq_D30_515/532	0.92	1.3	

Example of operation in optical system with scanning optics



Characteristic peaXXus-spots, by different settings

