

MADE IN GERMANY









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

TUNGSTEN CARBIDE

MANUFACTURING

SOLDERING PRODUCTION UNIT

CUSTOMER SERVICE

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

RESEARCH & DEVELOPMENT

- 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

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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

BETEK TOOL SYSTEMS

> BETEK TOOL SYSTEMS TECHNOLOGY SPECIFICALLY DESIGNED FOR AGRICULTURAL APPLICATIONS

BETEK tungsten carbide tools are developed and tested together with the manufacturers of machines for soil cultivation and harvesting. The only tungsten carbide grades used are those that are aligned specially to the areas of use with regard to their hardness and durability. They stand out thanks to their lifetime and breakage resistance. In combination with high quality steel bodies – primarily from Austria – tool systems are built which provide excellent support to the performance of modern machines. A high degree of effectiveness is guaranteed through the balance of wear between the tungsten carbide and the steel body and thus the associated complete use of the tungsten carbide wear part.

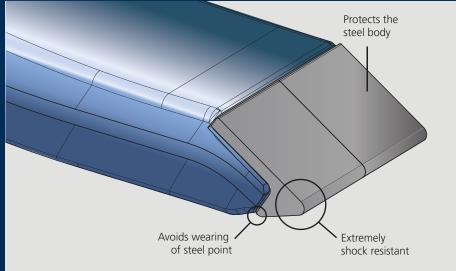


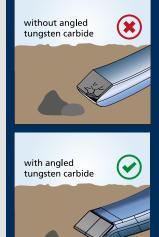
> PROGRESS THROUGH TUNGSTEN CARBIDE WEAR PARTS FOR SOIL CULTIVATION AND SEED DRILLING

WITH BETEK TUNGSTEN CARBIDE WEAR PARTS FOR SOIL CULTIVATION AND DRILLING MACHINES YOU GAIN QUALITY, TIME AND COST RELATED BENEFITS:

- Substantially higher lifetime than conventional steel tools*
- Constant working depth and tillage quality
- Improved penetration, lower traction requirement thanks to permanently sharp cutting edges
- No readjustment of the depth guidance due to wear
- Time and cost savings due to fewer wear part changes
- Significantly extended operating time during periods of good weather
- Optimum use of the performance of the machines
- Lower tool costs per hectare
- Cost savings due to reduced stockpiling

*8 -10 times during soil cultivation (depending on the soil type, moisture content, machine type, working speed, working depth, machine width and mounting position)







Experience-based testimonials from users and test partners as well as objective testreports from various trade magazines in different areas of use, are available at:

www.betek.de/en > Products > Agricultural Technology > Reports

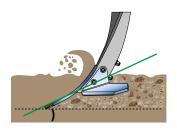
COMPARATIVE POINT WEAR

> STANDARD STEEL POINT



- Wear in length and thickness compromises functioning
- Readjustment of the depth guidance required
- Penetration rendered difficult due to worn blade
- Unsatisfactory quality work

> STANDARD STEEL POINT: WORN



- Steep pitch angle
- Soil is pushed
- Soil no longer skims flowingly upwards
- High traction force requirement
- High fuel consumption
- High level of strain on the machine (frame, bearings etc.)
- Reduced working speed

> BETEK TUNGSTEN CARBIDE POINT



- No wear in length that compromises functioning, reduced wear in terms of thickness
- No readjustment of the depth guidance required
- Constantly improved penetration
- Constant high quality of work
- Considerably improved lifetime (depending on type of blade 8-10 times)
- Progress through superior efficiency

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BETEK Premium tungsten carbide wear parts are marketed exclusively through our system partners. Please contact them regarding prices and sources. A link is provided on the corresponding pages of this product catalogue.

ACTISOL

> **CULTIVATOR**



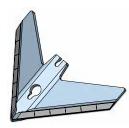
BAT30 Point

Barre 25 **19200005B**



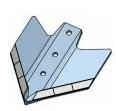
BAT59 Point

Barre 22 **19100005**



BAT1089 Wing share

Ailette **19310013**



• BAT119 Wing share

Ailette **19300029A**



BAT159 Sabot

Sabot **19310003**

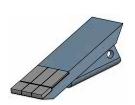


BAT1076 Nose

Nez

19100007A

> SUBSOILER



• BAT49 Point

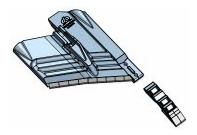
Agromulch **19300A028**





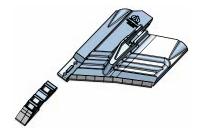
AGRISEM

> SUBSOILER



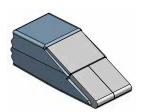
BAT176 + Wing BAT262Point | 50 mm, Wing left

TCS-SOC659-611MC1 TCS-SOC659W-M1



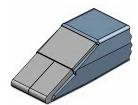
• BAT176 + Wing BAT263 Point | 50 mm, Wing right

TCS-SOC659-611MC1 TCS-SOC660W-MC1



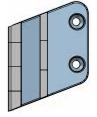
BAT40 Point

Maximulch, Cultiplow, Ecoplow, Combiplow TCS-SOC654W-MC3



BAT39 Point

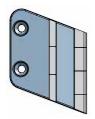
Maximulch, Cultiplow, Ecoplow, Combiplow TCS-SOC653W-MC3



BAT278 Blade left

Cultiplow - Combiplow

TCS-BOR28-131-C1



BAT281 Blade right

Cultiplow - Combiplow

TCS-BOR28-132-C1

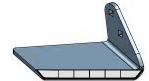


> **CULTIVATOR**



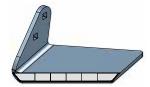
BAT145Point | 80 mm

Combimulch, Maximulch, Agromulch, Ecoplow **AGM11-03-551**



• BAT164 (right) Wing share | 276 mm

Combimulch, Maximulch, Agromulch, Ecoplow **AGM11-03-552**



BAT165 (left)Wing share | 276 mm

Combimulch, Maximulch, Agromulch, Ecoplow **AGM11-03-553**



AMAZONE

> CULTIVATOR



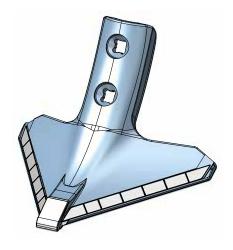
BAT449Point | 50 mm

Cobra **77000017**



BAT455Point | 80 mm

Cenio **78708860**



BAT1114 Sweep | 220 mm

Cobra **77000034**





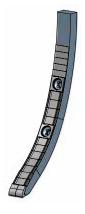
BEDNAR

> **CULTIVATOR**



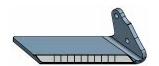
BAT156Point | 80 mm

Fenix **KM060427**



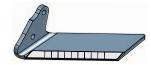
BAT245 Point | 40 mm

Fenix **KM060446**



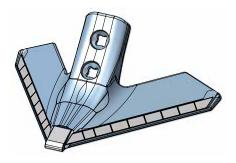
BAT232 (right)
Wing share | 180 mm

Fenix **KM060448**



• BAT231 (left) Wing share | 180 mm

Fenix **KM060447**



BAT1100 Sweep | 285 mm

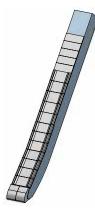
Swifter **KM060550**





BEDNAR

> SUBSOILER



BAT423Point | 40 mm

Terraland **KM060668**



BAT349Point | 70 mm

Terraland **KM060540**



BAT470Point | 70 mm

Terraland KM060541



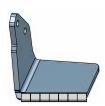
BAT354Point | 40 mm

Versatill **KM060511**



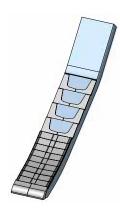
BAT299 (right)Wing share | 150 mm

Terraland **KM060483**



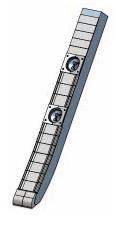
• BAT298 (left) Wing share | 150 mm

Terraland **KM060484**



BAT191Point | 70 mm

Terraland **KM060400**



BAT161Point | 40 mm

Terraland KM060340



EINBÖCK

CULTIVATOR



BAT382Point | 56 mm

Taifun **15-167-02-H**



BAT1083 Sweep | 220 mm

Taifun **15-179-H**

> HARROW



BAT1062 Harrow tine | 512x8 mm

Aerostar **15-099-H**



BAT1063 Harrow tine | 509x7 mm

Aerostar **15-002-H**



BAT1064 Harrow tine | 648x7 mm

Aerostar 15-257-H



BAT1065

Harrow tine | 587x7 mm

Aerostar 15-338-H

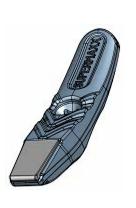


Detail



GÜTTLER

> CULTIVATOR



• BAT254
Point | 40 mm
SuperMaxx

7200 0368



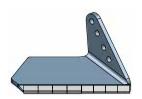
• BAT1217 Point | 56 mm SuperMaxx 7200 0355





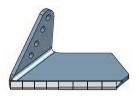
HORSCH

> CULTIVATOR



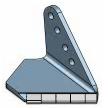
• **BAT1027 (right)**Wing share | 172,5 mm

Terrano, Tiger **60071509**



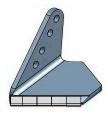
BAT1028 (left)Wing share | 172,5 mm

Terrano, Tiger **60071506**



BAT485 (right)
Wing share | 100 mm

Terrano, Tiger **60042284**



BAT484 (left)Wing share | 100 mm

Terrano, Tiger **60042280**



BAT491Point | 80 mm

Terrano, Tiger **00311069**





HORSCH

> STRIP TILL | SUBSOILER



• BAT91 Point | 40 mm

Focus, Terrano, Tiger **00311349**



BAT92Point | 40 mm

Focus, Terrano, Tiger **00311350**



BAT206 Point | 25 mm

Focus, Terrano, Tiger **00311357**



BAT207Guide blade | 25 mm

Focus, Terrano, Tiger **00311358**

> CULTIVATOR



BAT1040 Point | 50 mm

Cruiser **60095840**



BAT333 Point | 80 mm

Cruiser **60034761**



BAT1092 Sweep | 200 mm

Cruiser **00311408**



BAT437 Point | 55 mm

Finer **60034846**



BAT434 Sweep | 155 mm

Transformer **60028842**



BAT356 Sweep | 180 mm

Transformer **00311578**



BAT1018 Sweep | 225 mm

Finer **60034843**



> POWER HARROW



BAT1088 (left)
 Power harrow tine
 Kredo, Express
 60096689



BAT1087 (right)Power harrow tineKredo, Express60096691



KERNER

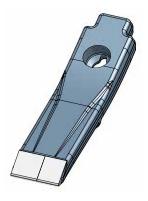
CULTIVATOR



BAT152Point | 80 mm

Corona, Galaxis, Komet

008352



• BAT357 Point | 55 mm

Corona, Galaxis, Komet (for quick change systems) **072820**





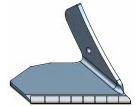
KÖCKERLING

> **CULTIVATOR**



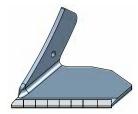
BAT1014 Point | 80 mm

Quadro, Trio, Vector **915776**



• BAT203 (right) Wing share | 262 mm

Quadro, Trio, Vector **932214**



• BAT202 (left) Wing share | 262 mm

Quadro, Trio, Vector **932216**



BAT396 (right)
Wing share | 262 mm

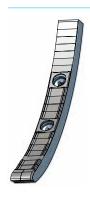
Quadro, Trio, Vector **939372**



• BAT395 (left) Wing share | 262 mm

Quadro, Trio, Vector **939370**

> STRIP TILL | SUBSOILER



BAT114 Point | 40 mm

Quadro, Trio, Vector **915774**



KÖCKERLING

CULTIVATOR



BAT360 Sweep | 226 mm

Vario **937658**



BAT344Point | 60 mm

Vario **936464**



BAT148Point | 60 mm

Vario **919430**



BAT359 Sweep | 225 mm

Allrounder **936742**



BAT488Point | 56 mm

Allrounder **915772**





KUHN

> CULTIVATOR



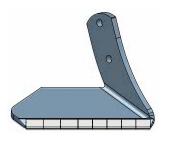
• BAT93 Point | 50 mm

Cultimer **H2225650**



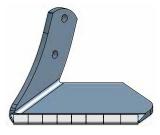
BAT331Point | 80 mm

Cultimer **H2251170**



BAT287 (right)
Wing share | 224 mm

Cultimer **H2218181**

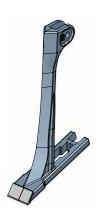


• BAT266 (left) Wing share | 224 mm

Cultimer **H2218191**



> STRIP TILL | SUBSOILER



• BAT171 Point

Gladiator **H22474430**



• BAT65 Point

Cultisoil **K1800470**

> **CULTIVATOR**



BAT355 Point | 55 mm

Prolander **H2251900**

KUHN

> POWER HARROW



• BAT413 (left)
Power harrow tine

Series 103/ 1003 and 104/ 1004 **K2518450**



BAT412 (right)
Power harrow tine

Series 103/ 1003 and 104/ 1004 **K2518460**



BAT415 (left)Power harrow tine

Series 1040

K2518480



BAT414 (right)Power harrow tine

Series 1040

K2518470



BAT417 (left)Power harrow tine

Series 1020/1030 **K2518500**



BAT416 (right)Power harrow tine

Series 1020/1030 **K2518490**

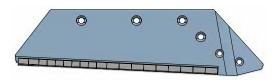


> PLOUGH



BAT341 (right) Point

-Master / -Vari / -Challenger Series **H0408540**



BAT332 (right)

Share

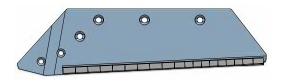
-Master / -Vari / -Challenger Series **H0404800**



BAT347 (left)

Point

-Master / -Vari / -Challenger Series **H0408550**



BAT352 (left)

Share

-Master / -Vari / -Challenger Series **H0404810**



LEMKEN

> **CULTIVATOR**



BAT134Point | 80 mm

Kristall, Karat **33710031**



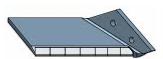
BAT227 Point | 115 mm

Kristall, Karat **33710030**



BAT228
Point | 60 mm

Kristall, Karat **33710023**



BAT229 (right)
Wing share | 300 mm

Kristall, Karat 33710098-KF30H RE



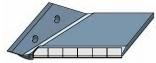
BAT230 (left)Wing share | 300 mm

Kristall, Karat 33710099-KF30H LI



• BAT233 (right) Wing share | 250 mm

Kristall, Karat 33710096-KF25H RE



• BAT234 (left) Wing share | 250 mm

Kristall, Karat 33710097-KF25H LI



> PLOUGH



 BAT279 (right) Point

Juwel, Diamant, Titan 33610026 - C2SHM R



BAT1077 (left) Point

Juwel, Diamant, Titan 33610027 - C2SHM L



BAT1058 (right) Point

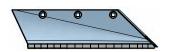
Juwel, Diamant, Titan 33610032 - B2SHM R



BAT1141 (left)

Point

Juwel, Diamant, Titan 33610033 - B2SHM L



BAT292 (right)

Share

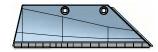
Juwel, Diamant, Titan 33510016 - SB56HM R



BAT1081 (left)

Share

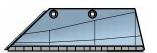
Juwel, Diamant, Titan 33510017 - SB56HM L



BAT1066 (right)

Share

Juwel, Diamant, Titan 33510024 - SB45HM R



BAT1090 (left)

Share

Juwel, Diamant, Titan 33510025 - SB45HM L

> POWER HARROW



BAT316 (right)

Power harrow tine

Zirkon 33710036



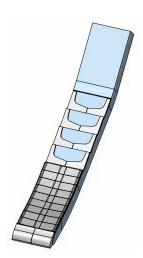
BAT317 (left)

Power harrow tine

Zirkon 33710037

MASCHIO GASPARDO

> SUBSOILER



BAT200 Point | 70 mm

Attila, Artiglio **R17822660**





NOVAG

> SEEDING MACHINE

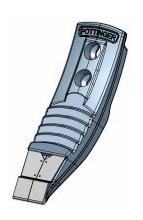






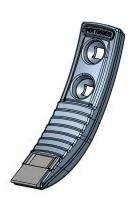
PÖTTINGER

> CULTIVATOR I TRACK ERADICATOR



BAT138Point | 80 mm

Synkro **9791.50.031.2**



BAT464Track eradicator | 50 mm

Terrasem **8504.47.039.0**



#POTTINGER

ROPA

> BEETS TECHNOLOGY



BAT1071 Lifting finger

Rübenmaus **208003810**



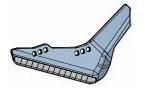
BAT466 (right) Lifter share

Panther, Tiger **207019830**



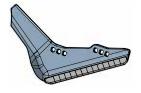
• BAT467 (left) Lifter share

Panther, Tiger **207019930**



BAT492 (right) Lifter share

Panther, Tiger **207020030**



BAT493 (left)

Lifter share

Panther, Tiger **207020130**





SULKY-BUREL

> **SEEDING MACHINE**







VÄDERSTAD

> CULTIVATOR



BAT222
Point | 80 mm

Cultus, TOP DOWN "new", Opus **205006**



• BAT240 Point | 80 mm

Cultus, TOP DOWN "new", Opus **240180**



BAT75Point | 50 mm

Cultus, TOP DOWN "new", Opus **498382**



BAT42
Point | 80 mm

TOP DOWN **498385**



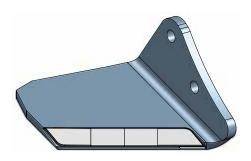
• BAT43 Point | 50 mm

TOP DOWN **498384**



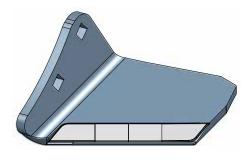
VÄDERSTAD

> **CULTIVATOR**



■ BAT38 (right) Wing share | 157,5 mm

Cultus, TOP DOWN **475000**



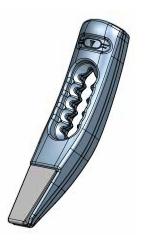
BAT37 (left)Wing share | 157,5 mm

Cultus, TOP DOWN **475001**



BAT235Spring tine point | 35 mm

NZA, NZE Rapid, Rexius Twin **207053**



BAT330Spring tine point | 25 mm

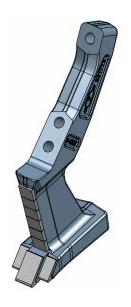
NZA **231775**





VÄDERSTAD

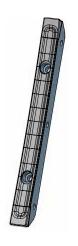
> SUBSOILER



BAT329 Point | 60 mm

Opus, TOP DOWN **231773**

> STRIP TILL



• BAT105 Strip till share

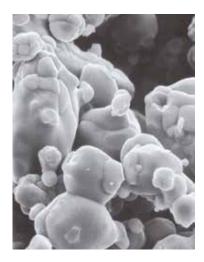
Spirit **190101**

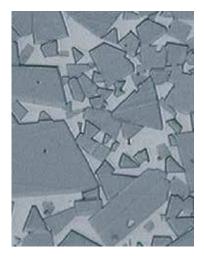


TUNGSTEN CARBIDE IS NOT JUST TUNGSTEN CARBIDE

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.



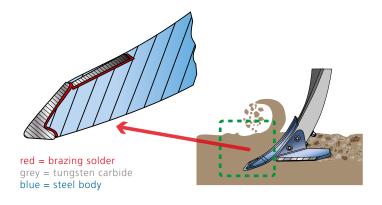




> BRAZING

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.





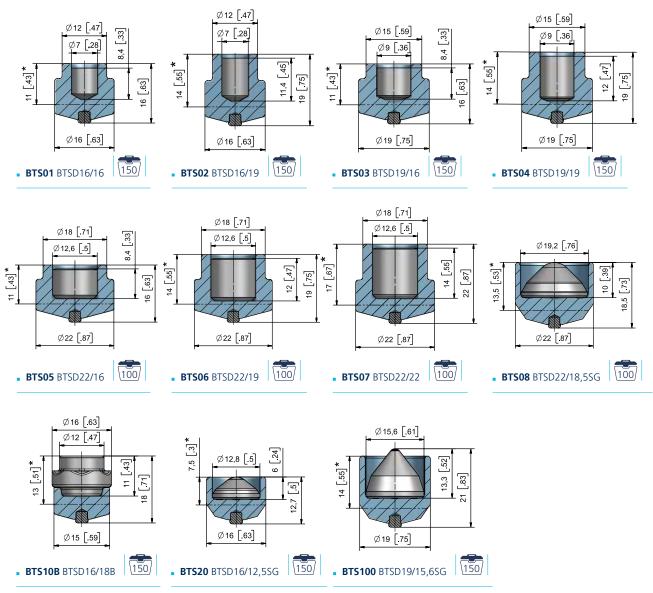
Brazing as the permanent connection of tungsten carbide and steel

EXTENSIVE WEAR PROTECTION



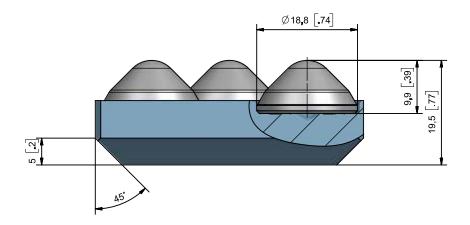
> OVERVIEW

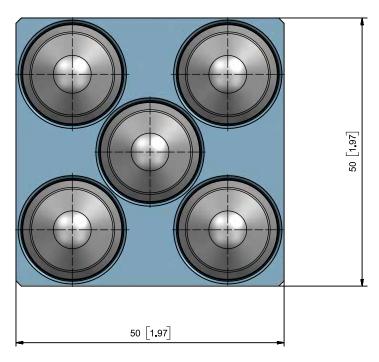
BETEK can provide the appropriate stud welding machine for the Tung-Studs wear protection system.



*Height after welding

> BTS-PLATES





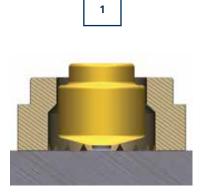
DIMENSIONS

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

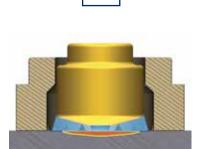
Other sizes on request

TUNGSTUDS

> WELDING PROCESS

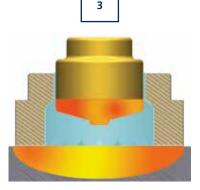


- The TungStud should be placed on the steel surface
- The ceramic ferrule protects the welding area around

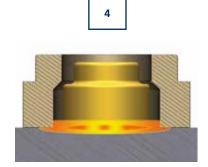


2

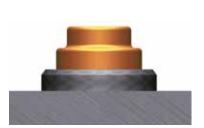
- Current flow is applied
- The TungStud raises up as soon as the arc ignites



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



 The TungStud plunges into the melted steel surface



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







SURFACE TECHNOLOGIES

- ROAD MILLING
- SURFACE MINING
- STABILISING



UNDERGROUND

- FOUNDATION DRILLING
- MINING
- TUNGSTUDS
- DRUM CUTTERS





- ENVIRONMENTAL
- GRADER TOOLS FORESTRY & RECYCLING

TECHNOLOGIES



INDUSTRIAL TECHNOLOGIES

- TUNGSTEN CARBIDE
- RAIL TRACK CONSTRUCTION
- INDUSTRIAL SOLUTIONS



- SCARIFIER CUTTERS
- POLE TIPS
- HORSESHOE TIPS



Service number +49(0)7422.565-0

info@betek.de www.betek.de

