

secrets of success

know-how matters

CERATIZIT is your partner for exceptional hard metal solutions. CERATIZIT – our solutions to complex problems are the products guarantee: economy – long life – speed. We give our business partners a direct competitive advantage through a total appreciation of the requirements of our business, flexible thinking and continuous dialogue with our customers. Our understanding of powder metallurgy characterizes our company philosophy is the search for perfect solutions. Intensive research and development activities, tailored to the working processes of the customer, are today's investment.

material solutions. Hard materials and tools from
are an integral part of our customers' success. Our
d! And it is precisely this combination which gives
tage. Premier performance is only possible through
business partners. A performance achieved through
our customers. A pioneering spirit and a deep
e the history of CERATIZIT. One of the attributes of
ction: target oriented – sustainably – passionately!
aking into account the precise requirements and
estment for the solutions of tomorrow – and beyond.

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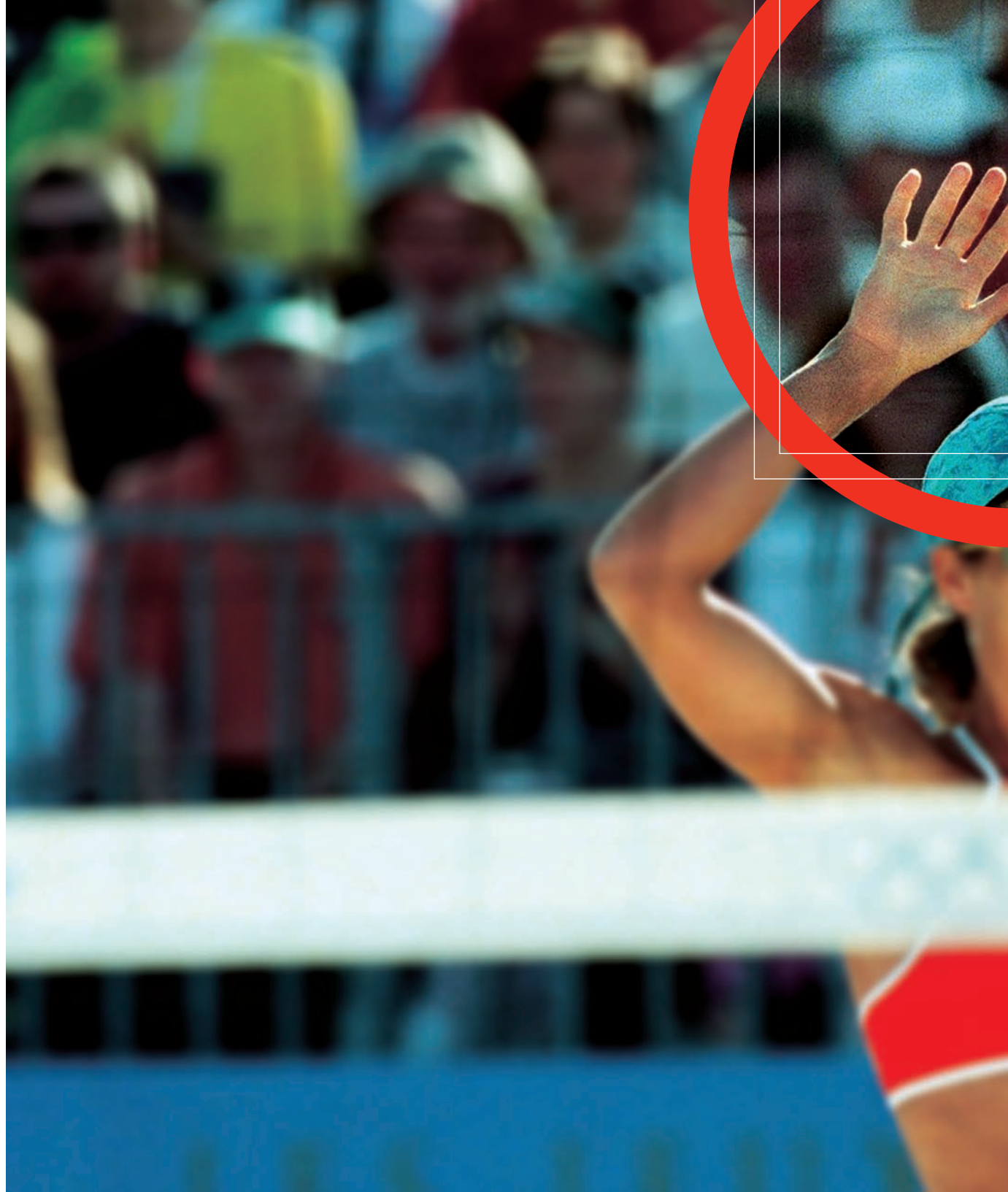
The views and focus of our business partners matter.

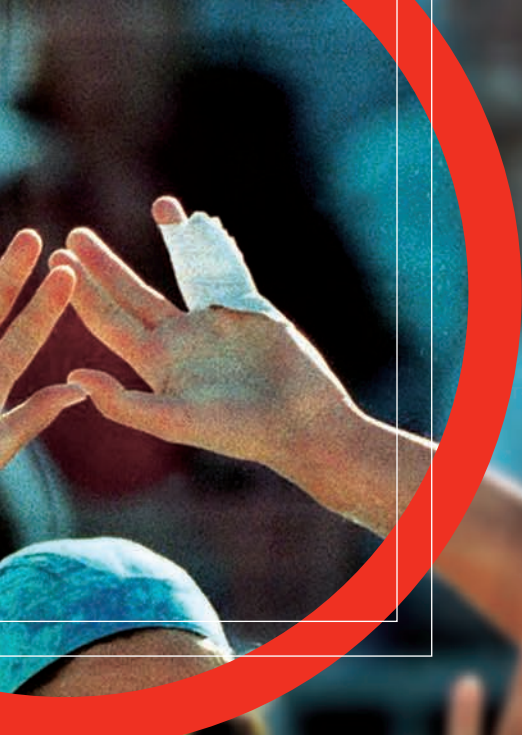
- *Instead of talking product with customers, we work on real solutions for business partners.*

The challenge to develop tailor-made recipes for success for our business partners is more than a mere assignment, it is the basis for long-standing successful business relations.

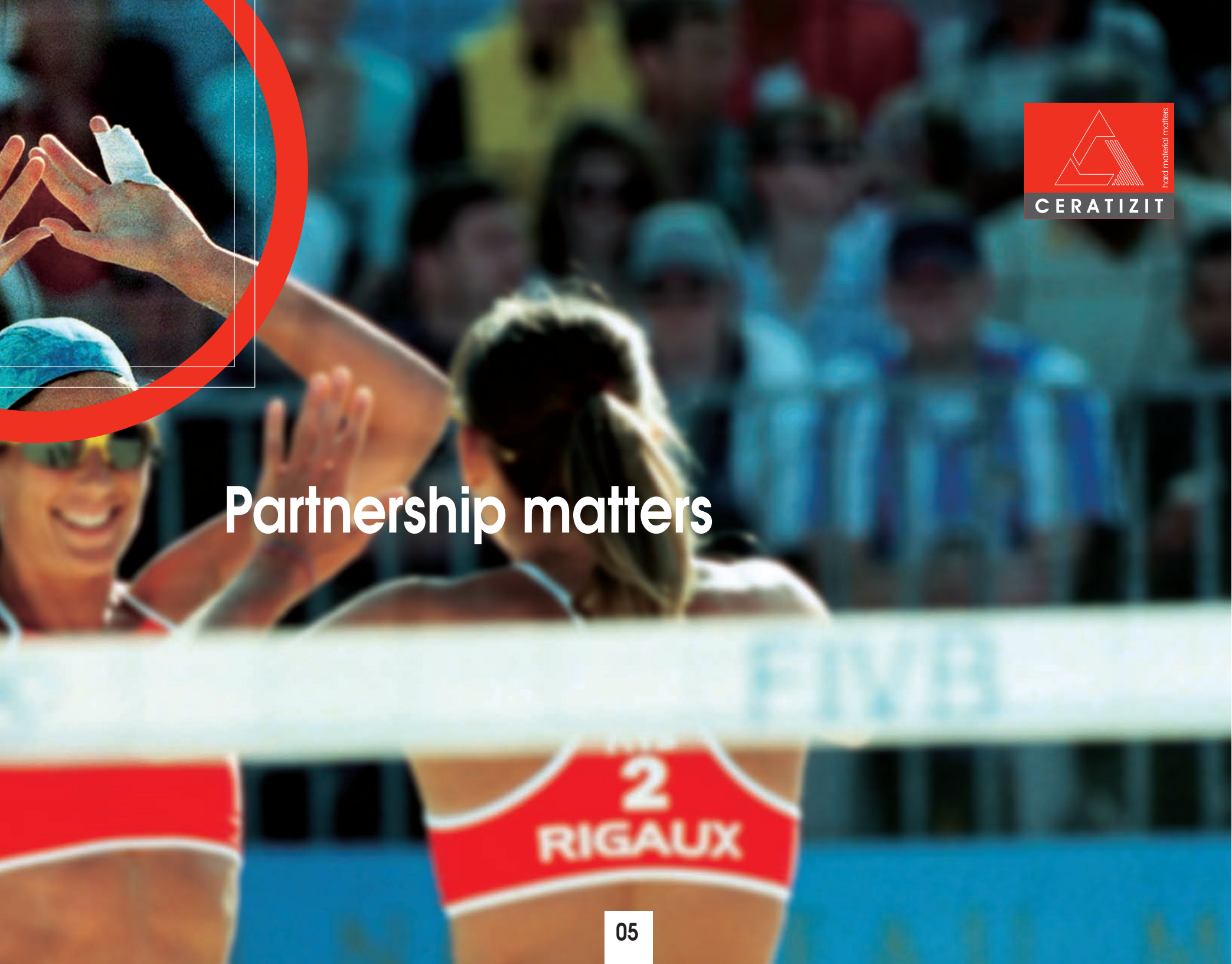
In this context the speaker of the CERATIZIT S.A. Board, Jacques Lanners, states:

“We have set much in motion and are prepared for an exciting future.”





Partnership matters





Innovative and flexible thinking matters

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Innovative and flexible thinking matters.

- *We have the power to challenge state-of-the-art technologies and the courage to develop intelligent alternatives.*
- *Our speed of thought and decisive actions give us a leading edge.*

Alfred Schennach, head of the business unit end-users in the cutting tool division:
“In particular our patents in the coating sector represent international milestones. In aluminium machining and for multi-function tools we are also trendsetters in the cutting tool market.”

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Communication matters.

- *Trust and respect enable open communication.*
- *We show who we are and what we feel.*
- *We keep our promises.*
- *We are open to and accept constructive criticism.*

Orietta Villa, management assistant and vice manager customer service CERATIZIT Italia S.p.A.: "Our ability to offer successful solutions that fully satisfy our customers results basically from sharing, experiencing and implementing our corporate values".



Communication matters





Employee development matters



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Employee development matters.

- *We continuously invest in personnel and offer outstanding internal development opportunities.*
- *We attract talents around the world and create a favourable environment for long-term personal growth.*

Dr. Uwe Schleinkofer, head of the cutting tool development department: "It is this rare combination of creativity, know-how and the courage to try out the unconventional which makes intelligent alternatives and individual solutions for CERATIZIT possible."

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Professionalism matters.

- *We strive to be professional in everything we do.*
- *Our performance leads to results and growth which are always above average.*

Dr. Wolfgang Böhlke, head of the wear part development department: "We consider the carbide business as a matter of confidence. In order to meet the demands of the growing number of application fields for carbide and the increasing quality demands, we continuously develop new grades which are optimally adapted to the needs of our customers."

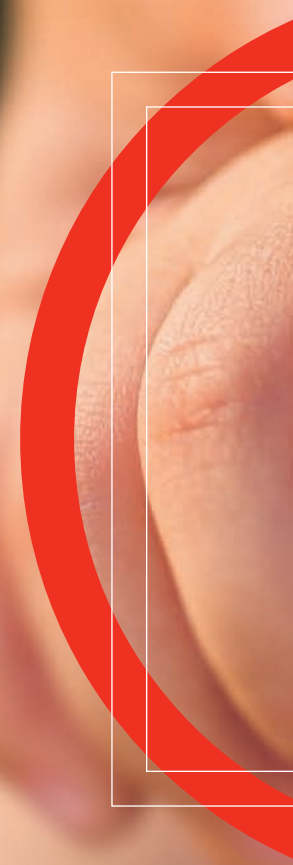


Professionalism matters





Our environment matters





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Our environment matters.

- *Environmental protection is a matter of each employee - at home and at work.*
- *As a company we guarantee the community to be a ,considerate neighbour‘.*

“At CERATIZIT the responsible treatment of resources is not only an economic necessity but also a commitment to sustainability. This is why we are investing in the recycling of carbide scrap and count on our environment-friendly water-spray technology when manufacturing our carbide granulates,” explains Dr. Andreas Lackner, Managing Director of CERATIZIT Austria Gesellschaft m.b.H.

hard material matters

Cutting tools

Cutting materials, coatings, inserts, tooling systems and machining solutions – all this is included in the cutting tool division at CERATIZIT. Worldwide well-known companies process advanced materials applying cutting tool products from CERATIZIT: from the automotive industry to the aerospace industry, mechanical engineering, tool construction to the oil industry. The basis of these long-term business relations is the faith of the customers in the extensive know-how of the carbide specialists.





Oil industry

Oil field components which are produced with CERATIZIT tools meet the high safety standards in this sector.

Our competence:

- Strip edge machining
- Tube scarfing (external and internal)
- Tube parting
- Machining of tube ends
- Threading
- Chamfering

Tool makers

Extrusion pressed rods from CERATIZIT have always been a quality standard in the sector of precision tools. Extremely precise tools combined with first class fine grain grades – simply unbeatable!

Our competence:

- Rods - standard
- Solid carbide rods – as sintered
- Solid carbide rods - ground
- Rods with coolant hole (straight or helical)
- Rods - specialities
- Rectangular and square strips – as sintered
- Blanks for gun drills
- Blanks according to customer drawings
- Cermet and silicon nitride

Energy and transport

Airplanes are becoming increasingly large and at the same time lighter, trains are ever faster and more comfortable, turbines have a continuously increased performance. Our competence covers the machining of components made of advanced materials for these industries.

Our competence:

- High-speed machining of aluminium components
- Machining of titanium components
- Machining of components for the turbine industry, e.g. turbine blades
- Machining and maintenance of wheel sets for trains



Automotive

Mechanical engineering

Maximum flexibility, velocity and efficiency are expected in the automotive industry. High volume production without problems and with consistent quality at competitive prices is decisive as in no other sector. CERATIZIT has adapted its services to achieve these aims.

Our competence:

Tooling solutions for the machining of:

- Aluminium wheels
- Brake systems, brake disks
- Axles, wheel hubs
- Engine blocks and cylinder heads
- Crankshafts, pistons

Mechanical engineering is characterised by a large range of applications and materials. In this segment we concentrate on heavy machining with solutions for bar peeling and roll machining as well as the bearing industry. With our comprehensive standard programme we support machine manufacturers, for example in the plastic, paper and metal cutting industries.

Our competence:

- Roll machining with carbide and ceramic
- Bar and tube peeling
- General heavy machining
- Machining of bearings

hard material matters

Cutting tool segments

In numerous cutting tool applications and sectors CERATIZIT has assured itself a sound position.

Secrets of success:

- Long-standing experience in the various sectors
- Complete programme of high-performance cutting materials
- Competent application advice
- Tailored solutions for the machining of customer components

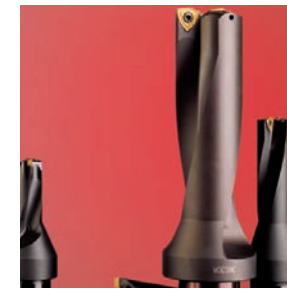
Quality counts in the cutting tool sector. This is what our business partners know from their experience.

hard material matters

Cutting tool portfolio

In the cutting tool sector the work of the development specialists is characterised by the continuous introduction of new high-performance cutting materials.

As a pioneer in coating technology CERATIZIT sets new standards through revolutionary coating developments even today. In this context the HyperCoat coating system which was introduced in 2005, convinces through particular heat resistance, low tendency to stick and thus increased reliability and productivity.



Coatings

CERATIZIT HyperCoat is synonymous with the extraordinary and particular. HyperCoat represents a milestone in the history of coating. Based on over 25 years of know-how the CERATIZIT coating systems meet the maximum demands regarding extraordinary machining performance.

Secrets of success

- Extra-long tool life
- Particular heat resistance
- Low tendency to adhesion
- Improved productivity

Drilling

MaxiDrill is the name of the extensive CERATIZIT solution for all drilling operations. A large number of inserts, the optimised insert seat and the helical chip flute allow flexible drilling with maximum productivity.

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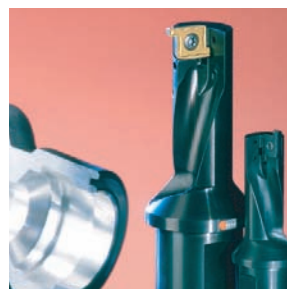
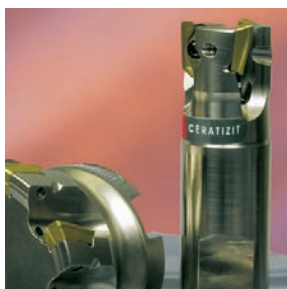
- Maximum system rigidity for drilling without deviation
- Reduction in cutting noise
- Low cutting forces
- Optimum compensation of radial forces
- Consistent quality of the holes

Turning

With MaxiLock D CERATIZIT has introduced a new clamping system for turning inserts. MaxiLock D clamps the insert reliably against the location and contact face, insert security is increased, and additionally machining time and material costs are reduced. Furthermore MaxiLock D makes work easier thanks to an innovative combination of tooling and accessories.

Secrets of success

- Increased economy
- All inclusive' concept with integrated spare parts
- Safe positioning of the insert
- Integrated clamping key
- Optimised insert seat



Milling

CERATIZIT offers an extensive tooling programme – made by professionals for professionals: with the HSC milling series CERATIZIT meets all demands in the field of high-performance milling of non ferrous metals.

Secrets of success

- Precision balanced monobloc tools with direct HSK connection
- Maximum fatigue strength of tool bodies
- Internal coolant supply
- Precision insert pockets
- Maximum centrifugal force protection

Parting & grooving

MaxiClick is characterised by an innovative tool design that gives a simple method of breaking off the worn-out cutting edge replacing it quickly and thus reducing unproductive downtime. The new tooling system enables parting and grooving widths starting at 1.5 mm and cutting depths up to 10 mm.

Secrets of success

- Simple tool handling
- Extremely narrow grooving & part-off operations possible
- Compact design
- Excellent workpiece surfaces
- Considerable material saving

Multi-function tools

CERATIZIT multi-function tools – the courage to combine economy with design. Only one tool for drilling, turning and grooving - the result of our flexible thinking. Since the development of the multi-function tool EcoCut CERATIZIT has been considered a pioneer in this sector.

Secrets of success

- Turning, drilling and grooving with only one tool
- Fewer tool changes and less programming effort
- Cost saving with regard to tool acquisition, storage costs, shorter set-up time and presetting time





hard material matters

Wear part division

In wood and stone working, mould and die making, metal forming and other industry sectors, tools and components are exposed to particularly high stress. The CERATIZIT wear part division develops solutions which prolong the service life of both tools and components and thus increase the productivity of CERATIZIT customers at the same time. These innovations have made CERATIZIT the world market leader in selected application segments.

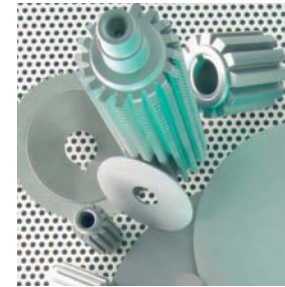
hard material matters

Wear part segments

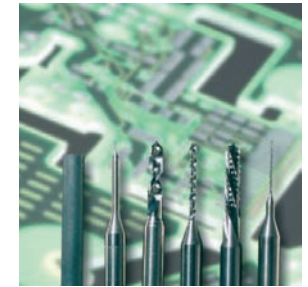
Hard materials in general and hard metals in particular are characterised by a range of interesting properties for all applications where maximum wear resistance is required. The stress exerted on wear parts during application is above all defined by various interacting factors. High pressure, high temperature, the application of abrasive or aggressive media, and the machining of hard materials are only some examples of factors that cause wear and to which hard materials and hard metals must be resistant. The powder metallurgical production of CERATIZIT wear parts enables tailor-made adaptation of the tool properties to the wear criteria.



Industrial wear parts



Hobs, disks



PCB blanks

In various industry sectors we provide companies with advice on how to optimise their performance through the application of carbide. This comprises blanks of all geometrical forms, in perfect technical condition and in the respective carbide grades.

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- Glass industry – shear knives
- Watch and clock industry – watch and clock cases
- Chemical industry
- Automotive industry
- Food industry
- Coating technology
- sputter targets
- Hygiene industry – cutting rolls
- Recycling, crushing

CERATIZIT has a long-standing experience in the production of blanks for hobs. Every hob is a high-tech product manufactured according to customer drawings. CERATIZIT blanks for solid tungsten carbide disks for slitting and circular shear knives are optimally designed for the continuously increasing number of application fields and quality standards.

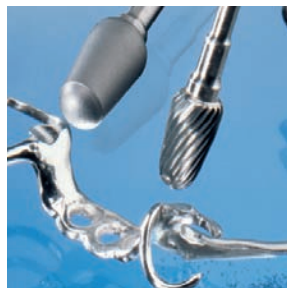
Secrets of success

- Near Net Shape technology with tight tolerances and thus reduced grinding allowance
- Efficient and homogeneous submicron grain grades
- Prompt delivery
- A member of the WZL Gear Research Circle

For years CERATIZIT has focussed on the development and the manufacture of PCB blanks. CERATIZIT responds to the rapidly increasing demands in the circuit board industry by constantly developing new and innovative grades. In this context we count on close partnerships with our customers.

Secrets of success

- Flexible production of varying lengths and diameters
- Excellent carbide grades for all diameter ranges



Blanks for the tool and die industry

Dental technology

Carbide balls

Metal forming

Decades of experience in the development and production of carbide make sure that we are able to offer maximum reliability.

In order to meet the high requirements in the tool and die industry we develop individual carbide grades for these applications.

Secrets of success

- Good ex stock availability for standard products
- Good machinability of the parts in erosion and grinding
- Consistently long service life of the dies
- Optimum metallurgical structure

For more than 30 years CERATIZIT has manufactured carbide products for dental technology where maximum precision and reliability are of paramount importance. Today all renowned tooth drill and denture producers are our customers.

Secrets of success

- Optimum carbide grades
- Customer specific surface treatment in order to guarantee improved solderability and weldability.
- Worldwide presence

Since 1962 CERATIZIT has produced balls made of tungsten carbide. At present the smallest diameter in the range is 0.50 mm which makes it the smallest product we offer. Today CERATIZIT is the world market leader for blanks for ball point pens.

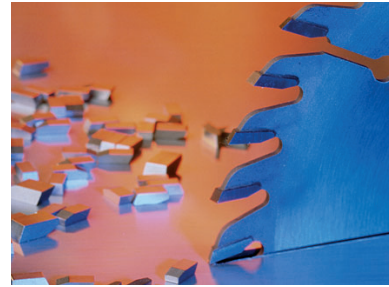
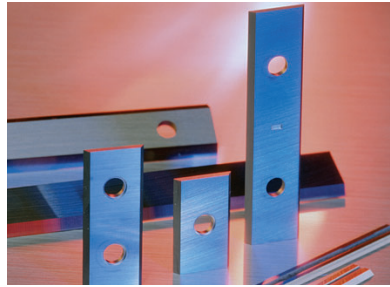
Secrets of success

- Ideal hardness combined with the necessary toughness
- The hardness of the carbide prevents the paper fibres from damaging the ball surface, thus providing wear protection

Metal forming represents the most efficient way in high volume production to manufacture the parts rapidly and with small tolerances. CERATIZIT customers appreciate the advantage of being supplied with numerous different articles from one source: tool design, carbide production and long-standing experience in machining.

Secrets of success

- Cold heading tools (dies, nibs)
- Special tools for metal forming
- Drawing dies and mandrels
- Tools for the fastener and nail industry



Wood machining general

The requirements in wood machining are characterised by the quantity of different materials. Our grade programme ranges from nano to ultra-fine high-performance grades, via submicron and fine grain grades to robust coarse grain grades for extreme machining conditions.

Our competence:

- Carbide blanks: strobe blanks, drill bits, tips for wood drills, through hole drill bits, strips for profile milling, planer blades and customer specific special parts.
- Semi-finished products: blanks for profiling, ground rods and strips, customer specific products
- Finished products: indexable knives and inserts

Saw tips

Various carbide grades (-HC) which are adapted to the specific application and tooth geometry ensure that the customer can use the most various materials for machining, ranging from freshly cut soft wood to up-to-date wood-plastic composite materials.

In this context special significance is attributed to carbide grades with chromium binder (-KC) which prevent corrosion during the machining of very abrasive materials such as MDF or HDF.

Our competence:

- Carbide grades adapted to the materials and applications
- Large stock programme and decades of experience
- High volume production with maximum quality

Stone working

Our experience and the application of up-to-date manufacturing technologies guarantee future-oriented rock drill solutions which take into account the tendency towards increasingly stronger hammer drills and which accordingly support cordless drills in their success on the market through aggressive geometries. The carbide grade series (-BC), specially developed and adapted in its physical properties for the machining of stone, provides the performance necessary for rock drilling.

Our competence:

- Large standard drill tip programme – available ex stock
- Large production capacity – short delivery time
- Competence in development – focused on customer specific solutions

hard material matters

Wood and stone machining

CERATIZIT covers the entire cutting tool sector with its carbide products for wood machining. In this way we contribute essentially to the performance capacity of the wood machining tools provided with products from CERATIZIT – from the professional to the DIY enthusiast. We consider ourselves first of all a partner of the wood tool manufacturers. Our production programme includes carbide blanks, semi-finished products and ground indexable knives ready for use. In the field of drill tips for rock machining CERATIZIT is the most important contact worldwide. In addition to an extensive drill tip standard programme for hammer drills, rotary drills and percussion drills, it is a special challenge to develop customer specific solutions and geometries, making them ready for batch production as soon as they are fully fledged.

hard material matters

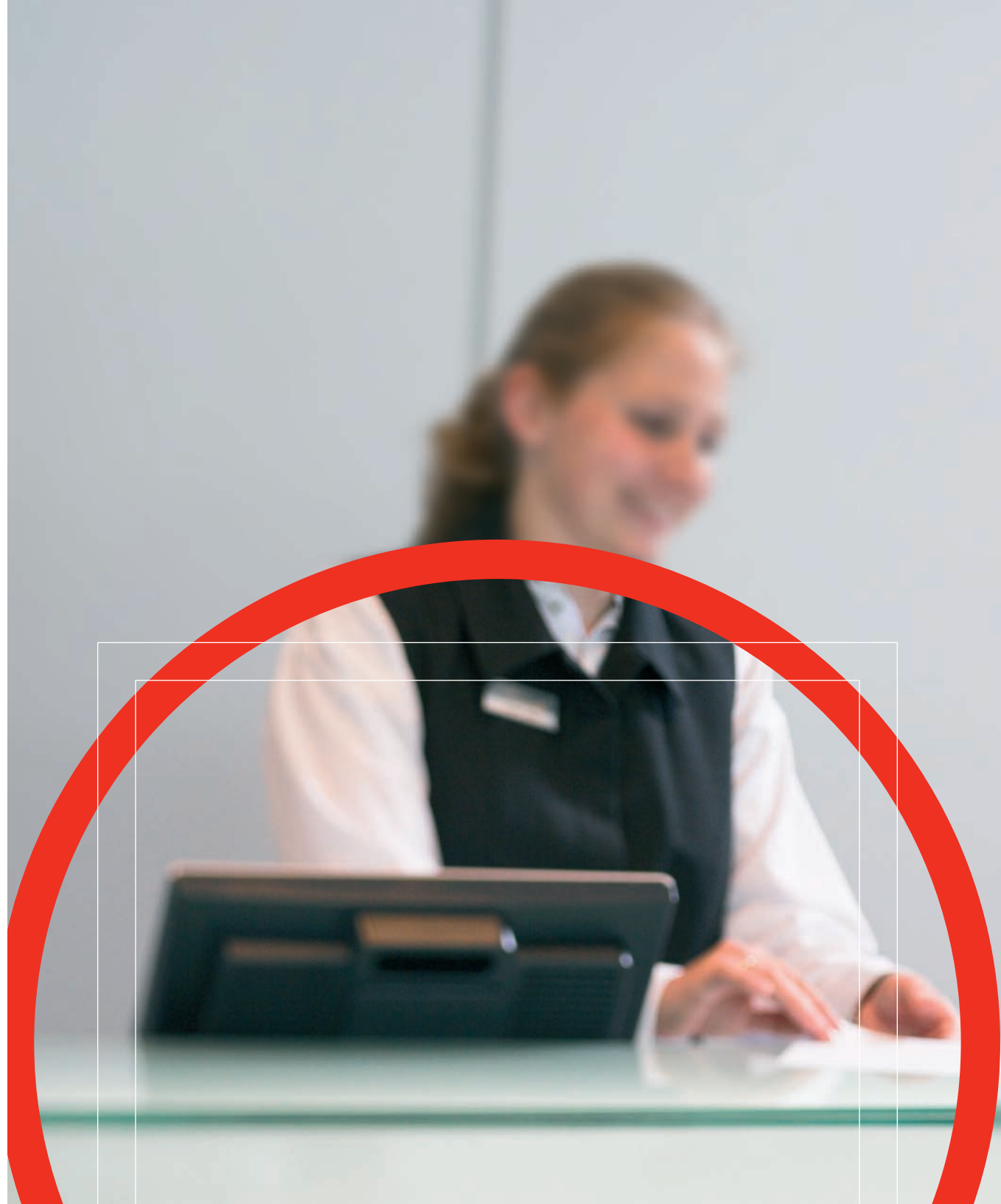
CERATIZIT services

The significance of the Internet for the B2C business is generally known. Online portals however also offer enormous chances for B2B relations. CERATIZIT understood this and developed the E-TECHSTORE.

At www.e-techstore.com customers can order more than 7,400 products from the field of cutting tools, carbide rods and industrial wear application with only a few mouse clicks – around the clock and with extremely short delivery times.

Peter Germann, e-commerce manager:

“The CERATIZIT E-TECHSTORE is a benchmark in the carbide industry. This has also been confirmed by competitors. The E-TECHSTORE absolutely maximises the service for our customers. He can check ex stock availability 24 hours a day in real time and is able to order at any time“.





Logistics centre

The CERATIZIT group is growing more quickly on a worldwide level than the market and is represented in all industrial areas. This growth also requires excellent performance with regard to logistics. For this reason, since 2002, CERATIZIT has had its own logistics centre.

Secrets of success

- Direct delivery to customers in Europe within 24 hours
- Delivery performance > 99%
- Orders accepted until 7.30 p.m.
- 65,000 stock lines
- 45,000 articles continuously on stock

E-TECHSTORE

Open Store

In addition the Open Store offers numerous online services such as our product catalogue including all technical information and drawings in DXF format available for download. Your enquiries for our products are directly passed on to the CERATIZIT contact person next to you.

Partner Store

As a CERATIZIT partner you may benefit from further services, such as the online availability check, direct ordering and an overview of your orders and transactions.

Secrets of success

- Quick information and simple ordering process
- Rapid product search
- Up-to-the-minute CERATIZIT product catalogue with configurator
- Availability, prices, delivery status can all be checked at any time

Tooling Academy

The Tooling Academy is the training and education centre of the CERATIZIT group. High-quality training courses are carried out by experts to ensure that our business partners are always completely up to date in terms of their knowledge.

Secrets of success:

- Practical examples and exercises
- State-of-the-art machine park
- Technical knowledge provided by experts
- Basic training courses (e.g. on coatings, geometries, types of wear, ..)

hard material matters



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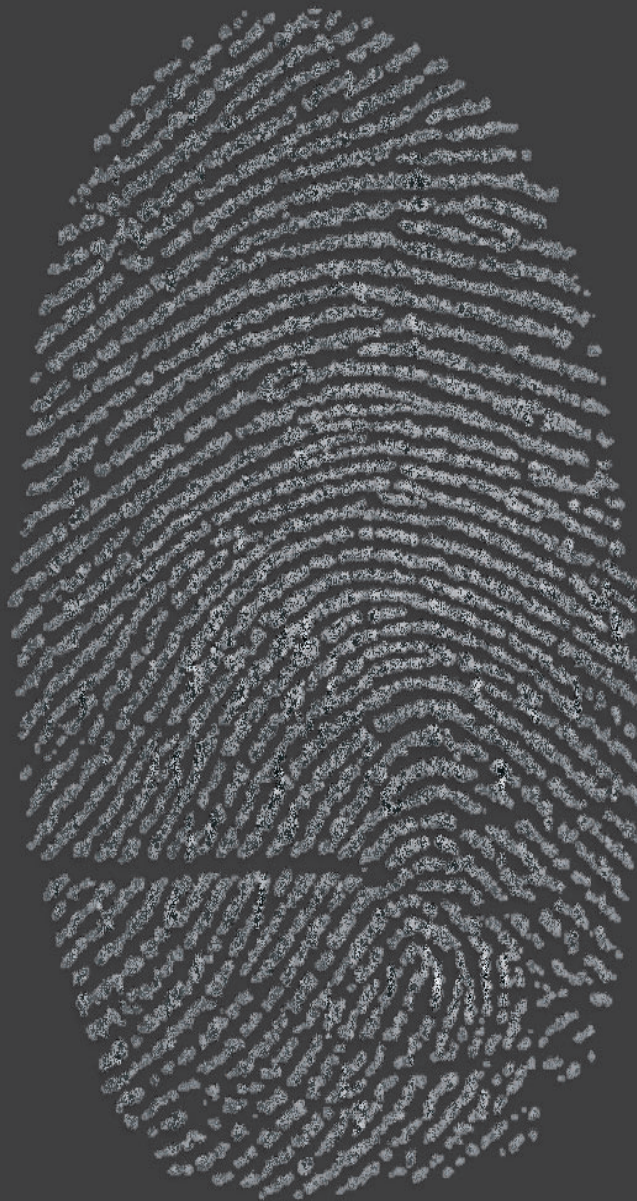
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