Aberration Correctors

Overview:

PowerPhotonic Aberration Correctors are freeform optical elements designed to correct multiple aberrations in laser systems such as pointing, defocus, astigmatism and coma simultaneously, restoring beam quality without high complexity or cost.

Manufactured in fused silica, our compensators have extremely low scatter and low loss and can be used in a wide range of applications.

The PowerPhotonic Effect:

Parameter	Selectable Value
Design Wavelength	400 nm - 2µm
Input Beam Diameter	1 mm - 20 mm
Correction Type	Up to 5th radial order Zernike in any combination
Correction Level	0.1 waves to 10 waves
Coating (Each Side)	R<0.25%

Target Applications:

- Laser material processing
- Defence
- Laser inertial fusion
- Fluorescence microscopy/cytometry

Key Features:

- Correct for non-symmetric and arbitary aberrations
- Manufactured in high grade fused silica
- Cost effective solution
- Higher orders, waves and beam diameters available on request

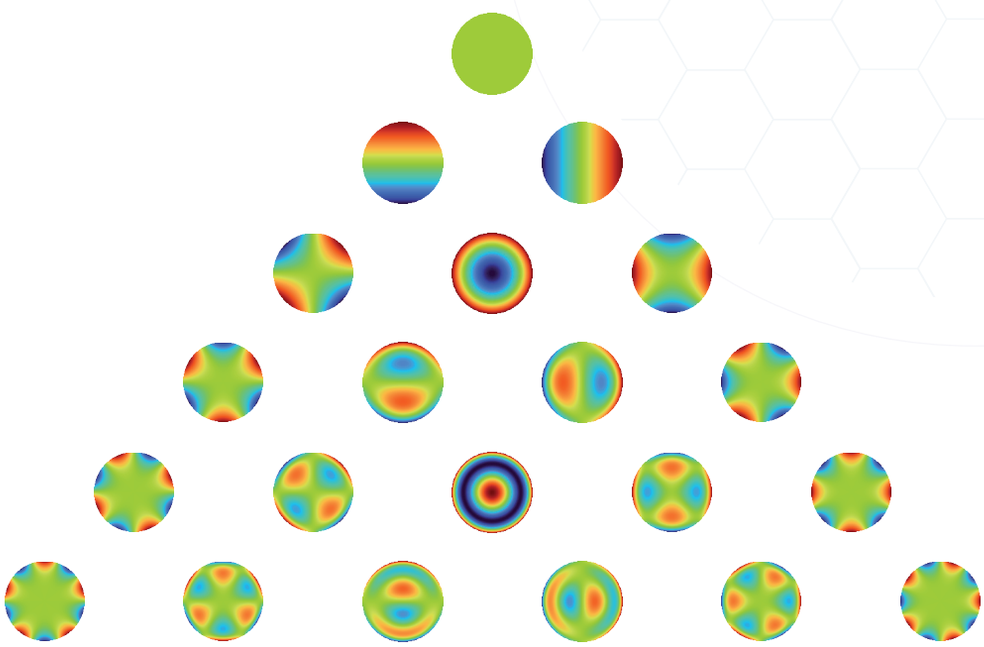

Figure 1: Zernike polynomial pyramid showing terms up to the 5th order which are commonly used to classify optical aberrations (for which we can provide correction)

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PowerPhotonic
Enhancing Beam Performance