# πShaper NA 0.1_12

# πShaper NA 0.2_12

## *Series of high efficient collimating Beam Shapers for fiber coupled DPSS and diode lasers, fiber lasers divergent Gaussian to collimated Flattop beam*


These unique tools convert ***divergent*** Gaussian laser beams, ***$TEM_{00}$*** and ***multimode***, into ***collimated*** Flattop, super-Gauss or inverse-Gauss beams with nearly 100% efficiency.

Combining of functions in one device: ***collimating*** and ***beam shaping***.

***πShaper*** produces low divergent collimated Flattop beam (like Greek letter π), therefore the resulting profile is kept stable over large working distance, and it is easy to manipulate and re-size the beam with conventional imaging optics, and create ***Round*** and ***Linear*** spots of necessary size.

Optimized to operate with powerful (>0,5 kW) fiber lasers, fiber coupled DPSS or Diode lasers. Compatibility with standard industrial fiber connectors is provided.

Applications:

- Welding
- Hardening
- Cladding
- Laser pumping
- Display Making Technologies
- other techniques of Material Processing

# *Beam Shaping never was so easy!*

# No more energy loss!

## Technical Specifications

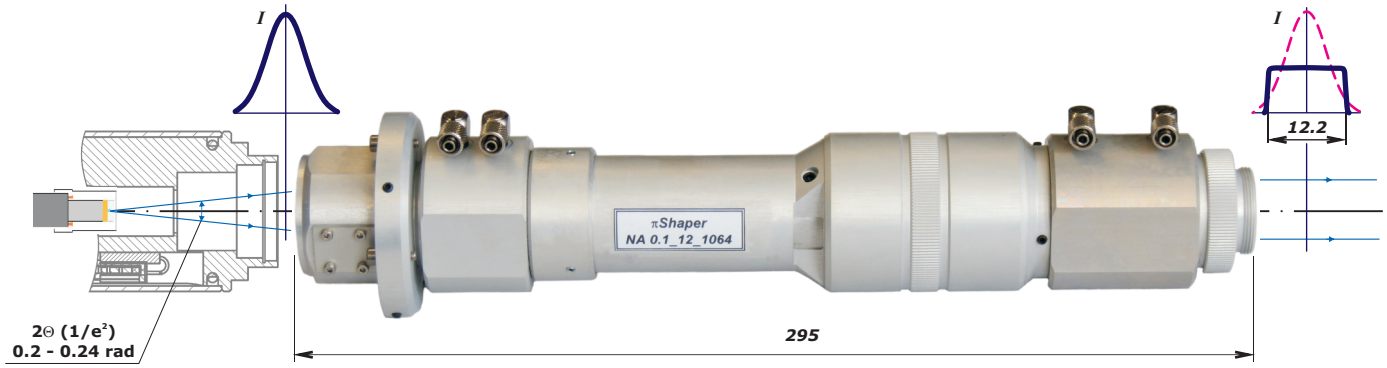
### Common for all πShaper NA xxx_12 models:

| | |
|---|---|
| Input beam | - Divergent<br>- $TEM_{00}$ or multimode with Gaussian or similar intensity profile |
| Output beam | - Collimated<br>- Flat-top (uniformity within 5%), super-Gauss, inverse-Gauss<br>- High edge steepness |
| Other features | - Focal length ~ 50 mm<br>- Suitable for high power fiber coupled $TEM_{00}$ and multimode DPSS and Diode lasers, Fiber lasers<br>- No internal focusing<br>- Long working distance<br>- Water cooling, option for CW (or average) power > 500 W<br>- Protection windows, optional |
| Mounting | Input: QBH, FC/PC<br>Depends on a model<br>Output: Outer Thread M33x1<br>Adaptor M33x1 -> M27x1 (Outer) |

### Features

| Model | Input beam *NA at 1/e²* | Output beam Diameter, mm *(FWHM)* | Spectral range, nm | Dimensions, mm | | Weight, g | Comments |
|---|---|---|---|---|---|---|---|
| | | | | Diameter | Length | | |
| **NA 0.06_12_1064** | 0.06 - 0.065 | 12.0 | 1020 - 1100 | 49/63* | 295* | 700* | Fiber lasers, fiber coupled DPSS lasers |
| **NA 0.1_12_1064** | 0.1 - 0.11 | 12.2 | 1020 - 1100 | 49/63* | 295* | 700* | Fiber lasers, fiber coupled DPSS lasers |
| **NA 0.1_12_1550** | 0.1 - 0.11 | 12.4 | 1550 - 1650 | 49/63* | 295* | 700* | Fiber and Diode lasers |
| **NA 0.1_12_325** | 0.122 | 10.8 | 300 - 355 | 49 | 270 | 550 | UV lasers |
| **NA 0.2_12_808** | 0.18 – 0.2 | 12.3 | 780 - 840 | 49 | 315** | 650** | Fiber coupled Diode lasers, $TEM_{00}$ and multimode |
| **NA 0.2_12_970** | 0.18 – 0.2 | 12.3 | 930 - 1020 | 49 | 315** | 650** | |
| **NA 0.2_12_1064** | 0.18 – 0.2 | 12.3 | 1020 - 1100 | 49 | 315** | 650** | Fiber lasers, fiber coupled DPSS lasers |

* - with collimator compatible with QBH
** - with collimator compatible with FC/PC

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