



MADE IN GERMANY



INDUSTRIAL TECHNOLOGIES

# CRUSHING & MIXING







INDUSTRIAL  
TECHNOLOGIES

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



IN USE WORLDWIDE



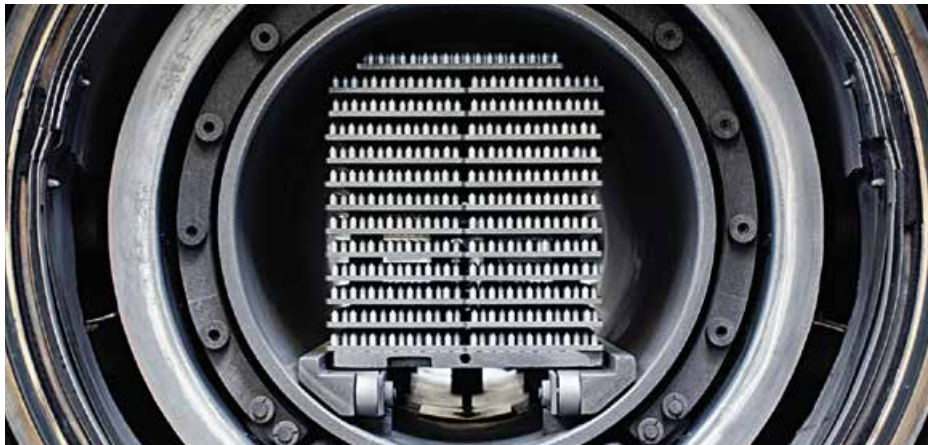
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# TUNGSTEN CARBIDE AND STEEL

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

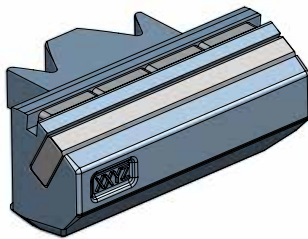




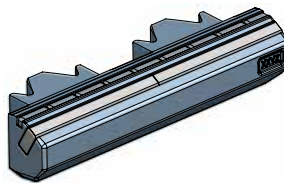
# WEAR PARTS FOR VSI CRUSHERS

## > SANDVIK

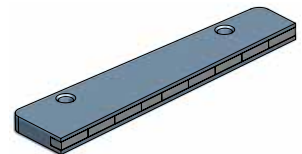
BETEK's tungsten carbide wear parts have been specifically developed for your VSI crusher. Optimized design techniques, together with brazed bonds between our tungsten carbide and the steel body result in a tremendous productivity gain as the parts last much longer than conventional ones.



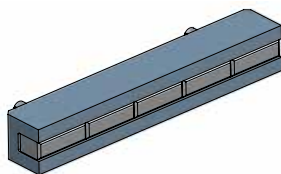
■ **BBM95**  
BBM 110x70x55  
ROTOR TIP 110 MM



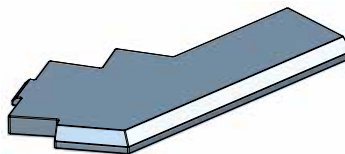
■ **BBM282**  
BBM 220x70x49  
ROTOR TIP 220 MM



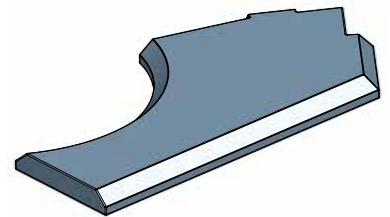
■ **BBM250**  
BBM 220x50x12  
TRAIL PLATE 220 MM



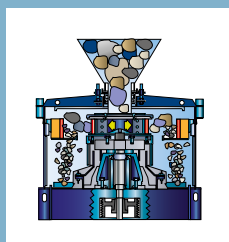
■ **BBM251**  
BBM 128x20x20  
BACK-UP TIP



■ **BBM278**  
BBM 350x171x20  
WEAR PLATE LOWER



■ **BBM279**  
BBM 360x181x20  
WEAR PLATE UPPER



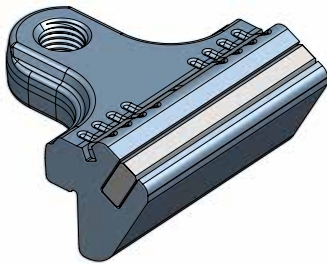
### ROTOR TIPS

BETEK tungsten carbide rotor tips are engineered specifically for each type of VSI crusher and protect the rotor edges against wear.

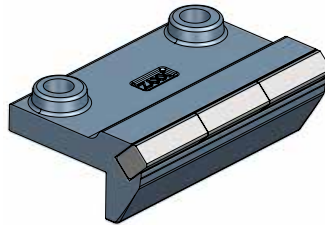
# WEAR PARTS FOR VSI CRUSHERS

## ► METSO | BARMAC

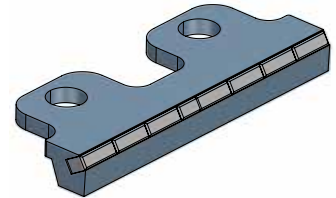
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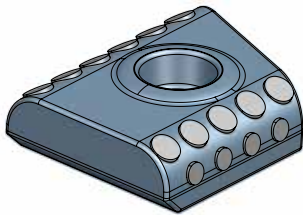
■ **BBM160**  
BBM 105x103x55A  
ROTOR TIP



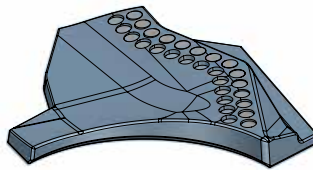
■ **BFZ123**  
BFZ 155x102x17  
ROTOR TIP



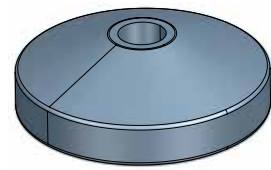
■ **BBM176**  
BBM 192x70x23  
BACK-UP TIPS LONG AND SHORT



■ **BBM183**  
BBM 104x97x37  
CAVITY WEAR PLATES  
OUTER AND MIDDLE



■ **BBM253**  
BBM 303x273x36  
WEAR PLATES UPPER  
AND LOWER



■ **BBM275**  
BBM 300x98  
DISTRIBUTOR PLATE  
HEAVY CONE

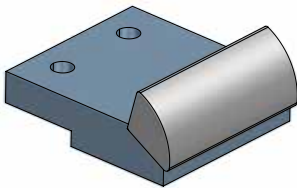




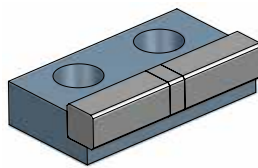
# WEAR PARTS FOR VSI CRUSHERS

## > SBM | MFL

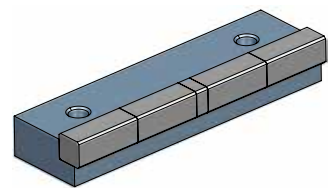
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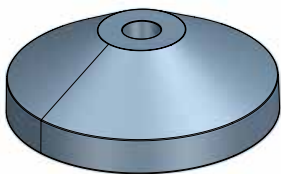
▪ **BBM339**  
BBM 125x107x59  
ROTOR TIP



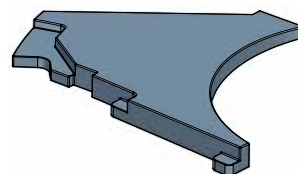
▪ **BBM314**  
BBM 115x65x30  
BACK-UP TIP



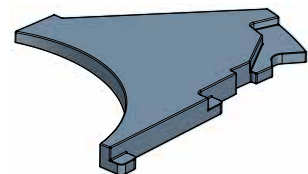
▪ **BBM315**  
BBM 220x65x35  
TRAIL PLATE



▪ **BBM259**  
BBM 429x143  
DISTRIBUTOR CONE



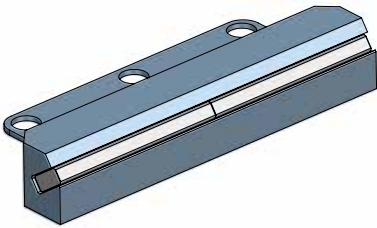
▪ **BBM260**  
BBM 434x343x35  
WEAR PLATE UPPER



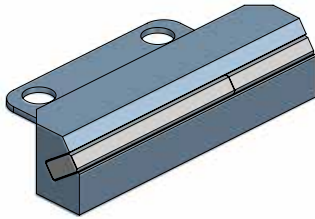
▪ **BBM261**  
BBM 434x343x35  
WEAR PLATE LOWER

► OTHERS

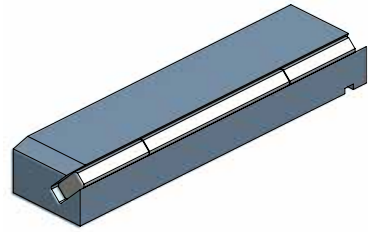
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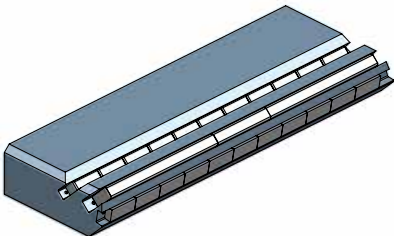
▪ **BBM99**  
BBM 224x78x38  
KPI-JCI



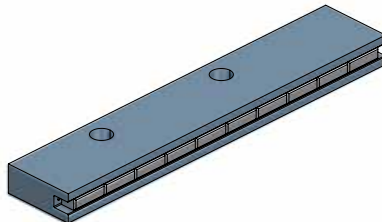
▪ **BBM150**  
BBM 157x78x38  
KPI-JCI



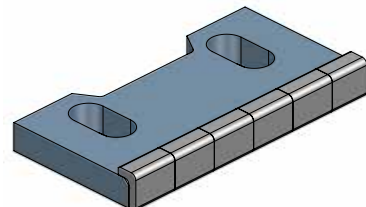
▪ **BBM221**  
BBM 214x50x30  
TEREX CEDARAPIDS



▪ **BBM305**  
BBM 300x100x40  
AUSPACTOR AND ORESIZER



▪ **BBM215**  
BBM 265x50x20  
AUSPACTOR



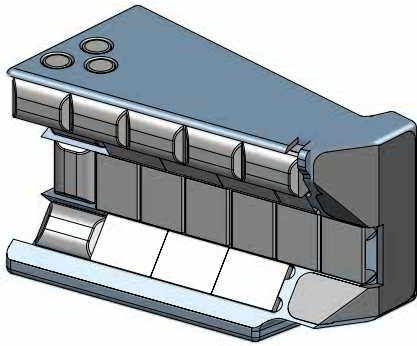
▪ **BBM64**  
BBM 102x53x13  
JÄCKERING



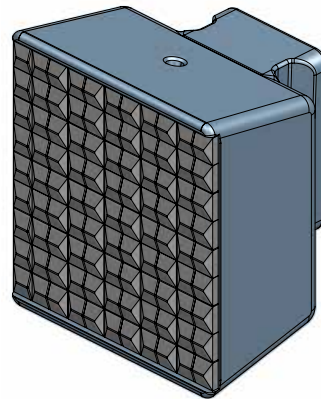
# WEAR PARTS FOR VSI CRUSHERS

## ► OPEN ROTORS

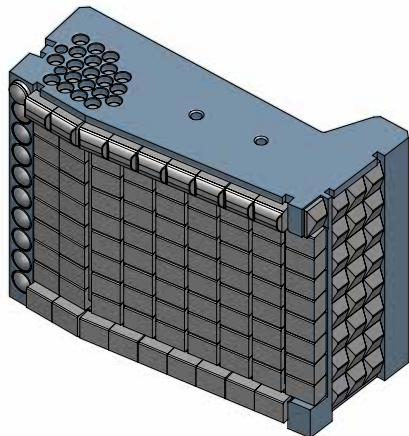
BETEK's impeller shoes for open VSI rotors equipped with tungsten carbide are a premium alternative to standard high-chrome or ceramic steel impellers.



■ **BBM1084**  
BBM 159x108x102



■ **BBM316**  
BBM 277x250x199



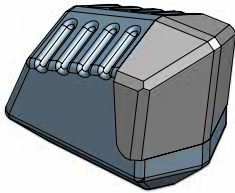
■ **BBM1066**  
BBM 313x240x167



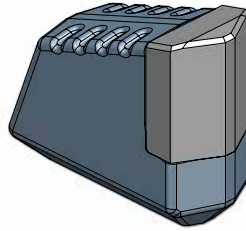
# WEAR PARTS FOR ROLL CRUSHERS AND SIZERS

## ► WELDING TEETH

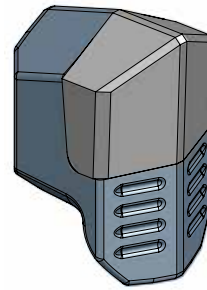
BETEK's tungsten carbide weld-on teeth for roll crushers are used to crush various minerals. The long-lasting, sharp cutting edges guarantee consistently high productivity for your crushing needs.



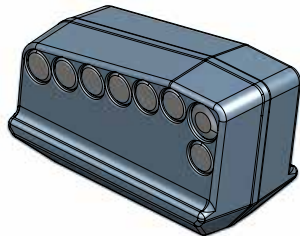
■ **BFZ326**  
BBM 116x97x45



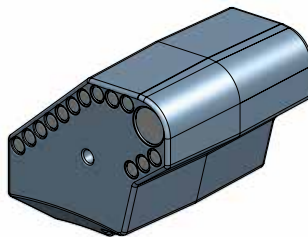
■ **BBM75**  
BBM 25x50



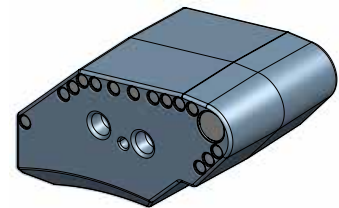
■ **BBM79**  
BBM 88x50x62



■ **BBM273**  
BBM 109x64x50



■ **BBM1006**  
BBM 164x15x1466



■ **BBM293**  
BBM 248x165x146

### CRUSHER TEETH

BETEK's crushing tooth has proven itself to be very efficient in various applications, including the crushing of limestone, coal and various types of ore. In order to ensure optimum results, the teeth can be fitted to suit any particular application and machine.

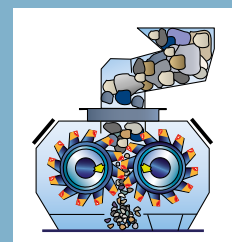






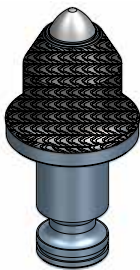
IMAGE SOURCE: Imperial Oil



# WEAR PARTS FOR ROLL CRUSHERS AND SIZERS

## ► ROUND SHANK CUTTER BITS

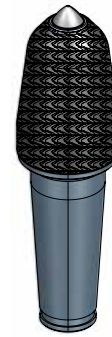
BETEK's round shank cutter bits come with additional tungsten carbide (WSc) hard facing. In highly abrasive applications, our premium hardfacing of the steel body guarantees much better performance over ferrocromium (FeCr) hardfacing.



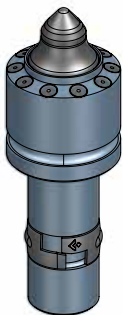
■ **BSR331P**  
BG38SW-25.7077  
WITH HARD FACING



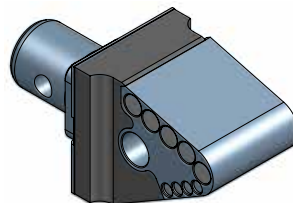
■ **BSR331P + BHR257**  
BG38SW-25.7077 + B38.7845  
HOLDER SYSTEM



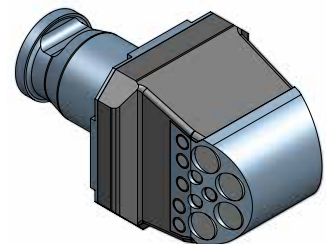
■ **BSR218P**  
BG52W-22.70122P  
WITH HARD FACING



■ **BGB66**  
B47GK100LK71/2



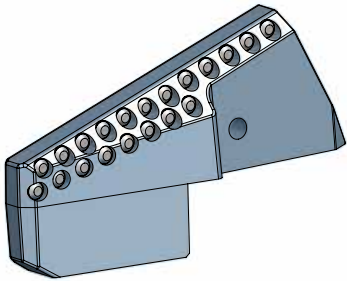
■ **BBM1064**  
BBM 327x164x151



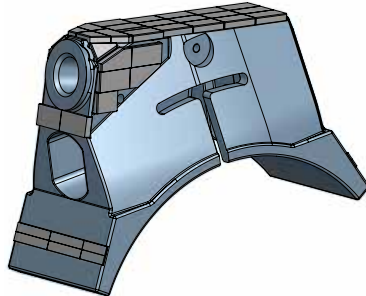
■ **BBM1009**  
BBM 261x148x148

► OTHERS

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■ **BBM447**  
BBM 616x355x179



■ **BBM416**  
BBM 755x524x298/R



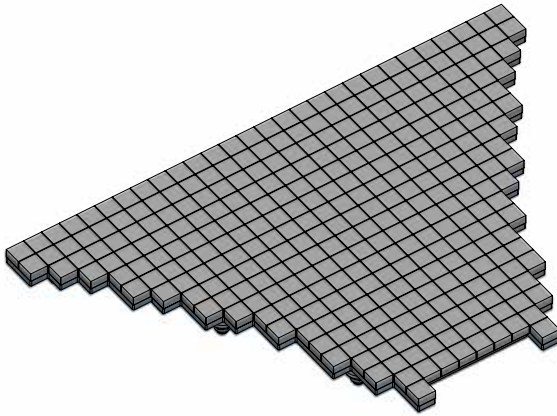
IMAGE SOURCE: TerraSource Global



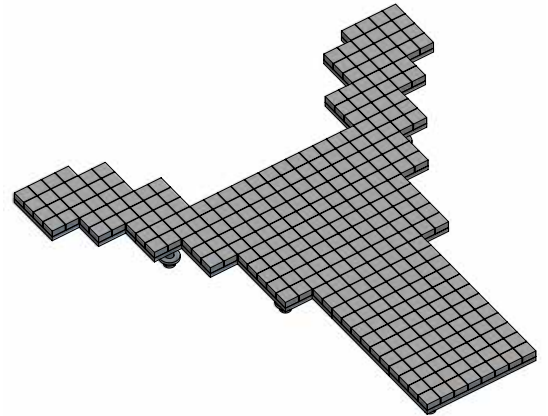
# WEAR PROTECTION SOLUTION

## ► WEAR PROTECTION SYSTEM

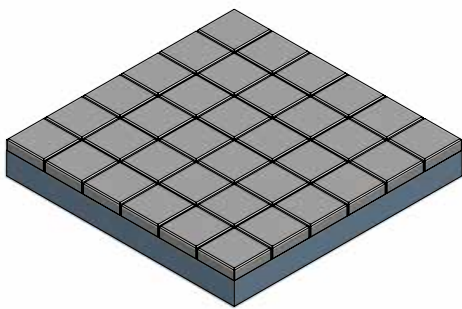
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■ **BBM1046**  
BBM 867x588x70



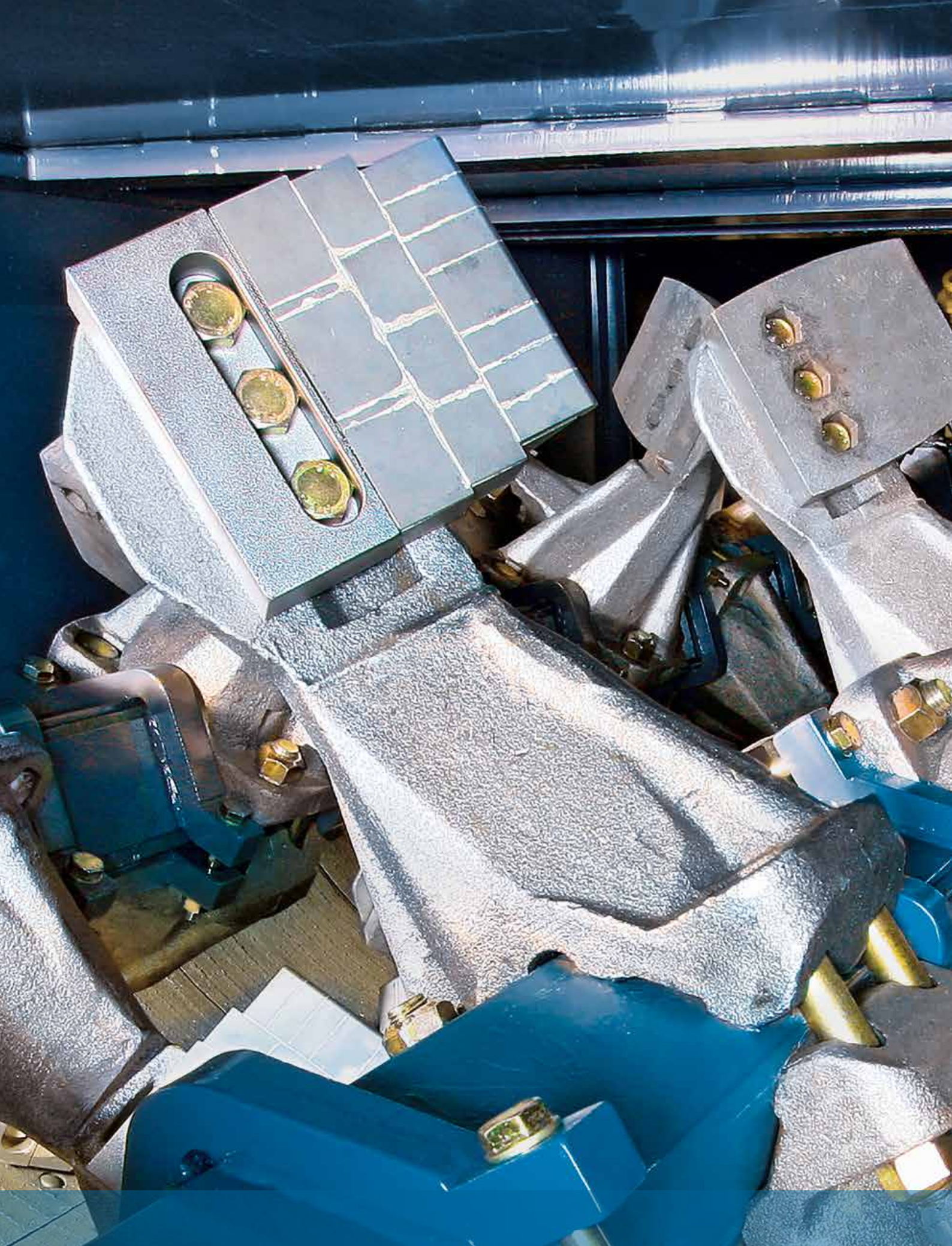
■ **BBM441**  
BBM 898x867x70



■ **BBM304**  
BBM 227x227x32



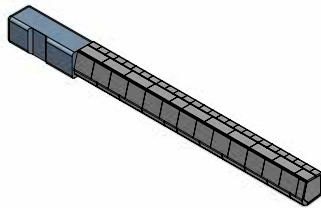




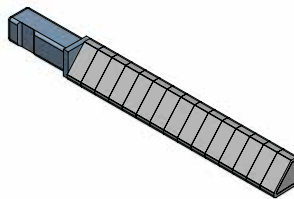


# WEAR PARTS FOR MIXERS AND VIBRATING TABLES

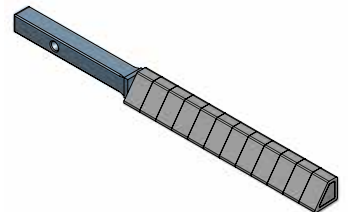
## > MIXERS



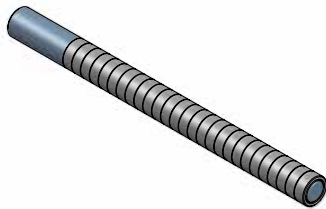
■ **BBM44**  
BBM 585x44x44/OL  
MIXING ARMS



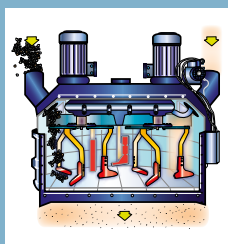
■ **BBM73**  
BBM 585x54x54  
MIXING ARMS



■ **BBM51**  
BBM 577x43x39/CL  
MIXING ARMS



■ **BBM45**  
BBM d=40x585  
MIXING ARMS

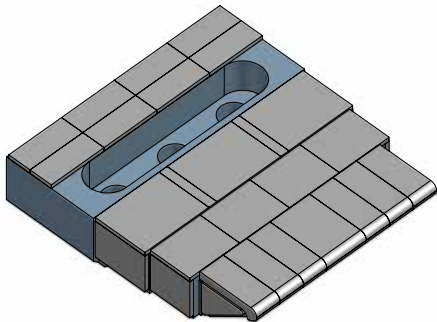


### MIXING ARMS

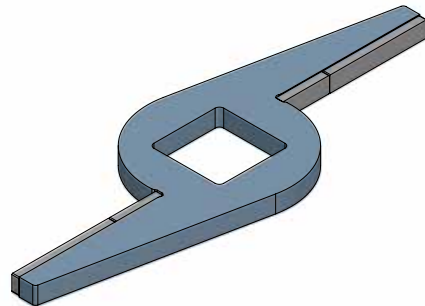
This tool is used as a blunger in batch mixing units and is protected against wear by BETEK tungsten carbide.

# WEAR PARTS FOR MIXERS AND VIBRATING TABLES

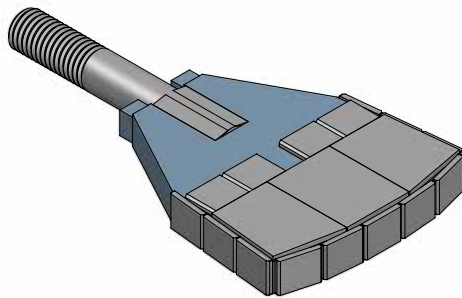
## > MIXERS



■ **BFS435**  
BFS 160x140x40  
WEAR PADDLE



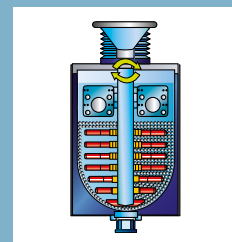
■ **BBM30**  
BBM 150x50x6  
MIXER PADDLE



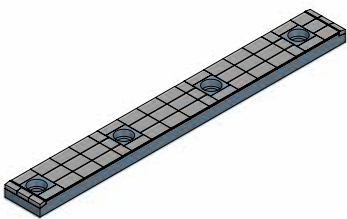
■ **BFS415**  
BFS 197x107x18  
MIXER BLADE

### MIXER PADDLE

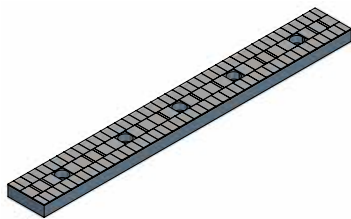
BETEK's mixer paddles are successfully used in mobile asphalt mixing plants.



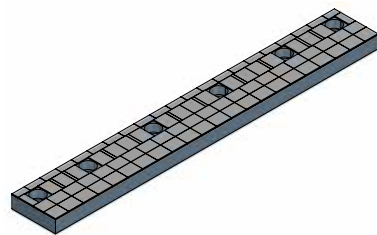
## ► VIBRATION BARS



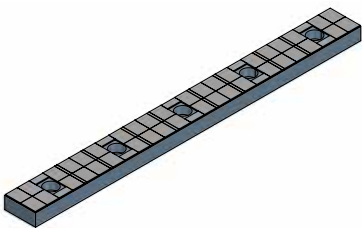
▪ **BBM70**  
BBM 525x60x20



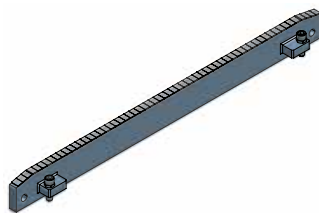
▪ **BBM111**  
BBM 850x100x30



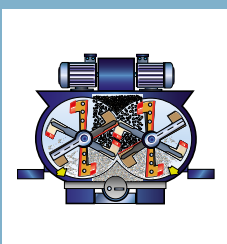
▪ **BBM112**  
BBM 740x100x30



▪ **BBM113**  
BBM 740x70x30

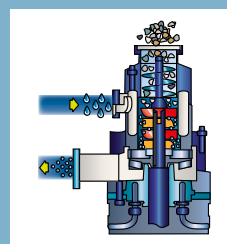


▪ **BBM80**  
BBM 1378x112x30



### MIXER BLADE

Our tungsten carbide equipped mixer blade is ideally suited for mixing and crushing very abrasive materials, such as quartz sand or ceramic raw materials.



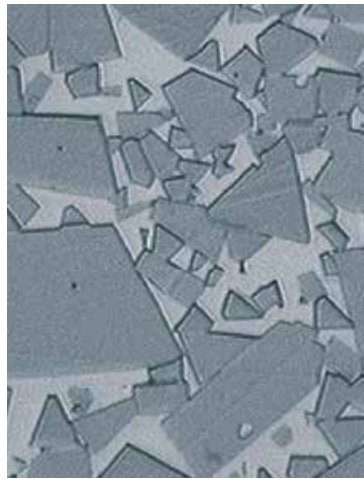
### WEAR PADDLE

BETEK tungsten carbide protects the paddle against wear caused by abrasive material.



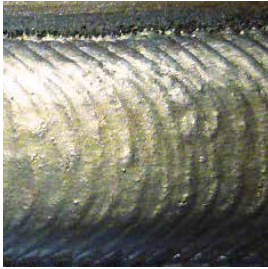
# TUNGSTEN CARBIDE IS NOT JUST TUNGSTEN CARBIDE

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.



# FLEXIBLE WEAR PROTECTION

## ► BeCoat® HARDFACING TYPES



FeCr  
hardfacing



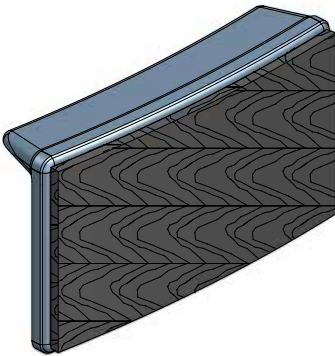
NiCr + FTC  
hardfacing



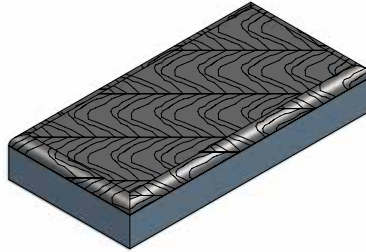
TC grit  
hardfacing

## ► BeCoat® ADVANTAGES

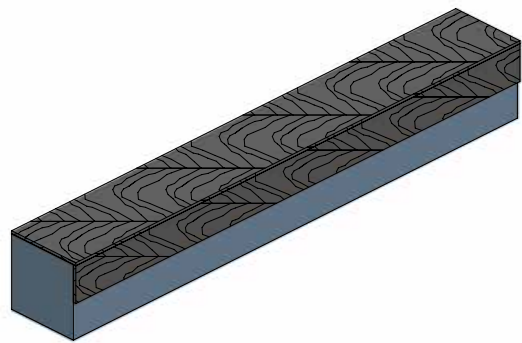
- Cost reduction due to less downtime
- Coating thickness ≤ 6mm
- Evenly distributed fused tungsten carbide (FTC) and low dilution
- Engineering and consulting
- Proven to withstand even the harshest environments



▪ **BA73**  
BA72x40x17  50



▪ **BBM386**  
BBM100x50x16  25



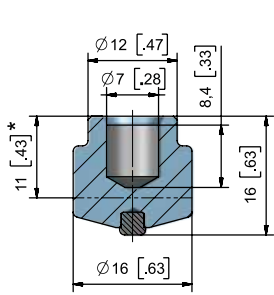
▪ **BBM391**  
BBM180x26x26  25

# EXTENSIVE WEAR PROTECTION

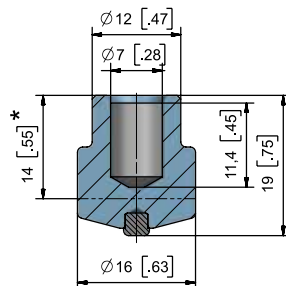


## > OVERVIEW

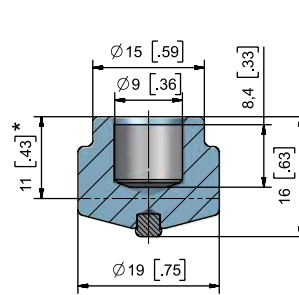
BETEK can provide the appropriate stud welding machine for the TungStuds wear protection system.



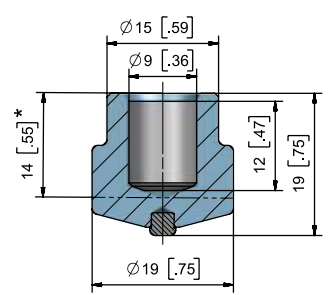
■ **BTS01** BTSD16/16



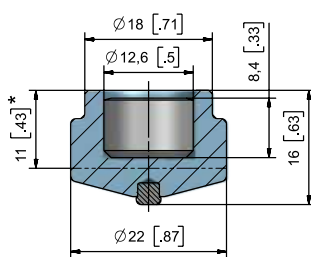
■ **BTS02** BTSD16/19



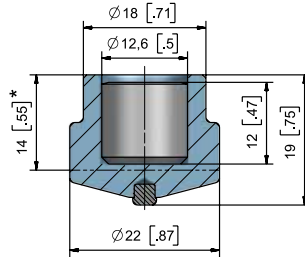
■ **BTS03** BTSD19/16



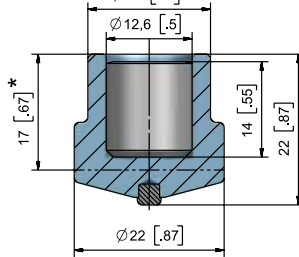
■ **BTS04** BTSD19/19



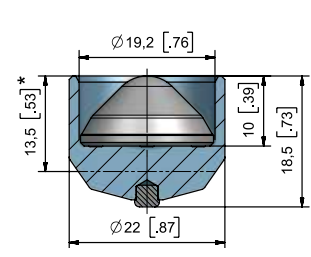
■ **BTS05** BTSD22/16



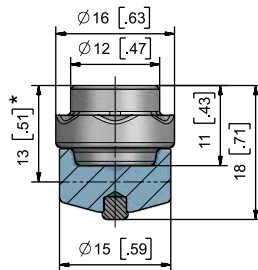
■ **BTS06** BTSD22/19



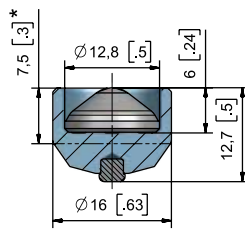
■ **BTS07** BTSD22/22



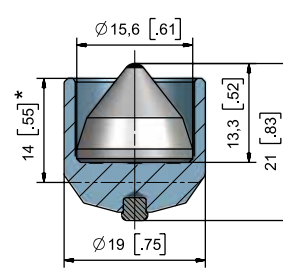
■ **BTS08** BTSD22/18,5SG



■ **BTS10B** BTSD16/18B



■ **BTS20** BTSD16/12,5SG



■ **BTS100** BTSD19/15,6SG



\*Height after welding





# ➤ BETEK



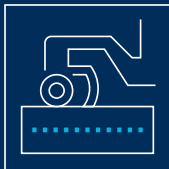
## SURFACE TECHNOLOGIES

- 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



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

➤ **SITEK**  
A BETEK BRAND



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