

π Shaper 12_12

Highly efficient Beam Shapers
transforming Gaussian to Flat-top profile
for all laser wavelengths: UV, visible, near-IR



With these unique devices it is possible to convert a TEM₀₀ or multimode laser beam into a collimated Flat-top beam with **nearly 100% efficiency** and conserving flatness of the wavefront.

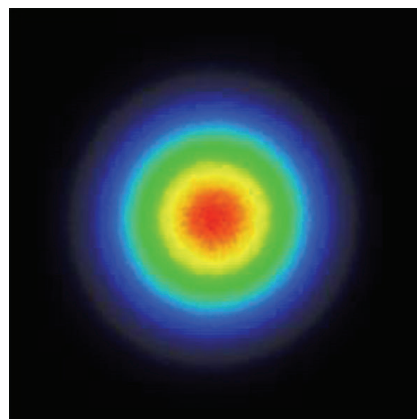
π Shaper produces a collimated Flat-top beam over large working distance.
This enables manipulating and re-sizing the Flat-top output beam using conventional imaging optics.

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

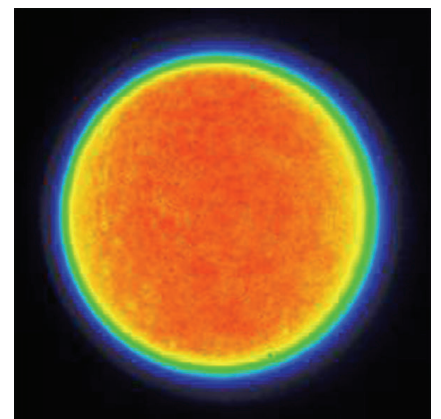
Applications:

- MOPA lasers
- FEL lasers
- Particle Image Velocimetry
- Laser ablation
- Welding
- Microscopy
- Confocal microscopes
- Holography
- Interferometry
- SLM illumination
- Micromachining

Example of Beam Shaping



Input TEM₀₀



Output Flat-top

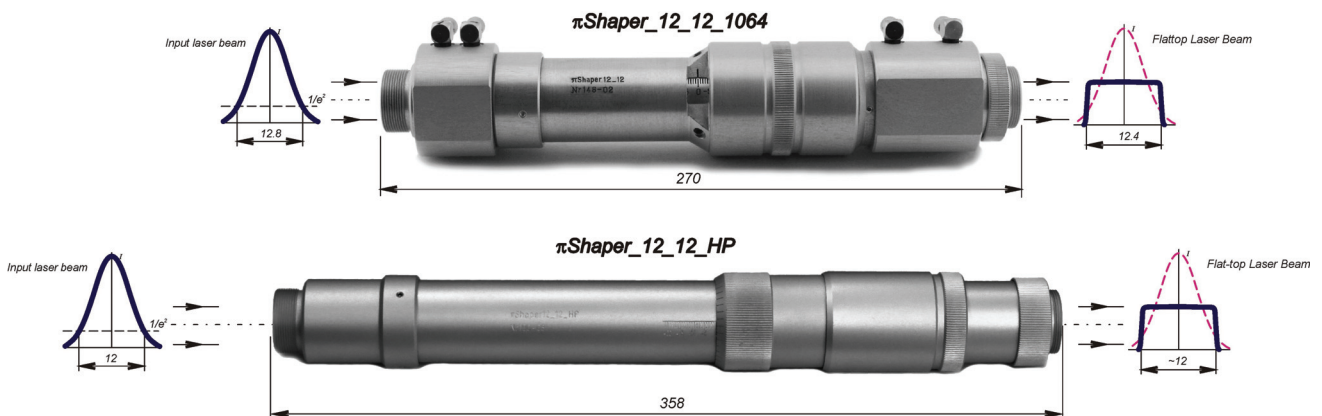
Beam Shaping never was so easy!

No more energy loss!

Specifications

Common for π Shaper 12_12 models					
Type	Field mapping beam shaper as a telescope of Galilean type, without internal focus				
Input beam	<ul style="list-style-type: none"> - Collimated - TEM₀₀ or multimode with Gaussian or similar irradiance profile 				
Output beam	<ul style="list-style-type: none"> - Collimated - Flat-top, uniformity within 5% - High edge steepness 				
Other features	<ul style="list-style-type: none"> - Compact design suitable for scientific and industrial applications - Conserving flatness of the beam wavefront - Resistance for high peak power pulse lasers - Water cooling, option for CW (or average) power > 400 W - Long working distance 				
Mounting	Input: outer thread M27x1		Output: outer thread M33x1 adaptor M33x1 -> M27x1 (outer)		
Weight	< 590 g				
Features					
Model*	Input beam 1/e ² Dia, mm	Output beam FWHM Dia, mm	Optimum spectrum, nm	Dimensions Dia / Length, mm	Applications based on lasers
_1064	12.8 – 13.0	12.4	1020 - 1100	49 / 270	Nd:YAG, Fiber lasers, other NIR Lasers
_1064_HP	12.0 – 12.1	12.0		42 / 358	
_1064_HP_W	12.0 – 12.1	12.0		49 / 360	High-Power USP lasers, water cooled
_1064_C	58 mrad divergent	12.0		42 / 285	Nd:YAG, Fiber lasers, other NIR Lasers
_TiS_HP	12.0 – 12.1	12.0	700 - 900	42 / 358	Ti:Sapphire lasers, other NIR Lasers
_532	12.8 – 13.0	11.8	515 - 550	49 / 270	2 nd Harmonic Nd:YAG, visible Lasers
_532_HP	12.0 – 12.1	11.8		42 / 358	
_355_HP	12.0 – 12.1	11.3	330 - 380	42 / 358	3 rd Harmonic Nd:YAG, UV Lasers
_325	12.7 – 12.9	11.4	305 - 345	49 / 270	He-Cd, other UV Lasers
_266	12.6 – 12.8	10.6	250 - 270	49 / 270	4 th Harmonic Nd:YAG, UV Lasers
_266_HP	12.0 – 12.1	10.6		42 / 358	
_266_C	60 mrad divergent	12.0		42 / 285	
* - Basic models are Telescopes of Galilean type (without internal focus), _HP are versions for high peak power lasers, _C are Collimators without internal focus.					

Specifications are subject to change without notice



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