RICHTER
FORMTEILE

Moldings of Highest Precision

Richter Formteile –
We take precision to the next level

We accompany you along the complete value chain with our comprehensive skills: from technical consulting and production of parts over pre-financing and storage up to just-in-time delivery. All this for products that conform to the drawings.

So you get molded parts and full service from a single source.

- Production of small to very small precision parts made of metal,
- in medium to large series,
- in the processes investment casting, MIM, sintering and drop forging.
- Full Service: from development and advice to production, up to logistics and just in time delivery.
- Extended workbench: machining, surface treatment and/or assembly.
- Satisfied customers from all industries.

Our Strenghts - Your Advantages

Expert advice
in each casting and forging process

Optimal resource planning
through our international production network

Just in time delivery
ex warehouse Leonberg nearby Stuttgart

Maximum economy
through optimal resource planning

No risk
through conformity with drawings and ISO-certifications

Secure processing
as a German legal partner

High process competence
through over 40 years of experience

Pre-financing
and storage of the complete annual requirement

Full-Service

From your inquiry to the just-in-time delivery of your components

01

Your inquiry

You send us your non-binding inquiry including drawings.

02

Check for feasibility

We check whether and how we can fulfill your inquiry.

DEVELOPMENT SKILLS

03

Expert advice

We advise you from the material to the most suitable and economical process. Our claim: products that conform to the drawings according to ISO 9001:2015 and ISO 14001:2015.

04

PRODUCTION SKILLS

Cost-efficient production

We select the best option for you from our international production network. So you get high quality at a fair price.

05

PROCUREMENT SKILLS

Our offer

06

Your order

After the offer has been approved, we start directly with the implementation of your order.

07

Your first samples

You will receive your initial samples after approx. 10 weeks.

08

Release of first sample

LOGISTICAL SKILLS

09

Series production and logistics

We pre-produce your annual volume and, as your German legal partner, take care of all the logistics.

10

Warehousing

We store your annual volume in Germany for you.

11

Just-in-time delivery

We deliver the batch size at the desired time. You only pay when you call it.

Investment Casting

Endless Possibilities

The investment casting offers **unlimited design freedom**. In this way, small to large components, even with complex geometries, can be produced in great detail.

Since the workpieces can be poured cleanly, we get a **high surface quality** through investment casting that does not have to be reworked or only needs slight finishing touches.

Depending on your specific requirements, different materials such as **steel, stainless steel** or **aluminum** as well as **other alloys** can be processed.

Advantages

- high dimensional accuracy
- first-class surface quality
- delicate structures and unique level of detail
- great freedom of design and implementation of complex geometries from a single source
- near-net-shape with reduced mechanical processing
- wide range of materials and alloys

MIM [Metal Injection Moulding]

Innovative and with the highest Precision

The MIM-procedure offers a **diverse selection of shaping options** and is used wherever **multi-layer component geometries** are required. Moreover, a **wide range of materials** can be accessed.

The metal parts impress with their **high level of accuracy** and **optimum surface quality**. **Post-processing** is usually **superfluous**. The **low error rate** is an additional plus.

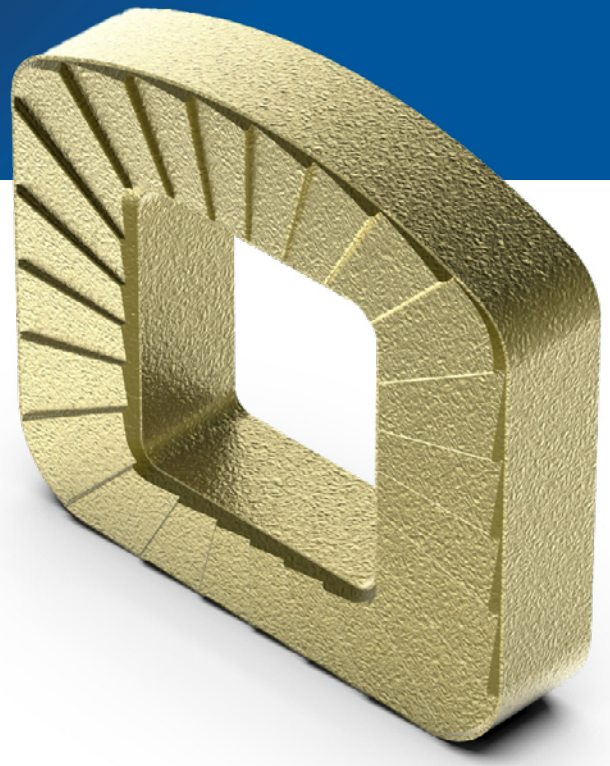
In addition, there are **no assembly and joining steps**, which means that we can also use materials that are difficult to process productively. Threads, bores, logos or other inscriptions can also be precisely incorporated into your component.

Advantages

- great geometric design freedom
- production of complex parts
- internal & external threads can already be formed during casting
- high dimensional accuracy and unique level of detail
- good dimensional tolerances of +/- 0.5%
- better adhesion of anti-corrosion treatments
- relative density of 95-98%

Sintering

Reliable and ecological



Sintering offers a **high degree of dimensional accuracy** and **great freedom of design**. In this way, ready-to-install products with **complex shapes** and **different geometries** can be manufactured in just a few steps, which usually do **not require any additional mechanical processing**.

Additional: With sintering, the production materials can be used effectively. This results in significant **energy savings** and **less material loss**.

Advantages

- high dimensional accuracy
- ideal for complex shapes
- reliability & reproducibility
- ready-to-install castings
- waste free production
- energy-saving & environmentally friendly

Drop Forging

Durable and Pore-free Components

Drop forging creates forgings with an **optimal fiber alignment** and **first-class strength**. The forgings convince through a **homogeneous, dense structure**, which has **neither pores nor other cavities**.

Forgings are reproducible with only one tool in **large numbers** at **constant precision**.

Advantages

- ideal for complex shapes
- high reproducibility
- longevity
- homogeneous structure
- short processing time

Facts

	INVESTMENT CASTING	MIM	SINTERING	DROP FORGING
standard weight:	0,05 – 150 kg	0,001 – 0,150 kg	0,001 – 0,150 kg	0,04 – 150 kg
production:				
• Europe	✓	–	–	✓
• Asia	✓	✓	✓	✓
certified acc. to:				
• DIN ISO 9001	✓	✓	✓	✓
• DIN ISO14001	✓	✓	✓	✓
• IATF 16949	✓	✓	✓	✓
tolerances:	according to VDG leaflet P 690 D1 (approx. +/- 0,7% of the nominal size)	approx. +/- 0,3% of the nominal size	approx. +/- 0,4% of the nominal size	EN 10243-1:1999
surfaces:	RA 6,3	RA 3,2	RA 3,2	DIN EN 10243-1: 2000-06
materials:	steel alloys, stainless steel alloys and aluminum	steel, stainless steel, hard metal and copper	steel, stainless steel, bronze and brass alloys	steel, stainless steel alloys and aluminum
post-processing:	own CNC processing centers, heat treatments according to customer specifictions			
approvals in the fittings area:				
• AD 2000	✓	–	–	✓
• TRD 100	✓	–	–	✓

Processing | Assemblies

Use our services as an extended workbench

Depending on the use of the molded parts, a more or less extensive **processing, surface treatment** and / or **preassembly** or **assembly** is required. On request, we also carry out the pre-assembly or assembly of assemblies with the **provided parts**.

You decide on the scope of our work: We would be happy to explain the various options to you.

Excerpt of our processing options

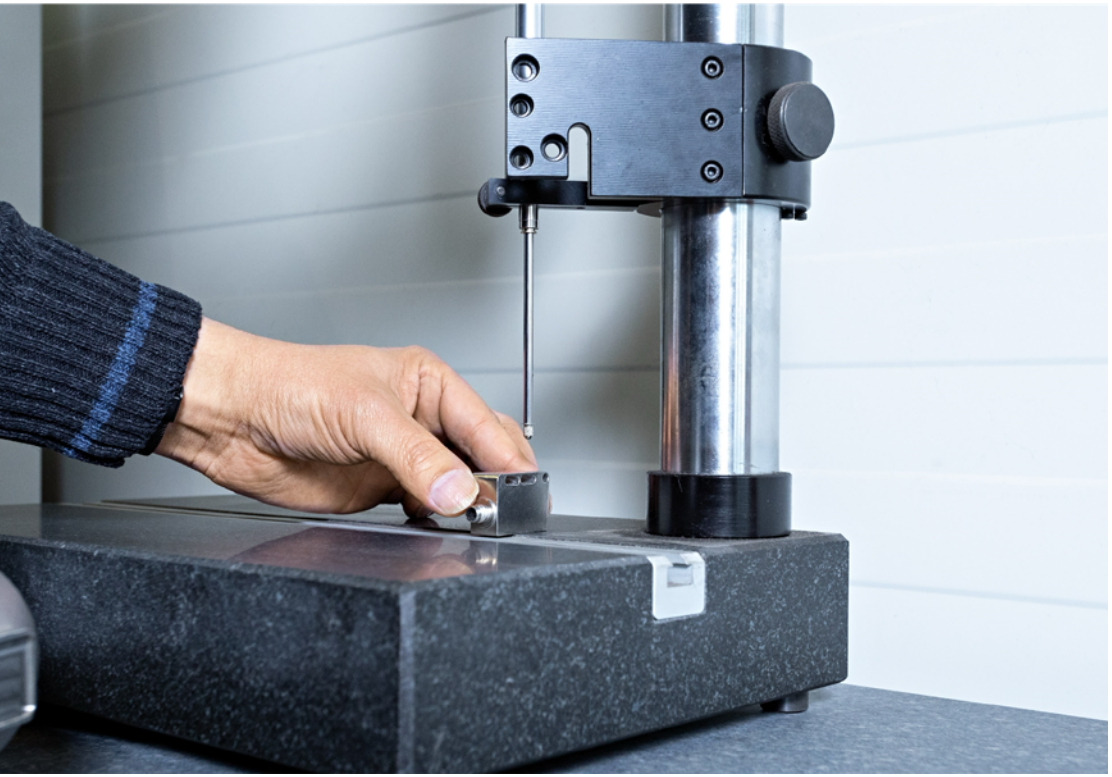
- Drill
- Turn
- Milling
- Threading
- Polishing
- Ribbons

Surface Treatments

- Radiation
- Electropolishing
- Galvanizing
- Phosphate
- Zinc Plate (chrome-6 free)
- Passivation
- Coating
- Powder Coating
- Anodizing
- Prime Coating
- Vibratory Grinding
- CED Coating
- Black-oxide
- Sand / Glass Bead Blasting

Quality Management

Our Goal: Drawing-compliant Molded Parts



Our stringent quality control, which begins with **independent inspectors** in the production facilities, is an integral part of our daily work.

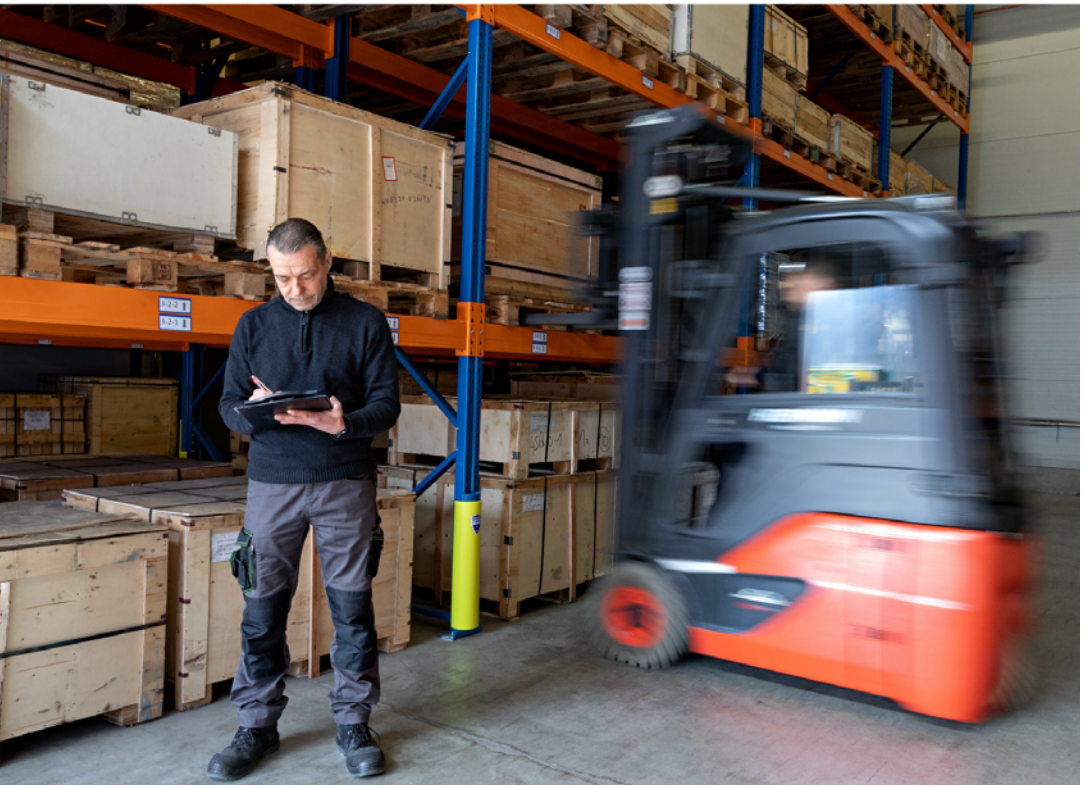
Furthermore, we have **internal test equipment** and can also subject your components to **specific test** and **measurement techniques**, depending on your requirements. The results are then kept in **test certificates**.

Testing Options

- 3D laser / measuring probe
- impact strength
- yield point
- chemical analysis
- X-Ray
- fluxing
- ultrasound
- tensile strengths
- acc. to customer requirement

Supply-Chain-Management

We minimize your Procurement Risk



As your **German legal partner**, we take care of the complete international processing for you - procurement, logistics and customs clearance.

We pre-produce your annual requirement and store it for you, checked and commissioned, in our warehouse in Leonberg near Stuttgart. You can call up the agreed lot sizes **just-in-time**. Only then we will invoice you for the respective amount.

- **We are your german legal partner.**
- **We pre-produce your annual demand and store it in our warehouse.**
- **Just-in-time delivery from Leonberg warehouse near Stuttgart.**

3D Measurement

Optical 360° 3D Measurement

Whether design, quality assurance, production or just recording:

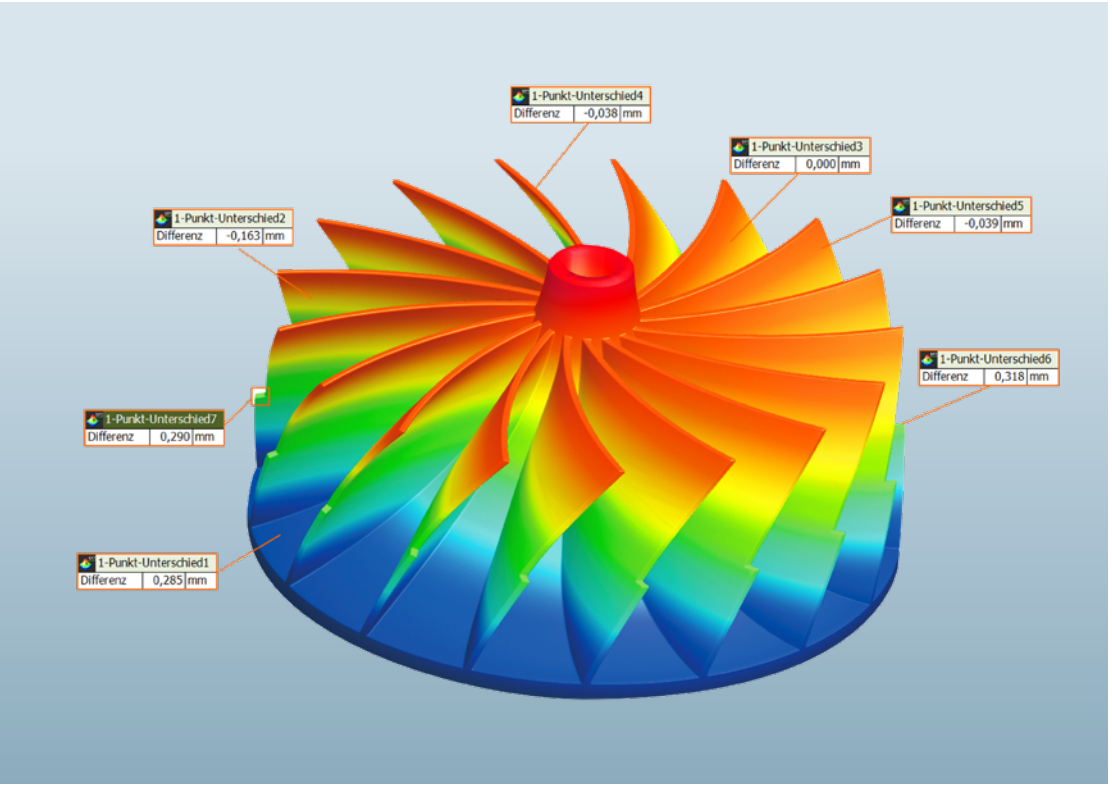
With our service of optical 3D measurement of workpieces, you save a lot of time and money. Even when it comes to the 3D digitization of components, molds, cast parts, injection molded parts, machine components and others. Time-consuming tactile measurements with coordinate machines are a thing of the past.

Advantages

- **quick and inexpensive**
- **non-contact measurement**
- **high-resolution and artifact-free scans**

3D Measurement

Facts



precision:	0,01 mm
repeat accuracy:	0,002 mm
max. component size:	width / lenght = 500 mm height 250 mm
resolution of measurement:	up to 16 Millionen points
optical measurement:	measurement of levels and sections, shape and position tolerances, tolerances of heights
Vergleichsmessungen:	comparison measurement of CAS and measuring objects, wall thickness measurement, 3D colour visual imaging

Contact

We are your partner along the complete value chain and we are at your side with words and deeds in every step.

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Because Precision is just the Beginning!