

**CUTTING THE WORLD**



# **CUTTER TECHNOLOGY**

**BROADEN YOUR HORIZONS**



# CUTTING THE WORLD

A German company focused on technology leading the way with modern production facilities and unbeatable service.

We have over 15 years experience in the development, manufacture and application of rock cutting excavator attachments. With the main components manufactured in Germany, the cutter attachments are robust and reliable. Our international team of specialists are available to provide support.



**Exporting our Know-How:** We were very proud when the Minister of Thuringia acknowledged our contribution to Export from our region during her visit to **erkat**.



**Modern production and warehousing facilities in Germany:** Our new premises finished in 2013.



**Precision components** and assembly guarantee that our “**Made in Germany**” products deliver the highest levels of quality and reliability.



**Benchmark levels of service:** We come to your site and support you during the installation and commissioning of your **erkat** drum cutter. When requested, we are pleased to provide training guidance for your staff.



A large stock of spare parts ensures **quick delivery** and **low levels of downtime**.



In this catalogue you will find a large range of special cutter attachments for excavators and compact loaders that have been developed in cooperation with customers from around the world.



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# FOR TOUGH APPLICATIONS

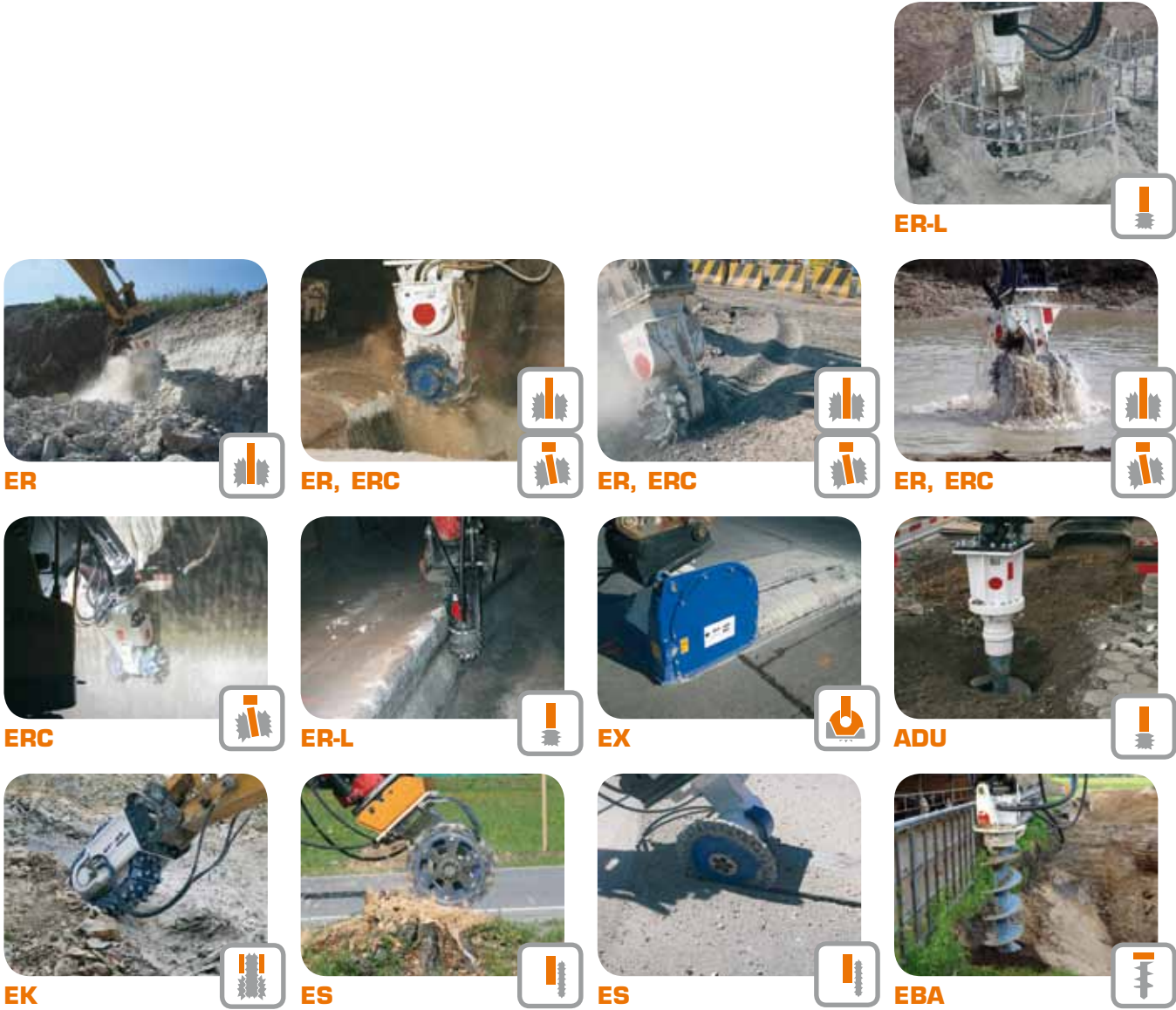
Regardless of whether you are working in construction, steel, mining, tunnelling, forestry, road building or the natural stone industries you can discover new ways with:

The adaptable, reliable, quiet and low vibration **erkat** machines offer a great alternative for those applications where more traditional methods are either inadequate or too expensive.



TRENCHING AND PIPE LAYING	TUNNELLING	DEMOLITION/ CONCRETE REPAIR
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Excavator	ER, ERC, ER-L, ERW, EK	ER, ERC, EX, ES	ER, ERC, ERW, EX, ES
Backhoe	ER, ERC, EX, ES	ER, ERC, EX, ES	ER, ERC, EX, ES
Skid steer		EX, ES	EX, ES



ROCK EXCAVATIONS/ QUARRYING	FORESTRY- AND STEEL INDUSTRY	ROAD BUILDING	FOUNDATIONS/ UNDERWATER APPLICATIONS/ AUGER DRILLING
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ER, ERC, EK	ER, ERC, ER-L, ES	ER, ERC, EX	ER, ERC, ER-L, ADU, EBA, ERW
	ER, ERC, ER-L, ES	ER, ERC, EX, ES	ER, ERC, ER-L, EBA
	ES	EX, ES	EBA



# TRIED & TESTED TECHNOLOGY “MADE BY ERKAT”

## TECHNICAL CHARACTERISTICS

### ROBUST

Features that make **erkat** machines so reliable, long lasting and low maintenance include an over engineered drive train, secure attachment of cutter drums, rigid and wear resistant gear housing as well as pick boxes with hardened wear sleeves (ER 1500 - ER 5500).



### STRONG

**erkat** cutter heads are designed to provide the optimum cutting power at the recommended rotation speeds. They guarantee a smooth cutting action while providing each pick with the maximum cutting power to penetrate the rock.

### FLEXIBLE

A range of cutter drum designs and widths combined with a choice of motors with different displacement and torque provides several options to adapt the drum cutter to excavator specifications as well as the needs of the job site and ground conditions.

### RELIABLE

**erkat** special drum cutters use extremely large spur gears driven by high torque hydraulic motors. The gear wheels are so robust the drum cutters can be used in the most difficult conditions without risk of failure.

### QUIET AND LOW VIBRATION

With low vibration and quiet operation, **erkat** drum cutters can also work in sensitive areas.

### ADJUSTABLE

A central fixing system allows **erkat** transverse drum cutters to rotate through 360° without having to be disconnected from the excavator.

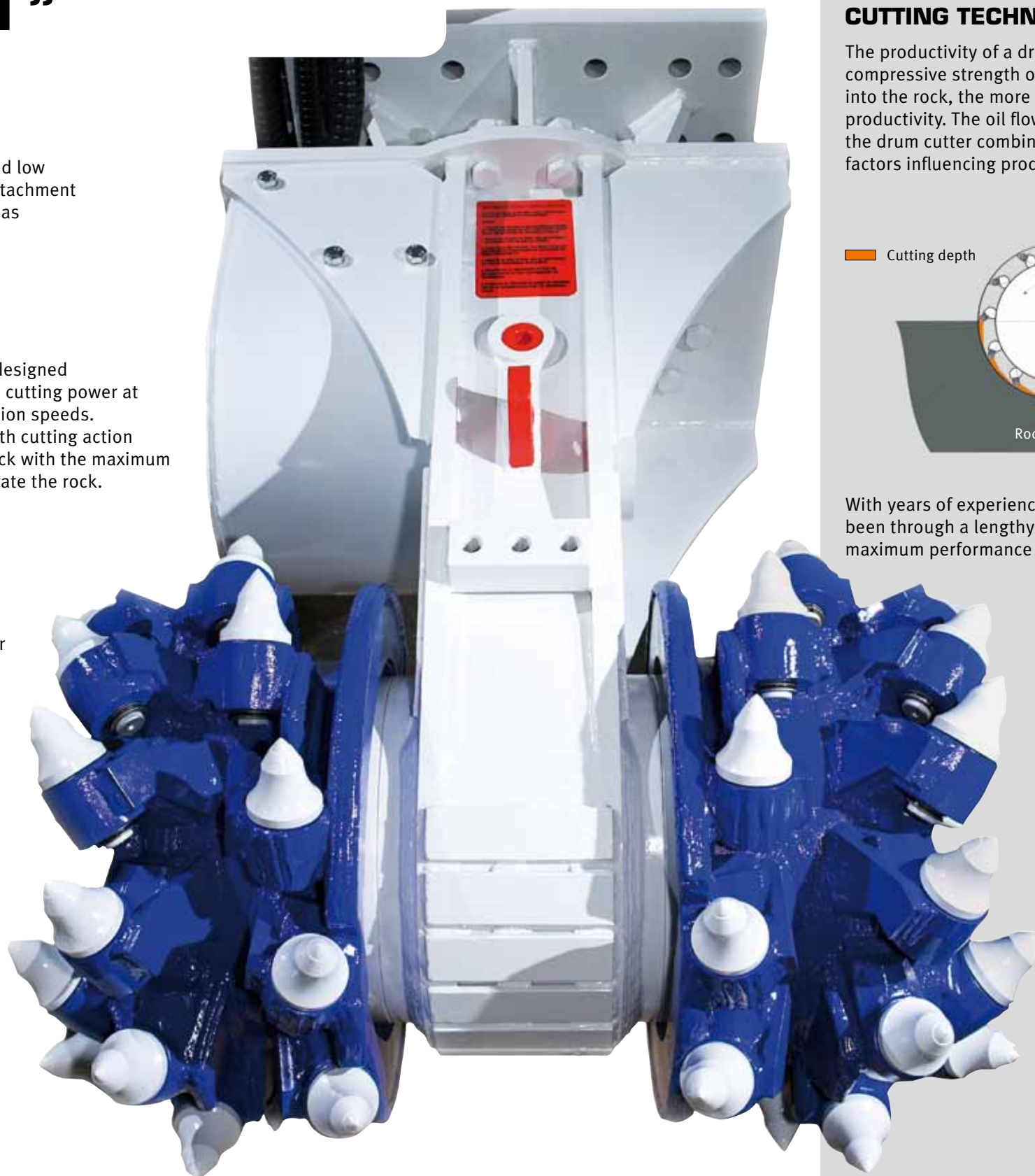


Drum cutter in 180° position

Drum cutter turned to the left or right

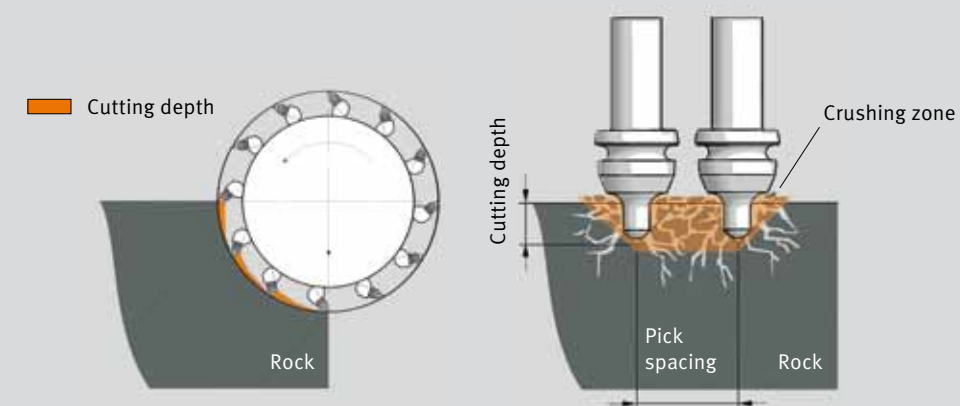
Drum cutter in 90° position, turned left or right

The main components in **erkat** drum cutters, such as gear wheels and cutting heads are manufactured in Germany.



### CUTTING TECHNOLOGY

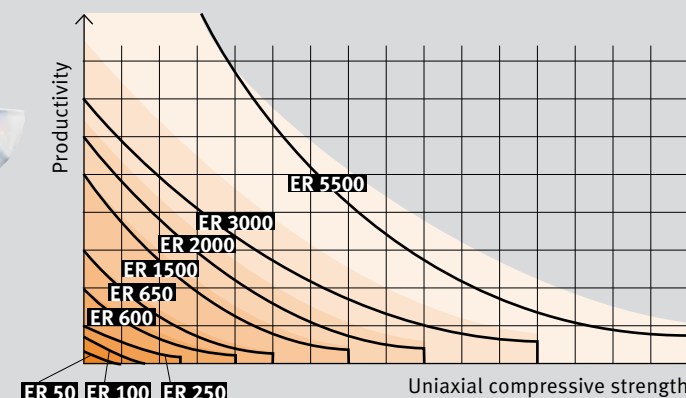
The productivity of a drum cutter depends to a large extent on the uniaxial compressive strength of the material to be cut. The deeper the pick can be forced into the rock, the more material it can break out from it which in turn, increases productivity. The oil flow and pressure that the excavator is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



With years of experience in cutting rock, the cutter drums on **erkat** machines have been through a lengthy period of continuous product development. They provide maximum performance with minimum operating costs.

### PRODUCTIVITY OF A DRUM CUTTER

This diagram illustrates how productivity varies with model size and the uniaxial compressive strength of the rock. In addition, we have production curves for each model size which can be requested from us at any time.





# WHERE TRADITIONAL METHODS ARE UNSUITABLE OR TOO EXPENSIVE

## TRENCHING

1  
**Riad (Riyadh)**  
With a production rate of 6-8 m<sup>3</sup>/hr, this **ER 1500-3 X** was used to excavate a trench 8,5 m deep in Riyadh, Saudi Arabia. The limestone had an unconfined compressive strength of 60-80 MPa. For this job, the drum cutter was extended by 2.5 m. Note how accurately the trench wall has been cut.



3  
**Middle East**  
Trenching in limestone: the **ER 1200-1** mounted on a 20 ton Hyundai excavator in the Middle East had a production rate up to 10 m<sup>3</sup>/hr.

4  
**Qatar**  
Excavating a trench 7.5 m deep in hard limestone in Qatar. In rock with a uniaxial compressive strength of 100 MPa, an **ER 1200-3** mounted on a 35 ton crawler excavator achieves up to 7 m<sup>3</sup>/hr. The broken material extracted from the trench can be used as back fill without any additional crushing.

5  
**Abu Dhabi**  
Trenching near Abu Dhabi: A powerful **ER 5500** achieved a production rate of approx. 70 m<sup>3</sup>/hr in hard limestone.



6  
**Oman**  
This specially designed **ERW 600** cutter wheel was used in Oman to excavate trenches 30 cm deep and 20 cm wide into soft limestone: production rate about 5 m/min.



7 + 8  
**Azerbaijan**  
An Erwetor **ERW 1000** excavates trenches 200 mm wide and 1 m deep in medium hard limestone at a rate of 30 m/hr.



## TUNNELLING

1  
**Austria**  
Mounted on a 38 ton telescopic excavator, the **ER 1500-1 T** with a conical, profiling cutting head removes the old concrete of a tunnel in Austria with precision to the tunnel profile required.

2  
**Austria**  
This **ER 2000** mounted on a Liebherr 944 tunnel excavator being used in the Götschka Tunnel in Austria.

3  
**Switzerland**  
An **ER 2000-2** mounted on a Liebherr 944 tunnel excavator being used for tunnelling in Switzerland.



4  
**Amsterdam**  
An **ERC 1500 XL** mounted on a CAT 321 excavating a metro underground tunnel in Amsterdam.

5  
**Monaco**  
Tunnelling in Monaco:  
An **ER 3000-3** mounted on a Liebherr 954 Litronic excavator used to drive a tunnel in hard limestone in Monaco achieved a production rate between 6-8 m<sup>3</sup>/hr.

6  
**India**  
An **ERC 1500-3** excavating a tunnel in Assam, the easternmost part of India, achieves a production rate of 32 m<sup>3</sup>/hr. The drum cutter was mounted on a Liebherr 924 tunnel excavator.





# LOW VIBRATION IN DEMOLITION

## DEMOLITION/REFURBISHMENT

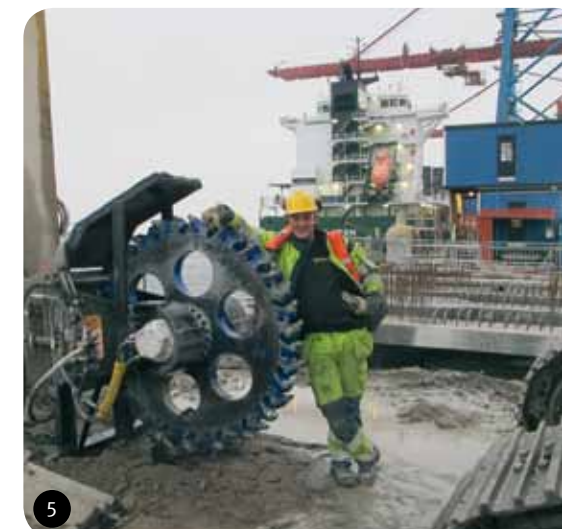
When low vibration methods of demolition are required, **erkat** drum cutters give you the cutting edge.

1  
**Germany**  
An **ERW 600** cutting wheel mounted on a CASE 240 excavates profiles in lightly reinforced concrete 15 cm wide by 60 cm deep with a production rate of 8-10 m/hr.

2  
**Spain**  
An **ERC 650 P** being used to smooth a diaphragm wall in Spain. The drum cutter is mounted on a Daewoo 18 ton excavator.



3  
**Germany**  
An **ER 3000** being used on a demolition project in Germany.



4 + 5  
**Sweden**  
An **ERW 600**, with special cutting wheel for reinforced concrete, cutting 60 cm deep slots at a rate of 12 m/hr.

6 + 7  
**Germany**  
An **ER 2000** mounted on a CAT 345 demolishing a concrete bunker in Germany at a production rate of 15 m<sup>3</sup>/hr.

8  
**Germany**  
An **EXR 60** patch planer with integrated tilt function refurbishing a lock wall in a canal.





### QUARRYING/ EXCAVATING

1  
**Germany**  
For use on the A 38 motorway between Göttingen and Halle, an **ER 2000** is used to break salt at the dump near Sollstedt (Saale) in Germany. The drum cutter achieved a production rate of approximately 40 m<sup>3</sup>/hr.

2 + 3 + 4  
**Germany**  
An **ER 1200** mining gypsum in Germany with a production rate of 40 m<sup>3</sup>/hr.



5  
**India**  
2009: An **ER 5500** used on a PC 1250 extracts limestone at approx. 200 t/hr in a cement quarry belonging to Ambuja Cement near Shimla.



6 + 7  
**Chile**  
Quarrying limestone in Chile: Mounted on a PC 200, an **ER 650-3** achieved a production rate of appr. 20 m<sup>3</sup>/hr in limestone.



8  
**Germany**  
Quarrying gypsum in Ührde: An **ER 1200-3** with special cutter heads produced an extremely coarse grain size while achieving a production rate of appr. 40 m<sup>3</sup>/hr.

9  
**Austria**  
Mounted on a 35 ton Volvo excavator, an **ER 1500-3** excavated this extraordinary 10 m deep excavation. The **ER 1500-3** achieved a production rate of 10-15 m<sup>3</sup>/hr in a consolidated conglomerate near Salzburg in Austria.





### SPECIAL FOUNDATIONS/ UNDERWATER APPLICATIONS/ AUGER DRILLING

1 + 2

#### Switzerland

Mounted on a Volvo EC210, an **ADU 1500** drills 600 mm diameter holes 3 m deep.

3

#### Germany

An **ERC 650** profiling a piled wall; with continuous, infinite rotation, the **ER 650** can reach all required profiling positions without excessive movement, saving up to 30% of tracking time for the excavator!

4

#### Dubai

2008 – Michael Schumacher Tower in Dubai: an **ER 1500 L** cleaning tops of piles with a diameter of 1.20 m.

5

#### Indonesia

Rotary drum cutters can be used to depths of 30 m under water without the need for any modifications. An **ER 1500-1 XL** is deepening the harbour in Batam, Indonesia, in preparation for larger oil tankers planned for the future.

6

#### China

An **ER 1500-1** cutting drainage channels in 100% concentrated brine in China for salt production. Despite the harsh environment, since 2005 almost 50 **erkat** drum cutters have been used in this area with almost zero break-downs.



### FORESTRY AND STEEL INDUSTRY

1

#### Germany

A multi-purpose cutter type **ES 60** fitted with a wood cutting disc removing tree stumps with a diameter of 70 cm in approximately 5 min.

2

#### Austria

Mounted on a Kubota KX 080, an **ES 30** with a wood cutting disc is grinding tree stumps.

3

#### The Netherlands

An **ER 400 L** cleaning slag from runners in a Dutch steel mill.

4

#### Austria

An **ER 1200-0** with a hydraulic rotation unit used to clean slag from a runner.



### ROAD BUILDING

1  
**Austria**  
Making roads in a forest, mounted on a Liebherr 944 Litronic, this **ER 1500-3 XL erkat** special drum cutter has a production rate approaching 15 m<sup>3</sup>/hr in middle hard limestone.

2  
**Germany**  
An **EX 45** excavator milling a road surface.

3  
**Germany**  
An **EX 45** excavator being used for road repairs.

4  
**The Netherlands**  
Mounted on a Doosan DX 170, an **EX 45 HD** excavator patch planer with hydraulic depth adjustment used to refurbish an asphalt pavement. At a cutting depth of 8-10 cm, a production rate of 400 m<sup>2</sup>/day was achieved on a dyke in the Netherlands.



5  
**India**  
Mounted on a Komatsu PC 200 the **ER 650** has a production rate in asphalt of 10 m<sup>3</sup>/hr.

6 + 7  
**Germany**  
This **EXR 60 HD** patch planer with hydraulic depth adjustment is equipped with a special valve. The excavator operator can control rotation and make depth adjustments without using electric cables. The range of EX patch planers produce smooth cutting edges.



8  
**Germany**  
An **ES 30** multi-purpose cutter fitted with a slot cutting wheel used to cut narrow slots in asphalt.



# TRANSVERSE DRUM CUTTERS

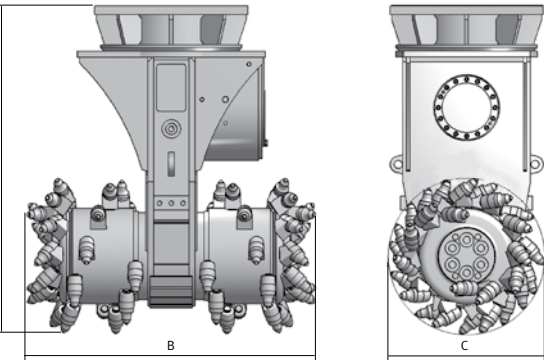
For excavators with weight from 1 to 125 tons

The transverse drum cutter is ideally suited for trenching, tunnelling, special foundation work, demolition and for soil mixing. The operating characteristics of **erkat** special drum cutters allow them to be used in noise and vibration sensitive areas.

The ER range of transverse drum cutters consists of models in ten different sizes.

By changing the cutter drums, **erkat** transverse drum cutters can be easily converted to suit several special applications such as tunnelling, profiling or cutting wood (non-standard models).

- + mechanical 360° rotatable console with standard Atlas Copco hole pattern (except for ER 5500)
- + adaptable hydraulic motors with powerful torque
- + extremely robust spur gears
- + cutter heads mounted on oversized bearings guarantee a long operating and service life
- + heavy duty fasteners guarantee secure fixture of cutter heads
- + large variety of special cutting heads for profiling, mixing and mining as well as wood cutting (non-standard models)



TECHNICAL DATA	Units	ER 50 (ER 50 X)	ER 100 (ER 100 X)	ER 250 (ER 250 X)	ER 600	ER 650	ER 1500 X	ER 1500 XL	ER 2000 (ER 2000 X)	ER 3000	ER 5500
Length of drum cutter (A)	mm	610	805	965	1,130	1,200	1,420	1,420	1,580	1,650	1,970
Width of standard cutting head (B)	mm	480 (390)	610 (500)	680 (600)	780	800	880	1,000	1,240 (1,050)	1,330	1,600
Diameter of standard cutting head (C)	mm	225	370	450	575	575	670	670	680	805	920
Recommended rotation speed	rpm	150	110	90	80	85	75	75	65	55	50
Recommended oil flow	l/min	25 - 38	41 - 62	60 - 85	120 - 150	140 - 190	180 - 300	180 - 300	300 - 390	350 - 450	700 - 950
Maximum oil flow at 10 bar	l/min	60	90	100	170	210	320	320	410	500	1,000
Maximum operating oil pressure <sup>1)</sup>	bar	350	350	350	350	350	350	350	350	350	350
Torque at 350 bar <sup>1)</sup>	Nm	960 - 1,420	2,100 - 3,120	3,500 - 5,200	8,700 - 10,400	9,400 - 14,000	13,600 - 23,400	13,600 - 23,400	22,300 - 33,500	31,200 - 46,900	74,300 - 109,100
Cutting force at 350 bar	N	8,500 - 12,600	12,000 - 17,800	15,600 - 23,200 (17,500 - 26,000)	30,200 - 36,200	32,700 - 48,700	40,600 - 69,900	40,600 - 69,900	65,600 - 98,500	77,500 - 116,500	161,600 - 237,200
Weight	kg	140 (130)	310 (290)	470 (450)	820	1,000	1,750	1,850	2,600 (2,500)	3,500	6,000
Rated power	kW	18	30	45	65	80	120	120	160	200	400
Recommended excavator weight	t	1 - 3	3 - 7	8 - 15	10 - 18	15 - 25	20 - 40	20 - 40	35 - 50	50 - 70	70 - 125
Number of picks	Pcs	60 (40)	64 (44)	44	48	48	44	48	56	64	68
Standard pick <sup>2)</sup>	Type	ER 11/28/24/12	ER 12/45/38/20 K	ER 12/45/38/22 HC (ER 12/45/38/20 K)	ER 17/64/60/25 Q	ER 17/64/60/25 Q	ER 17/75/70/30 Q	ER 17/75/70/30 Q	ER 19/75/70/30 Q	ER 25/77/80/38-30 Q	ER 25/80/80/38 S

<sup>1)</sup> Maximum oil flow and pressure figures shown in the table above cannot be achieved at the same time. Contact **erkat** to discuss hydraulic requirements once actual site conditions are known.  
<sup>2)</sup> An overview of standard picks is on page 39.  
Cutter drums can be supplied with picks for special applications as required – see Cutter Tool Catalogue.



# ROTATING CUTTER TECHNOLOGY

Revolving rotary drum cutters for excavators with weight from 2 to 50 t

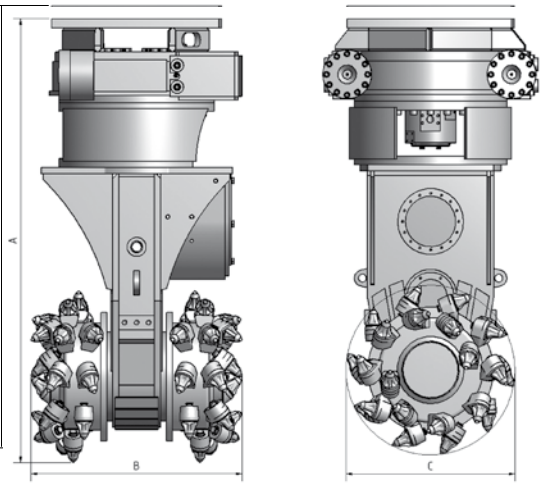
The ERC range from **erkat** represents a new generation of rotation units that extends significantly the number of applications suitable for transverse rotary drum cutters. The drum cutters have integrated, hydraulically driven rotation units designed by **erkat**.

The range consists of eight sizes suitable for excavators with weights from 2 to a maximum of 50 tons.

The integrated rotation unit with continuous infinite rotation, allows the drum cutter to be put into the ideal cutting position. Positioning the drum cutter for the most efficient cutting action helps to increase productivity. Rotation units are fitted with a hydraulic swivel joint as standard.



continuous rotating drum cutter with **erkat** rotation unit



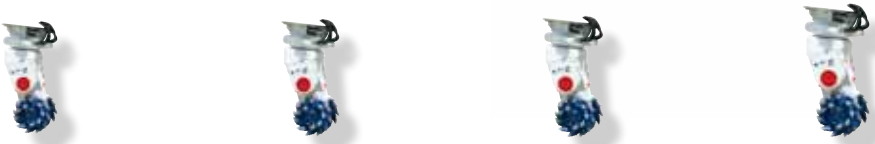
TECHNICAL DATA	Units	ERC 50	ERC 100	ERC 250	ERC 600	ERC 650	ERC 1500 X	ERC 1500 XL	ERC 2000
Length of drum cutter (A)	mm	910	1,120	1,270	1,500	1,560	1,870	1,870	1,950
Width of standard cutting head (B)	mm	480	610	680	780	800	880	1,000	1,200
Diameter of standard cutting head (C)	mm	225	370	450	575	575	670	670	680
Recommended rotation speed	rpm	150	110	90	80	85	75	75	65
Recommended oil flow	l/min	25 - 38	41 - 62	60 - 85	120 - 150	140 - 190	180 - 300	180 - 300	300 - 390
Maximum oil flow at 10 bar	l/min	60	90	100	170	210	320	320	410
Maximum operating oil pressure	bar	350	350	350	350	350	350	350	350
Torque at 350 bar	Nm	960 - 1,420	2,100 - 3,120	3,500 - 5,200	8,700 - 10,400	9,400 - 14,000	13,600 - 23,400	13,600 - 23,400	22,300 - 33,500
Cutting force at 350 bar	N	8,500 - 12,600	12,000 - 17,800	15,600 - 23,200	30,200 - 36,200	32,700 - 48,700	40,600 - 69,900	40,600 - 69,900	65,600 - 98,500
Weight	kg	245	490	620	1235	1,470	2,450	2,550	3,320
Rated power	kW	18	30	45	65	80	120	120	160
Recommended excavator weight	t	2 - 3	4 - 8	8 - 12	10 - 18	15 - 25	20 - 40	20 - 40	35 - 50
Number of picks	Pcs	60	64	44	48	48	44	48	56
Standard pick <sup>1)</sup>	Type	ER 11/28/24/12	ER 12/45/38/20 K	ER 12/45/38/22 HC	ER 17/64/60/25 Q	ER 17/64/60/25 Q	ER 17/75/70/30 Q	ER 17/75/70/30 Q	ER 19/75/70/30 Q
Rotation unit	Type	ERU 1	ERU 2	ERU 2	ERU 3	ERU 4	ERU 5	ERU 5	ERU 6

1) An overview of standard picks is on page 39.  
Cutter drums can be supplied with picks for special applications as required – see Cutter Tool Catalogue.



**erkat** revolving drum cutters increase productivity by up to 50 % in applications such as tunnelling and trenching. Vertical surfaces can be ground more accurately resulting in faster and lower cost profiling.

- + continuous, infinite **erkat** rotation unit
- + narrower trenching
- + special hydraulic swivel allowing oil flow up to 400 l/min
- + operating with cutter drums in the optimum position reduces damage caused by energy transfer back to the carrier
- + longer life for hydraulic hoses and reduced pick consumption
- + continuous and infinite positioning of the cutter drums





# ROTATING CUTTER TECHNOLOGY

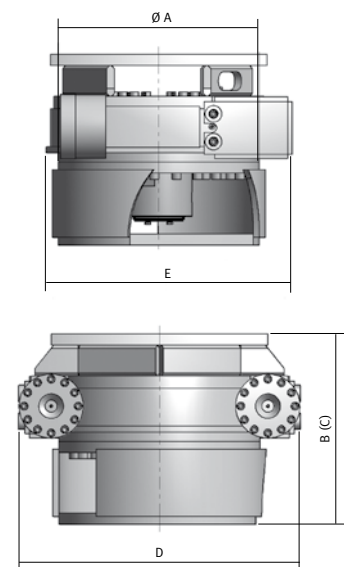
Rotation units for use with excavator mounted rotary drum cutters in tunnelling, trenching and profiling vertical surfaces

The ERU range from **erkat** represents a new generation of rotation units, tough enough for use with rotary drum cutters in tunnelling, trenching and profiling applications. The rotation units are long-lasting, robust and low-maintenance.

In total, there are six models for excavators from 2 to a maximum of 50 tons available in the ERU range. The ERU 3 and larger sized units are fitted with double motors as standard.

When combined with the endlessly rotating **erkat** rotation units, rotary drum cutters can be located in the ideal position to meet cutting requirements. All rotation units have a hydraulic swivel joint as standard allowing endless rotation of the rotary drum cutter.

Combining a standard **erkat** drum cutter with an ERU rotation unit is a simple procedure. **erkat** rotation units can also be fitted to rotary drum cutters from other manufacturers!



- + long lasting and robust worm gear and gear box
- + components made to tight tolerances
- + worm gear made from high-quality steel
- + robust bearings
- + hydraulic swivel joint with maximum oil flow capacity 400 l/min
- + continuous and infinite rotation
- + extremely high holding torque; up to 270 kNm
- + compact and low maintenance
- + double rotation motors used from ERU 3 upwards

TECHNICAL DATA	Units	ERU 1	ERU 2	ERU 3	ERU 4	ERU 5	ERU 6
Diameter drive (A)	mm	292	367	456	567	610	700
Overall height with swivel joint (B)	mm	415	450	520	600	636	620
Length (D)	mm	530	640	760	770	780	910
Width (E)	mm	370	450	600	700	770	800
Maximum oil flow at 10 bar	l/min	10	10	30	40	40	40
Maximum operating oil pressure	bar	160	160	160	160	160	160
Maximum holding torque	Nm	6,300	11,100	44,700	95,000	200,000	270,000
Weight	kg	125	200	440	700	900	1,000
Recommended excavator weight	t	2 - 4	5 - 12	13 - 20	15 - 25	25 - 40	30 - 50
Number of drive motors	Pcs	1	1	2	2	2	2
Recommended for <b>erkat</b> drum cutter	Type	ER 50	ER 250	ER 600	ER 650	ER 1200 ER 1500 X ER 1500 XL	ER 1500 XL ER 2000





# LONGITUDINAL DRUM CUTTERS

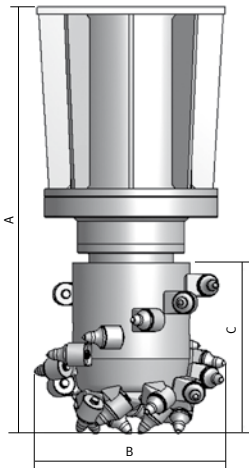
For excavators with weight from 3 to 40 tons

Typical applications for **erkat** longitudinal drum cutters include trenching, accurate excavation of special shaped excavations, slag removal in steel mills, cleaning pile tops and soil mixing.

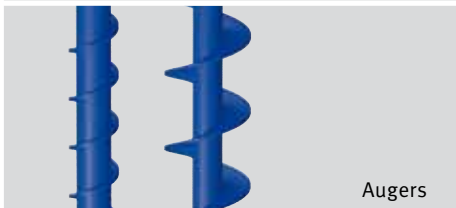
**erkat** longitudinal drum cutters are designed to be mounted on hydraulic excavators from 3 to a maximum of 40 tons and are available in 6 different sizes.

Longitudinal drum cutters are driven by a powerful radial piston motor creating extremely high cutting forces. The robust cutter drums together with their secure fixing method enable them to operate in the most demanding conditions. Consoles can be supplied with different lengths to suit a variety of applications.

By exchanging the cutter head, the **erkat** longitudinal drum cutter can easily be converted into a robust ADU auger drive unit for vertical and horizontal holes.



+ Conversion to an ADU auger drive unit possible



- + robust and powerful drive
- + variable length consoles available
- + secure cutter head fixture
- + oversized, long-lasting cutter head bearings
- + robust and long-lasting cutter heads
- + diameter of cutting heads in bigger sizes on request

TECHNICAL DATA	Units	ER 100 L	ER 250 L	ER 400 L	ER 450 L	ER 600 L	ER 1500 L
Length of drum cutter (A)	mm	810	1,130	1,130	1,160	1,340	1,440
Optional length of drum cutter (A)	mm	–	1,430	1,430	1,460	–	–
Diameter of standard cutting head (B)	mm	370	400	400	450	535	680
Length of standard cutting head (C)	mm	310	355	355	380	550	590
Recommended rotation speed	rpm	110	90	80	80	80	75
Recommended oil flow	l/min	52 - 62	60 - 85	120 - 150	120 - 150	120 - 150	180 - 300
Maximum oil flow at 10 bar	l/min	90	100	170	170	170	320
Maximum operating oil pressure	bar	350	350	350	350	350	350
Torque at 350 bar	Nm	2,600 - 3,120	3,500 - 5,200	8,700 - 10,400	8,700 - 10,400	8,700 - 10,400	13,600 - 23,400
Cutting force at 350 bar	N	14,000 - 16,900	17,500 - 26,000	43,500 - 51,900	38,500 - 46,200	32,400 - 38,900	40,000 - 68,800
Weight	kg	210	340	365	375	580	1.200
Rated power	kW	30	45	65	65	65	120
Recommended excavator weight	t	3 - 7	8 - 15	12 - 17	12 - 17	15 - 22	20 - 40
Number of picks	Pcs	32	44	44	30	48	44
Standard pick <sup>1)</sup>	Type	ER 16/46/38/20 S	ER 12/45/38/20 K	ER 12/45/38/20 K	ER 12/45/38/22 HC	ER 15/46/38/22 S	ER 17/75/70/30 Q

1) An overview of standard picks is on page 39.  
Cutter drums can be supplied with picks for special applications as required – see Cutter Tool Catalogue.



# PATCH PLANERS (EXACTOR)

Cold milling machines for asphalt and concrete with adjustable cutting depth

Exactor patch planers are ideally suited for repairing asphalt paving or cleaning contaminated material from concrete or screed surfaces. With mechanically or hydraulically adjustable depth control, it is possible to remove material with high precision to a depth of 19 cm.

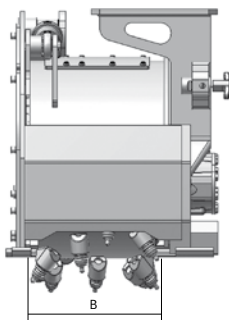
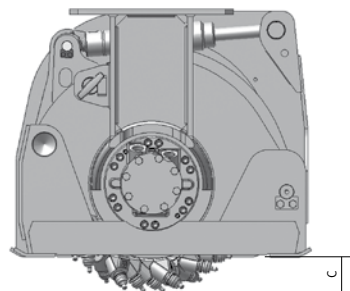
Exactor patch planers are available in 8 different sizes and cover the entire spectrum of hydraulic excavators and carriers with an operating weight from 1 to a maximum of 23 tons.

Exactor patch planers can work in every position – on horizontal, vertical and inclined surfaces. They can even remove material from overhead as, for example, in a tunnel. The exactor provides a superb surface finish (pre-cutting no longer required) and the grain size of material extracted can be used as back fill.

Depending on the material the cutter drums can be equipped with different picks. Moreover cutter drums can be supplied in different designs and width allowing flexibility to meet various application requirements.



- + with the mounting bracket (optional) it can be fitted to an excavator, backhoe loader or skid-steer loader
- + robust sliding frame with wear-resistant runners
- + high torque, convertible hydraulic motors
- + superb surface finish and small grain size of material milled
- + thick plate housing, low vibration
- + high precision depth control (mechanically or hydraulically adjustable)
- + integrated water spraying nozzles (dust extraction optional)



TECHNICAL DATA	Units	EX 20	EX 20 HD	EX 30	EX 30 HD	EX 45	EX 45 HD	EX 60	EX 60 HD
Cutting width, standard (B)	mm	200	200	300	300	450	450	600	600
Cutting depth, adjustable (C)	mm	0 - 70	0 - 70	0 - 120	0 - 120	0 - 150	0 - 150	0 - 190	0 - 190
Recommended rotation speed	rpm	60 - 240	100 - 175	90 - 170	75 - 140	90 - 140	85 - 110	100 - 150	90 - 120
Recommended hydraulic oil flow at 100 bar	l/min	25 - 50	40 - 70	50 - 95	60 - 95	85 - 130	130 - 170	130 - 190	150 - 200
Minimum hydraulic oil flow	l/min	25	40	50	60	80	120	130	150
Maximum hydraulic oil flow	l/min	70	90	100	110	130	180	200	210
Maximum operating oil pressure	bar	310	310	350	350	350	350	350	350
Torque at 350 bar	Nm	660 @ 205 bar	1000 @ 205 bar	3.100	4.100	5.200	8.700	7.000	9.300
Cutting force at 350 bar	kN	3,7 @ 205 bar	5,5 @ 205 bar	12	16	18	30	22	28
Weight	kg	165	170	400	400	700	730	1.200	1.230
Rated power	kW	22	22	30	30	45	65	50	80
Recommended excavator, skid steer loader weight	t	1 - 3	2 - 4	4 - 8	6 - 10	8 - 15	12 - 16	12 - 20	18 - 23
Number of picks	Pcs	42	42	35	35	49	49	69	69
Standard pick <sup>1)</sup>	Type	ER 16/28/26/14 HC	ER 16/28/26/14 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 19/48/32/20 HC

EXACTOR WITH ROTATION UNIT		EXR 20	EXR 20 HD	EXR 30	EXR 30 HD	EXR 45	EXR 45 HD	EXR 60	EXR 60 HD
Weight	kg	250	255	580	585	980	1.010	1.670	1.700
Recommended excavator, skid steer loader weight	t	1 - 3	2 - 4	5 - 10	6 - 10	8 - 15	12 - 16	12 - 20	16 - 23

1) An overview of standard picks is on page 39.  
Cutter drums can be supplied with picks for special applications as required – see Cutter Tool Catalogue.

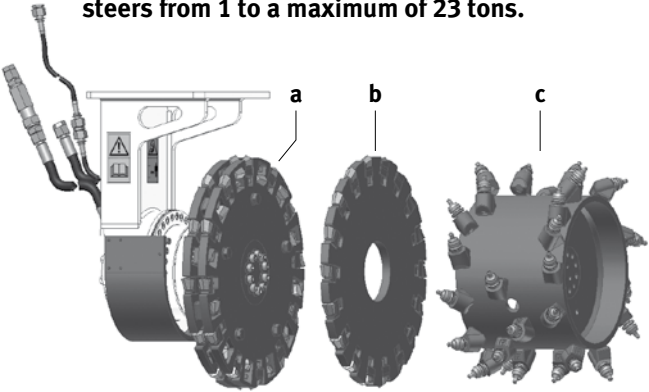


# UNIVERSAL CUTTERS (FLEXATOR)

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

The Flexator is a true multi-purpose machine – equally as useful for removing tree stumps as it is for cutting narrow slots in asphalt or concrete or for accurate removal of material from horizontal or vertical surfaces.

It is available in 8 sizes for excavators or skid steers from 1 to a maximum of 23 tons.



To the carrier frame, which also carries the drive motor, cutter wheels or a cutter drum can be fixed for working in wood, concrete, asphalt and rock (optional).

- a For tree stump removal, a very efficient wood cutting wheel
- b A special slot cutting wheel for concrete, asphalt and rock (optional)
- c A cutter drum that can be used for cutting horizontal and vertical surfaces (optional)



- + tool carrier with high torque hydraulic motor
- + fitted with the ERU rotation unit for endless, continuous rotation (ESR)
- + with a mounting bracket (optional) can be mounted on excavator, loader or skid steer without any further modifications

+ multi-functional: with wood cutting wheel, slot cutting wheel (optional) or cutter drum (optional)

TECHNICAL DATA	Units	ES 20	ES 20 HD	ES 30	ES 30 HD	ES 45	ES 45 HD	ES 60	ES 60 HD
Recommended rotation speed	rpm	60 - 240	100 - 175	90 - 170	75 - 140	90 - 140	85 - 110	100 - 150	90 - 120
Recommended oil flow at 150 bar	l/min	25 - 60	40 - 70	50 - 95	60 - 95	85 - 130	130 - 170	130 - 190	150 - 200
Minimum hydraulic oil flow	l/min	25	30	50	55	80	120	130	150
Maximum hydraulic oil flow	l/min	70	80	100	110	130	180	200	210
Maximum operating oil pressure	bar	310	310	350	350	350	350	350	350
Maximum Torque at 350 bar	Nm	660 @ 205 bar	1.000 @ 205 bar	3.100	4.100	5.200	8.700	7.000	9.300
Weight according to tool	kg	max. 90	max. 90	max. 200	max. 205	max. 350	max. 350	max. 500	max. 530
Rated power	kW	22	22	30	30	45	65	50	80
Recommended excavator, skid steer loader weight	t	1 - 3	2 - 4	5 - 10	6 - 10	8 - 15	12 - 16	12 - 20	16 - 23
<b>Wood cutting wheel</b>									
Diameter/width/cutting depth	mm	405/100/100	405/100/100	540/80/110	540/80/110	660/80/150	660/80/150	660/80/150	660/80/150
Number of picks	Pcs	20	20	48	48	56	56	56	56
Standard pick <sup>1)</sup>	Type	Wood cutting picks	Wood cutting picks	ES drag picks	ES drag picks	ES drag picks	ES drag picks	ES drag picks	ES drag picks
<b>Slot cutting wheel</b>									
Diameter/width/cutting depth	mm	490/45/150	490/45/150	630/45/150	630/45/150	790/50/215	790/50/215	900/50/270	900/50/270
Number of picks	Pcs	28	28	36	36	44	44	48	48
Standard pick <sup>1)</sup>	Type	ER 16/29/25/14 S	ER 16/29/25/14 S	ER 16/29/25/14 S	ER 16/29/25/14 S	ER 19/33/30/15 S	ER 19/33/30/15 S	ER 19/33/30/15 S	ER 19/33/30/15 S
<b>Cutter drum</b>									
Diameter/width/cutting depth	mm	360/200/85	360/200/85	520/300/110	520/300/110	580/450/110	580/450/110	670/600/190	670/600/190
Number of picks	Pcs	42	42	35	35	49	49	69	69
Standard pick <sup>1)</sup>	Type	ER 16/28/26/14 HC	ER 16/28/26/14 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC	ER 16/48/32/20 HC

FLEXATOR WITH ROTATION UNIT		ESR 20	ESR 20 HD	ESR 30	ESR 30 HD	ESR 45	ESR 45 HD	ESR 60	ESR 60 HD
Weight	kg	175	180	375	380	620	650	1.000	1.030
Recommended excavator, skid steer loader weight	t	1 - 3	2 - 4	5 - 10	6 - 10	8 - 15	12 - 16	12 - 20	16 - 23

1) An overview of standard picks is on page 39.  
Cutter drums can be supplied with picks for special applications as required – see Cutter Tool Catalogue.



# CUTTER WHEELS (ERWETOR)

For the accurate cutting of narrow trenches or slots in rock and concrete

Designed specifically as an excavator attachment, the ERW range of cutter wheels has two high torque hydraulic motors per wheel, guaranteeing a powerful cutting force for higher than expected performance in medium hard rock up to 80 MPa uniaxial compressive strength or re-enforced concrete.

erkat manufactures 3 sizes of cutter wheels in the ERW range for excavators from 14 to a maximum of 50 tons.

To cover the widest variety of operating conditions, erkat can supply wheels designed specifically for rock or concrete to depths of 1,000 mm. Cutter wheels, with various pick designs can be supplied for cutting widths up to 400 mm. Nonstandard wheels can be made to order.

Able to work under water to depths of 30 m, they are ideally suited for canal work or underwater demolition projects.



TECHNICAL DATA	Units	ERW 400	ERW 600	ERW 1000
Cutting width (B)	mm	80 - 200	80 - 200	130 - 400
Cutting depth (C)	mm	200 - 400	300 - 600	700 - 1,000
Torque at 350 bar	Nm	10,400	21,000	47,000
Maximum oil flow at 50 bar	l/min	200	340	600
Recommended oil flow according to wheel diameter	l/min	120 - 170	230 - 300	300 - 550
Maximum operating oil pressure	bar	350	350	350
Maximum diameter of rebar in concrete <sup>1)</sup>	mm	10	12	16
Weight with maximum size wheel, depth and width <sup>2)</sup>	kg	1,400	1,700	5,500
Rated power	kW	80	130	220
Recommended excavator weight	t	14 - 25	18 - 35	35 - 50
Standard pick <sup>3)</sup>	Type	ER 17/64/60/25 Q	ER 17/75/70/30 Q	ER 17/75/70/30 Q

erkat 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 erkat can supply cutter wheels for the ERW in various diameters and widths  
3) An overview of standard picks is on page 39.  
Cutter drums can be supplied with picks for special applications as required – see Cutter Tool Catalogue.



In steps of 100 mm, available for 300, 400 and 500 mm cutting depth



- + strong, manoeuvrable housing
- + two high torque hydraulic motors
- + smooth, low vibration cutting action

- + robust and exchangeable support brackets to modify cuttings depth
- + wheels for various cutting depths and widths
- + proven tool design, pick pattern
- + use underwater to depths of 30 m
- + ideal for concrete demolition <sup>1)</sup>



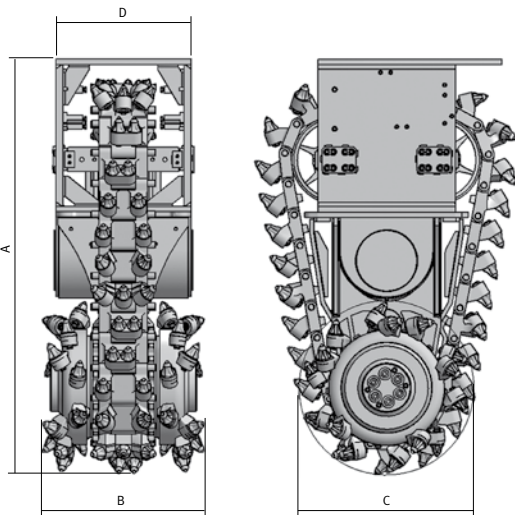
# CHAIN CUTTERS (ERKATOR)

Patented cutting methods – Chain cutting attachments

The Erkator is the first chain cutter of its type on the market. Designed for use on excavators from 25 to 45 tons, it can work in stone with a uniaxial compressive strength up to 80 MPa. Narrow and deep trenches, from 800 mm wide can be excavated efficiently, accurately and with minimum vibration. The chain cutter could also be used for the removal of soft to medium hard material, with hardness from 15 to 60 MPa, where drilling and blasting is not allowed.

With the chain cutter, the trench does not have to be wider than absolutely necessary. The chain, driven by the cutter heads, ensures that all material is cut along the total width of the chain cutter. With traditional drum cutters, it is always necessary to have sideways movement to break out the material from between the cutter heads, resulting in trenches wider than the width of the cutter head.

Reducing the trench width saves money by reducing the amount of material cut and associated transport costs. The cut material is fine grained and can be used as back fill.



TECHNICAL DATA	Units	EK 800
Length of drum cutter (A)	mm	2,050
Width of standard cutting head (B)	mm	800
Diameter of standard cutting head (C)	mm	850
Width of gear box (D)	mm	700
Recommended rotation speed	rpm	70
Recommended oil flow at 150 bar	l/min	300
Maximum oil flow	l/min	420
Maximum operating oil pressure	bar	350
Torque at 350 bar	Nm	24,000
Cutting force at 350 bar	N	56,500
Weight	kg	3,150
Rated power	kW	140
Recommended excavator weight	t	25 - 40
Number of picks on cutter drums	Pcs	30
Number of picks on cutter chain	Pcs	63
Standard pick <sup>1)</sup>	Type	ER 17/75/70/30 Q

1) An overview of standard picks is on page 39.  
Cutter drums can be supplied with picks for special applications as required – see Cutter Tool Catalogue.



- + protected under patent numbers DE 10 2008 041 and EP 2324158
- + alternative cutter head widths available
- + fine grained cuttings
- + minimum excavator movements required during operation, reduces wear on the excavator
- + low noise and vibration levels
- + can work under water without problem

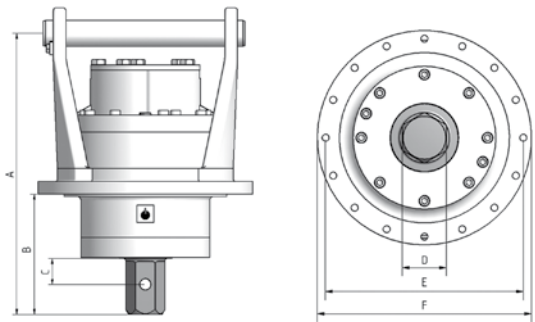
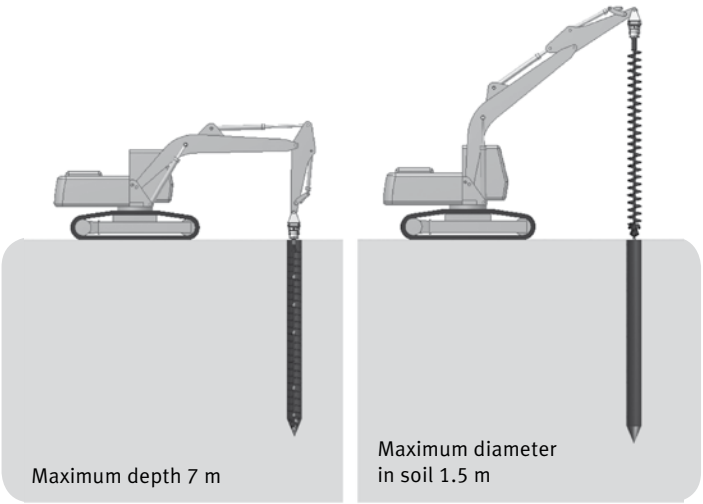


# AUGER DRIVES

## Auger drive attachment with augers

The EBA range of auger drive units allows you to convert your excavator, backhoe or skid steer into a drilling rig by simply changing the attachment on your machine.

These auger drive units are ideally suited for drilling holes in soft, sticky soils, loose stones and medium hard, compact rock with hardness up to 60 MPa. For drilling in medium hard rock, **erket** offers special drill bits that guarantee high drill speeds.



TECHNICAL DATA	Units	EBA 500	EBA 1000	EBA 2300
Maximum depth	m	5	6	7
Maximum diameter in soil	mm	500	1,200	1,500
- in soil with shale and clay	mm	400	900	1,200
- in soft rock	mm	300	500	700
Length of drive unit (A)	mm	600	600	980
B	mm	275	275	605
C	mm	60	60	60
D (hexagonal drive)	mm	80	80	80
Diameter of hole pattern in 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
Minimum oil flow	l/min	50	75	150
Maximum rotation speed	rpm	90	80	75
Minimum rotation speed	rpm	53	40	38
Max. hydraulic operating pressure	bar	350	350	350
Weight excl. hydraulic hoses and adapter plate	kg	160	180	360
Rated power	kW	45	65	110
Recommended excavator, skid steer loader weight	t	7 - 13	14 - 17	18 - 30

In contrast to many manufacturers in the market, **erket** does not use planetary gears in their auger drive units. **erket** auger drive units are fitted with short, compact, high torque, radial piston motors that are very robust. The reliability of the motors has been tried and tested all over the world in our rotary drum cutters.

- + exceptionally short and compact construction
- + strong hexagonal drive shaft
- + high torque hydraulic motor
- + robust and rigid suspension
- + heavy duty bearings
- + wear resistant augers
- + pilot bits for various drilling applications



**Notes for drilling with erkat 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.



# SPECIAL MODELS

SPECIAL MODEL	Image of special model	Width of cutting head
<b>ER 250 P</b> Application area: Profiling Excavator weight: 7-15 t		800 mm
<b>ER 250 W</b> Application area: Removal of tree stumps Excavator weight: 7-15 t		550 mm
<b>ER 650 P</b> Application area: Profiling Excavator weight: 15-25 t		1,070 mm
<b>ER 650 W</b> Application area: Removal of tree stumps Excavator weight: 15-25 t		660 mm
<b>ER 650 T</b> Application area: Tunnel profiling Excavator weight: 15-25 t		1,000 mm
<b>ER 1500 P</b> Application area: Profiling Excavator weight: 25-30 t		1,200 mm
<b>ER 1500 T</b> Application area: Tunnel profiling Excavator weight: 20-40 t		1,500 mm
<b>ER 1500 HD</b> Application area: Tunneling and extraordinary applications Excavator weight: 30 - 45 t		1,040 mm
























SPECIAL MODEL	Image of special model	Width of cutting head
<b>ER 1500 M</b> Application area: Treating soft soils Excavator weight: 20-40 t		935 mm
<b>ER 1500 M (Extension)</b> Application area: Treating soft soils Excavator weight: 20-40 t		935 mm
<b>ER 1500 G</b> Application area: Mining gypsum and other soft rock Excavator weight: 20-40 t		1,040 mm
<b>ER 1500 LS</b> Application area: Trenching Excavator weight: 20-40 t		750 mm
<b>ER 2000 T</b> Application area: Tunnel profiling Excavator weight: 30-50 t		1,560 mm



An **ERC 1500 G** mining gypsum

An overview of associated cutting tools can be found in our Cutter Tool Catalogue.

# STANDARD TOOLS

DRUM CUTTER	Standard pick	Retainer	Standard pick box
<b>ER 50</b> <b>ERC 50</b>	 Round attack pick <b>ER 11/28/24/12</b> Art. No. 16 46 38 20	 Retaining clip <b>ES 50</b> Art. No. 99 99 99 51	 Pick box <b>PH 50</b> Art. No. 70 04 99
<b>ER 100, 250 X</b> <b>ER 250 L, 400 L</b> <b>ERC 100</b>	 Round attack pick <b>ER 12/45/38/20 K</b> Art. No. 12 45 38 20	Retainer sleeve on the shaft	 Pick box <b>PH 250</b> Art. No. 72 10 24
<b>ER 100 L</b>	 Round attack pick <b>ER 16/46/38/20 S</b> Art. No. 16 46 38 20	 Retaining clip <b>ES 250</b> Art. No. 99 99 99 91	 Pick box <b>PH 250</b> Art. No. 72 10 24
<b>ER 250</b> <b>ER 450 L</b> <b>ERC 250</b>	 Round attack pick <b>ER 12/45/38/22 HC</b> Art. No. 12 45 38 23	 Retaining clip <b>ES 450</b> Art. No. 99 99 99 96	 Pick box <b>PH 450</b> Art. No. 72 10 25
<b>ER 600 L</b>	 Round attack pick <b>ER 15/46/38/22 S</b> Art. No. 15 46 38 22	 Retaining clip <b>ES 450</b> Art. No. 99 99 99 96	 Pick box <b>PH 450</b> Art. No. 72 10 25
<b>ER 600, 650</b> <b>ERC 600</b> <b>ERW 400</b>	 Round attack pick <b>ER 17/64/60/25 G</b> Art. No. 17 64 60 26	 QuickSnap <b>QS 600</b> Art. No. 99 25 00 25	 Pick box <b>PH 600</b> Art. No. 76 10 25
<b>ER 1200,</b> <b>ER, ERC 1500</b> <b>ER 1500 L</b> <b>ERW 600, 1000</b> <b>EK 800</b>	 Round attack pick <b>ER 17/75/70/30 G</b> Art. No. 17 75 70 35	 QuickSnap <b>QS 5000</b> Art. No. 99 50 00 30	 Pick box <b>PH 1500</b> Art. No. 71 10 22
<b>ER 2000</b> <b>ERC 2000</b>	 Round attack pick <b>ER 19/75/70/30 G</b> Art. No. 19 75 70 35 E	 QuickSnap <b>QS 5000</b> Art. No. 99 50 00 30	 Pick box <b>PH 1500</b> Art. No. 71 10 22
<b>ER 3000</b>	 Round attack pick <b>ER 25/77/80/38-30 G</b> Art. No. 25 77 80 35 E	 QuickSnap <b>QS 5000</b> Art. No. 99 50 00 30	 Pick box <b>PH 5300</b> Art. No. 75 30 10
<b>ER 5500</b>	 Round attack pick <b>ER 25/80/80/38 S</b> Art. No. 25 80 80 38	 Circlip <b>SG 1500</b> Art. No. 99 99 99 99	 Pick box <b>PH 5500</b> Art. No. 75 30 20
<b>EX 20, 20 HD</b> <b>ES 20, 20 HD</b> (Cutter drum)	 Round attack pick <b>ER 16/28/26/14 HC</b> Art. No. 16 28 26 14	–	 Pick box <b>PH 80</b> Art. No. 71 12 22
<b>ES 20 - 30 HD</b> (Slot cutting wheel)	 Round attack pick <b>ER 16/29/25/14 S</b> Art. No. 16 29 25 14	 Retaining clip <b>ES 70</b> Art. No. 99 99 99 76	 Pick box <b>PH 70</b> Art. No. 71 10 32
<b>ES 45 - 60 HD</b> (Slot cutting wheel)	 Round attack pick <b>ER 19/33/30/15 S</b> Art. No. 19 33 30 14	 Circlip <b>SG 100</b> Art. No. 99 99 99 90	 Pick box <b>PH 100-N</b> Art. No. 79 10 04 E
<b>EX 30 - 45 HD</b> <b>EX 60</b> <b>ES 30 - 60 HD</b> (Cutter drum)	 Round attack pick <b>ER 16/48/32/20 HC</b> Art. No. 16 48 32 20	–	 Pick box <b>PH 250</b> Art. No. 72 10 24
<b>EX 60 HD</b>	 Round attack pick <b>ER 19/48/36/20 HC</b> Art. No. 19 48 36 20	–	 Pick box <b>PH 250</b> Art. No. 72 10 24

Additional pick types to suit special applications can be found in the Cutter Tool Catalogue. We are pleased to provide advice so you can find the right type of pick for your application.



## CUTTING THE WORLD



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