







HARD METAL IS OUR PROFESSION!

We have a profound understanding of this versatile material and its various applications, right down to the smallest detail. For this reason, we are not only a supplier, but your best qualified partner for problem solutions.

Christian Ilgen & Dr. Frank Ilgen Managing Directors

Founded in 2005 we have been a reliable partner for our Europe-wide customer network as a supplier of raw materials and semi-finished products in constant high quality. Our focus is to bring you in the position to manufacture world class tooling solutions. A strong team of around 20 employees cares for providing you with the right material at the right time to a fair price, for your business success.

Utilise our experience!



Rely on our products!

Benefit from our consultation!

OUR CORPORATE MISSION

Partner – a long standing and attractive business partner offering innovative high performing tungsten carbide products.

Customer – optimal fulfilment of all customer requirements is central to our operations. **Global** – In a global market fairness in the business relationship is a key principle for us.







NO COMPROMISE ABOUT QUALITY AND SERVICE

FOR YOUR HIGH PRECISION TOOLS



Constant focus on quality results in premium products for application in various areas:

We offer **tungsten carbide rods** in countless varieties, with or without cooling channels, which in turn come along as single centric, double, triple, as well as parallel or helix. Large selections of standard diameters and lengths in different hard metal grades result in a broad offering, featuring large constant stock of common items.

EDM-blanks are available both as sintered and ground, with certain dimensions and grades on stock. Special forms including certain features like starting holes can be produced within short time on request.

Bring your raw material in shape! Prismatic or rotation-symmetric **preforms** enable to skip the first raw steps of your manufacturing process and focus on the essential finishing part. Save processing time by utilisation of customized preformed raw material!

Hard metal has proven an ideal material for any kind of application requiring wear resistance. The production via sintering allows for creation of almost any kind of type and shape. Beside supplying your specific **wear part** solution we offer our support for the design process.









Beside the quality of our precision products we focus on you as our customer: We are available for you at any time, looking forward to receiving your call.

ENGINEERING SERVICES

- Design department creation and adaption of technical drawings via CAD
- Material analysis regarding root causes for damages or reduced tool life performance
- Assessment of metallurgical microstructure in relation to physical and chemical parameters
- Grade selection for full body hard metal tools or material combinations including life time optimisation
- General engineering identification of cost saving potentials

HARD METAL ANALYSIS

We examine your material to the full extent!

- Preparation of specimen
- Magnetic saturation (4πσ) and coercive force (Hc)
- Density
- Hardness (HV30)
- Fracture toughness (Palmquist-Test at polished cut)
- Assessment of microstructural section
- EDX analysis (energy dispersive X-ray spectroscopy)
 - SEM analysis (scanning electron microscope)



OUR WAREHOUSE

We permanently keep a large selection of standard dimensions and grades on stock in our main warehouse located in central Germany. Your benefit: shortest lead times! Orders received before 12 pm are usually dispatched on the same working day.





We would like to thank our long-standing business partners for supporting us to create this brochure, especially those contributing to erect our new corporate premises.



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