

FORGED ROLLING BEARINGS AND GEAR RIMS

Examples of Use

- large-diameter forged rolling bearings
- forged gear rims
- fully forged pivot joints
- all products also available in "XXL" size

Sophisticated forging solutions

With its forged large-diameter bearings and gear rims, Stahlwerk Augustfehn offers the right solutions for today's demanding markets. Our free-forged segmented parts guarantee long lifetimes even under the extreme dynamic loads in the operation of heavy machinery. Forged components guarantee an added benefit with regard to material microstructure.

With cast steel parts, there is always a certain danger to product safety and stability due to pore formation and the physical conditions of solidification.

Forging avoids this risk, as the forming process creates a fine-grained and regular microstructure.

The forging process improves mechanical properties and thus lays the foundation for ideal material strength and toughness, which will be fine-tuned during the subsequent heat treatment stage. The process gives the forgings a very dense and fine-grained structure, and as the fibre orientation is the same as the load direction, resistance and dimensional stability are improved further.

Component safety and operational stability are key

Rolling bearings and gear rims in large machinery are subjected to extreme loads. These are the components where the strongest forces apply, in addition to often harsh operating conditions: Dust, dirt and moisture are everywhere, exacerbated by cold or heat, depending on the location.

It goes without saying that large-diameter bearings and gear rims have to fulfil highest standards with regard to quality and durability. As the components are constantly in use, the risk of failure has to be minimised. Ideally, maintenance intervals should be long, and the required downtime for maintenance work should be as short as possible.