



Diffractive Beam Shapers

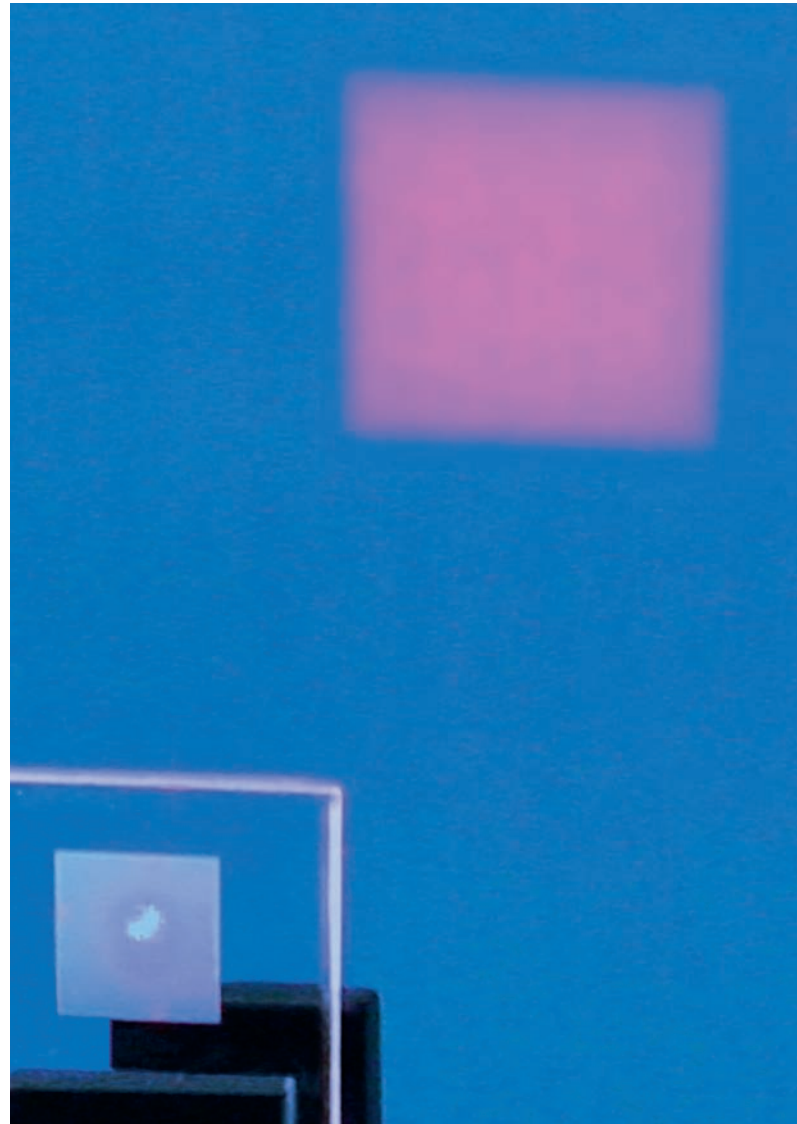
Diffractive beam shapers are used to modify the intensity and phase profile of spatially coherent lasers, allowing a better control of the output beam. These optical elements are most commonly used for the optimization of energy distribution in laser applications where the correction of non-uniform and Gaussian beam profiles can lead to better overall efficiency and performance. Jenoptik designs high performance beam shapers to create uniform top-hat, circular, or rectangular profiles, as well as custom geometries. These beam shapers are designed to work with single spatial mode input beams. For multimode laser beams, refractive or diffractive diffusers and homogenizers can also be designed.

Features:

- Excellent uniformity
- High efficiency
- Any output beam profile
- Wavelengths from deep UV to long-wave infrared
- Wide range of materials
- Lens function possible

Applications:

- Illumination
- Laser materials processing, e.g. welding, cutting, scribing, soldering, drilling
- Marking, printing
- Lithography and holographic exposure
- Biomedical devices
- Optical sensors
- Communications



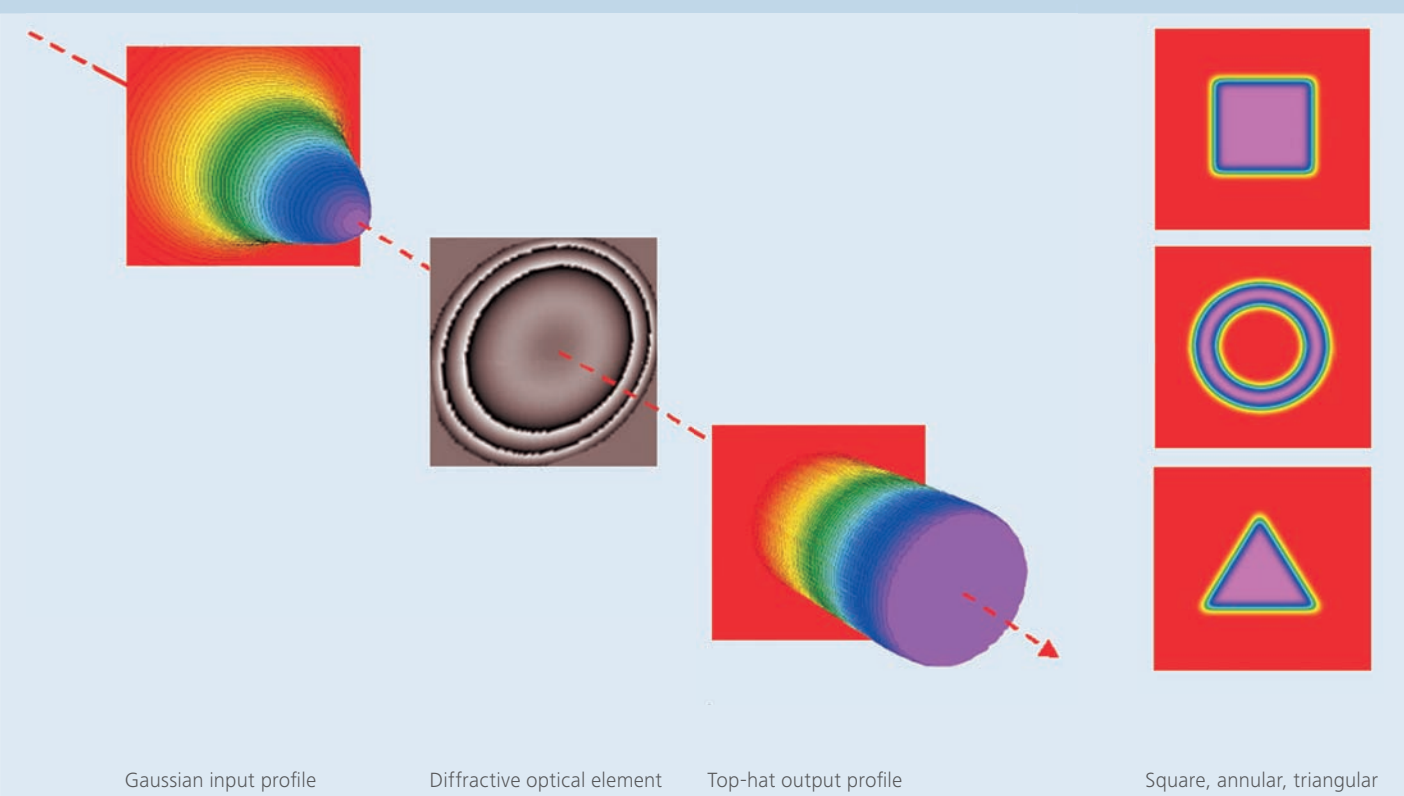
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Specifications

Efficiency:	up to 95 % *
Uniformity:	Typical ± 2.5 %
Input parameters:	UV to IR, TEM ₀₀
Materials:	Fused Silica, Si, Ge, ZnS, ZnSe, GaP
AR-Coating:	Laser line or broadband
Light sources:	Diode, solid-state, gas and fiber lasers
Beam shapes:	Top-hat, round, square, rectangular, annular, or any other geometry
Product number:	029115

* AR-Coated

Diffractive beam shaping principle



It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.



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