

KEMROC®

revolution of cutting



English

Imperial Units

KRC 100

**BULL
HEAD**

**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

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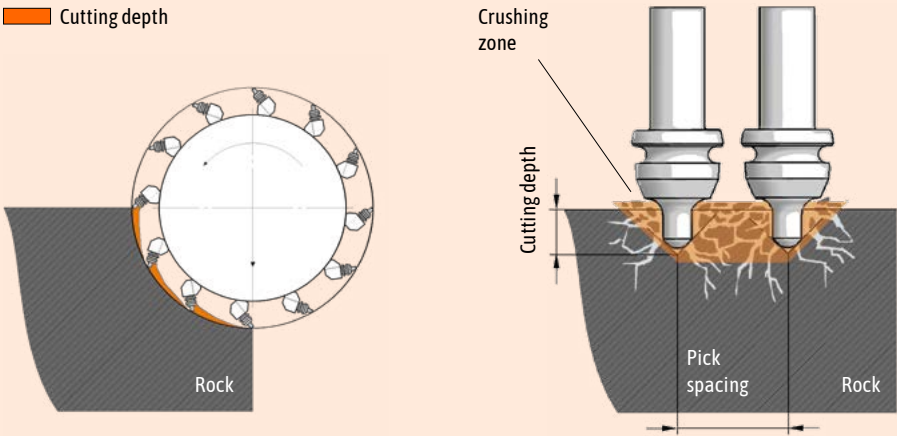
FEATURES

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 3 inches.

	Min. trench width in	Max. trench width in	Trench depth in	Recommended excavator weight lb	Max. uniaxial compressive strength psi	Page
DMW Cutter Wheels	3	16	16–40	30,000–264,000	20,000	20
KTR Trenching Attachments	7	18	39–71	40,000–77,000	8,700	36
KRX Powertool Drives	15	22	4–120	11,000–110,000	20,000	24
EK Chain Cutters	15	–	4–300	4,400–154,000	20,000	6
EKT Rotary Drum Cutters	24	–	8–300	4,400–154,000	22,000	10
KRC Bullhead Cutters	24	–	8–300	26,000–154,000	20,000	18
KR Rotary Drum Cutters	28	–	8–300	1,300–275,000	26,000	12
KRD Rotary Drum Cutters	30	–	8–300	1,100–110,000	15,000	16





EK RANGE

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

 **4,400 – 154,000 lb**

The EK range of chain cutters are the first of their type on the market. Designed for use on excavators from 4,400 to 154,000 lb, they are ideal for cutting stone with an uniaxial compressive strength up to 20,000 psi. They are efficient, vibration-free attachments for the excavation of deep narrow trenches with the optimal trench profile. Trench width starts from 15 inches. Another application is mining of medium hard minerals with compressive strength from 2,200 to 12,000 psi, 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

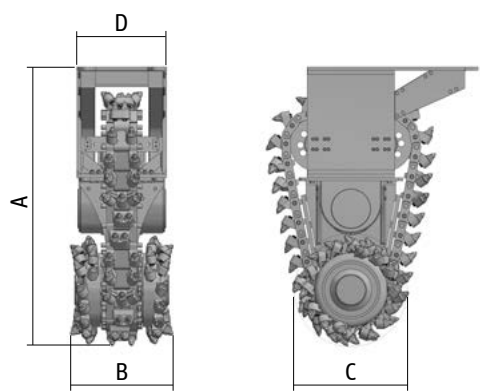
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Minimal wear on excavator as the method of operation is similar to using the bucket i.e. eliminates need for swing motion
- +

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	lb	4,400 – 13,000	15,500 – 24,500	26,500 – 37,500	40,000 – 66,000	55,000 – 70,000	66,000 – 100,000	77,000 – 110,000	77,000 – 110,000	110,000 – 154,000
Rated power	hp (kW)	29.5 (22)	59 (44)	80 (60)	134 (100)	147 (110)	187 (140)	200 (150)	200 (150)	295 (220)
Drum cutter length (A)	in	40	51	63	78	78	85	85	85	95
Cutting width (B)	in	15	20	20 24	24 28 32	24 28 32	32 36 40	32 36 40	32 36 40	36
Cutter drum diameter (C)	in	13	19	24	32	32	34	34	34	39
Width of gearbox (D)	in	15	15	18	22	22	28	28	28	34
Recommended rotation speed	rpm	100	80	80	70	65	65	60	60	40
Recommended oil flow	gal/min	5 – 11	18 – 24	34 – 43	48 – 64	56 – 69	69 – 80	74 – 85	77 – 88	111 – 146
Max. oil flow	gal/min	13	32	58	69	80	110	118	118	170
Max. operating hydraulic pressure	psi (bar)	4,350	5,500	5,800	5,800	5,800	5,800	5,800	5,800	5,800
Torque at 5,500 psi	lbf·ft	1,480	4,200	8,110	13,500	18,070	18,730	22,350	25,080	53,840
Cutting force at 5,500 psi	lbf	2,810	5,400	8,250	10,300	13,780	13,760	16,030	17,980	33,160
Max. uniaxial compressive strength	psi	3,600	4,400	7,300	12,000	12,000	15,000	15,000	17,000	20,000
Weight	lb	695	1,650	2,760 2,870	5,400 5,535 5,775	5,400 5,535 5,775	8,050 8,160 8,380	8,050 8,160 8,380	8,050 8,160 8,380	13,000
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.

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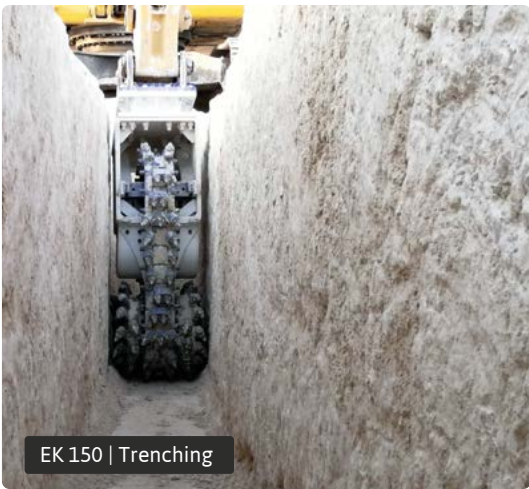
Fine grained cut material
- +

Works underwater without need for modifications
- +

Low noise and vibration levels



EK 140 | Gypsum mining



EK 150 | Trenching



EK 150 | Trenching



EK 40 | Trenching



APPLICATIONS

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



Further application examples on www.kemroc.com

Rotary drum cutters — can be converted into EK chain cutters

4,400–154,000 lb

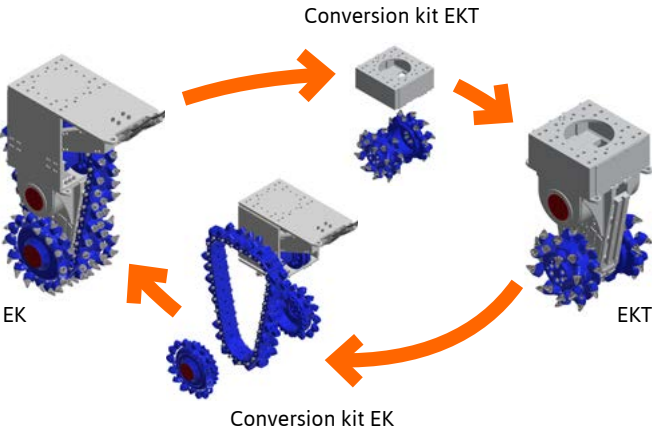


The patented EK range of chain cutters are one of our core products and continues to be recommended as an ideal tool for trenching contractors. This concept is being expanded with the addition of the new EKT range of

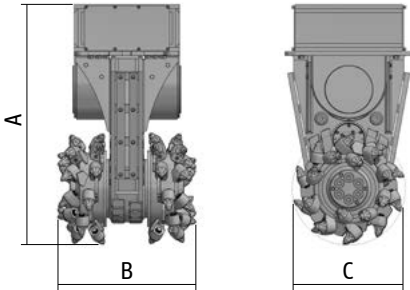
traditional style drum cutters. These lower priced models are supplied as rotary drum cutters without a central cutting chain, but conversion kits are available so that cutter chains can be fitted later.

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	lb	4,400–1,300	15,500–24,500	26,500–37,500	40,000–66,000	55,000–70,000	66,000–100,000	77,000–110,000	77,000–110,000	110,000–154,000
Rated power	hp (kW)	29.5 (22)	59 (44)	80 (60)	134 (100)	147 (110)	187 (140)	200 (150)	200 (150)	295 (220)
Possibility of conversion to a chain cutter	yes/no	yes	yes	yes	yes	yes	yes	yes	yes	yes
Drum cutter length (A)	in	22	40	47	58	58	61	61	61	70
Cutter head width (B)	in	17	20	20 24	28 32	28 32	35	35	35 [42]	37 52
Cutter drum diameter (C)	in	9	18	23	27	27	27	27	27	34
Recommended rotation speed	rpm	100	80	80	70	65	65	60	60	40
Recommended oil flow	gal/min	5–11	18–24	34–43	48–64	56–69	69–80	74–85	77–88	132–159
Max. oil flow	gal/min	13	32	58	69	80	110	118	118	170
Max. operating hydraulic pressure	psi	4,350	5,500	5,800	5,800	5,800	5,800	5,800	5,800	5,800
Torque at 5,500 psi	lbf·ft	1,480	4,200	8,110	13,500	18,070	18,730	22,350	25,080	53,840
Cutting force at 5,500 psi	lbf	4,000	5,760	8,390	11,910	15,960	15,870	18,930	21,220	38,170
Max. uniaxial compressive strength	psi	3,600	4,400	7,300	12,000	12,000	15,000	15,000	17,000	20,000
Weight	lb	290	950	1,600 1,710	2,870 3,000	2,870 3,000	4,410	4,410	4,410 [5,510]	6,835 7,827
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 tunneling



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

 1,300 – 275,000 lb

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 tunneling and also for the vibration free and silent demolition of reinforced concrete structures.

Effective dust control is particularly important in demolition and tunneling 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

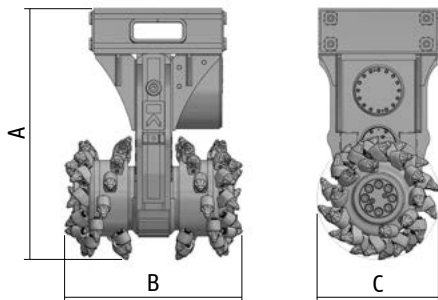


Extra heavy-duty, rigid gear box housing
Exceptional wear protection on the gearbox

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 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	lb	1,300–6,600	4,400–8,800	4,400–8,800	11,000–18,000	20,000–33,000	20,000–33,000	26,000–40,000	33,000–50,000	33,000–55,000	44,000–77,000	44,000–100,000	66,000–110,000	77,000–121,000	88,000–121,000	110,000–154,000	132,000–176,000	175,000–275,000	220,000–275,000
Rated power	hp (kW)	20 (15)	24 (18)	24 (18)	40 (30)	60 (45)	60 (45)	87 (65)	94 (70)	107 (80)	148 (110)	160 (120)	160 (120)	215 (160)	215 (160)	268 (200)	268 (200)	536 (400)	536 (400)
Drum cutter length (A)	in	24	24	25	32	38	40	47	47	48.50	58	58	58	62	62	65	65	81	81
Cutter head width (B)	in	16	16	20	24 [20]	24	27	31	31	31	41 [35]	41 [35]	41 [35]	49 [41]	49 [41]	52	52	63 [51]	63
Cutter drum diameter (C)	in	9	9	9	15	16	18	23	23	23	28	28	28	28	28	32	32	37	37
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	gal/min	4–7	7–11	7–11	14–22	24–32	24–32	32–40	40–51	40–51	53–74	66–85	66–85	80–104	87–111	93–119	145–158	185–250	238–317
Max. oil flow	gal/min	11	16	16	24	34	34	45	50	55	79	92	95	106	111	132	158	264	317
Max. operating hydraulic pressure	psi	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,500	5,500	5,500	5,500
Torque at 5,500 psi	lbf-ft	740	1,500	1,500	3,400	4,700	4,700	8,400	11,100	11,300	14,900	18,800	22,400	26,800	31,700	37,700	52,700	87,400	105,500
Cutting force at 5,500 psi	lbf	2,000	4,000	3,750	5,500	7,100	6,295	8,900	11,600	11,900	13,400	16,800	20,100	22,700	26,800	28,500	39,800	57,900	69,900
Weight	lb	340	340	370	750 [640]	1,000	1,170	1,970	1,970	2,300	4,410 [3,925]	4,410 [3,925]	4,410 [3,925]	6,170 [5,510]	6,170 [5,510]	7,800	7,720	15,430 [13,670]	15,430
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 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.

^[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.



Housing with hydraulic hose protection.



Water jets for dust suppression (optional).



Tool pattern for optimum performance.



APPLICATIONS

Tunneling
Demolition

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



KR 165 | Tunneling



KR 120 | Demolition of a bunker



KR 80 | Preparation for foundations



Further application examples on
www.kemroc.com

Rotary drum cutters
with direct drive

 1,100 – 110,000 lb



- Strong, compact design
- Direct drive with particularly strong support for the cutter drums
- High power to weight ratio
- Protected hose management
- Operational to 100 feet underwater without need for modifications



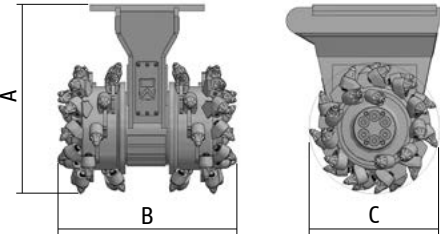
APPLICATIONS

Demolition using long arm excavators
Ground stabilization
Renovating concrete

Also used for trenching and pipeline work, profiling, mining soft minerals, underwater excavations, tunneling 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 stabilization 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
Recommended excavator weight	lb	1,100 – 4,400	4,400 – 8,800	11,000 – 18,000	20,000 – 35,000	38,000 – 55,000	44,000 – 88,000	55,000 – 88,000	66,000 – 88,000	77,000 – 110,000
Rated power	hp (kW)	20 (15)	24 (18)	40 (30)	60 (45)	94 (70)	148 (110)	160 (120)	160 (120)	214 (160)
Drum cutter length (A)	in	20	20	25	27	38	42	42	42	42
Cutter head width (B)	in	20	20	26	29	37	40	40	40	50
Cutter drum diameter (C)	in	12	12	15	18	24	29	29	29	29
Recommended rotation speed	rpm	100	100	100	90	75	75	70	65	60
Recommended oil flow	gal/min	4 – 7	7 – 11	14 – 21	24 – 32	40 – 53	58 – 80	66 – 88	74 – 93	80 – 104
Max. oil flow	gal/min	11	16	24	34	60	92	92	92	105
Max. operating hydraulic pressure	psi	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800
Torque at 5,500 psi	lbf-ft	700	1,840	3,250	5,560	12,020	14,890	18,730	22,340	31,710
Cutting force at 5,500 psi	lbf	1,420	3,750	5,360	7,580	11,975	12,440	15,640	18,660	26,850
Weight	lb	298	298	552	840	1,875	3,310	3,310	3,310	4,455
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



KRD 120 | Profiling excavation boundaries



KRD 150 | Excavation work



Further application examples on
www.kemroc.com

KRC RANGE

Bullhead cutters with full-face coverage for narrow trenches

 26,000 – 154,000 lb

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 stabilization

Protected hose management

Operational to 100 feet underwater without need for modifications



APPLICATIONS

Trenching and pipeline work
Soil stabilization



KRC 140 | Trenching and pipeline work



KRC 100 | Trenching and pipeline work



**KRC
60**

**KRC
100**

**KRC
110**

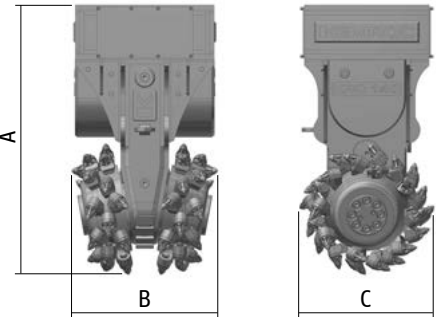
**KRC
140**

**KRC
150**

**KRC
160**

**KRC
220**

Recommended excavator weight	lb	26,000 – 37,000	40,000 – 66,000	44,000 – 71,000	55,000 – 88,000	77,000 – 110,000	88,000 – 110,000	110,000 – 154,000
Rated power	hp (kW)	80 (60)	134 (100)	148 (110)	188 (140)	200 (150)	215 (160)	295 (220)
Drum cutter length (A)	in	47	55	55	60	60	60	73
Cutting width (B)	in	24	32	32	35	35	35	47
Average cutter head diameter (C)	in	21	26	26	28	28	28	36
Recommended rotation speed	rpm	85	75	70	65	65	65	50
Recommended oil flow	gal/min	32 – 45	48 – 63	55 – 69	66 – 85	74 – 87	74 – 87	110 – 145
Max. oil flow	gal/min	58	69	79	100	100	100	170
Max. operating hydraulic pressure	psi	5,800	5,800	5,800	5,800	5,800	5,800	5,800
Torque at 5,500 psi	lbf-ft	6,640	11,800	14,750	18,730	22,350	24,980	44,610
Cutting force at 5,500 psi	lbf	7,420	11,060	13,830	16,320	19,470	21,760	29,410
Max. uniaxial compressive strength	psi	7,300	12,000	12,000	15,000	15,000	15,000	20,000
Weight	lb	1,870	3,200	3,200	4,300	4,300	4,300	9,400
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.



Further application examples on
www.kemroc.com



DMW RANGE

Cutter wheels with double motor for rock up to 20,000 psi

 30,000 – 264,000 lb

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 20,000 psi as well as reinforced concrete, very high productivity rates can be achieved. KEMROC produces these robust attachments in four sizes for excavators from 30,000 to 264,000 lb.

To meet the demands of many applications, KEMROC have developed cutter wheel variations for cutting depths to 40 inches. A choice of wheels with different tooling configurations and a range of widths up to 16 inches 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 100 feet, 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 20,000 psi

- Two high torque hydraulic motors

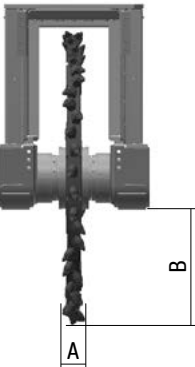
Smooth and regular cutting action

Supports for vibration free cutting
- Cutter wheels for various cutting depths and widths

Optional – water nozzles for dust suppression
- Operational to 100 feet 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	lb	30K–55K	30K–55K		44K–88K	44K–88K	55K–88K	88,000–132,000	88,000–132,000	100,000–132,000	110,000–154,000 ^[1] 154,000–264,000	
Rated power	hp (kW)	120 (90)	120 (90)		175 (130)	175 (130)	175 (130)	295 (220)	295 (220)	295 (220)	536 (400)	
Cutting width (A)	in	3 5 8	3 5 8		3 5 8	3 5 8	3 5 8	5 8 16	5 8 16	5 8 16	5 8 16	
Cutting depth (B)	in	16	24		16	24	32	22	30	40	40	
Cutter wheel diameter	in	48	64		48	64	80	64	80	100	106	
Recommended rotation speed	rpm	60	50		60	50	40	45	35	30	25	
Recommended oil flow	gal/min	40–50	32–45		74–90	66–90	53–80	120–160	100–160	92–160	160–240	
Max. oil flow	gal/min	53	53		90	90	90	185	185	185	264	
Max. operating hydraulic pressure	psi	5,800	5,800		5,800	5,800	5,800	5,800	5,800	5,800	5,800	
Torque at 5,500 psi	lbf-ft	11,125	11,125		22,303	22,303	22,303	48,175	48,175	48,175	105,272	
Cutting force at 5,500 psi	lbf	5,600	4,200		11,240	8,450	6,770	18,230	14,610	11,420	23,760	
Max. uniaxial compressive strength	psi	8,700	5,800		15,000	12,000	8,700	17,000	17,000	15,000	20,000	
Weight of drive unit, approx.	lb	2,430	2,430		2,540	2,540	2,540	6,060	6,060	6,060	12,130	
Weight of cutter wheel, approx. ^[2]	lb	880	1,760		880	1,760	2,760	1,760	2,760	4,960	7,280	
Weight of dipping device, approx.	lb	550	550		660	660	660	2,030	2,030	2,030	3,200	
Weight of protection cover, approx.	lb	120	120		120	120	120	400	400	400	550	
Total weight, approx.	lb	3,980	4,860		4,200	5,080	6,080	10,250	11,250	13,450	23,160	
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, 3 inches 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 adapter to boom and additional counterweight on excavator.



APPLICATIONS

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



DMW 130 | Tunneling



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



Further application examples on www.kemroc.com



KRX RANGE

Powertool drives with attachments for milling, drilling and mixing

 11,000 – 110,000 lb

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 stabilization.

When used with a drilling attachment, the Powertool drive can drill shallow holes up to 59 inches 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 8,700 psi.



KRX 120
Working bored pile heads

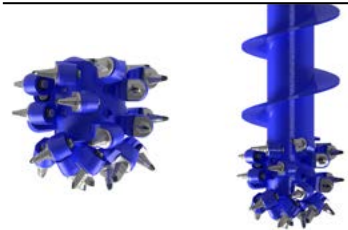


Powertool drives with attachments
for milling, drilling and mixing

DRIVE



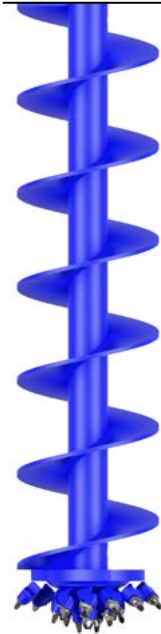
MILLING ATTACHMENT



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	lb	11K–18K	20K–26K	28K–44K	33K–50K	33K–55K	55K–88K	55K–88K	66K–110K	77K–110K
Rated power	hp (kW)	40 (30)	60 (45)	87 (65)	87 (65)	94 (70)	160 (120)	160 (120)	188 (140)	188 (140)
Length of drive unit	in	22	24	24	24	33	33	33	35	35
Torque at 5,500 psi (380 bar)	lbf·ft	3,320	5,530	8,330	11,060	11,800	22,350	24,340	26,850	31,720
Max. oil flow at 150 psi (10 bar)	gal/min	29	34	50	50	79	92	92	103	111
Max. hydraulic pressure	psi (bar)	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800
Weight without attachment	lb	350	530	570	570	1,150	1,190	1,190	1,980	1,980
Hex connection, standard	in	3¼	3¼	3¼	3¼	6¼	6¼	6¼	6¼	6¼
Milling attachment (optional)										
Length of standard cutter head	in	14	14	14	14	16	17	17	18	18
Diameter of standard cutter head	in	15	16	16	16	18	20	20	22	22
Cutting force at 5,500 psi	lbf	5,469	8,430	12,700	16,770	15,986	27,246	29,675	29,757	35,070
Recommended rotation speed	rpm	80	70	70	70	75	60	60	50	50
Recommended oil flow	gal/min	13–18	21–29	31–44	34–44	34–50	52–89	60–89	73–97	79–103
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	in	24	32	39	39	39	51	51	59	59
Min. drill diameter	in	11	11	11	11	11	11	11	11	11
Max. drilling depth at max. drill diameter	in	60	60	80	80	80	160	160	160	160
Max. drilling depth at min. drill diameter	in	100	120	160	160	280	280	280	320	320
Max. uniaxial compressive strength of the ground	psi	1,500	2,900	2,900	2,900	4,400	7,300	7,300	8,700	8,700
Recommended oil flow	gal/min	8–18	10–26	21–59	21–59	26–50	47–79	50–79	58–92	66–103

- 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.

Multifunctional and versatile thanks to a large selection of attachments

Quick interchangeability of attachments

- 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

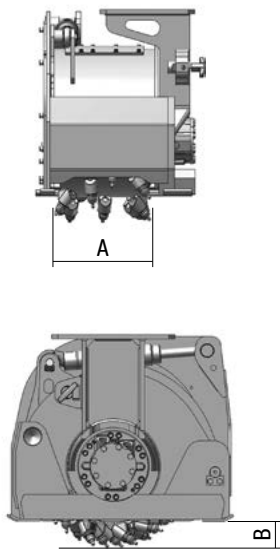
www.kemroc.com

EX RANGE

Patch planers for milling asphalt and concrete with accurate depth control



2,200–55,000 lb



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 8 inches.

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 tunneling

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	lb	2,200–6,600	4,400–8,800	11,000–22,000	22,000–35,000	33,000–50,000	40,000–55,000
Rated power	hp (kW)	30 (22)	30 (22)	40 (30)	88 (65)	108 (80)	108 (80)
Cutting width, standard (A)	in	8	8	12	18	24	24
Cutting depth, adjustable (B)	in	0–3	0–3	0–5	0–6	0–8	0–8
Recommended rotation speed	rpm	80–200	80–200	80–125	70–110	70–95	60–80
Recommended oil flow at 1,500 psi	gal/min	6–13	7–17	16–25	29–44	40–52	53–66
Min. oil flow	gal/min	6	7	16	27	40	53
Max. oil flow	gal/min	19	24	30	48	56	66
Max. operating hydraulic pressure	psi	4,350	4,350	5,500	5,500	5,500	5,500
Torque at 5,000 psi	lbf·ft	500 @ 3,000 psi	740 @ 3,000 psi	3,100	6,500	6,900	13,200
Cutting force at 5,000 psi	lbf	900 @ 3,000 psi	1,350 @ 3,000 psi	3,600	6,750	6,300	12,140
Operating weight	lb	360	370	880	1,610	2,710	2,710
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	lb	2,200–6,600	4,400–8,800	13,000–22,000	26,000–35,000	35,000–50,000	40,000–55,000
Operating weight	lb	560	570	1,290	2,230	3,750	3,750

- 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 49 to 51. 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

2,200–88,000 lb



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



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

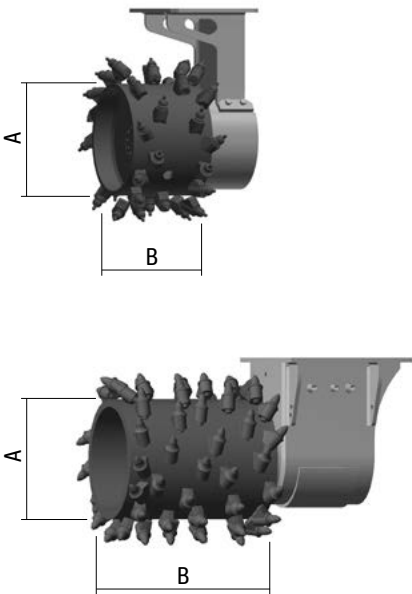
material removal, depending on the application, various types of cutter drum can be used for processing asphalt, concrete and rock.

ES cutter heads are available for excavators with 2,200 to 88,000 lb 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	lb	2,200–6,600	4,400–8,800	11,000–22,000	22,000–33,000	33,000–50,000	44,000–55,000
Rated power	hp (kW)	30 (22)	30 (22)	40 (30)	87 (65)	107 (80)	107 (80)
Diameter of cutter drum (A)	in	14	14	20	23	26	26
Width of cutter drum (B)	in	8	8	12	18	24	24
Cutting depth	in	3	3	4	4	7	7
Min. oil flow	gal/min	6	7	16	27	40	48
Max. oil flow	gal/min	18	23	29	47	55	55
Max. hydraulic pressure	psi	4,350	4,350	5,500	5,500	5,500	5,500
Torque at 5,000 psi	lbf-ft	840	1,300	3,100	6,500	8,700	13,300
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	lb	33,000–55,000	44,000–66,000	55,000–88,000	55,000–88,000
Rated power	hp (kW)	107 (80)	107 (80)	148 (110)	160 (120)
Diameter of cutter drum (A)	in	32	32	31	31
Width of cutter drum (B)	in	24 32	24 32	24 32 39	24 32 39
Cutting depth	in	6	6	4 6	4 6
Min. oil flow	gal/min	40	48	56	61
Max. oil flow	gal/min	55	55	92	92
Max. hydraulic pressure	psi	5,500	5,500	5,500	5,500
Torque at 5,000 psi	lbf-ft	11,300	13,300	20,600	22,200
Pick box	Type	PH 32 HD	PH 32 HD	PH 32 HD	PH 32 HD
Number of picks	Pcs	69 (32 in)	69 (32 in)	44 (24 in)	44 (24 in)
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

 **77,000–440,000 lb**

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.

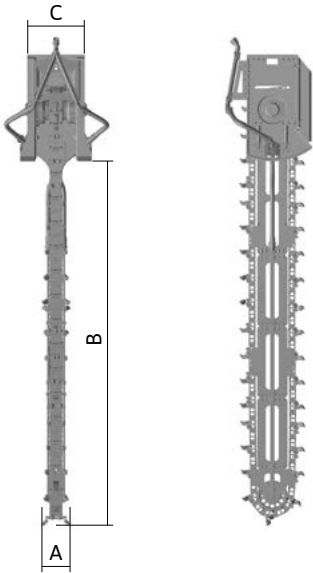
The Kemsolid KSI process is a system of soil stabilization using an excavator attachment to inject and mix a defined concrete suspension in non-load bearing soils (KSI) that, when left to harden, create a homogenous, impermeable and frost resistant soil-cement structure. Depending on soil conditions 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 77,000 and 440,000 lb 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 13, 16, 19 or 22 feet, while the larger models KSI 12000 and KSI 16000 can take blades for mixing depths from 19 to 39 and from 19 to 52 feet respectively.

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

KEMSOLID®
build on solid foundations



Mixing blade extendable to 52 feet

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
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Recommended excavator weight	lb	77,000–120,000	110,000–176,000 ^[1] 176,000–264,000	165,000–264,000 ^[1] 264,000–440,000
Rated hydraulic power	hp (kW)	175 (130)	295 (220)	400 (300)
Mixing width (A)	in	13–19	17–25	23–37
Modular mixing depth (B)	ft	13 16 19 22	19 26 32 39	19 26 32 39 46 52
Width of gearbox (C)	in	39	53	64
Recommended chain speed	ft/s	6–8	6–8	6–8
Recommended oil flow at 2,200 psi	gal/min	79–105	132–158	172–218
Max. oil flow	gal/min	105	172	224
Max. operating hydraulic pressure	psi	5,800	5,800	5,800
Max. permissible ground compressive strength	psi	1,500	1,500	1,500
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	lb	4,500	12,500	19,500
Weight per meter for extension	lb	400	800	1,600

^[1] Attachment only with special adapter to boom and additional counterweight on excavator. Size of counterweight depends on excavator.



APPLICATIONS

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

Flood defences – sealing walls, dam stabilization, diaphragm walls

De-contamination

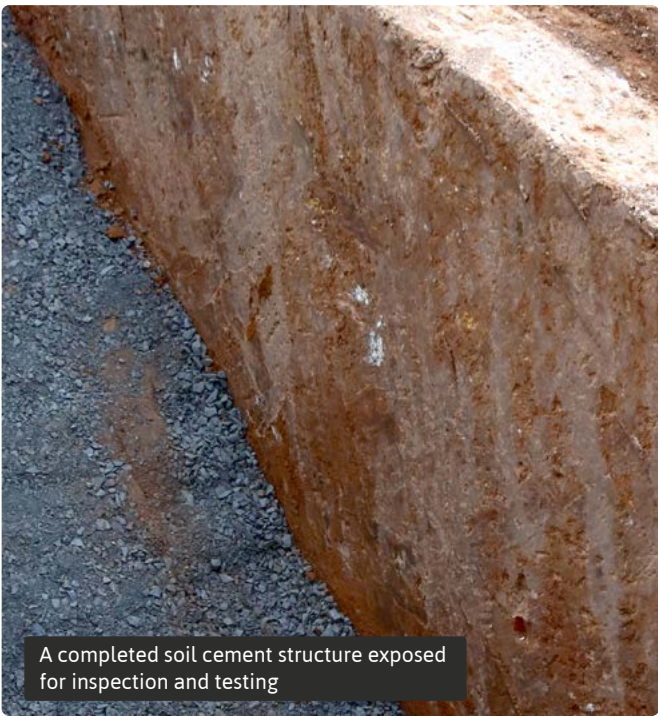
Retaining walls – building construction, civil engineering, pipelines

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

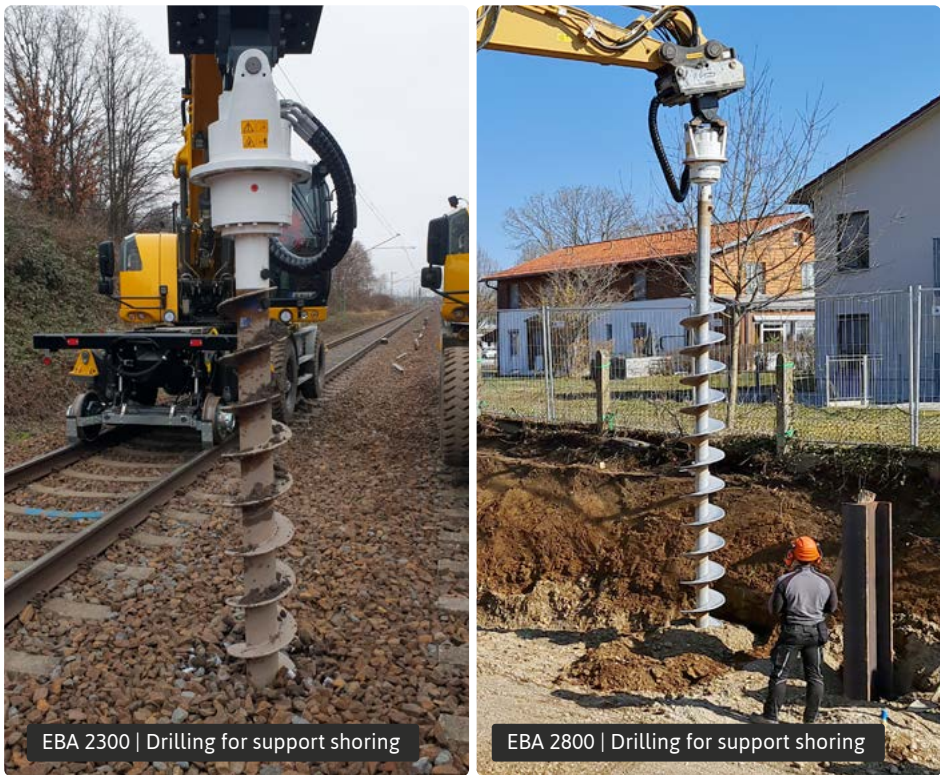


APPLICATIONS

- 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



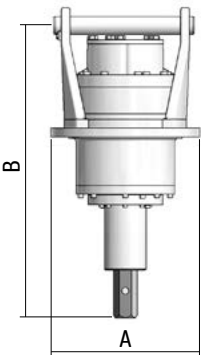
Further application examples on

www.kemroc.com

EBA RANGE

Auger drive attachments for excavators and backhoe loaders

15,500 – 88,000 lb



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 7,250 psi.

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	lb	15,500 – 28,000	15,500 – 33,000	30,000 – 37,000	35,000 – 44,000	40,000 – 77,000	55,000 – 88,000	55,000 – 88,000
Max. drill diameter	in	32	32	40	40	48	60	60
Min. drill diameter	in	8	8	8	8	12	12	12
Max. drilling depth at max. drill diameter	in	80	80	120	120	160	160	160
Max. drilling depth at min. drill diameter	in	200	200	200	200	320	320	320
Diameter of drive unit (A)	in	16	16	16	16	20	20	20
Length of drive unit (B)	in	24	24	24	24	39	39	39
Max. torque	lbf-ft	3,900	5,600	7,700	11,100	17,300	20,700	25,900
Recommended oil flow	gal/min	13 – 18	16 – 21	21 – 39	27 – 39	39 – 66	47 – 74	47 – 74
Max. oil flow	gal/min	22	22	39	39	79	79	79
Max. operating hydraulic pressure	psi	5,500	5,500	5,500	5,500	5,500	5,500	5,500
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	lb	353	353	397	397	794	794	794



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

 40,000–77,000 lb

The KTR range of trenchers can produce trenches with perfect profiles in widths from 7 to 18 inches to a maximum depth of 71 inches. 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 back-wards 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

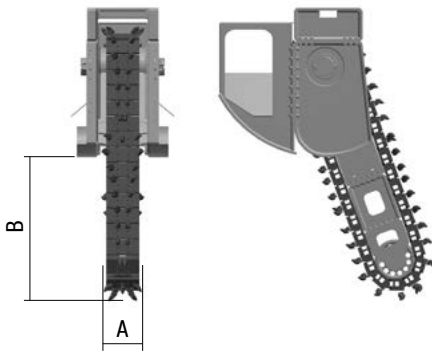


KTR 65 | Trenching and pipeline work

KTR 65

KTR 130

Recommended excavator weight	lb	40,000 – 55,000	55,000 – 77,000
Rated power	hp (kW)	87 (65)	175 (130)
Cutting width, standard (A)	in	7 – 14	8 – 18
Cutting depth (B)	in	40 – 71	40 – 60
Recommended oil flow at 2,200 psi	gal/min	45 – 53	66 – 93
Max. oil flow	gal/min	52	93
Max. uniaxial compressive strength	psi	7,300	8,700
Weight	lb	6,000	6,650
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.



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



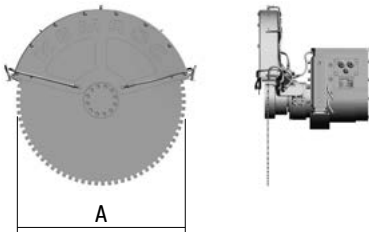
 4,400 – 66,000 lb

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	lb	4,400 – 8,800	11,000 – 22,000	22,000 – 35,000	33,000 – 55,000	40,000 – 66,000
Rated power	hp (kW)	74 (55)	107 (80)	174 (130)	181 (135)	208 (230)
Max. saw blade diameter (A)	in	32	47	59	59	71
Max. torque at 5,000 psi	lbf-ft	104	230	445	535	1,130
Max. rotation speed	rpm	1,200	2,000	2,000	2,000	1,700
Max. oil flow	gal/min	10	30	47	68	124
Max. operating hydraulic pressure	psi	5,000	5,000	5,000	5,000	5,000
Weight of drive unit excl. saw blade and protective cover	lb	220	465	685	1,590	1,875



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

 **4,400–154,000 lb**

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 tunneling.



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

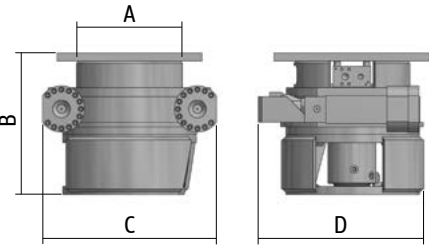
Oil distributors developed in-house guarantee flow rates of oil and water



APPLICATIONS

- Trenching and pipeline work
- Tunneling
- Demolition and renovation
- Profiling

		KRM 20	KRM 30	KRM 35	KRM 40	KRM 50	KRM 60	KRM 70	KRM 80
Recommended excavator weight	lb	4,400–13,000	11,000–24,000	15,500–33,000	26,000–40,000	42,000–60,000	55,000–88,000	66,000–110,000	110,000–154,000
Diameter (A)	in	9	13	13	18	19	24	28	36
Height (B)	in	13	15	15	21	16	25	25	32
Length (C)	in	20	24	26	30	28	31	36	46
Width (D)	in	14	19	24	24	28	31	32	40
Max. oil flow at 150 psi	gal/min	10	10	10	10	10	10	10	10
Max. holding torque	lbf-ft	4,500	6,700	13,300	32,960	70,000	147,512	199,141	258,146
Weight	lb	330	610	710	970	1,540	1,980	2,200	4,410
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						



KRM 50 | Trenching and pipeline work



KRM 60 | Foundation work



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 tunneling, 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)

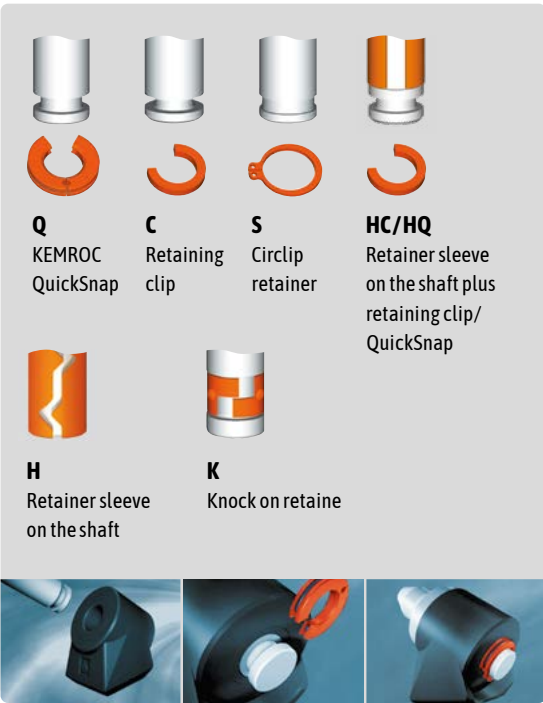
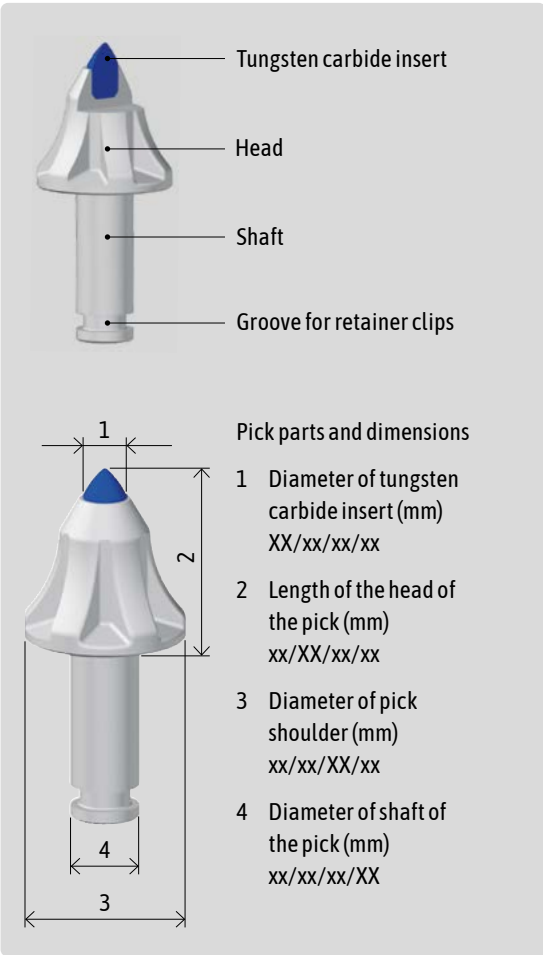
Example:

- 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.



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



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

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 Q

Application
Concrete, medium hard
rock

Part No. 19757035



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 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 15/90/70/30 Q

Application
Salt, gypsum, medium
hard, fractured rock

Part No. 15907035



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


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

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

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



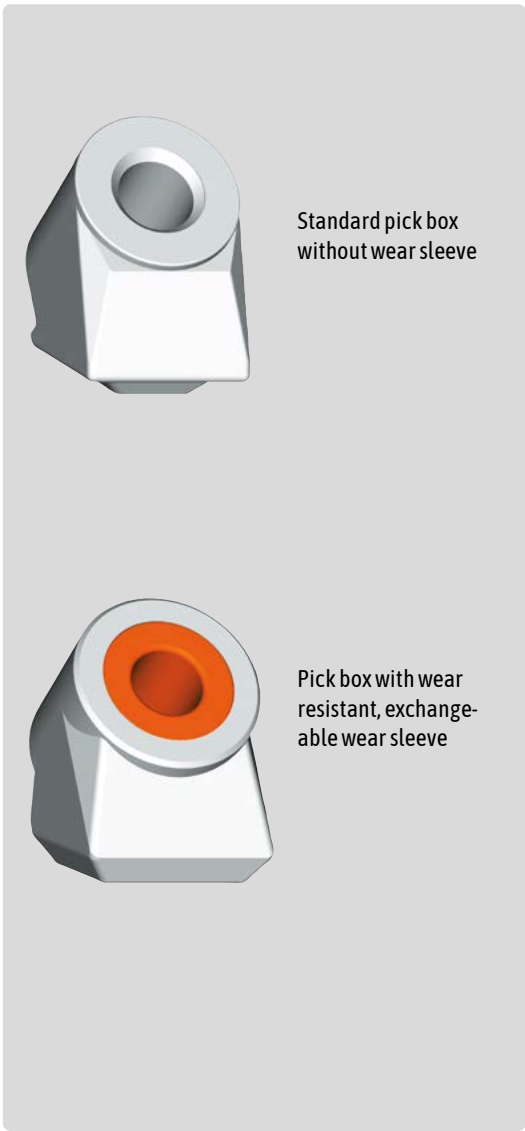
Retaining clip
ES 30

Part No. 99500032

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 38 HD

Part No. 753022



Replacement wear sleeve

Part No. 753021



Pick box
PH 20

Part No. 721024E



Pick box
PH 30 HD

Part No. 711084



Replacement wear sleeve


Part No. 711029



Pick box
PH 22

Part No. 721025UA

Diamond saw blades for models in the KDS range



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

Diameter 32 in

Diameter 39 in


Diameter 47 in

Diameter 55 in

Diameter 59 in

Diameter 63 in

Diameter 71 in



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

Diameter 32 in

Diameter 39 in

Diameter 47 in

Diameter 55 in

Diameter 59 in

Diameter 63 in

Diameter 71 in



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

Diameter 16 in

Diameter 24 in

Diameter 36 in

Diameter 40 in

Diameter 44 in

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



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



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



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

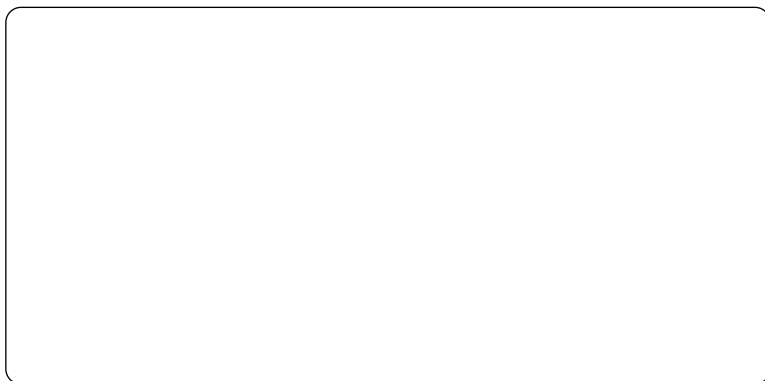


This image shows a full page of graph paper. The background is a solid light blue color. Overlaid on this background is a uniform grid of thin, orange-colored lines. The grid consists of small squares that cover the entire area of the page, leaving no margins or other markings.





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