

Minería y  
construcción de túneles

*¡Ventaja para los  
expertos de la obra!*



**BETEK**

Avanzando!

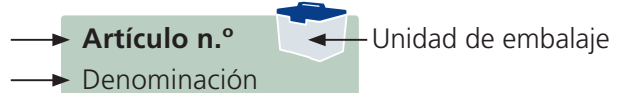


## Programa de herramientas

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En las ilustraciones de herramientas de las páginas siguientes encontrará las siguientes informaciones:



**Dimensiones: mm / pulgadas**

**Instrucciones de soldeo:**

[www.betek.de/es/productos/mineria-y-sonctruccion-de-tuneles-informacion.html](http://www.betek.de/es/productos/mineria-y-sonctruccion-de-tuneles-informacion.html)



### **SERVICE:**

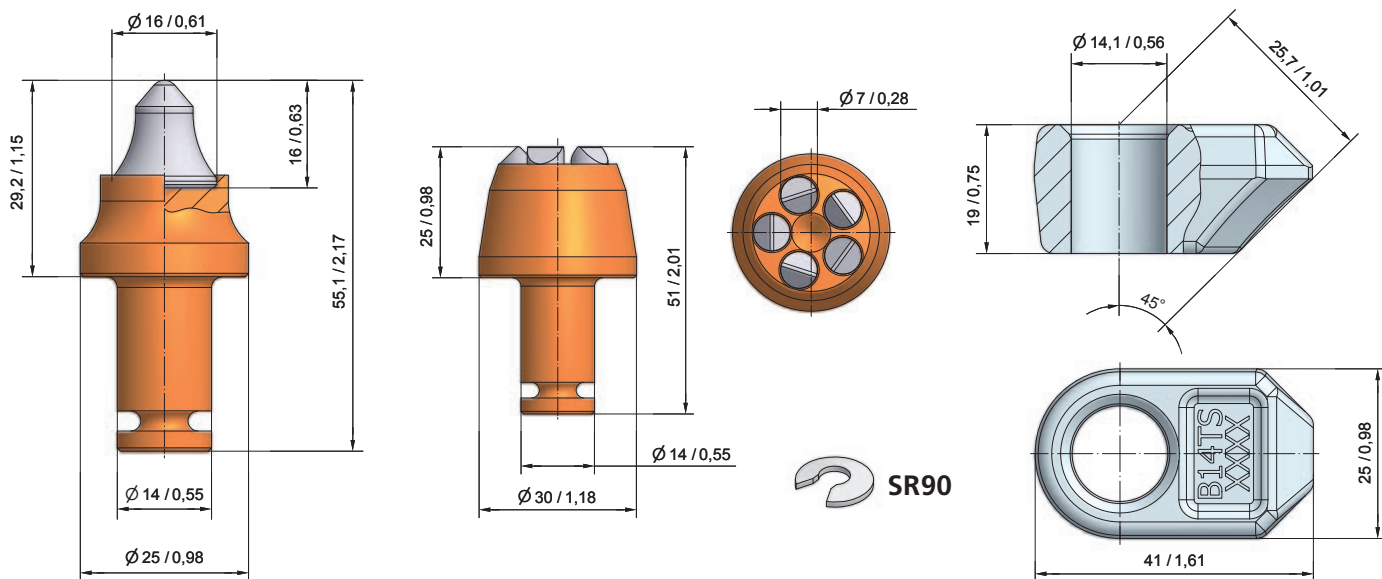
Alemania: [mining@betek.de](mailto:mining@betek.de)

Tel.: +49 (0) 74 22 / 5 65-592

EE. UU.: [mining-usa@betek.de](mailto:mining-usa@betek.de)



## Sistema de vástagos Ø 14 mm/0,55"



BM76

200

BM4-14/TS

BM69

150

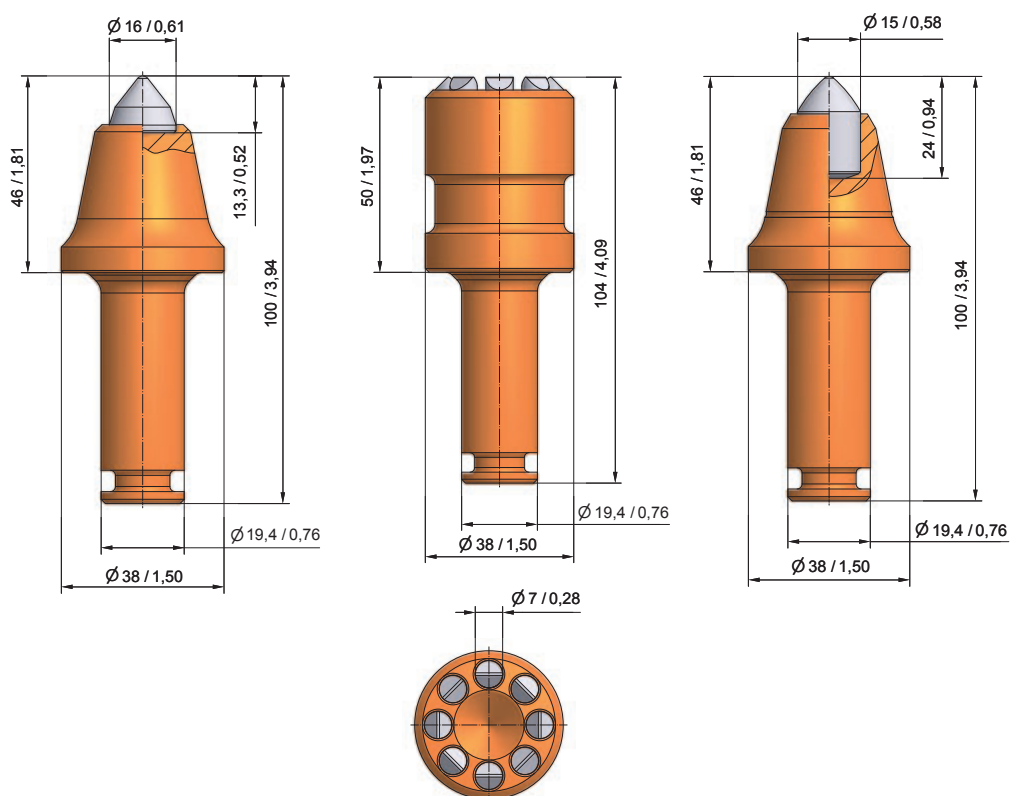
BM7-14/2F

BHR171

200

B14TS

## Sistema de vástagos Ø 19,4 mm/0,76"



BC26

40

B3KS

BSR63

20

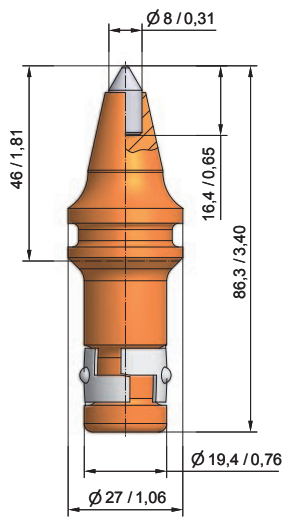
BG20F-07.3850

BC68

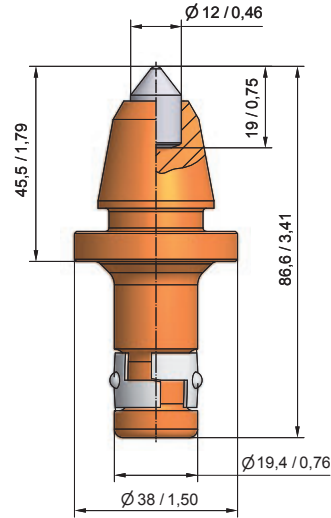
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BG20F-15.3846

**Sistema de vástagos Ø 19,4 mm/0,76"**

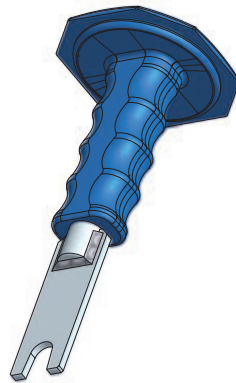
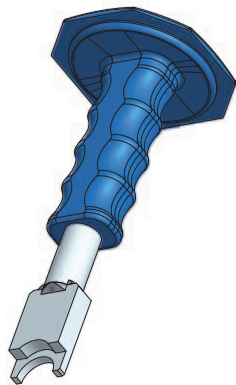


**BSK19**  
B1K8-K



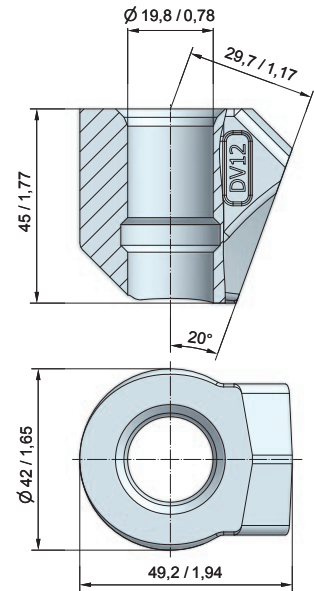
**BSK21**  
B1-12/38-K

**Sistema de vástagos Ø 19,4 mm/0,76"**



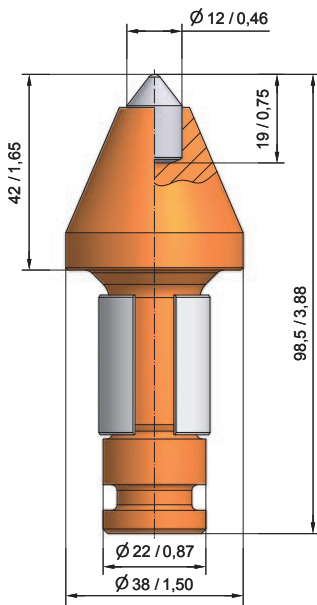
**BZ33**  
Herramienta de montaje

**BZ31**  
Herramienta de desmontaje



**BHR143**  
DV12/2

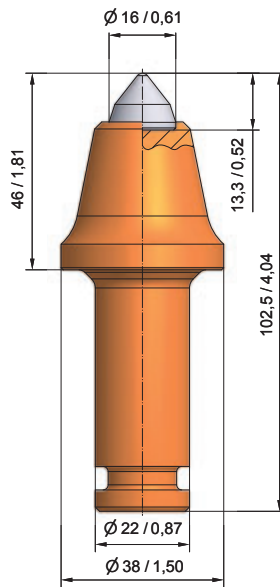
## Sistema de vástagos Ø 22 mm/0,87"



BC36

40

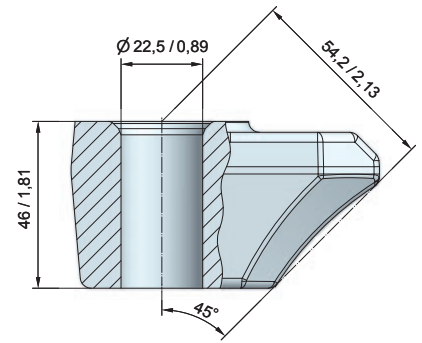
B1-12/22/SI26



BC33

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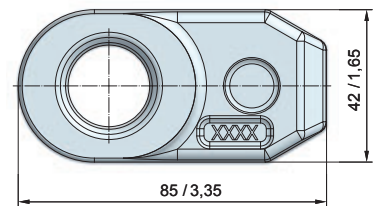
B3KS22



BHR120OL

20

B22S



85 / 3,35

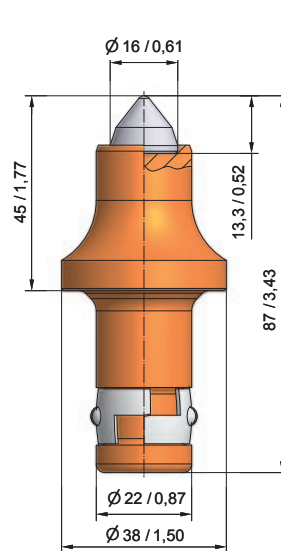
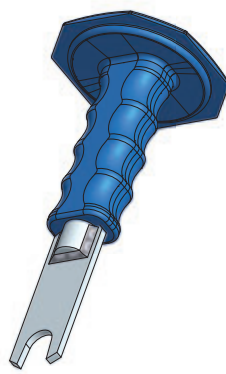
42 / 1,65



## Sistema de vástagos Ø 22 mm/0,87"



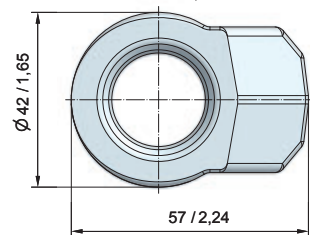
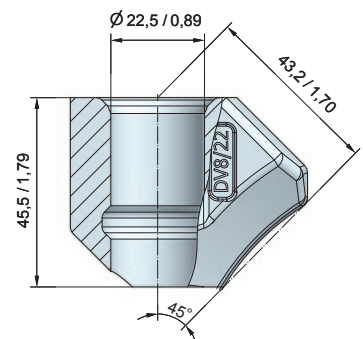
SI26



BC58

50

B3S/22-K



Ø 42 / 1,65

57 / 2,24

BHR176

40

DV8/22-K

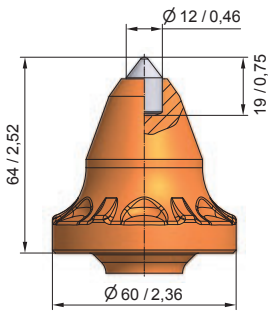
BZ41

Herramienta de montaje

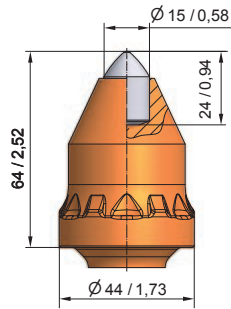
BZ32

Herramienta de desmontaje

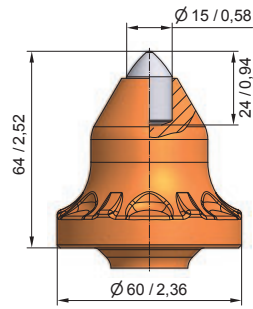
**Sistema de vástagos Ø 25 mm / 1"**



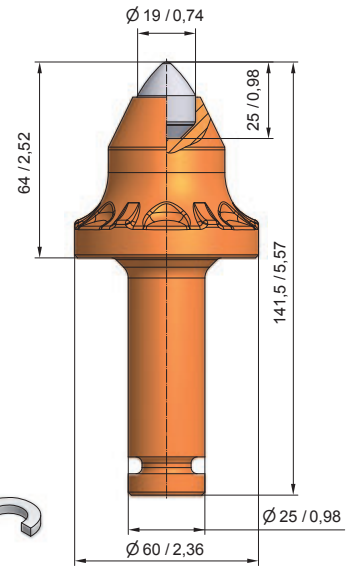
**BTK114**  
BG25F-12.6064



**BTK117**  
BG25F-15.4464



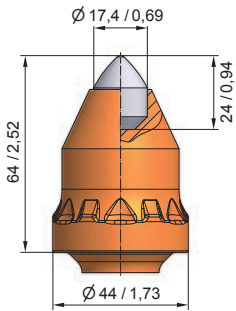
**BTK120**  
BG25F-15.6064



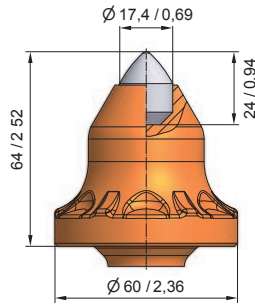
**BTK122**  
BG25F-19.6064



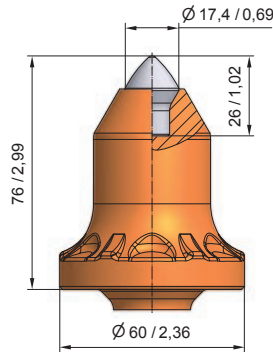
**SI79 / K**



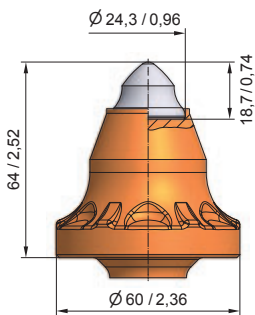
**BTK116**  
BG25F-17.4464



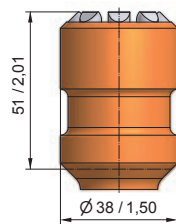
**BTK121**  
BG25F-17.6064



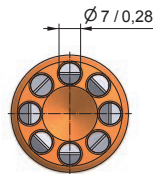
**BTK126**  
BG25F-70.6076A



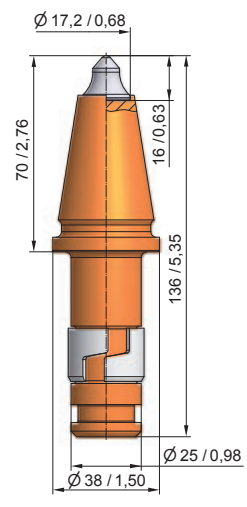
**BTK124**  
BG25F-68.6064



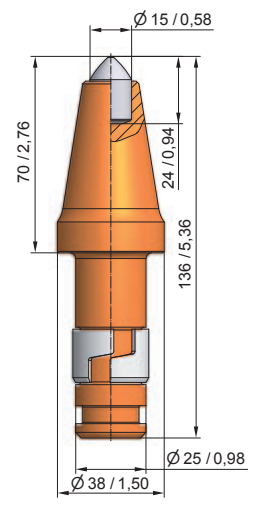
**BSR78**  
BG25F-07.3851



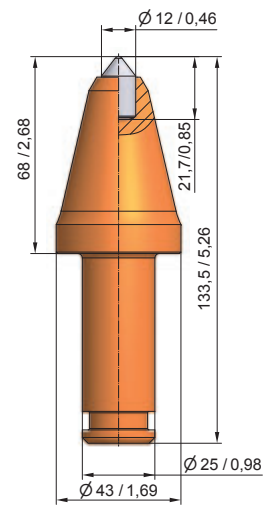
**Sistema de vástagos Ø 25 mm/1"**



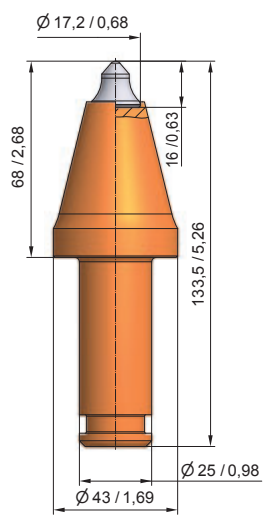
**BTK108**  
BG25HP-62.3870



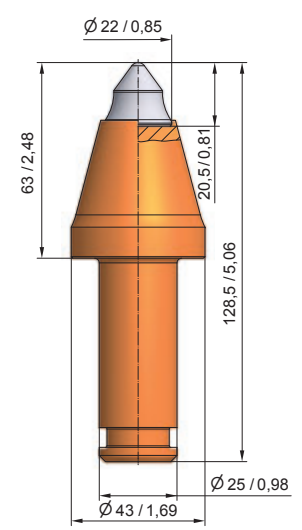
**BTK110**  
BG25HP-15.3870



**BTK53**  
B40K12



**BTK109**  
BG25P-62.4368

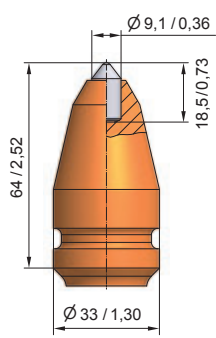


**BTK107**  
BG25P-67.4363

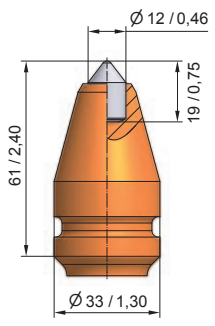




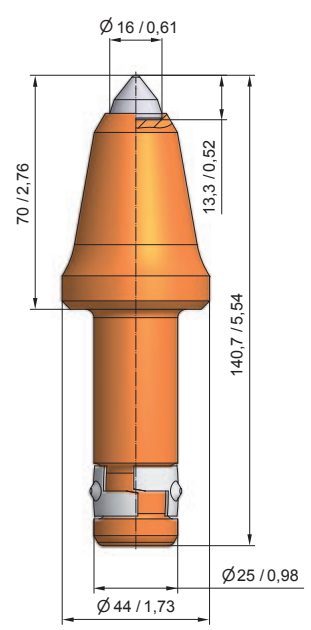
## Sistema de vástagos Ø 25 mm / 1"



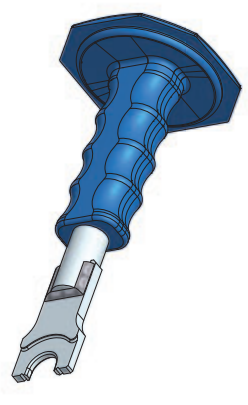
**BTK01**  
B40K9



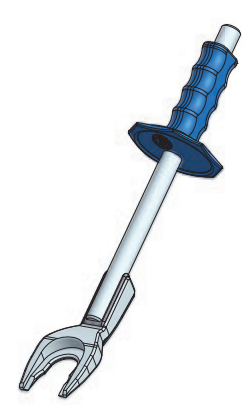
**BTK03**  
B40HDK12



**BTK99**  
B40/3-LSK



SI79 / K



**BZ37**  
Herramienta de montaje

**BZ36**  
Herramienta de desmontaje

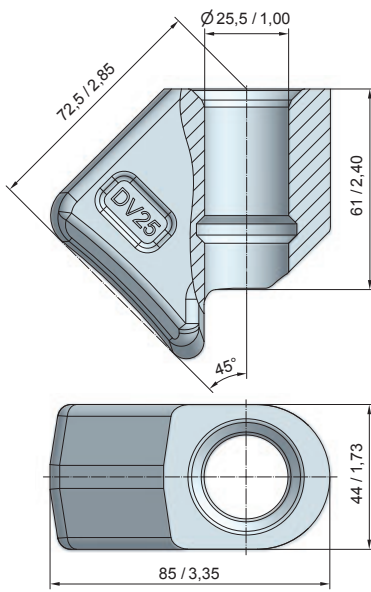
**BZ43**  
Extractor de broca

**BZ22**  
Tirador de broca



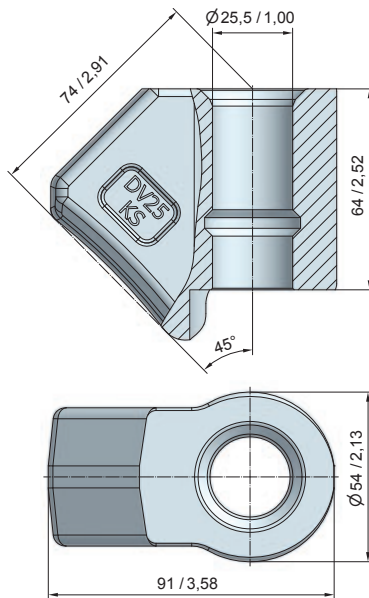


## Sistema de vástagos Ø 25 mm/1"



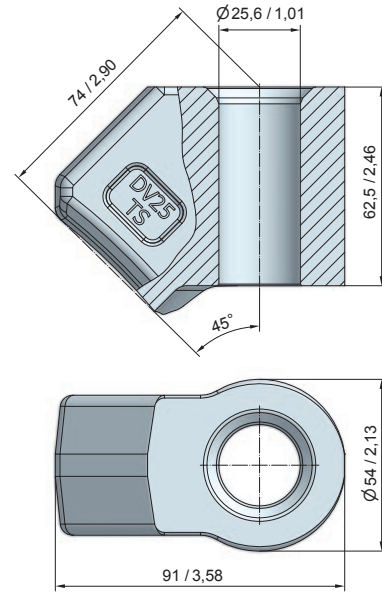
**BHR31**  
DV25

15



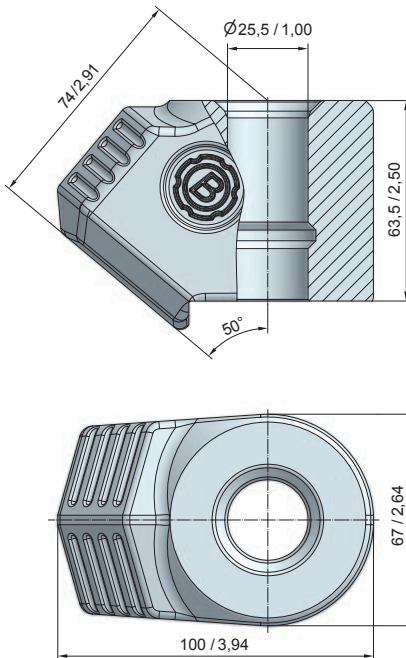
**BHR121**  
DV25KS

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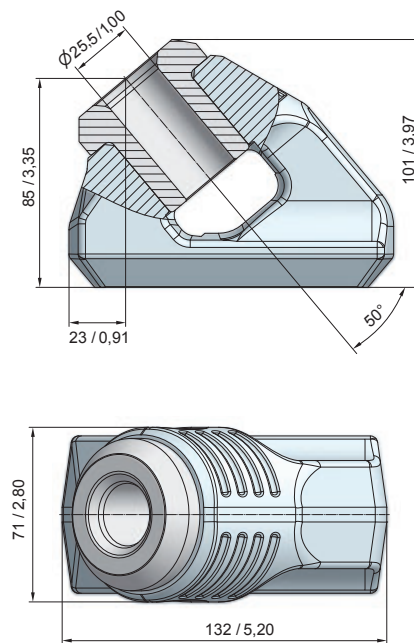
**BHR145**  
DV25TS

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**BHR186**  
B25.6750

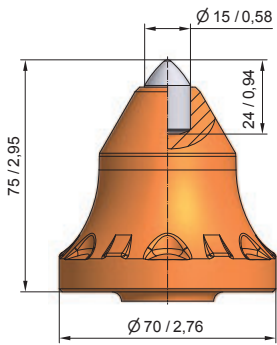
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**BHR185**  
B132-101-B

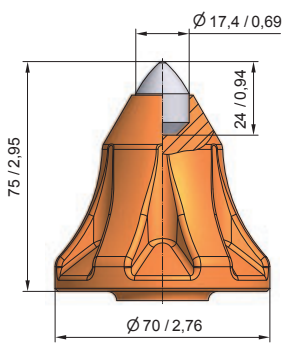
3

**Sistema de vástagos Ø 30 mm / 1,18"**



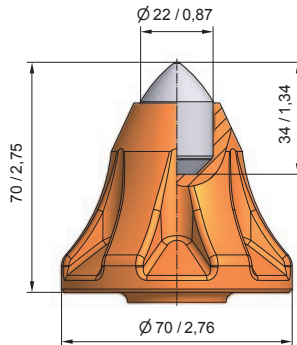
**BGF25**

BG30F-15.7075



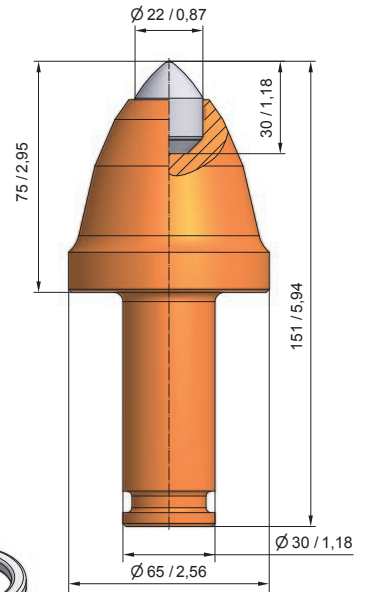
**BGF10**

B47GK17.5LK75-E/F



**BGF11**

B47GK22LK70-E/F

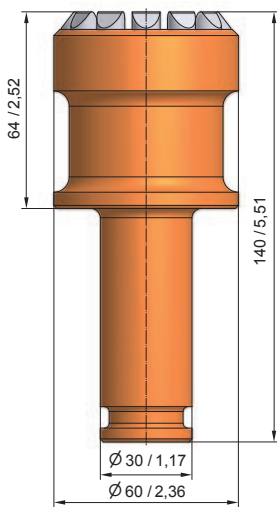


**BGF09**

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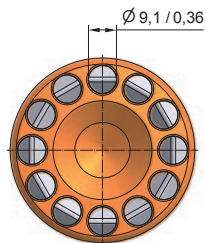


**SI35 / 22**

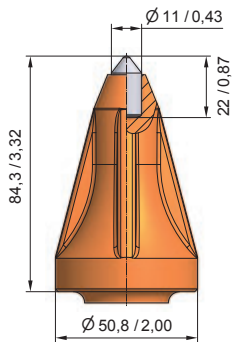


**BSR58**

BG30F-09.6064

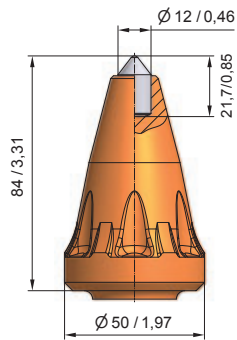


## Sistema de vástagos Ø 30 mm / 1,18"

**BGF14**

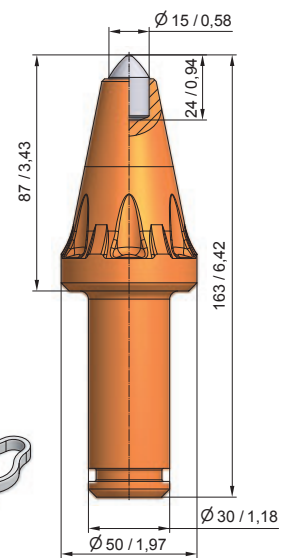
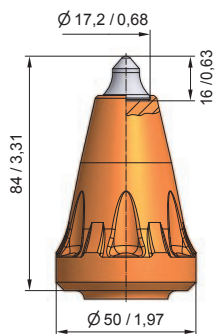
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**BGF21**

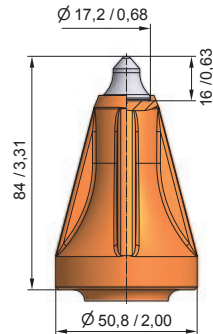
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**SI185****BGF19**

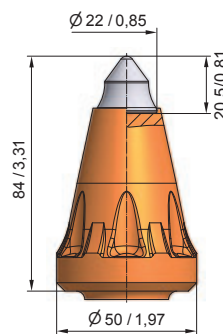
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**BGF17**

BG30P-62.5184

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**BGF26**

BG30P-74.5084

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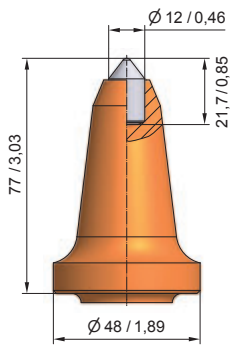
**BGF22**

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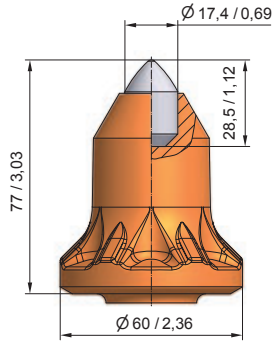


**Sistema de vástagos Ø 30 mm / 1,18" 82 mm Vástago**



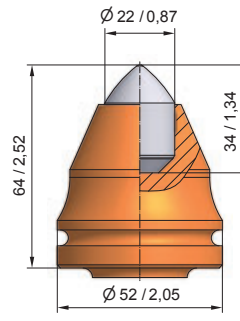
**BGK06**

B47GK12LK77-K



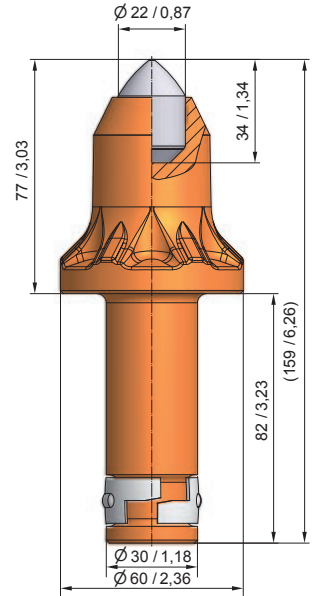
**BGK86**

B47GK17.5LK77-KE



**BGK38**

B47GK22-K

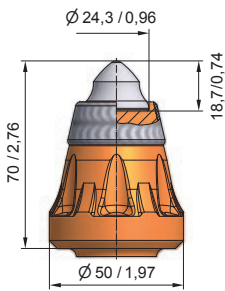


**BGK90**

BG30K-22.6077

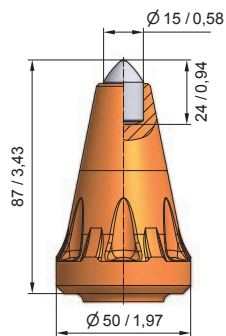


**Sistema de vástagos Ø 30 mm / 1,18" 76 mm Vástago**



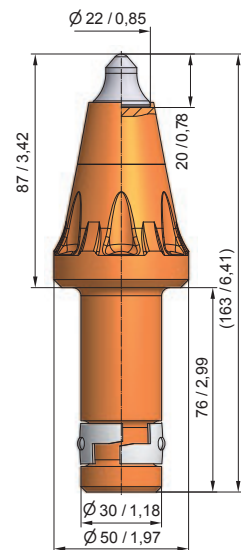
**BGK91**

BG30K-68.5070P



**BGK88**

BG30K-15.5087



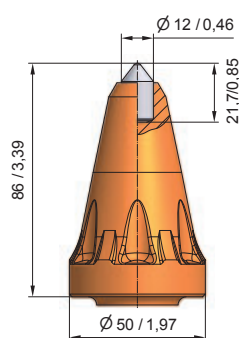
**BGK89**

BG30K-67.5087



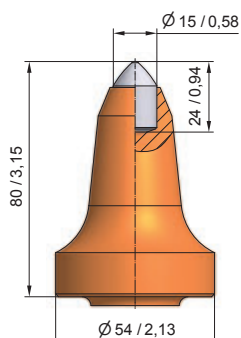


## Sistema de vástagos Ø 30 mm / 1,18"

**BGS101**

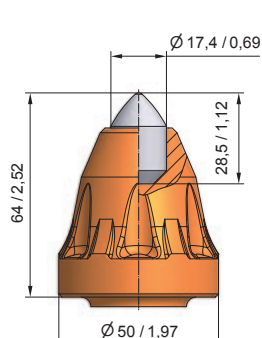
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BG30W-12.5086

**BGS95**

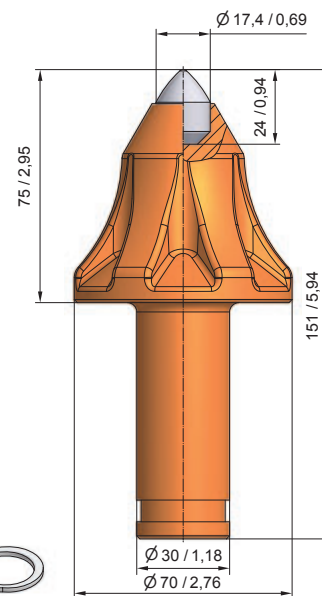
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**BGS102**

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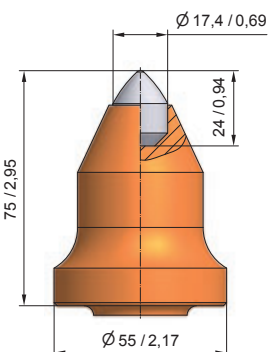
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**BGS89**

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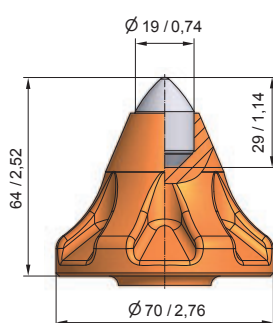
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SR83

**BGS80**

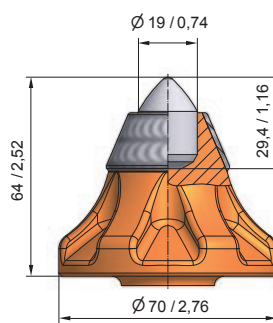
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**BGS88**

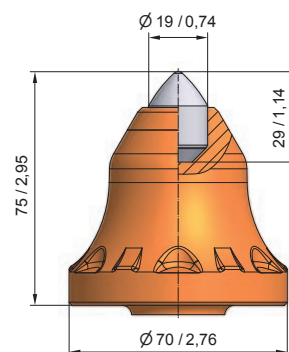
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B47GK19/70-E

**BGS84**

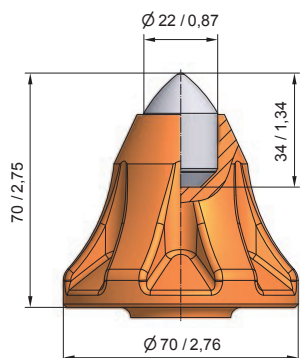
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B47GK19/70-P

**BGS100**

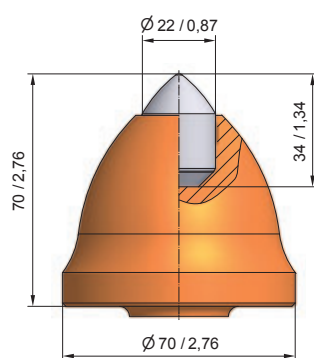
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**BGS90**

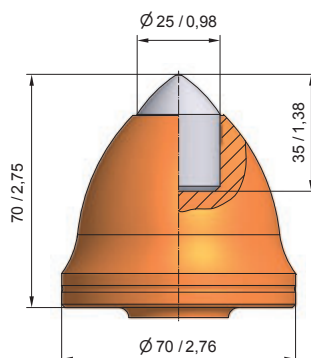
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B47GK22LK70-E

**BGS93**

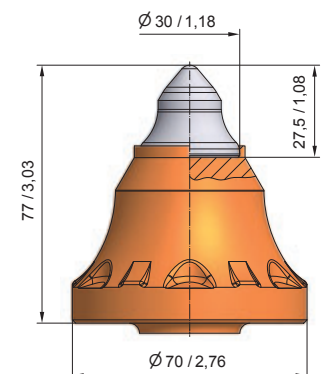
10

B47GK22LK70/70

**BGS16**

10

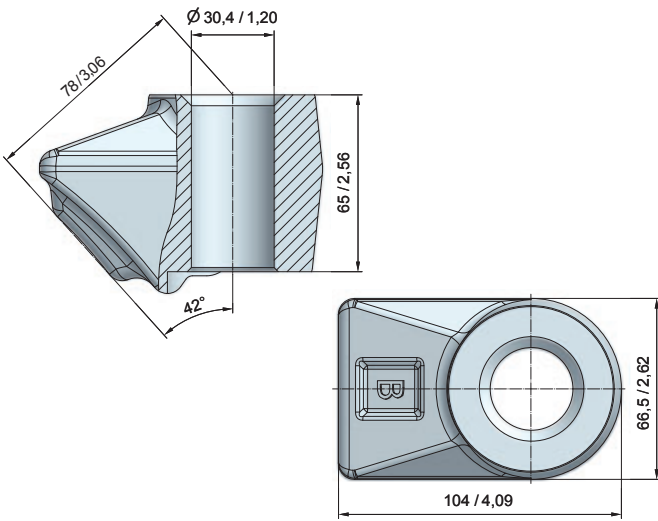
B47GK25LK70/70

**BGS103**

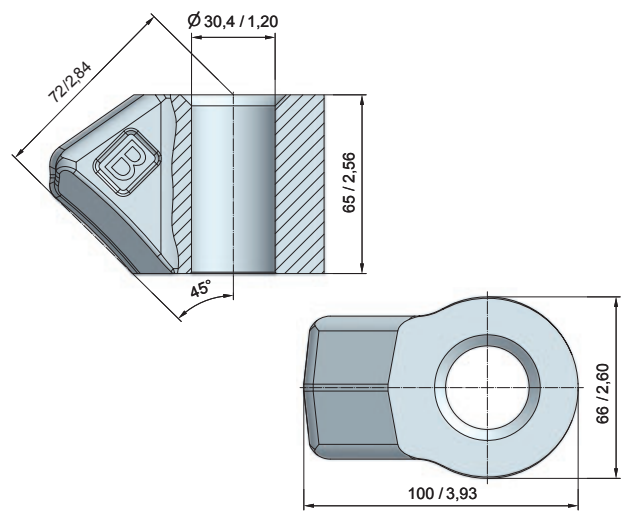
10

BG30W-69.7077

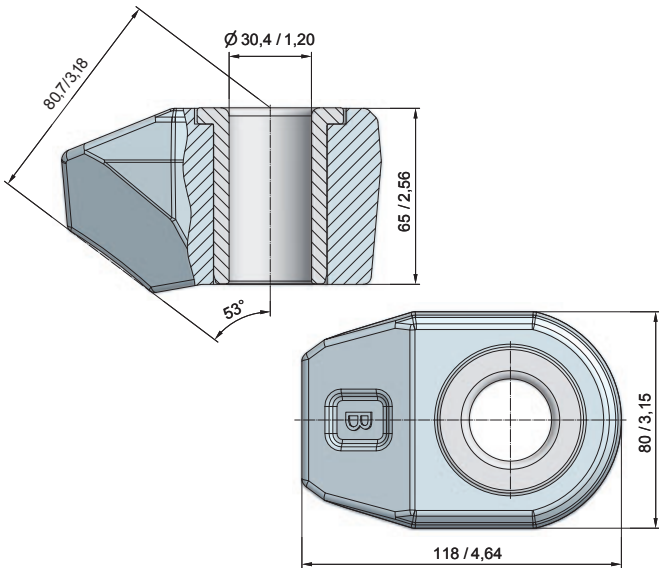
**Sistema de vástagos Ø 30 mm / 1,18"**



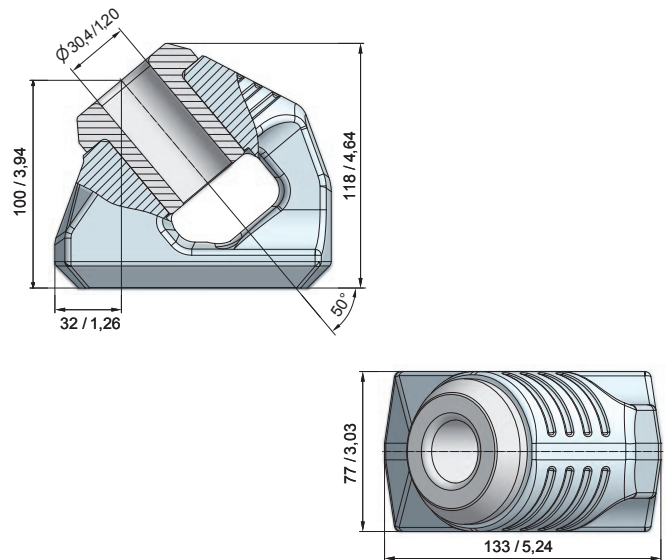
**BHR35**  
B30.65



**BHR94**  
B43G



**BHR75**  
B30.65H



**BHR183**  
B133-118-B



**BZ39**  
Tirador de cuña



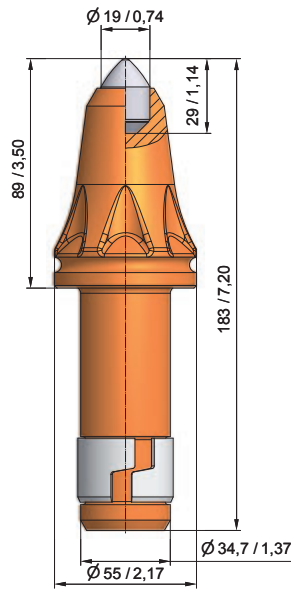
**BZ35**  
Herramienta de montaje



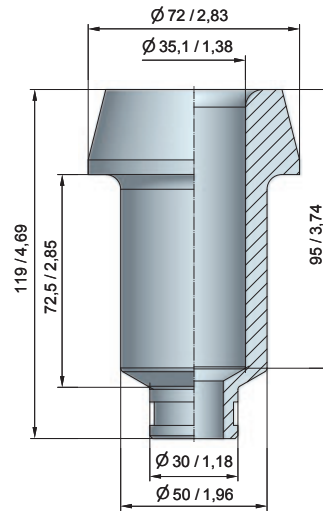
**BZ34**  
Herramienta de desmontaje



**Sistema de vástagos Ø 35 mm/1,38" Calibre 89 mm/3,5"**



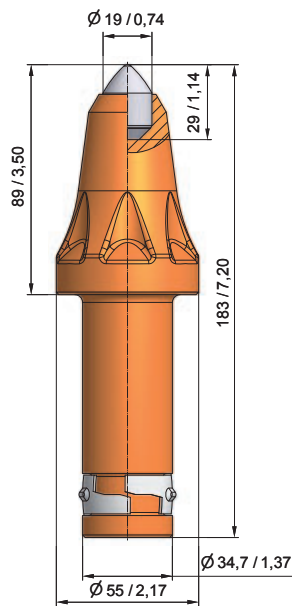
**BSR111**  
BG35H-19.5589A



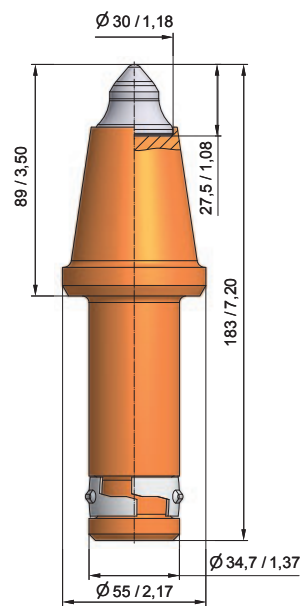
**BR71**  
BR49.8-35-119



**Sistema de vástagos Ø 35 mm/1,38" Calibre 89 mm/3,5"**



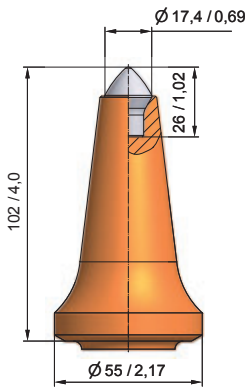
**BSR112**  
BG35K-19.5589



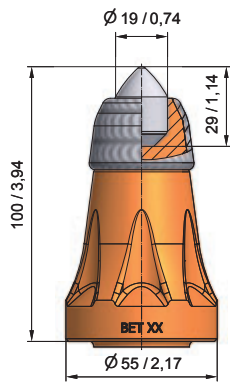
**BSR121**  
BG35K-69.5589



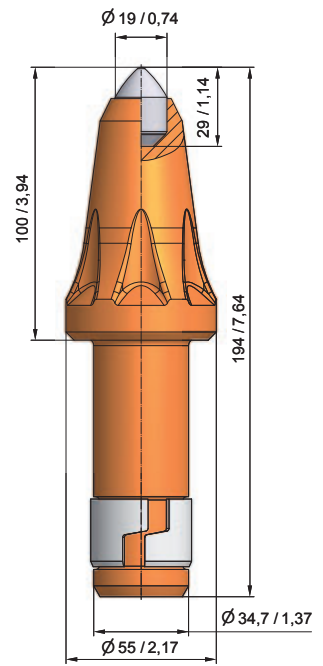
**Sistema de vástagos Ø 35 mm / 1,38" Calibre 100-102 mm / 4"**



**BSR150**  
BG35H-70.55102



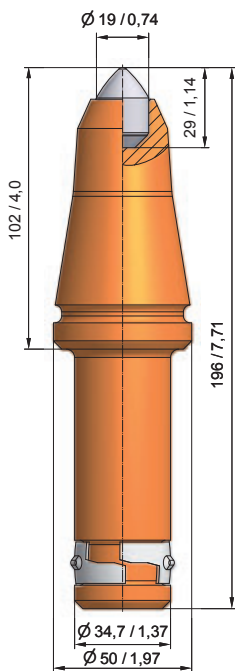
**BSR146**  
BG35H-19.55100P



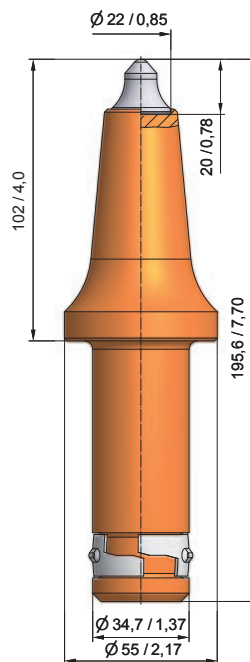
**BSR175**  
BG35H-19.55100



**Sistema de vástagos Ø 35 mm / 1,38" Calibre 100-102 mm / 4"**



**BSR97**  
BG35K-19.50102



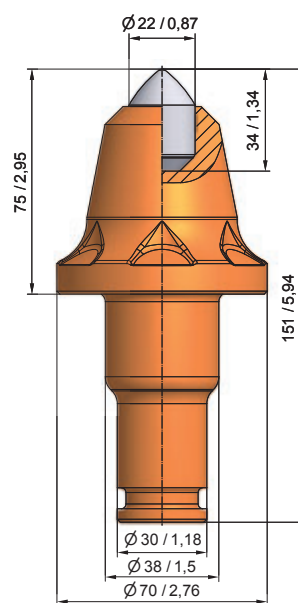
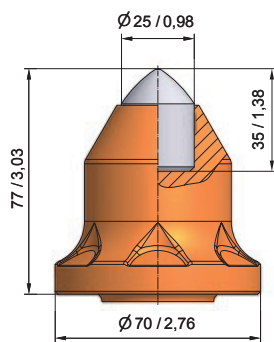
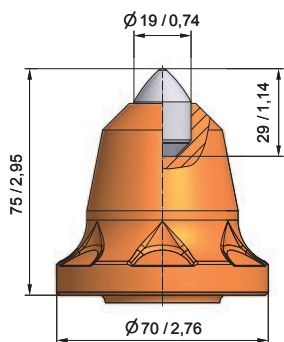
**BSR126**  
BG35K-67.55102



**BZ39**  
Tirador de cuña



**Sistema de vástagos Ø 38/30 mm - 1,5/1,18"**



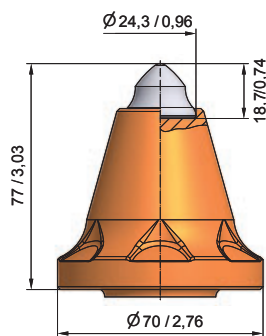
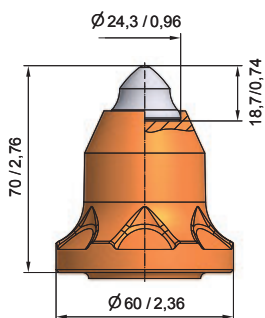
**BK15**  
B47K19/70-F



**BK10**  
B47K25-F



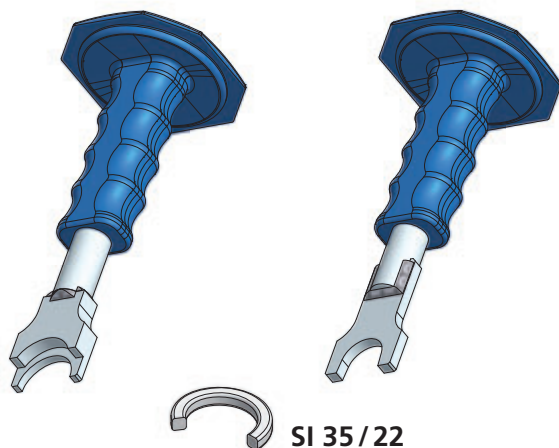
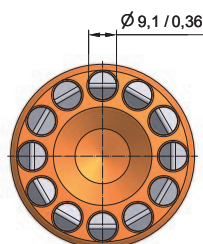
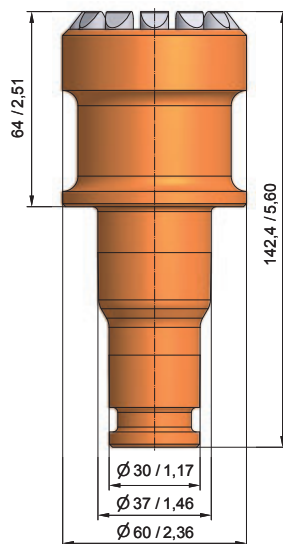
**BK17**  
B47K22/70-F



**BK13**  
B47K24LK70-FE



**BK16**  
B47K24/70-F



**SI 35/22**

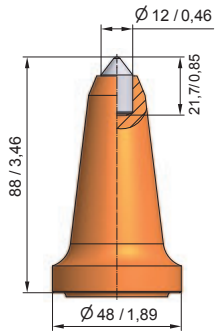
**BZ35**  
Herramienta de montaje

**BZ34**  
Herramienta de desmontaje

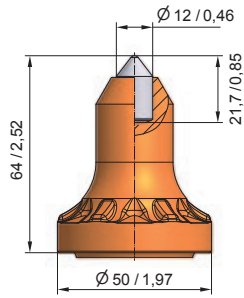
**BSR103**  
BS37F - 09.6064



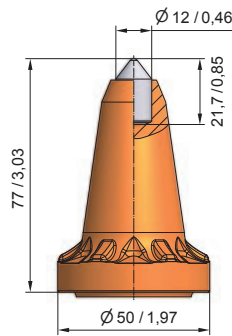
**Sistema de vástagos Ø 38/30 mm - 1,5/1,18"**



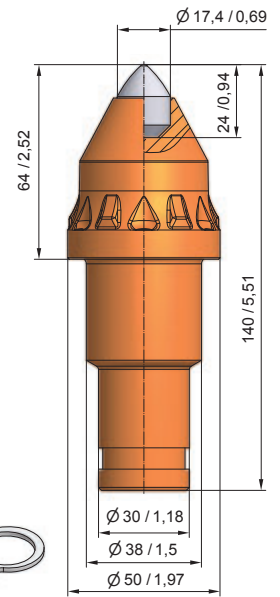
**BKS16**  
B46K12LK90



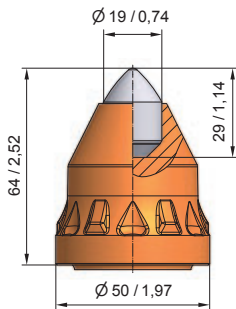
**BKS184**  
BS38W-12.5064



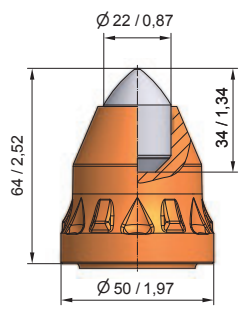
**BKS153**  
BS38W-12.5077



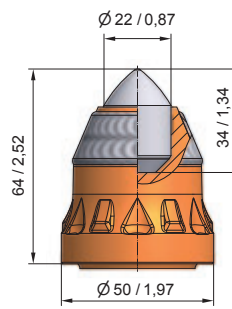
**BKS155**  
BS38W-17.5064



**BKS154**  
BS38W-19.5064



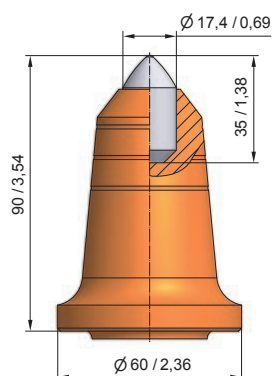
**BKS156**  
BS38W-22.5064



**BKS156/P**  
BS38W-22.5064P

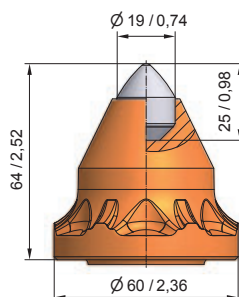


## Sistema de vástagos Ø 38/30 mm - 1,5/1,18"



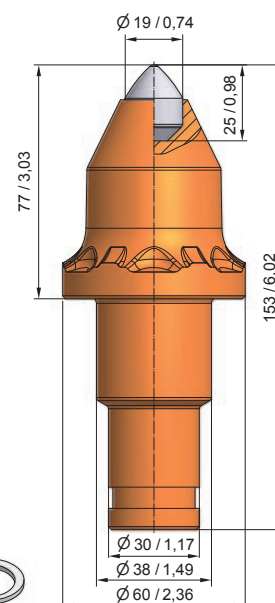
BKS157

W49K17/S



BKS151

BS38W-19.6064

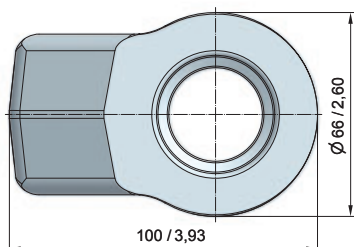
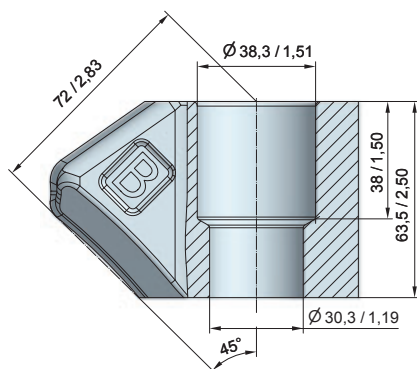


BKS172

BS38W-19.6077



SR83



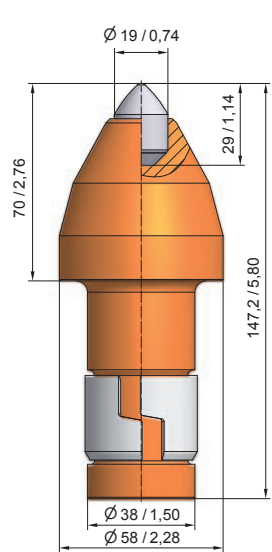
BHR38

B43H

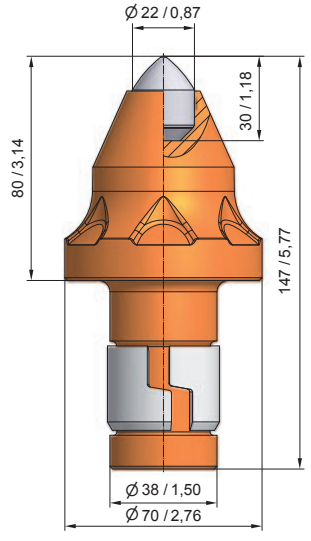




## Sistema de vástagos Ø 38 mm / 1,5"



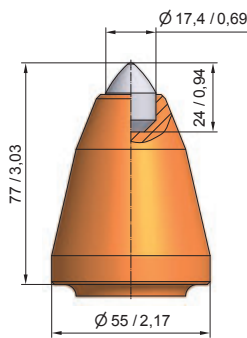
**BSR158**  
BG38H-19.5870



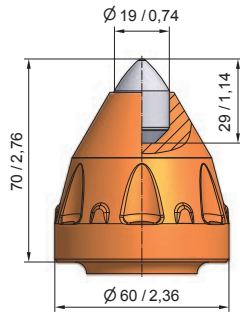
**BSR196**  
BG38H-22.7080



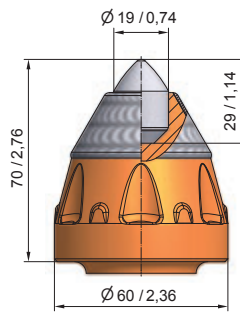
## Sistema de vástagos Ø 38 mm / 1,5"



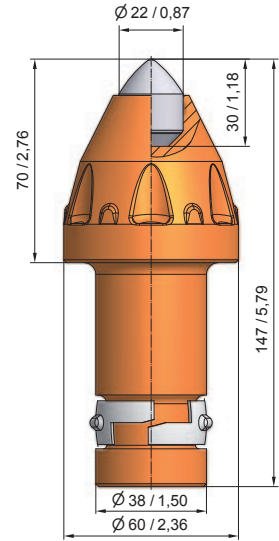
**BSR94**  
BG38K-17.5577



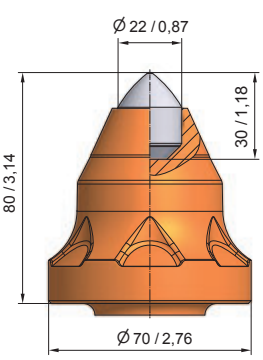
**BSR188**  
BG38K-19.6070



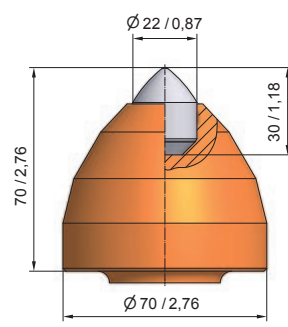
**BSR202**  
BG38K-19.6070P



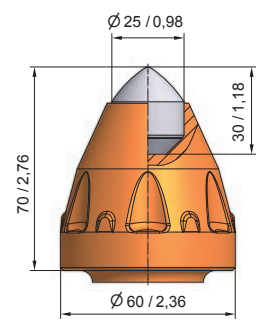
**BSR189**  
BG38K-22.6070



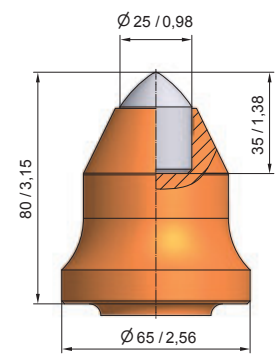
**BSR125**  
BG38K-22.7080A



**BSR133**  
BG38K-22.7070



**BSR190**  
BG38K-25.6070

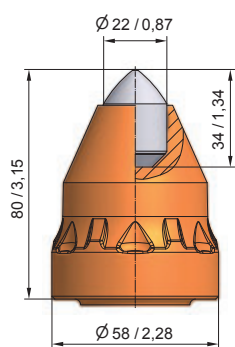


**BSR160**  
BG38K-25.6580

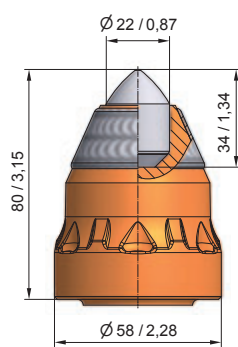




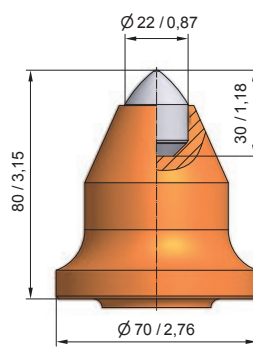
## Sistema de vástagos Ø 38 mm / 1,5" Longitud del portaherramienta 65 mm / 2,6"

**BSR174**

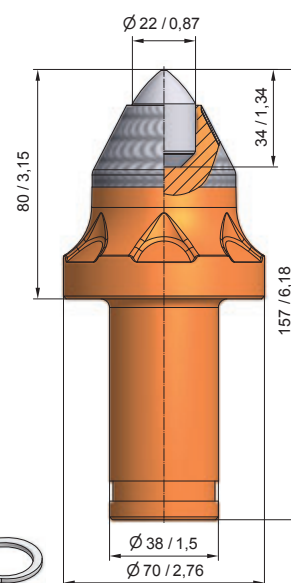
BG38W-22.5880A

**BSR180**

BG38W-22.5880PA

**BSR140**

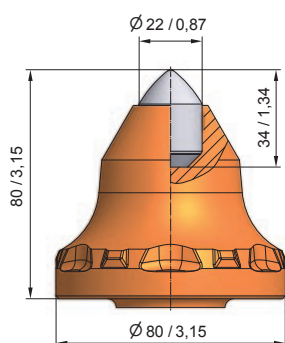
BG38W-22.7080

**BSR199**

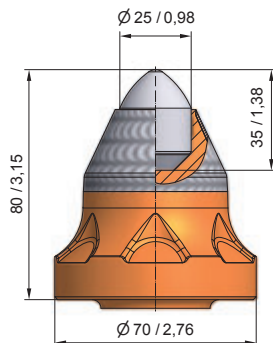
BG38W-22.7080AP



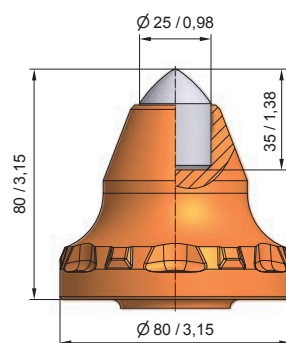
SR65 / 2.5

**BSR198**

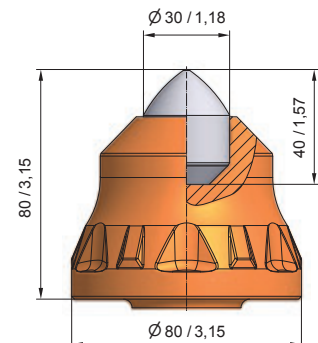
BG38W-22.8080A

**BSR200**

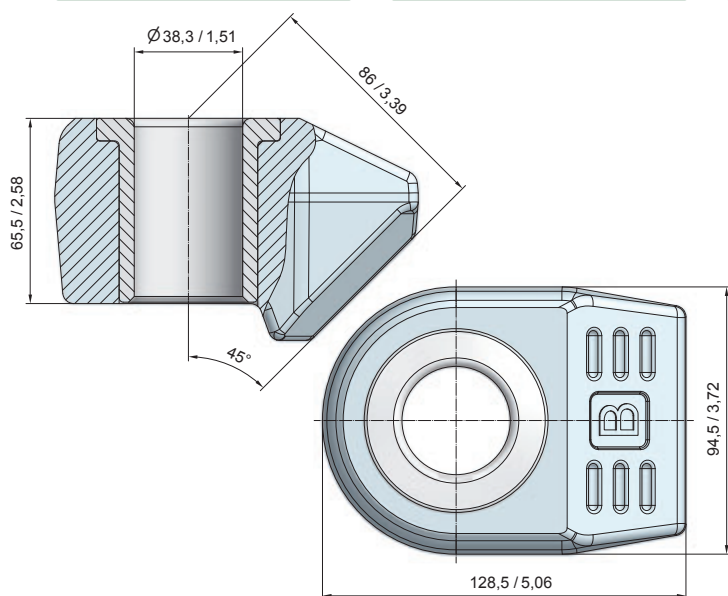
BG38W-25.7080P

**BSR201**

BG38W-25.8080A

**BSR197**

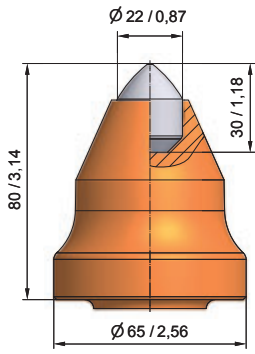
BG38W-30.8080A

**BHR169**

B38 H

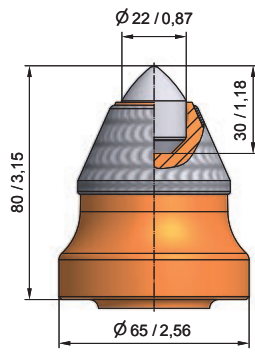


**Sistema de vástagos Ø 38 mm/1,5" Longitud del portaherramienta 75 mm/3,0"**



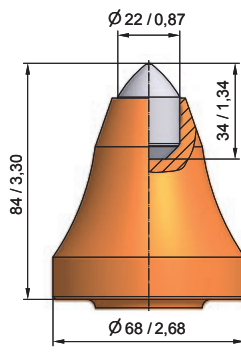
**BSR114**

BG38W-22.6580A



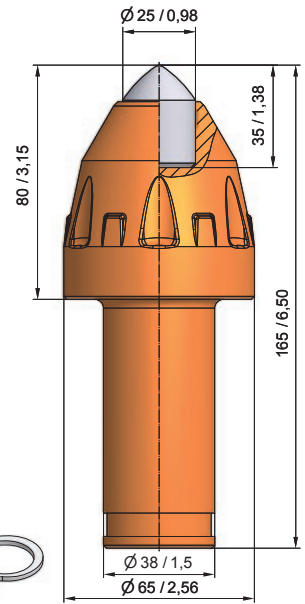
**BSR131**

BG38W-22.6580P



**BSR05**

BG38W-22.6884



**SR65 / 2.5**

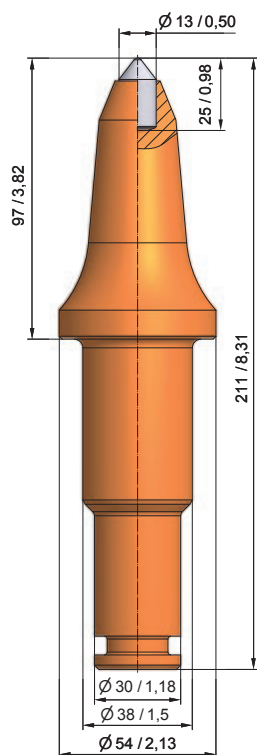


**BSR193**

BG38W-25.6580A



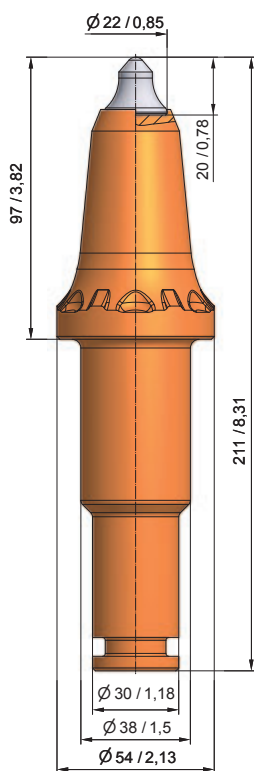
## Vástago especial



BKF14

B47K13LK97L

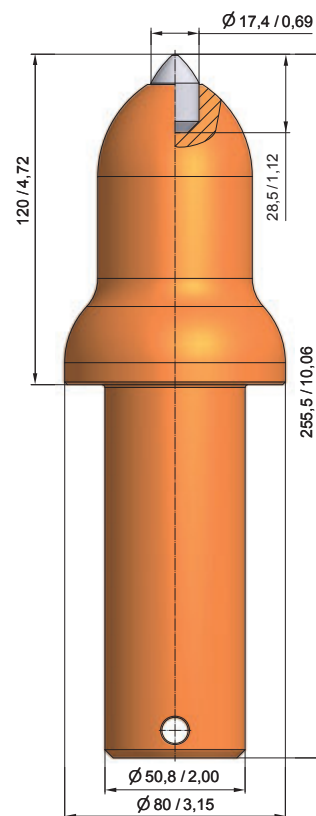
8



BKF23

BS38F-67.5497

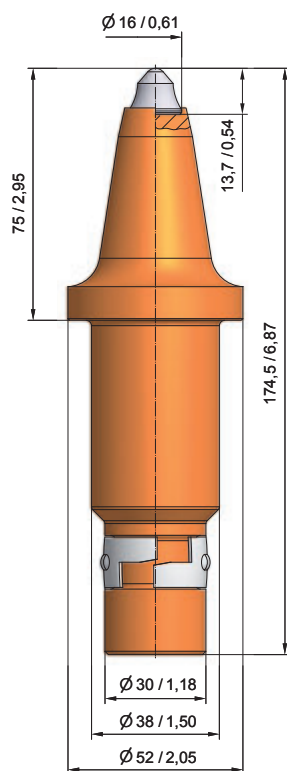
8



BSR109

BG51S-17.80120

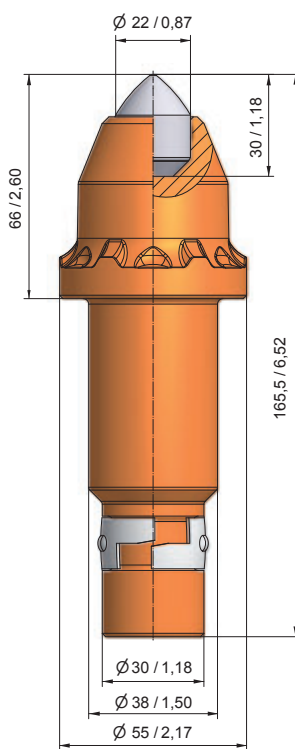
5



BLK10

B46K2L

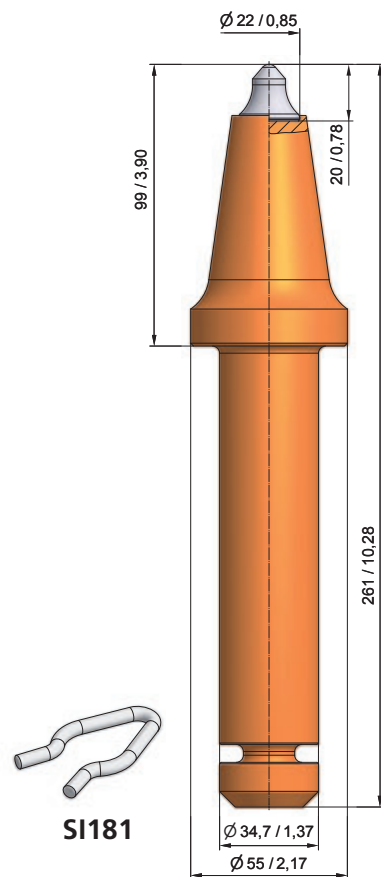
10



BLK12

BS38K-22.5566

10



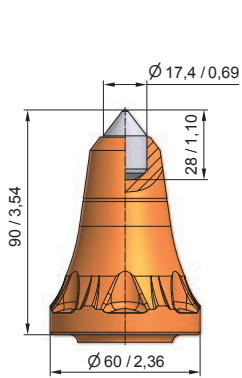
SI181

BSR153

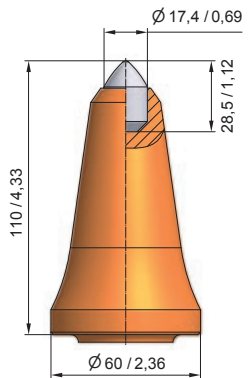
BG35X-67.5599

5

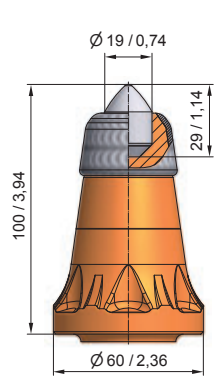
**Sistema de vástagos Ø 38 mm / 1,5" Krummenauer**



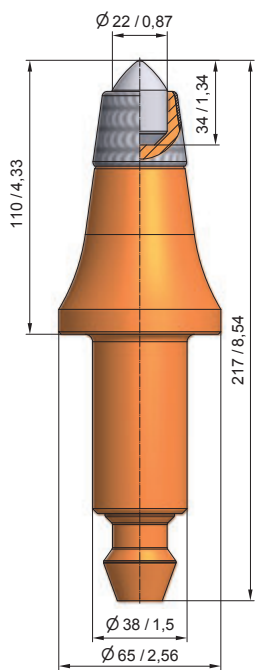
**BKR27**  
BG38X-17.6090



**BKR07**  
BKR17.5LK110/S38

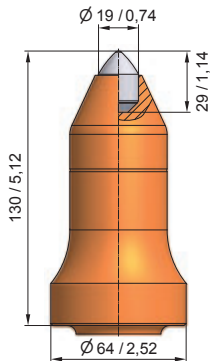


**BKR25**  
BKR19LK100/S38-P

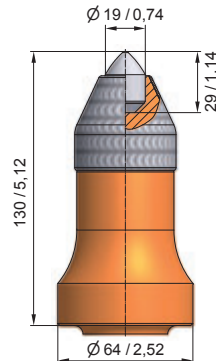


**BKR29**  
BG38X-22.65110P

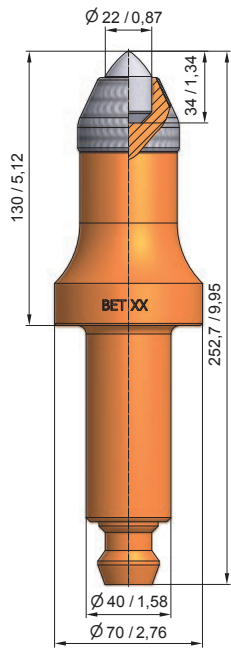
**Sistema de vástagos Ø 40 mm / 1,58" Krummenauer**



**BKR26**  
BKR19LK130/64/2



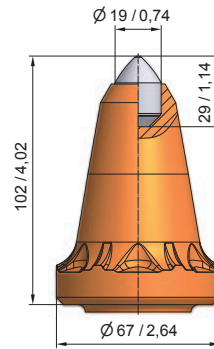
**BKR24**  
BKR19LK130/64P



**BKR28**  
BG40X-22.70130P

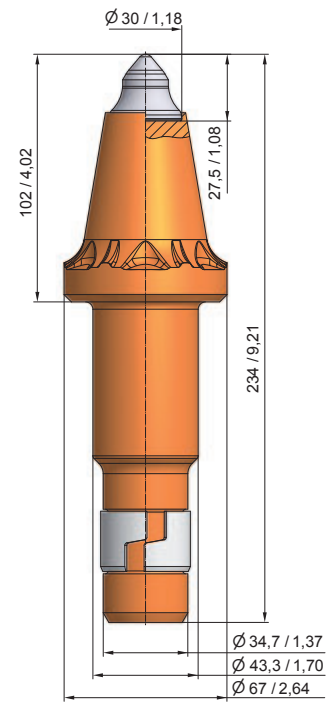


## Sistema de vástagos Ø 43/35 mm - 1,70 mm/1,38" Calibre 102 mm/4,0"



**BSR204**  
BS43H-19.67102H

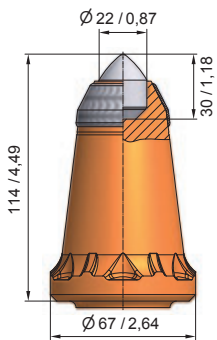
6



**BSR181**  
BS43H-69.67102A

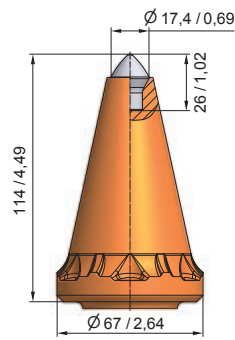
6

## Sistema de vástagos Ø 43/35 mm - 1,70 mm/1,38" Calibre 114 mm/4,5"



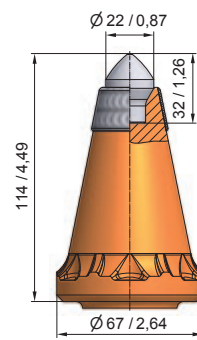
**BSR178**  
BS43H-22.67114P

5



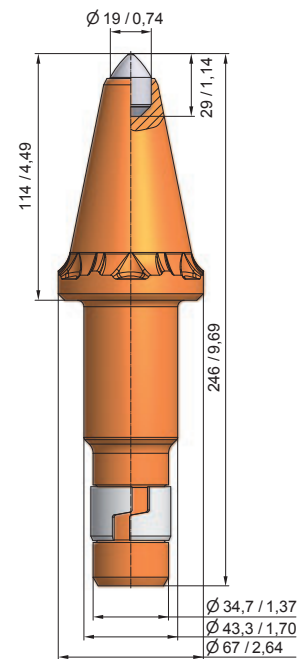
**BSR191**  
BS43H-70.67114A

5



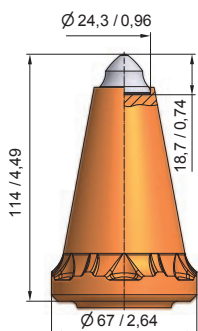
**BSR206**  
BS43H-73.67114P

5



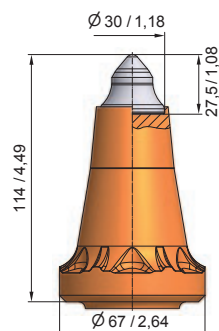
**BSR182**  
BS43H-19.67114

5



**BSR205**  
BS43H-68.67114

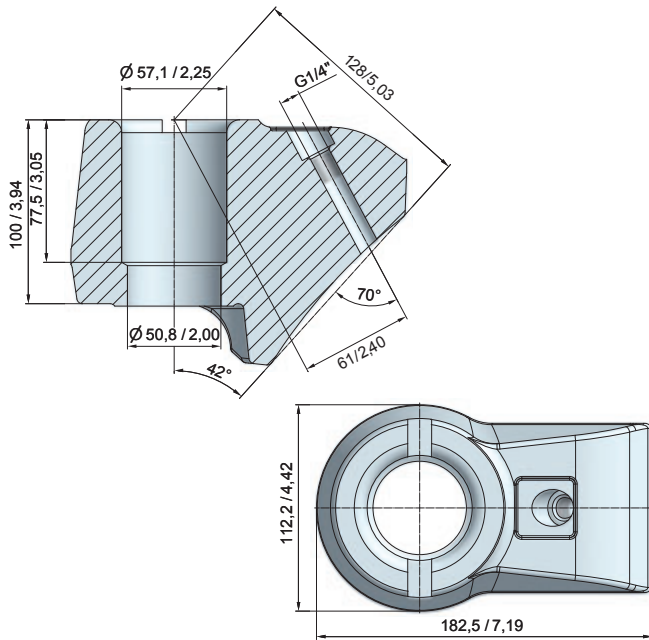
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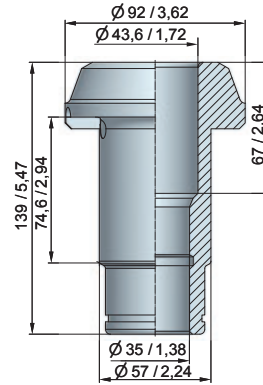
**BSR203**  
BS43H-69.67114

5

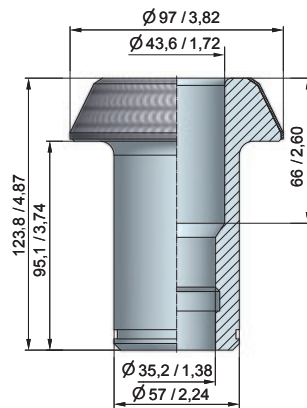
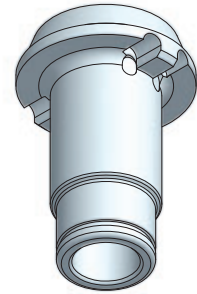
**Sistema de vástagos Ø 43/35 mm - 1,70 mm/1,38"**



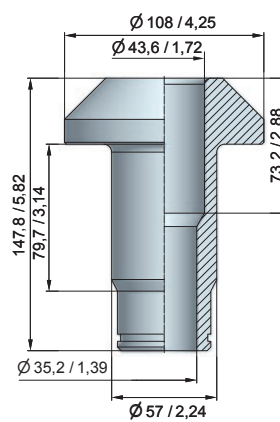
**BHR159**  
B300



**BR74**  
BR57-44



**BR77**  
BR57-44-124/P

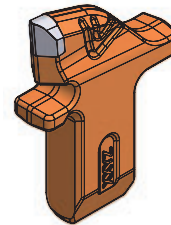
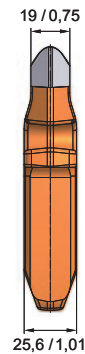
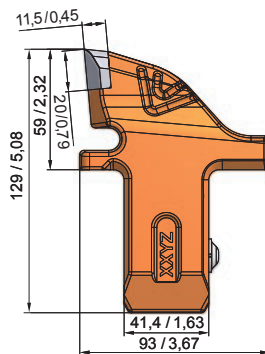
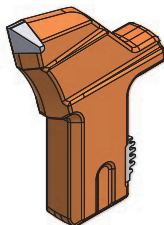
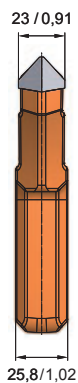
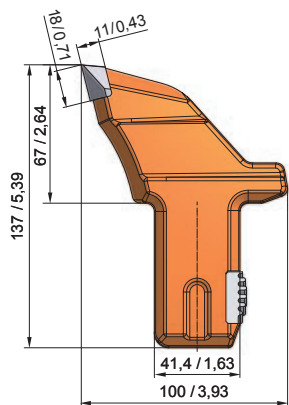


**BR79**  
BR57-44-144



**BZ40**  
Tirador de cuña

## Pica radial



**BF33**

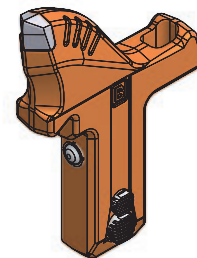
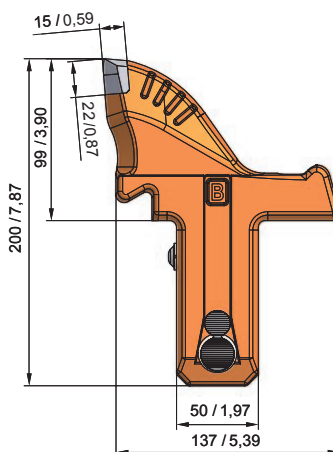
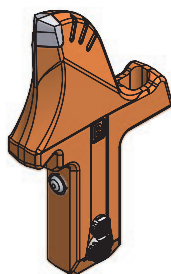
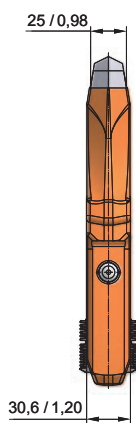
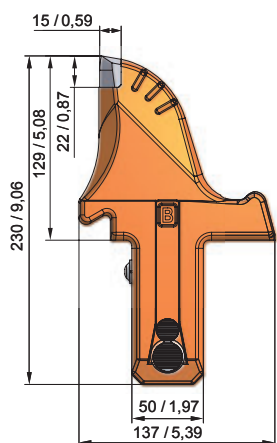
BF137x41.4x25.8

10

**BF39**

BF129x93x26

15



**BF38**

BF230x137x30.6

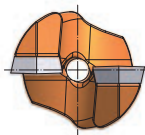
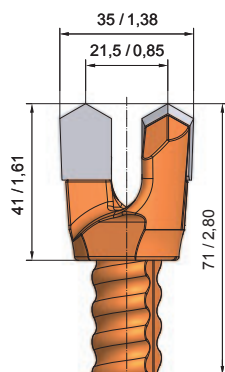
5

**BF45**

BF 200x137x30.6

5

## Broca de aleta

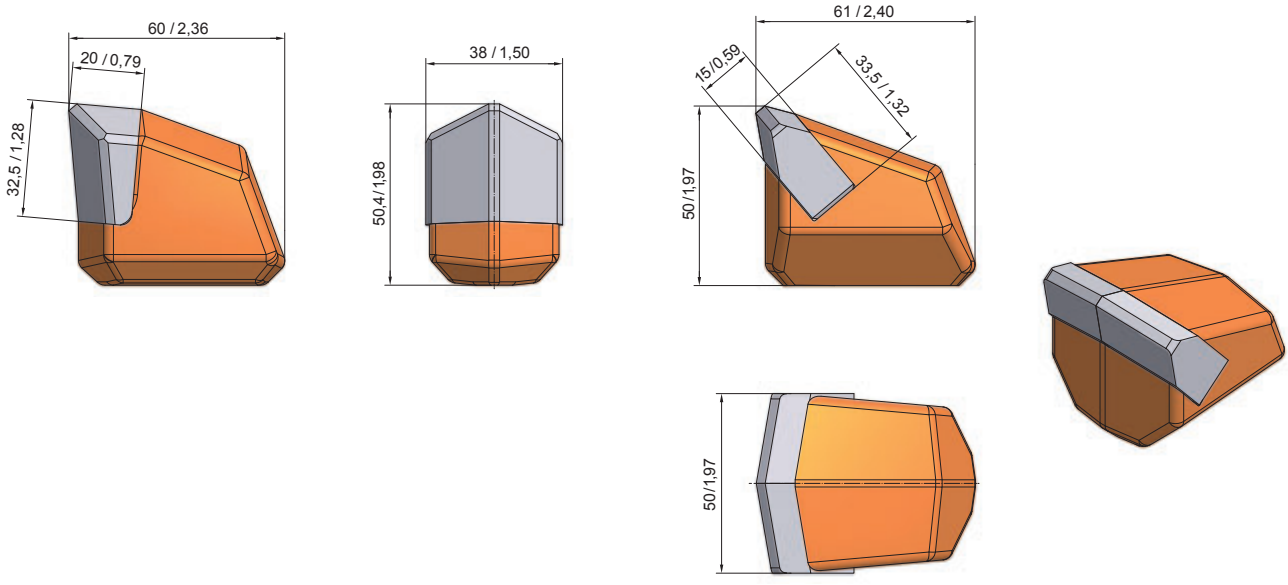


**BD01**

BD71-35

100

**Micro tunelaje**

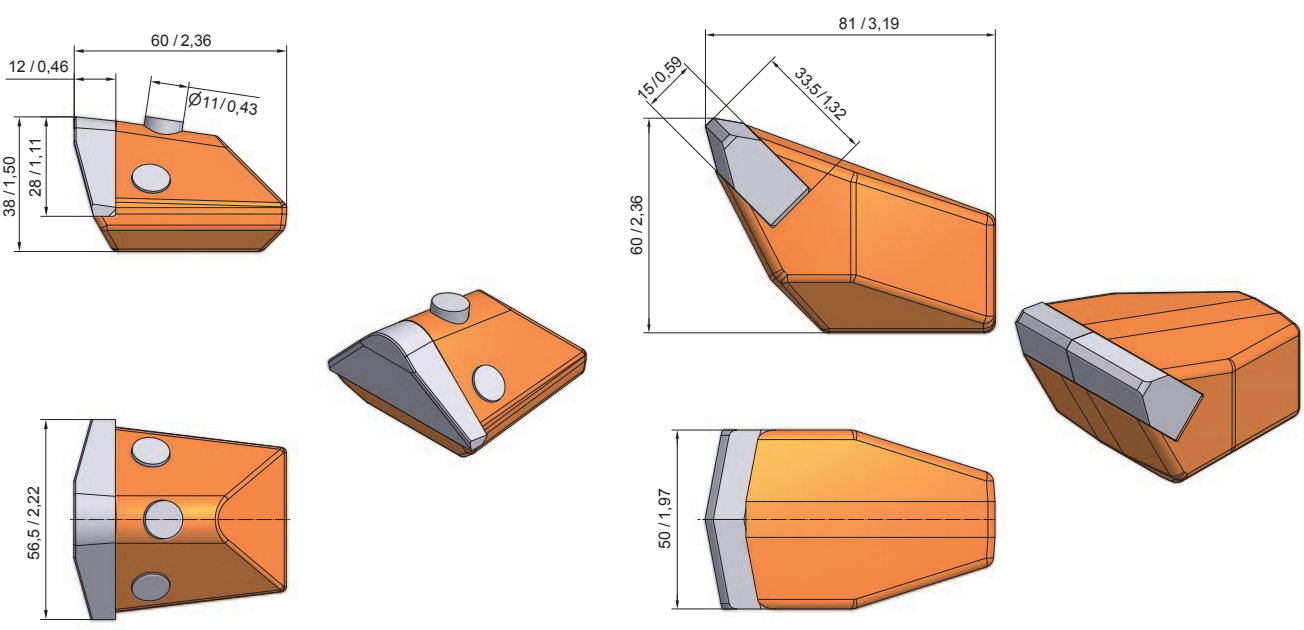


**BFZ35M**  
BFZ38/M

25

**BFZ51**  
BFZ51

20



**BFZ163**  
BFZ56

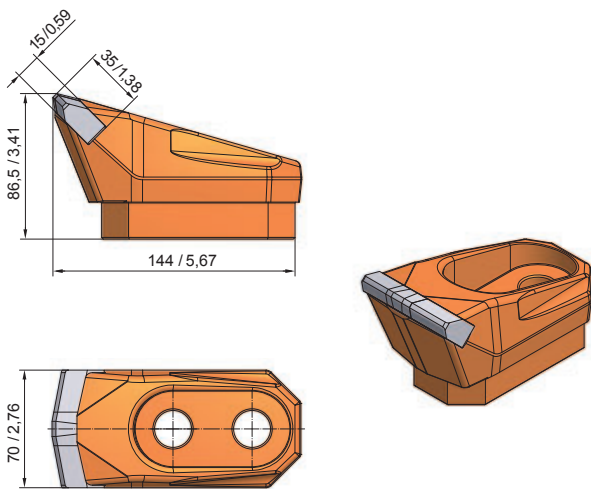
20

**BFM08**  
BFM112x50/S

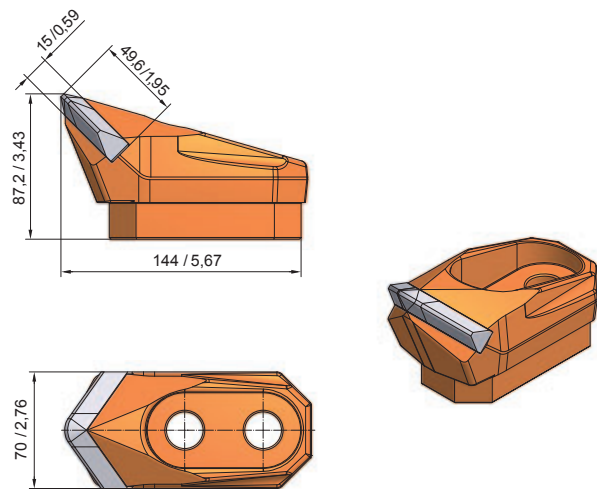
15



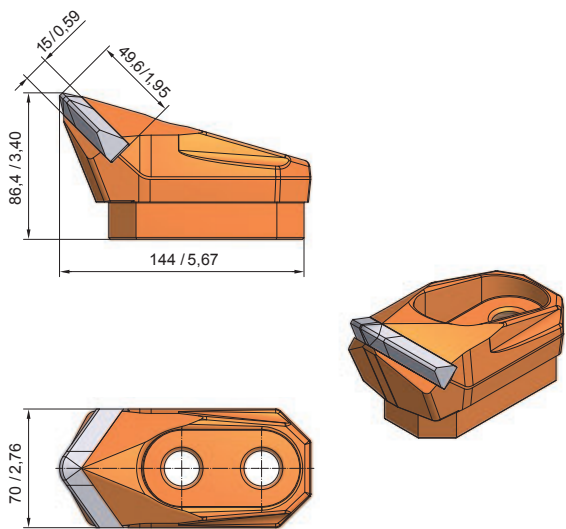
**Micro tunelaje**



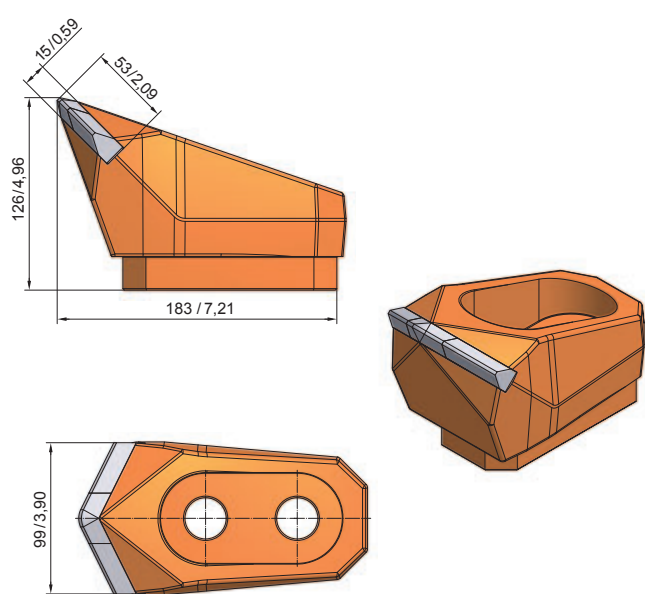
**BFM07**  
BFM144x70



**BFM16**  
BFM144x86x70



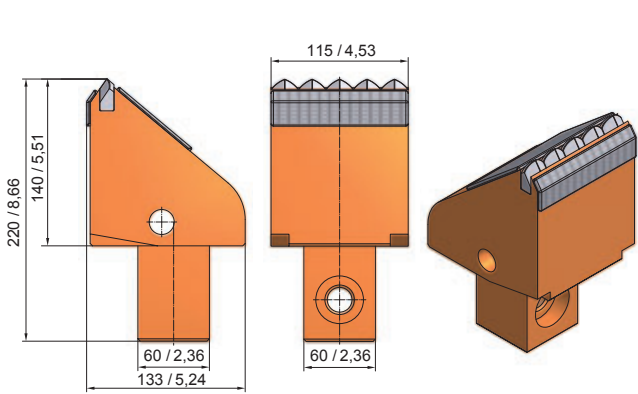
**BFM70**  
BFM144x86x70 / 1



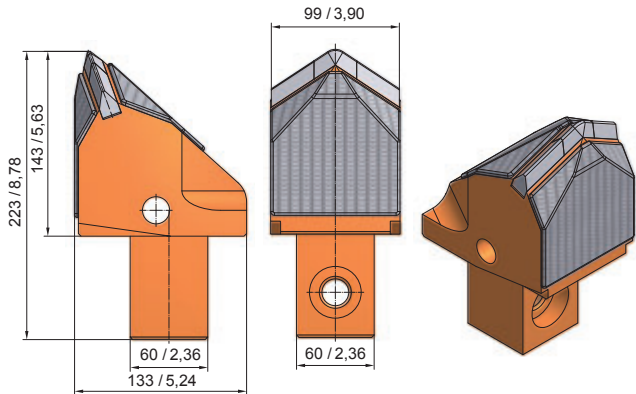
**BFM71**  
BFM183x126x100



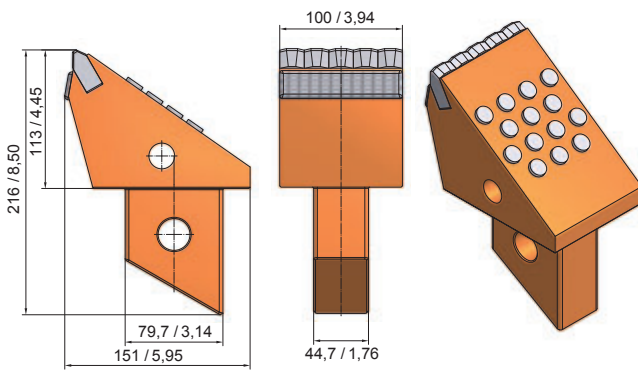
**Herramientas para TBM**



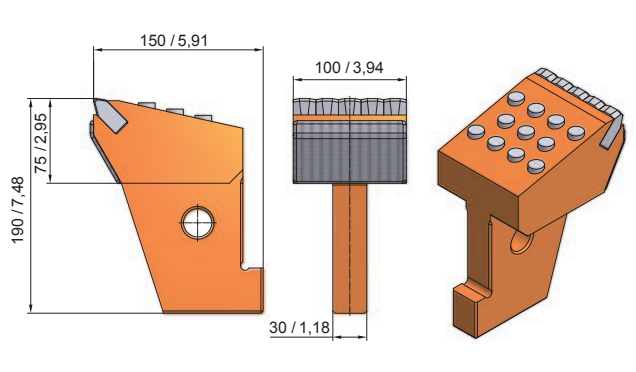
**BFZ280**  
BFZ220x115



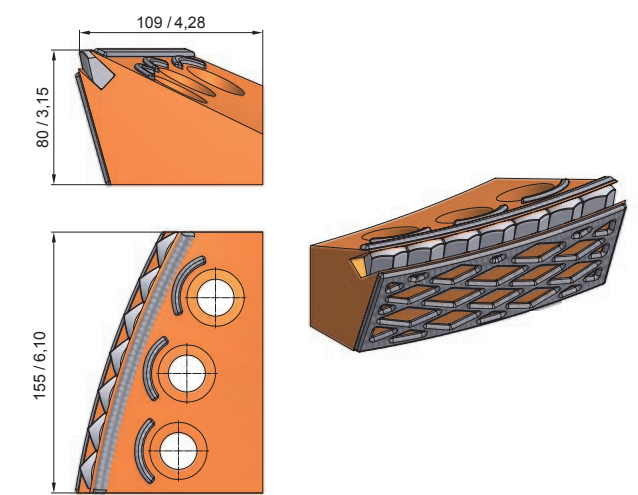
**BFZ275**  
BFZ222,5x100



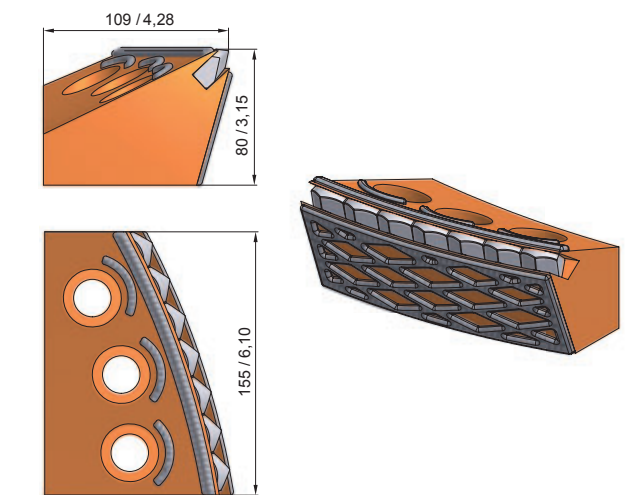
**BFZ303**  
BFZ216x151x100



**BFM77**  
BFZ168x132/B100

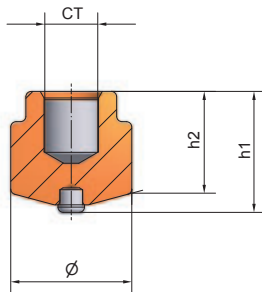


**BRS13**  
BRS155x110x80/R



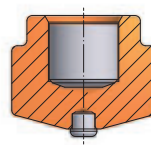
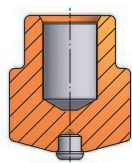
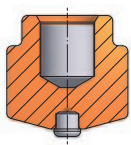
**BRS14**  
BRS155x110x80/L

## Protección contra el desgaste abrasivo/TungStuds



$h_1$ : Altura antes de soldar  
 $h_2$ : Altura después de soldar

Informaciones adicionales:  
[www.betek.de/es/productos/tungstuds](http://www.betek.de/es/productos/tungstuds)



### BTS01

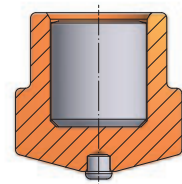
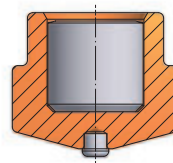
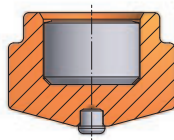
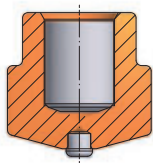
Ø: 16 mm  
 $h_1$ : 16 mm  
 $h_2$ : 11-12 mm  
 CT: Ø7x8,4 mm

### BTS02

Ø: 16 mm  
 $h_1$ : 19 mm  
 $h_2$ : 14-15 mm  
 CT: Ø7x11,4 mm

### BTS03

Ø: 19 mm  
 $h_1$ : 16 mm  
 $h_2$ : 10,5-11,5 mm  
 CT: Ø9x8,4 mm



### BTS04

Ø: 19 mm  
 $h_1$ : 19 mm  
 $h_2$ : 13,5-14,5 mm  
 CT: Ø9x12 mm

### BTS05

Ø: 22 mm  
 $h_1$ : 16 mm  
 $h_2$ : 10-11 mm  
 CT: Ø12,6x8,4 mm

### BTS06

Ø: 22 mm  
 $h_1$ : 19 mm  
 $h_2$ : 13-14 mm  
 CT: Ø12,6x12 mm

### BTS07

Ø: 22 mm  
 $h_1$ : 22 mm  
 $h_2$ : 16-17 mm  
 CT: Ø12,6x14 mm

**Consulta**

**Formulario de pedido**

BETEK Bergbau- und Hartmetalltechnik  
Karl-Heinz Simon GmbH & Co. KG

Sulgener Str. 19-23  
D-78733 Aichhalden

Tel. + 49 (0) 74 22 / 5 65-592

**Fax + 49 (0) 74 22 / 5 65-122**

info@betek.de

www.betek.de

**USA**

mining-usa@betek.de

Dirección de facturación

Dirección de entrega (si es distinta de la de facturación)

**Camión**

**Flete marítimo**

**Flete aéreo**

Artículo n.º	Denominación	Cantidad	Precio por unidad

Fecha / firma





E

BETEK Bergbau- und Hartmetalltechnik  
Karl-Heinz Simon GmbH & Co. KG

Sulgener Str. 19-23  
D-78733 Aichhalden

Número del Servicio técnico + 49 (0) 74 22 / 5 65-592  
Fax del Servicio técnico + 49 (0) 74 22 / 5 65-122

mining@betek.de  
www.betek.de

Distribuidores