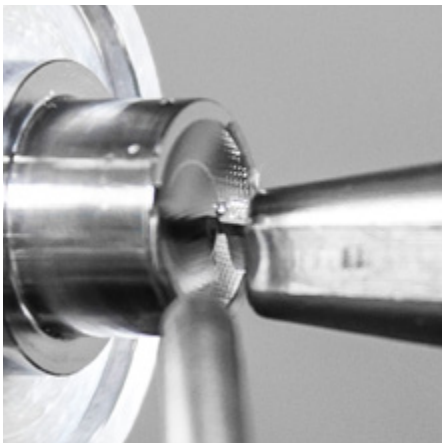


# son-x precision

Ultra precision in steel

son   
ultrasonic precision



## Ultra precision in stainless steel

son-x GmbH developed a technology that allows direct ultra precision machining of steel in a unique quality. The achievable surface roughness is Ra 3 nm and the dimensional accuracy can be reduced to 150 nm PV depending on the requirement.

Especially for optics replication we manufacture more powerful and more durable mold inserts for our customers in comparison to the state of the art.

As a technology leader, the son-x GmbH offers the entire manufacturing expertise for the production of optical and mechanical components.



## Optical inserts – efficient, precise, unique

Our core focus is the ultra precision manufacturing process. son-x' staff has a superior process knowledge and experience in the area of ultra precision manufacturing, which is required for the production of optical components of highest quality.

Based on optical design data, we have our own software solution for the realization of almost any shape, such as aspheres, freeform surfaces and microstructures. The specially developed ultrasonic assisted technology allows the efficient application of ultra precision machining with diamond tools on steel materials. Ultra precision machining of other materials is of course also possible. Verification measurements and precise form corrections complete the process chain for the production of high-quality optical components.

The bundling of these competences makes son-x unique for you.

## Applications and activities



### Automotive LED headlights

We manufacture optical mold inserts with microstructured freeform surfaces and highly complex geometries directly in hardened steel, which require our full competency.



### LED lighting

Our mold inserts made of steel are used for processing of plastics or silicones that require high temperatures and forces in injection molding achieve an unequalled durability.



### Contacts

We produce mold inserts for the production of contact lenses with spherical, aspherical or toric geometries.



### Optics

Both the direct production of mirror optics and prototypes, as well as the production of mold inserts for injection molding of imaging optics is offered by son-x.



### Precise mechanical parts

In addition to optical applications are fine mechanical components. We manufacture precise parts made of steel such as watch components or measurement standards with highest quality.

Please contact us to discuss your project with us.



# Made in Germany by son-x

son-x GmbH is a young high-tech company and was founded in the year 2011 in Aachen. According to our principles of technology leadership, customer satisfaction and the quality attribute "made in Germany" we offer a unique process chain pushing existing boundaries in optics production.



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