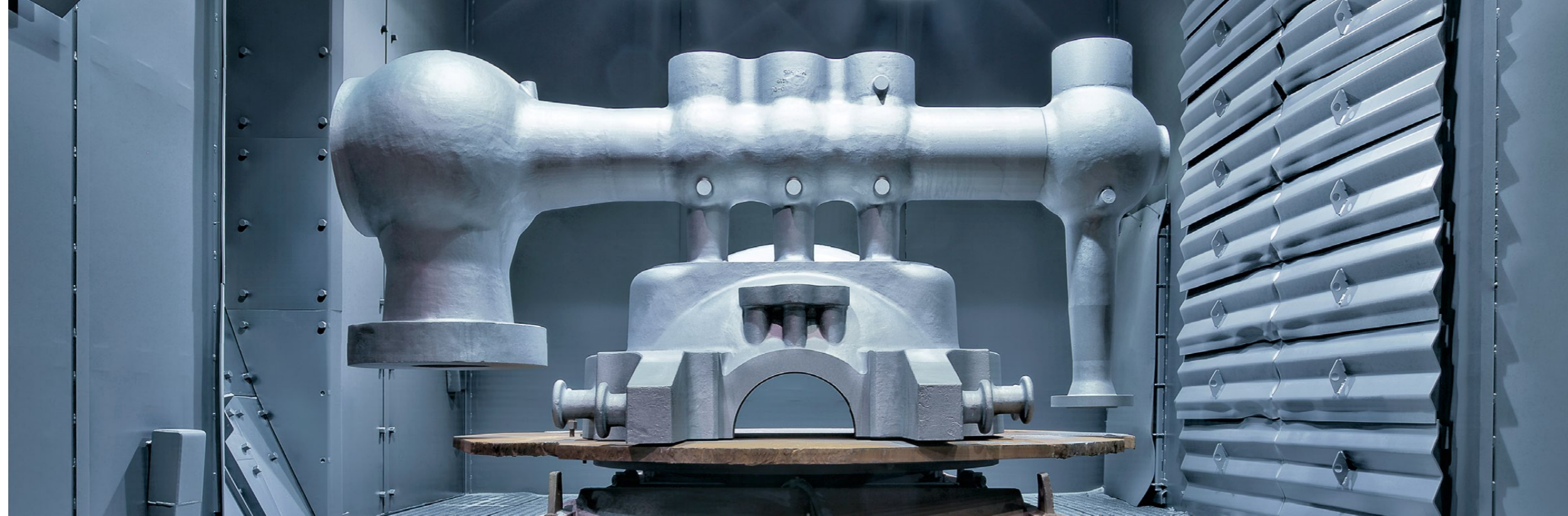




voestalpine  
FOUNDRY GROUP

Highest quality for  
complex areas



Steam turbine casings

# INNOVATION UPON REQUEST FROM THE CUSTOMER

**Great things happen when highly qualified employees meet state-of-the-art technologies at our three sites located in Linz, Traisen and China.**

Whether high-quality steel castings with individual parts of up to 200 tons or highly complex nickel-based alloys: The voestalpine Foundry Group supplies customized products in special customer areas and extreme applications. From pre-rough to finish machining, build-up welding or pressure testing. All our orders have one thing in common:

Highest quality with new technologies such as innovative 3D sand printing and state-of-the-art robotic welding machines to conserve resources.

# FROM INITIAL DESIGN TO THE FINAL PRODUCT

**High levels of innovation based on co-engineering: Take advantage of our many years of experience and comprehensive consulting services to open up new possibilities in your applications.**

Work process and services ▶

**1** The engineering department plans the required casting and riser technologies, including documentation and drawings. Then a pattern is built on a scale of 1:1.

**2** The pattern components are molded, and then casting is carried out using specially designed ladles. The castings are shaken out of the molds over the next 20 days.

**3** After the risers are removed, we adjust the material properties using a high-quality heat treatment process. Surfaces to be rough machined depending on specific requirements.

**4** Time for the initial inspection! The castings are then grinded and welded until everything meets the specifications. We eliminate internal material stress during stress relief annealing.

**5** Accuracy comes first, which is the reason everything is inspected once again. Following the dimensional checks, rough machined surfaces are finished. We also apply a coating upon request.



- Services**
- » Engineering
  - » Prototyping
  - » Finishing
  - » Assembly
  - » Coating

# LIMITLESS DESIGN

3D sand printing is an innovative 3D printing process for the production of sand molds for customized and highly complex castings. This enables the efficient and resource-saving production of castings and eliminates the need for pattern components. The improved surface accuracy also minimizes the effort required for subsequent operations such as grinding or welding.



3D Sand Printing  
Center of  
Competence

## RESEARCH AND DEVELOPMENT

At temperatures ranging between over 700 to minus 196 degrees Celsius, voestalpine Foundry Group develops high-temperature and low-temperature materials, casting designs and industry-leading processes to meet specific customer requirements. We test the materials using modeling, simulation and experimentation processes to ensure that the highest standards are met. We closely monitor the interaction of materials and supply our customers with products that meet their specifications precisely.



High-precision 3D-printed sand cores for use in the railway industry



3D sand printing process

## WE ARE ON THE SAME TEAM

Highest quality standards and first-class results demand that we keenly focus on customer requirements in meeting the highest standards in terms of materials, workmanship and supply. Our experienced sales team will be happy to provide professional consultation about new fields of application that can be individually customized to your specifications. We specialize in developing customized solutions in collaboration with you and your team.

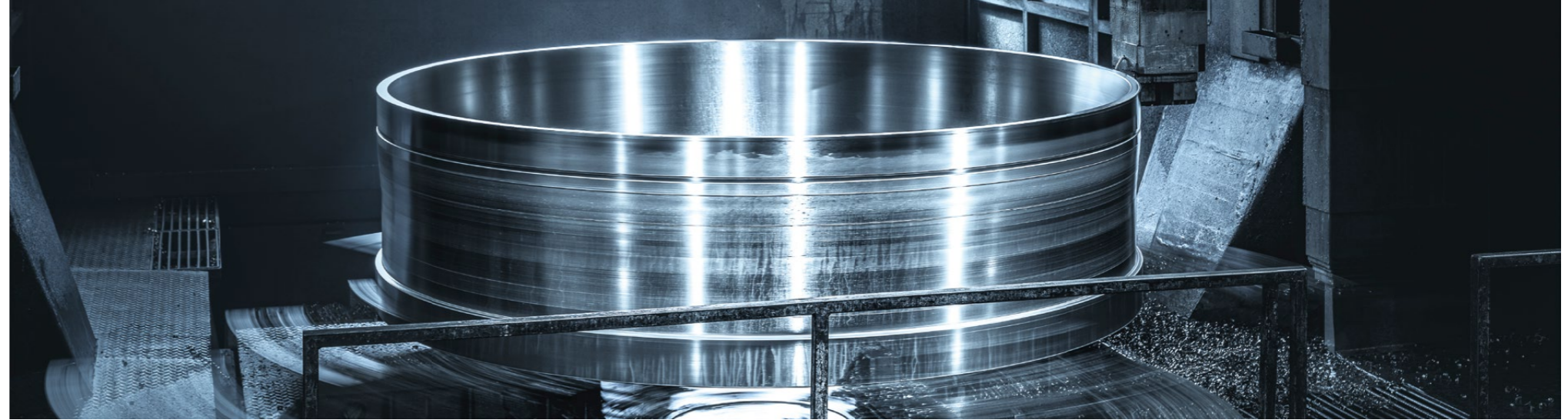
In our voestalpine Foundry Group, trust begins with understanding.

Our sales team looks forward to receiving your individual inquiry.



# FULL FORCE EX WORKS

For plant manufacturers in the energy sector, international oilfield equipment industry or machinery: The voestalpine Foundry Group offers your company the highest quality at the highest and lowest temperatures.



Precision machining for optimum results

Francis impeller  
3.000 kg



## POWER GENERATION

Greatest possible safety and highest possible levels of efficiency

### HYDRO

- » Hubs
- » Heads and cones
- » Impellers and rotors in monoblock design
- » Blades (Francis & Kaplan)
- » Guide vanes
- » Adjusting cranks

### GAS

- » Turbine and compressor housings
- » Vane carriers
- » Diffusers
- » Inner housings
- » Bearing and seal housings

### STEAM

- » Outer and inner housings
- » Valve housings and covers
- » Vane carriers
- » Elbows
- » Columns

### NUCLEAR

- » Outer and inner housings
- » Valve housings and covers
- » Blade carriers

### OFFSHORE WIND

- » Materials specially developed for offshore applications

Heart tips



## RAILROAD SYSTEMS

Cast elements for railroad systems

- » Switch systems
- » Bogies
- » Railway construction machinery
- » Heart tips
- » Plungers
- » Pivot pins

Pipeline compressor housing,  
6000 kg



## OIL AND GAS

Ready to install and pre-assembled for oil fields and gas plants

- » Compressor housing
- » Compressors
- » Blowout Preventers
- » Valves
- » Bearing housings
- » Expander housing

Spindle, 1500 kg



## MACHINERY

Castings for special applications and heavy machinery

- » Stands and anvils
- » Mill housings
- » Fire walls
- » Hammer rams
- » Chocks
- » Slag pots

Lower die, 6150 kg



## ADDITIONAL

cast elements for a wide range of applications

- » Art castings
- » Infrastructure
- » Ship
- » Your individual request



Please visit our web site for further information about our products and areas of application.

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**voestalpine**

ONE STEP AHEAD.