

For our customers:

- Fastest laser-processing system for ultra short pulses
- 10 - 100 times faster laser processing on large surfaces
- Enables micro-processing with high power lasers
- Enables new processes / materials (overcome: heat conduction)

For integrators:

- Easy to integrate in common laser setups
- Easy to integrate as a Scan alone system (e.g. assembly line)
- No special software needed (PLC is sufficient)
- Application in 2D and 3D



Unique functionality

Patented design and real-time data processing

Double reflection eliminates the fluctuations of the reflection point as a fundamental problem of polygon mirrors. In connection with a time marker and extremely fast correction of manufacturing tolerances by an integrated FPGA (200 MHz) the Polygon Scanner System of MOEWE is extremely precise.

- Patented special optical design for minimal distortion
- Patented real-time data processing through FPGA

We know how

- ✓ Fastest scan speed on the market
- ✓ Fastest position correction system
- ✓ Fastest data processing for laser application in 2D and 3D

Contact us:

MOEWE Optical Solutions GmbH
Schillerstraße 10
09648 Mittweida

Phone: + 49 (0) 3727 / 99 89 407

E-mail: info@moewe-optik.de

Web: www.moewe-optik.de

About us:

MOEWE Optical Solutions GmbH is your reliable partner for high-quality industrial polygon mirror scanners. These scanners are characterized by a large aperture, compact design and high optical robustness. Due to the full digitalisation of the device, high accuracy and real-time integration into external moving coordinate systems can be offered. Please direct your concrete inquiry to us! We will be glad to help you.



For optimal results

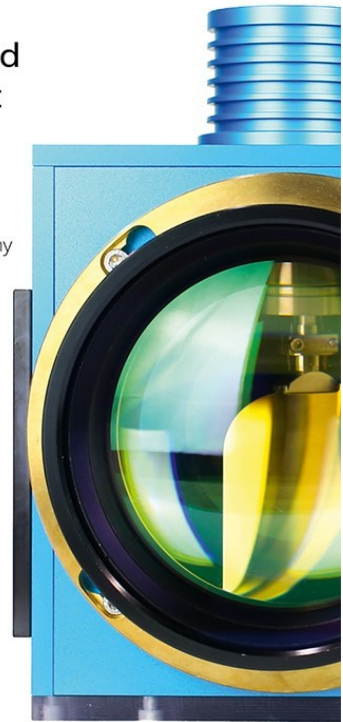
Large clear aperture

The free aperture of 30 mm, which is extremely large for a compact polygon scanner with a mass of only 13 kg, allows the use of large beam diameters. Thus very small focus diameters can be achieved. With a focal length of 270 mm, these are approx. 25 µm for a single-mode fiber laser in the NIR wavelength range at a scan length of 160 mm. Due to the large beam diameter and because all reflective surfaces only come into contact with moving beams, extremely high laser powers of > 5 kW can be deflected with the MOEWE polygon scanner. With a long focal length of 1,900 mm, scanning lengths of 1,500 mm can be achieved. The focus diameter is then still about 180 µm.

- Size: 30 mm
- Smallest focus spot diameter < 10 µm
- Suitable for high power lasers > 5 kW

The world's smartest polygon scanner

Made in Germany



High-End Devices for your Laserprocessing



Incredibly fast

Scanning speed > 1,000 m/s possible

The scanning speed of polygon scanners is about 30 times higher than that of galvo scanners. With a focal length of 420 mm our MOEWE Polygon Scanner System reaches a speed of 1,000 m/s at a line frequency of 1,300 Hz. Especially for raster processing, which is necessary anyway, or for continuous area irradiation, the benefit of a polygon scanner is obvious. But even with the increasingly higher power of ultra-short pulse lasers, ultra-fast beam deflection with polygon scanners is useful to achieve the high productivity that such lasers allow, even at high quality. UKP lasers with a single pulse frequency of > 10 MHz can still be precisely controlled with our device. In the laboratory the MOEWE polygon scanner system has already controlled a laser with 60 MHz. This leads to extremely fast machining processes.

- Significant time saving
- Efficient cost reduction
- Larger production volumes