KEMROC®

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

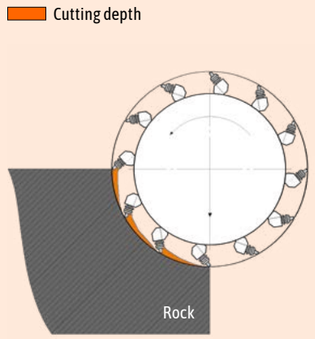
CONTENT

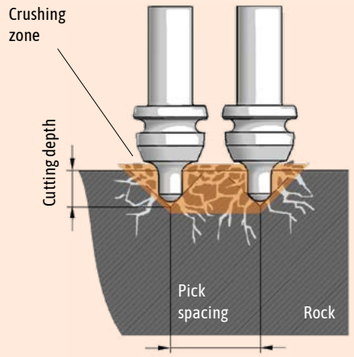
FEATURES

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 – 70	140	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

EK RANGE

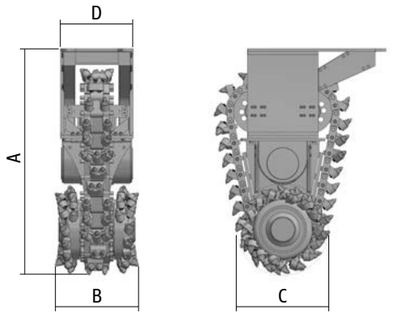
Chain cutters — reduce wear & tear on the excavator swing gear and save energy

+ 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

		EK 20	EK 40	EK 60	EK 100	EK 110	EK 140	EK 150	EK 160	EK 220
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	PH 14	PH 20	PH 22	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 38 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	1	2	3	4	4	4	4	5	6



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

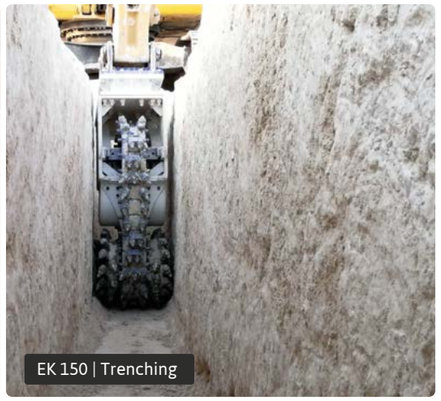
APPLICATIONS

Trenching and pipeline work

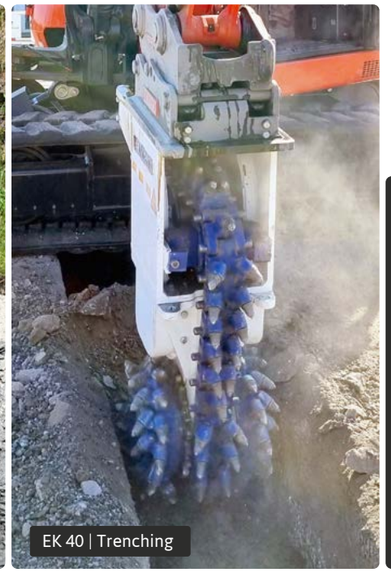
Mining of soft to medium hard minerals

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

EK 140 | Gypsum mining


EK 150 | Trenching

EK 100 | Trenching


EK 40 | Trenching

Further application examples on

www.kemroc.com

EKT RANGE

Rotary drum cutters — can be converted into EK chain cutters

2–70 t

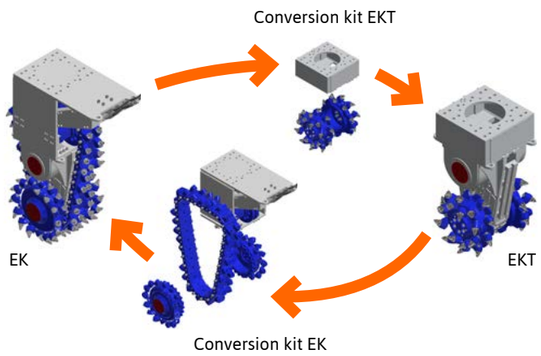
The patented EK range of chain cutters are one of our core products and continues to be recommended as an ideal tool for trenching contractors. This concept is being expanded with the addition of the new EKT range of traditional style drum cutters. These lower priced models are supplied as rotary drum 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

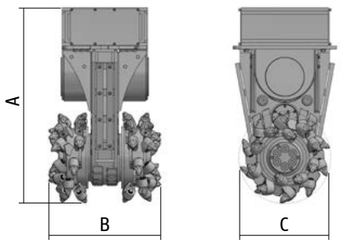
Fast and strong

Two motors for extra hydraulic power

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



		EKT 20	EKT 40	EKT 60	EKT 100	EKT 110	EKT 140	EKT 150	EKT 160 [1]	EKT 220
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	PH 14	PH 20	PH 22	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 38 HD
Number of picks	Pcs	56	52	40 | 60	40 | 44	40 | 44	44	44	44 [56]	44 | 60
Standard pick	Type	1	2	3	4	4	4	4	5	6



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.

[1] 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

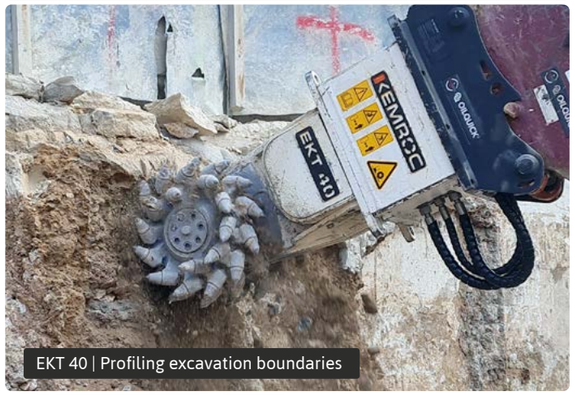
Works underwater without need for modifications

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 40 | Profiling excavation boundaries

EKT 220 | Road building


EKT 100 | Trenching

Further application examples on

www.kemroc.com

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 reinforced concrete structures.

Effective dust control is particularly importand 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

KR RANGE

Rotary drum cutters with spur gears

Gear drive

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

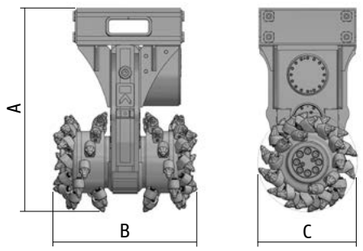
Drums supported on heavy-duty bearings

Protected hose management

Works underwater without need for modifications

		KR 15	KR 18	KR 20	KR 35 [1]	KR 45	KR 50	KR 65	KR 70	KR 80	KR 110 [1]	KR 120 [1]	KR 150 [1]	KR 165 [1]	KR 175 [1]	KR 200	KR 250	KR 400 [1]	KR 450
Recommended excavator weight	t	0.6–3	2–4	2–4	5–8	9–15	9–15	12–18	15–23	15–25	20–35	25–45 [20–40]	30–50	35–55	40–55	50–70	60–80	80–125	100–125
Rated power	kW	15	18	18	30	45	45	65	70	80	110	120	120	160	160	200	200	400	400
Drum cutter length (A)	mm	628	628	636	848	990	1,014	1,195	1,195	1,235	1,470	1,470	1,470	1,590	1,590	1,650	1,650	2,050	2,050
Cutter head width (B)	mm	425	425	495	620 [520]	600	690	805	805	805	1,040 [880]	1,040 [880]	1,040 [880]	1,250 [1,050]	1,250 [1,050]	1,330	1,330	1,600 [1,300]	1,600
Cutter drum diameter (C)	mm	225	225	240	370	400	450	587	587	587	720	720	720	720	720	825	825	950	950
Recommended rotation speed	rpm	100	100	100	100	90	90	80	75	85	75	75	70	65	65	55	50	50	50
Recommended oil flow	l/min	15–25	25–40	25–40	50–80	90–120	90–120	120–150	150–190	150–190	200–280	250–320	250–320	300–390	330–420	350–450	550–600	700–950	900–1,200
Max. oil flow	l/min	40	60	60	90	130	130	170	190	210	300	350	360	400	420	500	600	1,000	1,200
Max. operating hydraulic pressure	bar	400	400	400	400	400	400	400	400	400	400	400	400	400	400	380	380	380	380
Torque at 380 bar	Nm	1,000	2,000	2,000	4,500	6,300	6,300	11,300	15,100	15,200	20,200	25,400	30,300	36,400	43,000	51,000	71,500	118,500	143,000
Cutting force at 380 bar	kN	8.9	17.8	16.7	24.3	31.5	28.0	38.5	51.5	52.9	56.3	70.8	84.4	101.1	119.4	126.7	177.0	257.6	311.0
Weight	kg	155	155	167	340 [310]	480	530	892	892	1,070	2,000 [1,780]	2,000 [1,780]	2,000 [1,780]	2,800 [2,500]	2,800 [2,500]	3,500	3,500	7,000 [6,200]	7,000
Pick box	Type	PH 14	PH 14	PH 14	PH 20	PH 20	PH 22	PH 30 HD	PH 30 HD	PH 30 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 38 HD	PH 38 HD	PH 38 HD	PH 38 HD
Number of picks	Pcs	44	44	56	64 [44]	44	44	44	44	44	60 [44]	60 [44]	60 [44]	64 [60]	64 [60]	64	64	88 [68]	88
Standard pick	Type	1	1	1	2	2	3	4	4	4	4	4	5	5	5	6	6	6	6

[1] Also available in a C-version with narrower cutter head (KR 35 C | 110 C | 120 C | 150 C | 165 C | 175 C | 400 C). Revised values shown in square brackets.



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
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.

Housing with hydraulic hose protection.

Water jets for dust suppression (optional).

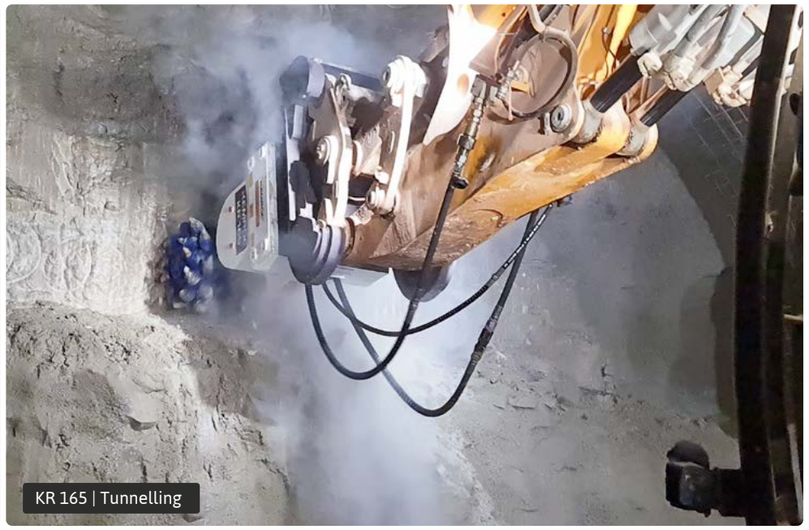
Tool pattern for optimum performance.

APPLICATIONS

Tunnelling

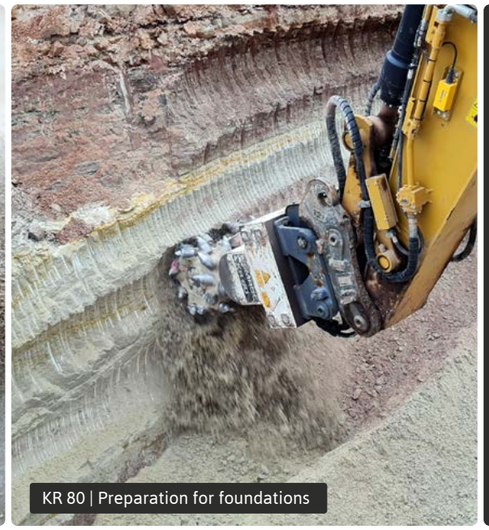
Demolition

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



KR 165 | Tunnelling

KR 120 | Demolition of a bunker



KR 80 | Preparation for foundations

Further application examples on

www.kemroc.com

KRD RANGE

Rotary drum cutters with direct drive

0.5–50 t

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.

Strong, compact design

Direct drive with particularly strong support for the cutter drums

High power to weight ratio

Protected hose management

Operational to 30 meters underwater without need for modifications

APPLICATIONS

Demolition using long arm excavators

Ground stabilisation

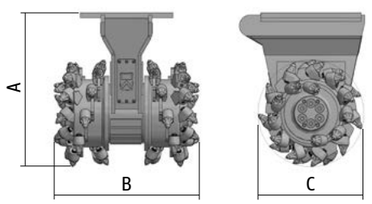
Renovating concrete

Also used for trenching and pipeline work, profiling, mining soft minerals, underwater excavations, tunnelling and shaft sinking

KRD 120 | Profiling excavation boundaries

KRD 150 | Excavation work

		KRD 15	KRD 18	KRD 30	KRD 45	KRD 70	KRD 100	KRD 120	KRD 150	KRD 165
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	PH 14	PH 14	PH 20	PH 22	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 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.com

KRC RANGE

Bullhead cutters with full-face coverage for narrow trenches

12–70 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.

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

KRC 140 | Trenching and pipeline work

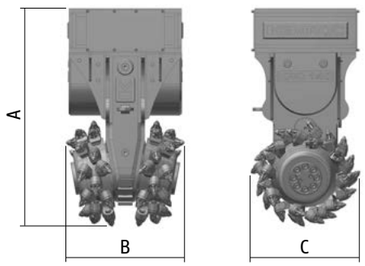
KRC 100 | Trenching and pipeline work

Further application examples on

www.kemroc.com

BULL HEAD

		KRC 60	KRC 100	KRC 110	KRC 140	KRC 150	KRC 160	KRC 220
Recommended excavator weight	t	12–17	18–30	20–32	25–40	35–50	40–50	50–70
Rated power	kW	60	100	110	140	150	160	220
Drum cutter length (A)	mm	1,200	1,390	1,390	1,520	1,520	1,520	1,860
Cutting width (B)	mm	600	810	810	880	880	880	1,200
Average cutter head diameter (C)	mm	545	650	650	700	700	700	925
Recommended rotation speed	rpm	85	75	70	65	65	65	50
Recommended oil flow	l/min	120–170	180–240	210–260	250–320	280–330	280–330	420–550
Max. oil flow	l/min	220	260	300	380	380	380	650
Max. operating hydraulic pressure	bar	400	400	400	400	400	400	400
Torque at 380 bar	Nm	9,000	16,000	20,000	25,400	30,300	33,868	60,479
Cutting force at 380 bar	kN	33.0	49.2	61.5	72.6	86.6	96.8	130.8
Max. uniaxial compressive strength	MPa	50	80	80	100	100	100	140
Weight	kg	850	1,450	1,450	1,950	1,950	1,950	4,250
Pick box	Type	PH 22	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD	PH 38 HD
Number of picks	Pcs	56	52	52	52	52	52	68
Standard pick	Type	1	2	2	2	3	3	4



1 ER 15/46/38/22 C
2 ER 17/75/70/30 Q
3 ER 19/75/70/30 Q
4 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.

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 reinforced 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.

DMW 220
Bridge demolition using the Cut & Break process

DMW RANGE

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

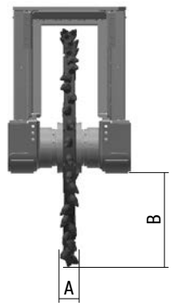
Cutter wheels for various cutting depths and widths

Optional – water nozzles for dust suppression

Operational to 30 meters under-water

Ideally suited for concrete demolition

		DMW 90		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 [1] | 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. [2]	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 [3]	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 [3]	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.

[2] Cutter wheel weight depends on diameter and width.
[3] 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.

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

APPLICATIONS

Concrete demolition

Cable trenching

Tunnelling

Soft rock mining

DMW 130 | Tunnelling

DMW 220 | Demolition of reinforced concrete structures using the Cut & Break process

Further application examples on

www.kemroc.com

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 dragontooth tools can be used in permafrost or for tree stump grinding. Dragontooth 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

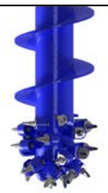
Multifunctional and versatile thanks to a large selection of attachments

Quick interchangeability of attachments

DRIVE

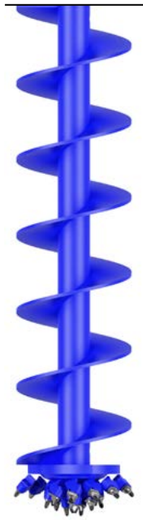
MILLING ATTACHMENT

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 68	KRX 70	KRX 120	KRX 130	KRX 140	KRX 150
Recommended excavator weight	t	5–8	9–12	13–20	15–23	15–25	25–40	25–40	30–50	35–50
Rated power	kW	30	45	65	65	70	120	120	140	140
Length of drive unit	mm	550	610	610	610	830	842	842	875	875
Torque at 380 bar	Nm	4,500	7,500	11,300	15,000	16,000	30,300	33,000	36,400	43,000
Max. oil flow at 10 bar	l/min	110	130	190	190	300	350	350	390	420
Max. hydraulic pressure	bar	400	400	400	400	400	400	400	400	400
Weight without attachment	kg	160	240	260	260	520	540	540	900	900
Hex connection, standard	mm	80	80	80	80	160	160	160	160	160
Milling attachment (optional)										
Length of standard cutter head	mm	350	350	350	350	400	430	430	450	450
Diameter of standard cutter head	mm	370	400	400	400	450	500	500	550	550
Cutting force at 380 bar	N	24,324	37,500	56,500	74,600	71,111	121,200	132,000	132,364	156,000
Recommended rotation speed	rpm	80	70	70	70	75	60	60	50	50
Recommended oil flow	l/min	50–70	80–110	120–170	130–170	130–190	200–340	230–340	280–370	300–390
Pick box	Type	PH 22	PH 22	PH 22	PH 22	PH 22	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD
Number of picks	Pcs	26	29	29	29	30	26	26	30	30
Standard pick (round shaft)	Type	1	1	1	1	1	3	3	5	5
Standard pick (dragon tooth)	Type	2	2	2	2	2	4	4	4	4
Drilling attachment (optional)										
Max. drill diameter	mm	600	800	1,000	1,000	1,000	1,300	1,300	1,500	1,500
Min. drill diameter	mm	270	270	270	270	270	270	270	270	270
Max. drilling depth at max. drill diameter	mm	1,500	1,500	2,000	2,000	2,000	4,000	4,000	4,000	4,000
Max. drilling depth at min. drill diameter	mm	2,500	3,000	4,000	4,000	7,000	7,000	7,000	8,000	8,000
Max. uniaxial compressive strength of the ground	MPa	10	20	20	20	30	50	50	60	60
Recommended oil flow	l/min	30–70	40–100	80–150	80–150	100–190	180–300	190–300	220–350	250–390

1 ER 12/45/38/22 HC
2 DT 22/46/38/22 HC
3 ER 17/75/70/30 Q
4 DT 22/90/70/30 HQ
5 ER 19/75/70/30 Q

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

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

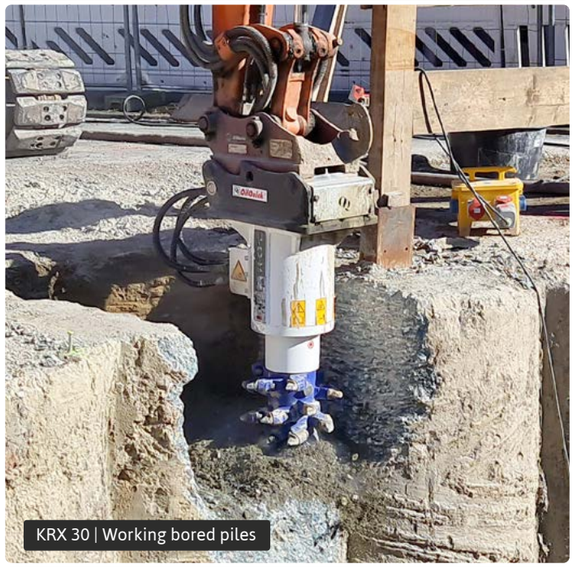
Drilling holes for I-beam shoring

Drilling planting holes for trees

Exploratory drilling for ordnance disposal services

Drilling foundations for sound barriers

KRX 120 | Drilling holes in concrete retaining walls



KRX 30 | Working bored piles

Further application examples on

www.kemroc.com

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

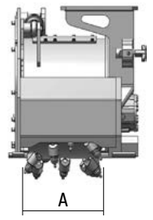
Further application examples on

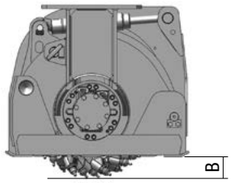
www.kemroc.com

EX RANGE

Patch planers for milling asphalt and concrete with accurate depth control

1–25 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	EX 70 HD
Recommended excavator weight	t	1–3	2–4	5–10	10–16	15–23	18–25
Rated power	kW	22	22	30	65	80	80
Cutting width, standard (A)	mm	200	200	300	450	600	600
Cutting depth, adjustable (B)	mm	0–70	0–70	0–120	0–150	0–190	0–190
Recommended rotation speed	rpm	80–200	80–200	80–125	70–110	70–95	60–80
Recommended oil flow at 100 bar	l/min	20–50	25–65	60–95	110–170	150–200	200–250
Min. oil flow	l/min	20	25	60	100	150	200
Max. oil flow	l/min	70	90	110	180	210	250
Max. operating hydraulic pressure	bar	310	310	380	380	380	380
Torque at 350 bar	Nm	660 @ 205 bar	1,000 @ 205 bar	4,100	8,700	9,300	18,000
Cutting force at 350 bar	kN	4 @ 205 bar	6 @ 205 bar	16	30	28	54
Operating weight	kg	165	170	400	730	1,230	1,230
Pick box	Type	PH 14	PH 14	PH 20	PH 20	PH 20	PH 20
Number of picks	Pcs	42	42	35	49	69	69
Standard pick	Type	1	1	2	2	3	3

EX RANGE WITH ROTATION UNIT		EXR 20	EXR 20 HD	EXR 30 HD	EXR 45 HD	EXR 60 HD	EXR 70 HD
Recommended excavator weight	t	1–3	2–4	6–10	12–16	16–23	18–25
Operating weight	kg	250	255	585	1,010	1,700	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.

ES RANGE

Cutter heads for asphalt, concrete and rock

1–40 t

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 availabe as an option

APPLICATIONS

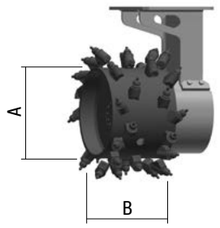
- Grinding jet grouting material
- Lock renovation
- Grinding retaining walls
- Profiling blocks of natural stone
- Grinding shotcrete in tunnels
- Cleaning concrete piled walls

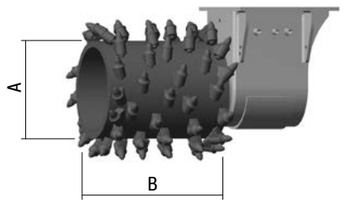
The ES range of cutter heads are ideally suited for accurate profiling of horizontal or vertical surfaces. Whether for surface cleaning, profiling, straightening or simply for material removal, depending on the application, various types of cutter drum can be used for processing asphalt, concrete and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

		ES 20	ES 20 HD	ES 30 HD	ES 45 HD	ES 60 HD	ES 70 HD
Recommended excavator weight	t	1–3	2–4	5–10	10–16	15–23	20–25
Rated power	kW	22	22	30	65	80	80
Diameter of cutter drum (A)	mm	360	360	520	580	670	670
Width of cutter drum (B)	mm	200	200	300	450	600	600
Cutting depth	mm	85	85	110	110	190	190
Min. oil flow	l/min	20	25	60	100	150	180
Max. oil flow	l/min	70	90	110	180	210	210
Max. hydraulic pressure	bar	310	310	380	380	380	380
Torque at 350 bar	Nm	1,127	1,710	4,100	8,700	11,700	18,000
Pick box	Type	PH 14	PH 14	PH 20	PH 20	PH 20	PH 20
Number of picks	Pcs	42	42	35	49	69	69
Standard pick	Type	ER 16/28/26/14 H	ER 16/28/26/14 H	ER 16/48/32/20 H	ER 16/48/32/20 H	ER 16/48/32/20 H	ER 16/48/32/20 H

		ES 80 HD	ES 90 HD	ES 110 HD	ES 120 HD
Recommended excavator weight	t	15–25	20–30	25–40	25–40
Rated power	kW	80	80	110	120
Diameter of cutter drum (A)	mm	825	825	785	785
Width of cutter drum (B)	mm	600 | 800	600 | 800	600 | 800 | 1,000	600 | 800 | 1,000
Cutting depth	mm	150	150	105 | 150	105 | 150
Min. oil flow	l/min	150	180	210	230
Max. oil flow	l/min	210	210	350	350
Max. hydraulic pressure	bar	380	380	380	380
Torque at 350 bar	Nm	15,200	18,000	27,800	30,000
Pick box	Type	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD
Number of picks	Pcs	69 (800 mm)	69 (800 mm)	44 (600 mm)	44 (600 mm)
Standard pick	Type	ER 17/75/70/30 Q	ER 17/75/70/30 Q	ER 19/75/70/30 Q	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.

ES 60 HD | Profiling excavation boundaries

ES 60 HD | Profiling limestone blocks

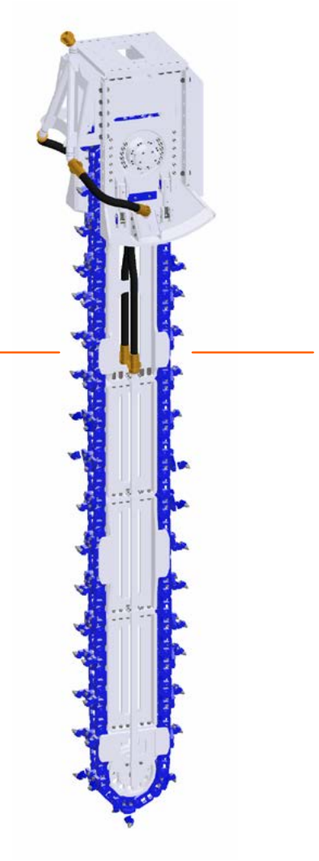
Further application examples on

www.kemroc.com

KSI RANGE

Injection attachments for permeating cohesive soils with a cement suspension

35–200 t



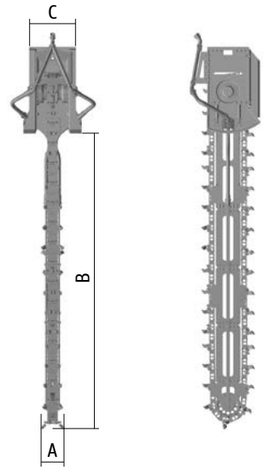
The KSI range of injection attachments were developed in cooperation with a German specialist ground engineering company and are at the core of the Kemsolid KSI process.

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 three sizes for mounting on excavators between 35 and 200 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 4, 5, 6 or 7 meters, while the larger models KSI 12000 and KSI 16000 can take blades for mixing depths from 6 to 12 and from 6 to 16 meters respectively.

Depending on the application, the blades can be produced with cutter plates for different mixing widths.

KEMSOLID®
build on solid foundations



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Mixing blade extendable to 16 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	KSI 16000
Recommended excavator weight	t	35–55	50–80 [1] | 80–120	75–120 [1] | 120–200
Rated hydraulic power	kW	130	220	300
Mixing width (A)	mm	350–500	450–650	600–950
Modular mixing depth (B)	m	4 | 5 | 6 | 7	6 | 8 | 10 | 12	6 | 8 | 10 | 12 | 14 | 16
Width of gearbox (C)	mm	1,000	1,360	1,630
Recommended chain speed	m/s	2.0–2.5	2.0–2.5	2.0–2.5
Recommended oil flow at 150 bar	l/min	300–400	500–600	650–825
Max. oil flow	l/min	400	650	850
Max. operating hydraulic pressure	bar	400	400	400
Max. permissible ground compressive strength	MPa	10	10	10
Standard mixing tool	Type	DT 22/46/38/22 HC	DT 22/90/70/30 HQ	DT 22/90/70/30 HQ
Weight				
Weight of attachment built for max. mixing depth	kg	4,500	12,500	19,500
Weigth per meter for extension	kg	400	800	1,600

[1] 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.

APPLICATIONS

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

Flood defences – sealing walls, dam stabilisation, diaphragm walls

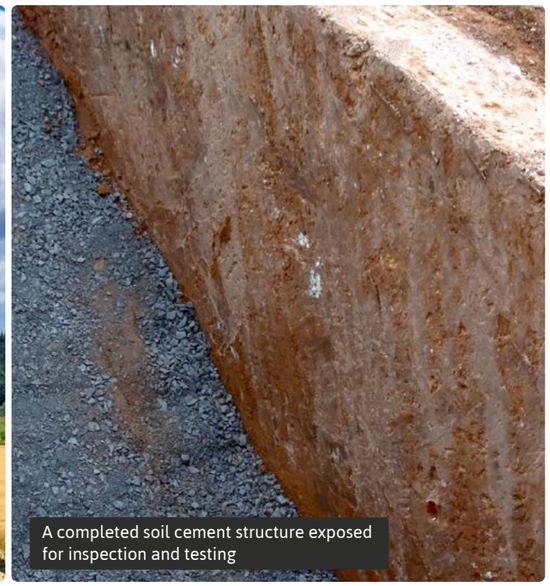
De-contamination

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

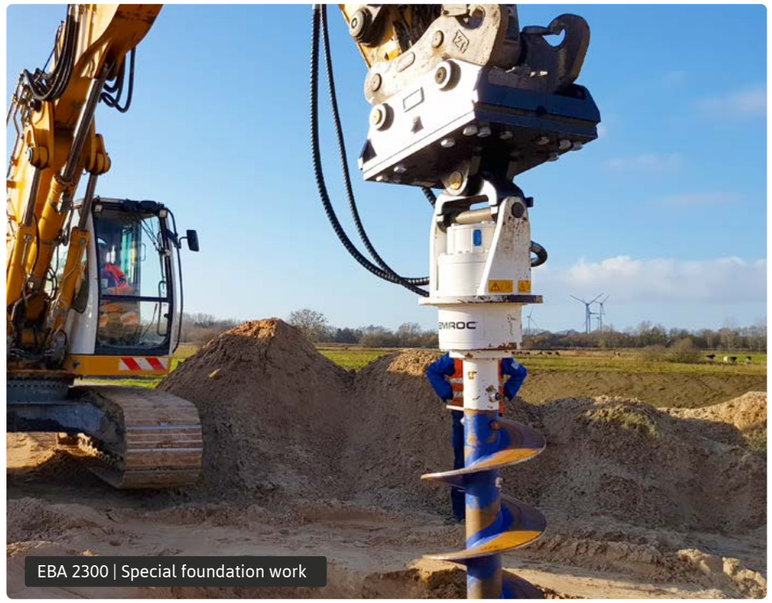
KSI 12000 | Installing a diaphragm wall

Further application examples on

www.kemsolid.com

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.com

EBA RANGE

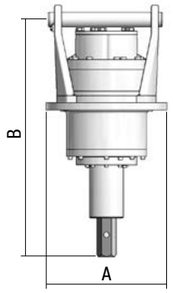
Auger drive attachments for excavators and backhoe loaders

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 750	EBA 1000	EBA 1500	EBA 2300	EBA 2800	EBA 3300
Recommended excavator weight	t	7–13	7–15	14–17	16–20	18–35	25–40	25–40
Max. drill diameter	mm	800	800	1,000	1,000	1,200	1,500	1,500
Min. drill diameter	mm	200	200	200	200	300	300	300
Max. drilling depth at max. drill diameter	mm	2,000	2,000	3,000	3,000	4,000	4,000	4,000
Max. drilling depth at min. drill diameter	mm	5,000	5,000	5,000	5,000	8,000	8,000	8,000
Diameter of drive unit (A)	mm	390	390	390	390	500	500	500
Length of drive unit (B)	mm	600	600	600	600	980	980	980
Max. torque	Nm	5,200	7,500	10,400	15,000	23,400	28,000	33,000
Recommended oil flow	l/min	50–70	60–80	80–150	100–150	150–250	180–280	180–280
Max. oil flow	l/min	85	85	150	150	300	300	300
Max. operating hydraulic pressure	bar	380	380	380	380	380	380	380
Max. rotation speed	rpm	90	90	80	80	75	75	75
Auger connection	Type	H 80	H 80	H 80	H 80	H 80	H 80	H 80
Weight excl. hydraulic hoses and mounting plate	kg	160	160	180	180	360	360	360

Allignment monitor

Allignment monitor to garuantee vertical drilling

Wear resistant augers

Auger drives for tough applications

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.

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

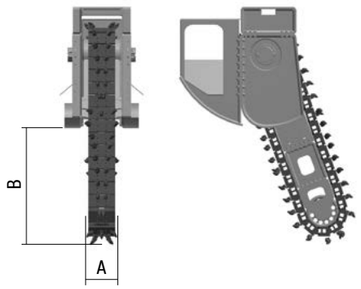
Housing with spoil discharger and sumping aid

Adjustable length cutter chain

Maintenance free cutter chain with high operating life

		KTR 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 130 | Trenching and pipeline work


KTR 65 | Trenching and pipeline work

APPLICATIONS

Trenching and pipeline work


KTR 130 | Trenching and pipeline work

Further application examples on

www.kemroc.com

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

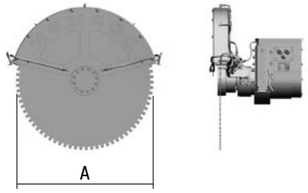
For an overview of range of saw blades, see page 49.

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.com

KRM RANGE

Rotation units with endless rotation

2–70 t

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.

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

APPLICATIONS

Trenching and pipeline work

Tunnelling

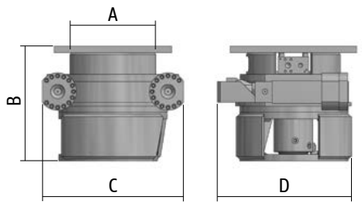
Demolition and renovation

Profiling

KRM 50 | Trenching and pipeline work

KRM 60 | Foundation work

		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
Recommended KEMROC attachments									
EK Chain Cutters	Type		EK 20	EK 40	EK 60	EK 100	EK 110 | 140 | 150	EK 160	EK 220
EKT Rotary Drum Cutters	Type		EKT 20	EKT 40	EKT 60	EKT 100	EKT 110 | 140 | 150	EKT 160	EKT 220
KR Rotary Drum Cutters	Type		KR 18 | 20	KR 35	KR 45 | 50 | 65 | 70	KR 80	KR 110 | 120 | 150	KR 165 | 175	KR 200 | 250
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	KRC 110 | 140 | 150	KRC 160	KRC 220
DMW Cutter Wheels	Type					DMW 90	DMW 130		DMW 220
EX Surface Milling Attachments	Type	EX 20	EX 30 | 45 | 60 | 70						
ES Cutter Heads	Type	ES 20	ES 30		ES 45	ES 60 | 70 | 80 | 90	ES 110 | 120		
KTR Trenching Attachments	Type					KTR 65	KTR 130		
KDS Diamond Saw Attachments	Type	KDS 20	KDS 30 | 40 | 50						



Further application examples on

www.kemroc.com

TOOLS

Picks with matching retainers

Pick boxes

Diamond saw blades

Mounting and dismantling tools

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.

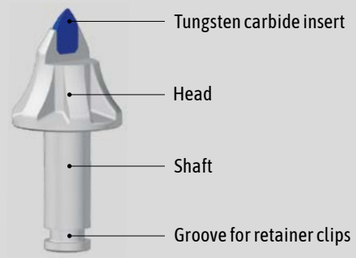
Pick dimensions can be found from the numbers in the four-part numbering system:

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



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

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.

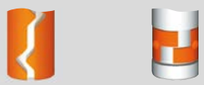
For quick and easy changing of picks, KEMROC offers the QuickSnap retaining system, which allows picks to be changed in a matter of seconds. This represents a saving of over 50 percent in time compared with normal circlip or knock on retainer systems. Due to the deeper grove in the shaft of the pick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

Q KEMROC QuickSnap

C Retaining clip

S Circlip retainer

HC/HQ Retainer sleeve on the shaft plus retaining clip/ QuickSnap



H Retainer sleeve on the shaft

K Knock on retaine

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
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
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 [1]
QS 30

Part No. 99500030

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

Application
Concrete, medium hard rock

Part No. 19757035

QuickSnap [1]
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 [1]
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 [1]
QS 30

Part No. 99500030

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 [1]
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 [1]
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 [1]
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 [1]
QS 30

Part No. 99500030

[1] 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

PH 38 HD

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

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.

Standard pick box without wear sleeve

Pick box with wear resistant, exchangeable wear sleeve

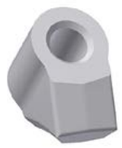
Pick box
PH 14
Part No. 711222

Pick box
PH 15
Part No. 791004E

Pick box
PH 20
Part No. 721024E

Pick box
PH 22
Part No. 721025UA

Pick box
PH 25
Part No. 761025UA



Pick box
PH 30
Part No. 711610

Pick box
PH 30 HD
Part No. 711084

Replacement wear sleeve
Part No. 711029

Pick box
PH 32 HD
Part No. 711039

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

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

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

Mounting and dismantling tools

Knock-out tool

For picks with shaft diameter 20 – 30 mm as for all dragontooth picks
Part No. 99 99 99 95

Puller tool for picks with retaining sleeves

For picks with shaft diameter 20 – 25 mm
Part No. 99 99 99 97

Puller tool for QuickSnap retainers

Part No. 99 99 50 00

Mounting tool for retaining clips

For retaining clip ES 20
Part No. 99 99 99 42

For retaining clip ES 22
Part No. 99 99 99 47

For retaining clip ES 25
Part No. 99 99 99 83

For retaining clip ES 30
Part No. 99 99 99 39

For retaining clip ES 38
Part No. on request

Dismantling tool for retaining clips

For retaining clip ES 20
Part No. 99 99 99 43

For retaining clip ES 22
Part No. 99 99 99 48

For retaining clip ES 25
Part No. 99 99 99 82

For retaining clip ES 30
Part No. 99 99 99 36

For retaining clip ES 38
Part No. on request

Mounting gripper for circlip retainers

For picks with shaft diameter up to 25 mm
Part No. 99 99 99 40

For picks with shaft diameter from 30 mm
Part No. 99 99 99 46

Knock-out tool for stuck picks

For picks with shaft diameter 20 – 25 mm
Part No. 99 99 99 38

For picks with shaft diameter 30 – 38 mm
Part No. 99 99 99 37

NOTES

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2024-09

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revolution of cutting