

SHG Laser Homogenizer

for Titanium Sapphire crystal pumping (femto-laser application)

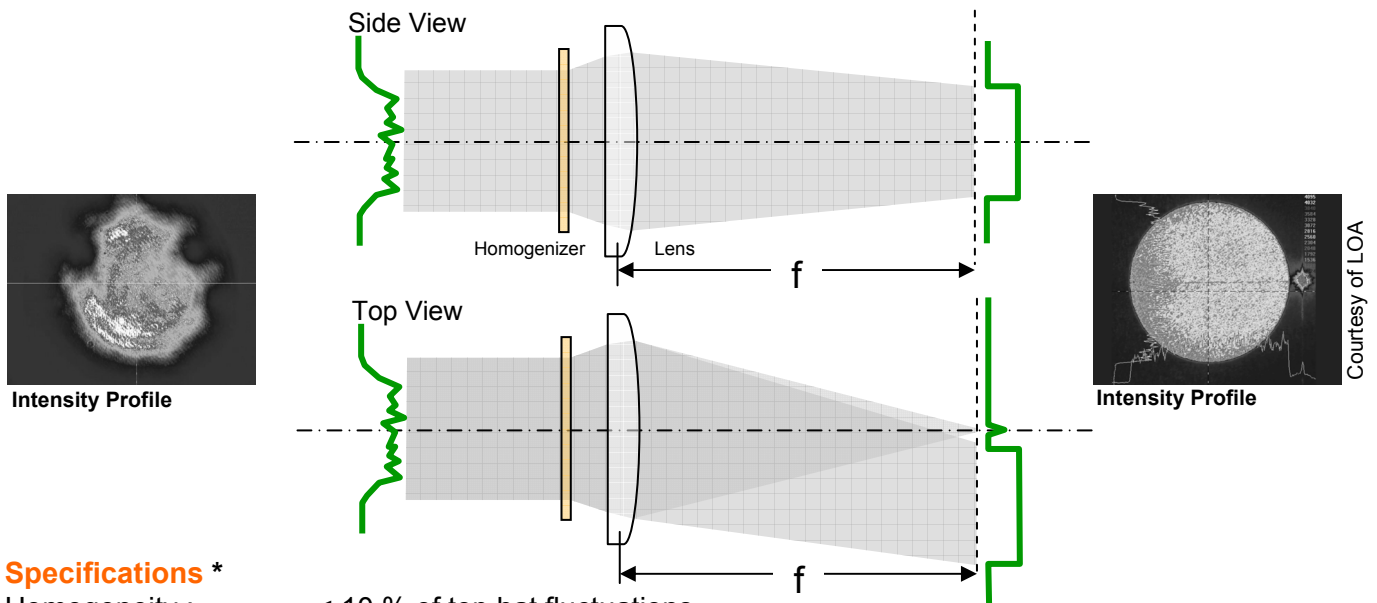
To prevent the expensive Titanium Sapphire crystals from breaking because of inhomogeneous pumping intensity profiles, SILIOS offers diffractive homogenizers for SHG laser beam. The advantages of the diffractive homogenizer compared to conventional homogenizers (like micro-lens arrays) are :

- 1- **Free spatial distribution** of the light (circular, square or any other shape)
- 2- **Very sharp border** of the intensity profile
- 3- **High damage threshold** (no focalization onto the diffractive element)

In addition :

- 4- **No zero order issue** (off axis configuration)
- 5- **Easy-to-align** system
- 6- **Simple system** (1 diffractive optical element + 1 lens)

Set up



Specifications *

Homogeneity :	< 10 % of top hat fluctuations
Edge sharpness :	< 5 % of the top hat diameter
Alignment :	not critical
Zero order energy :	< 1%

* Measurements made with Nd:YAG and Nd:Glass laser.