

Focal- π Shaper 9_xxx

***Series of high efficient Beam Shapers
to manipulate the intensity profile of focused TEM₀₀ beams
for all laser wavelengths
- UV, visible and near-IR***



With these unique tools the long-standing wish to manipulate the shape of focused beams becomes a reality.

With nearly 100% efficiency the ***Focal- π Shaper*** produces various profiles:

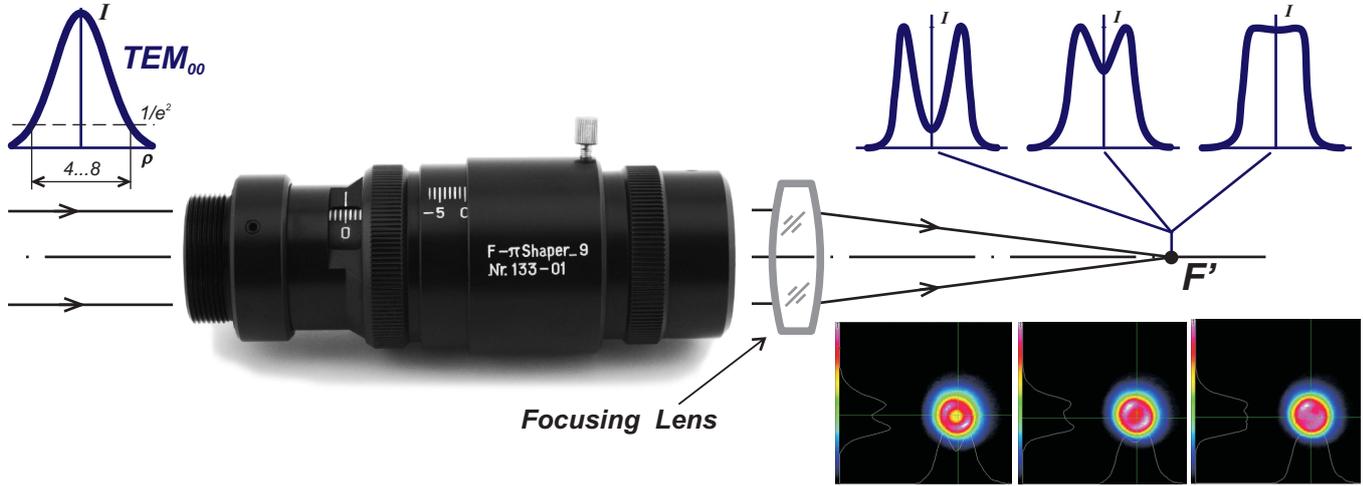
- Flattop
- "Inverse Gauss"
- "Donut"
- "Trident", etc.

An appropriate optical design provides simple adjustment procedure and lets it easy to integrate the ***Focal- π Shaper*** in your applications:

- Solar Cell production laser technologies
- Laser Heating in Geophysical researches
- Marking and Engraving
- Drilling
- Scribing
- Dicing
- Material micromachining
- Printing
- Microwelding

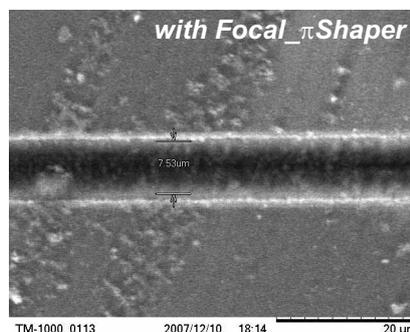
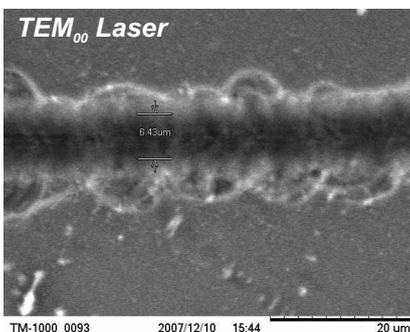
Beam Shaping never was so easy!

No more energy loss!



Technical Specifications

Common for all Focal- π Shaper 9_xxx models:							
Type	Telescope of Galilean type (without internal focus)						
Input beam	<ul style="list-style-type: none"> - TEM₀₀, Collimated or low divergence - Diameter < 16 mm - Optimum 2ω diameter for a Gaussian beam 4...8 mm (1/e²) 						
Output beam	<ul style="list-style-type: none"> - Collimated or low divergence - Profile is optimized for Intensity distribution manipulation in focal plane of a diffraction limited lens - Diameter < 16 mm 						
Spot shape	<ul style="list-style-type: none"> - Round - Square, Focal-πShaper 9_xxx_q versions 						
Other features	<ul style="list-style-type: none"> - Easy integration to an optical setup and adaptation to a laser source - Compact design suitable for scientific and industrial applications - A diffraction limited focusing lens of any type can be applied with the F-πShaper - Easy tolerances for alignment as well as positioning of the F-πShaper with respect to a lens - Capability to work with scanning mirrors 						
Overall dimensions	<ul style="list-style-type: none"> - Diameter 41 mm - Length 110 mm 						
Weight	200 g						
Mounting	External Thread M 27x1						
Focal- π Shaper 9_xxx features							
Model	_1940	_1550	_1064	_TiS	_532	_355	_266
Optimum spectral range, nm	1800 - 2050	1450 - 1650	1020 - 1100	750 - 850	520 - 550	330 - 380	250 - 280
Applications based on	NIR-lasers	NIR-lasers	Nd:YAG, Fiber Laser, other NIR-lasers	Ti:Sapphire, NIR lasers	2 nd Harmonic Nd:YAG	3 rd Harmonic Nd:YAG	4 th Harmonic Nd:YAG



Comparison of Scribing (Courtesy of Altechna)

