

ON THE MOVE

Because only progress moves us forward



12

PAGES FILLED WITH CONTENT

04 **TAKING OFF**
While keeping both feet on the ground

06 **GREATER PRECISION**
While thinking in terms of benefit

08 **FUNCTIONING**
While proving technological expertise

10 **MEASURING**
While backing the high rate of productivity



PREFACE

Do you know Walzenhausen? A small place overlooking Lake Constance, situated beautifully. With a view over the lake and all the way to Germany and Austria.

Vision is the essence of our entrepreneurial activities, constant advancement of our core competence a guarantee of our competitiveness. Cultivating the domestic Swiss market and expanding in the European market provides the highly esteemed financial independence, as well as a basis for self-sufficiency and entrepreneurial action.

Our core competence is identifying manufacturing needs, meeting these needs with innovative and economical solutions, and reliably performing contracts. We machine various materials to make complex and high-precision mechanical parts. Companies from a wide range of industries rely on our high performance level when time-to-market is decisive.

Why us? As a producing company, time leadership and preferred supplier qualifications are the standards that we strive to comply with.

Alone? No, together with our partner companies and the unique network "two-in-one", we let complementary know-how and comprehensive expertise flow into any of our manufacturing solutions.

We are convinced that with us you will be "right on time, budget and quality".

**Yours,
Knoepfel AG**

TAKING OFF

While keeping both feet on the ground

SPIRITED MISSION STATEMENTS

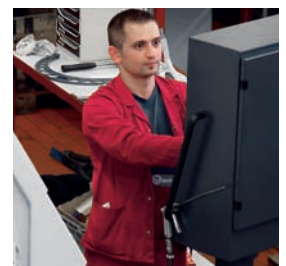
Yes, to lift off. With top performance. With passion.
With efficient processes. With imagination. With extraordinary
precision and complexity standards. With unconventional ideas.
And still: in touch with the clients' needs at all times.



Over more than 40 years we have developed from a small trading firm into a top-class industrial enterprise. Today we rank among the best in Europe in high-precision machining of various materials. Our uniqueness shows in the fact that we master complex manufacturing tasks. Metrological verifications of the high precision required confirm this.

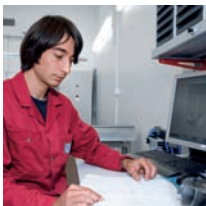
As a process-oriented company we control our process efficiency and check it once every six months in our management review. This focus on process control and our zero-defect mentality allow us to supply to the client's assembly line just-in-time.

What economic effects do we want our goods and services to have? This is a key question that concerns us time and again, and it ensures that our performance meets our clients' expectations. As a result, we have committed ourselves to eight key sentences.





How do we guarantee a high level of client-orientation?
By delegating the overall responsibility for the client's order
to the individual staff members, thus enabling us to live
client-supplier relations even at the level of our company.



EIGHT KEY SENTENCES

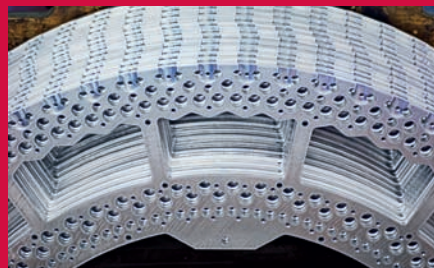
- We intend to gain clients based on our uniqueness.
- We intend to create added value based on our expertise.
- We intend to employ proactive and dedicated staff.
- We intend to deliver top quality work.
- We intend to be financially independent.
- We intend to maintain existing partnerships and establish new ones.
- We intend to be perceived as a reliable business partner.
- We intend to be a process-oriented enterprise.

GREATER PRECISION

While thinking in terms of benefit

TOTAL COST OF OWNERSHIP

The goods and services we supply also account for economic aspects (total cost of ownership) in the respective processes. As a result, these economic effects significantly contribute to our clients' business success.



Reliable target costing requires reliability and diligence on our part.

Thanks to our core expertise, we rank among the leading European providers of external production for various industries. This market position will ensure long-term financial independence and protect jobs.

Precision means being on excellent terms with quality. Each of our interactions with clients is therefore fully documented as a business case. This ensures traceability at all times. Our zero-defect mentality reflects in the quality we produce. With us, quality is based on first-piece inspection according to the four-eyes principle, which is designed to identify and avoid misjudgments.





A short time-to-market requires a high degree of automation on our part.

We achieve steady process parameters thanks to our fully air-conditioned production halls and modern infrastructure. In addition, we provide optimized process stability based on a high degree of automation on the machine tools.



Engineers develop a new performance level of a product, we see to the implementation.

THE KEY FACTORS OF SUCCESS

We never lose sight of our industrial clients' key factors of success:

- time-to-market
- target costing
- performance

FUNCTIONING

While proving technological expertise

THE POWER OF THE THREE PILLARS

Our core competence rests on three pillars, i.e. the strategic success factors.

Firstly, functionally reliable, technically and economically dovetailed manufacturing solutions are a result of our strategic network, the cooperation platform “two in one”.

Secondly, one contact for all procurement matters concerning manufacture – from the production of small swivel plates right up to complex system solutions for key components.

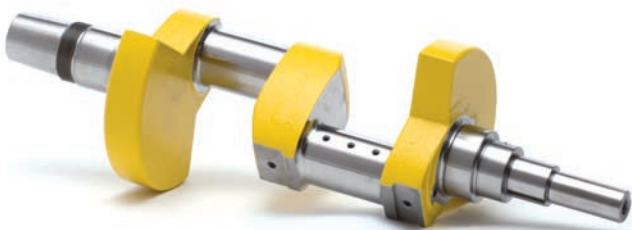
Thirdly, time leadership and preferred supplier qualifications are the direct effects of our technological lead in manufacturing.



Our strength, i.e. metal cutting and machining, lies between the production of a common tool and an extraordinary part.

Industrial enterprises of various sectors, who use our high-precision components in marketable products, benefit from our expertise. As specialists in metal cutting, we manufacture workpieces of various sizes, shapes and complexities.

State-of-the-art production at Knoepfel AG is characterized by a high level of staff flexibility based on agreed working hours. And by the ability to deliver fast thanks to streamlined IT-based order processing. It is important to us that our staff make the best of your hours of work, and we encourage this ability.

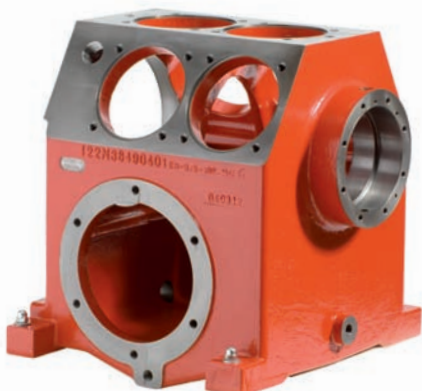


A crankshaft, seen as a component – but above all a comprehensive manufacturing solution created by the well-coordinated strategic network “two in one”.



This machine can be purchased by anyone, yet the manufacturing expertise that goes into a component as a result of using the machine is reserved solely to our clients.

Our core competence is the economical machining of various materials for the production of complex, high-precision mechanical parts.



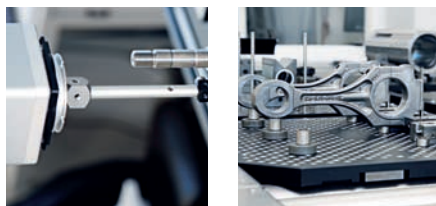
Not a component like any other – a complex system solution from the blank right up to just-in-time delivery to the client's assembly line.

SUSTAINABLE FUNCTIONALITY OF OUR PRECISION WORKPIECES

| | |
|--------------------------------|---|
| Apparatus engineering | Parts for attachment and separating devices |
| Motor industry | Parts for the construction of engines |
| Dosing / Filling technology | Parts for filling machines |
| Power engineering | Parts for high-voltage switches |
| Aircraft construction | Parts for supply transmissions |
| Mold construction | Parts for plastic injection |
| Mechanical engineering | Parts for precision movements |
| Medicinal technology | Parts for housings and actuators |
| Machine tool construction | Parts for precision functions |
| Space technology | Parts for satellites |
| Ship building | Parts for large ship diesel engines |
| Railway vehicle manufacturing | Parts for chassis |
| Process engineering | Parts for extreme-pressure compressors |
| Packaging machine construction | Curves for movement sequences and shift processes |



Measuring is a strategy that ensures the component's functionality.



The zero-defect mentality serves as the basis, the four-eyes principle ensures the reliability of the quality that is produced. Quality Control provides the evidence. For this purpose we have set up a modern measuring and testing center. 3D coordinate measuring machines allow us to meet highest-level test requirements and the unmanned measuring of large product quantities.

Our unmanned measuring system consists of a Zeiss Prismo Navigator and a pallet feed system, installed in a clean room with laminar airflow for constant measuring conditions of $20 \pm 0.5^\circ$ Kelvin. This measuring cell measures and records up to 10 different high-precision workpieces with a precision of $< 1 \mu\text{m}$.

MEASURING

While backing the high rate of productivity

THE MEASURE OF ALL THINGS

How do we achieve a high level of productivity? By systematically combining machining systems with pallet memory systems. More specifically, robots load machining centers with parts from a high rack. Instrumental in this manufacturing cell is the unmanned work capacity. Unmanned measuring works according to the same principle.



Accurate performance of the functional movements is guaranteed thanks to 3D testing of the curve geometry.



FIRST PIECE INSPECTION

Automated first piece inspection a utopian concept? Not with a pallet feed system. Outside the clean room the machine operator loads the pre-assembled pallet with a workpiece test object and first of all sends it to the measuring process. With its high level of user friendliness the system even lets the machine operator know when the measuring process is complete.

ON THE MOVE

Leading in metal machining

THE ROAD TO THE WORLD



The fact that our precise mechanical components travel out into the whole world is not a coincidence. We are always re-defining what is possible by going beyond limitations. Anticipating new movements and pursuing new developments. International companies in all kinds of sectors bank on mechanical parts from Walzenhausen. And they do so for a good reason: our products are right on time, budget and quality. We are very proud of this.

KNOEPFEL AG

CH-9428 WALZENHAUSEN AR • PHONE +41 71 886 5000 • FAX +41 71 886 5011
INFO@KNOEPFEL.CH • WWW.KNOEPFEL.CH

