



Fine Cutting System

Finest contours - smooth cutting surfaces - no further processing necessary



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. Outstanding beam quality and high-quality optics are a prerequisite for the manufacture of parts which are becoming ever-smaller with 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
- monitoring via camera and integrated lighting for solid-state lasers
- recording of the process on storage media
- integrated vertical adjustment and beam bender

>> FLEXIBLE

- slimline head - modular system
- optical components customised for your system
- customer-specific beam guiding systems

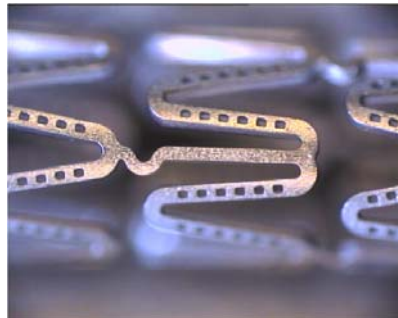
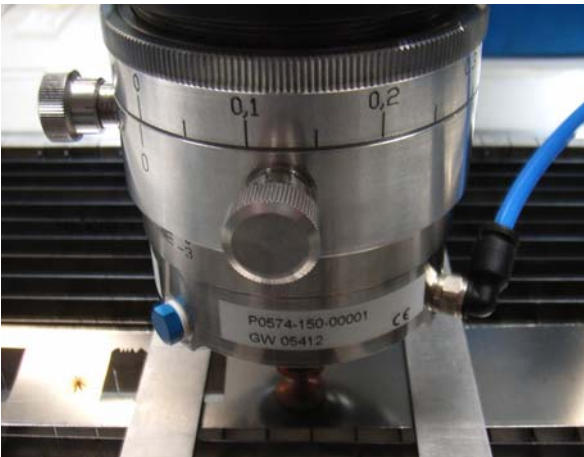
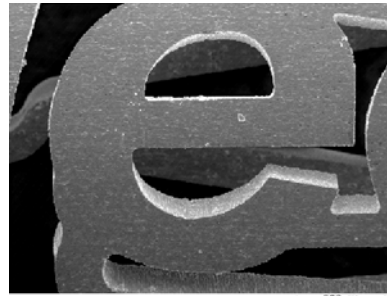
>> USER-FRIENDLY & SAFE

- simple laser beam adjustment
- internal illumination with LED
- lens adjusts under pressure
- fast change of the protective window

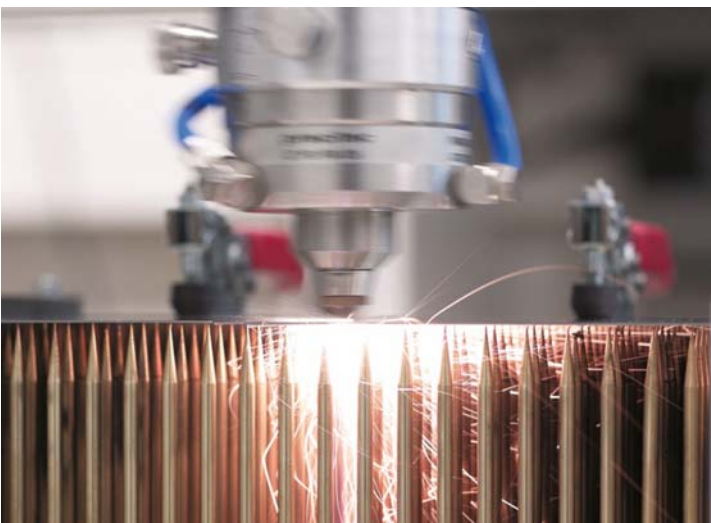
Laser Cutting Technology | System Solution

Lasers:

- Nd:YAG lasers
- disc lasers
- fibre lasers
- CO₂ lasers (without illumination)



The photos above show examples of laser-finished medical/technical products.



Nowadays, high-precision parts are being cut in the medical technology, precision engineering and clock and watch industries.



Finished parts for the clock and watch industry

Fine Cutting System

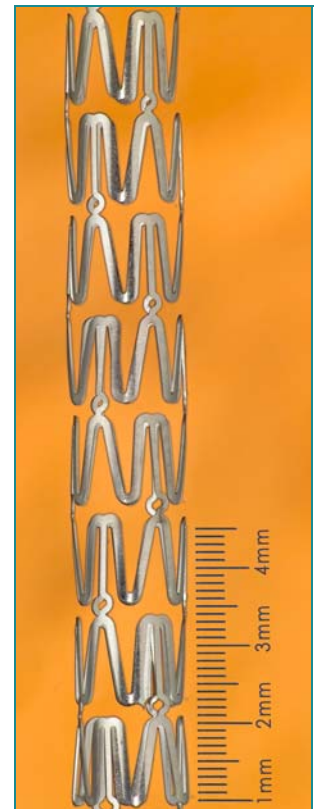


The size of a cut stent in comparison to an ant.

Stent

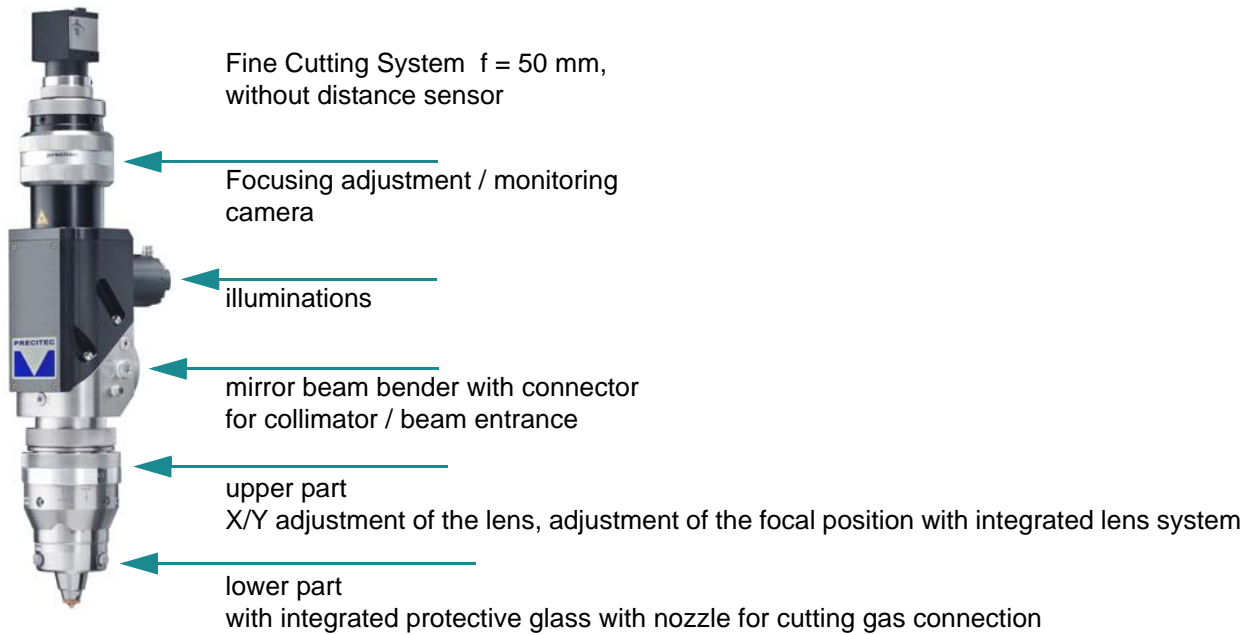
A stent is a vascular prop. It looks like a grid scaffolding in tube form and used for vascular narrowing of the heart coronary arteries.

The illustrated stent has a diameter of 1.5 mm in the original.



Fine Cutting System

With the Fine Cutting System small clearances widths of approx. 10 µm can be achieved with suitable beam quality.



Technical Specifications of the Fine Cutting System

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

The given data was generated for a typical application and may be different given other circumstances. Furthermore misprints, changes and/or innovations may lead to differences in the listed measurements, technical data and features. Therefore **all information is non-binding and technical data, measurements as well as features are not guaranteed by information in this product information.**

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