



# BETEK TUNGSTEN CARBIDE TOOLS ENVIRONMENTAL TECHNOLOGIES GRADER TOOLSFORESTRY & RECYCLING HAMMEL IN USE WORLDWIDE



## TUNGSTEN CARBIDE AND STEEL

Steel and carbide are two materials with totally different expansion coefficients when subjected to heat. Nevertheless, it is of steel and tungsten carbide that our tools are made, with tungsten carbide for the wear-resistant tip, and steel for the tool shank. Since tools reach high temperatures during use, extreme tensile stresses are generated. These stresses are absorbed by a special brazing material that joins the tungsten carbide tip to the steel section.

We have developed our own methods and systems for this brazing process, which is carried out on fully automated machines with the process covered in an inert protective gas. Manufacturing parameters are fully monitored and documented to ensure consistent quality. Afterwards, brazing shear strengths are checked to ensure that our "Masters of the construction site" lose no time due to broken tools!





## BETEK HIGH-TECH TOOLS









(1)

DEVELOPMENT &

CONSTRUCTION

## TUNGSTEN CARBIDE MANUFACTURING

## SOLDERING PRODUCTION UNIT

## CUSTOMER SERVICE

- Efficient, customised solutions based on flexible structures
- Personalised, quick response to customer requirements
- Quick creation of samples and prototypes
- Competitive pricing thanks to close cooperation with all production units
- High-purity raw materials are used for high strength
- Consistently high, pore-free tungsten carbide quality through precise process control thanks to years of experience and know-how

Production facilities and processes specially developed to perfection by experts in the combination of tungsten carbide and steel









5

6

7

8

## AUTOMATION

Maintaining a competitive edge on the global market thanks to a high degree of automation and flexible manufacturing facilities

## QUALITY ASSURANCE

Continuous quality testing of the entire manufacturing chain all the way up to the installation site, in conformity with DIN ISO 9001:2000 and DIN EN ISO 14001

### **TRAINING**

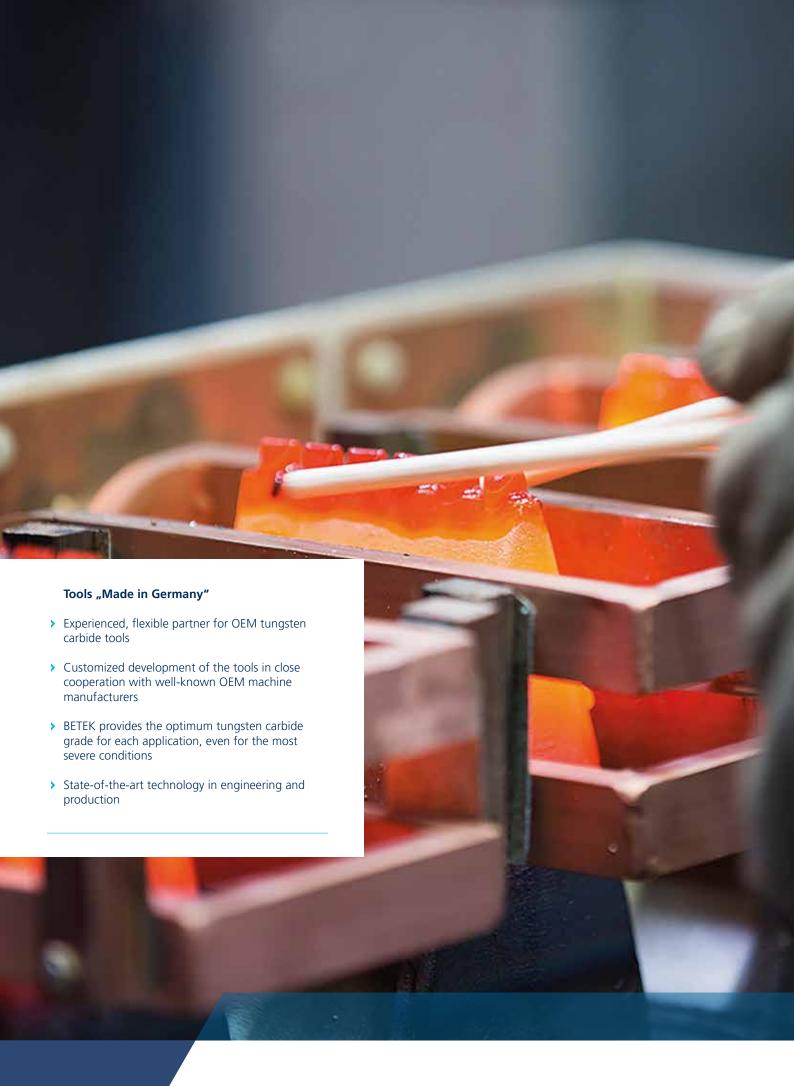
User training courses at BETEK or on-site for sustainable, long-term commercial success and customer satisfaction

### LOGISTICS

Quick responses thanks to:

- the use of the very latest IT and enhanced logistics networking
- Standard products kept in stock

OUR KNOW-HOW COMBINED WITH STATE-OF-THE-ART PRODUCTION TECHNOLOGIES GUARANTEES THE FINEST QUALITY, MADE IN GERMANY



## TOOL SYSTEMS FOR YOUR RECYCLING APPLICATION

BETEK is a leading international manufacturer of tungsten carbide and tungsten carbide equipped wear parts. With its 30 years of experience in the production of innovative products BETEK is the first choice for your applications: BETEK tungsten carbide tools are developed and tested in conjunction with machine manufacturers for road construction, rehabilitation and asphalt crushers, as well as with manufacturers of mulchers, wood chippers, shredders – for example for plastic and wood – and other forestry and agricultural machines. Tungsten carbide grades are matched exactly to application areas in terms of hardness and durability, ensuring high performance and break resistance. In combination with high quality steel bodies BETEK manufactures tool systems that provide excellent support to the performance of modern machines. A high degree of efficiency is guaranteed through the balance of wear between the tungsten carbide and the steel body, thus ensuring complete use of the tungsten carbide wear part.

## > YOUR ADVANTAGES

Substantially higher life time than conventional steel tools\*

Consistent crushing quality

Durable and long lasting cutting edges

No wear related adjustment necessary

Long term performance due to premium materials

Time and cost savings due to reduced wear part changes

Optimised machine performance

Reduced fuel consumption

Cost savings in working capital as a result of reduced stock levels of tools

\*5–10 times, e.g. for anvils (depending on machine type, working speed and consistency of the material to be crushed).

## **MULCHERS**

## > SEPPI



BFS560 BFS103x58x53



BFS598 BFS103x58x53/1



BFS762 BFS114x59x53



BFS813 BFS175x63x54



BFS99 BFS105x70x56, Ø = 36



BFS18 BFS105x70x56/1, Ø = 31



BFS554 BFS114x77x72, Ø = 31



■ **BFS537**BFS109x72x63, Ø = 31



BFS538 BFS108x72x64, Ø = 31



## **DISCLAIMER:**

SHOWN BRAND IS A REGISTERED TRADEMARK. THE PARTS SHOWN ARE NOT APPROVED OR ENDORSED BY THE MANUFACTURER.

## **MULCHERS**

## > MISC.

















BHS94 BHS129x99x36





**BHS95**BHS118x99x36





BFS285 + BHS65

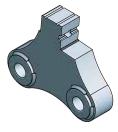


## WOOD GRINDERS

## **DURATECH**















BHS29x241x60



BFS195x117x30/4



BFS146
BFS195x117x30/1



## **DISCLAIMER:**

SHOWN BRAND IS A REGISTERED TRADEMARK. THE PARTS SHOWN ARE NOT APPROVED OR ENDORSED BY THE MANUFACTURER.



## MOBILE STONE CRUSHERS

## > PTH



## DISCLAIMER:

SHOWN BRAND IS A REGISTERED TRADEMARK. THE PARTS SHOWN ARE NOT APPROVED OR ENDORSED BY THE MANUFACTURER.

## STUMP CUTTERS

## > RAYCO | UFKES | VERMEER







BFS241 BFS109GG-M 20





BFS242 BFS106LG-M 20





BFS232
BFS106RB



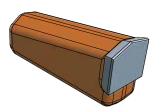
## **DISCLAIMER:**

SHOWN BRANDS ARE REGISTERED TRADEMARKS. THE PARTS SHOWN ARE NOT APPROVED OR ENDORSED BY THE MANUFACTURERS.

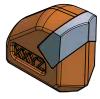


## WELD-ON TEETH

## **> GENERAL WEAR PARTS**







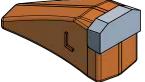
BFZ327 BFZ42x40x23/1



BFZ326 BFZ38/M

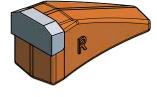


BFZ345 BFZ60x49x38



BFZ25L BFZ25-L





BFZ25R BFZ25-R



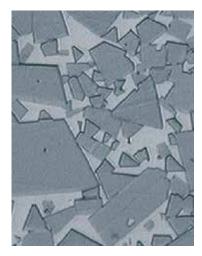


## TUNGSTEN CARBIDE IS NOT JUST TUNGSTEN CARBIDE

High levels of hardness in combination with optimum durability and aligned to the specific purpose ensure the tools have exceptional life time.

Since best quality comes first at BETEK, we only use the highest quality and purest raw materials.



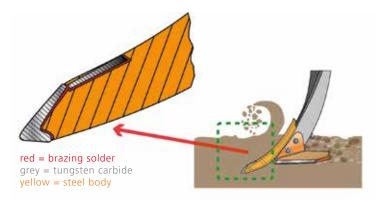




## > BRAZING

### TUNGSTEN CARBIDE AND STEEL - TIGHTLY BONDED FOR THE TOUGHEST REQUIREMENTS

The key components of BETEK tools are tungsten carbide and steel: Tungsten carbide for the wear-resistant cutting edge and the additional protection of the steel body, steel for the base body. To permanently connect the two materials, innovative processes and special brazing facilities have been developed at BETEK. The brazing of the two materials occurs under the continuous monitoring and documentation of the manufacturing parameters.





Brazing as the permanent connection of tungsten carbide and steel

## FLEXIBLE WEAR PROTECTION

## > INDUSTRIES

- Ground Engaging Tools
- Mining
- Agriculture
- Forestry & Recycling

- Material transport
- Industrial Applications
- Crushing and Mixing

## > BeCoat® HARDFACING TYPES

## YOUR FLEXIBLE PARTNER AGAINST WEAR



FeCr hardfacing



NiCr + FTC hardfacing



TC grit hardfacing

## > BeCoat® ADVANTAGES

- Cost reduction due to less downtime
- Coating thickness ≤ 6mm
- Evenly distributed fused tungsten carbide (FTC) and low dilution
- Engineering and consulting
- Proven to withstand even the harshest environments



# ■ BETEK GmbH & Co. KG · 500 · subject to technical modifications · page 10: stock-adobe.com ·

## ·> BETEK



SURFACE TECHNOLOGIES

- ROAD MILLING
- SURFACE MINING
- STABILISING
- CRUSHING & MIXING



UNDERGROUND TECHNOLOGIES

- FOUNDATION DRILLING
- MINING
- TRENCHLESS
- TRENCHING
- TUNGSTUDS
- DRUM CUTTERS



ENVIRONMENTAL TECHNOLOGIES

- AGRICULTURE
- GRADER TOOLS
- TUNGSTEN CARBIDE
- FORESTRY & RECYCLING



INDUSTRIAL TECHNOLOGIES

- CRUSHING & MIXING
- TUNGSTEN CARBIDE
- RAIL TRACK CONSTRUCTION

Service number +49 (0) 7422. 565-0

info@betek.de www.betek.de

