

MADE IN GERMANY





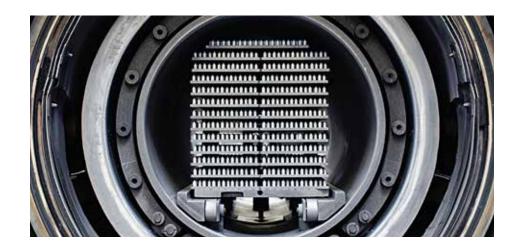




# TUNGSTEN CARBIDE AND STEEL

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

**CUSTOMER** 

SERVICE

DEVELOPMENT & CONSTRUCTION

#### TUNGSTEN CARBIDE MANUFACTURING

#### SOLDERING PRODUCTION UNIT

- 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









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#### **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.

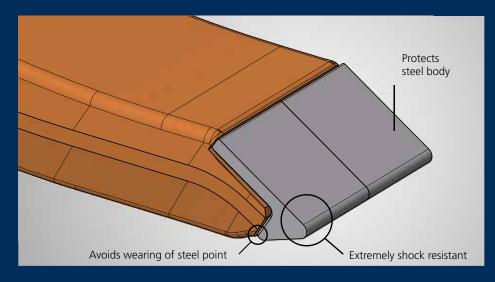


#### PROGRESS THROUGH TUNGSTEN CARBIDE WEAR PARTS FOR SOIL CULTIVATION AND SEED DRILLING

## 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 test reports from various trade magazines in different areas of use, are available at:

<u>www.betek.de/en</u> > Products > Agricultural Technology > User information

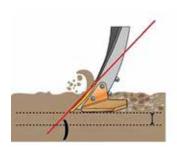
# COMPARATIVE BLADE WEAR

#### > STANDARD STEEL BLADE



- 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 BLADE: 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 BLADE



- 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**



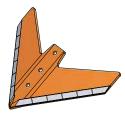
**BAT30** Point

Barre 25 **19200005B** 



**BAT59** Point

Barre 22 **19100005** 



**BAT72** Wing share

Ailette **19300013** 



• BAT119 Wing share

Ailette **19300029A** 



**BAT159** Sabot

Sabot **19310003** 



**BAT162** 

Nose

Nez **19310007** 

#### > TIEFENLOCKERER



**BAT49** 

Point

Agromulch **19300A028** 





### **AGRISEM**

#### > SUBSOILER



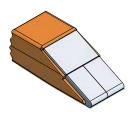
• BAT176 + Wing BAT262 Point 50 mm, wing left

TCS-SOC659-611MC1 TCS-SOC659W-M1



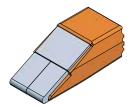
**BAT176 + Wing BAT263**Point 50 mm, wing right

TCS-SOC659-611MC1 TCS-SOC660W-MC1



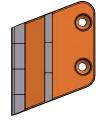
**BAT40** Point

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



**BAT39** Point

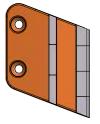
Maximulch, Cultiplow, Ecoplow, Combiplow TCS-SOC653W-MC3



**BAT278** Blade left

Cultiplow - Combiplow

TCS-BOR28-131-C1

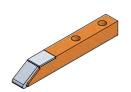


**BAT281**Blade right

Cultiplow - Combiplow

TCS-BOR28-132-C1

#### > SÄMASCHINE



**BAT90** Seeding blade

Tri-O-Sem, LocaSem **SEM16-03-502/B** 



#### **> CULTIVATOR**



**BAT145**Point | 80 mm

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



• BAT164 (right) Wing share 276 mm

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



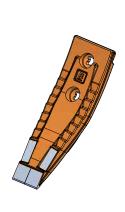
• BAT165 (left) Wing share | 276 mm

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



### BEDNAR

#### > **CULTIVATOR**



• BAT156 Point | 80 mm

Fenix **KM060427** 



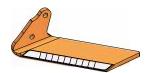
**BAT245**Point | 40 mm

Fenix **KM060446** 



• BAT232 Wing share right | 180 mm

Fenix **KM060448** 

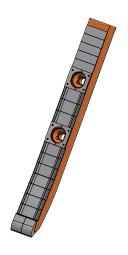


BAT231

Wing share left | 180 mm

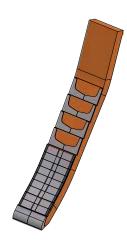
Fenix **KM060447** 

#### > SUBSOILER



• BAT161 Point | 40 mm

Terraland **KM060340** 



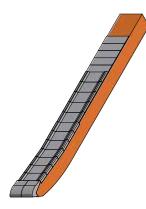
**BAT191**Point | 70 mm

Terraland **KM060400** 



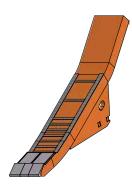


### BEDNAR



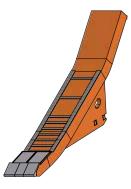
**BAT423** Point | 40 mm

Terraland **KM060668** 



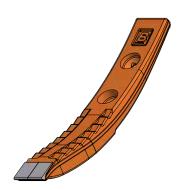
**BAT349**Point | 70 mm

Terraland **KM060540** 



**BAT470**Point | 70 mm

Terraland **KM060541** 



**BAT354**Spring tine share | 40 mm

Versatill **KM060511** 



■ BAT299 Wing share left | 150 mm

Terraland **KM060484** 



■ BAT298 Wing share right | 150 mm

Terraland **KM060483** 





# EINBÖCK

#### > FLAT CULTIVATOR



**BAT382** Point | 56 mm

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



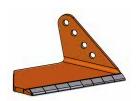
**BAT406**Goosefoot share | 220 mm

Taifun **15-179-H** 



### HORSCH

#### > **CULTIVATOR**



**BAT1028 (left)**Wing share | 172,5 mm

Terrano, Tiger **60071506** 



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

Terrano, Tiger **60071509** 



BAT484 (left)
Wing share | 100 mm

Terrano, Tiger **60042280** 



BAT485 (right)
Wing share | 100 mm

Terrano, Tiger **60042284** 



• BAT206 Point | 25 mm

Focus, Terrano, Tiger **00311357** 



**BAT207**Guiding elemen

Guiding element | 25 mm

Focus, Terrano, Tiger

**BAT434** 

Chopping share | 155 mm

Transformer 60028842



BAT356

Chopping share | 180 mm

Transformer **00311578** 



• BAT437 Point | 55 mm

Finer **60034846** 



**BAT491** 

Point | 80 mm

Terrano, Tiger **00311069** 



BAT1018

Goosefoot share | 225 mm

Finer **60034843** 





### HORSCH

#### > STRIP TILL | SUBSOILER



• BAT91 Point | 40 mm

Focus, Terrano, Tiger **00311349** 



• BAT92 Point | 40 mm

Focus, Terrano, Tiger **00311350** 

#### > FLACHGRUBBER



**BAT336**Point | 50 mm

Cruiser **00311513** 



**BAT333**Point | 80 mm

Cruiser **60034761** 



**BAT286** 

Goosefoot share | 200 mm

Cruiser **00311408** 

#### > KREISELEGGE



BAT168 (left)
Power harrow tine

Kredo, Express **00384095** 



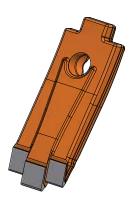
• BAT167 (right)
Power harrow tine

Kredo, Express **00384096** 



### KERNER

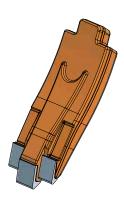
#### **CULTIVATOR**



**BAT152**Point | 80 mm

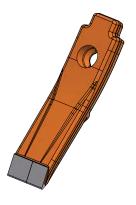
Corona, Galaxis, Komet

008352



**BAT153** Point | 80 mm

Corona, Galaxis, Komet (for quick-change systems) **066334** 



**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

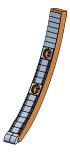
Quadro, Trio, Vector **939372** 



**BAT395 (left)**Wing share | 262 mm

Quadro, Trio, Vector **939370** 

#### > STRIP TILL | SUBSOILER



**BAT114** Point | 40 mm

Quadro, Trio, Vector **915774** 



#### > SHALLOW CULTIVATOR



**BAT115**Point | 56 mm

Allrounder **915772** 



**BAT344**Point | 60 mm

Vario **936464** 



**BAT359**Goosefoot share | 225 mm

Allrounder **936742** 



**BAT359**Goosefoot share | 226 mm

Vario **936758** 



### **KUHN**

#### **> CULTIVATOR**



**BAT93** Point | 50 mm

Cultimer **H2225650** 



**BAT331**Point | 80 mm

Cultimer **H2251170** 



• BAT287 (right) Wing share 224 mm

Cultimer **H2218181** 

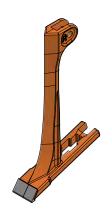


• BAT266 (left) Wing share 224 mm

Cultimer **H2218191** 



### > STRIP TILL | SUBSOILER



• BAT171 Point

Gladiator **H22474430** 



• BAT65 Point

Cultisoil **K1800470** 

#### > SHALLOW CULTIVATOR



### 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** 



**BAT416 (left)**Power harrow tine

Series 1020/ 1030 **K2518490** 

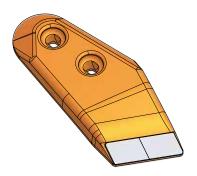


**BAT417 (right)**Power harrow tine

Series 1020/ 1030 **K2518500** 

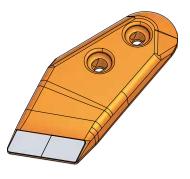


#### > PLOW



**BAT55 (right)**Point

Super Marathon Point **622164** 



**BAT56 (left)**Point

Super Marathon Point **622165** 



### LEMKEN

#### > **CULTIVATOR**



**BAT134**Point | 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 **33710018** 



• BAT230 (left) Wing share 300 mm

Kristall, Karat **33710019** 



• BAT233 (right) Wing share 250 mm

Kristall, Karat 33710020



• BAT234 (left) Wing share 250 mm

Kristall, Karat **33710021** 



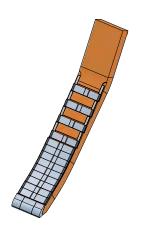
#### **> POWER HARROW**





# MASCHIO GASPARDO

#### > SUBSOILER



**BAT200** Point | 70 mm

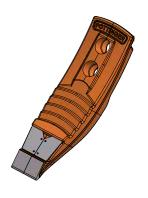
Attila, Artiglio **R17822660** 





# PÖTTINGER

### > CULTIVATOR | TRACK LOOSENER



**BAT138**Point | 80 mm

Synkro **9791.50.031.2** 



• BAT464 Track loosener | 50 mm

Terrasem **8504.47.039.0** 



**#POTTINGER** 

### ROPA

#### **> BEETS TECHNOLOGY**



**BAT95** Lifting finger

Rübenmaus **208003800** 



**BAT248 (right)** Lifting share

Eurotiger **207019800** 



**BAT249 (left)** Lifting share

Eurotiger **207019900** 



• BAT255 (right) Lifting share

Eurotiger **20702000** 



**BAT256 (left)** Lifting share

Eurotiger **207020100** 





### SULKY-BUREL

#### > SEEDING MACHINE







# GÜTTLER

#### > SHALLOW CULTIVATOR



• BAT254 Point | 40 mm

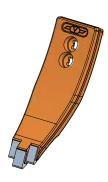
SuperMaxx **7200 0368** 





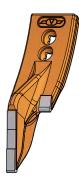
# VÄDERSTAD

#### > **CULTIVATOR**



**BAT222** Point | 80 mm

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



**BAT240**Point | 80 mm

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



**BAT75**Point | 50 mm

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



• BAT42 Point | 80 mm

TOP DOWN **498385** 



• BAT43 Point | 50 mm

TOP DOWN **498384** 



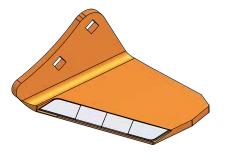
## VÄDERSTAD

#### **> CULTIVATOR**



• BAT38 (rechts)
Wing share 157,5 mm

Cultus, TOP DOWN **475000** 



• BAT37 (links) Wing share 157,5 mm

Cultus, TOP DOWN **475001** 

#### > SHALLOW CULTIVATOR



**BAT235** Spring tine | 35 mm

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



• BAT330 Spring tine | 25 mm

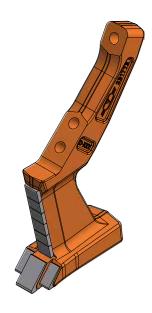
NZA **231775** 





# VÄDERSTAD

#### > SUBSOILER



**BAT329** Point | 60 mm

Opus, Top Down **231773** 

#### > STRIP TILL



• BAT105 Strip till share

Spirit **190101** 

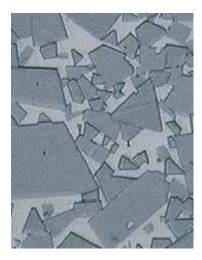


# TUNGSTEN CARBIDE IS NOT JUST TUNGSTEN CARBIDE

High levels of hardness in combination with optimum durability and alligned 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.



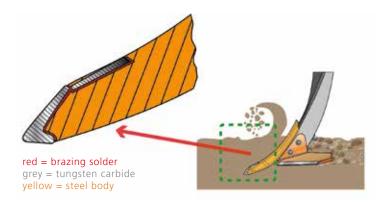




#### > BRAZING

#### TUNGSTEN CRBIDE 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 caarbide and steel

# \*> BETEK



SURFACE TECHNOLOGIES

- ROAD MILLING
- SURFACE MINING
- STABILISING



UNDERGROUND TECHNOLOGIES

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



ENVIRONMENTAL TECHNOLOGIES

- AGRICULTURE
- GRADER TOOLS
- FORESTRY & RECYCLING



INDUSTRIAL TECHNOLOGIES

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

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