

# Cutting tools

for rotary drum cutters



# Round attack picks, pick boxes and retaining clips for Epiroc rotary drum cutters and cutter wheels

Epiroc rotary drum cutters work under extremely hard conditions in trenching, demolition, rock excavation and tunnelling, in steel mills as in other unusual applications. This puts very high demands on the cutter drums and cutting tools.

The result of many years experience, with machines working in thousands of applications around the world, can be seen in the type of picks used and their cutting pattern on Epiroc equipment. This unique combination provides maximum productivity with minimum wear, ensuring the economical performance of Epiroc drum cutters even in the hardest conditions. Modern technology and continuous product development are the basics for ensuring the economic benefits of using our drum cutters and cutting tools.

In addition to alternative design cutter drums, we also offer a large variety of pick types even for unusual applications.

In our range of cutter picks, we have paid special attention to the optimum shape, high quality materials and sustainable quality of the production process. This helps you to keep your consumable costs to a minimum.

This catalogue should provide an overview of our standard range of cutter tools, pick boxes and retainer clips, suitable for a wide range of applications.

If you have an extremely unusual application or requirement, don't hesitate to contact us. Our specialists are pleased to provide advice and support in your search for the most suitable cutter tools.



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## Transverse drum cutters



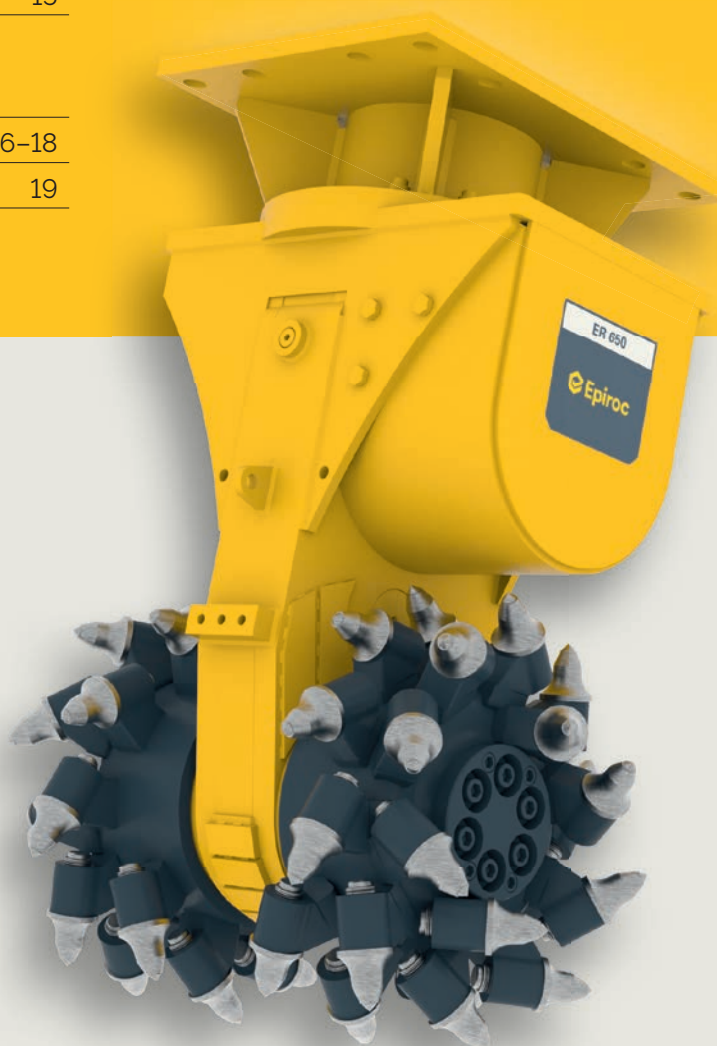
ER 40	8
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ER 100 L	9
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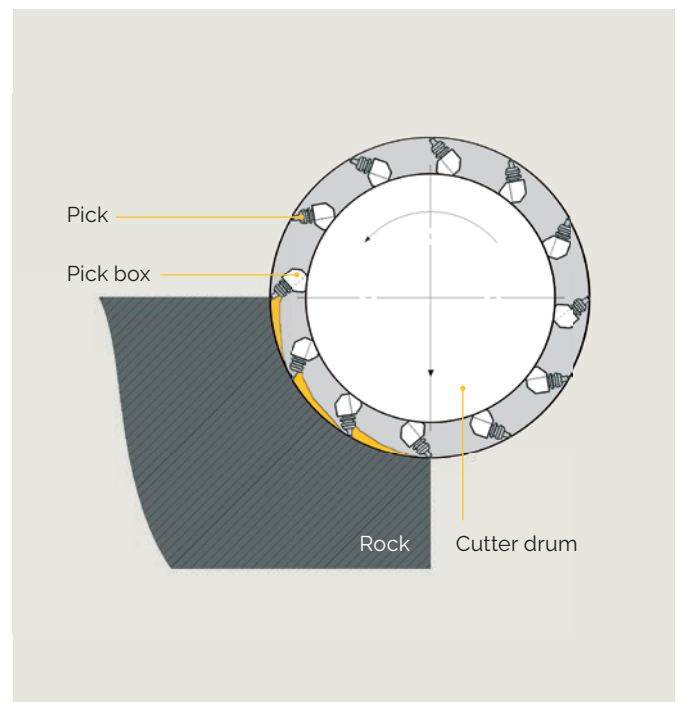
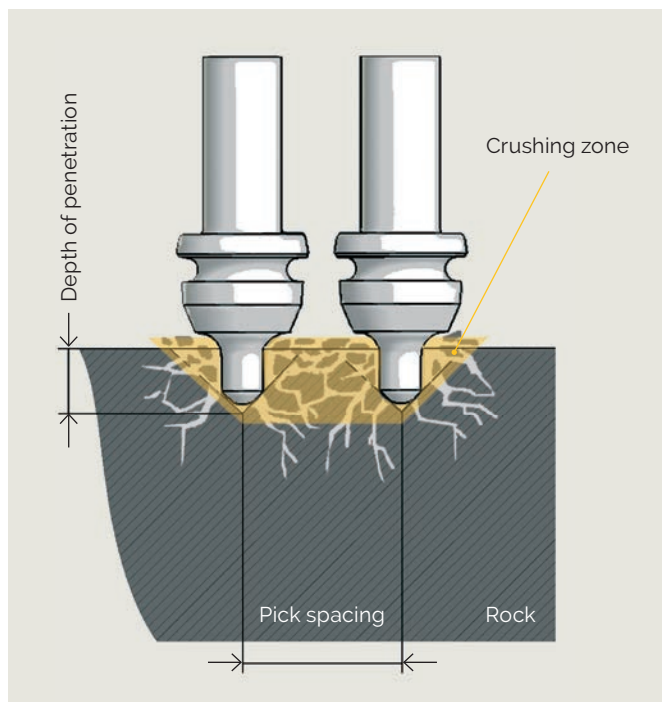


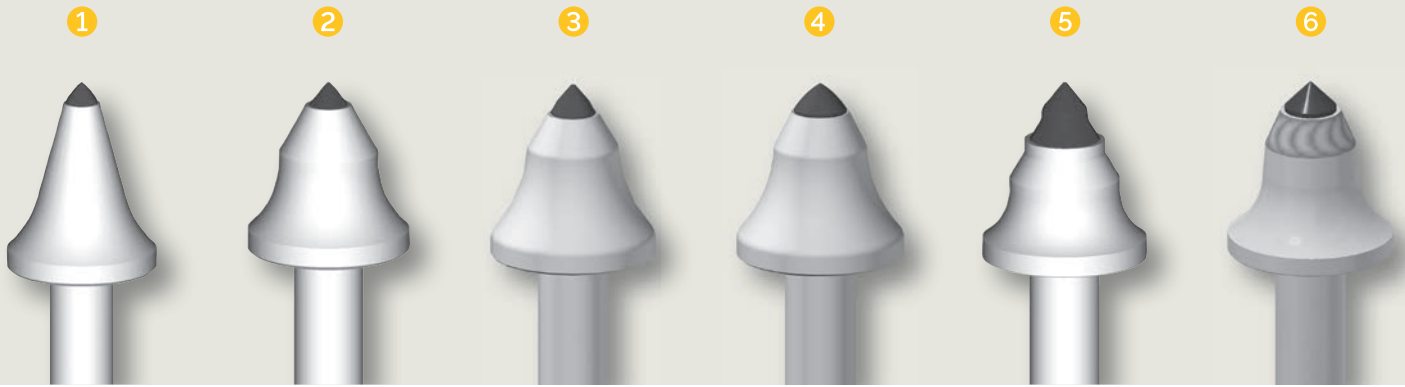
# Several picks – “piece by piece”

## The optimum shape

The type of round attack picks and their pattern on the cutter drum determines how effectively rock is cut which requires specialist knowledge and expertise in geology and cutting technology.

It is the pick that breaks portions of rock out during the cutting operation. Due to the range of rock types, their hardness and toughness, a variety of drum design are required to achieve optimum penetration in each type of rock.





**+** For each model of drum cutter, Epiroc offers a range of pick types allowing the best possible solution for each application.

For example:

**ER 15/90/70/30 ①**

Narrow pick head with small diameter insert, for use in soft rock

**ER 17/75/70/30 ②**

Standard pick head with medium diameter insert, for use in soft to medium hard rock

**ER 22/75/70/30 ③**

Standard pick head with medium diameter insert, for use in medium to hard rock

**ER 25/77/70/30 ④**

Standard pick head with large diameter insert, for use in very hard rock

**ER 30/77/70/30 ⑤**

Standard pick head with large insert cap, for use in soft to medium hard but abrasive rock

**ER 19/75/70/30 ⑥**

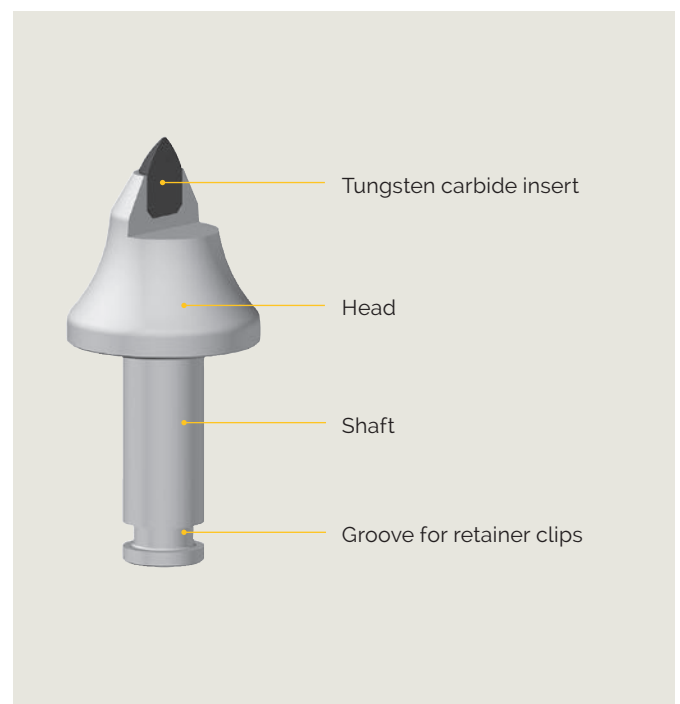
Standard pick head with medium diameter insert and additional hard facing, for use in medium to hard abrasive rock

## Round attack picks

The tungsten carbide insert braised into the body of the pick is at the heart of the cutting operation and is subject to extreme stresses due to it coming continuously into contact with the rock.

The pick body, (head and shaft) is made from heat-treated steel and serves as the support for the tungsten carbide insert and also as protection for the pick box. The tungsten carbide insert is extremely wear resistant and tough to withstand impact.

The insert is a sintered material made up of tungsten carbide with a cobalt binder. Depending on application, a variety of carbide grades and shapes are available.

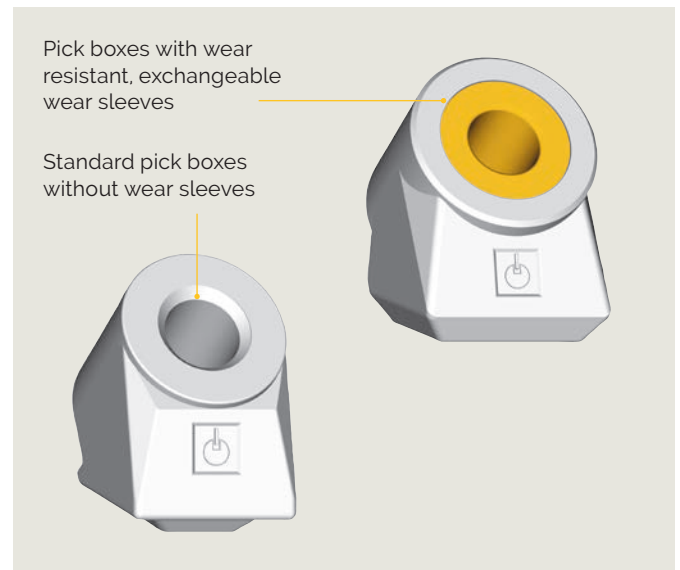


# Pick boxes and retaining clips

## Pick boxes

Pick boxes welded onto the cutter head determine where and how picks penetrate into the rock. The special attack angle ensures a continuous rotation of the pick creating a self sharpening action for the tungsten carbide insert during the cutting action.

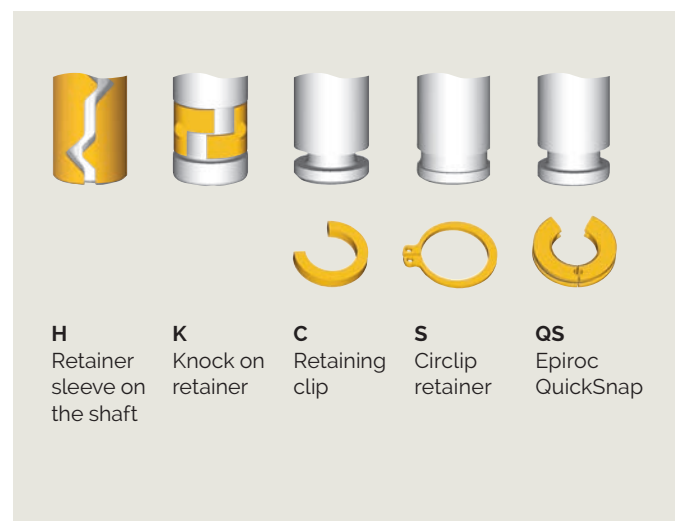
The correct angle ensures maximum productivity with minimum wear. Pick boxes are also made from specially heat treated steel and depending on applications, are available with exchangeable wear sleeves.



## Retaining clips

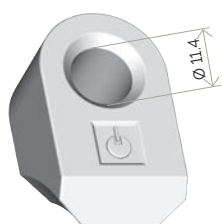
Retaining clips ensure that picks do not fly out of the pick boxes. Various types of retaining clip are available depending on pick type and application area e.g. retaining collars for soft rock or circlip type systems for hard rock applications.

For quick and easy changing of picks, Epiroc offers the **QuickSnap** retaining system, which allows picks to be changed in a matter of seconds. This represents a saving of over 50% in time compared with normal circlip or knock on retainer systems.



 **Easier and quicker pick changes with Epiroc QuickSnap**

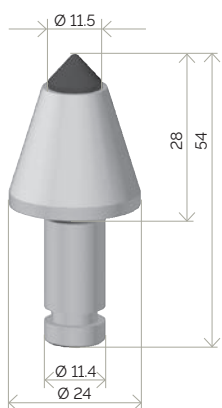




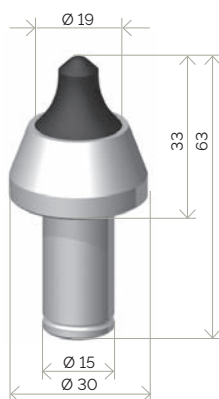
Pick box	PH 50	●
Part Number	3311000774	



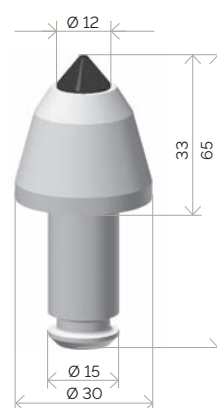
Pick box	PH 50 N	●
Part Number	3311003538	



Pick type	ER 11/28/24/12 C	●
Part Number	3311004555 (100) <sup>1</sup>	
Application	Concrete, soft to medium hard rock	



Pick type	ER 19/33/30/15 S	●
Part Number	3311004557 (100) <sup>1</sup>	
Application	Asphalt, soft to medium hard abbrasive rock	



Pick type	ER 12/33/30/15 C	●
Part Number	3311004556 (100) <sup>1</sup>	
Application	Concrete, soft to medium hard rock	



Retainer	Retaining clip ES 50
Part Number	3311001264

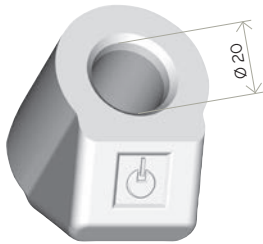


Retainer	Circlip retainer SG 100
Part Number	3311002950

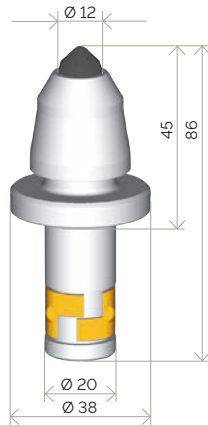


Retainer	Retaining clip ES 100
Part Number	3311002701

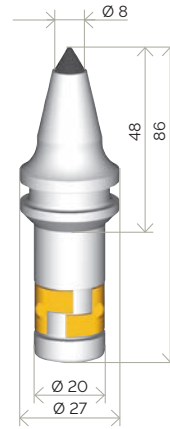




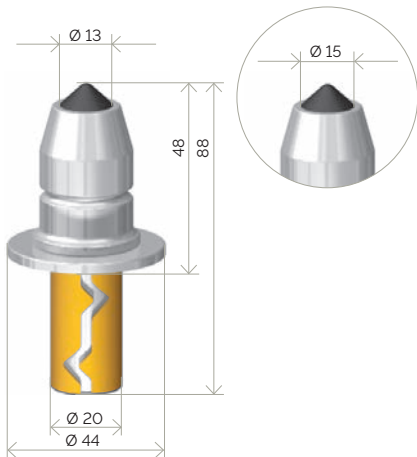
<b>Pick box</b>	PH 250	●
<b>Part Number</b>	3311000832	



<b>Pick type</b>	ER 12/45/38/20 K	●
<b>Part Number</b>	3311004558 (50) <sup>1</sup>	
<b>Application</b>	Concrete, soft to medium hard rock	

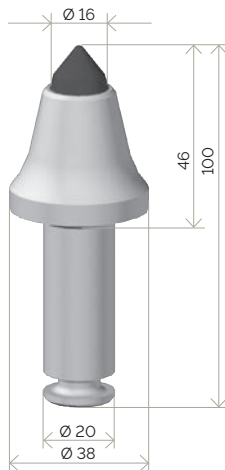


<b>Pick type</b>	ER 09/51/25/20 K	●
<b>Part Number</b>	3311004560 (50) <sup>1</sup>	
<b>Application</b>	Soft rock, salt, gypsum	

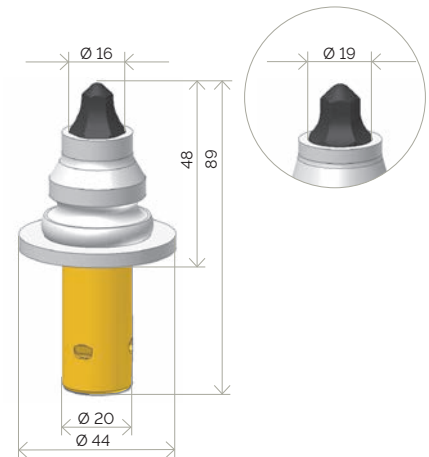


<b>Pick type</b>	ER 13/48/44/20 H	●
<b>Part Number</b>	3311004561 (50) <sup>1</sup>	

<b>Pick type</b>	ER 15/48/44/20 H	●
<b>Part Number</b>	3311004564 (50) <sup>1</sup>	
<b>Application</b>	Concrete, soft to medium hard rock	



<b>Pick type</b>	ER 16/46/38/20 C	●
<b>Part Number</b>	3311004559 (40) <sup>1</sup>	
<b>Application</b>	Concrete, soft to medium hard rock	



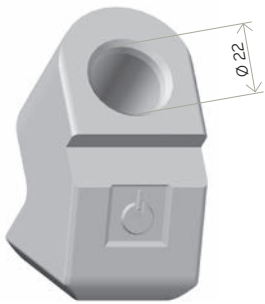
<b>Pick type</b>	ER 16/48/32/20 H	●
<b>Part Number</b>	3311004562 (50) <sup>1</sup>	

<b>Pick type</b>	ER 19/48/36/20 H	●
<b>Part Number</b>	3311004563 (50) <sup>1</sup>	
<b>Application</b>	Asphalt	



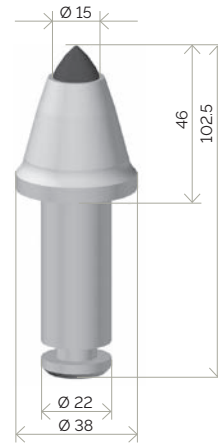
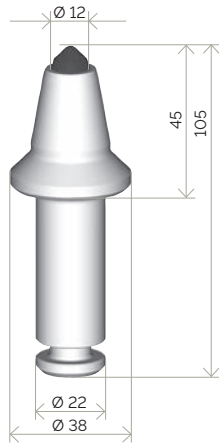
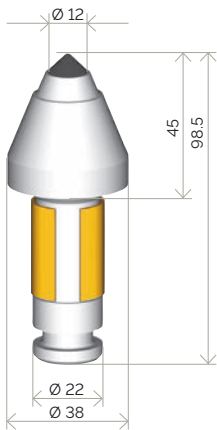
<b>Retainer</b>	Retaining clip ES 250
<b>Part Number</b>	3311001648

<sup>1</sup> Picks are delivered with retainers. Number in ( ) shows quantity.  
Dimension in mm | Associated installation and removal tools on page 19 | ● Delivery ex stock | ● Delivery upon request



<b>Pick box</b>	PH 450 UA ●
<b>Part Number</b>	3311001804
	replaces the previous type PH 450

<b>Pick type</b>	ER 19/51/45/22 H ●
<b>Part Number</b>	3311004568 (40) <sup>1</sup>
<b>Application</b>	Asphalt, soft and abrasive rock



<b>Pick type</b>	ER 12/45/38/22 HC ●
<b>Part Number</b>	3311004565 (40) <sup>1</sup>
<b>Application</b>	Concrete, medium hard and abrasive rock

<b>Pick type</b>	ER 12/45/38/22 C ●
<b>Part Number</b>	3311004566 (40) <sup>1</sup>
<b>Application</b>	Concrete, medium hard rock

<b>Pick type</b>	ER 15/46/38/22 C ●
<b>Part Number</b>	3311004567 (40) <sup>1</sup>
<b>Application</b>	Concrete, medium hard rock



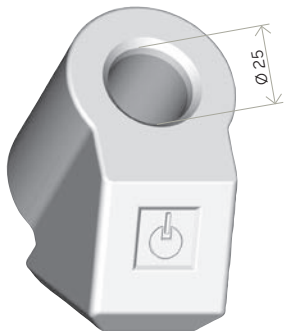
<b>Retainer</b>	Retaining clip ES 450
<b>Part Number</b>	3311000990



<b>Retainer</b>	Retaining clip ES 450
<b>Part Number</b>	3311000990



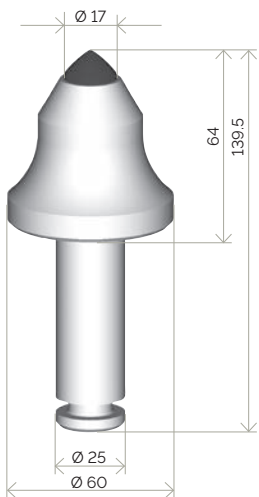
<b>Retainer</b>	Retaining clip ES 450
<b>Part Number</b>	3311000990



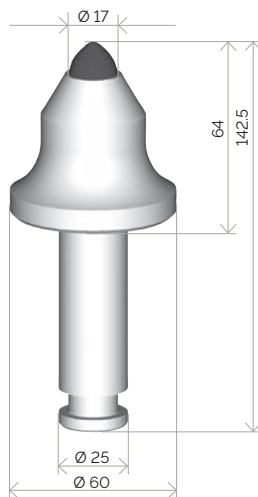
Pick box	PH 600	●
Part Number	3311003040	



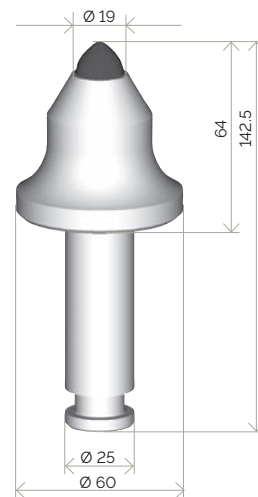
Pick type	ER 22/64/60/25 H	●
Part Number	3311004572 (15) <sup>1</sup>	
Application	Asphalt, soft and abrasive rock	



Pick type	ER 17/64/60/25 C	●
Part Number	3311004571 (15) <sup>1</sup>	
Application	Concrete, medium hard to hard rock	



Pick type	ER 17/64/60/25 Q	●
Part Number	3311004569 (15) <sup>1</sup>	
Application	Concrete, medium hard to hard rock	



Pick type	ER 19/64/60/25 Q	●
Part Number	3311004570 (15) <sup>1</sup>	
Application	Concrete, medium hard to hard rock	



Retainer	Retaining clip ES 600
Part Number	3311000988

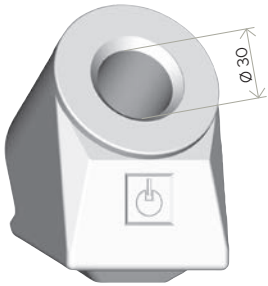


Retainer	QuickSnap QS 600
Part Number	3311000977

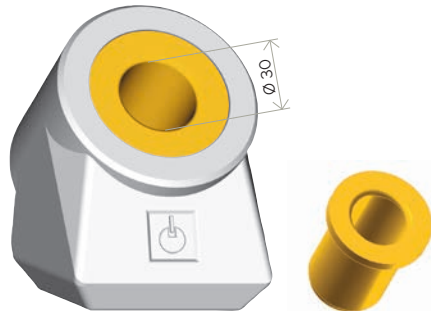


Retainer	QuickSnap QS 600
Part Number	3311000977

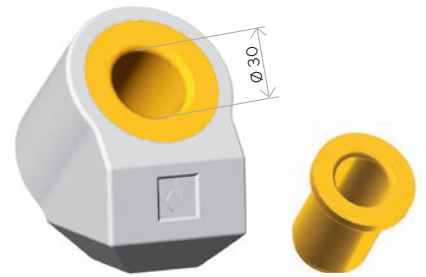
<sup>1</sup> Picks are delivered with retainers. Number in ( ) shows quantity.  
Dimension in mm | Associated installation and removal tools on page 19 | ● Delivery ex stock | ● Delivery upon request



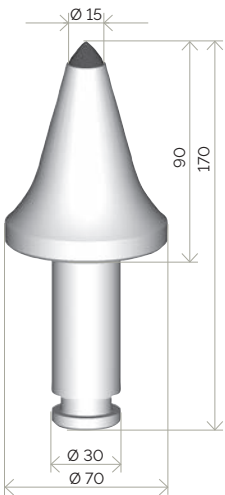
Pick box	PH 1200	●
Part Number	3311000797	
For drum cutter model	ER 1200	



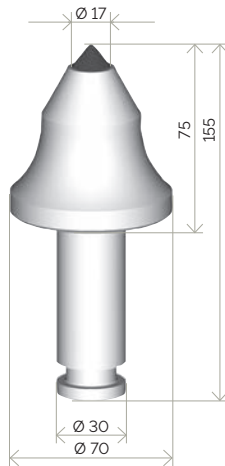
Pick box	PH 1500	●
Part Number	3311000792	
	Replacement wear sleeve	
Part Number	3311000801	



Pick box	PH 1100	●
Part Number	3311004253	
For drum cutter model	ER 650 from 09-2018	
	Replacement wear sleeve	
Part Number	3311000801	



Pick type	ER 15/90/70/30 Q	●
Part Number	3311004580 (10) <sup>1</sup> with QS 3311004614 (10) <sup>1</sup> with ES	
Application	Salt, gypsum, medium hard, fractured rock	



Pick type	ER 17/75/70/30 Q	●
Part Number	3311004575 (10) <sup>1</sup> with QS 3311004606 (10) <sup>1</sup> with ES	
Application	Concrete, medium hard rock	



Pick type	ER 19/75/70/30 Q	●
Part Number	3311004576 (10) <sup>1</sup> with QS 3311004607 (10) <sup>1</sup> with ES	
Application	Concrete, medium hard rock	



Retainer	QuickSnap QS 5000	Retaining clip ES 5000
Part Number	3311000978	3311002869



Retainer	QuickSnap QS 5000	Retaining clip ES 5000
Part Number	3311000978	3311002869



Retainer	QuickSnap QS 5000	Retaining clip ES 5000
Part Number	3311000978	3311002869



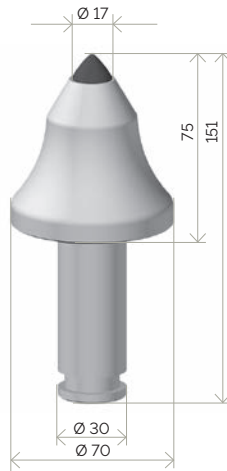
ERL 1100



<b>Pick type</b>	<b>ER 19/75/70/30 Q</b> ●
<b>Part Number</b>	3311004582 (10) <sup>1</sup> with <b>QS</b> 3311004617 (10) <sup>1</sup> with <b>ES</b>
<b>Application</b>	Abbrasive medium hard rock and concrete



<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869



<b>Pick type</b>	<b>ER 17/75/70/30 C</b> ●
<b>Part Number</b>	3311004585 (10) <sup>1</sup>
<b>Application</b>	Medium hard rock



<b>Retainer</b>	Retaining clip <b>ES 1500</b>
<b>Part Number</b>	3311000992



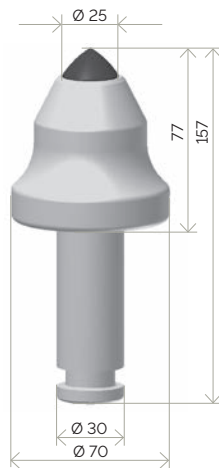
<b>Pick box</b>	<b>PH 1000</b> ●
<b>Part Number</b>	3311002688



<b>Pick type</b>	<b>ER 22/75/70/30 Q</b> ●
<b>Part Number</b>	3311004577 (10) <sup>1</sup> with <b>QS</b> 3311004608 (10) <sup>1</sup> with <b>ES</b>
<b>Application</b>	Concrete, medium hard to hard rock



<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869



<b>Pick type</b>	<b>ER 25/77/70/30 Q</b> ●
<b>Part Number</b>	3311004578 (8) <sup>1</sup> with <b>QS</b> 3311004609 (8) <sup>1</sup> with <b>ES</b>
<b>Application</b>	Steel, concrete, hard to very hard rock



<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869

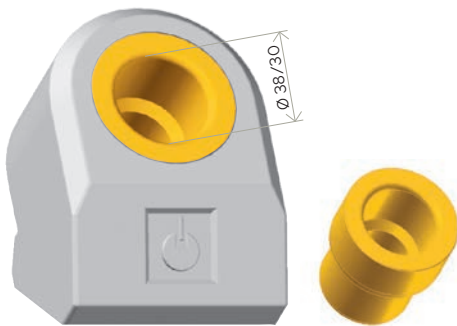


<b>Pick type</b>	<b>ER 30/77/70/29 Q</b> ●
<b>Part Number</b>	3311004579 (10) <sup>1</sup> with <b>QS</b> 3311004613 (10) <sup>1</sup> with <b>ES</b>
<b>Application</b>	Soft to medium hard, abrasive rock

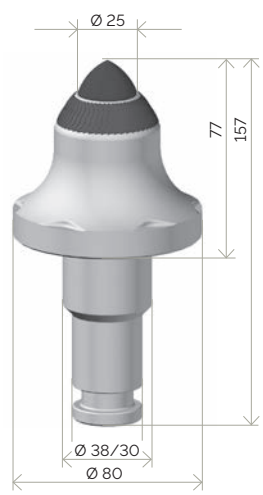


<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869

<sup>1</sup> Picks are delivered with retainers. Number in ( ) shows quantity.  
Dimension in mm | Associated installation and removal tools on page 19 | ● Delivery ex stock | ● Delivery upon request



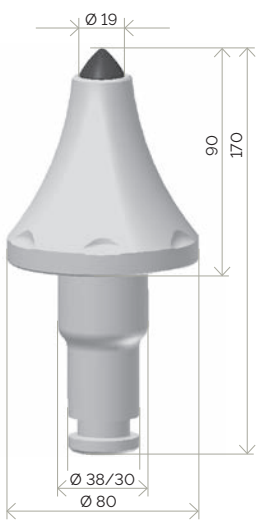
<b>Pick box</b>	<b>PH 5300</b> ●
<b>Part Number</b>	3311002261
	<b>Replacement wear sleeve</b>
<b>Part Number</b>	3311002263



<b>Pick type</b>	<b>ER 25/77/80/38-30 PQ</b> ●
<b>Part Number</b>	33110038532
<b>Application</b>	medium hard to very hard abrasive rock



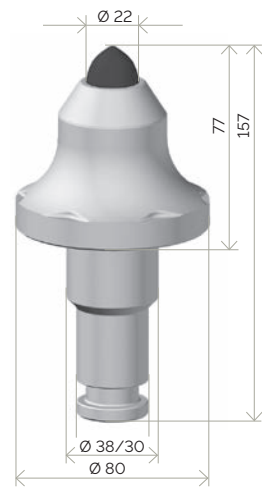
<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869



<b>Pick type</b>	<b>ER 19/90/80/38-30 Q</b> ●
<b>Part Number</b>	3311004588 (6) <sup>1</sup> with QS 3311004621 (6) <sup>1</sup> with ES
<b>Application</b>	Soft rock



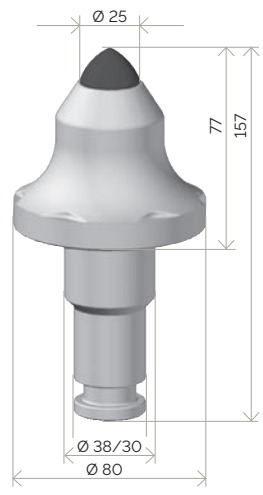
<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869



<b>Pick type</b>	<b>ER 22/77/80/38-30 Q</b> ●
<b>Part Number</b>	3311004587 (8) <sup>1</sup> with QS 3311004620 (8) <sup>1</sup> with ES
<b>Application</b>	Concrete, medium hard to hard rock



<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869

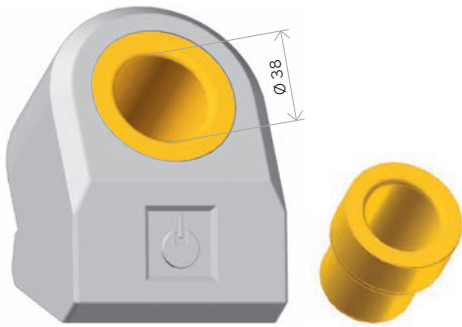


<b>Pick type</b>	<b>ER 25/77/80/38-30 Q</b> ●
<b>Part Number</b>	3311004586 (8) <sup>1</sup> with QS 3311004619 (8) <sup>1</sup> with ES
<b>Application</b>	Concrete, medium hard to very hard rock

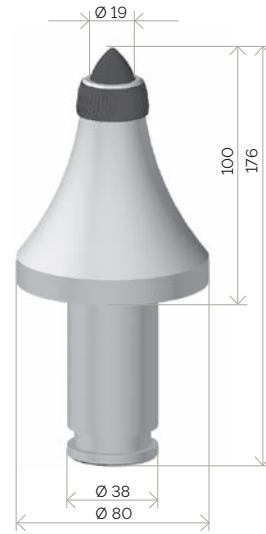


<b>Retainer</b>	QuickSnap <b>QS 5000</b>	Retaining clip <b>ES 5000</b>
<b>Part Number</b>	3311000978	3311002869

<sup>1</sup> Picks are delivered with retainers. Number in ( ) shows quantity. <sup>2</sup> This pick is only sold as single Part Number.  
Dimension in mm | Associated installation and removal tools on page 19 | ● Delivery ex stock | ● Delivery upon request



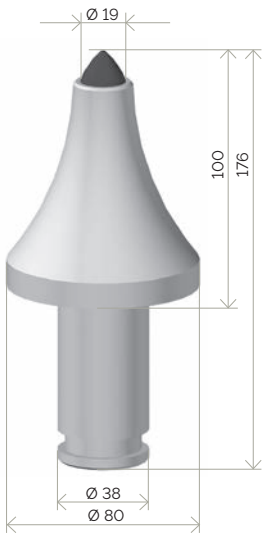
<b>Pick box</b>	<b>PH 5500</b> ●
<b>Part Number</b>	3311002262
	<b>Replacement wear sleeve</b>
<b>Part Number</b>	3311002264



<b>Pick type</b>	<b>ER 19/100/80/38 PS</b> ●
<b>Part Number</b>	3311004593 (6) <sup>1</sup>
<b>Application</b>	Soft abrasive rock



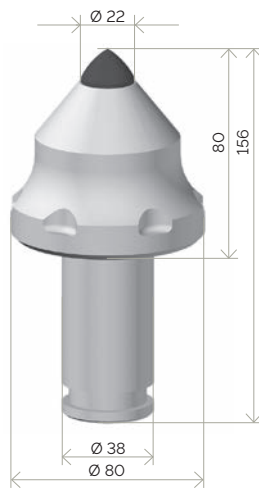
<b>Retainer</b>	Circlip retainer <b>SG 5500</b>
<b>Part Number</b>	3311000979



<b>Pick type</b>	<b>ER 19/100/80/38 S</b> ●
<b>Part Number</b>	3311004592 (6) <sup>1</sup>
<b>Application</b>	Soft rock



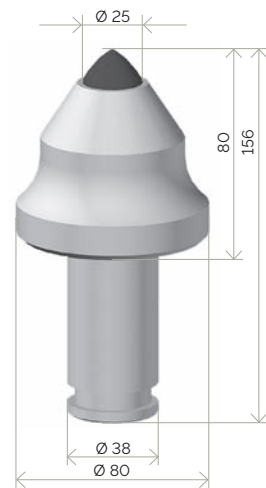
<b>Retainer</b>	Circlip retainer <b>SG 5500</b>
<b>Part Number</b>	3311000979



<b>Pick type</b>	<b>ER 22/80/80/38 PS</b> ●
<b>Part Number</b>	3311004591 (8) <sup>1</sup>
<b>Application</b>	Concrete, medium hard to hard rock



<b>Retainer</b>	Circlip retainer <b>SG 5500</b>
<b>Part Number</b>	3311000979



<b>Pick type</b>	<b>ER 25/80/80/38 S</b> ●
<b>Part Number</b>	3311004590 (6) <sup>1</sup>
<b>Application</b>	Concrete, medium hard to very hard rock



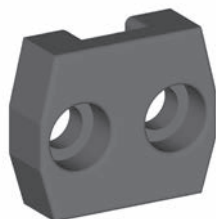
<b>Retainer</b>	Circlip retainer <b>SG 5500</b>
<b>Part Number</b>	3311000979

<sup>1</sup> Picks are delivered with retainers. Number in ( ) shows quantity.

# Special and non-standard picks

## ER 600-W | 650-W

### Wood cutting picks for wood grinding drum



Pick box	for threaded side	●
Part Number		
Typ		
till 12/2014	72 63 25 44	
from 01/2015	3311003206	

Pick box	for nut side	●
Part Number		
Typ		
till 12/2014	72 63 25 43	
from 01/2015	3311003207	



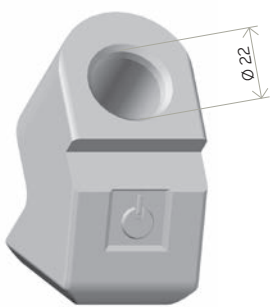
Pick box	20 cutters right	●
Part Number		
Typ		
till 12/2014	70 65 57 14 R	
from 01/2015	3311003204	
Application	Wood, tree stump	

Pick box	20 cutters left	●
Part Number		
Typ		
till 12/2014	70 65 57 14 L	
from 01/2015	3311003203	
Application	Wood, tree stump	

Pick box	40 cutters straight	●
Part Number		
Typ		
till 12/2014	70 65 58 14	
from 01/2015	3311003205	
Application	Wood, tree stump	



## ER 250 | 600 | 650 | 1500 | 2000 Dragon-Tooth-Picks



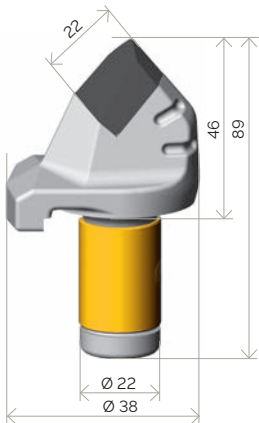
<b>Pick box</b>	<b>PH 450 UA</b>	●
<b>Part Number</b>	3311001804	
<b>For drum cutter model</b>	ER 250	



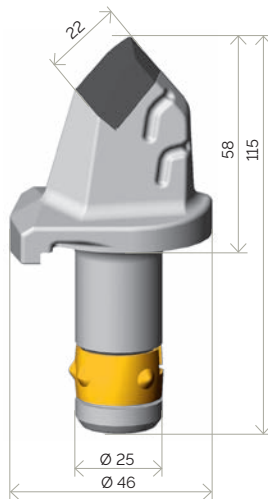
<b>Pick box</b>	<b>PH 600 UA</b>	●
<b>Part Number</b>	3311003040	
<b>For drum cutter model</b>	ER 600 ER 650	



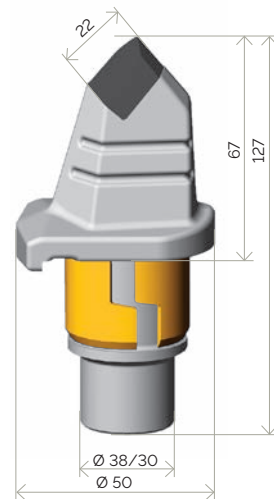
<b>Pick box</b>	<b>PH 5300 DT</b>	●
<b>Part Number</b>	3311003346	
<b>For drum cutter model</b>	ER 1500 ER 2000	



<b>Pick box</b>	<b>DT 22/46/38/22 H</b>	●
<b>Part Number</b>	3311002287	
<b>Application</b>	Soft to medium hard, abrasive ground and rock	



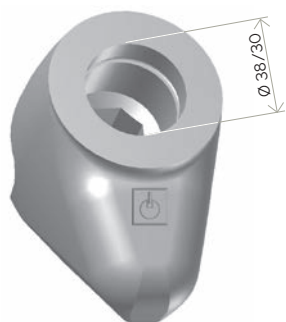
<b>Pick box</b>	<b>DT 22/58/46/25 H</b>	●
<b>Part Number</b>	3311002699	
<b>Application</b>	Soft to medium hard, abrasive ground and rock	



<b>Pick box</b>	<b>DT 22/67/50/38-30 H</b>	●
<b>Part Number</b>	3311003344	
<b>Application</b>	Soft to medium hard, abrasive ground and rock	

# Special and non-standard picks

## ER 650 | 1200 | 1500 Picks for mixing applications

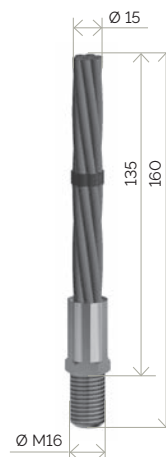


Pick box	PH 3000 MIX	●
Part Number	3311001499	

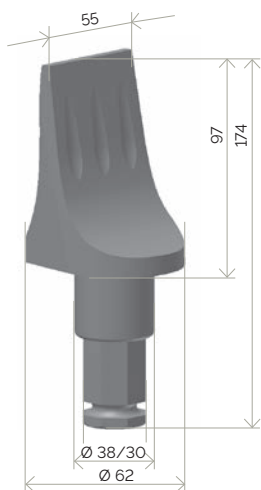


Pick box	PH 600 MIX	●
Part Number	3311000886	

## ER Range Steel brush for brush drum



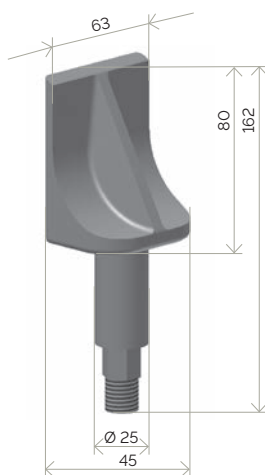
Steel brush type	BR 14/100/M16	●
Part Number	3311004260	



Pick type	EF 55/97/62/38-30 S	●
Part Number	3311002121	
Application	homogene, soft and sticky ground	



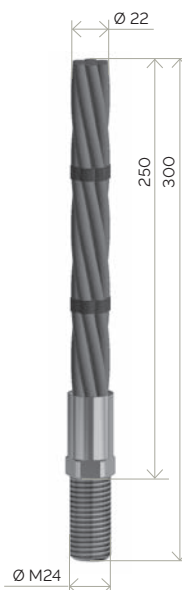
Retainer	ES 3000 MIX	
Part Number	3311002186	



Pick type	EF 63/80/45/25 W	●
Part Number	3311000887	
Application	homogene, soft and sticky ground	



Retainer	Fastening disk and lock nut	
Part Number	Disk 3311002988 Nut 3311000661	



Steel brush type	BR 22/200/M24	●
Part Number	3311003531	

# Tools for installation and removal



<b>Tool</b>	<b>Knockout tool</b>
<b>Part Number</b> for picks with shaft diameter 20–30mm	3311000989



<b>Tool</b>	<b>Puller for picks with retaining sleeves</b>
<b>Part Number</b> for picks with shaft diameter 20–22mm for pick ER 16/48/32/20 H (page 9)	3311000991 3311002042



<b>Tool</b>	<b>Mounting tool for retaining clips</b>	<b>Dismantling tool for retaining clips</b>
<b>Part Number</b> for retaining clip ES 100	3311004215	3311004216
for retaining clip ES 250	3311002612	3311002613
for retaining clip ES 450	3311002196	3311002197
for retaining clip ES 600	3311002377	3311001335
for retaining clip ES 1500	3311002876	3311002195
for retaining clip ES 5000	3311004217	3311004218



<b>Tool</b>	<b>Mounting gripper for circlip retainers</b>
<b>Part Number</b> for picks with shaft diameter till 25mm for picks with shaft diameter from 30mm	3311002520 3311002194



<b>Tool</b>	<b>Puller tool for QuickSnap retainers</b>
<b>Part Number</b>	3311000980



<b>Tool</b>	<b>Knockout tool for stuck picks</b>
<b>Part Number</b> for picks with shaft diameter 20–25mm for picks with shaft diameter 30–38mm	3311002039 3311002872



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