

Feinguß Lobenstein GmbH
Cast in quality.



65,000

SQUARE METRES OF
COMPANY PREMISES

60

YEARS OF
TRADITION

250

DIFFERENT
MATERIALS

15,000

SQUARE METRES
OF PURE PRODUCTION
AREA

Welcome to
Feinguß Lobenstein.

We are one of the most
modern customer foundries
in Europe – and a family
business with tradition.

At our location in Bad Lobenstein, Thuringia, we produce castings from an extraordinarily wide range of standardised and customer-specific steel grades, for our customers from over 40 industries.

This service has a long tradition: We have been developing and supplying investment casting solutions for mechanical engineering since 1952. As a family-run, medium-sized company we manufacture our products on time and at predictable, low prices – in Germany. Our experience, combined with state-of-the-art technology and engineering at the highest level, always guarantees reliable quality “made in Germany” to our customers.

We are curious about your
project – challenge us!

Today, our entire process chain has been digitalised and modernised. Technologies such as 3D printing, optical surface comparison, reverse engineering or casting and solidification simulation ensure short development times, fast sampling processes and stable series quality.

Let us demonstrate our know-how for precise investment casting and provide you with tailor-made solutions for your greatest challenges!

When expertise meets passion.

We are more than founders – we burn for your success.

Perfection is our maxim. Whether highly complex or extremely filigree - we find the optimal solution for every product. Whether you only need an unfinished part or CNC machining including surface treatment, or whether you entrust us with the installing of entire assemblies. We provide everything from a single source.



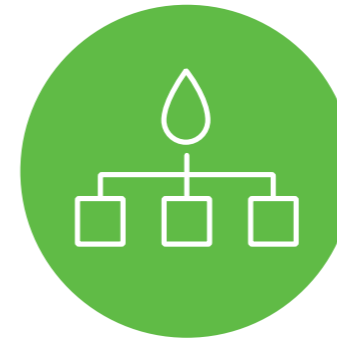
ENGINEERING

- Component design and optimization
- Reverse engineering
- Casting simulation with MAGMA
- Tool-free model production (3D printer)



RAPID PROTOTYPING

- 3D printing in-house at high speed
- Tool-free production
- High creative leeway for variants
- Low costs and short delivery times



INVESTMENT CASTING

- Steel and stainless steel alloys
- Cobalt and nickel base alloys
- Components from 0.001 kg to 60 kg
- Quantities from 1 to over 100,000



FURTHER PROCESSING

- CNC Machining
- Heat treatment
- Surface coating
- Assembly



SERIES PRODUCTION

- Top quality for every part
- Well-rehearsed process flow
- Guaranteed reproducibility
- Also suitable for large quantities



QUALITY ASSURANCE

- Digital radiography
- 3D Scanning
- Optical measuring
- Mechanical and chemical tests

Cast for the great journey

In order to optimise the performance of marine turbines, exact air guide rings like these are necessary. The flow rate of the turbine can be controlled by the blade position. We are able to produce different blade positions from a single tool – ready to be installed for the next long journey.



Reliable, accurately fitting and precise. Engineering

We pour forwards and backwards.

COMPONENT DESIGN AND OPTIMISATION

The following applies to all products: The customers' individual application determines the product. With a strong design and development team, we implement your wishes.

CASTING SIMULATION

By means of virtual simulation using MAGMA software, we achieve the necessary understanding for a cost-effective casting design and ideal sprue connection, in advance. In this way we can save casting trials and shorten start-up times

REVERSE-ENGINEERING

We can also go backwards! We offer "reverse engineering" and can create 3D data from existing parts. These drawings can be adapted and then turned back into new castings – if required, also in a modernised form. Especially for older replacement ranges, this is a cost-effective way to ensure customer supply without tools and at low cost.

TOOL-LESS MODEL PRODUCTION

With our Voxeljet 3D printer, we can efficiently produce investment castings in our complete range of materials without tools, even in the smallest quantities. Your advantage: Components with complex geometries can be produced quickly, without the need for an elaborate tool or the cost of tool changes. Especially for small quantities, this is a cost-effective method, which also allows for the possibility of component modifications at any time. Sample parts can be obtained first-hand from an experienced founder.

When things have to go really fast. Rapid Prototyping

Do you need speed?

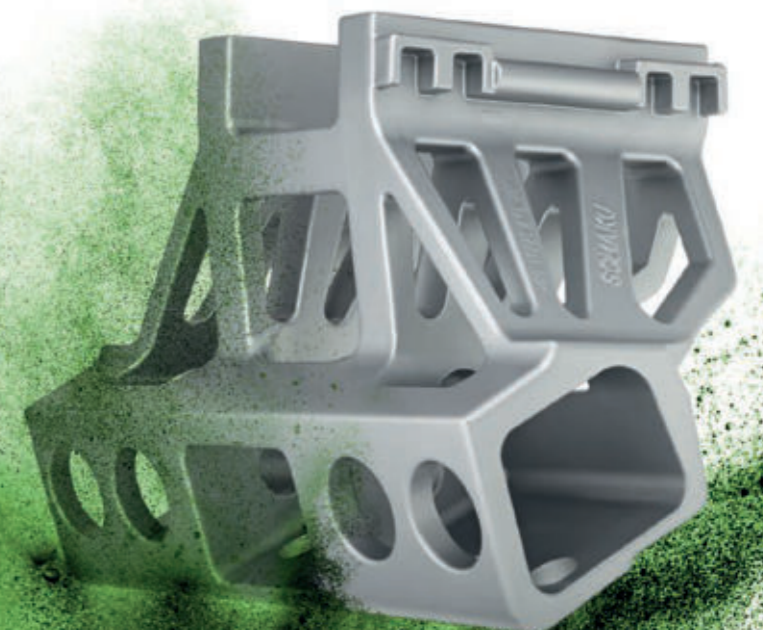
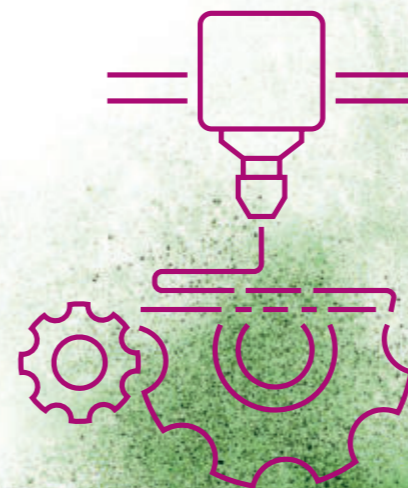
Then we offer Rapid Prototyping. With this 3-D printing process, physical workpieces can be produced from digital data – at high speed.

Based on 3-D design data, we develop casting samples and small series components for you in a very short time. With toolless production we keep costs low and allow for short delivery times.

A further plus: Variants can be easily implemented in 3-D printing. This means that rapid prototyping also offers you a high degree of variability and great creative leeway.

Lightweight powerhouse

This safety component for rail transport was supposed to be light as well as force-resistant. Our solidification simulation enabled us to construct a model with stable struts - with a complex and at the same time light geometry that can only be produced in investment casting.



Variety is trumps – with consistent quality.

Investment casting

Investment castings are produced using the lost-wax technique and are therefore produced ready for installation with little processing effort. This results in an extremely economical casting process for complicated or filigree series moulds with extremely high repeat accuracy in dimension and quality.

MATERIALS CONSULTING

Which requirements should your casting meet? We are pleased to offer comprehensive advice on the choice of the appropriate material that will give you the best result.

STEEL AND STAINLESS-STEEL ALLOYS

From standard steels to special alloys according to your requirements: In our own charge make-up, we respond to your ideas specifically.

COBALT AND NICKEL-BASED ALLOYS

Alloys such as these generally have improved wear, corrosion and chemical resistance properties and retain them even at high temperatures.

DIMENSIONS

Due to our wide-ranging production facilities, we are able to produce components weighing between 1 gram and 60 kilograms in a cost-efficient way.

QUANTITIES

Thanks to our efficiently designed production, we are able to produce quantities from 1 to 10,000 pieces – starting with our 3D printer, to our flexible melting shop and automation.

Why not everything from one single source?
Further processing

Would you like something else?

HEAT TREATMENT

Heat treatment allows us to achieve good machinability and structural homogeneity. In addition, we can optimise concrete properties for a specific purpose by means of special processes. For example, we can produce components with continuous hardness or those with a tough core structure and hard surface.

SURFACE COATING

Through various grinding and blasting processes we create the basis for the required surface finish. In cooperation with specialized and reliable partners we offer the following processes: Electropolishing, vibratory grinding, wet paint, KTL coating, anodising, powder coating, chromating and chemical nickel plating.

CNC MACHINING

Simple and complex mechanical processing are carried out directly in our company or implemented by our competent partners.

ASSEMBLY

On request, we are also happy to pre-assemble and take care of the procurement of purchased parts for you.

Optimised in all details

A workpiece – with a flawless form and exact to the smallest detail. That is our claim. The following applies to all our castings: We manufacture precisely to the requirements of our customers. The individual application determines the product.

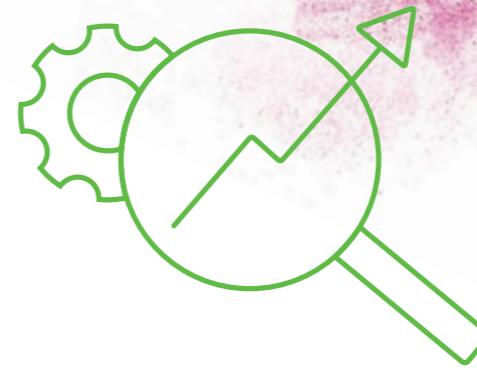


Every part top quality. **Series production**

Whether a single piece or series production: We offer top quality, casting by casting. With the delivery of sample parts, we guarantee the reproducibility of all steps in the manufacturing process. In this way the casting and process sequence are ready for series production – even in large quantities.

Resistant to high heat

Highly heat-resistant components are required for exhaust systems. We have developed such a component for the automotive industry, made of particularly thin-walled stainless steel. The best way to produce its sophisticated shape economically is by investment casting using water-soluble cores.



International quality standards.

Quality assurance

We use the most modern test procedure.

We use the quality management systems

- DIN EN ISO 9001:2015,
- DIN EN ISO 14001:2015

and the environmental management system

- DIN EN ISO 14001

As a result, our customers and partners cannot only rely on products of the highest quality, optimised manufacturing processes and regulated organisational structures, but also on compliance with demanding environmental standards.

3D-SCAN

With our optical scanner we offer both area comparison and reverse engineering.

OPTICAL MEASUREMENT

The GOM-Atos system allows fast measurement of the components by comparing the surfaces. This system offers decisive advantages, especially for freeform surfaces.

MECHANICAL TESTS

Tactile measuring, spectrometry, crack testing, roughness testing, hardness testing and tensile strength testing round off our portfolio.

DIGITAL RADIOGRAPHY

Our X-ray systems with up to 330 kV and digital image converters enable non-destructive testing even of large components. Using HDR technology and moving images, these images offer far more than previous film techniques. Upon request, we can also provide you with digital images.

A part of NATHüringen.

We are part of the Thuringian Sustainability Agreement "NATHüringen". In doing so, we voluntarily commit to sustainable management.

Industrial safety tested.

Systematic and effective occupational health and safety is confirmed by the "Sicher mit System" (Safety with System) quality seal of the Berufsgenossenschaft Holz und Metall.



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