



Chords

Hot-formed, high-strength components

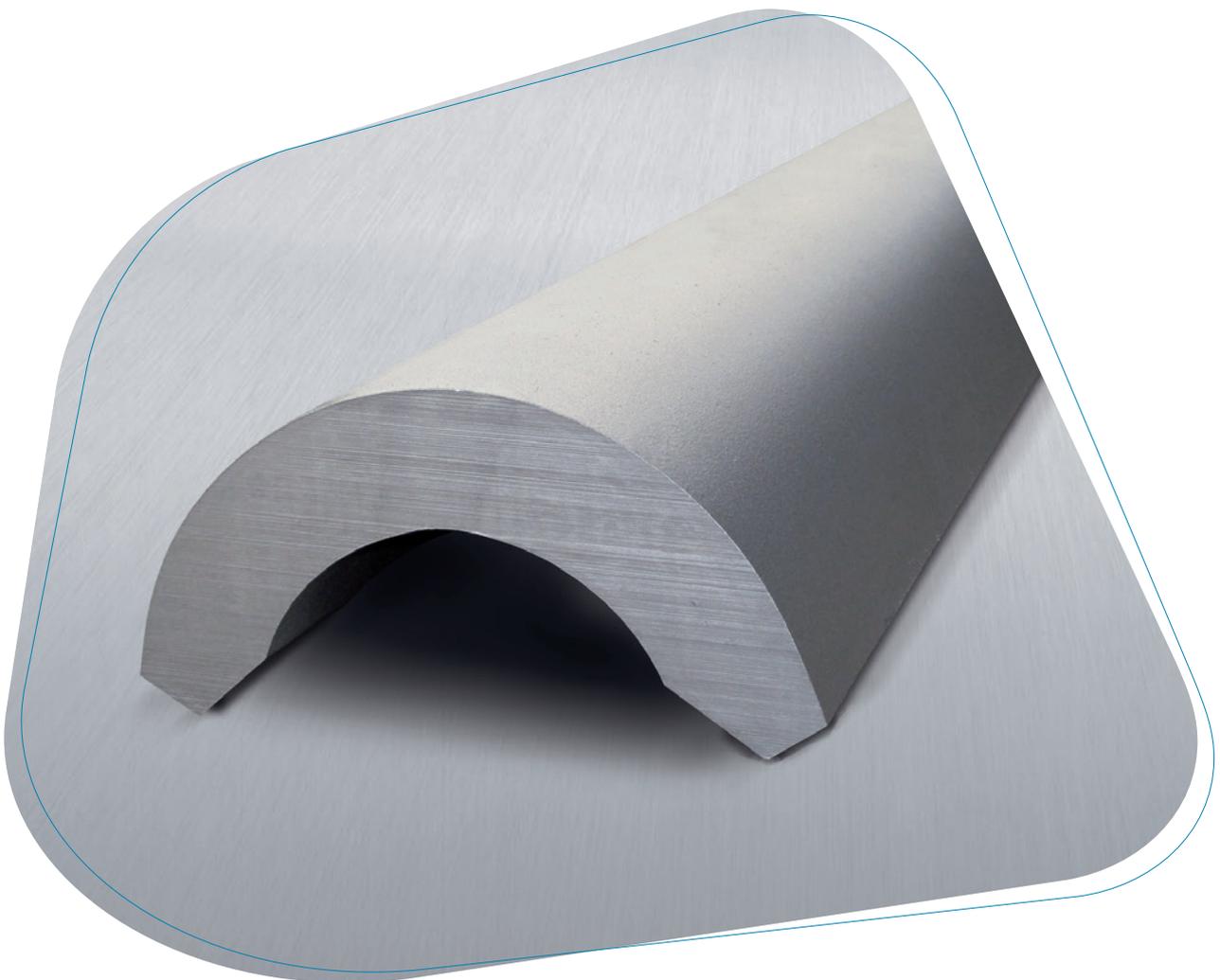
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www.voestalpine.com/steel

voestalpine
ONE STEP AHEAD.

For safe operations in rough conditions

Offshore platforms are supported on jack-up rigs with adjustable feet. During ocean transport, the feet are retracted and point upwards. At the site of deployment, the jack-up rigs are extended until they reach the sea floor. The chords (half shells) made by voestalpine Grobblech strengthen the gear racks of the adjustable feet and allow safe operation in rough conditions. These high-strength chords are hot-formed in a specially designed production process.



Hot-formed chords

voestalpine is a reliable partner in the offshore industry and is highly dedicated to quality assurance and quality control throughout the entire production process. The company is committed to extensive research and development activities in order to provide products that help our customers meet future challenges more effectively.

Extensive expertise

Our intense cooperation with the fully integrated steelmaking plant at voestalpine makes it possible for us to quickly react to customer-specific project requirements. This cooperation and our in-house tool manufacturing facility enable us to deliver chord material with narrowest tolerances that go far beyond the standards.

We have delivered more than 10,000 hot-formed chords to the oil and gas industry since 2008.

Convincing benefits

- Consistent quality control throughout the entire production process
- High-end products based on many years of experience and extensive expertise
- Full-service support provided by a dedicated project management team

Decisive advantages

The high performance of jack-up rigs in a wide range of applications is reliant on first-class leg material. The hot-formed chords made by voestalpine are high-end products as a result of our extensive expertise and ability to control the entire production process coupled with full-service support.

Consistent quality control

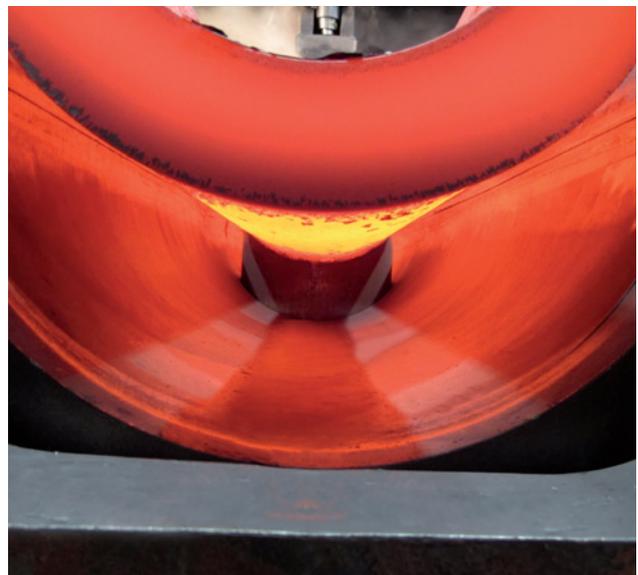
The steel for our hot-formed chords is produced at our fully integrated in-house steelmaking plant. We have the unique position of being able to control quality throughout the entire production process, from steelmaking to final inspection of the machined chords and plates.

High-end products

Our many years of experience in steelmaking and plate rolling coupled with our extensive press expertise and highest-quality equipment place us in a position to provide our customers with full-service high-end products, including hot-formed chords from a single source.

Full service support

We combine highly skilled R&D departments with quality assurance and quality control right from the beginning. You can rely on full-service support from our project management team (R&D, engineering, quality control, sales, customer service, technical service support and logistics).



Best properties

The manufacturing technology for our hot-formed chords was developed in our in-house press shop. The pre-material for our chords is heavy plate of fine-grained, high-strength structural steel produced in our own rolling mill.

Complex manufacturing process

Strips are cut from heavy plate and formed into chords with a special tool on a hydraulic press with a maximum pressing force of 3,500 tons. The tool function is based on finite-element calculations and guarantees a high degree of accuracy to shape. After being hot-formed, the chords are water-quenched and straightened. The edges are flame-cut and/or milled on both sides and end faces, after which they are shot-blasted.

We produce all current rig designs. Custom modifications are also possible within specified dimensions.

- Certified according to American Bureau of Shipment (ABS) respectively according to Det Norske Veritas Rules of Classification (DNV) up to grades AB FQ70 / NV F690.
- Available dimensions
 - Lengths up to 4,200 mm
 - Wall thickness 40-120 mm
 - Outside radius 222-335 mm

Our in-house tool manufacturing makes it possible to produce the full range within these dimensions.



If you're reading this, your successful future has already begun.

Together with us, you are always one step ahead because we offer more than optimized products made of high-quality material.

- If you are looking for customized solutions, we will be pleased to work with you on the creation of new products and services.
- If you are looking for new ideas on materials, technologies and services, we want to help you find them.
- If you are looking for a fair and reliable partner, you are at the right place. We know that we can only be successful together with our customers when they benefit as much as we do from our partnership.
- Our customers take advantage of the most widely used technology: Two thirds of the steel produced worldwide is made using the LD process, and we're rather proud of that.

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