πShaper 6_6

Series of high efficient Beam Shapers
Converting Gaussian to Flattop profile
Lasers of UV, Visual and NIR spectrum

With these unique tools it is possible to convert a single mode or multimode laser beam of similar to Gaussian intensity profile into a collimated Flattop beam with nearly 100% efficiency.

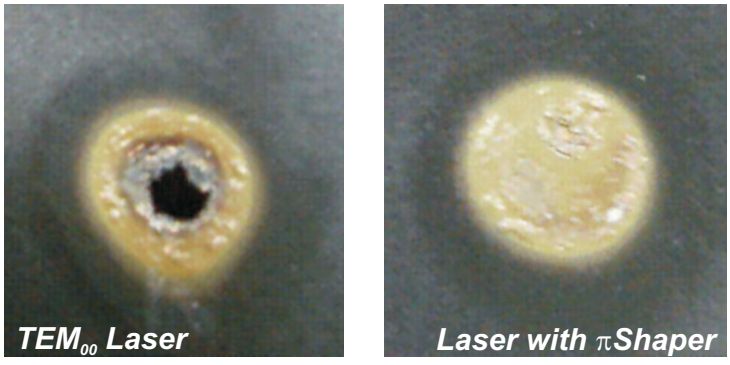
π***Shaper*** produces collimated Flattop beam (like Greek letter π) over a large working distance.
This enables to manipulate and re-size the beam with conventional imaging optics.

Almost the same effective sizes of input and output beams let it easy to integrate the π***Shaper*** in your application.

Originally designed as achromatic optical system the π***Shaper*** can work simultaneously with various lasers of corresponding spectrum

Applications:

- Welding of metals and plastics
- Flow Cytometry
- SLM illumination
- Holography
- Marking and Engraving
- Material micromachining
- Particle Image Velocimetry
- Particle Size Analyzing
- Laser ablation
- Laser annealing



Comparison of engraving results *(Courtesy of EO Technics)*

Beam Shaping never was so easy!

No more losing of energy!

Technical Specifications

Common for πShaper 6_6 models:	
Type	Telescope of Galilean type (without internal focus)
Input beam	- Collimated - TEM_{00} or multimode with Gaussian or similar intensity profile
Output beam	- Collimated - Flat-top, uniformity within 5% - High edge steepness
Other features	- Achromatic for design wavelengths - Compact design suitable for scientific and industrial applications - Long working distance
Overall dimensions	- Diameter 39 mm - Length 133 mm (143 mm for _1064, _532, _325)
Mounting	M 27x1
Weight	< 250 g

Features

Model	Input beam $1/e^2$ Dia, mm	Ouput beam Diameter, mm *(FWHM)*	Optimum spectral range*, nm	Design wavelengths	Applications based on
_852	5.9 - 6.0	6.0	800 - 900	1064 nm (Nd:YAG), 852 nm (Ti:Sapphire)	Ti:Sapphire laser and other near IR lasers
_1064	6.4 - 6.5	6.1	1020 - 1100	1064 nm (Nd:YAG), 632.8 nm (He-Ne)	Nd:YAG, Fiber and other near IR-lasers
_532/1064	5.9 - 6.0	6.0	520 – 550 1020 - 1100	1064 nm (Nd:YAG), 632.8 nm (He-Ne)	1st (1064) and 2nd (532) Harmonics of Nd:YAG laser
_532	6.3 - 6.4	5.9	520 - 550	532 nm (Nd:YAG)	2nd Harmonics Nd:YAG similar laser
_1319	5.9 - 6.0	6.0	1200 - 1400	1064 nm (Nd:YAG), 1319 nm (Laser Diode)	near IR Laser Diode sources
_1550	5.9 - 6.0	6.0	1500 - 1600	1064 nm (Nd:YAG), 1550 nm (Laser Diode)	near IR Laser Diode sources
_1650	5.9 - 6.0	6.0	1550 - 1750	1064 nm (Nd:YAG), 1650 nm (Laser Diode)	near IR Laser Diode sources
_NIR	5.9 - 6.0	6.0	1100 - 1700	1319, 1650 nm (LD)	near IR Laser sources
_VIS	5.9 - 6.0	6.0	420 - 680	442 nm (He-Cd), 632.8 nm (He-Ne)	He-Ne, He-Cd and other lasers of visual range
_NUV	5.9 - 6.0	6.0	335 - 560	355 nm (He-Cd), 532 nm (He-Ne)	2nd (532), 3rd (355) Harmonics of Nd:YAG laser, UV and Violet lasers
_410/820	5.9 - 6.0	6.0	400 - 420 800 - 840	442 nm (He-Cd), 632.8 nm (He-Ne)	1st (820) and 2nd (410) Harmonics of Ti:Sapphire
_TiS	5.9 - 6.0	6.0	700 - 900	1064 nm (Nd:YAG), 632.8 nm (He-Ne)	Ti:Sapphire laser and other near IR lasers
_325	6.3 - 6.4	5.5	305 - 345	325 nm	UV lasers
_350	6.0 - 6.1	6.0	330 - 370	350 nm	3rd (355) Harmonics of Nd:YAG laser

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