BETEK

MADE IN GERMANY

ENVIRONMENTAL TECHNOLOGIES

FORESTRY & RECYCLING

SIMONGROUP

BETEK TUNGSTEN CARBIDE TOOLS

ENVIRONMENTAL TECHNOLOGIES

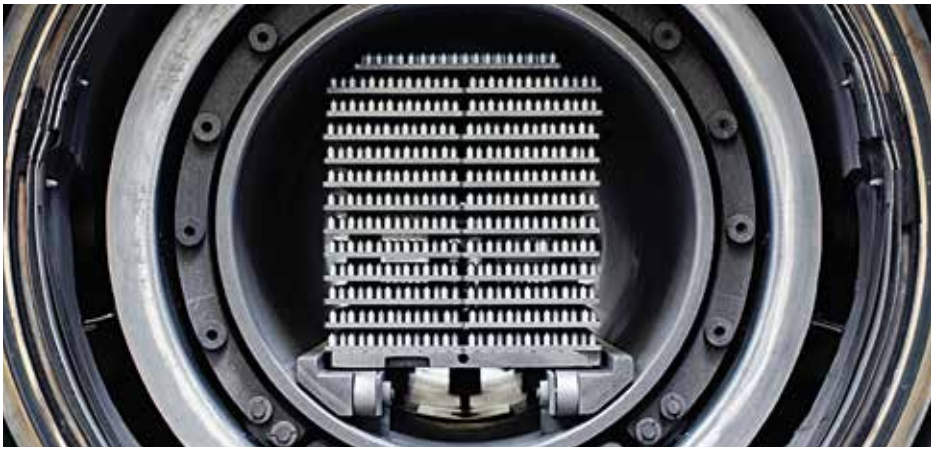
- AGRICULTURE
- GRADER TOOLS
- FORESTRY & RECYCLING

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

CUSTOMER SERVICE

- Efficient, customised solutions based on flexible structures
- Personalised, quick response to customer requirements

2

RESEARCH & DEVELOPMENT

- Quick creation of samples and prototypes
- Competitive pricing thanks to close cooperation with all production units

3

TUNGSTEN CARBIDE MANUFACTURING

- 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

4

SOLDERING PRODUCTION UNIT

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

5

AUTOMATION

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

6

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

7

TRAINING

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

8

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

Tools „Made in Germany“

- Experienced, flexible partner for OEM tungsten carbide tools
- Customized development of the tools in close cooperation with well-known OEM machine manufacturers
- BETEK provides the optimum tungsten carbide grade for each application, even for the most severe conditions
- State-of-the-art technology in engineering and production

TOOL SYSTEMS FOR YOUR RECYCLING APPLICATION

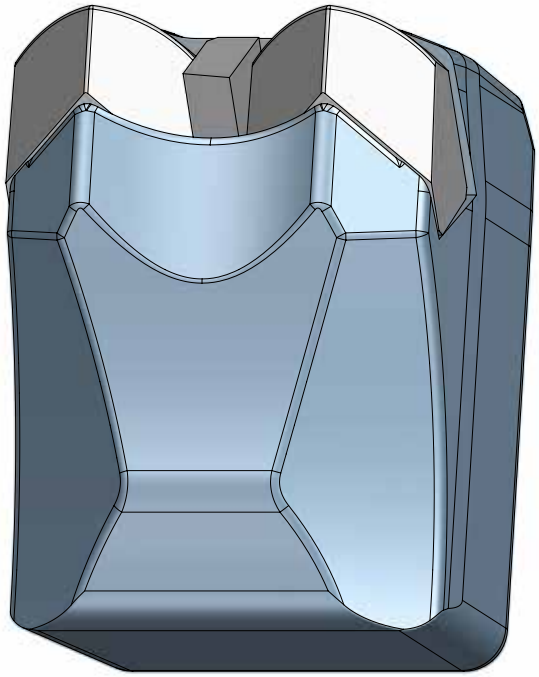
BETEK is a leading international manufacturer of tungsten carbide and tungsten carbide equipped wear parts. With its 30 years of experience in the production of innovative products BETEK is the first choice for your applications: BETEK tungsten carbide tools are developed and tested in conjunction with 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).

OEM PARTNER - EXCELLENT OEM SC



› THAT'S WHY BETEK

More than 40 years of experience in the development and production of carbide

Ideally matched carbide grade and geometry depending on the application condition

Our OEM strategy:
More than just tools - expert support for your success

WILLIBALD RECYCLINGTECHNIK

Prinoth

Diamond MOWERS

BUGNOT

FECON

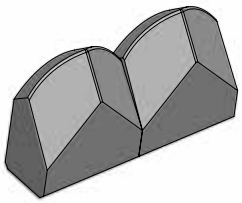
OLUTIONS FOR THE HIGHEST DEMANDS

MULCHING

Optimum shredding due to highest cutting performance

highest possible fracture resistance

Minimization of wear

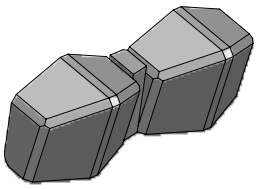


MOBILE STONE CRUSHING

Ideal carbide properties for extreme conditions

The hardest rock such as granite or basalt is optimally crushed

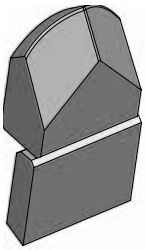
Optimal work result and machine performance



RECYCLING

Reduced fuel consumption due to permanently sharp cutting edges

Up to 5-10 times tool life compared to hardened steel (depending on machine type, working speed and input material)



ALBACH®

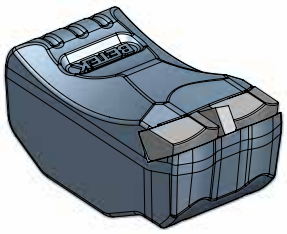
LOFTNESS AN EMPLOYEE OWNED COMPANY

TMC CANCELA®

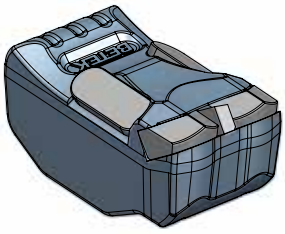
IMDB

MULCHERS

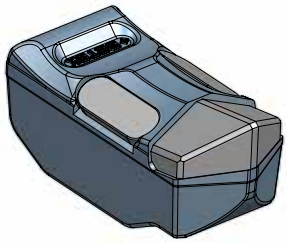
SEPPI



BFS560
BFS103x58x53 | 10

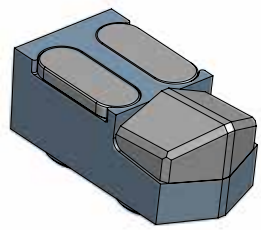


BFS598
BFS103x58x53/1 | 10

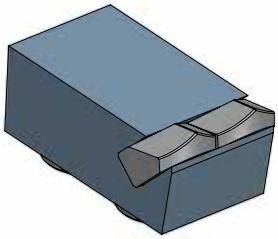


BFS762
BFS114x59x53 | 10

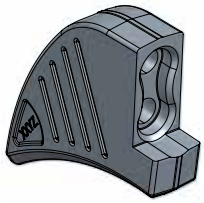
MISC.



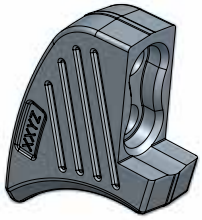
BFS142
BFS45x40x83/2 | 20



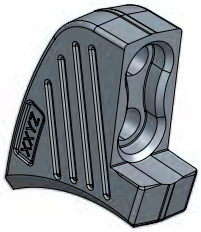
BFS285
BFS40x40x78/7 | 20



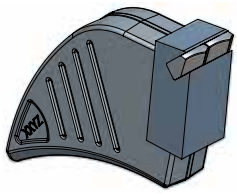
BHS65
BHS163x139x36 | 5



BHS94
BHS129x99x36 | 5



BHS95
BHS118x99x36 | 5



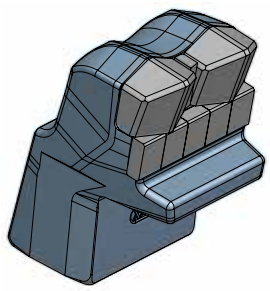
BFS285 + BHS65

DISCLAIMER:

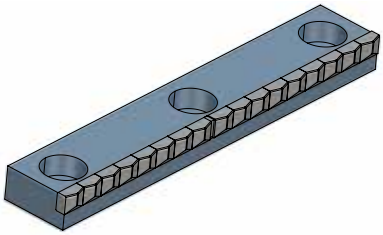
SHOWN BRAND IS A REGISTERED TRADEMARK. THE PARTS SHOWN ARE NOT APPROVED OR ENDORSED BY THE MANUFACTURER.

MOBILE STONE CRUSHERS

PTH



- **BFS617**
  BFS129x91x84/5 | 4



- **BFS424**
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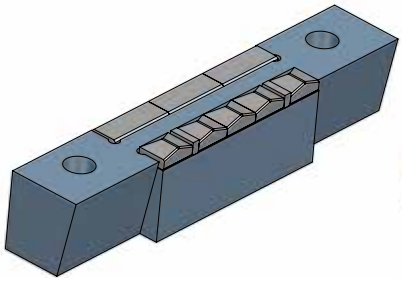
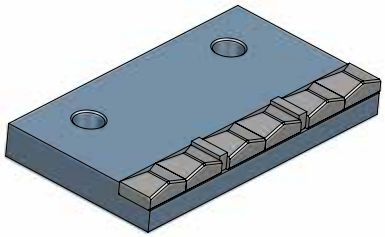


- **BHS59**
  BHS318x60x60 | 6



- **BFS505**
  BFS180x100x20 | 1

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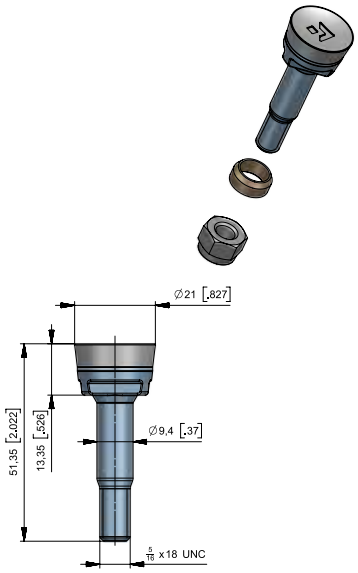
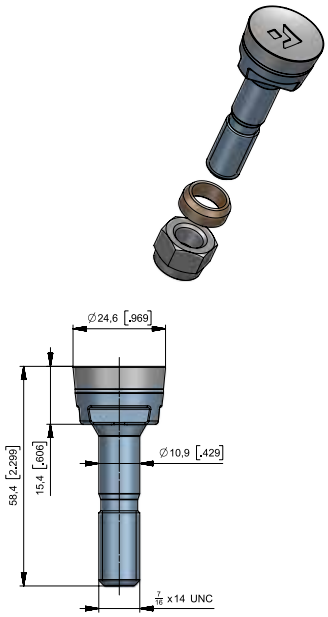
STUMP CUTTERS

STUMP ELIMINATOR



BFZ1016
BFZ700I
100



BFZ1015
BFZ900I
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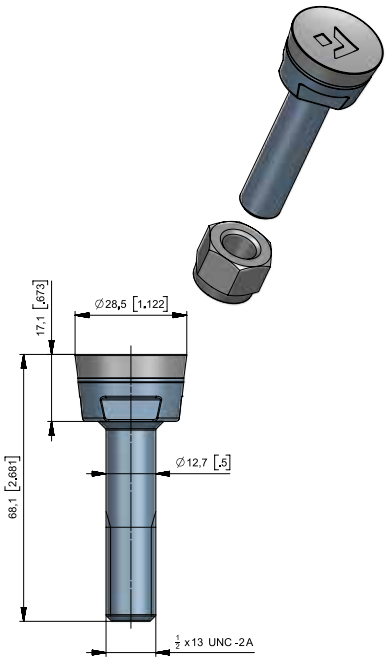

BFZ1017
BFZ1100I
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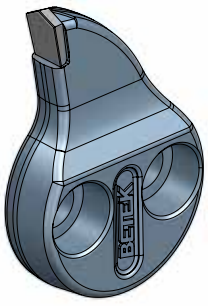
RAYCO / UFKES / VERMEER



BFS234
BFS109GB
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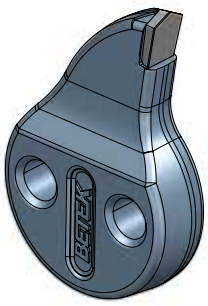

BFS241
BFS109GG-M
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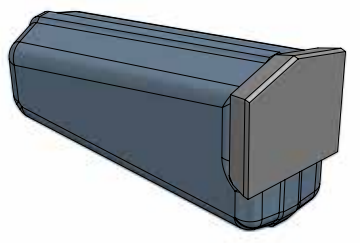
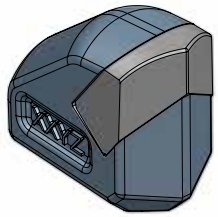
DISCLAIMER:
SHOWN BRANDS ARE REGISTERED TRADEMARKS. THE PARTS SHOWN ARE NOT APPROVED OR ENDORSED BY THE MANUFACTURERS.

WELD-ON TEETH

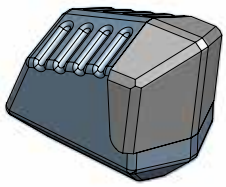
GENERAL WEAR PARTS



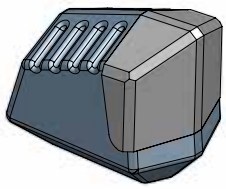
BFZ133
BFZ60x19/2 | 100



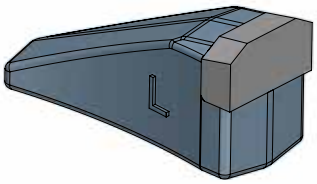
BFZ327
BFZ42x40x23/1 | 50



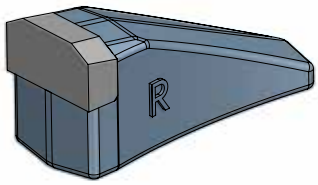
BFZ326
BFZ38/M | 50



BFZ345
BFZ60x49x38 | 25



BFZ25L
BFZ25-L | 50

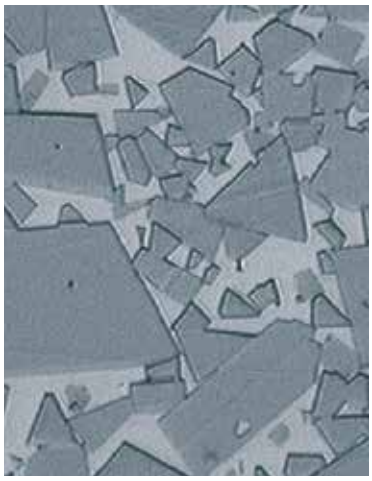


BFZ25R
BFZ25-R | 50

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.

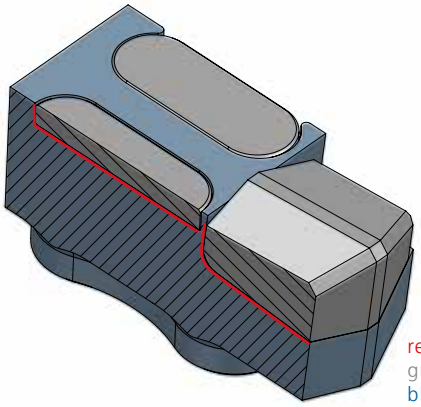
Since best quality comes first at BETEK, we only use the highest quality and purest raw materials.



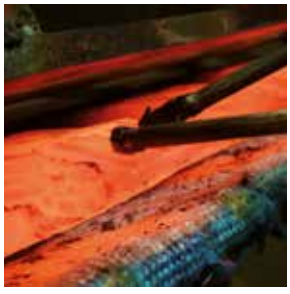
BRAZING

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.



red = brazing solder
grey = tungsten carbide
blue = steel body



Brazing as the permanent connection of tungsten carbide and steel

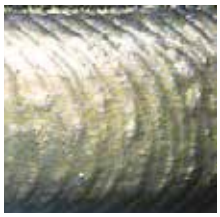
FLEXIBLE WEAR PROTECTION

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

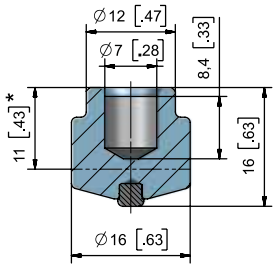
BeCoat® ADVANTAGES

- 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

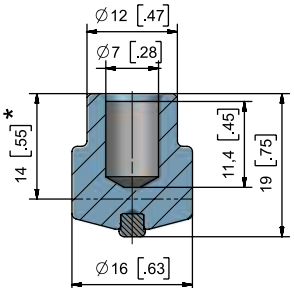
EXTENSIVE WEAR PROTECTION

OVERVIEW

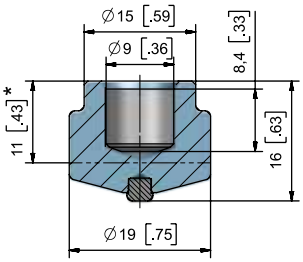
Betek can provide the appropriate stud welding machine for the TungStuds wear protection system.



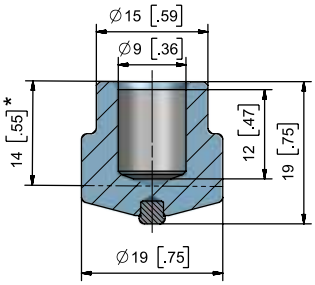
- **BTS01** BTSD16/16 | 150



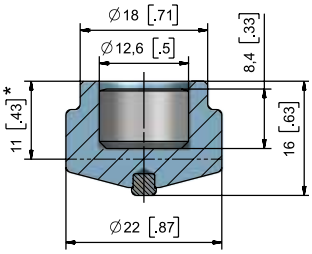
- **BTS02** BTSD16/19 | 150



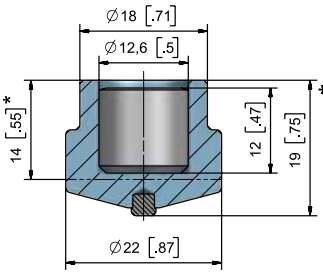
- **BTS03** BTSD19/16 | 150



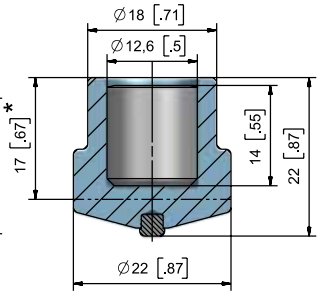
- **BTS04** BTSD19/19 | 150



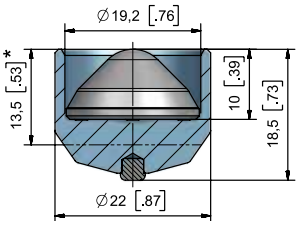
- **BTS05** BTSD22/16 | 100



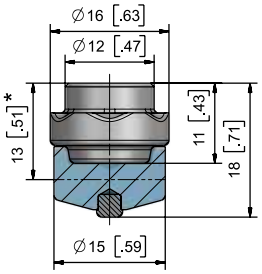
- **BTS06** BTSD22/19 | 100



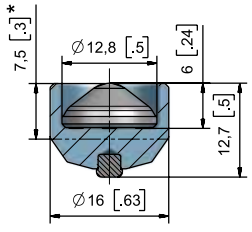
- **BTS07** BTSD22/22 | 100



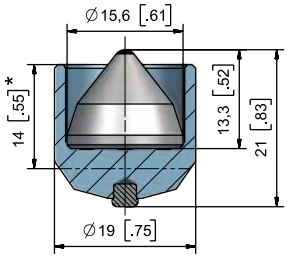
- **BTS08** BTSD22/18,5SG | 100



- **BTS10B** BTSD16/18B | 150



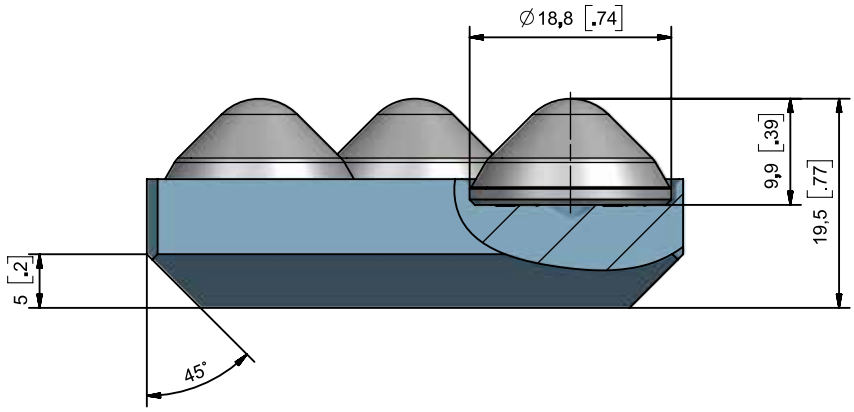
- **BTS20** BTSD16/12,5SG | 150

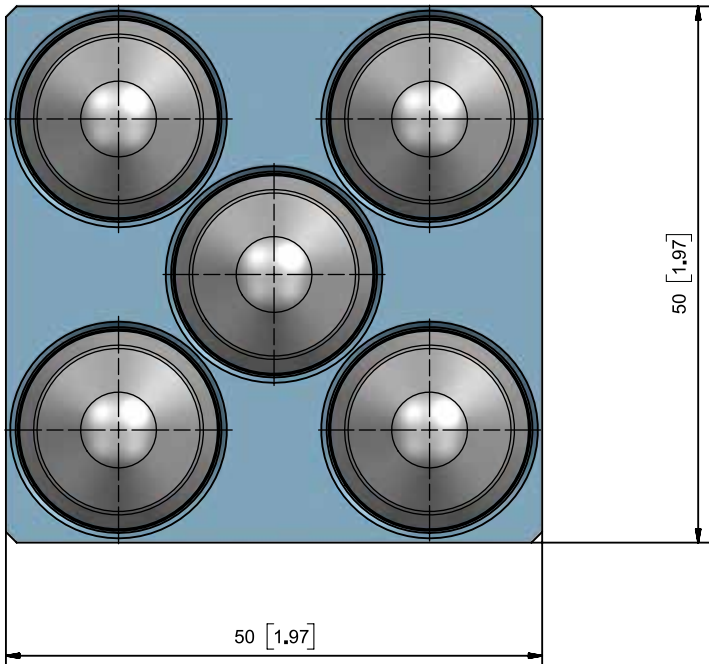


- **BTS100** BTSD19/15,6SG | 150

*Height after welding

BTS-PLATES





DIMENSIONS

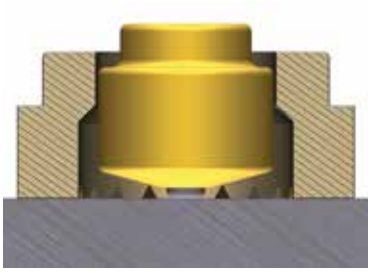
Width in mm	Length in mm
50	50
75	75
100	100
125	125
150	150

Other sizes on request

EXTENSIVE WEAR PROTECTION

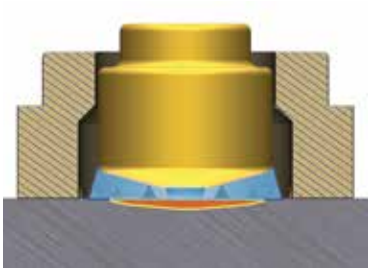
› WELDING PROCESS

1



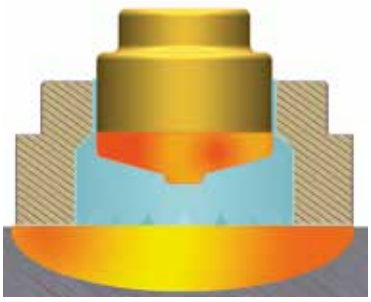
- The TungStud should be placed on the steel surface
- The ceramic ferrule protects the welding area around

2



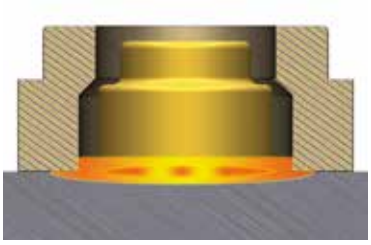
- Current flow is applied
- The TungStud raises up as soon as the arc ignites

3



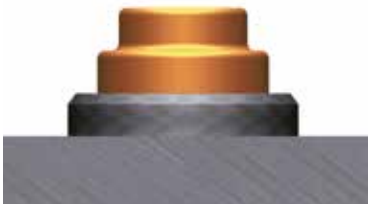
- The arc causes a specific melting of the TungStud and the steel surface

4



- The TungStud plunges into the melted steel surface

5



- The welding connection between TungStud and steel surface is completed

BENEFITS

- Wear resistant thanks to the carbide core
- Quick welding process
- Suitable for uneven surfaces
- Simply replaceable

- Less maintenance › Higher productivity
- Less downtime › Cost reduction

PERFORMANCE

CUTTING WEAR PROTECTION

- Grid pattern is recommended
- Cutting wear protection due to the conical carbide shape

EXTENSIVE WEAR PROTECTION

ROCK BOX EFFECT

- Grid pattern is recommended
- Rock-Box-Effect due to the cylindrical carbide shape

EXTENSIVE WEAR PROTECTION

BETEK

SURFACE TECHNOLOGIES

- ROAD MILLING
- SURFACE MINING
- STABILISING

UNDERGROUND TECHNOLOGIES

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

ENVIRONMENTAL TECHNOLOGIES

- AGRICULTURE
- GRADER TOOLS
- FORESTRY & RECYCLING

INDUSTRIAL TECHNOLOGIES

- CRUSHING & MIXING
- TUNGSTEN CARBIDE
- RAIL TRACK CONSTRUCTION
- INDUSTRIAL SOLUTIONS

SITEK
A BETEK BRAND

- TIRE STUDS
- SCARIFIER CUTTERS
- POLE TIPS
- HORSESHOE TIPS

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