

# Laser- Technology

## The hybrid system from Citizen – High precision turning and laser cutting/ welding

Cincom L20 defines perfection anew – with combined turning and laser machining on one machine.

Principally, lathes offer a higher degree of flexibility than laser cutting machines. Lathes are generally equipped with 3-meter bar material, to produce serial parts. Therefore, the loading/unloading times are significantly shorter compared to models with laser technology. In contrast, laser cutting stands for a whole new quality in terms of precision. It allows for the cutting out of complex filigree structures in very thin materials. The dynamics of the cutting process may be controlled by the variables laser output, beam quality, wavelength of the laser light as well as the focus diameter. Especially in medical technology, laser cutting facilitates various micro machining processes like for instance the production of stents for the heart and vascular system. However, in order not to ruin the production advantage with regard to precision due to time losses during the re-tooling process, Citizen combines the best of two worlds - turning and laser cutting - in one single machine.



## Re-tooling? What for?

100% precision, zero wear. That is the formula using which the laser technology raises the productivity standard to a new level. It is possible to integrate the laser unit in almost every Citizen machine starting from a machining size with 12 mm opening.

Very small corner radii, filigree webs, flexible shafts from tubes with a maximum of 2 mm wall thickness may perfectly be machined using our laser technology - continuously without any tool wear. Next to the unsurpassed precision, the enormous repeatability is another convincing argument, above all as all processes and subprocesses are handled on one and the same machine: Retooling has become the exception!



Cincom L20 Type XII with integrated laser unit



Laser optics

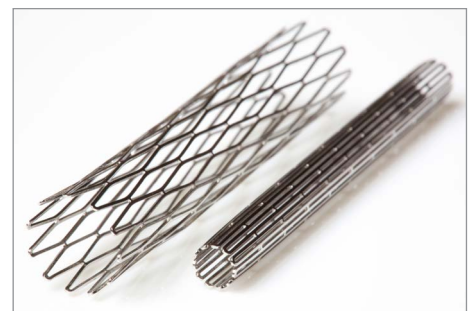
## For the user nothing will change - except for the efficiency.

Apart from specially coded door switches and system-related safety measures, working with the L20 including laser unit is in no respect different from operating the ‚normal‘ lathe. Its scope of functions in the matter of turning is of course 100% identical to that of the standard model.

With the combination from lathe and laser, Citizen has the exact answer to the market's requirements. What started with the L20 will be continued in other machine types. This will soon result in new fields of application of the laser beyond the already existing ones - for maximum precision and composite manufacturing processes.



Sample workpiece



Stent (Medical part)

## CITIZEN MACHINERY EUROPE GMBH