

# $\pi$ Shaper 4.5\_4.5

**TELESCOPE or COLLIMATOR Homogenizers  
Converting Gaussian to Flattop profile  
Lasers of Visual and Near-IR spectrum**



With these unique tools it is possible to convert Gaussian laser beam into collimated Flattop beam with nearly 100% efficiency.

**TELESCOPIC** and **COLLIMATING** versions of  $\pi$ Shaper are available.

Collimator lets it possible to solve simultaneously two tasks: *collimating* and *shaping* the laser beam.

$\pi$ Shaper produces collimated Flattop beam (like Greek letter  $\pi$ ) 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 (diameter 4,5 mm) let it easy to integrate  $\pi$ Shaper in your application.

Originally designed as achromatic optical system each model of the  $\pi$ Shaper can work simultaneously with various lasers of corresponding spectrum.

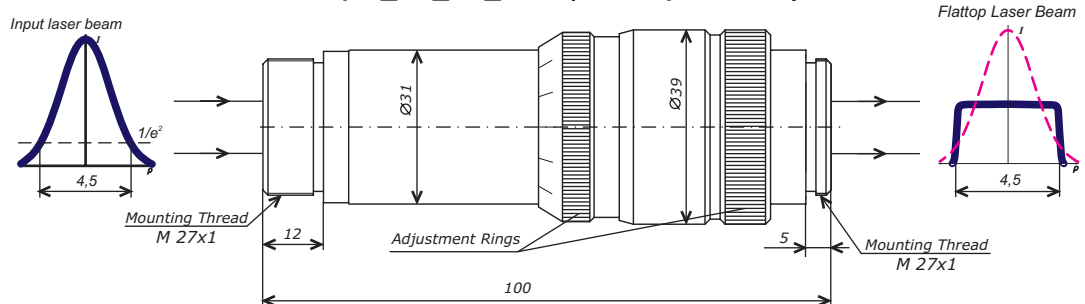
***Beam Shaping never was so easy!***

# No more losing of energy!

## Technical Specifications

Common for all $\pi$ Shaper 4.5_4.5 models:		
Output beam	<ul style="list-style-type: none"> <li>- Collimated</li> <li>- Flat-top, uniformity within 5%</li> <li>- Diameter 4,5 mm</li> </ul>	
Other features	<ul style="list-style-type: none"> <li>- Compact design suitable for scientific and industrial applications</li> <li>- Long working distance</li> </ul>	
Overall dimensions	<ul style="list-style-type: none"> <li>- Diameter 39 mm</li> <li>- Length &lt;100 mm</li> </ul>	
Weight	< 200 g	
Mounting	M27x1	
Features		
Model	$\pi$ Shaper 4.5_4.5_1064	$\pi$ Shaper 4.5_4.5_1064C
Input beam	<ul style="list-style-type: none"> <li>- Collimated</li> <li>- Gaussian, diameter 4.5 mm (<math>1/e^2</math>)</li> </ul>	<ul style="list-style-type: none"> <li>- Divergent</li> <li>- Gaussian, divergence 180 mrad (<math>1/e^2</math>)</li> </ul>
Type	Telescope of Galilean type (without internal focus)	Collimator ( without internal focus)
Operating wavelength range*	1020-1100 nm	1020-1100 nm
Design wavelengths	1064 nm (Nd:YAG), 632.8 nm (He-Ne)	1064 nm (Nd:YAG), 632.8 nm (He-Ne)
Applications based on	Nd:YAG, Fiber and other near IR-lasers	Nd:YAG, Fiber and other near IR-lasers
* - according to coatings applied		

$\pi$ Shaper\_4.5\_4.5\_1064 (Telescope Version)



$\pi$ Shaper\_4.5\_4.5\_1064C (Collimator Version)

