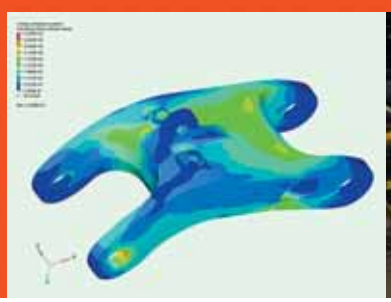
TURNING IDEAS INTO
Tailored Castings




Bielefeld • Gütersloh • Bad Saulgau • Nortorf
(Germany)

CLAASGUSS®
Tailored Castings

Founded in 1890 CLAAS GUSS looks back on a long tradition as jobbing foundry and is today one of the leading companies in Europe. **We are fully aware that only contented customers come back.**

With a **production capacity** of 45,000 tons of casted products we produce unit weights of 0,5 – 350 kg of machine moulded castings. The range of cast iron materials offered by us varies from grey cast iron and spheroidal cast iron to SiMo and ADI to highly alloyed austenitic or wear-resistant materials.

We can offer you more. Our business activities exceed much beyond the production of high-quality and challenging castings. Our Product Engineering Team provides extensive support right from the product development stage. Since the inception of our mechanical processing facility in spring 2009 we can now offer the entire supply chain management service from construction support to the delivery of finished and varnished components from one source. That's us, the CLAAS GUSS.

CLAAS GUSS – Your partner for high-tech castings from the first idea to a ready-to-install component.

CLAAS GUSS, your Partner for high tech castings

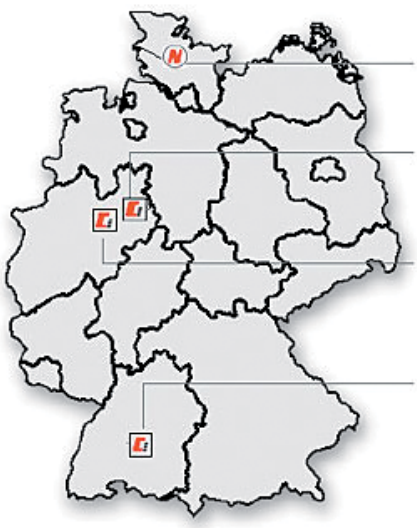
Production Facilities

Production Equipment

Our production equipment at 4 sites in Germany grants us a high level of flexibility regarding component measurements, material and lot sizes.

Foundry

- manufacturing capacity 45,000 tons per annum
- high-performance pattern making with CNC Machining Centre
- core-making shop with 26 core-shooting machines (5 to 40 litres)
- core production with cold box process
- melting processes with cupola furnace or medium frequency induction melting furnaces



- machine-moulding shops with 5 automated moulding facilities for unit weights from 0,5 to 350 kg
  moulding boxes:
  Bielefeld: 700 x 700 x 600 mm
  Gütersloh: 800 x 650 x 500 mm
  Bad Saulgau: 760 x 440 x 300 mm
  Nortorf: 600 x 460 x 180/200 mm and
  1250 x 1000 x 260/360 mm
- utilisation of grinding robots for the fettling of larger lots
- annealing furnaces for stress relieve annealing, ferrit annealing or pearlitizing

Mechanical Processing

- machining centre "Hüller Hille NBH 630/3"
- size of pallet: 630 x 630 m
- maximum loading: 1,200 kg
- rotary table: 1 degree index table
- work area: x=1,025 mm, y=800 mm, z=1,000 mm
- tool magazine: magazine with 3 boxes and 50 tool places each

CLAASGUSS®
Tailored Castings

Products and Quality

Products

As manifold as the business sectors of our customers are, as varying are their casting requirements. For this reason quality management and quality control provide a basis for our success.

Quality management

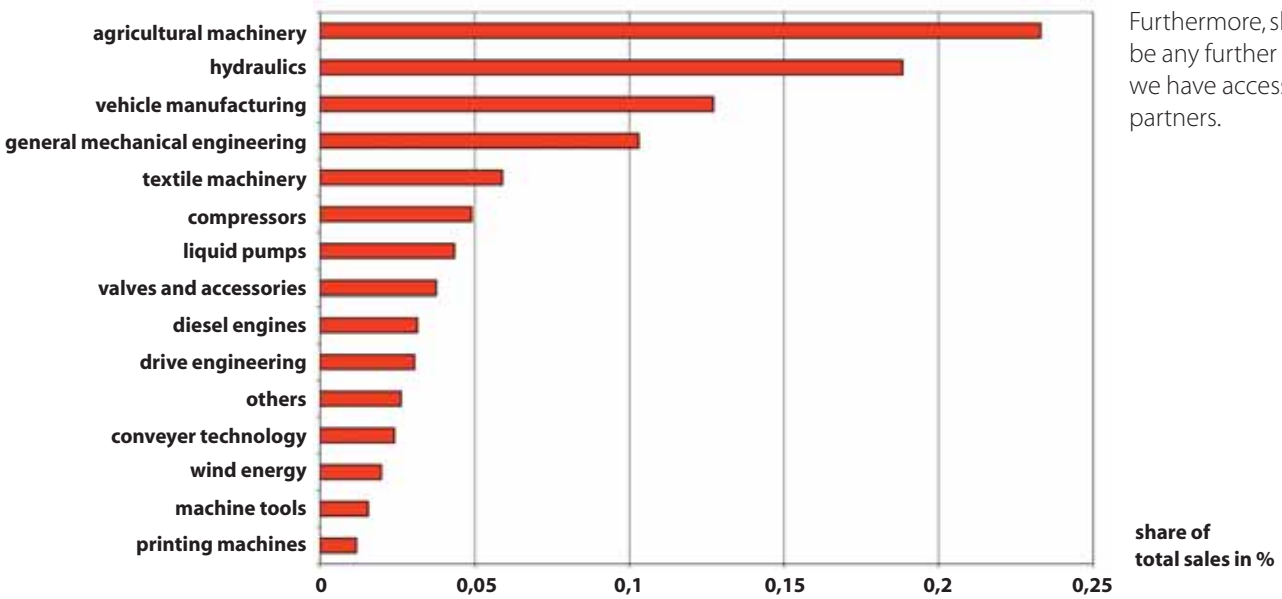
Our quality management fulfills the highest standards. Our company is certified according to

- DIN EN ISO 9001 : 2008
- ISO TS 16949 : 2009
- DIN EN ISO 14001 : 2005

Quality Control

We assure quality by means of high standard metallurgy and moulding technology and possess substantial equipment for that purpose:

- extensive moulding sands testing
- spectral, wet chemical and thermal analysis
- metallographic laboratory with automatic microsection preparation and computer-assisted image analysis
- magnetic crack testing and dye penetrant inspection
- ultrasonic inspection
- tensile tests
- notched-bar impact-bending test
- Brinell hardness test
- three dimensional CNC component measurement (tactile measurement as well as optical 3D scanning)



Furthermore, should there be any further tests required, we have access to external partners.

Product Engineering: Turning Ideas Into Tailored Castings

Give us challenges during the development of new castings itself because castings are not ready-made but individual solutions for the fulfilment of a function. As a synthesis of design, material and manufacturing process:

Tailored Castings

are created for each application.

We offer the best possible support to design engineers in designing iron castings. The right stimulus at the right time can provide new quality to constructions.

The project work ranges from mere consultancy service to independently created design proposals. It also encompasses queries concerning material as well as the evaluation of the feasibility of component designs. Developments of ideas for improving quality along with economic considerations are invariably incorporated.

We are optimally equipped to support our customers during product development with state-of-the-art technology.

- CAD workstations (Unigraphics)
- data exchange with other CAD systems via standard interfaces (STEP, IGES, VDA, STL)
- data transmission by ODETTE, email or data medium
- casting simulation (MAGMAsoft)
- FEM/ topology optimization (Altair Hyperworks)

Materials Consultancy

Using alloy technique and heat treatment, a multitude of cast iron materials can be produced covering a wide range of properties. There is a "specialist" for many applications who gets notably close to the desired specifications. With a profound knowledge about materials, their properties and specific characteristics we support customers in choosing appropriate materials and concerning queries about material substitution. Occasionally our ideas even exceed the spectrum of standardized materials.

CLAASGUSS®
Tailored Castings

CLAAS GUSS GmbH
Am Stadtholz 52
D-33609 Bielefeld
Tel. +49 (0)5 21/93 15-0
Fax +49 (0)5 21/93 15-2 88
Internet: www.claasguss.de
E-mail: info@claasguss.de

CLAASGUSS®
Tailored Castings