

Press Release

Robust Housings Made of Anodized Aluminum

Beam Delivery Components for High-power Lasers

Many operations in industrial material processing are performed today using movable laser systems. For the longevity of these systems, it is important to reliably secure and protect the optical components integrated into these systems. For that LASER COMPONENTS presents various beam delivery components.

All components provide a method of precisely and reproducibly adjusting the optics in two independent planes by $\pm 2^\circ$ each through the use of adjusting screws. They are designed for power levels of up to 500 W. A water cooling system is available on an optional basis for high-power lasers. The housings can be mounted directly right side up or on their side using the integrated threads.

To change the direction of the laser beam it is best to use kinematic beam benders. These components hold the bending mirror to redirect the laser beam at a certain angle, generally a 90° angle. To avoid distortion in the mirror, it is placed strainless in the mount. To easily clean the optics, they can be demounted and mounted again without any trouble and without affecting the adjustment of the mirrors (see picture).

To split or combine beams, beam splitting units are used. The incoming beam is split into two partial beams with the help of an integrated beam splitter optic. One part of the beam is reflected at a 90° angle, and the other part is transmitted. One laser beam can be used simultaneously at two different locations.

If one laser beam has to travel different paths consecutively, beam switches are used for time sharing. With the help of integrated mirrors the beam can be directed in different directions, either pneumatically or manually.

Legend

Kinematic beam bender with strainless mounted mirror.

More Information

<http://www.lasercomponents.com/de-en/optics/optomechanical-components/beam-delivery-components/>

The Company

LASER COMPONENTS is specialized in the development, manufacture, and sale of components and services for the laser and opto-electronics industries. With sales offices in four different countries, the company has served its customers since 1982. In-house production at six locations in Germany, Canada, and the USA began in 1986 and is meanwhile responsible for about half of its turnover. Currently, the family-run business employs more than 150 people worldwide.