

π Shaper 6_6

**Highly efficient Beam Shapers
converting Gaussian to Flattop profile
for all laser wavelengths**

- UV, visible, near- and mid-IR



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.

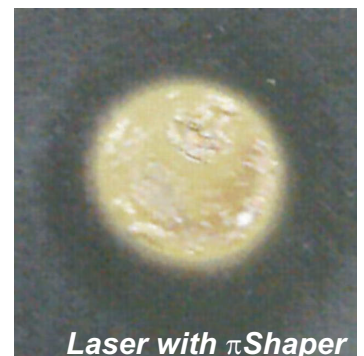
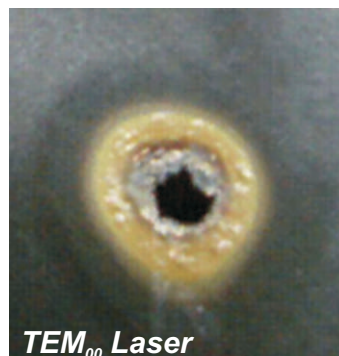
π **Shaper** produces collimated Flattop beam (like Greek letter π) over a large working distance. This enables to manipulate and re-size the beam with conventional imaging optics.

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 energy loss!

Technical Specifications

Common for π Shaper 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 <143 mm
Mounting	M 27x1
Weight	< 250 g

Features

Model	Input beam 1/e ² Dia, mm	Output beam Dia (FWHM), mm	Optimum spectrum*, nm	Design wavelengths, nm	Applications based on
_852	5.9 - 6.0	6.0	800 - 900	1064, 852	Ti:Sapphire, near IR lasers
_1064	6.4 - 6.5	6.1	1020 - 1100	1064, 632.8	Nd:YAG, Fiber, other near IR-lasers
_532	6.3 - 6.4	5.8	520 - 550	532	2 nd Harmonics Nd:YAG similar laser
_1319	5.9 - 6.0	6.0	1200 - 1400	1064, 1319	near IR Lasers
_1550	6.4 - 6.5	6.2	1500 - 1600	1064, 1550	near IR Lasers
_1650	5.9 - 6.0	6.0	1550 - 1750	1064, 1650	near IR Lasers
_1940	5.9 - 6.0	6.0	1800 - 2050	1940	near IR Lasers
_2.05	6.4 - 6.5	6.4	1940 - 2160	2050	mid-IR Lasers
_1.9-2.8	6.1 - 6.2	6.4	1900 - 2800	2050	mid-IR Lasers
_NIR	5.9 - 6.0	6.0	1100 - 1700	1319, 1650	near IR Lasers
_VIS	5.9 - 6.0	6.0	405 - 680	442, 632.8	He-Ne, He-Cd, lasers of visible range
_NUV	5.9 - 6.0	6.0	335 - 560	355, 532	2 nd , 3 rd Harmonics Nd:YAG, UV, Violet lasers
_TiS	5.9 - 6.0	6.0	700 - 900	1064, 632.8	Ti:Sapphire, other near IR lasers
_325	6.3 - 6.4	5.6	305 - 345	325	UV lasers
_350	6.3 - 6.4	5.6	330 - 380	355	3 rd (355) Harmonics of Nd:YAG
_266	6.3 - 6.4	5.2	250 - 275	266	4 th (266) Harmonics of Nd:YAG
_213	6.3 - 6.4	5.2	206 - 220	213	5 th (213) Harmonics of Nd:YAG

