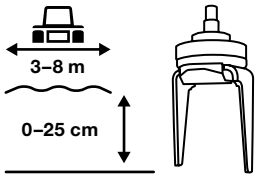


POWER HARROW

BEDNAR

KATOR KN

A power harrow for precise seedbed cultivation

JOY
OF FARMING

KATOR KN

Why KATOR KN?

“The power harrow used to be a very popular soil cultivation machine. People gradually stopped using it with the arrival of minimization soil cultivation technology and its expansion. However, it is still one of the best-selling soil cultivation machine categories and these machines are popular on many markets. This was one of the reasons we decided to include the KATOR KN harrow in our product portfolio, to offer farmers demanding this product a professional solution in the form of a machine with unique know-how, several technical advantages and quality design.”

Jan Bednář

BEDNAR KATOR KN is a power harrow designed for precise seedbed cultivation. The machine is great for seedbed preparation in heavy, hard, dry and difficult-to-cultivate soils.

The power harrow creates an evenly cultivated seedbed with a firm subsoil for planting seeds or seedlings. The proper soil structure, porosity and optimal ridge size contribute to good water and air supply for the root system. The KATOR KN power harrow uses active working parts and perform the best in fields cultivated with a plough, deep cultivator or chisel plough.

The KATOR KN model series offers a series of technical and agronomic advantages that bring many benefits to you, the user. The robust transmission mechanism and frame that guarantee a long service life of the machine, even when used in demanding conditions, is a typical feature of the KATOR KN power harrow.

KATOR KN_PROFI

Why KATOR KN?

TECHNICAL ADVANTAGES

- The robust frame (double chassis 12 mm) and the massive transmission mechanism are the foundation of the machine's long service life, even when cultivating heavy soils.
- The special rotor design, studied to work in the stones, prevents rotor damage, stacking of stones between rotors and allow the works in crops residues.
- The unique rotor in the market design with three bearings per rotor ensures minimum clearance and maximum stability of the rotor mounting.
- The levelling bar mounted near the rotors continuously returns large bits of soil back into the rotor area for quality crumbling.
- Selected models can be equipped with an aggregation frame for connecting other soil cultivation and seeding machines.

AGRONOMIC ADVANTAGES

- Creating a precise and identical seedbed for all plants (adherence to precise working depth along the entire machine span).
- A proper soil structure and size of the individual particles is essential for access of the roots to water and air.
- A high soil refinement created by the high speed of the rotors and their high number per metre of the working width.
- A uniform seedbed without undulated surface thanks to the elaborate machine design.
- The reverse closure and compaction of the cultivated surface ensures even emergence of the crop.

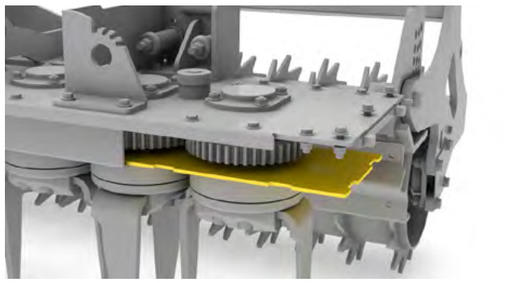
A professional design lies in the detail

HIGH OUTPUT, QUIET OPERATION

The robust transmission mechanism provides a smooth transfer of low-vibration output from the tractor to the individual gearwheels. The individual model series are designed for PTO shaft speeds between 750 to 1,000 RPM, which corresponds with rotor speeds at 346 or 462 RPM.

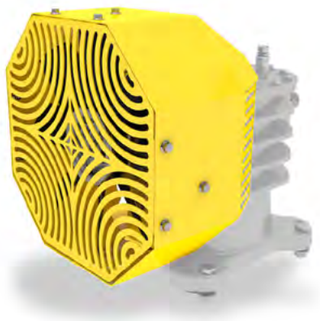
GEARBOX FILLING

The main frame of the gear cascade is made of steel, 12 mm thick at the bottom. The main transmission is not filled with oil but grease to provide highly reliable lubrication of the gearwheels. Also, the risk of oil leak into soil is eliminated in case of tub damage, such as puncture.



EXTERNAL GEARBOX COOLING

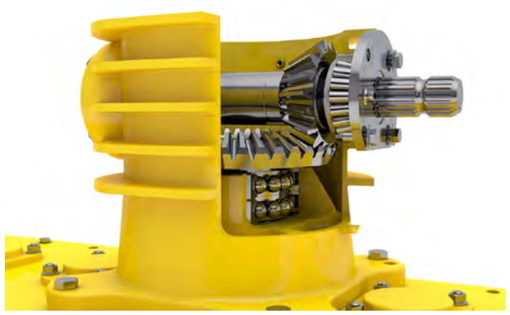
The KATOR KN 6000 model and the KN_PROFI model series can be equipped with external gearbox oil cooling for intense long-lasting operation without overheating.

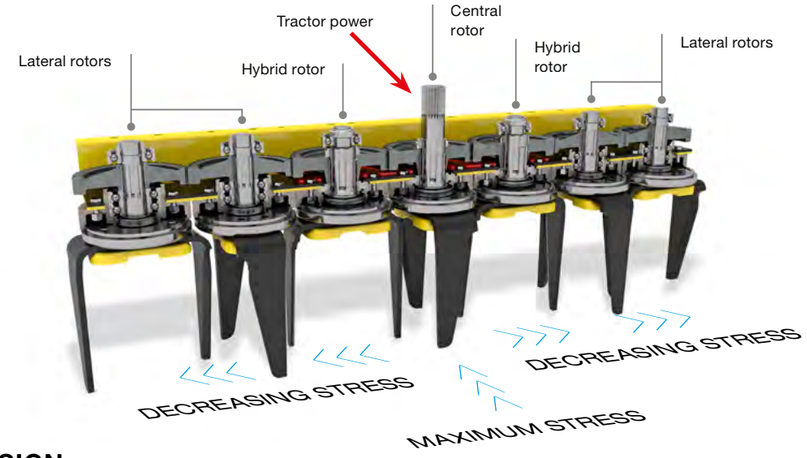


TWO TYPES OF BEARINGS

We use two types of bearings in the KATOR KN rotary harrow – cone and ball. Conic bearings are used in the gearbox for a perfect connection between the vertical and horizontal shaft. Ball bearings are used for each rotor and gear crown.

The advantage of the ball bearings in rotors lies in the easy maintenance and the access rotor per rotor. The resistance of the ball baring is guaranteed by our special application: 3 ball bearings each rotor give us the same resistance of 2 conic bearings.





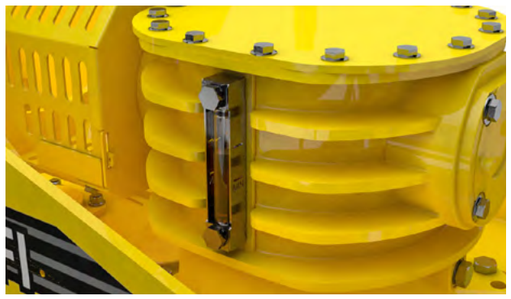
ROTOR DESIGN

As a standard, the power harrow is equipped with two types of rotors – central and side. The central rotor shaft is tall and has a large diameter as it is the connection between the gearbox and the transmission mechanism. The side rotor shaft is short and has a small diameter as this provides higher stability and robustness.

We have created a special HYBRID ROTOR, a combination of the central and side rotor, to help the transmission mechanism cope with a higher output from the tractor, and this rotor is mounted on the sides of the central rotor. The shaft of the HYBRID rotor is short, like the side one, and it has a large diameter, like the central rotor shaft.

Thanks to this application, below the gearbox there are three highly resistant rotors that control the high output coming from the tractor.

The HYBRID TRANSMISSION MECHANISM is a standard for the KATOR KN 7000 PROFI and KATOR KN 8000 PROFI models.



EXTERNAL CHECK

The transmission mechanism is equipped with an external line for gearbox oil level check.

HIGH-QUALITY CARDAN SHAFT

The KATOR KN power harrow is equipped with high-quality cardan shafts Walterscheid, in different dimensions according to the models.

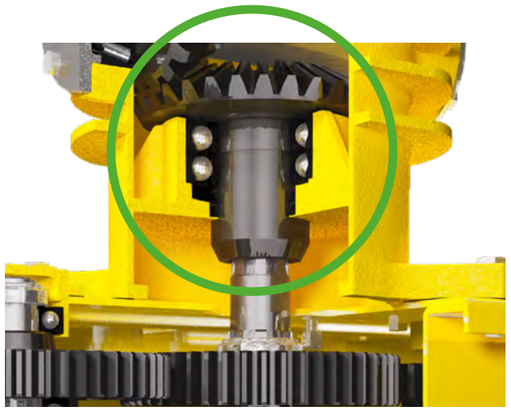
A professional design lies in the detail

ROBUST GEARBOX FRAME

The robust transmission frame is the one of the main parts of the power harrow. When compared with the standard competitive machines within the 6–10 mm range, the standard KATOR KN power harrow has a profile of 12 mm. This technical design contributes to the high resistance of the frame to potential deformation.

SPECIAL CENTRAL SHAFT CONFIGURATION

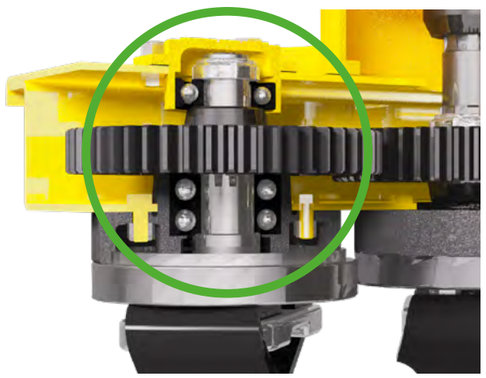
The central shaft is another important part of the rotary harrow and the point of the most stress of the machine. The connection between the special solid crown with an elongated case and a short central shaft (75 mm) provides a perfect transfer of force between the gearbox and the cascade of gearwheels.



UNIQUE THREE-TO-ONE DESIGN

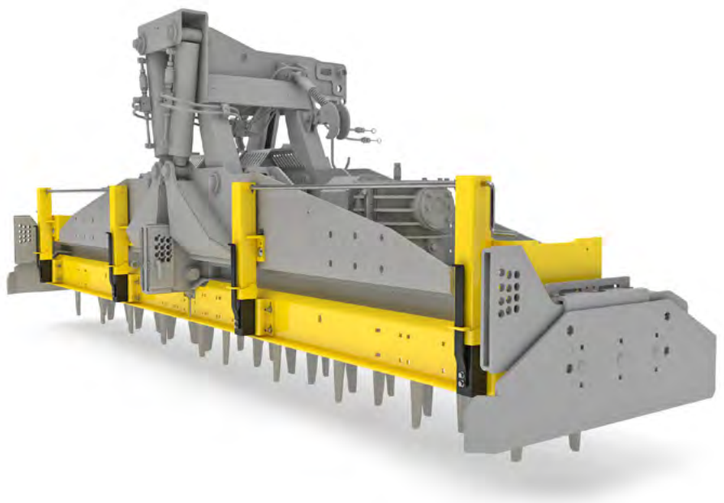
Each rotor is mounted using three precise bearings, one above and two below the gearwheel. The individual shafts of the rotors are thus mostly surrounded by bearings. The bottom pair of the bearing provides rotor mounting with minimum clearance and maximum stability. This unique system ensures long service life and maximum sealing of the gearbox.

No other power harrow manufacturer on the market offers such a design.



LEVELLING BAR

The levelling bar is mounted near the rotors and it is shock absorbed. Thanks to this, large soil parts are continuously carried back to the rotors to be crumbled. The levelling bar control is mechanical as a standard. On request, the machine can be equipped with comfortable hydraulic working depth regulation.



The more rotors, the better outcome

The excellent crumbling and mixing effect is a precondition of quality work of the power harrow. The BEDNAR KATOR KN power harrow offers a higher number of rotors per metre of the working span than competitive manufacturers.

UP TO SIX ROTORS MORE IN THE SAME WORKING SPAN THAN COMPETITIVE MACHINES

The spacing between the individual rotors in the folding KATOR KN rotary harrow is 22.5 cm. The distance between rotors in fixed models is 24.5 cm.

What does it mean?

The reduced distance between the individual rotors and their higher number provides excellent crumbling and even cultivation of the soil profile along the entire working span.

The smaller rotor diameter in combination with a high circumferential speed also contributes to better work quality.

Even though the rotors are quite near to one another, the material continuously passes through the machine without the risk of clogging, thanks to our special rotor design.

COMPARING THE ROTOR NUMBERS KATOR KN 6000 and competitive machines (working width of 6 m)	
BEDNAR KATOR KN 6000	26
	24
	20
	20
	20

MAXIMUM WORKING DEPTH

The power harrow can also be used in soil cultivation prior to seeding potatoes where soil needs to be processed quite deep. All the KATOR KN models are equipped with blades that are 330 mm long and can work in a depth of up to 25 centimetres!

EASY REPLACEMENT WITHOUT THE NEED FOR SPECIAL TOOLS

On request, the individual power harrow models can be equipped with the quick-change system. It is a system for quick and easy blade replacement. Just pull out the cotter, remove the pin and replace the blade. It is a system designed to be used without any special tools and equipment.

CARBIDE KNIVES FOR HIGHER RESISTANCE

We recommend choosing the LONG-LIFE blades with carbide tips for higher resistance when used in rocky soils or extremely heavy soils.

SPECIAL PROTECTION AGAINST STONES AS STANDARD EQUIPMENT FOR ALL KATOR KN MODELS

Our rotor has been studied specifically for the work in very stony conditions.

The protection against stones is a cover, fixed on the chassis of the transmission, that protects the rotors from impact with flying stones and also provides a double labyrinth sealing. The labyrinth sealing prevents impurities from penetrating the bearings and also prevents stones from getting stuck in the blades at the top.

The special design of the protection against stones also prevents post-harvest crop residue from getting tangled around the blade shaft.

COMPETITIVE DESIGN

BEDNAR SMART SOLUTION

KATOR KN (fixed models)

The KATOR KN fixed model series is available in working widths of 3, 3.5 and 4 metres. It is a suitable solution for private farmers as these machines can be pulled by tractors with an output from 90 to 250 HP.

These models can be equipped with mechanical working depth setting, or with comfortable hydraulic setting. As a standard, the machines include our special rotor protected against stones. The spacing between the individual rotors is 24.5 cm. On request, the KATOR KN models can be equipped with an aggregation frame or the quick-change system for replacing blades.

“I use the KATOR KN 3000 power harrow on my 50 hectares farm. I chose the machine mainly because of the large number of rotors per metre of working width, the robust gearbox, the special protection of the rotors against stones and the robust rear three-point linkage. The KATOR KN power harrow offers excellent value for money. I also chose a BEDNAR machine because I already own an ATLAS AN_PROFI disc cultivator. The quality of cooperation with my BEDNAR dealer is also important to me.”

Hubert Beguin, a private farmer

Belgium

KATOR KN

		KN 3000 / KN 3000 Q	KN 3500 / KN 3500 Q	KN 4000 R / KN 4000 RQ
Working width	m	3	3.5	4
Transport width	m	3.1	3.7	4.2
Number of rotors	pcs	12	14	16
PTO shaft RPM	RPM	750/1,000	750/1,000	750/1,000
Rotor RPM	RPM	346/462	346/462	346/462
Working depth*	cm	25	25	25
Total weight**	kg	1,631	1,857	2,058
Recommended output*	hp	90–250	100–250	110–250

* depends on soil conditions ** according to the equipment

KATOR KN (folding models)

The KATOR KN folding model series has working widths of 4 / 4.5 / 5 and 6 metres. To aggregate this KATOR KN power harrow series, we recommend using a tractor with an output from 150 to 350 HP.

These models can be equipped with mechanical working depth setting, or with comfortable hydraulic setting. As a standard, the machines include our special rotor protected against stones. The spacing between the individual rotors is 22.5 cm, which ensures an excellent crumbling and mixing effect. On request, the KATOR KN models can be equipped with the quick-change system for blade replacement; the KN 6000 model can also be equipped with gearbox cooling.

The folding version ensures a safe transportation on roads; the transport width does not exceed 3 metres.

„We farm on an area of 80 hectares. We decided to purchase BEDNAR KATOR KN power harrows after testing the machine. Compared to the competitors, BEDNAR power harrows are very robust, have quiet operation and simple operation. We were surprised by the excellent quality of the work, which is the result of a larger number of rotors in a given working width. We also like the processing of the protection of the rotor against stones or the design of the levelling bar behind the rotors.“

Agricola Venturini Franco & Carlo
Mantua | Italy

KATOR KN

		KN 4000 / KN 4000 Q	KN 4500 / KN 4500 Q	KN 5000 / KN 5000 Q	KN 6000 / KN 6000 Q
Working width	m	4	4.5	5	6
Transport width	m	2.4	2.4	2.4	2.4
Number of rotors	pcs	18	20	22	26
PTO shaft RPM	RPM	1 000	1 000	1 000	750 / 1 000
Rotor RPM	RPM	342	342	342	346 / 462
Working depth*	cm	25	25	25	25
Total weight**	kg	3 381	3 551	3 739	4 079
Recommended output*	hp	130–300	150–300	150–300	170–350

* depends on soil conditions ** according to the equipment

KATOR KN_PROFI

The KATOR KN_PROFI model series is the flagship in the power harrow segment. The large working width of 6, 7 and 8 metres in combination with the robust and powerful gearboxes make this machine perfect for high daily outputs.

As a standard, the KATOR KN_PROFI power harrow is fully hydraulic. The basic version includes our special rotor protected against stones., and the KN 7000 PROFI and KN 8000 PROFI models also include external gearbox cooling and hybrid transmission system.

On request, the machines can be equipped with a transport axle for reducing the load of the tractor three-point hitch, or with the quick-change system for blade replacement.

“We started using the BEDNAR KATOR KN 7000 Q PROFI power harrow at the farm in difficult conditions for soil cultivation in fields that are hard to cultivate. We have tested the endurance of the machine and in my opinion, it is of a high quality. The machine crumbles clods much better than any competitive machines thanks to the high number of rotors. I am very pleased with the machine; therefore we have purchased another BEDNAR power harrow with a working width of 8 metres.” **Alan Tamburini, a private farmer**

Alfonsine | Italy

KATOR KN_PROFI

		KN 6000 / 6000 Q PROFI	KN 7000 / 7000 Q PROFI	KN 8000 / 8000 Q PROFI
Working width	m	6	7	8
Transport width	m	2.3	2.3	2.3
Number of rotors	pcs	26	30	36
PTO shaft RPM	RPM	750/1000	750/1000	750/1000
Rotor RPM	RPM	346/462	346/462	346/462
Working depth*	cm	25	25	25
Total weight**	kg	4 689	5 282	5 673
Recommended output*	hp	200–430	250–430	280–430

* depends on soil conditions ** according to the equipment

Optional equipment and accessories

TRACTOR TRACK ERADICATORS

On request, the KATOR KN power harrow can be equipped with track eradicators that loosen compacted soil in the tractor tracks. The track eradicators have a shear bolt protection.

The KATOR KN fixed models have one pair of track eradicators. The KN folding models and the KN_PROFI series offer one or two pairs of track eradicators.

TRANSPORT AXLE

On request, the KN_PROFI models can be equipped with a transport axle. The transport axle is especially suitable for aggregation of the power harrow with mid-range tractors to ensure safety and stability of the set during transportation. When working, the transport axle is lifted, and when turning at headlands, it reduces the load on the tractor.

AGGREGATION FRAME

The KATOR KN fixed models with widths of 3, 3.5 and 4 metres can be equipped with an aggregation frame with a lifting force of 1,200 kg. The working depth of the connected machine is set hydraulically using the aggregation frame.

The aggregation frame is suitable for the combination of the power harrow with a seeding bar or another soil cultivator.

FLOATING POSITION

When the side wings of the KATOR KN and KN_PROFI power harrow are set in the floating position, they can move up independently of one another.

The piston resistance can be set from the tractor cabin during work: By increasing the resistance, you can stop or reduce the angle range of the floating position, by reducing the resistance, you increase the angle range of the upward movement.

Rollers

KATOR

Type		KN 3000	KN 3500	KN 4000R	KN 4000	KN 4500
Tube roller	1	•	•	•	•	•
Packer roller	2	•	•	•	•	•
Trapeze roller	3	•	•	•	•	•

Type		KN 5000	KN 6000	KN 6000 PROFI	KN 7000 PROFI	KN 8000 PROFI
Tube roller	1	•	•	•	•	•
Packer roller	2	•	•	•	•	•
Trapeze roller	3	•		•	•	

Tube roller **1**

The tube roller is made of massive steel rods with a good crumbling effect. A suitable roller design for light soils.

Roller diameter 540 mm.

Weight 65 kg/m.

Packer roller **2**

A roller with excellent crumbling effect, suitable for heavy soils. The roller includes scrapers.

Roller diameter 550 mm.

Weight 110 kg/m.

Trapeze roller **3**

The trapeze roller is for precise and fine soil crumbling, an ideal roller for light to medium-heavy soils. The roller includes scrapers.

Roller diameter 500 mm.

Weight 125 kg/m.

I did my best, for maximum yield this year

soil cultivation

SWIFTERDISC
Disc Cultivators

ATLAS
Disc Cultivators

FENIX
Versatile Cultivators

VERSATILL
Versatile Cultivators

SWIFTER
Seedbed Cultivators

KATOR
Rotary Harrow

TERRALAND
Chisel Plough

KATOR KN
Combined Cultivator

CADDY
Universal Carrier

seeding and fertilizing

OMEGA
Seed Drills

ALFA DRILL
Seeding Unit

COMBO SYSTEM
Double-Chamber Storage

FERTI-BOX
Hopper for Fertilizer

inter-row/line cultivation
mulching

ROW-MASTER
Inter-row Cultivator

STRIP-MASTER
Line cultivator

STRIEGEL-PRO
Harrows

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