Sphäroguss | Ni-Resist | SiMo | ADI

BRECHMANN-GUSS

… mit Sicherheit der Qualitätsguss







For generations, we have been concentrating our activities on our customers and their requirements.

Since 1877, our highly qualified staff, years of experience, and continuous forward-looking investment and development in all divisions of our company have been the core elements of our flexible and reliable partnership with our customers and suppliers.

Our permanent aim is to maintain and improve the flexibility and diversity of our performance.

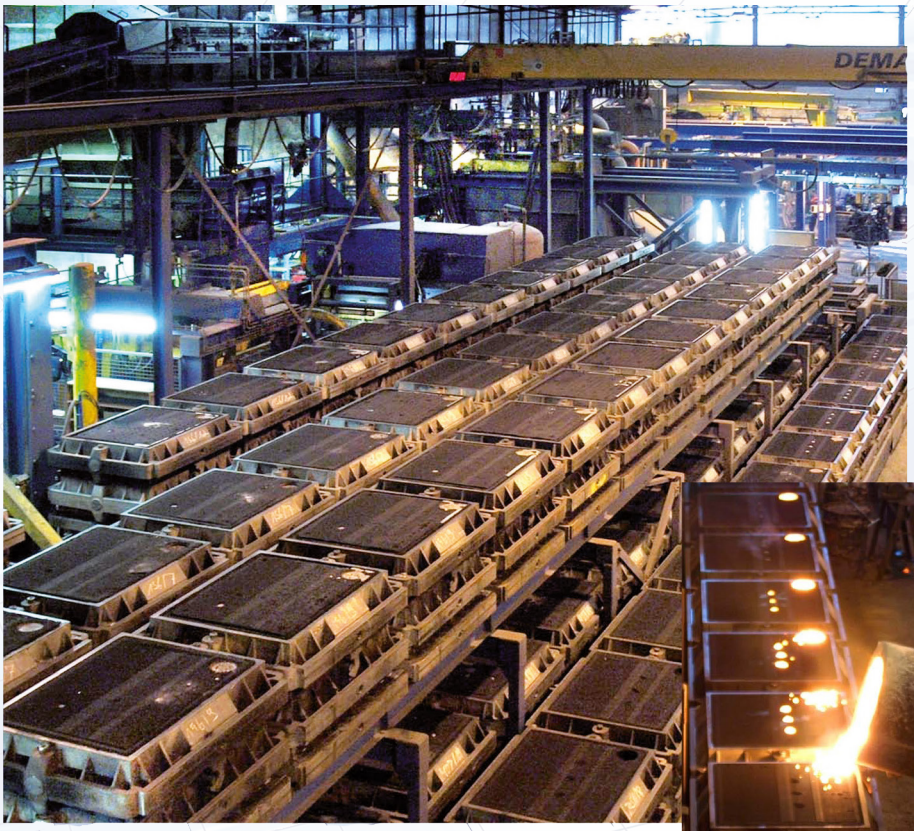
Brechmann-Guss is one of the leading jobbing foundries in the field of small- and medium-batch production of castings made of ductile iron and its derivatives.

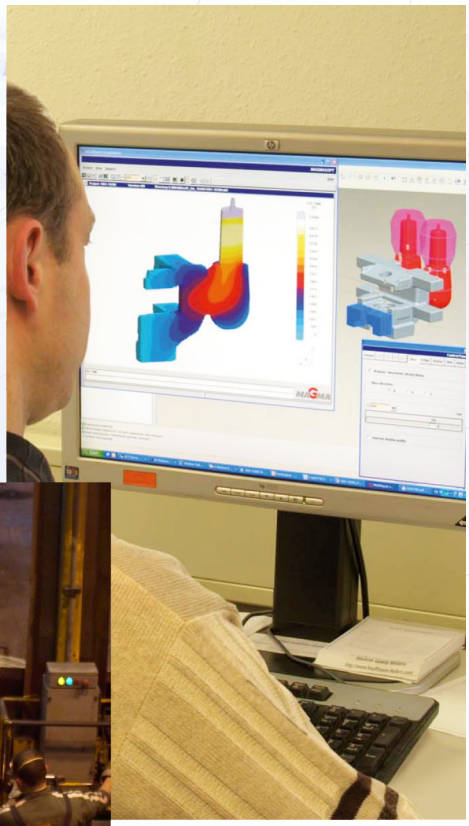
QUALITY CASTINGS SINCE 1877

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OUR SERVICE PROFILE

As a costumer foundry we are in a position to comply with highest quality and market requirements.

We offer our customers a choice of more than 35 standardised grades of ductile cast iron and various grey cast iron materials.

Moreover, we offer repeatable produced special materials like Ni-Resist, ADI and SiMo, and we advise you on any questions you may have about materials.

We provide systems for special applications, and our service is holistic.

SPECIALIST IN SMALL- AND MEDIUM-SIZED BATCHES

Our production facilities are finetuned to the manufacture of small and medium-sized batches for almost all applications in the metalworking industry.

We offer customised solutions for high-end-casting products even were batches and anual order volumes are small.

Together with our customers, we realise sophisticated geometries and core-intensive castings for national and international markets, from design consultation to turnkey component.

YOUR BENEFITS

Quality castings
for demanding acceptance- and safety-relevant castings made of grey cast and ductile materials.

System provider
for turnkey components.

Design consultation
from product development to finished component.

Partner shop
IN-House engineering and CNC-Milling

Logistics partner
for fexible, marketconformable deliveries.

DYNAMISM AND STRENGTH FOR THE FUTURE









DUCTILE IRON

Ductile cast iron is a material of outstanding quality that combines high tensile strength with good elongation at break. Besides, it features both, good vibration damping and excellent machinability. Because its production is more economical, its average cost of production is less than that of molten steel.
Brechmann-Guss offers more than 35 grades standardised under DIN EN 1563 as well as special materials, for example GJS-600-10 Duktil Plus, GJS-600-7, and GJS-520-15. The advantages of ductile cast iron at a glance:

- Outstanding mechanical properties
- Excellent machinability
- Good vibration damping
- Outstanding emergency running properties
- Economical steel alternative

NI-RESIST

The term Ni-Resist describes a high-alloy nickel material with an austenitic microstructure.

The material is preferentially used in the manufacture of heatresistant, corrision-resistant or anti-magnetic components such as exhaust manifolds, turbocharger casings, pumps, or compressors.

- High scaling resistance
- High elongation at break
- Low-temperatur toughness down -196°C
- Erosion resistance
- Highly reliable production quality

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SIMO

Alloyed with silicon and molybdenum, this special material was developed specifically for high-teperature applications.

It is mainly used in the manufacture of exhaust system peripherals (exhaust manifolds, turbocharger casings) which are exposed in the field to temperatures as high as 800°C.

SiMo has these specific advantages:

- High heat resistance
- Good scaling resistance
- Good volume stability
- Highly reliable production quality

As SiMo materials have not been standarised in the past, order specifications wil be specfied in consulting with our customers on the basis of our inhouse standards. Various standardised material qualities according to DIN EN 16124:2011 can also be found in our range.

ADI

ADI is a material developed from perfect high-quality ductile cast iron whose microstructure is changed to ausferritic by heat treatment.

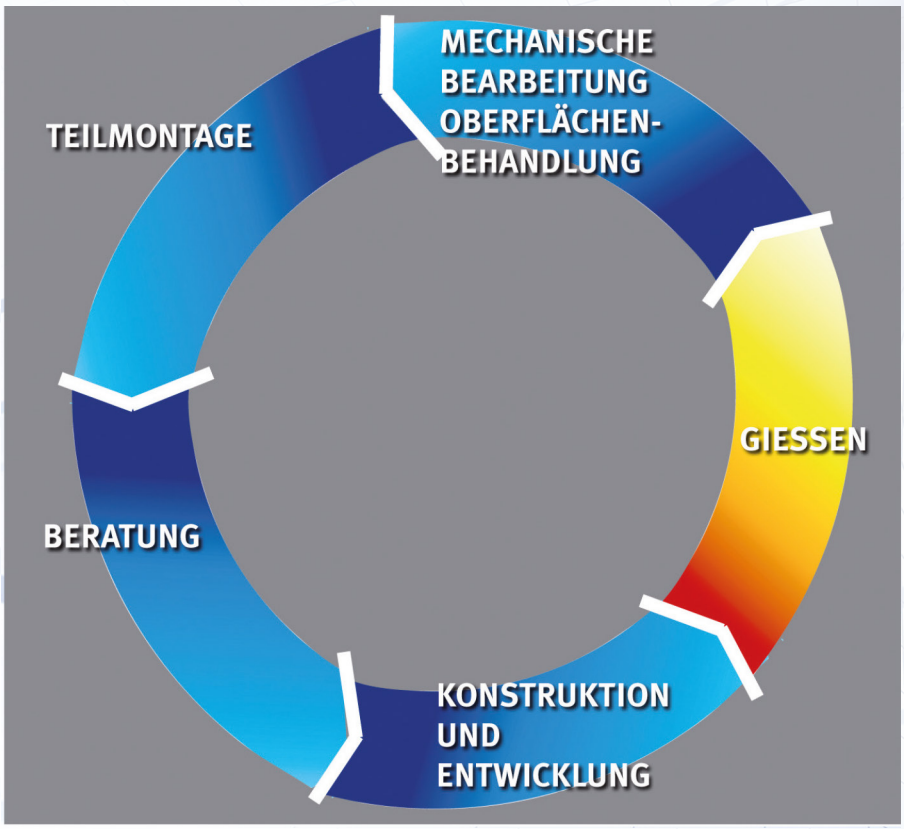
ADI displays outstanding performance in crucial design parameters, such as strength, toughness, and wear resistance.

It is used wherever high static and dynamic stregth is required together with good tensile strength and toughness.

Because ADI is so interesting and versatile, we have dedicated separate a brochure which we should be pleased to mail to you or present to you during a personal conversation.

GREY CAST IRON

In addition to the standard grades EN-GJL-100 to EN-GJL-350 according EN1561, Brechmann-Guss also manufactures special alloyed grey cast iron grades for a wide range of applications (e. g. hydraulic castings and engine construction) on customer request.







OUR SERVICE PORTFOLIO

- Consultation
- Design and development
- Heat treatment
- Machining
- Surface treatment
- Component assembly
- Documented quality
- Customer-specific logistical solutions
- Prototype production Rapid Casting

ENGINEERING CONSULTATION

We focus on individual customised solutions in everything we do. For your application, optimising the process technology of a casting means optimum functional properties and uniformly good quality.

Our team of casting specialists will provide your design engineers with comprehensive advice on all matters relating to casting technology, from material selection, component geometry, and technical feasibility studies to geometry optimisation.

Whenever you begin developing a product, we will be pleased to assist you with our know-how and our leading-edge technology. Mould-filling and solidification simulation enables us to develop the best possible solutions for your castings in the terms of economy and foundry technology.

MACHINING

As system provider we are reliable partner in all matters relating to machining.

Based on the latest technologies, modern CNC machining facilities enable us to rough- and finish-machine your castings across a wide range of processes.

Specifically, these include:
- CNC-turning
- CNC-milling
- Conventional machining
- Gear cutting
- Asssembly

Furthermore, we will be pleased to offer you advice on any other aspect of machining.

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SURFACE TREATMENT

To round off our holistic portfolio of services, we offer a wide range of surface treatment options.

Based on customer specifications, castings may be coated by any of the following methodes:

- CDP roating
- Wet-painting process
  1-K, 2-K, aquapainting, dip-painting
- Special coatings
  e. g. heat insulation coating, Teflon painting
- Galvanising
- High-temperature isulation
- Zinc coating
  thermo-spraying, hot-dip zinc coating
- Combined processes
  e. g. electroplating plus painting

QUALITY CASTINGS

The defining characteristic of our product portfolio is a high proportion of safety-relevant and highly demanding castings.

Thus, the majority of our products come with an acceptance certificate.

Brechmann-Guss has the approval of all reputable classification societies.

Among others, we are supplier of Deutsche Bahn.

TEST METHODES

- Spectral analysis
- Digital analysis of microstructure images
- Tensile and notched-bar impact tests
- Magnetic powder tests
- Ultrasonic tests
- X-ray tests
- Solidification simulation
- 3D laser measuring arm
- 3D coordinate measuring device

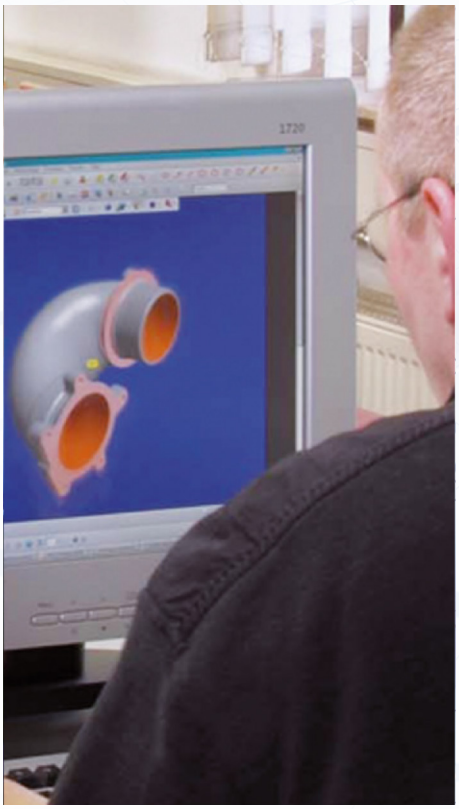
CERTIFICATIONS

- DIN EN ISO 9001:2015
- DIN EN ISO 14001:2015
- DIN EN ISO 50001:2018
- NLF / ILO-OSH 2001
- HPQ certified by Deutsche Bahn
- TÜV
- Det Norske Veritas / Germanischer Lloyd
- Lloyds Register of Shipping
- Bureau Veritas
- American Bureau of Shipping
- Korean Register

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INDUSTRIES

Engine construction

Commercial-vehicle industry

Rail transport engineering

Wind power generation

Valves and fittings

Drive train and transmission engineering

General mechanical engineering

SAMPLE APPLICATIONS

Exhaust systems, e. g. heat resistant material such as Ni-Resist

Exhaust systems and undercarriages, e. g. heat-resistant material such as SiMo

Brake and clutch systems, e. g. wear-resistant material such as ADI

Brake systems, e. g. heavy-duty material such as Duktil Plus

Industrial valves and fittings, e. g. pressure-boundary castings made of EN-GJS 400-18

Drive systems, e. g. wear resistant material such as ADI

Agricultural and building machineries and machine tools, e. g. heavy-duty material such as GJS 520-15

Gegründet 1877

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