

# **KEMROC**<sup>®</sup>

revolution of cutting



English

**SPECIAL  
ROCK CUTTERS**

An innovative, German engineering company developing revolutionary excavator attachments – focused on product development, quality engineering and reliability.

Cutter attachments are our passion. With more than 20 years' experience, we develop and manufacture cutter attachments for excavators and backhoe loaders. Our attachments are robust and strong with main components made in Germany.

Together with our customers, we are constantly developing new solutions for demolition, construction, and mining applications. Challenge us! We guarantee specialist information and professional service for our products. Our international team of specialists will be happy to support you with your individual project.

Attention during production and assembly guarantees the highest level of quality and reliability.

Excellent Service. We support you, our team can help install your KEMROC attachment and train your operators.



Modern production facilities.

revolution of cutting

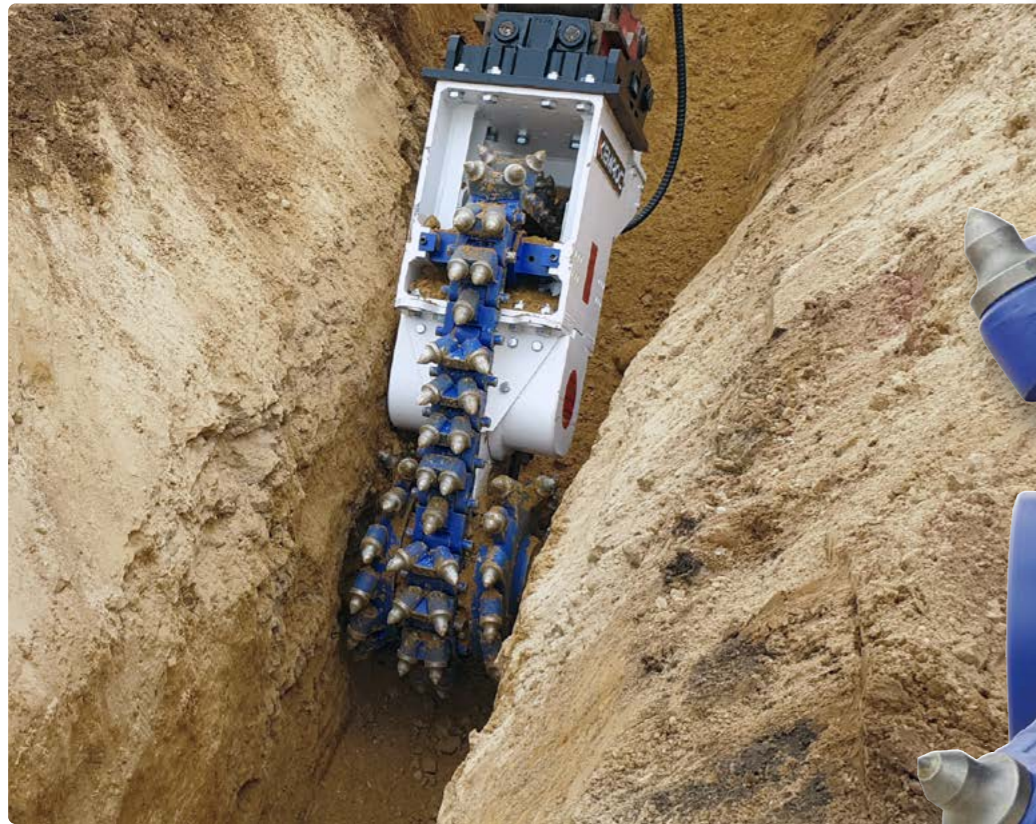
# CONTENT

	Page		Page	
<b>FEATURES</b>				
Attachments for all trench sizes	4	<b>KSI RANGE</b>		
Cutting technology	5	Injection attachments for permeating cohesive soils with a cement suspension	32	
<b>EK RANGE</b>				
Chain cutters — reduce wear & tear on the excavator swing gear and save energy	6	<b>EBA RANGE</b>		
Auger drive attachments for excavators and backhoe loaders				34
<b>EKT RANGE</b>				
Rotary drum cutters — can be converted into EK chain cutters	10	<b>KTR RANGE</b>		
Trenching attachments for medium hard rock				36
<b>KR RANGE</b>				
Rotary drum cutters with spur gears	12	<b>KDS RANGE</b>		
Diamond saws for rock, concrete, plastic, GRP, aluminium, wood and foil				38
<b>KRD RANGE</b>				
Rotary drum cutters with direct drive	16	<b>KRM RANGE</b>		
Rotation units with endless rotation				40
<b>KRC RANGE</b>				
Bullhead cutters with full-face coverage for narrow trenches	18	<b>TOOLS</b>		
Picks with matching retainers, pick boxes, diamond saw blades, mounting and dismantling tools				42
<b>DMW RANGE</b>				
Cutter wheels with double motor for rock up to 140 MPa	20			
<b>KRX RANGE</b>				
Powertool drives with attachments for milling, drilling and mixing	24			
<b>EX RANGE</b>				
Patch planers for milling asphalt and concrete with accurate depth control	28			
<b>ES RANGE</b>				
Cutter heads for asphalt, concrete and rock	30			



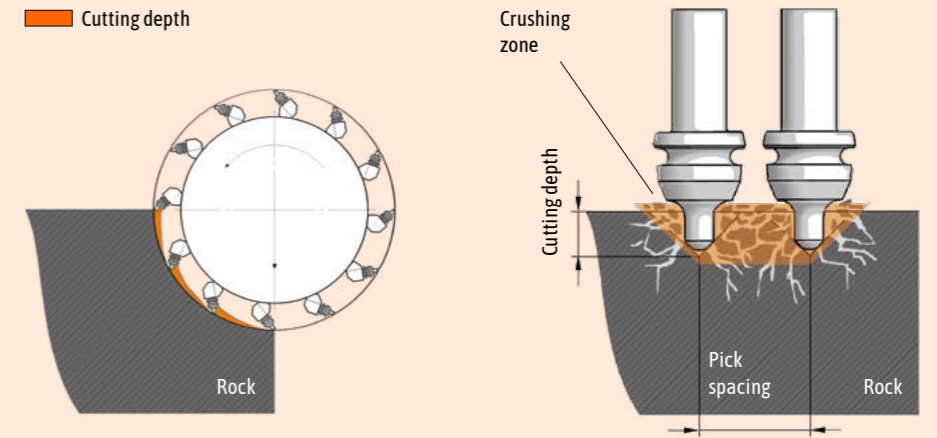
# FEATURES

KEMROC cutter attachments work reliably and efficiently in almost any material. Steel, concrete, rock, wood – wherever KEMROC cutter attachments are used, material is removed safely and accurately.



## CUTTING TECHNOLOGY

When grinding with round attack picks, each tool penetrates into the rock along parallel paths and breaks material out from the space between the paths. The cutting rate depends to a large degree on the uniaxial compressive strength of the rock being cut. Other significant factors affecting production rates include the hydraulic pressure and flow that the excavator is able to supply to the attachment, as well as the stability and weight of the excavator.



The experience gained from many years of cutting rock has gone into the design of the cutter wheels, drums and chains. They are designed to give maximum cutting performance with minimum wear costs. The selection of picks and boxes, as well as the design of the pick pattern, are part of our continuous product improvement.

## ATTACHMENTS FOR ALL TRENCH SIZES

Trenching attachments from KEMROC provide options for trench widths from 8 centimeters.

	Min. trench width mm	Max. trench width mm	Trench depth mm	Recommended excavator weight t	Max. uniaxial compressive strength MPa	Page
DMW Cutter Wheels	80	400	400–1,000	14–120	140	20
KTR Trenching Attachments	170	450	1,000–1,800	18–35	60	36
KRX Powertool Drives	370	550	100–3,000	5–50	140	24
EK Chain Cutters	390	–	100–8,000	2–70	140	6
EKT Rotary Drum Cutters	600	–	200–8,000	2–70	150	10
KRC Bullhead Cutters	600	–	200–8,000	12–50	100	18
KR Rotary Drum Cutters	700	–	200–8,000	0.6–125	180	12
KRD Rotary Drum Cutters	750	–	200–8,000	0.5–50	100	16





## **EK** RANGE

**Chain cutters — reduce wear & tear on the excavator swing gear and save energy**

 **2–70 t**

The EK range of chain cutters are the first of their type on the market. Designed for use on excavators from 2 to 70 tons, they are ideal for cutting stone with an uniaxial compressive strength up to 140 MPa. They are efficient, vibration-free attachments for the excavation of deep narrow trenches with the optimal trench profile. Trench width starts from 390 mm. Another application is mining of medium hard minerals with compressive strength from 15 to 80 MPa, where drill and blast is not possible.

KEMROC chain cutters excavate trenches no wider than absolutely necessary. The continuous chain, driven by the cutter drums, removes the material automatically from the space between the cutter drums. With standard drum cutters, the need to remove this material on technical grounds always results in trenches wider than the cutter. Keeping trenches to the minimum width possible saves unnecessary transport costs for removal of cut material and fill material becomes cheaper. The material produced by the chain cutter is fine grained and is ideal for use as fill.

EK chain cutters reduce wear and tear on the excavator swing gear. In addition, they give a 40 percent energy saving for equivalent production rates compared to conventional rotary drum cutters without the central chain.



**EK 140**  
Trenching and  
pipeline work



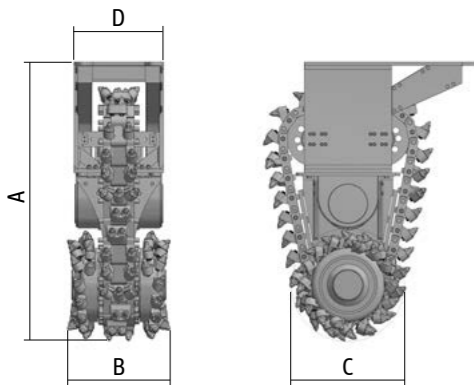
## Chain cutters — reduce wear & tear on the excavator swing gear and save energy

Minimal wear on excavator as the method of operation is similar to using the bucket i.e. eliminates need for swing motion

Needs approx. 40 percent less energy than equivalent drum cutter without a chain between the drums

Range of cutting widths available

		<b>EK 20</b>	<b>EK 40</b>	<b>EK 60</b>	<b>EK 100</b>	<b>EK 110</b>	<b>EK 140</b>	<b>EK 150</b>	<b>EK 160</b>	<b>EK 220</b>
Recommended excavator weight	t	2–6	7–11	12–17	18–30	25–32	30–45	35–50	35–50	50–70
Rated power	kW	22	44	60	100	110	140	150	150	220
Drum cutter length (A)	mm	1,000	1,300	1,600	1,970	1,970	2,150	2,150	2,150	2,400
Cutting width (B)	mm	390	500	500 600	600 700 800	600 700 800	800 900 1,000	800 900 1,000	800 900 1,000	920
Cutter drum diameter (C)	mm	320	475	600	800	800	850	850	850	990
Width of gearbox (D)	mm	365	375	455	565	565	700	700	700	850
Recommended rotation speed	rpm	100	80	80	70	65	65	60	60	40
Recommended oil flow	l/min	20–40	70–90	130–160	180–240	210–260	260–300	280–320	290–330	420–550
Max. oil flow	l/min	50	120	220	260	300	420	450	450	650
Max. operating hydraulic pressure	bar	300	380	400	400	400	400	400	400	400
Torque at 380 bar	Nm	2,000 @ 300 bar	5,700	11,000	18,300	24,500	26,000	30,300	34,000	73,000
Cutting force at 380 bar	kN	12.5 @ 300 bar	24.0	36.7	45.8	61.3	61.2	71.3	80.0	147.5
Max. uniaxial compressive strength	MPa	25	30	50	80	80	100	100	120	140
Weight	kg	315	750	1,250 1,300	2,450 2,510 2,620	2,450 2,510 2,620	3,650 3,700 3,800	3,650 3,700 3,800	3,650 3,700 3,800	5,900
Pick box	Type	PH14	PH20	PH22	PH32 HD	PH32 HD	PH32 HD	PH32 HD	PH32 HD	PH38 HD
Number of picks in cutter drums	Pcs	56	52	40 60	28 40 48	28 40 48	44 48 56	44 48 56	44 48 56	44
Number of picks in the cutter chain	Pcs	54	49	53	54	54	63	63	63	58
Standard pick	Type	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>6</b>



- 1** ER 15/29/26/14 C
- 2** ER 16/46/38/20 C
- 3** ER 15/46/38/22 C
- 4** ER 17/75/70/30 Q
- 5** ER 19/75/70/30 Q
- 6** ER 25/80/80/38 C

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter heads can be supplied with a choice of pick according to the type of pick box used.

The EK range is patent protected.

**+** Fine grained cut material  
Low noise and vibration levels

**+** Works underwater without need for modifications



### APPLICATIONS

Trenching and pipeline work  
Mining of soft to medium hard minerals  
Can also be used for concrete renovation, profiling, underwater excavations and tunnelling



Further application examples on

[www.kemroc.de](http://www.kemroc.de)

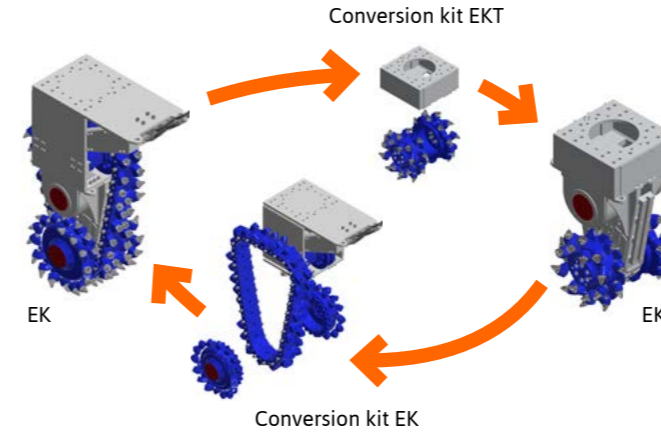
# EKT RANGE

## Rotary drum cutters — can be converted into EK chain cutters

 2–70 t



Converts from a rotary drum cutter to a chain cutter and vice versa.



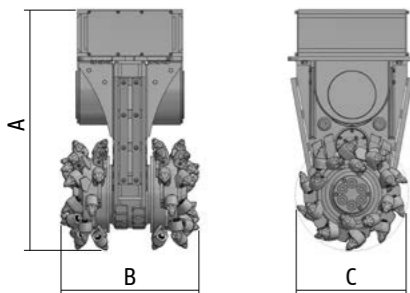
The patented EK range of chain cutters are one of our core products and continues to be recommended as an ideal tool for trenching contractors. This concept is being expanded with the addition of the new EKT range of

traditional style drum cutters. These lower priced models are supplied as rotary drum cutters without a central cutting chain, but conversion kits are available so that cutter chains can be fitted later.

- +** Can be converted to an EK model
- Fast and strong**
- Two motors for extra hydraulic power**

**EKT 20    EKT 40    EKT 60    EKT 100    EKT 110    EKT 140    EKT 150    EKT 160<sup>[1]</sup>    EKT 220**

	t	2–6	7–11	12–17	18–30	25–32	30–45	35–50	35–50	50–70
Recommended excavator weight	t	2–6	7–11	12–17	18–30	25–32	30–45	35–50	35–50	50–70
Rated power	kW	22	44	60	100	110	140	150	150	220
Possibility of conversion to a chain cutter	yes/no	yes	yes	yes	yes	yes	yes	yes	yes	yes
Drum cutter length (A)	mm	540	1,000	1,190	1,460	1,460	1,540	1,540	1,540	1,760
Cutter head width (B)	mm	410	500	500 600	700 800	700 800	880	880	880 [1,060]	920 1,300
Cutter drum diameter (C)	mm	225	445	590	690	690	720	720	720	860
Recommended rotation speed	rpm	100	80	80	70	65	65	60	60	40
Recommended oil flow	l/min	20–40	70–90	130–160	180–240	210–260	260–300	280–320	290–330	500–600
Max. oil flow	l/min	50	120	220	260	300	420	450	450	650
Max. operating hydraulic pressure	bar	300	380	400	400	400	400	400	400	400
Torque at 380 bar	Nm	2,000 @ 300 bar	5,700	11,000	18,300	24,500	25,400	30,300	34,000	73,000
Cutting force at 380 bar	kN	17.8 @ 300 bar	25.6	37.3	53.0	71.0	70.6	84.2	94.4	169.8
Max. uniaxial compressive strength	MPa	25	30	50	80	80	100	100	120	140
Weight	kg	130	430	725 775	1,300 1,360	1,300 1,360	2,000	2,000	2,000 [2,500]	3,100 3,550
Pick box	Type	PH14	PH20	PH22	PH32 HD	PH32 HD	PH32 HD	PH32 HD	PH32 HD	PH38 HD
Number of picks	Pcs	56	52	40 60	40 44	40 44	44	44	44 [56]	44 60
Standard pick	Type	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>6</b>



- 1** ER 15/29/26/14 C
- 2** ER 16/46/38/20 C
- 3** ER 15/46/38/22 C
- 4** ER 17/75/70/30 Q
- 5** ER 19/75/70/30 Q
- 6** ER 25/80/80/38 C

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter drums can be supplied with a choice of pick according to the type of pick box used.

<sup>[1]</sup> Also available in an HD-version with wider cutter head (EKT 160 HD). Revised values shown in square brackets.

- +** Tough, rigid gearbox housing
- Drums supported on robust bearings**
- Protection for hydraulic hoses**
- Works underwater without need for modifications**



### APPLICATIONS

Trenching and pipeline work  
Mining of soft to medium hard minerals

Can also be used for concrete renovation, profiling, underwater excavations and tunnelling



EKT 100 | Trenching



EKT 100 | Trenching



Further application examples on

[www.kemroc.de](http://www.kemroc.de)

# KR RANGE

## Rotary drum cutters with spur gears

 0.6–125 t

In addition to standard EK and the convertible EKT range, traditional style rotary drum cutters are now also available from KEMROC. They are designated as the new KR range of drum cutters. Designed to be incredibly robust, these attachments are ideal for use on short arm excavators working in confined spaces, especially in tunnelling and also for the vibration free and silent demolition of re-enforced concrete structures.

Effective dust control is particularly important in demolition and tunnelling applications. The KR range of cutters are designed for the installation of an optional, hydraulically controlled water jet dust control system.



**KR 150**  
Concrete  
demolition



## Rotary drum cutters with spur gears



Extra heavy-duty, rigid gear box housing

Exceptional wear protection on the gearbox

Equipped for optional water spray dust suppression system

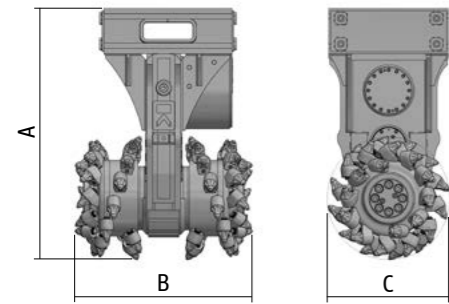
High torque motors for maximum cutting force

Drums supported on heavy-duty bearings

Protected hose management

Works underwater without need for modifications

		KR 15	KR 18	KR 20	KR 30	KR 35	KR 45	KR 50	KR 65	KR 80	KR 110 <sup>[1]</sup>	KR 120 <sup>[1]</sup>	KR 150 <sup>[1]</sup>	KR 160	KR 165	KR 200	KR 400
Recommended excavator weight	t	0.6–3	2–4	2–4	5–8	5–8	9–15	9–15	12–18	15–25	20–35	25–45 [20–40]	30–50	35–55	35–55	50–70	80–125
Rated power	kW	15	18	18	30	30	45	45	65	80	110	120	120	160	160	200	400
Drum cutter length (A)	mm	628	628	636	846	848	990	1,014	1,195	1,235	1,470	1,470	1,470	1,596	1,590	1,650	1,970
Cutter head width (B)	mm	425	425	495	520	620	600	690	805	805	1,040 [880]	1,040 [880]	1,040 [880]	1,050	1,250	1,330	1,600
Cutter drum diameter (C)	mm	225	225	240	370	370	400	450	587	587	718	718	718	718	720	805	920
Recommended rotation speed	rpm	100	100	100	100	100	90	90	80	85	75	75	70	65	65	55	50
Recommended oil flow	l/min	15–25	25–40	25–40	50–80	50–80	90–120	90–120	120–150	150–190	200–280	250–320	250–320	300–390	300–390	350–450	700–950
Max. oil flow	l/min	40	60	60	90	90	130	130	170	210	300	350	360	400	400	500	1,000
Max. operating hydraulic pressure	bar	400	400	400	400	400	400	400	400	400	400	400	400	400	400	380	380
Torque at 380 bar	Nm	1,000	2,000	2,000	4,500	4,500	6,300	6,300	11,300	15,200	20,200	25,400	30,300	36,400	36,400	51,000	118,500
Cutting force at 380 bar	kN	8.9	17.8	16.7	24.3	24.3	31.5	28.0	38.5	52.9	56.3	70.8	84.4	101.4	101.1	126.7	257.6
Weight	kg	155	155	167	310	340	480	530	892	1,070	2,000 [1,780]	2,000 [1,780]	2,000 [1,780]	2,500	2,800	3,500	6,000
Pick box	Type	PH14	PH14	PH14	PH20	PH20	PH20	PH22	PH30 HD	PH30 HD	PH32 HD	PH32 HD	PH32 HD	PH32 HD	PH32 HD	PH38 HD	PH38 HD
Number of picks	Pcs	44	44	56	44	64	44	44	44	44	56 [44]	56 [44]	56 [44]	56	64	64	68
Standard pick	Type	1	1	1	2	2	2	3	4	4	4	4	5	5	5	6	6



- 1 ER15/29/26/14 C
- 2 ER16/46/38/20 C
- 3 ER12/45/38/22 HC
- 4 ER17/75/70/30 Q
- 5 ER19/75/70/30 Q
- 6 ER25/80/80/38 C

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter drums can be supplied with a choice of pick according to the type of pick box used.

<sup>[1]</sup> Also available in a C-version with narrower cutter head (KR 110 C | 120 C | 150 C). Revised values shown in square brackets.



Housing with hydraulic hose protection.



Water jets for dust suppression (optional).

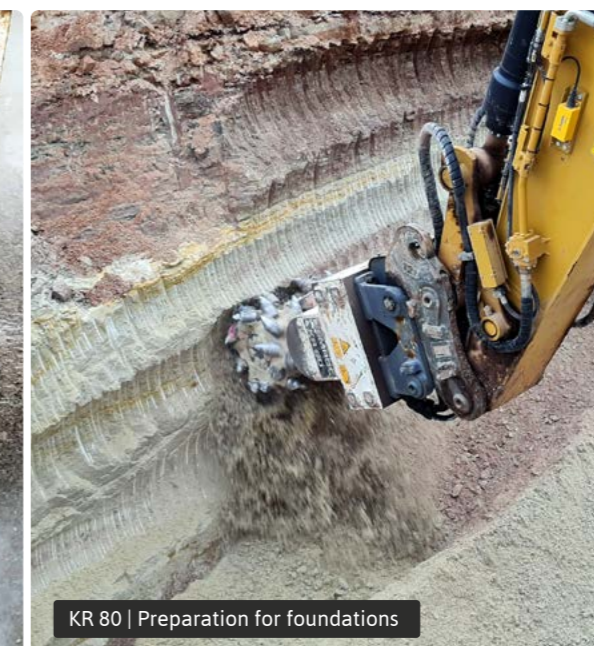
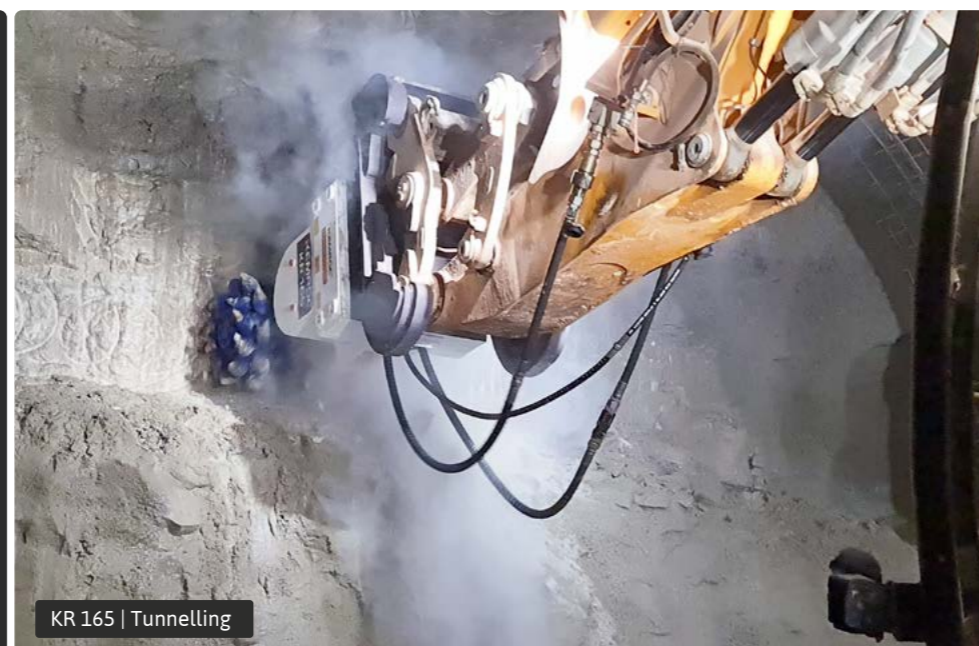


Tool pattern for optimum performance.

### APPLICATIONS

Tunnelling  
Demolition

Also used for trenching and pipeline work, renovating concrete, profiling, mining of soft minerals and underwater excavating



Further application examples on [www.kemroc.de](http://www.kemroc.de)



# KRD RANGE

## Rotary drum cutters with direct drive

 0.5–50 t



### APPLICATIONS

Demolition using long arm excavators  
Ground stabilisation  
Renovating concrete  
Also used for trenching and pipeline work, profiling, mining soft minerals, underwater excavations, tunnelling and shaft sinking

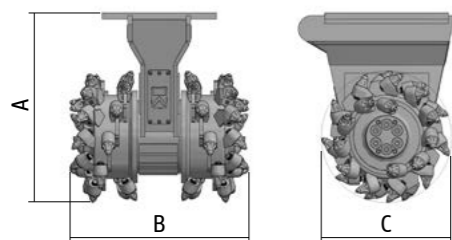
The KRD range of direct drive drum cutters can be described as compact, lightweight but strong. Lighter and shorter, these attachments are ideal for use on long-arm excavators for

demolition and shaft sinking applications. They can also be used for soil stabilisation and concrete renovation applications. Intentionally oversized bearings have been used to support

the cutter drums for a long operating life.

**KRD 15    KRD 18    KRD 30    KRD 45    KRD 70    KRD 100    KRD 120    KRD 150    KRD 165**

	t	0.5–2	2–4	5–8	9–16	17–25	20–40	25–40	30–40	35–50
Recommended excavator weight	t	0.5–2	2–4	5–8	9–16	17–25	20–40	25–40	30–40	35–50
Rated power	kW	15	18	30	45	70	110	120	120	160
Drum cutter length (A)	mm	511	511	632	670	951	1,070	1,070	1,070	1,072
Cutter head width (B)	mm	500	500	650	743	946	1,000	1,000	1,000	1,260
Cutter drum diameter (C)	mm	300	300	370	447	612	730	730	730	720
Recommended rotation speed	rpm	100	100	100	90	75	75	70	65	60
Recommended oil flow	l/min	15–25	25–40	50–80	90–120	150–200	220–300	250–330	280–350	300–390
Max. oil flow	l/min	40	60	90	130	230	350	350	350	400
Max. operating hydraulic pressure	bar	400	400	400	400	400	400	400	400	400
Torque at 380 bar	Nm	950	2,500	4,412	7,543	16,300	20,200	25,400	30,300	43,000
Cutting force at 380 bar	kN	6.3	16.7	23.8	33.7	53.3	55.3	69.6	83.0	119.4
Weight	kg	135	135	250	380	850	1,500	1,500	1,500	2,020
Pick box	Type	PH14	PH14	PH20	PH22	PH32 HD	PH32 HD	PH32 HD	PH32 HD	PH32 HD
Number of picks	Pcs	66	66	56	46	40	48	48	48	58
Standard pick	Type	1	1	2	3	4	4	4	4	5



- 1 ER 15/29/26/14 C
- 2 ER 16/46/38/20 C
- 3 ER 12/45/38/22 HC
- 4 ER 17/75/70/30 Q
- 5 ER 19/75/70/30 Q

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter drums can be supplied with a choice of pick according to the type of pick box used.



Direct drive



Further application examples on

[www.kemroc.de](http://www.kemroc.de)

# KRC RANGE

## Bullhead cutters with full-face coverage for narrow trenches

 12–50 t



The KRC range of Bullhead cutters have two cutter drums arranged at an angle to one another so that the two sets of picks provide full face coverage without any gap between them, eliminating the need to swing the cutter from side to side. Operating the

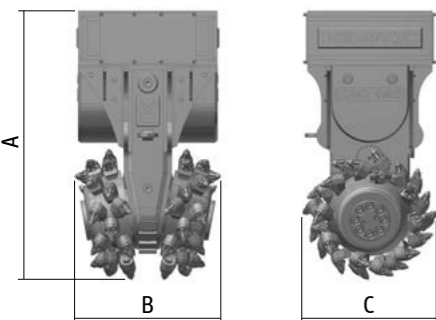
cutter without sideways movement creates a trench with the same width as the cutter attachment.

Compared to the EK range of chain cutters, which also have full-face coverage thanks to the central cutter

chain, the KRC range of bullhead cutters are easier to maintain. However, due to their design, they cannot achieve the extreme narrow trenching widths of the EK chain cutters.

### BULL HEAD

		KRC 60	KRC 100	KRC 110	KRC 140	KRC 150
Recommended excavator weight	t	12–17	18–30	20–32	25–40	35–50
Rated power	kW	60	100	110	140	150
Drum cutter length (A)	mm	1,200	1,390	1,390	1,520	1,520
Cutting width (B)	mm	600	810	810	880	880
Average cutter head diameter (C)	mm	545	650	650	700	700
Recommended rotation speed	rpm	85	75	70	65	65
Recommended oil flow	l/min	120–170	180–240	210–260	250–320	280–330
Max. oil flow	l/min	220	260	300	380	380
Max. operating hydraulic pressure	bar	400	400	400	400	400
Torque at 380 bar	Nm	9,000	16,000	20,000	25,400	30,300
Cutting force at 380 bar	kN	33.0	49.2	61.5	72.6	86.6
Max. uniaxial compressive strength	MPa	50	80	80	100	100
Weight	kg	850	1,450	1,450	1,950	1,950
Pick box	Type	PH 22	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD
Number of picks	Pcs	56	52	52	52	52
Standard pick	Type	1	2	2	2	3



- 1 ER 15/46/38/22 C
- 2 ER 17/75/70/30 Q
- 3 ER 19/75/70/30 Q

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter drums can be supplied with a choice of pick according to the type of pick box used.

Exceptional narrow width due to special design gearbox

Powerful hydraulics thanks to double motor design

Excavate narrow trenches without sideways movement

Ideal for soil stabilisation

Protected hose management

Operational to 30 meters underwater without need for modifications



### APPLICATIONS

Trenching and pipeline work  
Soil stabilisation



Further application examples on


[www.kemroc.de](http://www.kemroc.de)

KRC 140 | Trenching and pipeline work



# DMW RANGE

Cutter wheels with double motor for rock up to 140 MPa

 14–120 t

Cutter wheels in the DMW range were designed in cooperation with customers for attachment to hydraulic excavators. Two high torque, lateral hydraulic motors guarantee high production rates and maximum cutting forces. As a result, even in hard rock with a uniaxial compressive strength of 140 MPa as well as re-enforced concrete, very high productivity rates can be achieved. KEMROC produces these robust attachments in four sizes for excavators from 14 to 120 tons.

To meet the demands of many applications, KEMROC have developed cutter wheel variations for cutting depths to 1,000 millimeters. A choice of wheels with different tooling configurations and a range of widths up to 400 mm are available. Wheels with non-standard width and cutting depth are available on demand.

The DMW range is designed to work under water to depths of 30 meters, making the cutter wheels ideal for trenching and underwater demolition projects.



**C&B**  
CUT & BREAK



**de**

**DMW 220**  
Bridge demolition using the Cut & Break process



## Cutter wheels with double motor for rock up to 140 MPa

Two high torque hydraulic motors  
Smooth and regular cutting action  
Supports for vibration free cutting

Cutter wheels for various cutting depths and widths  
Optional – water nozzles for dust suppression

Operational to 30 meters under-water  
Ideally suited for concrete demolition

### DMW 90

Wheel 400 Wheel 600

### DMW 130

Wheel 400 Wheel 600 Wheel 800

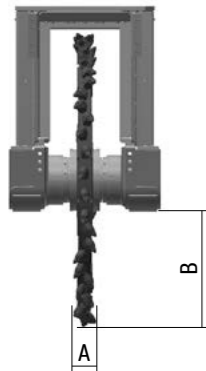
### DMW 220

Wheel 600 Wheel 800 Wheel 1000

### DMW 400

Wheel 1000

		DMW 90		DMW 130			DMW 220			DMW 400
		Wheel 400	Wheel 600	Wheel 400	Wheel 600	Wheel 800	Wheel 600	Wheel 800	Wheel 1000	Wheel 1000
Recommended excavator weight	t	14–25	14–25	20–40	20–40	25–40	40–60	40–60	45–60	50–70 <sup>[1]</sup>   70–120
Rated power	kW	90	90	130	130	130	220	220	220	400
Cutting width (A)	mm	80 130 200	80 130 200	80 130 200	80 130 200	80 130 200	130 200 400	130 200 400	130 200 400	130 200 400
Cutting depth (B)	mm	400	600	400	600	800	550	750	1,000	1,000
Cutter wheel diameter	mm	1,210	1,610	1,210	1,610	2,010	1,610	2,010	2,570	2,700
Recommended rotation speed	rpm	60	50	60	50	40	45	35	30	25
Recommended oil flow	l/min	150–190	120–170	280–340	250–340	200–300	450–600	380–600	350–600	600–900
Max. oil flow	l/min	200	200	340	340	340	700	700	700	1,000
Max. operating hydraulic pressure	bar	400	400	400	400	400	400	400	400	400
Torque at 380 bar	Nm	15,083	15,083	30,239	30,239	30,239	65,317	65,317	65,317	142,730
Cutting force at 380 bar	kN	24.9	18.7	50.0	37.6	30.1	81.1	65.0	50.8	105.7
Max. uniaxial compressive strength	MPa	60	40	100	80	60	120	120	100	140
Weight of drive unit, approx.	kg	1,100	1,100	1,150	1,150	1,150	2,750	2,750	2,750	5,500
Weight of cutter wheel, approx. <sup>[2]</sup>	kg	400	800	400	800	1,250	800	1,250	2,250	3,300
Weight of dipping device, approx.	kg	250	250	300	300	300	920	920	920	1,450
Weight of protection cover, approx.	kg	55	55	55	55	55	180	180	180	250
Total weight, approx.	kg	1,805	2,205	1,905	2,305	3,005	4,650	5,100	6,100	10,500
Pick box <sup>[3]</sup>	Type	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 38 HD
Standard pick <sup>[3]</sup>	Type	1	1	1	1	1	2	2	2	3



- 1 ER 17/75/70/30 Q
- 2 ER 22/75/70/30 Q
- 3 ER 25/80/80/38 C

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter wheels can be supplied with a choice of pick according to the type of pick box used.

KEMROC can supply wheels to order for various cutting widths and depths. Within technical boundaries, cutter wheels can be made to order.

<sup>[2]</sup> Cutter wheel weight depends on diameter and width.

<sup>[3]</sup> Contrary to what is shown in the table, 80 mm wide cutter wheels are fitted with PH 22 pick boxes and ER 15/46/38/22 C picks as standard.

<sup>[1]</sup> Attachment only with special adaptor to boom and additional counterweight on excavator.



### APPLICATIONS

- Concrete demolition
- Cable trenching
- Tunnelling
- Soft rock mining



Further application examples on

[www.kemroc.de](http://www.kemroc.de)



# KRX RANGE

Powertool drives with attachments for milling, drilling and mixing

 5-50 t

The new range of KRX Powertool drives are extremely robust and use a high torque radial piston motor to generate extremely high torque and cutting forces. Designed for use with a selection of sturdy attachments, they are an ideal addition to your excavator for a wide variety of applications.

Used with a cutter attachment, the KRX drive can be used in trenching, cutting out foundations or for profiling bored pile heads. With a heavy duty hexagonal shaft connection, different attachments can be exchanged quickly and easily.

Milling attachments fitted with dragotooth tools can be used in permafrost or for tree stump grinding. Dragotooth cutters can also be used for mixing and soil stabilisation.

When used with a drilling attachment, the Powertool drive can drill shallow holes up to 1,500 millimeters diameter. With heavy duty bearings and an oversized hexagonal shaft connection, these tools are extremely strong and capable of drilling rock with uniaxial compressive strengths up to 60 MPa.



**KRX 120**  
Working bored pile heads



# KRX RANGE

## Powertool drives with attachments for milling, drilling and mixing

Multifunctional and versatile thanks to a large selection of attachments

Quick interchangeability of attachments



### APPLICATIONS

#### Milling attachment

- Excavating foundations
- Profiling bored pile heads
- Tree stump grinding (dragontooth)

Also suitable for use in trenching, mixing soil formations and for cleaning slag out of runners in steel works

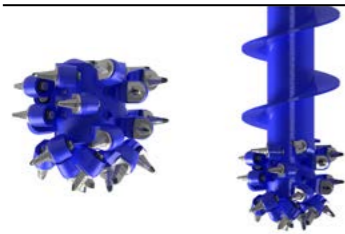
#### Drilling attachment

- Enlarging holes for sheet pile ramming
- Drilling holes for I-beam shoring
- Drilling planting holes for trees
- Exploratory drilling for ordnance disposal services
- Drilling foundations for sound barriers

#### DRIVE



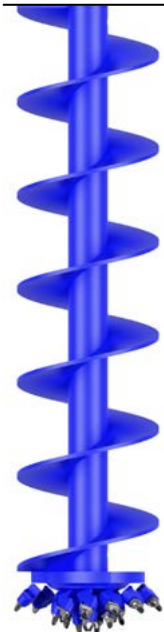
#### MILLING ATTACHMENT



Cutter head with round attack or dragon tooth picks

Cutter head with spiral extension

#### DRILLING ATTACHMENT



Drilling auger with pilot bit

		KRX 30	KRX 45	KRX 65	KRX 70	KRX 110	KRX 120	KRX 130	KRX 140
Recommended excavator weight	t	5-8	9-12	13-20	15-25	20-35	25-40	25-40	30-50
Rated power	kW	30	45	65	70	110	120	120	140
Length of drive unit	mm	550	610	610	830	842	842	842	875
Torque at 380 bar	Nm	4,500	7,500	11,300	16,000	25,400	30,300	33,000	36,400
Max. oil flow at 10 bar	l/min	110	130	190	300	320	350	350	390
Max. hydraulic pressure	bar	400	400	400	400	400	400	400	400
Weight without attachment	kg	160	240	260	520	540	540	540	900
Hex connection, standard	mm	80	80	80	160	160	160	160	160
<b>Milling attachment (optional)</b>									
Length of standard cutter head	mm	350	350	350	400	430	430	430	450
Diameter of standard cutter head	mm	370	400	400	450	500	500	500	550
Cutting force at 380 bar	N	24,324	37,500	56,500	71,111	101,600	121,200	132,000	132,364
Recommended rotation speed	rpm	80	70	70	75	70	60	60	50
Recommended oil flow	l/min	50-70	80-110	120-170	130-190	180-300	200-340	230-340	280-370
Pick box	Type	PH22	PH22	PH22	PH22	PH32 HD	PH32 HD	PH32 HD	PH32 HD
Number of picks	Pcs	26	29	29	30	26	26	26	30
Standard pick (round shaft)	Type	1	1	1	1	3	3	3	5
Standard pick (dragon tooth)	Type	2	2	2	2	4	4	4	4
<b>Drilling attachment (optional)</b>									
Max. drill diameter	mm	600	800	1,000	1,000	1,200	1,300	1,300	1,500
Min. drill diameter	mm	270	270	270	270	270	270	270	270
Max. drilling depth at max. drill diameter	mm	1,500	1,500	2,000	2,000	3,000	4,000	4,000	4,000
Max. drilling depth at min. drill diameter	mm	2,500	3,000	4,000	7,000	7,000	7,000	7,000	8,000
Max. uniaxial compressive strength of the ground	MPa	10	20	20	30	40	50	50	60
Recommended oil flow	l/min	30-70	40-100	80-150	100-190	150-250	180-300	190-300	220-350

- 1 ER12/45/38/22 HC      3 ER17/75/70/30 Q      5 ER19/75/70/30 Q
- 2 DT22/46/38/22 HC      4 DT22/90/70/30 HQ

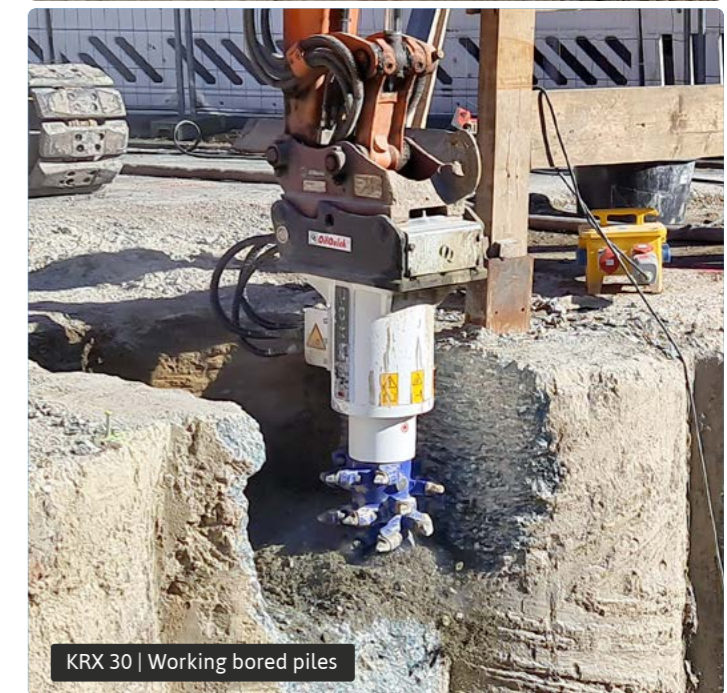
For an overview of standard picks, see pages 45 to 47. Depending on application, cutter heads can be supplied with a choice of pick according to the type of pick box used.



- High torque radial piston motors
- Heavy duty, long lasting bearings
- Exceptionally robust hexagonal shaft connector



KRX 120 | Drilling holes in concrete retaining walls



KRX 30 | Working bored piles



Further application examples on

[www.kemroc.de](http://www.kemroc.de)



## APPLICATIONS

- Repairing asphalt surfaces
- Removal of contaminated concrete surfaces
- Milling asphalt for house connections
- Milling walls and plaster removal
- Renovating locks
- Tunnel renovation



EX 45 HD | Tunnel renovation



EX 45 HD | Asphalt removal



Further application examples on

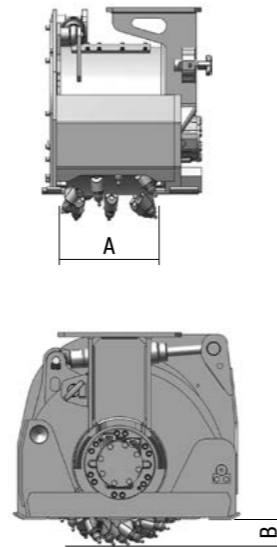
[www.kemroc.de](http://www.kemroc.de)

# EX RANGE

## Patch planers for milling asphalt and concrete with accurate depth control



1–23 t



Patch planers in the EX range are ideally suited for the repair of asphalt surfaces, removal of contaminated concrete or milling layers of screed. Mechanical or hydraulic depth control makes milling to very accurate depth possible, to a maximum of 19 centimeters.

Regardless of whether horizontal, vertical or inclined – the EX range can be used on any surface orientation. KEMROC planers can even be used on overhead surfaces, as can be

found for example, in some tunnelling applications. Patch planers produce clean, smooth cut edges (pre-cutting is not necessary) and a fine grained cut material that can be used in other applications.

Depending on the material to be milled, cutter drums can be fitted with different tooling variations. In addition, non-standard drum types and widths can be supplied to meet unusual working conditions and ensure the best performance possible.



**A rigid support frame with wear resistant slides**

**High torque, modifiable, hydraulic motor**

**Robust housing, low vibration**

**Accurate depth control (mechanical or hydraulic)**

**Smooth cut edges and fine grained cut material**

**Integrated water jets for dust control (connections for vacuum dust extraction optional)**

		EX 20	EX 20 HD	EX 30 HD	EX 45 HD	EX 60 HD
Recommended excavator weight	t	1–3	2–4	5–10	10–16	15–23
Rated power	kW	22	22	30	65	80
Cutting width, standard (A)	mm	200	200	300	450	600
Cutting depth, adjustable (B)	mm	0–70	0–70	0–120	0–150	0–190
Recommended rotation speed	rpm	80–200	80–200	80–125	70–110	70–95
Recommended oil flow at 100 bar	l/min	20–50	25–65	60–95	110–170	150–200
Min. oil flow	l/min	20	25	60	100	150
Max. oil flow	l/min	70	90	110	180	210
Max. operating hydraulic pressure	bar	310	310	380	380	380
Torque at 350 bar	Nm	660 @ 205 bar	1,000 @ 205 bar	4,100	8,700	9,300
Cutting force at 350 bar	kN	4 @ 205 bar	6 @ 205 bar	16	30	28
Operating weight	kg	165	170	400	730	1,230
Pick box	Type	PH 14	PH 14	PH 20	PH 20	PH 20
Number of picks	Pcs	42	42	35	49	69
Standard pick	Type	1	1	2	2	3
<b>EX RANGE WITH ROTATION UNIT</b>		<b>EXR 20</b>	<b>EXR 20 HD</b>	<b>EXR 30 HD</b>	<b>EXR 45 HD</b>	<b>EXR 60 HD</b>
Recommended excavator weight	t	1–3	2–4	6–10	12–16	16–23
Operating weight	kg	250	255	585	1,010	1,700

- 1 ER 16/28/26/14 H
- 2 ER 16/48/32/20 H
- 3 ER 19/48/36/20 H

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter drums can be supplied with a choice of pick according to the type of pick box used.

## Cutter heads for asphalt, concrete and rock

 1–40 t



The ES range of cutter heads are ideally suited for accurate profiling of horizontal or vertical surfaces. Whether for surface cleaning, profiling, straightening or simply for material removal, depending on the application, various types of cutter drum can be used for processing asphalt, concrete and rock.

ES cutter heads are available for excavators with 1 to 40 ton operating weight and can be used in conjunction with stepless rotation modules.



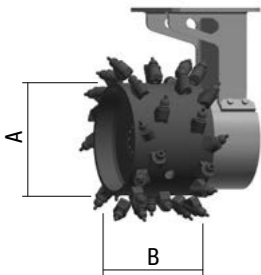
**Tool carrier with high torque hydraulic motor**

**Milling attachment for the precise removal of material from horizontal and vertical surfaces**

**An integrated rotation unit, providing continuous stepless rotation, is available as an option**

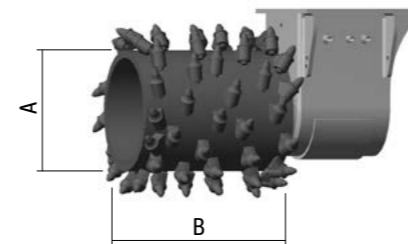
**ES 20 ES 20HD ES 30HD ES 45HD ES 60HD ES 80HD ES 110HD**

		ES 20	ES 20HD	ES 30HD	ES 45HD	ES 60HD	ES 80HD	ES 110HD
Recommended excavator weight	t	1–3	2–4	5–10	10–16	15–23	15–25	25–40
Rated power	kW	22	22	30	65	80	80	110
Diameter of cutter drum (A)	mm	360	360	520	580	670	825	785
Width of cutter drum (B)	mm	200	200	300	450	600	600 800	600 800 1,000
Cutting depth	mm	85	85	110	110	190	150	105 150
Min. oil flow	l/min	20	25	60	100	150	150	210
Max. oil flow	l/min	70	90	110	180	210	210	350
Max. hydraulic pressure	bar	310	310	380	380	380	380	380
Torque at 350 bar	Nm	1,127	1,710	4,100	8,700	11,700	15,200	27,800
Pick box	Type	PH14	PH14	PH20	PH20	PH20	PH32 HD	PH32 HD
Number of picks	Pcs	42	42	35	49	69	69 (800 mm)	44 (600 mm)
Standard pick	Type	1	1	2	2	2	3	4



- 1 ER16/28/26/14 H
- 2 ER16/48/32/20 H
- 3 ER17/75/70/30 Q
- 4 ER19/75/70/30 Q

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter drums can be supplied with a choice of pick according to the type of pick box used.



### APPLICATIONS

- Grinding jet grouting material
- Lock renovation
- Grinding retaining walls
- Profiling blocks of natural stone
- Grinding shotcrete in tunnels
- Cleaning concrete piled walls



Further application examples on

[www.kemroc.de](http://www.kemroc.de)



# KSI RANGE

## Injection attachments for permeating cohesive soils with a cement suspension

 35–120 t

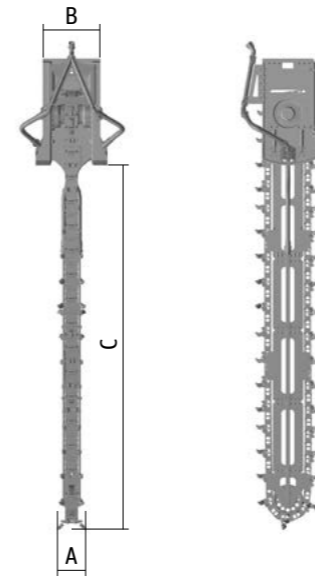
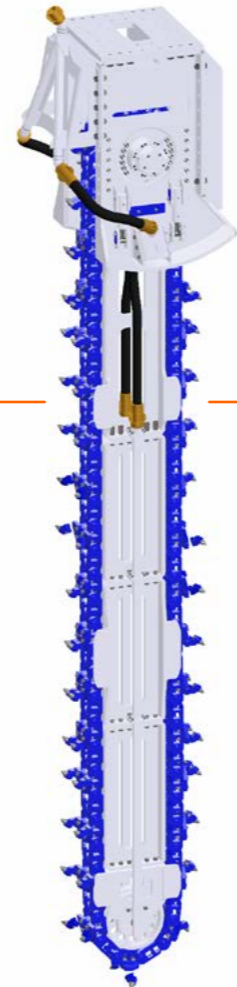
The KSI range of injection attachments were developed in cooperation with a German specialist ground engineering company and are at the core of the Kemsolid KSI process.

The Kemsolid KSI process is a system of soil stabilisation using an excavator attachment to inject and mix a defined concrete suspension in non-load bearing soils (KSI) that, when left to harden, create a homogenous, impermeable and frost resistant soil-cement structure. Depending on soil conditions and desired load bearing requirements, various concentrations of cement and binder fluid are used.

KSI soil mixing attachments are available in two sizes for mounting on excavators between 35 and 120 ton

operating weight and can be supplied with a range of blade lengths. The KSI 7000 model can be equipped with blades suitable for mixing depths of 5, 6 or 7 meters, while the larger KSI 12000 model can take blades for mixing depths of 6, 8, 10 or 12 meters. Depending on the application, the blades can be produced with cutter plates for different mixing widths.

Both models can be supplied with a rotation module as an optional extra.



**Mixing blade extendable to 12 meters**

**The attachment can be mounted on standard excavators**

**Optimal pattern of tungsten carbide tipped tools for the mixing process**

**High torque drive motors provide enough power to mix heavy soils**

**Simple, heavy-duty construction**

**Hydraulic tensioning of the mixing chain is possible**

**KSI  
7000**

**KSI  
12000**

Recommended excavator weight	t	35–55	50–80 <sup>[1]</sup>   80–120
Rated hydraulic power	kW	130	220
Mixing width (A)	mm	350–500	450–600
Width of gearbox (B)	mm	1,000	1,360
Modular mixing depth (C)	m	5   6   7	6   8   10   12
Recommended chain speed	m/s	2.0–2.5	2.0–2.5
Recommended oil flow at 150 bar	l/min	300–400	550–700
Max. oil flow	l/min	400	700
Max. operating hydraulic pressure	bar	400	400
Max. permissible ground compressive strength	MPa	10	10
Standard mixing tool	Type	DT 22/46/38/22 HC	DT 22/90/70/30 HQ
<b>Weight</b>			
Weight of attachment built for max. mixing depth	kg	4,500	12,500
Weight per meter for extension	kg	350	700

<sup>[1]</sup> Attachment only with special adaptor to boom and additional counterweight on excavator. Size of counterweight depends on excavator and should be agreed with excavator manufacturer.

**KEMSOLID**<sup>®</sup>  
build on solid foundations



### APPLICATIONS

Road construction – soil cement, edge beams, shoulder renovation, slope and embankment stabilisation

Flood defences – sealing walls, dam stabilisation, diaphragm walls

De-contamination

Retaining walls – building construction, civil engineering, pipelines

Foundations

Railway construction



KSI 7000 | Installing a diaphragm wall from soil-cement mixture



A completed soil cement structure exposed for inspection and testing



KSI 12000 | Installing a diaphragm wall



Further application examples on

[www.kemsolid.com](http://www.kemsolid.com)



## APPLICATIONS

- Pre-drilling for rammed sheet piles
- Drilling holes for I-beam shored walls
- Drilling holes for tree planting
- Exploration drilling for ordnance disposal services



EBA 2300 | Special foundation work



EBA 2300 | Drilling for support shoring

EBA 2800 | Drilling for support shoring



Further application examples on

[www.kemroc.de](http://www.kemroc.de)

# EBA RANGE

## Auger drive attachments for excavators and backhoe loaders

7–40 t



The EBA range of auger drive units allows you to quickly convert your excavator or backhoe loader into a drill rig by simply changing the attachment.

These auger drive units are ideal for drilling holes in soft to compact

soils, cobbles and in soft rock with compressive strengths up to 50 MPa.

For use in harder rock, KEMROC have developed special drilling tools to ensure higher drilling speeds.

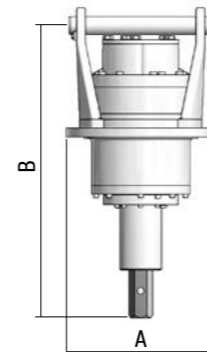


**Short and heavy duty construction**

**Robust and rigid bracket**

**Direct drive without planetary gears**

**Robust hexagonal shaft connector**



**EBA  
500**

**EBA  
1000**

**EBA  
2300**

**EBA  
2800**

**EBA  
3300**

		<b>EBA 500</b>	<b>EBA 1000</b>	<b>EBA 2300</b>	<b>EBA 2800</b>	<b>EBA 3300</b>
Recommended excavator weight	t	7–13	14–17	18–35	25–40	25–40
Max. drill diameter	mm	800	1,000	1,200	1,500	1,500
Min. drill diameter	mm	200	200	300	300	300
Max. drilling depth at max. drill diameter	mm	2,000	3,000	4,000	4,000	4,000
Max. drilling depth at min. drill diameter	mm	5,000	5,000	8,000	8,000	8,000
Diameter of drive unit (A)	mm	390	390	500	500	500
Length of drive unit (B)	mm	600	600	980	980	980
Max. torque	Nm	5,200	10,400	23,400	28,000	33,000
Recommended oil flow	l/min	50–70	80–150	150–250	180–280	180–280
Max. oil flow	l/min	85	150	300	300	300
Max. operating hydraulic pressure	bar	380	380	380	380	380
Max. rotation speed	rpm	90	80	75	75	75
Auger connection	Type	H 80	H 80	H 80	H 80	H 80
Weight excl. hydraulic hoses and mounting plate	kg	160	180	360	360	360



Alignment monitor



### Notes for drilling with KEMROC auger drive units:

When mounted on an excavator arm, the augers are not supported in a feeder. Due to the natural curve of the excavator arm, augers can be bent during drilling. Therefore, special care must be taken to ensure that the augers are always working vertically. Only by keeping the auger in the vertical position can you guarantee a straight bore hole. Take great care to avoid bending the augers. Excessive bending of the auger can result in the hex drive breaking and damage to the auger drive. Select the auger rotation speed that corresponds to the auger diameter and material being drilled. Generally, rotation speeds should be lower for larger diameter augers or when drilling in harder material.

**Alignment monitor to guarantee vertical drilling**

**Wear resistant augers**

**Auger drives for tough applications**



# KTR RANGE

## Trenching attachments for medium hard rock

 18–35 t

The KTR range of trenchers can produce trenches with perfect profiles in widths from 17 to 45 centimeters to a maximum depth of 1.8 meters. Chose from a range of cutting chain widths, each fitted with wear resistant picks.

When starting the trench, the KTR is supported while sumping down to the

desired cutting depth. When the trencher has reached the required depth, the excavator is driven backwards or the trencher is pulled forward with the excavator arm. Finally, the milled material is transported via



a special discharge housing or screw conveyor and deposited next to the trench.

Driven by two high torque hydraulic motors to obtain maximum cutting force

Housing with spoil discharger and sumping aid

Adjustable length cutter chain

Maintenance free cutter chain with high operating life



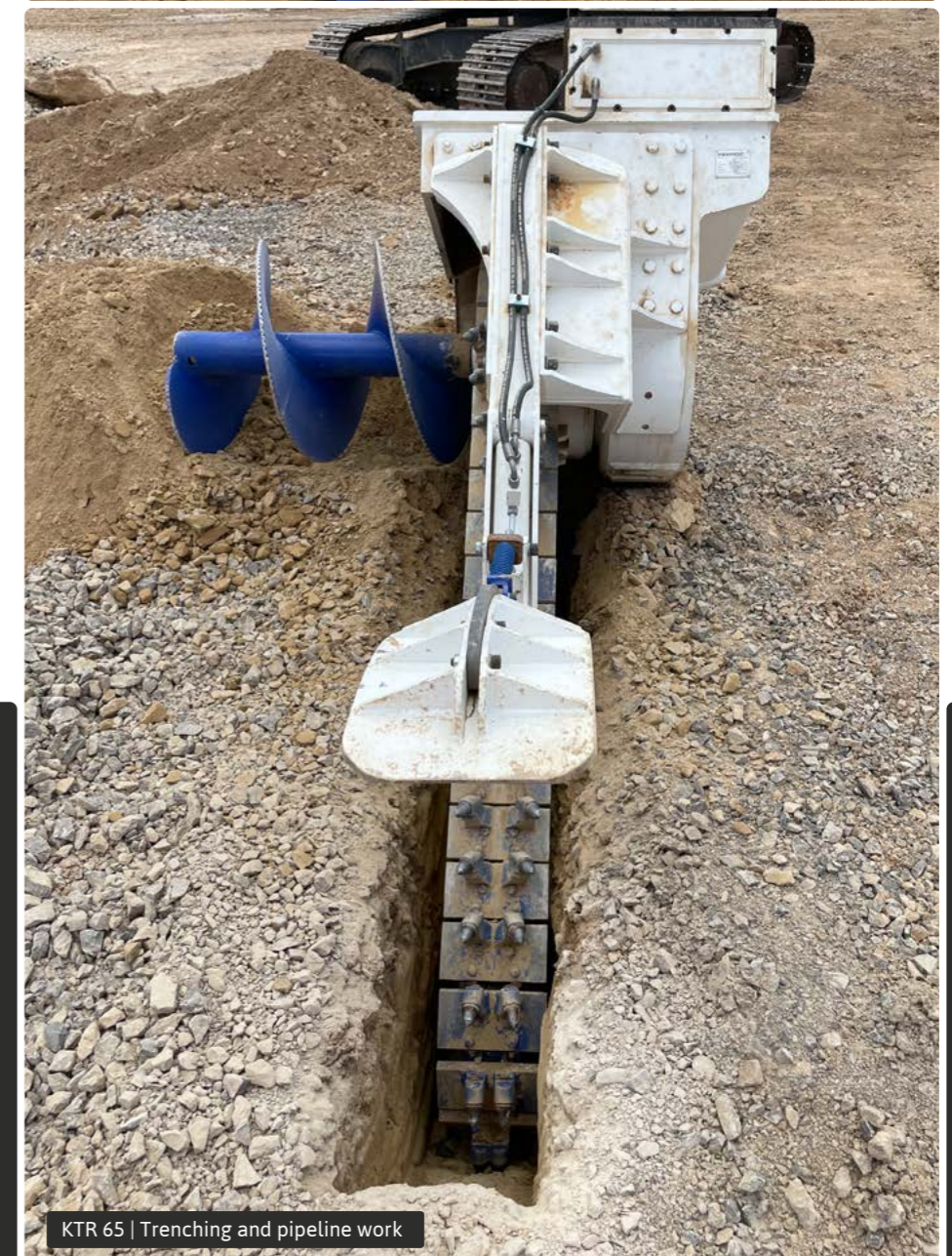
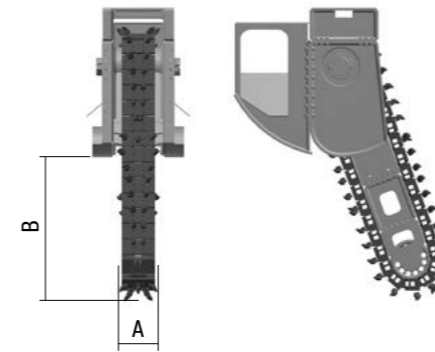
KTR 130 | Trenching and pipeline work

### KTR 65

### KTR 130

Recommended excavator weight	t	18–25	25–35
Rated power	kW	65	130
Cutting width, standard (A)	mm	170–350	200–450
Cutting depth (B)	mm	1,000–1,800	1,000–1,500
Recommended oil flow at 150 bar	l/min	170–200	250–350
Max. oil flow	l/min	200	350
Max. uniaxial compressive strength	MPa	50	60
Weight	kg	2,700	3,000
Pick box	Type	PH 22	PH 22
Standard pick	Type	ER 12/45/38/22 HC	ER 12/45/38/22 HC

For an overview of standard picks, see pages 45 to 47. Depending on application, cutter chains can be supplied with a choice of pick according to the type of pick box used.



KTR 65 | Trenching and pipeline work



### APPLICATIONS

Trenching and pipeline work



KTR 130 | Trenching and pipeline work



Further application examples on

[www.kemroc.de](http://www.kemroc.de)



KDS 50 | Cutting concrete

# KDS RANGE

Diamond saws for rock, concrete, plastic, GRP, aluminium, wood and foil



 2–30 t

The KDS range of diamond saws were designed to cut concrete, stone and GRP (glass fiber reinforced plastic) as used for wind turbine blades. High rotation speeds combined with a large choice of different saw blade types makes them very effective in a wide range of applications.

**Saw blades for:**

- + Natural stone, granite, concrete and reinforced concrete
- + Asphalt and plastics (as e.g. wind turbines)
- + Wood, plastics, foil and aluminium

For an overview of range of saw blades, see page 49.

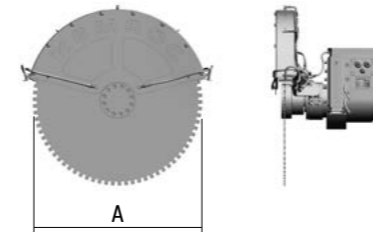


**High rotation speed up to 2,000 rpm**

**Drive motors with heavy-duty bearings**

**Effective cooling of saw blades**

**Lateral pull-out protective covers for all saw blade diameters**



**KDS 20    KDS 30    KDS 40    KDS 50    KDS 50 HD**

Recommended excavator weight	t	2–4	5–10	10–16	15–25	18–30
Rated power	kW	55	80	130	135	230
Max. saw blade diameter (A)	mm	800	1,200	1,500	1,500	1,800
Max. torque at 350 bar	Nm	140	311	600	721	1,528
Max. rotation speed	rpm	1,200	2,000	2,000	2,000	1,700
Max. oil flow	l/min	40	115	180	260	470
Max. operating hydraulic pressure	bar	350	350	350	350	350
Weight of drive unit excl. saw blade and protective cover	kg	100	210	310	720	850



KDS 50 | Aircraft recycling



KDS 50 HD | Recycling wind turbine components



## APPLICATIONS

- Cutting rotor blades from wind turbines
- Cutting asphalt in road works
- Demolition of reinforced concrete
- Cutting aluminium sheets
- Cutting wood
- Cutting natural stone such as granite, sandstone, etc



KDS 30 | Cutting reinforced concrete



Further application examples on

[www.kemroc.de](http://www.kemroc.de)

# KRM RANGE

## Rotation units with endless rotation

 2-70 t



Compact and low maintenance

Continuous and stepless rotation

High holding torques

Durable worm gear drive

Heavy duty bearings

Save up to 50 percent working time

Oil distributors developed in-house guarantee flow rates of oil and water

Rotation units in the KRM range have been developed for use with KEMROC milling attachments. In combination with rotation units, milling attachments can always be placed in the correct position while facing in the right direction. As a result, in most cases work is completed faster and with more accuracy.

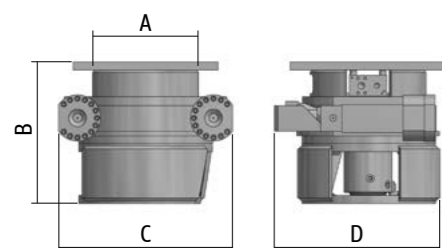
When used with EX patch planers, it is possible to mill longitudinally in front of the excavator as well as 90° across the excavator without having to move the excavator. You can even work to the side of the excavator. DMW, EK or KTR attachments working in combination with KRM rotation units can also benefit from this flexibility of working

position. Horizontal slots can be cut easily using a KDS attachment together with a KRM rotation unit.

Depending on the application, productivity can be increased by up to 50 percent when using KRM rotation units – especially in sewer and pipeline construction, profiling and tunnelling.

**KRM 20      KRM 30      KRM 35      KRM 40      KRM 50      KRM 60      KRM 70      KRM 80**

Recommended excavator weight	t	2-6	5-12	7-15	12-18	19-27	25-40	30-50	50-70
Diameter (A)	mm	240	320	320	460	488	610	700	900
Height (B)	mm	330	371	371	520	394	636	620	820
Length (C)	mm	510	610	640	760	720	780	910	1,170
Width (D)	mm	350	500	620	600	700	770	800	1,000
Max. oil flow at 10 bar	l/min	40	40	40	40	40	40	40	40
Max. holding torque	Nm	6,000	9,000	18,000	44,700	95,000	200,000	270,000	350,000
Weight	kg	150	275	320	440	700	900	1,000	2,000
Number of drive motors	Pcs	1	1	2	2	2	2	2	2
<b>Recommended KEMROC attachments</b>									
EK Chain Cutters	Type		EK 20	EK 40	EK 60		EK 100 110	EK 140 150	EK 220
EKT Rotary Drum Cutters	Type		EKT 20	EKT 40	EKT 60		EKT 100 110 140 150	EKT 160	EKT 220
KR Rotary Drum Cutters	Type		KR 18	KR 30	KR 45 65	KR 80	KR 120 150	KR 165	KR 200
KRD Rotary Drum Cutters	Type		KRD 18	KRD 30	KRD 45	KRD 70	KRD 100 120 150	KRD 165	
KRC Bullhead Cutters	Type				KRC 60		KRC 100 110 140 150		
DMW Cutter Wheels	Type					DMW 90	DMW 130		DMW 220
EX Surface Milling Attachments	Type	EX 20	EX 30 45 60						
ES Cutter Heads	Type	ES 20	ES 30		ES 45	ES 60 80	ES 110		
KTR Trenching Attachments	Type					KTR 65	KTR 130		
KDS Diamond Saw Attachments	Type	KDS 20	KDS 30 40	KDS 50 50 HD					



### APPLICATIONS

Trenching and pipeline work

Tunnelling

Demolition and renovation

Profiling



KRM 50 | Trenching and pipeline work



KRM 60 | Foundation work



Further application examples on

[www.kemroc.de](http://www.kemroc.de)



## TOOLS

**Picks with matching retainers**

**Pick boxes**

**Diamond saw blades**

**Mounting and dismantling tools**

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KEMROC cutters and cutting wheels 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 around the world, can be seen in the type of picks used and their placement on the drums. This unique combination provides maximum productivity with minimum wear, ensuring the economical performance of KEMROC products even in the hardest conditions.

Modern technology and continuous product development are the basics for ensuring the economic benefits of using our cutting tools and attachments. 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.

The following pages are intended to provide an overview of our standard range of picks, retainers and pick boxes suitable for the majority of applications.

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

## Simple facts about picks

### 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 dimensions can be found from the numbers in the four-part numbering system:**

- |             |   |
|-------------|---|
| XX/xx/xx/xx | 1. Number: Diameter of tungsten carbide insert (mm) |
| xx/XX/xx/xx | 2. Number: Length of the head of the pick (mm)      |
| xx/xx/XX/xx | 3. Number: Diameter of pick shoulder (mm)           |
| xx/xx/xx/XX | 4. Number: Diameter of shaft of the pick (mm)       |

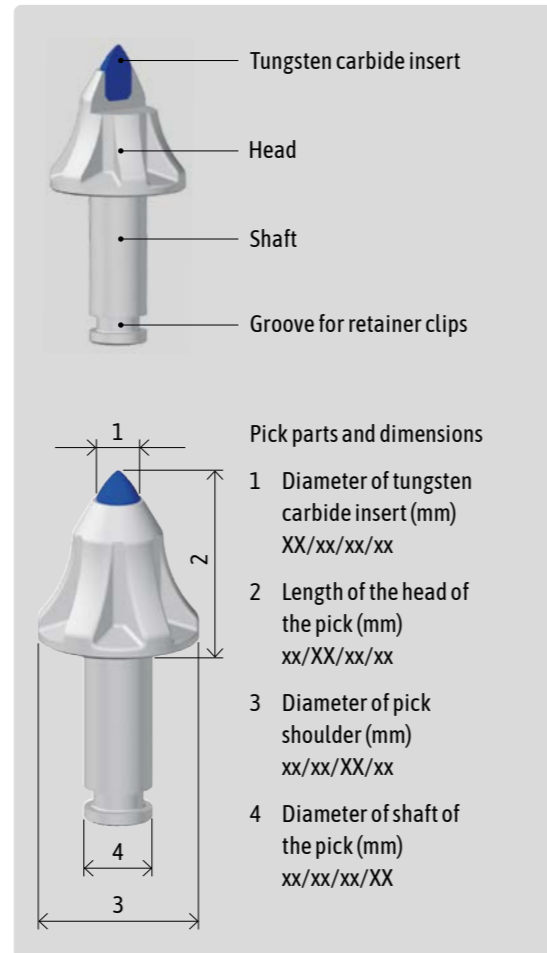
#### Example:

- Round attack pick ER 19/75/70/30 Q:
- |  |       |
|--|-------|
| 1. Number - Diameter of tungsten carbide insert: | 19 mm |
| 2. Number - Length of the head of the pick:      | 75 mm |
| 3. Number - Diameter of pick shoulder:           | 70 mm |
| 4. Number - Diameter of shaft of the pick:       | 30 mm |

### THE RETAINER

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, KEMROC offers the QuickSnap retaining system, which allows picks to be changed in a matter of seconds. This represents a saving of over 50 percent in time compared with normal circlip or knock on retainer systems. Due to the deeper groove in the shaft of the pick and the larger surface area between pick and holder, the KEMROC QuickSnap system is more secure and has less wear.



Pick parts and dimensions

- 1 Diameter of tungsten carbide insert (mm)  
XX/xx/xx/xx
- 2 Length of the head of the pick (mm)  
xx/XX/xx/xx
- 3 Diameter of pick shoulder (mm)  
xx/xx/XX/xx
- 4 Diameter of shaft of the pick (mm)  
xx/xx/xx/XX



Easier and quicker pick changes with KEMROC QuickSnap.

## Picks with matching retainers

### PH 14



Round attack pick  
ER 15/29/26/14 C  
incl. ES 14

Application  
Asphalt, concrete, soft to medium hard rock

Part No. 15292614



Round attack pick  
ER 16/28/26/14 H

Application  
Asphalt, concrete, soft to medium hard rock

Part No. 16282614

### PH 15



Round attack pick  
ER 19/33/30/15 S

Application  
Asphalt, concrete, soft to medium hard rock

Part No. 19333015



Circlip retainer  
SG 15

Part No. 99999990

### PH 20



Round attack pick  
ER 12/45/38/20 K

Application  
Concrete, soft to medium hard rock

Part No. 12453821



Round attack pick  
ER 19/48/36/20 H

Application  
Asphalt

Part No. 19483620



Round attack pick  
ER 16/46/38/20 C

Application  
Concrete, soft to medium hard rock

Part No. 16463820



Retaining clip  
ES 20

Part No. 99999991



Round attack pick  
ER 16/48/32/20 H

Application  
Asphalt

Part No. 16483220



# TOOLS

## Picks with matching retainers

### PH 22



Round attack pick  
ER 12/45/38/22 HC

Application  
Concrete, medium hard and abrasive rock

Part No. 12453823



Retaining clip  
ES 22

Part No. 99999996



Round attack pick  
ER 15/46/38/22 C

Application  
Concrete, medium hard rock

Part No. 15463822



Retaining clip  
ES 22

Part No. 99999996



Round attack pick  
ER 19/51/45/22 H

Application  
Asphalt, soft and abrasive rock

Part No. 19514522



Dragontooth pick  
DT 22/46/38/22 HC

Application  
Soft and abrasive ground and rock, wood

Part No. 22463822



Retaining clip  
ES 22

Part No. 99999996

### PH 25



Round attack pick  
ER 17/64/60/25 Q

Application  
Concrete, medium hard rock

Part No. 17646026



QuickSnap<sup>[1]</sup>  
QS 25

Part No. 99250025



Round attack pick  
ER 17/64/60/25 C

Application  
Concrete, medium hard rock

Part No. 17646025



Retaining clip  
ES 25

Part No. 99999994



Round attack pick  
ER 19/64/60/25 Q

Application  
Concrete, medium hard rock

Part No. 19646026



QuickSnap<sup>[1]</sup>  
QS 25

Part No. 99250025



Round attack pick  
ER 22/64/60/25 H

Application  
Asphalt, soft and abrasive rock

Part No. 22646025



Dragontooth pick  
DT 22/58/46/25 K

Application  
Soft and abrasive ground and rock, wood

Part No. 22465825

### PH 30 | 30 HD | 32 HD



Round attack pick  
ER 17/75/70/30 Q

Application  
Concrete, medium hard rock

Part No. 17757036



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030



Round attack pick  
ER 19/75/70/30 Q

Application  
Concrete, medium hard rock

Part No. 19757035



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030



Round attack pick  
ER 22/75/70/30 Q

Application  
Concrete, medium hard to hard rock

Part No. 22757032



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030



Round attack pick  
ER 30/77/70/29 Q

Application  
Asphalt, soft, medium hard and abrasive rock

Part No. 30777032



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030



Round attack pick  
ER 25/80/80/38 C

Application  
Concrete, medium hard to very hard rock

Part No. 25808039



Retaining clip  
ES 38

Part No. 99500034

**NEW: Triple-plane milling teeth**  
For better rotation in soft rock



Round attack pick  
ER 17/75/70/30 HD TP Q

Application  
Soft and medium hard rock

Part No. 17757037



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030



Round attack pick  
ER 19/75/70/30 HD TP Q

Application  
Soft and medium hard rock

Part No. 19757036



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030



Round attack pick  
ER 15/90/70/30 Q

Application  
Salt, gypsum, medium hard, fractured rock

Part No. 15907035



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030

**Only suitable for PH 32 HD**



Dragontooth pick  
DT 22/90/70/30 HQ

Application  
Soft and abrasive rock, wood

Part No. 22907030



QuickSnap<sup>[1]</sup>  
QS 30

Part No. 99500030

<sup>[1]</sup> QuickSnap QS 30 is the standard retainer for this pick. Retaining clip ES 30 available as an alternative.



Retaining clip  
ES 30

Part No. 99500032

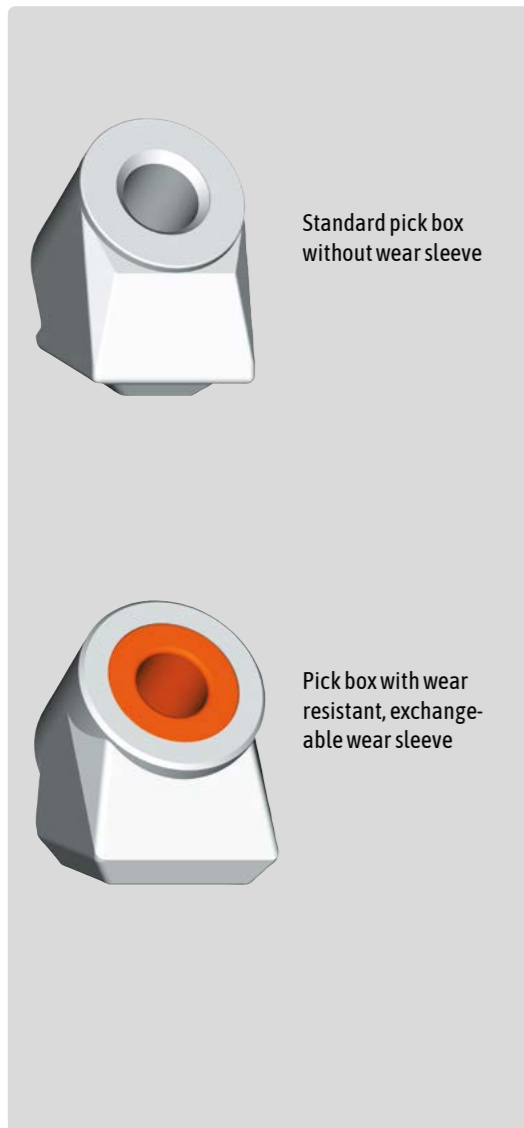


# TOOLS

## Pick boxes

Pick boxes welded onto the cutter head or cutter wheel 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 made from specially heat treated steel and depending on applications, are available with exchangeable wear sleeves.



Pick box  
**PH 14**

Part No. 711222



Pick box  
**PH 25**

Part No. 761025UA



Pick box  
**PH 32 HD**

Part No. 711039



Replacement wear sleeve

Part No. 711029



Pick box  
**PH 15**

Part No. 791004E



Pick box  
**PH 30**

Part No. 711610



Pick box  
**PH 20**

Part No. 721024E



Pick box  
**PH 30 HD**

Part No. 711084



Pick box  
**PH 22**

Part No. 721025UA



Replacement wear sleeve

Part No. 711029



Pick box  
**PH 38 HD**

Part No. 753022



Replacement wear sleeve

Part No. 753021

## Diamond saw blades for models in the KDS range



**Diamond saw blades for natural stone, granite, concrete and reinforced concrete**

Diameter 800 mm

Diameter 1,000 mm

Diameter 1,200 mm

Diameter 1,400 mm

Diameter 1,500 mm

Diameter 1,600 mm

Diameter 1,800 mm



**Carbide tipped saw blades for wood, plastics, foil and aluminium**

Diameter 400 mm

Diameter 600 mm

Diameter 900 mm

Diameter 1,000 mm

Diameter 1,100 mm



**Diamond saw blades for asphalt and plastics (as e.g. wind turbines)**

Diameter 800 mm

Diameter 1,000 mm

Diameter 1,200 mm

Diameter 1,400 mm

Diameter 1,500 mm

Diameter 1,600 mm

Diameter 1,800 mm

## Mounting and dismantling tools



**Knock-out tool**

For picks with shaft diameter 20–30 mm as for all dragtooth picks

Part No. 99999995



**Mounting tool for retaining clips**

For retaining clip ES 20

Part No. 99999942

For retaining clip ES 22

Part No. 99999947

For retaining clip ES 25

Part No. 99999983

For retaining clip ES 30

Part No. 99999939

For retaining clip ES 38

Part No. on request



**Dismantling tool for retaining clips**

For retaining clip ES 20

Part No. 99999943

For retaining clip ES 22

Part No. 99999948

For retaining clip ES 25

Part No. 99999982

For retaining clip ES 30

Part No. 99999936

For retaining clip ES 38

Part No. on request



**Puller tool for picks with retaining sleeves**

For picks with shaft diameter 20–25 mm

Part No. 99999997



**Mounting gripper for circlip retainers**

For picks with shaft diameter up to 25 mm

Part No. 99999940

For picks with shaft diameter from 30 mm

Part No. 99999946



**Puller tool for QuickSnap retainers**

Part No. 99995000



**Knock-out tool for stuck picks**

For picks with shaft diameter 20–25 mm

Part No. 99999938

For picks with shaft diameter 30–38 mm

Part No. 99999937







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revolution of cutting