FINE CUTTING SYSTEM

Precitec‘s fine cutting system with integrated camera monitoring is used for high-precision applications where laser power of up to 500 W are required. The outstanding beam quality of the beam source and the high imaging quality of the optical components are a prerequisite for the manufacture of parts which are becoming ever-smaller and which possess very complex geometry. Clearance widths of 10 µm were unheard of a few years ago – but today this is simply state-of-the-art for Precitec.

EFFICIENT

- burr-free cutting, even in the case of complex 3D components
- fast and precise working
- high cutting speeds with integrated distance sensors
- integrated vertical adjustment and beam bender

FLEXIBLE

- slim line head – modular system
- fine cutting head for plug & play system
- optical components customized for your system
- customer-specific beam guiding systems

USER FRIENDLY & SAFE

- simple laser beam adjustment
- lens adjusts under pressure
- fast change of the protective window
- high-quality optics

DISTANCE MEASUREMENT

- constant distance to work piece
- compensation of material tolerances
- constant cutting qualtiy

MONITORING WITH CAMERA

- Online monitoring of cutting process via camera
- Recording and saving of camera data
- Integrated, adjustable illumination for solid-state laser applications

MEASURE CONTROL PROCESS MONITOR

PRECITEC THE SMART WAY TO LASER

TECHNICAL SPECIFICATIONS OF THE FINE CUTTING SYSTEM

max. laser power	500 W (for wave lengths 355, 776, 1030 ... 1090, 1552 nm)
electronics	Lasermatic® Z
focal lengths solid-state lasers	50 mm, 80 mm, 125 mm
focal lengths CO_2 lasers	2″, 3″, 5″
max. free aperture	16 mm
axial length	418 mm
weigth	approx. 3.4 kg (incl. illumination)
dimensions fine cutting system (W x T)	70 x 127 mm
dimensions head (W x T)	70 x 111 mm

1 focusing adjustment / monitoring camera

2 illumination, light intensity adjustable

3 mirror beam bender with connector for collimator / beam entrance

4 upper part
X/Y adjustment of the lens, adjustment of the focal position with integrated lens position

5 lower part
with integrated protective glass with nozzle for cutting gas connetion

Fig.: fine cutting system f = 50 mm, without distance sensor, crosshairs software is available

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