

Welcome to the foundry



Company history

- **1862:** Josef Esterer builds a first workshop and foundry at the river Mörnbach in the town of Altötting.
- **1900:** Esterer AG becomes the first joint-stock company in Bavaria.
- **1982:** Legal and organisational spin-off of the foundry in Altötting under the title **Esterer Gießerei GmbH (Ltd.)**, which is a 100 % subsidiary of the **Esterer AG**. Starting point for developing a high-performance and modern **job foundry**.
- **1991:** Esterer AG acquirers the **Esterer Gießerei Werk Wurzen GmbH (foundry plant in Wurzen – region Saxony)**, specialised for hand forming production.
- **2008:** Both foundries (Altötting and Wurzen) are acquired by the Holding **Topol GmbH (Ltd.)**.

Foundry Esterer Gießerei GmbH in Altötting

- Number of employees: 80
- Melting plants: four medium-frequency induction furnaces (500/ 1,000/ 1,600/ 2,200 kg capacity)
- **Casting weights and flask sizes:**
Hand moulding: 0.5 kg – approx. 1.600 kg:
Max. 2.100 x 2.100 x 1.000 mm
Machine moulding: 0.1 kg – approx. 150 kg:
Max. 850 x 850 x 600 mm resp. 560 x 460 x 600 mm
- **Materials:** Steel casting: from plain to high-alloy (high-grade steel), cast duplex steel, Ni-resist, heat resist casting and Ni-base alloys, Si-Mo, wear casting grey and spheroid iron casting,
- **Production: prototypes and serial production – approx. 2,500 t/year**



Foundry plant Esterer Wurzen GmbH

- Number of employees: 25
- Melting plant: medium-frequency induction furnace (5,500 kg capacity)
- **Casting weights and flask sizes:**
Hand moulding: 0.5 kg – approx. 4.000 kg:
Max. 2.800 x 2.800 x 1.600 mm
- Materials: grey and ductile iron
- Production: delicate and filigree, geometric demanding castings and with intensive core parts,
Prototypes and small batches – approx. 1.300 t/year



Our advantages as a **SYSTEM SUPPLIER** for **CASTINGS**

- **Covering** the whole **value-added chain** of **castings**
- **Developing and optimising** demand-oriented casting solutions with our customers →

Functional integration within casting parts + **casting technology KNOW HOW**
= **Added value for our customers**

- In-house **vocational training** in all **pivotal work areas** of our **production**
- **Highly-flexible** production of over **200 iron alloys** for highly flexible application:
Batch size 1 – 1.000 and **casting weights** ranging from **0.1 kg** to **4,000 kg**
- Cross-industry, broad spectrum of customers = **Stability and multiple industry experience**

Equally valid for **spare parts** and **wear castings** for **processing of stone/soils**:

- **High reliability** and **quick availability** of our products **MADE IN GERMANY**.

Our services as **SYSTEM SUPPLIER** for **CASTINGS**



Material specifications

We offer support at material selection by comparing various **material characteristics** for your desired application.

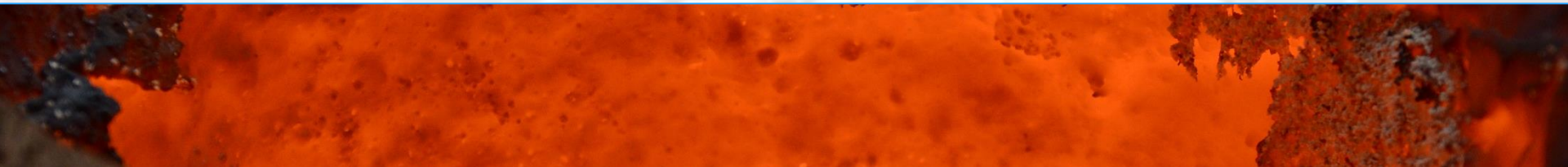
- **Mechanical Specifications**
- **Wear resistance**
- **Heat resistance**
- **Impact resistance**
- **Welding capability**
- **Corrosion resistance**
- **Coating capability**
- **Scale resistance**
- **Resistance to elevated temperatures**



Our materials as **SYSTEM SUPPLIER** for **CASTINGS**

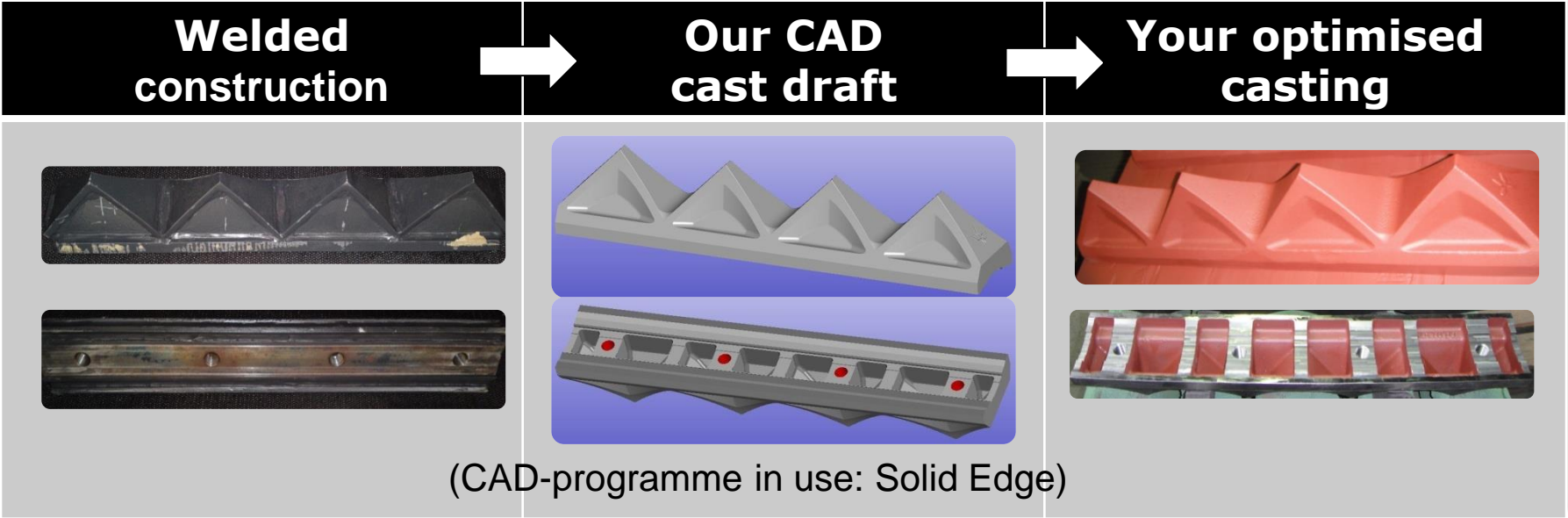
With our broad spectrum of **ferrous metals** from our own process-safe production, we are able to cover a wide production area:

- **Grey iron (EN-GJL, GG)**
- **Spheroid iron (EN-GJS, GGG), ADI**
- **Ni-Resist cast iron**
- **Si-Mo cast iron**
- **Special qualities / wear casting**
- **General cast steel (GS)**
- **Annealed cast steel (GS)**
- **Corrosion-resistant cast steel (GX)**
- **Duplex cast steel (GX)**
- **Heat resistant cast steel (GX)**
- **Ni-based materials**



Construction consulting

We are working together with you as a customer at the **construction design** of your cast parts. Whether **Reverse Engineering** or with your construction draft, together with your order we are able to implement optimisations and adaptations of the casting procedure directly in **CAD** and therefore we can shorten the period from **development to serial production** and make use of savings' potentials.



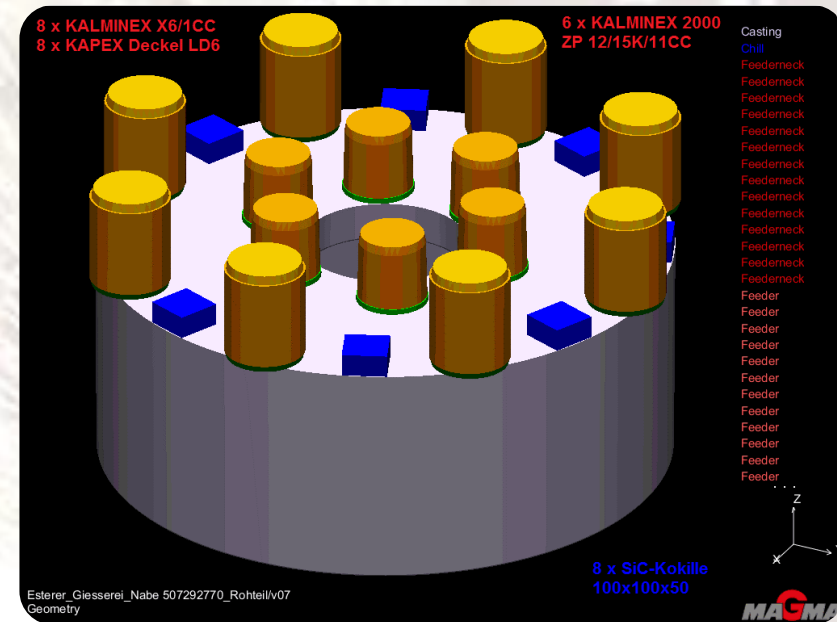
FEM – Solidification analysis as technical support

The **simulation of mould filling and solidification** serves as a visualisation of the **pouring and cooling characteristics** of the melting and to check the **solidification process** within the casting mould.

The results of this enable us to further optimise the casting procedures already before the first casting or during serial production.

Advantages for our customers

- **Reduced risk of scrap or rejects with first castings**
- **Increased process security at serial production**
- **Reduced quantities of raw and auxiliary materials and energy** ➡ **reduced costs**



Casting technique with risers
(directional solidification)

Building of patterns in-house

- Production of hand and machine mould patterns, design adapted to casting technology
- Materials: wood, plastic and „Lost Foam“
- Inspection of patterns and castings
- Vocational training for pattern mechanics

Customer advantage

- Short reaction times
- If required: patterns for individual castings or for long lifetimes
- High-quality and cost-efficient pattern calculations



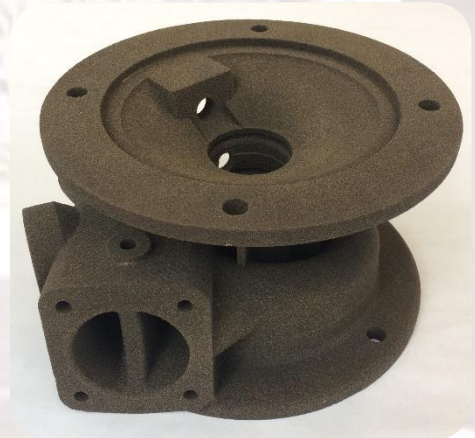
3D-printing „Rapid-Forming“

In addition to conventional mould production through hand or machine moulding we are in the position to offer you the production of castings and cores through the **Rapid Forming-process**.

We are able **without a prior production of a pattern** to **adapt the 3D-data of the construction** of your desired cast part to produce and cast complete casting forms or form parts in the shortest time possible. This is called **additive production**.

Thus, the **Rapid Forming-process** is especially suitable

- with very **short deadlines**
- **during the development phase** (no pattern costs)
- with highly detailed and **complex geometries**



Production resources optimised on demand

A broad spectrum of high-quality and tested auxiliary materials (risers, coats, filters, mould materials...) enables us to produce process-oriented castings with **complex requirements**:

- High wall thickness
- Complex and delicate core geometries
- Parts with thin walls
- Casting of double walls
- Great difference of wall thickness
- High-alloyed materials



Heat treatment

- Stress relief annealing
- Normalising
- Air, oil and water quenching and tempering
- Hardening and more

Benefits for our customers due to a mostly in-house heat treatment:

- Short processing times
- Continuous material competence
- High flexibility (materials and quantity)
- Cost efficient heat treatment



Quality assurance

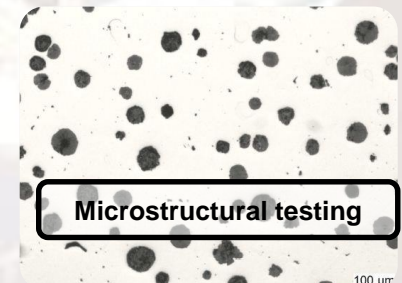
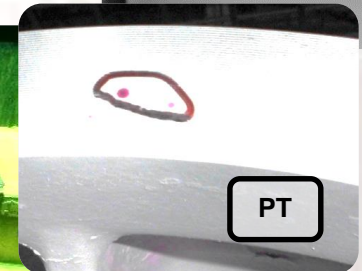
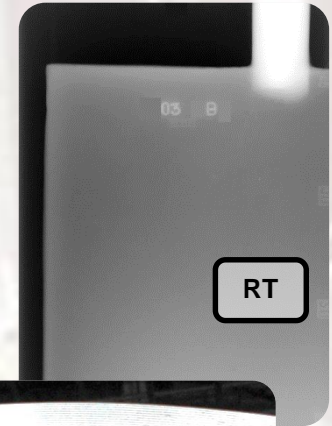
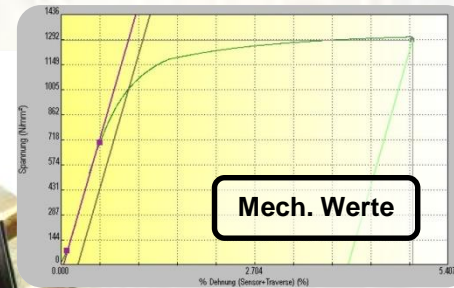
Testing technologies

In-house:

- Spectral analysis
- Ultrasonic testing (UT)
- Magnetic particle testing (MT)
- Dye penetrant testing (PT)
- 3D-dimensional testing

External:

- Mechanical testing (pulling test)
- Microstructural analysis
- X-ray testing (RT)




Quality management


Certification

- DIN EN ISO 9001 : 2015
- DB – Approval (EN-GJL/GJS)
- Lloyd´s register admission (in Wurzen)
- AD 2000 W0/97/23/EC
Pressure Equipment Directive (in Altötting)

The above mentioned certificates can be downloaded from our homepage at: <http://www.esterer-giesserei.de/leistungen/qualitaetsmanagement/zertifizierungen/>



ZERTIFIKAT



Hiermit wird bescheinigt, dass

**ESTERER GIESSEREI**

Esterer Gießerei GmbH
Estererstraße 12
84503 Altötting
Deutschland

Esterer Gießerei Werk Wurzen GmbH
Dresdener Straße 40
04808 Wurzen
Deutschland


mit der nebenstehenden Unternehmenseinheit
ein **Qualitätsmanagementsystem** eingeführt hat und anwendet.

Geltungsbereich:
Vertrieb, Gussberatung, Anfertigung von Modellen und Fertigung von Eisen- und
Stahlgusskomponenten aus un- bis hochlegierten Werkstoffen inkl. Wärmebehandlung,
Werkstoffprüfung und mechanische Bearbeitung

Durch ein Audit, dokumentiert in einem Bericht, wurde der Nachweis erbracht,
dass das Managementsystem die Forderungen des folgenden Regelwerks erfüllt:

ISO 9001 : 2015

Zertifikat-Registrier-Nr.	286814 QM15
Gültig ab	2017-10-01
Gültig bis	2020-09-30
Zertifizierungsdatum	2017-09-05



DQS GmbH


Frank Gräichen
Geschäftsführer

Akkreditierte Stelle: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main

Mechanical processing

With our in-house mechanical production department and with our reliable partners we produce **pre-machined and ready-to-install castings** and thus we **reduce interface points** in your supply chain.

Pre-machining and finish machining through...

lathing, milling, honing, broaching, grinding and balancing



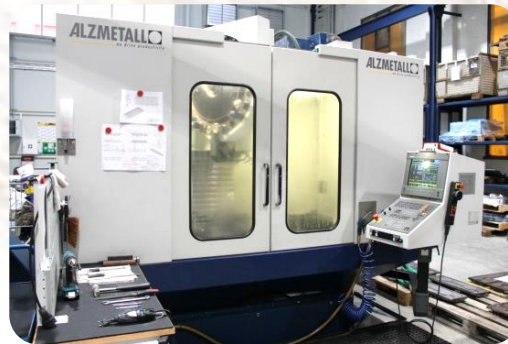
Mechanical processing in Altötting

CNC-lathing



- Powered tools
- Max. Ø: 500 mm
- Max. length: 1500 mm

CNC-milling



- 3-axe-milling
- Travel lengths X/Y/Z:
1200/600/800 mm

CNC-lathe-milling



- Lathing
 - Max. Ø: 920 mm
 - Max. length: 1800 mm
- 5-axe-simultaneous milling
 - Travel lengths X/Y/Z:
590/510/1800 mm

+ Vocational training for **machining and metal cutting**

Further processing of casts

- Various blasting agents according to customer demand
- Polishing and smoothing
- Priming
- Surface coating



We cast originals

Your industry is our home...



Food Industry



Chemical Industry



Mining

Your industry is our home...



Agriculture / Forestry



Construction /
Stones / Soils



Recycling

We cast originals

Your industry is our home...



Components for cars



Pharmaceutical
and medical
technique



Processing machines

We cast originals

Your industry is our home...



Rail vehicles



Defence
technique



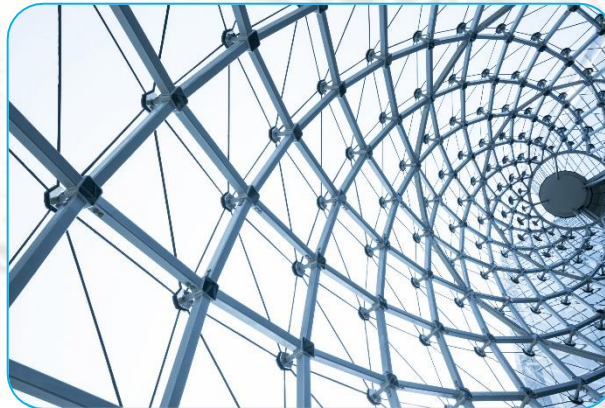
Shipbuilding

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Your industry is our home...



Maintenance /
Spare parts



Architecture

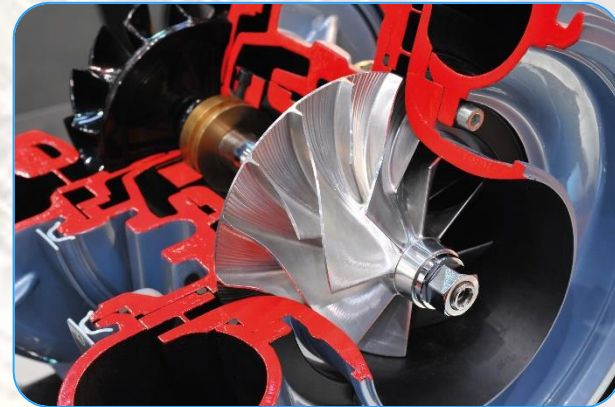


Art and Design

Your industry is our home...



Energy Technique

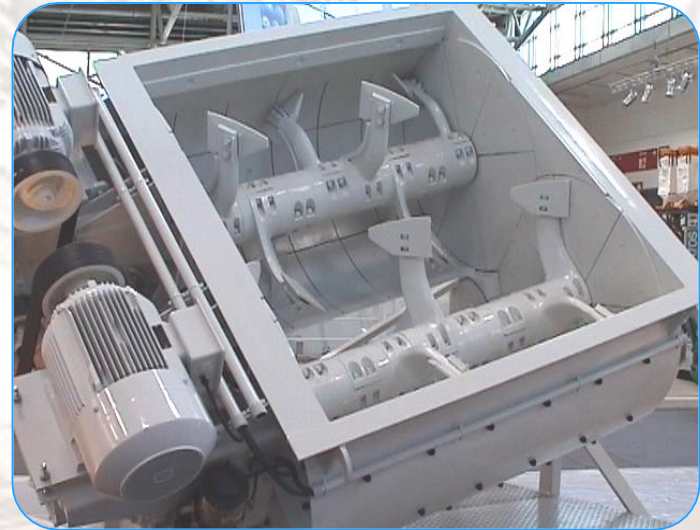


Compressor Technique

Our product segment: Construction machinery – spare parts made of special castings

We improve your productivity in the areas...

- **Hard crushing**
- **Asphalt processing**
- **Concrete processing**
- **Grit washing**



Examples of our construction machinery range – spare parts

High-wear resistant castings for hard crushing

- Linings and splitting parts
- Cleats: High-alloyed Cr-Mo-chilled cast iron(63 – 65 HRC)
- Baffle plates: Midrange-alloyed Cr-Ni-chilled cast iron(58 – 60 HRC)
- Grinding bars: (hardness 53 – 58 HRC)



High-wear resistant castings for processing of asphalt, concrete and stone

- Baffle crushers and vertical grinders
- Road finisher: Auger paddles
- Concrete mixer: complete mixer linings,
floor and side wear plates, mixer blades,
interior and exterior scrapper
- Asphalt mixer: for all common brands and models



Construction machinery – spare parts from special castings

Customer benefits at Esterer

- **Spare parts MADE IN GERMANY
made of special casts in „OEM-quality“**
- **High and fast availability through
storage of spare parts on site**
- **Service and consulting by experienced employees**
- **Return of worn-out castings**



We cast originals

ESTERER  GIESSEREI

„EVERYTHING IMAGINABLE IS DOABLE“

ALBERT EINSTEIN



ESTERER  GIESSEREI



Fotos: Frank Rasimowitz, Kirchweidach

Thank you for your interest!