

revolution of cutting



SPECIAL ROCK CUTTERS

GOING INTO DEPTH

Trenching
Demolition
Tunnelling
Road Construction
Foundation
Auger drilling
Cleaning of flat metal surfaces

KEMROC

REVOLUTION OF CUTTING

We can call on more than 15 years experience in design and manufacture of cutting attachments and auger drive units for excavators and back hoe loaders.

Our attachments are robust and strong with all major components manufactured in Germany to the highest quality. Our international team of product specialists will be pleased to provide support for our products.

In this catalogue you will find a large range of special cutter attachments for excavators and skid steers that have been developed in cooperation with customers. Practical experience from job sites around the world is used in our continuous product development process.

1 Precision in manufacturing and assembling guarantees highest quality and reliability of our products.

2 Excellent Service. We support you with our team to install you **KEMROC** machine and provide trainings for your operators.

3 Modern production facilities



4 Satisfied customers



For excavators



For loaders



For skid steers

Page

Technical characteristics
Applications



EX RANGE

Patch planers (Exactor)
For milling asphalt and concrete with accurate depth control



ES RANGE

Multi-purpose attachment (Flexator)
For wood, asphalt, concrete and rock



SMW RANGE

ERWETOR rock cutting wheel for small trenches
in soft and medium hard material up to 60 MPa



DMW RANGE

The high torque double motor ERWETOR
for rock up to 100 MPa



ETR RANGE

Chain trencher for narrow trenches



EK RANGE

ERKATOR Patented chain cutter



EBA RANGE

Auger Drive attachments for excavators
and back hoe loaders



EXRUST RANGE

For cleaning metal surfaces

STANDARD TOOLS

Picks, retaining rings, pick boxes

4
6

16

18

20

22

24

26

28

30

31

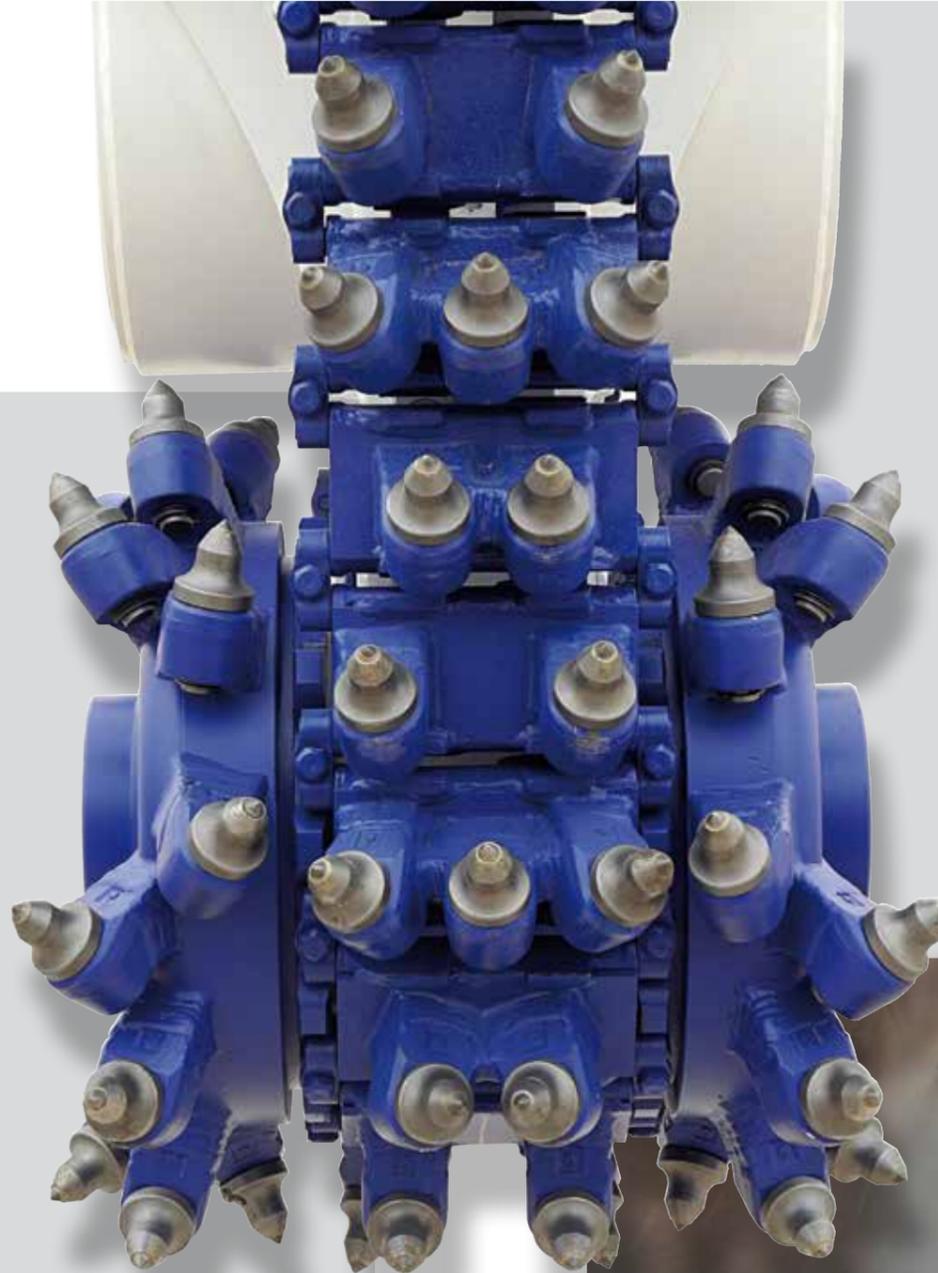
WELL PROVEN TRENCHING TOOLS



ADAPTABLE

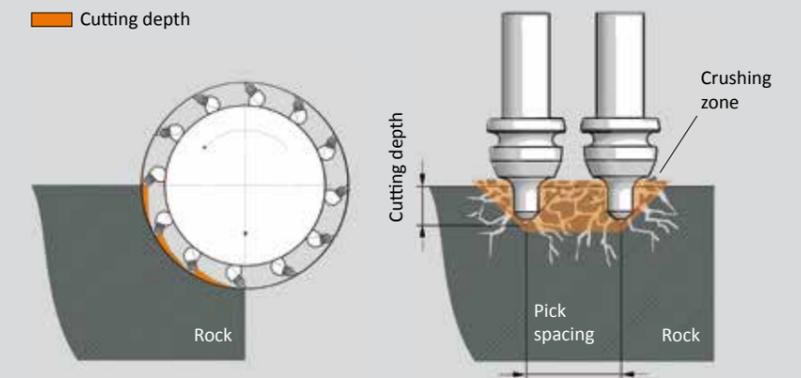
Trenching attachments from **KEMROC** provide options for trench widths from 4 centimeters to 1 meter and trench depths from 10 centimeters to 8 meters.

The major components of our attachments are manufactured in Germany.



CUTTING TECHNOLOGY

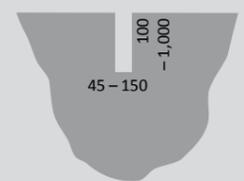
The productivity of a drum cutter depends to a large extent on the uniaxial compressive strength of the material to be cut. The deeper a pick can be forced into the rock, the more material it can break out from it which in turn; increases productivity. The oil flow and pressure that the excavator is able to provide to the drum cutter combined with excavator weight and stability are also critical factors influencing productivity.



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.

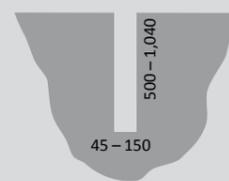
ATTACHMENTS FOR ALL TRENCH SIZES

ES RANGE



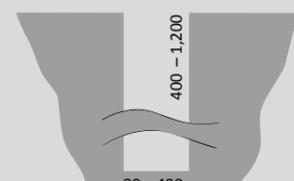
1 - 40 t Max. 60 MPa

SMW RANGE



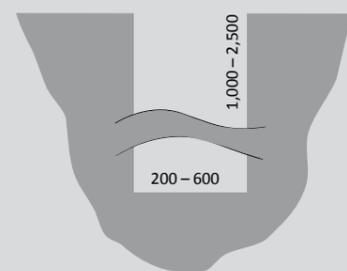
10 - 25 t Max. 80 MPa

DMW RANGE



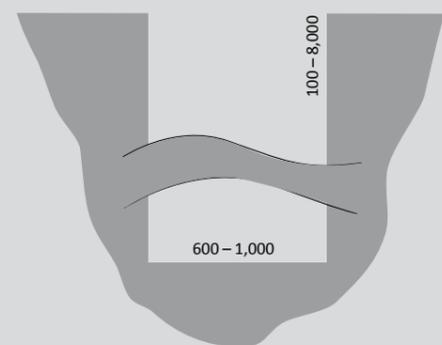
14 - 60 t Max. 120 MPa

ETR RANGE



15 - 60 t Max. 90 MPa

EK RANGE



20 - 50 t Max. 90 MPa

Dimensions trench width and trench depth in mm.



WHERE TRADITIONAL METHODS ARE UNSUITABLE OR TOO EXPENSIVE

TRENCHING

1 + 2
Saudi Arabia
 This **EK 140** chain cutter cuts a trench exactly 80 cm wide to a depth of 3 m. Production rates of 12 to 15 m³ per hour were achieved in the medium hard limestone with hardness of 60 MPa.

3 + 4
Germany
 Mounted on a CAT 325, the **EK 140** excavated a 400 m long trench, 1.5 m deep, in 18 hours. The trench was cut in a 30 cm thick asphalt layer covering slag from a blast furnace.



5
Qatar
 The Erwetor **DMW 220** was used to cut a 20 km long trench, one meter deep, in medium hard limestone. Mounted on a Volvo EC 380 excavator, the cutter wheel achieved a cutting speed of 0.5 linear m/min.

6
Oman
 This special version of an **DMW 130** cut a 30 cm deep by 20 cm wide trench in soft limestone in Oman. Cutting speed was 5 m/min.



7 + 8
Azerbaijan
 Cutting a trench 20 cm wide by 1 m deep, this **DMW 220** achieved a production rate of 30 m per hour in medium hard limestone.

IN THE TOUGHEST CONDITIONS

TUNNELLING

1 + 2

Japan

Mounted on a 5 ton mini excavator, this **EX20HD** removed a 5 cm thick layer of concrete (weathered B35 grade concrete) in the Shinaga-ku road tunnel near Tokyo. The production rate varied between 15 and 20 m² per hour.

3 + 4

Japan

The side walls at this tunnelling project in Japan were milled using an **EX30HD** mounted on a 8 ton excavator. The production rate was approx. 25 m² per hour.



5 + 6

Austria

An **DMW 130** used to cut 600 mm deep slots to reduce stress in the walls of a tunnel in Austria.

7

Germany

A Brokk 60 demolition robot with an **EX30** being used to remove tiles in the historical Elb Tunnel in Hamburg. Just below the tiles was a layer containing rebar so the cutting depth had to be very accurate.

LOW VIBRATION IN DEMOLITION

DEMOLITION / RENOVATION

KEMROC cutters provide a solution in applications where traditional methods do not work or are unsuitable.

1 + 2

Germany

In Hamburg, an **DMW220** cutter wheel is used to cut a 60 cm thick concrete pad containing 16 mm diameter rebar. The production rate was 60 cm per minute.



3

Germany

Mounted on a Case 240 excavator, this **DMW130** cuts 15 cm wide by 60 cm deep slots in concrete. Cutting speed in this lightly reinforced concrete was between 8 to 10 m per hour.



4 + 5

Germany

At this demolition project an **DMW130** was used to cut slots in vertical walls. Cutting depth had to be very accurate so that the walls of neighbouring buildings were not damaged. The wall was then broken into smaller segments and transported away for disposal.

6 + 7

Sweden

Fitted with a special demolition cutter wheel, this **DMW130** cut through a heavily reinforced concrete deck, 60 cm thick, at a rate of 12 m per hour.



8 + 9

Germany

At an old US army base in Germany, a contaminated layer, 50 mm deep, had to be removed from 12,000 m² concrete wall before the remaining building could be demolished. The maximum operating height was 25 m and the production rate for the **EX60HD** was 5 min for 12.5 m².

10 + 11

Germany

An **EXR60** with depth control and a tilt function used for the renovation of a canal lock.

12 + 13

Germany

An **ES45** used to cut 15 cm deep by 6 cm wide horizontal slots in concrete.

MEETING SPECIAL NEEDS

APPLICATIONS

EXCAVATING / DRILLING

1 + 2

Germany

An **ES45HD** cuts quickly and efficiently through large wooden beams.

3

Saudi Arabia

Three **EBA** auger drive units are drilling 2m deep holes with 40 cm and 60 cm diameters in medium hard limestone with compressive strength up to 40 MPa. The **KEMROC** auger drives are mounted on Sumitomo 240 excavator.



4

Germany

Mounted on a New Holland 215, an **EBA2300** drills holes 400 mm diameter.



FORESTRY / DRILLING / CLEANING METAL SURFACES

1

Germany

This **ES60** multi-purpose attachment fitted with a wood cutting wheel is used to remove 70 cm diameter tree stumps. The time taken to remove each 1 m tall stump was about 5 min.

2 + 3

Germany

An **EBA2300** mounted on a CAT 325 excavator is used to loosen soil prior to hammering piles into the ground to protect buildings nearby.

4 + 5 + 6

Germany

An **EXRUST60** used to remove paint from walls inside the hold of a ship. Approximately 300 m² of wall were cleaned per hour!

IN ROAD BUILDING

APPLICATIONS

ROAD CONSTRUCTION

1
Germany
 Repairing road surfaces in Germany. An **EX45HD** removes a 5 centimeter deep layer of asphalt at a rate of 4 linear meters per minute.

2
Germany
 An **EX30** patch planer making road repairs.

3
Germany
 An **EX45** removing damaged sections of road surface.

4
The Netherlands
 An **EX45HD** patch planer with hydraulic depth control, mounted on a Doosan DX 170 excavator, used to repair the asphalt surface on a dyke in Holland. The cutting depth varied between 8 to 10 cm. A total of 400 m² were planed per day.



5
Germany
 An **EX45HD** mounted on a Liebherr A 904 removes a 10 cm deep by 45 cm wide layer of asphalt at a rate of 4 to 5 m per minute.

6 + 7
Germany
 This **EXR60HD** patch planer with hydraulic depth control was fitted with a special valve that allowed rotation and depth to be controlled from the cab without a need for an electric cable. The EX range of patch planers produce clean, smooth edges.

8 + 9
Germany
 The **ES45HD** is used to cut 20 cm deep by 5 cm wide slots in asphalt. Cutting speed was 4 m per minute.

PATCH PLANERS (EXACTOR)

Cold milling machines for asphalt and concrete with adjustable cutting depth

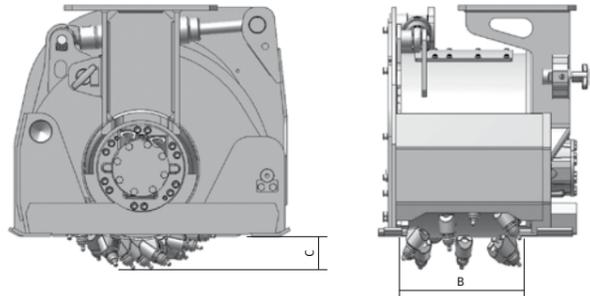
The Exactor range of patch planers are ideally suited for the repair of asphalt surfaces or for the removal of contaminated layers of concrete or screed. Mechanical or hydraulic depth control makes it possible to remove layers up to 19 centimeters thick.

The Exactor range of patch planers comprises 5 different model sizes that can be mounted on excavators and carriers with operating weights between 1 and 23 tons.

Regardless of whether horizontal, vertical or inclined – the Exactor can be used on any surface orientation. Even in overhead applications, as in tunnelling for example, **KEMROC** planers can be used. The Exactor produces clean and smooth cut edges (pre-cutting is not necessary) and a fine grained cut material that can be used in other applications.

The cutter drum can be fitted with different pick types to get the best performance in the material being cut. In addition, special drum widths or shapes can be designed to suit surface conditions.

The cut material produced is very fine grained and ideal for use as fill.



- + Thanks to the quick coupler frame, the planer can be attached to an excavator, loader or skid steer without any modifications (optional)
- + 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)



TECHNICAL DATA	Unit	EX 20	EX 20 HD	EX 30 HD	EX 45 HD	EX 60 HD
Recommended excavator weight	t	1 – 3	2 – 4	5 – 10	10 – 16	15 – 23
Recommended skid steer weight	t	1,5	1,5	2 – 3	3 – 6	4 – 6
Rated power	kW	22	22	30	65	80
Cleaning width, standard (B)	mm	200	200	300	450	600
Cleaning depth, adjustable (C)	mm	0 – 70	0 – 70	0 – 120	0 – 150	0 – 190
Recommended rotation speed	rpm	80 – 200	80 – 200	80 – 125	70 – 110	70 – 95
Recommended oil flow at 100 bar	l/min	20 – 50	25 – 65	60 – 95	110 – 170	150 – 200
Minimum hydraulic flow	l/min	20	25	60	100	150
Maximum hydraulic flow	l/min	100	100	110	180	210
Maximum operating hydraulic pressure	bar	310	310	380	380	380
Torque at 350 bar	Nm	660 @ 205 bar	1,000 @ 205 bar	4,100	8,700	9,300
Cutting force at 350 bar	kN	4 @ 205 bar	6 @ 205 bar	16	30	28
Operating weight	kg	165	170	400	730	1,230
Number of picks	Pcs	42	42	35	49	69
Standard pick ¹⁾	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 19/48/32/20 H

EXACTOR WITH ROTATION		EXR 20	EXR 20 HD	EXR 30 HD	EXR 45 HD	EXR 60 HD
Recommended excavator, skid steer loader weight	t	1 – 3	2 – 4	6 – 10	12 – 16	16 – 23
Operating weight	kg	250	255	585	1,010	1,700

¹⁾ An overview of standard picks is on page 31. Cutter drums can be supplied with picks for special applications as required.



UNIVERSAL CUTTERS (FLEXATOR)

Multi-functional cutter for wood, asphalt, concrete and rock

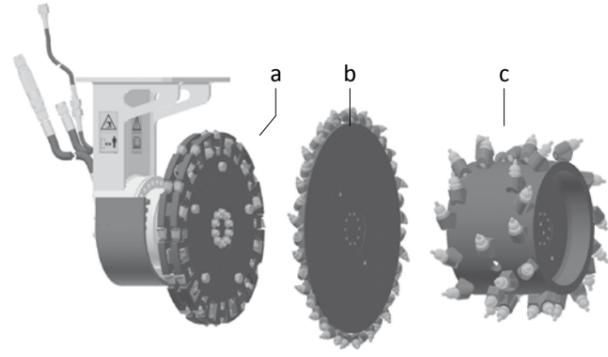
The Flexator is a truly multi-talented machine, equally as effective at grinding tree stumps as grinding small slots in asphalt or concrete or for accurately profiling horizontal or vertical surfaces. It is available in 7 sizes and can be used on excavators or skid steers with an operating weight from 1 to a maximum of 40 tons.

Either discs or a cutter drum, for working on wood, concrete and rock, can be attached to the drive motor contained in the main housing. Main applications include:

- a Tree stump grinder fitted with a very efficient wood cutting wheel
- b Slot cutter fitted with a disc suitable for use in asphalt, concrete or rock
- c Fitted with a cutter drum, it can be used for the accurate profiling of horizontal and vertical surfaces



- + Tool carrier with high torque hydraulic motor
- + An integrated rotation unit, providing continuous stepless rotation, is available as an option.
- + Fitted with a swinging quick coupling bracket, it can be mounted on an excavator, loader or skid steer without further modification
- + Multi-purpose, with wood cutting disc disc, slotting disc or cutter drum



TECHNICAL DATA	Unit	ES 20	ES 20 HD	ES 30 HD	ES 45 HD	ES 60 HD	ES 80 HD	ES 110 HD
Recommended excavator weight	t	1 – 3	2 – 4	5 – 10	10 – 16	15 – 23	15 – 25	20 – 40
Recommended skid steer weight	t	1,5	1,5	2 – 3	3 – 6	4 – 6	n.a.	n.a.
Rated power	kW	22	22	30	65	80	80	110
Recommended rotation speed	rpm	80 – 200	80 – 200	80 – 125	70 – 110	70 – 95	70 – 95	50 – 70
Recommended oil flow at 150 bar	l/min	20 – 50	25 – 65	60 – 95	110 – 170	150 – 200	150 – 200	300
Minimum hydraulic flow	l/min	20	25	60	100	150	150	210
Maximum hydraulic flow	l/min	100	100	110	180	210	210	350
Maximum operating hydraulic pressure	bar	310	310	380	380	380	380	380
Maximum Torque at 350 bar	Nm	660 @ 205 bar	1,000 @ 205 bar	4,100	8,700	9,300	15,200	27,800
Operating weight, according to tool type	kg	max. 90	max. 90	max. 205	max. 350	max. 530	max.1,300	max. 2,200
Wood cutting disc								
Number of picks	Pcs	20	20	48	56	56	72	n.a.
Standard pick ¹⁾	Type	Wood cutting tool set	n.a.					
Slot cutting disc								
Maximum cutting dept	mm	150	150	200	300	300	600	1,000
Maximum cutting width	mm	70	70	70	80	100	130	150
Minimum cutting width	mm	45	45	45	45	50	45	80
Cutter drum								
Diameter/width/depth	mm	360/200/85	360/200/85	520/300/110	580/450/110	670/600/190	–	–
Number of picks	Pcs	42	42	35	49	69	–	–
Standard pick ¹⁾	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	–	–



A model of the ES 80 HD

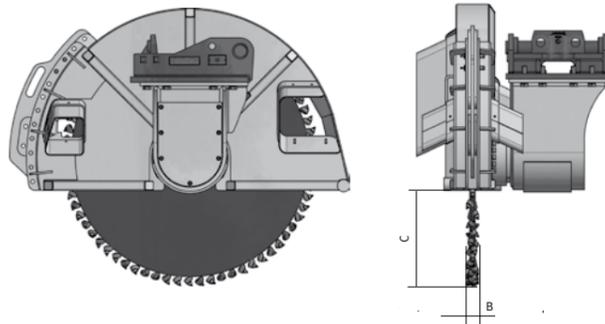
¹⁾ An overview of standard picks is on page 31. Cutter drums can be supplied with picks for special applications as required.

ERWETOR ROCK CUTTING WHEEL

For small trenches in soft and medium hard material up to 60 MPa

The SMW range is designed for use as an excavator slot cutting attachment. It can cut narrow trenches, especially for laying cables, quickly and efficiently. The reinforced mounting for the cutter wheel provides the strength required for cutting depths down to 1,000 millimeters.

When starting the cut, the weight of the attachment is supported by the sumping bracket and the wheel is gradually pressed down to the required depth. When the required depth has been reached, the wheel is then pulled along the cutting direction either by movement of the excavator arm or by driving the excavator slowly backwards. The cut material is guided out to the side of the trench.



- + Specially designed wheel for slots and narrow trenches to a depth of 1,000 millimeters
- + Housing with integrated guide to send cut material to the side of the trench
- + Cutter wheel mounted on extra strong bearings
- + Robust fastening of cutter wheel
- + High torque hydraulic motor
- + Can be used underwater to depths of 30 meters

- + Flange for top plate to connect to excavator via quick adaptor or with pins
- + Housing with guide to eject cuttings out of the trench
- + wear resistant picks
- + Narrow, high performance disc with optimum pick pattern
- + High torque hydraulic motor

TECHNICAL DATA	Unit	SMW 50				SMW 80				SMW 110 (ab Sept. 2017)			
		Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex
		Wheel 400	Wheel 600	Wheel 800	Wheel 1000	Wheel 400	Wheel 600	Wheel 800	Wheel 1000	Wheel 400	Wheel 600	Wheel 800	Wheel 1000
Recommended excavator weight	t	10 – 15	10 – 15	15	15 – 25	15 – 25	20 – 25	25	20 – 40	20 – 40	25 – 40	30 – 40	
Rated power	kW	50				80				110			
Cutting width (B)	mm	45 – 130				45 – 130				80 – 150			
Cutting dept (C)	mm	400	600	800	400	600	800	1,040	350	550	750	1,000	
Cutting dept with shoe	mm	300	500	700	300	500	700					900	
Cutting wheel diameter	mm	1,260	1,660	2,060	1,260	1,660	2,060	2,540	1,260	1,660	2,060	2,540	
Maximum motor displacement	ccm	1,687				2,518				4,198			
Torque at 380 bar	Nm	12,700				15,200				27,800			
Cutting force at 380 bar	N	20,159	15,301	12,330	24,127	18,313	14,757	11,969	44,127	33,494	26,990	21,890	
Recommended rotation speed	rpm	60				60							
Recommended oil flow	l/min	125				150				300			
Maximum oil flow at 50 bar	l/min	210				210				350			
Maximum operating hydraulic pressure	bar	380				380				380			
Maximum size of rebar in reinforced concrete	mm	not allowed				16	16	12	not allowed	16	16	12	12
Maximum uniaxial compressive strength – PH 1000	MPa	50	40	30	70	60	50	50	80	80	60	40	
Maximum uniaxial compressive strength – PH 100	MPa	30	30	30	30	30	30	30	30	30	30	30	
Standard pick ¹⁾	Type	ER 19/33/30/15				ER 19/33/30/15				–			
... at 45 – 70 mm cutting width	Type	ER 17/64/60/25 Q				ER 17/64/60/25 Q				ER 17/64/60/25 Q			
... at 80 – 100 mm cutting width	Type	–				–				ER 17/75/70/30 Q			
... at 100 – 130 mm cutting width	Type	–				–				–			
Pick box ¹⁾	Type	PH 100				PH 100				–			
... at 45 – 70 mm cutting width	Type	PH 600				PH 600				–			
... at 80 – 130 mm cutting width	Type	–				–				PH 600			
... at 80 – 100 mm cutting width	Type	–				–				PH 1000			
... at 100 – 130 mm cutting width	Type	–				–				–			

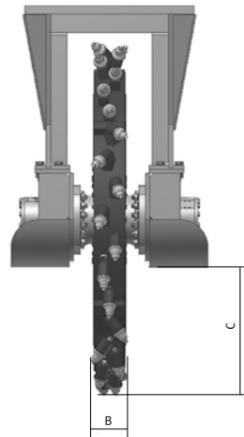
¹⁾ An overview of standard picks and pick boxes is on page 31. Cutter drums can be supplied with picks for special applications as required. KEMROC offers a variety of picks to suit different applications. The weight of the machine is related to the cutting wheel diameter.



ERWETOR ROCK CUTTING WHEEL

With high torque double motor for rock up to 120 MPa

The Erwetor hydraulic excavator attachment was designed in cooperation with our customers. Two high torque hydraulic motors per wheel provide the torque required to guarantee results.



Exceptional cutting rates have been achieved even in rock with a uniaxial compressive strength of 80 MPa and in heavily reinforced concrete.

KEMROC produces these heavy duty attachments in 4 sizes suitable for use on excavators from 14 to 55 ton operating weight.

To suit all possible applications, **KEMROC** offers different wheel designs with a maximum cutting depth of 1,200 mm. All wheels are fitted with the well proven picks. Maximum cutting width offered as standard is 400 mm but wheels to cut non-standard depths or widths are available on demand. As the Erwetor can be used to 30 m underwater, it is ideally suited for canal work or for underwater demolition projects.

- + Rigid, manouverable mounting frame
- + Two high torque hydraulic motors
- + Smooth and regular cutting action
- + Cutter wheels for various cutting depths and widths
- + High performance due to proven pick types and pattern
- + Operational to 30 meters underwater
- + Ideally suited for concrete demolition ¹⁾



TECHNICAL DATA	Unit	DMW 90		DMW 130				DMW 220			DMW 220 HD			
		Simplex	Duplex	Simplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Duplex	Simplex
		Wheel 400	Wheel 600	Wheel 400	Wheel 600	Wheel 800	Wheel 1000	Wheel 600	Wheel 800	Wheel 1000	Wheel 600	Wheel 800	Wheel 1000	Wheel 1200
Recommended excavator weight	t	14 – 25	14 – 25	18 – 35	18 – 35	18 – 35	25 – 35	35 – 50	40 – 50	40 – 50	35 – 60	40 – 60	40 – 60	50 – 60
Rated power	kW	90		130				220			220			
Cutting width (B)	mm	80 – 200		80 – 200				130 – 400			150 – 400			
Cutting depth (C)	mm	400	600	400	600	800	1,050	550	750	1,000	550	750	1,000	1,200
Cutting depth with shoe	mm	300	500	300	500	700	950	450	650	900	450	650	900	1100
Cutting wheel diameter	mm	1,210	1,610	1,210	1,610	2,010	2,500	1,610	2,010	2,500	1,610	2,010	2,500	2,950
Maximum motor displacement	ccm	2,520		3,736				8,396			10,032			
Torque at 350 bar	Nm	10,400		21,000				47,000			56,000			
Cutting force at 350 bar	N	17,190	12,919	34,711	26,087	20,896	16,800	58,385	46,766	37,600	69,565	55,721	44,800	37,966
Recommended oil flow according to wheel diameter	l/min	120 – 170		230 – 300				300 – 550			350 – 600			
Maximum oil flow at 50 bar	l/min	200		340				600			600			
Maximum operating hydraulic pressure	bar	380		380				380			380			
Maximum rebar diameter in reinforced concrete ¹⁾	mm	16	12	16	16	12	0	20	20	16	25	25	20	16
Maximum uniaxial compressive strength	MPa	60	40	80	60	60	40	120	100	80	120	120	100	80
Weight cutting wheel, app. ²⁾	kg	400	800	400	800		2,250	800		2,250	800		2,250	
Weight Drive unit, app.	kg	1,100		1,150				2,750			2,750			
Weight dipper device, app.	kg	250		300				920			920			
Weight protection cover, app.	kg	55		55				180			180			
Pig holder ³⁾	Type													
... at 80 – 140 mm cutting width	Type	PH 1000		PH 1000				PH 1000			PH 1000			
... at 150 – 400 mm cutting width	Type	PH 1500		PH 1500				PH 1500			PH 1500			
Cutting wheel diameter = equal to PH 1000														

KEMROC can supply wheels to order for various cutting widths and depths. The number of picks depends on the pattern on the wheel, for the exact quantity ask your supplier. Within technical boundaries, cutter wheels can be made to order.
 1) To maintain the warranty, check with the manufacturer before use in re-enforced concrete containing larger diameter rebar
 2) Cutter wheel weight depends on diameter and width.
 3) An overview of standard picks is on page 31.
 Cutter drums can be supplied with picks for special applications as required.



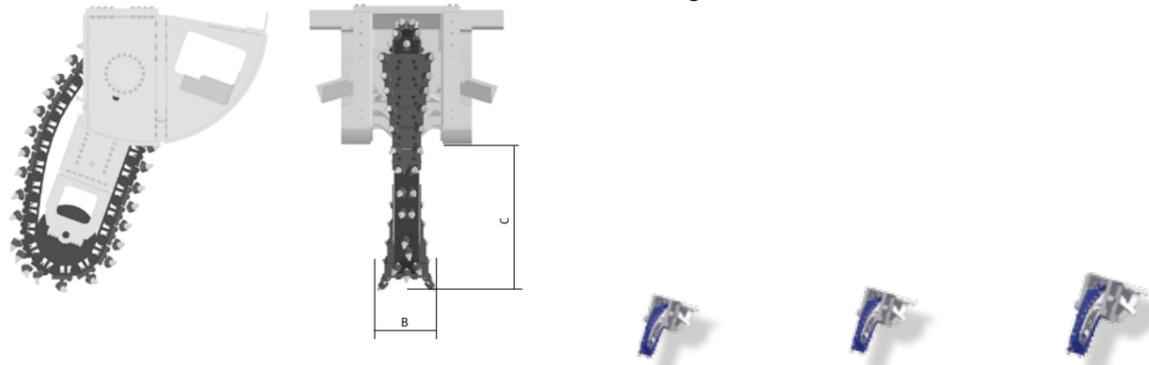
CHAIN TRENCHER FOR NARROW TRENCHES

Pure innovation! The ETR range of chain saw trenchers opens up a completely new range of opportunities for excavators. For the first time, a trenching attachment for excavators that is not limited to working in soils but can work in rock with a compressive strength of up to 90 Mpa (ETR 3).

The ETR trencher can produce straight trenches with perfect profiles in widths from 30 to 60 centimeters to a maximum depth of 2.5 meters.

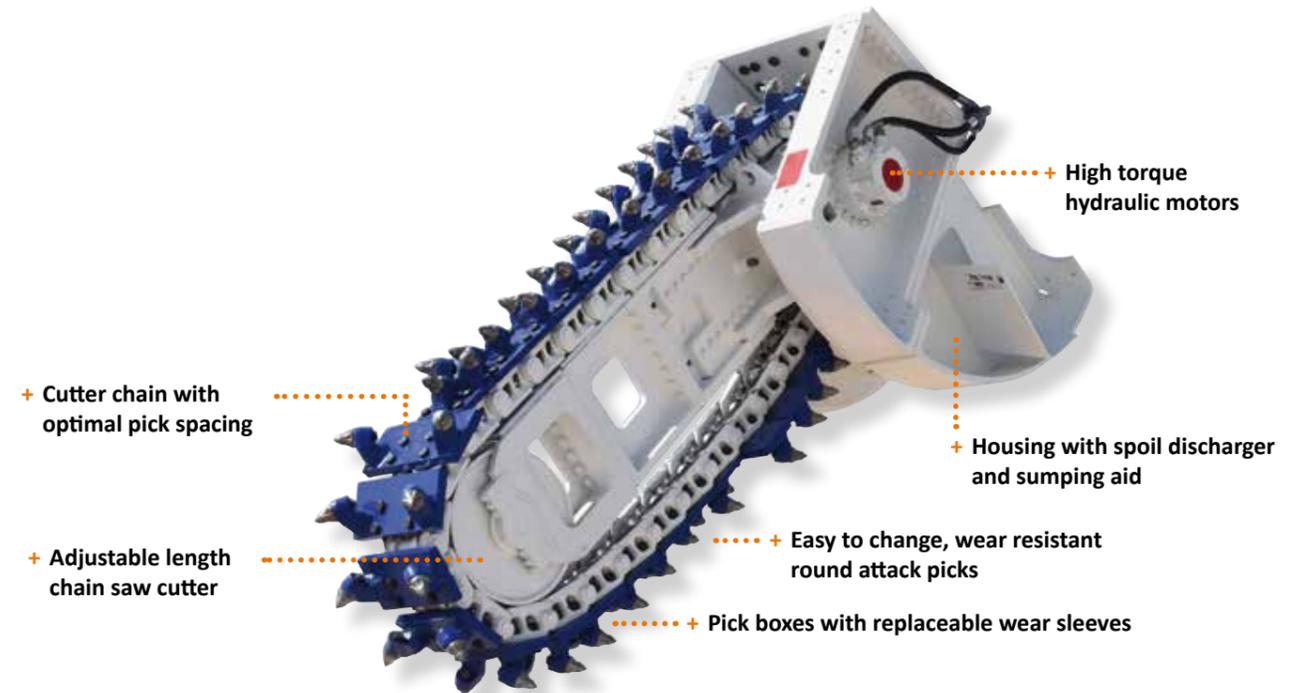
Chose from a range of cutting chain widths, each fitted with wear resistant picks. When starting the trench, the ETR is supported while sumping down to the desired cutting depth. When the trencher has reached the required depth, the excavator is driven backwards or the trencher is pulled forward with the excavator arm. The housing has a spoil discharger to deposit spoil to the side of the trench.

- + Cutter chain fitted with wear resistant picks to achieve maximum performance with minimum wear costs
- + Driven by two high torque hydraulic motors to obtain maximum cutting force
- + Housing with spoil discharger and sumping aid
- + Heavy duty chain guides
- + Maintenance free cutter chain with high operating life
- + Adjustable length cutter chain
- + Rigid and maintenance free chain transmission



TECHNICAL DATA	Unit	ETR 1	ETR 2	ETR 3
Recommended excavator weight	t	15 - 25	25 - 40	35 - 60
Rated power	kW	130	160	220
Cleaning width (B)	mm	200 - 300	200 - 400	300 - 600
Cutting depth (C)	mm	1,000 - 1500	1,000 - 1500	1,500 - 2,500
Recommended oil flow at 150 bar	l/min	250	300	450
Maximum oil flow	l/min	350	420	600
Torque at 350 bar	Nm	22,600	30,000	54,000
Maximum uniaxial compressive strength	MPa	40	60	90
Weight	kg	2,500	4,000	6,000
Standard pick ¹⁾	Type	ER 17/75/70/30 Q	ER 17/75/70/30 Q	ER 17/75/70/30 Q

1) An overview of standard picks is on page 31. Cutter drums can be supplied with picks for special applications as required.



Qatar
The new KEMROC trencher **ETR 3** is a 60 cm wide and up to 2 m deep trench in medium hard limestone. The trencher is mounted on an EC 380 Volvo Excavator.

ERKATOR CHAIN CUTTERS

Patented chain cutter

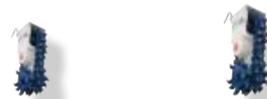
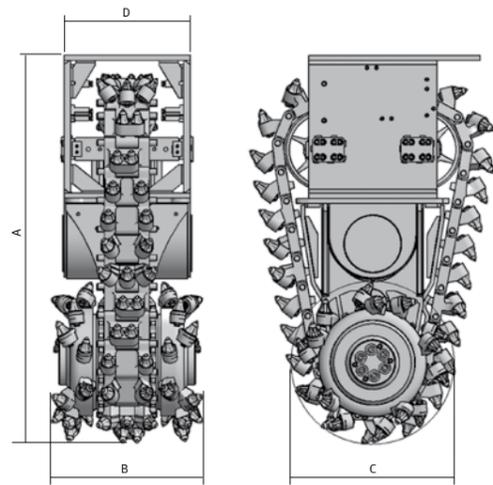
The Erkator is the first of this type of attachment on the market. Designed for use on excavators from 15 to 45 tons and for working in rock with compressive strength up to 90 MPa. The Erkator can excavate deep and narrow trenches, from 600 mm wide, quickly, without vibration and with a perfect trench profile.

Another application is the excavation of soft to medium hard rock with compressive strength between 15 to 60 MPa, where the use of drill and blast is not possible.

Using the Erkator, trench width will never be wider than 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 trench width is always wider due to the need to remove the material from this area. Minimum trench width saves money in transport costs for cut material and the ability to use spoils as fill material also saves money.

Using the EK cutter, the spoil is fine enough to be used as fill material.

- + Design protected under patents DE 10 2008 041 B4 and EP 2324158
- + Range of cutting widths available
- + Fine grained cut material
- + Easy on the excavator as trenching requires use of minimum excavator functions, using only the standard digging cylinders
- + Low noise and vibration levels
- + Works underwater without needing any modifications



TECHNICAL DATA	Unit	EK 100	EK 140
Recommended excavator weight	t	18 – 30	30 – 45
Rated power	KW	100	140
Drum cutter length (A)	mm	1,900	2,050
Cutter head width (B)	mm	600 700 800	800 900 1,000
Standard cutter drum diameter (C)	mm	800	850
Width of gearbox (D)	mm	550	700
Recommended rotation speed	rpm	70	70
Recommended oil flow at 150 bar	l/min	215	300
Maximum oil flow	l/min	260	420
Torque at 350 bar	Nm	18,300	26,000
Cutting force at 380 bar	N	45,700	61,400
Maximum compressive strength	MPa	60	90
Weight	kg	2,400	3,150
Number of picks in cutter drums	Pcs	28	44
Number of picks in the cutter chain	Pcs	54	63
Standard pick ¹⁾	Type	ER 17/75/70/30 Q	ER 17/75/70/30 Q

¹⁾ An overview of standard picks is on page 31. Cutter drums can be supplied with picks for special applications as required.

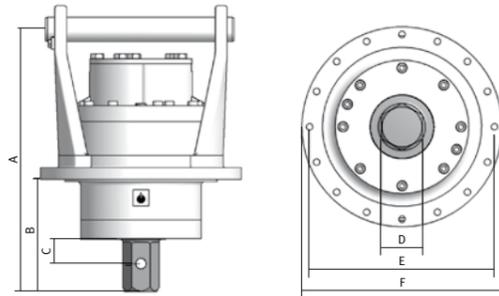


AUGER DRIVES

Auger drive attachment for excavators and back hoe loaders

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

These auger drive units are ideal for drilling shallow holes in soft to compact soils, cobbles and in soft rock with compressive strengths up to 40 MPa. For use in harder rock, **KEMROC** have developed special drilling tools to ensure higher drilling speeds.



TECHNICAL DATA	Unit	EBA 500	EBA 1000	EBA 2300
Recommended excavator weight	t	7 – 13	14 – 17	18 – 35
Rated power	kW	45	65	110
Maximum drilling depth / at drilling diameter				
Soil classification 1 – 3	m/mm	5/D.300	6/D.500	7/D.600
Soil classification 4 – 5	m/mm	3/D.300	4/D.500	4/D.700
Soil classification 6 – 7	m/mm	–	–	2/D.800
Maximum drill diameter / at drilling depth				
Soil classification 1 – 3	mm/m	1,000/1	1,200/1	1,500/2
Soil classification 4 – 5	mm/m	700/2	900/2	1,200/2
Soil classification 6 – 7	mm/m	–	–	800/2
Maximum uniaxial compressive strength of the rock	MPa	15	20	40
Length of drive unit (A)	mm	600	600	980
B	mm	275	275	605
C	mm	60	60	60
D	mm	80	80	80
Diameter of hole pattern on flange (E)	mm	360	360	455
Diameter of drive unit (F)	mm	390	390	500
Torque at 350 bar	Nm	5,200	10,400	23,400
Maximum oil flow	l/min	85	150	300
Maximum operating hydraulic pressure	bar	380	380	380
Maximum rotation speed	rpm	90	80	75
Minimum rotation speed	rpm	53	40	38
Maximum operating hydraulic pressure	bar	350	350	350
Recommended rotation speed bei Bohrdurchmesser				
300 mm	rpm	80	80	70
600 mm	rpm	60	60	60
1.000 mm	rpm	40	40	40
1.500 mm	rpm	–	–	25
Weight excl. hydraulic hoses and mounting plate	kg	160	180	360

In contrast to the standard auger drive units available on the market, **KEMROC** do not use planetary gears. We use high torque radial piston motors that are more reliable in tough drilling conditions as well as giving us a short, compact, robust design. These motors have proven themselves in some very tough drilling conditions around the world.

- + Very short and compact construction
- + Heavy duty hexagonal drive
- + High torque hydraulic motor
- + Robust and rigid bracket
- + Heavy duty bearings
- + Wear resistant augers
- + Auger drives for tough applications

We recommend the following pilot bits:



Soil classification 1 + 2



Soil classification 5 + 6



Soil classification 7 to max. 40 MPa

Soil classification 3 + 4



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.

CLEANING HEADS

To clean smooth, metallic surfaces

The EXRUST range of cleaning heads head attachments were developed by KEMROC to clean flat metal surfaces such as those found in the holds of cargo ships. The drums rotate at a speed of 800 rpm. During operation, a specially made chain removes removes paint or other materials from the metal surface.

Under certain conditions, the Exactor range of patch planers can be fitted with these drums.



Excavator attachment for the cleaning of metallic surfaces
Hearing protection must be worn while working with the EXRUST cleaning heads.



TECHNICAL DATA	Unit	EXRUST 60
Recommended excavator weight	t	8 - 15
Recommended skid steer weight	t	3 - 6
Rated power	kW	45
Cleaning width (B)	mm	600
Cleaning depth, adjustable (C)	mm	n.a.
Recommended rotation speed	rpm	750 - 820
Recommended oil flow at 100 bar	l/min	75 - 90
Minimum hydraulic flow	l/min	75
Maximum hydraulic flow	l/min	95
Maximum operating hydraulic pressure	bar	350
Operating weight	kg	780



STANDARD TOOLS



STANDARD PICK	RETAINER	STANDARD PICK BOX
Round attack pick ER 17/64/60/25 Q Art. No. 17 64 60 26	QuickSnap QS 600 Art. No. 99 25 00 25	Pick box PH 600 Art. No. 76 10 25
Round attack pick ER 17/75/70/30 Q Art. No. 17 75 70 35	QuickSnap QS 5000 Art. No. 99 50 00 30	Pick box PH 1500 Art. No. 71 10 22
Round attack pick ER 17/75/70/30 Q Art. No. 17 75 70 35	QuickSnap QS 5000 Art. No. 99 50 00 30	Pick box PH 1000 Art. No. 71 16 10
Round attack pick ER 22/75/70/30 Q Art. No. 17 75 70 35	QuickSnap QS 5000 Art. No. 99 50 00 30	Pick box PH 1500 Art. No. 71 10 22
Round attack pick ER 16/28/26/14 H Art. No. 16 28 26 14	–	Pick box PH 80 Art. No. 71 12 22
Round attack pick ER 16/29/25/14 C Art. No. 16 29 25 14	Retaining clip ES 70 Art. No. 99 99 99 76	Pick box PH 70 Art. No. 71 10 32
Round attack pick ER 19/33/30/15 S Art. No. 19 33 30 14	Circlip SG 100 Art. No. 99 99 99 90	Pick box PH 100-N Art. No. 79 10 04 E
Round attack pick ER 16/48/32/20 H Art. No. 16 48 32 20	–	Pick box PH 250 Art. No. 72 10 24
Round attack pick ER 19/48/36/20 H Art. No. 19 48 36 20	–	Pick box PH 250 Art. No. 72 10 24
Straight tooth with thread connection Art. No. 57 13 70		
Inclined tooth (right) with hole Art. No. 57 13 71		
Inclined tooth (left) with thread connection Art. No. 57 13 72		
Straight tooth with hole Art. No. 57 13 73		

SALES WORLDWIDE



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