

***laser*structure**
Laserstructuring Machines

 **Gehring**



 **Advanced Honing Technology**

Fascination Laser

Light as a tool in production engineering - the laser with its versatility, still fascinates all users of this method. Since a long time Gehring has discovered the concentrated light for production. In cooperation with our customers, we have developed a number of different laser applications and installed them in appropriate machines.

To industrialize laser structuring, machines were developed that work in modern production lines with high process reliability. Our laser machines offer this process reliability and work reliable around the clock.

Depending on the application, different beam sources with scanner

optics are used. You can use laser beams for surface structuring as well as laser for marking and data matrix codes.

To reduce the cycle time, multiple beam sources can be arranged. The arrangement depends upon the machining job. During the structuring of bored segments, the beam passes into the bore at a diagonal angle. Planar surfaces are machined with a vertically aimed laser beam.

Imaging cameras can be used for quality control of the parts. Data matrix codes can be read or the surface can be probed with another specialized camera.

Laserstructuring Machines

Typical applications of our laser systems are:

1. Laser structuring to improve static friction -
To increase the force of static friction of the friction partners and to abridge the components the contact surfaces are laser structured.
2. Lasing of Data-Matrix-Codes -
Components can be marked with production-relevant data.
3. Marking lasers -
Unique component markings are lasered into the parts.

Advantages

- Substitution of diamond foils or diamond coating (front face connection)
- Substitution of slot and feather key (connection hub-shaft)
- Freely selectable surface structure
- No tooling costs
- Short machining time of a few seconds (depending on job and layout of the machine)
- No tensioning of parts
- Practically no heating of the part
- High reliability
- High degree of automation
- Worldwide experience in series production



Connecting rod with structured big eye



Chain wheel (front face connection)



Cam of a constructed cam shaft

**Trust in the technology leader with many years' experience and global presence!
Innovative technology combined with an economical mindset sets us apart.**