



# PRODUCT CATALOGUE

**GREEN FORAGE MACHINERY** 

**FRONT LOADERS & EQUIPMENT** 



FERTILIZER SPREADER FD1-M03L

FERTILIZER SPREADER FD1-M05L

FERTILIZER SPREADER FD2-M10



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### FD1-M03L, FD1-M05L PRONAR FERTILIZER SPREADERS

A well-designed, functional spreader **FD1-M03, M05-FD1** for surface spread of loose granulated fertilizers allows you to fully exploit the potential of yielding plants. Important adventages of the single-disc fertilizer are the low price and the low weight for easy hitching and the opportunity to work with a tractor of lower fuel consumption. Therefore, they are ideally suited for small and medium-sized farms. Fertilizer collected in a plastic hopper is mixed and gravity fed to the blade spreading disc. Spreading is regulated in terms of the amount and spreading direction of a given material, by using two bolt holes with laths. Disk drive and the auger mixer are driven from PTO shaft via articulated telescopic shaft. Mounted mechanism allows to easily adjust the dose and to close the outlet while standstill or recurrence.

### FERTILIZER SPREADER FD1-M05L

### FERTILIZER SPREADER FD1-M03L

**UNIVERSAL** - can be combined with most of the tractors equipped with 3 point hitch EASY TO USE - fertilizer spreading width adjustment is achieved by - simple in execution - change the angular position of the blades on the spreading disc

**RESISTANT** - best materials and paint finishes are used

**COMFORTABLE** - the rotational speed of the

controlled by the position of the operator control handle

WIDE SPREADING - by appropriate arrangement of the blades, spreading width may be in the range from 4 to 14 m



FERTILIZER SPREADERS / PARAMETRES	FD1-M03L	FD1-M05L	
Power requirement:		11 m	[Kw]
Weight:	42	52	[kg]
Working width:		4 - 14	[m]
Amount of spread fertilizer:		10 - 2000	[kg/ha]
Working speed:		max 10	[km/h]
Transportation speed:		max 20	[km/h]
Fertilizer hopper capacity:	250	500	[dm³]
Load capacity:	325	650	[kg]
Height/Width/Length:	1,06/1,12/1,25	1,33/1,12/1,25	[m]







A well-designed, functional spreader **PRONAR FD2-M10** for surface spread of loose granulated fertilizers allows you to fully exploit the potential of yielding plants. Collected in a plastic, two-hoppers fertilizer is mixed and gravity fed to the two-blade spreading discs. Fertilizer spreader is adjustable in terms of quantity of spreading material. The cover opens easily with a single lever. As an option the fertilizer can be equiped with transportation wheels. Lighting system is in a standard equipment.

### FERTILIZER SPREADER FD2-M10



**UNIVERSAL** - can be combined with most of the tractors

equipped with 3 point hitch

**EASY TO USE** - fertilizer spreading width adjustment is achieved by - simple to operate - change the angular position of the blades on the spreading disc

**RESISTANT** - best materials and paint finishes are used **COMFORTABLE** - the rotational speed of the disc is controlled by the position of the operator control handle **WIDE SPREADING** - by appropriate arrangement of the blades, spreading width may be in the range from

#### **FERTILIZER SPREADERS / PARAMETRES PARAMETRES / DESCRIPTION COMMENTS** Power requirement: 12 170 Weight: with cover [kg] Working width: 10 - 24 [m]Amount of spread fertilizer: 10 - 1500 [kg/ha] Mechanical drive: 540 PTO shaft [rpm] Working speed: max 12 [km/h] Transportation speed: max 20 [km/h] Fertilizer hopper capacity: 1000 [dm³] 1300 Load capacity: [kg] Height/width/length: 1,32/1,88/1,23 height with cover [m] Nominal pressure of the hydraulic system: [mpA] 16 Nominal voltage: 12 [V]

Double-disc fertilizer spreader FD2-M10





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### REAR MOUNTED DISC MOWERS

## PRONAR PDK220, PDT260, PDT300, PDT340



Rear mounted disc mowers PRONAR PDK 220, PDT260, PDT300, PDT340 are based on the PRONAR cutter bars strengthened with a stiffening profile enclosed in the cutter bar body. Optimum capacity of oil sumps strips provides an excellent cooling. Replaceable protective slides and additional skids are made of hardened boron steel and are resistant to abrasion. Ergonomic and innovative shape of PRONAR discs ensure lower cutting resistance and lower power demand per unit width of the cut. The advantage of PRONAR disc mowers is also a stable discs mounting by means of two ball type bearings enlarged with high quality gears that reduce noise and a system of quick-replacement of knives.

TECHNICAL DATA	PDK220	PDT260	PDT300	PDT340	
Dimensions:					
Total width in working position:	4110	4500	4920	5340	[mm]
Total height in working position:	1120	1300	1300	1300	[mm]
Length in working position:	1430	1290	1290	1290	[mm]
Length in transport position min/max:	1430 / 4440	1290 / 3990	1290 / 4410	1290 / 4830	[mm]
Width in transport position min/ max:	1250 / 1740	1430 / 1760	1430 / 1760	1430 / 1760	[mm]
Height in transport position min/max:	980 / 2720	1480 / 3320	1480 / 3740	1480 / 4160	[mm]
Useful parameters:					
Working width:	2200	2600	3000	3400	[mm]
Swath width min/max:	1450	1200 / 1600	1200 / 2000	1500 / 2400	[mm]
Recommended working speed:	10	10	10	10	[km/h]
Efficiency (for recommended working width):	2,2	2,6	3	3,4	[ha/h]
Weight:	520	640	740	800	
Min. power requirement:	22/30	33 / 45	44 / 60	59 / 80	[kW/HP]
PTO Speed:	540	540	1000	1000	[rpm]
Linkage system:	Cat. 2 and 3 acc. ISO 730-1	Cat. II and III acc. ISO 730-1	Cat. II and III acc. ISO 730-1	Cat. II and III acc. ISO 730-1	
Number of discs: [PCS]	5	6	7	8	
Number of knives: [PCS] - left - right	4 6	6 6	8 6	8 8	
Type of cutting knives:	twisted	twisted	twisted	twisted	
Rotation speed of discs:	3265	3130	3000	3000	[rmp/min]
Ground following ability:	+ 90 - 22	+ 11 - 16	+ 11 - 16	+ 11 - 16	[°]
Transport position: - vertically at the side of the tractor -vertically at the rear of the tractor -horizontally at the rear of the tractor	Hydraulically adjustable Manual handling beam Manual handling beam (recomennded for short transportation)	Hydraulically adjustable Hydraulically adjustable Hydraulically adjustable (recomennded for short transportation)	Hydraulically adjustable Hydraulically adjustable Hydraulically adjustable (recomennded for short transportation)	Hydraulically adjustable Hydraulically adjustable Hydraulically adjustable (recomennded for short transportation)	
Required hydraulic output:	1 output at the back of the tractor	One double-acting section and one double-acting section with floating position	One double-acting section and one double-acting section with floating position	One double-acting section and one double-acting section with floating position	

### Transport position **PRONAR PDK220**







### **REAR MOUNTED DISC MOWERS**

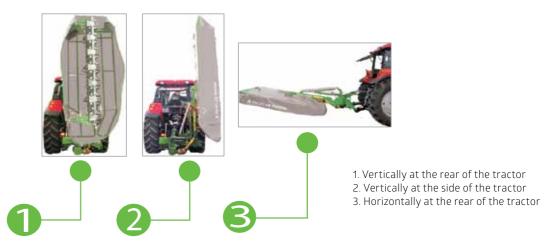
**ENERGY SAVING** - 50% lower power demand compared to drum mowers

**UNIVERSAL** - extensive range of inclination enables operation on uneven and steep surface

**EASY TO USE** - enable to work with older tractors without hydraulic modifications, only one hydraulic connector required

**ECONOMIC** - innovative shape of the discs provides lower cutting resistance and low power demand

### MOWER CAN BE TRANSPORTED IN 3 DEFFERENT POSITIONS:



PRONAR PDK220, PDT360, PDT340 rear mounted disc mowers are characterized by light weight structure and solid construction. In PRONAR PDK220 mowers standard suspension was used. PRONAR PDT260, PDT300, PDT340 mowers are equipped with central suspension , which guarantees a very good ground following ability, clean and aesthetic cutting and optimum cutting height. The three-stage adjustment system of compensating spring - 70, 80 and 90 kg (depending on the type of soil: from peat to the hard and dry) makes it possible to adjust the pressure of the mower. Extensive range of inclination (-16° to + 11°) enables operation on uneven and steep surface. Three transport positions distinguish it from other mowers.

# REAR MOUNTED DISC MOWER REAR MOUNTED DISC MOWER PRONAR PDT300 **PRONAR PDT300**

PRONAR PDT300

PRONAR PDT300 - Transport position: vertically at the side of the tractor



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### PRONAR REAR MOUNTED DISC MOWERS WITH CONDITIONER

# PRONAR PDT260C, PDT300C



**CONDITIONER** adapted in **PRONAR** mowers accelerates drying what allows to save time and reduce fuel costs.

By using the conditioner at the same time the grass is being cut and soften cut grass dries faster.

Rear mounted disc mowers with conditioner PRONAR PDT260C and PDT300C are based on modern materials and technologies so that mowers have very good functional features. PDT260 C and PD300C mowers with conditioner are characterized by strong, light weight structure based on the **PRONAR** cutter bars strengthened with a stiffening profile enclosed in the cutter bar body. Optimum capacity of strips oil pans provides an excellent cooling. Replaceable protective slides and additional skids are made of hardened boron steel and are resistant to abrasion. Ergonomic and innovative shape of **PRONAR** discs ensure lower cutting resistance and lower power demand per unit width of the cut.

TECHNICAL DATA:	PDT260C	PDT300C	
Dimensions:			
Total width in working position:	4500	4920	[mm]
Total height in working position:	1300	1300	[mm]
Length in working position:	1765	1765	[mm]
Length in transport position min/max:	1765 / 3990	1765 / 4410	[mm]
Width in transport position min/ max:	1735 / 1760	1735 / 1760	[mm]
Height in transport position min/max:	1480 / 3320	1480 / 3740	[mm]
Useful parameters:			
Working width:	2600	3000	[mm]
Swath width min/max:	1300 / 1900	1500 / 2300	[mm]
Recommended mowing speed:	10	10	[km/h]
Efficiency (for recommended working width):	2,6	3	[ha/h]
Tare weight:	860	930	[kg]
Min. power requirement:	44 / 60	55 / 75	[kW/HP]
PTO speed:	540	1000	[rmp/min]
Linkage system:	Cat. II and III acc. ISO 730-1	Cat. II and III acc. ISO 730-1	
Number of discs:	6	7	[PCS]
Number of cutting knives: - left - right	6 6	8 6	[PCS]
Type of cutting knives:	twisted	twisted	
Rotation speed of discs:	3130	3000	[rmp/min]
Swath conditioner drive:	Belt gearbox	Belt gearbox	
Belt size:	SPB 1525	SPB 1525	
Number of belts:	3	3	[PCS]
Ground following ability:	+ 11 - 16	+ 11 - 16	[°]
Transport position: vertically at the side of the tractor vertically at the rear of the tractor horizontally at the rear of the tractor	Hydraulically adjustable Hydraulically adjustable Hydraulically adjustable (recommended for short time transportation)	Hydraulically adjustable Hydraulically adjustable Hydraulically adjustable (recommended for short time transportation)	
Required hydraulic output:	One double-acting section and one double-acting section with floating position	One double-acting section and one double-acting sec- tion with floating position	

EASY TO USE - quick replacement of knives

**DURABLE** - all components in direct contact with the ground are made of hardened boron steel

**COMFORTABLE -** reduction of noise by usage of gears with ground teeth

**UNIVERSAL** - extensive range of inclination enables operation on uneven and steep surface





PRONAR PDF300C and PDF300C front mounted disc mowers are built by using modern technologies and materials so that the mowers have very good functional features. Strong, light weight structure of the mowers is based on the **PRONAR** cutter bars strengthened with a stiffening profile enclosed in the cutter bar body. Optimum capacity of strips oil pans provides an excellent cooling.

Replaceable protective slides and additional skids are made of hardened boron steel and are resistant to abrasion. **PRONAR** front mounted mowers contain discs of ergonomic and innovative shape, which ensure lower cutting resistance and lower power demand per cut, width unit. They also conaitn stable disc mounting by means of two ball type bearings enlarged with high quality gears that reduce noise and a system of quick-

**PRONAR PDF300C** front mounted disc mower has been strengthened with a spirally set and free fixed tines swatch conditioner. Double steel tines of the conditioner are modified type system with rubber shock absorbers. **PRONAR PDF300C** is also equipped with four stage adjustment of swath pre-loosening and steel swath guides.

TECHNICAL DATA:	PDF300	PDF300C	
Dimensions:			
Total width in working position:	3!	550	[mm]
Height in working position:	12	280	[mm]
Length in working position:	18	320	[mm]
Width in transport position (raised side protections) min/max:	3150	3200	[mm]
Useful parameters:			
Working width:	30	000	[mm]
Swath width min/max:	1200 / 2000	1500 / 2300	[mm]
Recommended mowing speed:		10	[km/h]
Efficiency (for recommended working width):		3	[ha/h]
Tare weight:	780	1020	[kg]
Min. power requirement:	44/60	55/75	[kW/HP]
PTO speed:	10	000	[rmp/min]
Suspension:	Front linkage cat	. II acc.to ISO 730-1	
Facilitation:	Mechanic	al (Springs)	
Number of discs:		7	[PCS]
Number of cutting knives: -left - right		8 6	[PCS]
Type of cutting knives:	tw	isted	
Knives dimensions:	120x4	9x4 ø21	[mm]
Rotation speed of discs:	30	000	[rmp/min]
Ground following ability: - Up - down		+ 7 - 6	[°]
Transport position - horizontally at the front of the tractor:	Raised on mowers	cylinder and linkage	
Required hydraulic output:	Hydraulic connection a	t the front of the tractor	
Swath conditioner drive:	-	Belt gearbox	
Belt size:	-	SPB 1750	
Number of belts:-	-	3	

**EASY TO USE -** quick replacement of knives at the front and at the back of the bar

**STRONG -** all components in direct contact with the ground are made of hardened boron steel

**COMFORTABLE -** reduction of noise by usage of gears with ground teeth

**UNIVERSAL** - extensive range of inclination enables operation on uneven and steep surface

### FRONT MOUNTED DISC MOWER **PRONAR PDF300**





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### FRONT MOUNTED DISC MOWERS

# PRONAR PDF301, PDF301C, PDF340, PDF340C



The new **PDF301, PDF301C** mowers were designed primarily for working on rough and uneven terrain. The main element of the mowers is the proven and reliable **PRONAR** cutting bar what guarantees high quality of mowing. Strong, flexible and compact construction of the machine is based on modern materials and technologies. A large range of ground following ability, allows using the mower in all conditions, while maintaining an excellent cut quality. Its working range is mower's greatest advantage: up to 700 mm (450 mm / 14° up, 250 mm / 10° down), and the cross-copying range is 24°. This ensures perfect adhesion of the cutter bar to the ground at a constant angle (regardless of field conditions) and clean and aesthetic cut.

TECHNICAL DATA:	PDF301	PDF301C	PDF340	PDF340C	
Total width in working position:	35	70	40	00	[mm]
Height in working position:	13	00		-	[mm]
Lenght in working positiony:	19	40	18	00	[mm]
Width in transport position (raised side protections) min/max:	29	80	34	00	[mm]
Working width:	30	00	34	00	[mm]
Swath width min/max:	1030/1830	1340/2040	1400/1800	1400/2040	[mm]
Tare weight:	970	1220	1050	1300	[kg]
Min. power requirement:	44/60	55/75	59/80	70/95	[kW/HP]
Efficiency ( for recommended working width):	3	3	3	.4	[ha/h]
PTO speed:		100	00		[pcs]
Suspension:		Front linkage cat. I	l acc. to ISO 730-1		
Number of disc:	-	7	8	8	[pcs]
Number of knives (item): -left - right	3	4 8 6	16	16	[pcs]
Type of cuting knives:		twis	ted		
Knives dimensions :	120x49	9x4 Ø21	120x49	x4 Ø21	[mm]
Rotationspeed of discs:		300	00		[rmp/min]
Ground following ability: -up -down -transverse	10 (2	(450) 250) 24		+14 (450) 10 (250) +/- 24	[°]
Transport position - horizontally at the front of the tractor		Raised on mowers o	ylinder and linkage		
Required hydraulic output	Н	ydraulic connection at	the front of the tracto	or	
Swath conditioner drive		-			
PTO shaft		Stand	dard		
Additional set of knifes		Stand	dard		
Spray RAL 6010 400 ml		Stand	dard		





**Pronar PDF390** front mounted disc mower with its modern design is built by using new materials and technologies. Its modern design, compact, solid and light construction distinguish it from other products.

**Pronar PDF 390** disc mower is equipped with Pronar cutter bars strengthened with a stiffening profile enclosed in the cutter bar body.

Optimum capacity of strips oil pans provide provides an excellent cooling. Replaceable protective slides and additional skids are made of hardened boron steel and

**PRONAR** disc mowers contain discs of ergonomic and innovative shape which ensure lower cutting resistance and lower power demand per width unit of the cut. Pronar PDF390 front mounted disc mower is adjust to work with FORTSCHRITT E301-E303 self-propelled mower series equipped with front



TECHNICAL DATA:	PDF390	
Total width in working position:	4420	[mm]
Total height:	1240	[mm]
Length without/ with an additional drive kit:	1880 / 2580	[mm]
Width in transport position:	4000	[mm]
Working width:	3900	[mm]
Swath width:	ok. 1900	[mm]
Recommended mowing speed:	10	[km/h]
Efficiency (for recommended working width):	4	[ha/h]
Tare weight;	730	[kg]
Drive:	Side PTO shaft of FORTSCHRITT self-propelled mower	
Suspension:	Original suspension of FORTSCHRITT self-propelled mower	
Type of frame:	Rigid with adjustment of cutter bar tilt	
Cutting height adjustment:	By cutter bar tilt	
Number of discs:	9	[pcs]
Number of cutting knives:		[pcs]
left	10	
right	8	
Type of cutting knives:	twisted	
Knives dimensions:	120x49x4 Ø21	[mm]
Rotation speed of discs:	3180	[rmp/min]
Ground following ability:	On original suspension of FORTSCHRITT self-propelled mower	[°]





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### DOUBLE-SIDED REAR MOUNTED DISC MOWER

# PRONAR PDD830, PDD830C



PRONAR PDD830 is a double-sided disc mower which is an excellent choice for farmers with larger areas of grassland. It is also an alternative to expensive selfproppeled mowers. The mower combinations consist of two 3 meter wide rear mounted disc mowers (left one and right one) assembled on one frame. 8,3 m working width can be achieved in a set with a front mounted disc mower Pronar PDF300, of 3m working width. Hydraulic protection allows the cutting unit to lift and swing backwards at the moment of collision with an obstacle.

Pronar double-sided disc mower **PRONAR PDD830C** has all benefits of **PRONAR PDD830** and it is supplemented by a swath conditioner. Swath conditioner which is used in **PRONAR PDD830C** has four-stage adjustment of swath pre-loosening and it is equipped with spirally arranged, freely mounted, steel tines with shock absorption.



TECHNICAL DATA:	PDD830	PDD830C	
Dimensions:			
Total width in working position:	8880		[mm]
Total height in working position:	1310		[mm]
Width in transport position:	2600		[mm]
Height in transport position:	3950		[mm]
Clearance from the ground in transport position:	200		[mm]
Useful parameters:			
Working width:	8300* (2x30)	00)	[mm]
Swath width min/max:	2 x (1200/2000)	2 x (1500/2300)	[mm]
Overlapping areas of mowing:	350*		[mm]
Efficiency:	8*		[ha/h]
Tare weight:	1390	1890	[kg]
Min. power requirement:	88 / 120*	110 / 150*	[kW/HP]
PTO speed:	1000		[rmp/min]
Suspension:	Cat. II and III acc. IS	50 730-1	
Number of discs:	2 x 7		[pcs]
Number of cutting knives: Left Right	16 12		[pcs]
Type of cutting knives:	twisted		
Knives dimensions:	120x49x4 Ø	21	[mm]
Rotation speed of discs:	3000		[rmp/min]
Ground following ability: Up Down	+ 11 - 16		[°]
Transport position - vertically at the sides of the tractor:	Hydraulic sett	ings	
Required hydraulic output:	One double-acting section a ting section with float		

**EASY TO USE -** additional knife changing key for quick replacement of knives at the front and at the back of the cutter bar shortens the time of the operational service

**DURABLE** - replaceable skids protect cutting system from damage and absorb impact

**SAFE** - hydraulic valve lifts the cutter bar and swings it backwards during sudden collision with an obstacle

**EFFICIENT** - low power demand, large cutting width, rotational speed 1000 rmp/min

**ACCURATE** - evenly cutting over the entire cutting width









The conditioner accelerates the preparation of feed, while ensuring its high quality

The tines of the device, made of abrasion resistant steel, intercept mown material from the cutter bar

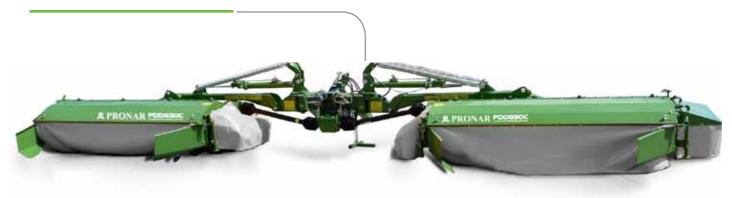
The conditioner used in the **PRONAR PDD830C** mower accelerates the preparation of fodder while ensuring its high quality. The tines of the device, made of abrasion resistant steel, intercept mown material from the cutter bar and transfer it over the shaft to the scrapers which form a swath with the width set by the operator. This process destroys the wax coating of the grass and breaks its stalks, leading to faster drying. In this way, fodder with high nutritional values is obtained in a short time.

The intensity of loosening is set by means of the control lever on the cover of the device. This lever sets the damping fingers relative

to the conditioner shaft in such a way that the mown material is properly formed and soften.

The advantage of the conditioner construction is the ability to work - depending on the demand - with the device attached or disconnected.

### DISC MOWER PRONAR PDD830C





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PDD1050 and PDD1050C are mowers with the widest working width among all those manufactured by PRONAR, they are intended mainly for mowing large areas. Their **PRONAR** cutting units are equipped with 9 heavy-duty discs, which are suspended on telescopic supporting arms, allowing for a change of working width in the range of 9.7-10.5 m. In **PDD1050** and **PDD1050C** machines, instead of the classic spring relief present in other Pronar mowers, a newer solution has been used - hydraulic relief. It enables faster, more comfortable and more precise adjustment of the relief level, reducing the cutting resistance, which transfers into the load required by the tractor and impact on the turf.



TECHNICAL DATA:	PDD1050	PDD1050C
Overall width in working position	11000*	mm
Overall height in working position	1700*	mm
Width in transport position	3000	mm
Height in transport position (side guards folded in, ground clearance 220mm	1) 4000	mm
Ground clearance in transport position	220	mm
Cutting width	9700 - 10500**	mm
Swath width min/max	2 x (1300 /1600)	mm
Performance capability	9,7 – 10,5	ha/h
Machine wieght	2900	kg
Minimum tractor power requirements	147 / 200	kW/KM
PTO rotational speed	1000	rev/min
Suspension system	III kat. ISO 730-1	
Amount of discs	2 x 9	szt.
Number or cutting: - blades - Left - Right	20 16	szt.
Type of cutting blades	folded back	
Dimensions of cutting blades	120x49x4 Ø21	mm
Rotation speed of discs	3000	rev/min
Terrain following ability	+ 10 - 7	[°]
Transport position: - Folded vertically at the rear of the tractor	Hydraulically adjusted	
Electrical system voltage		V
Required hydraulic outputs	1 single-acting section + slow runoff or 1 double-acting section	





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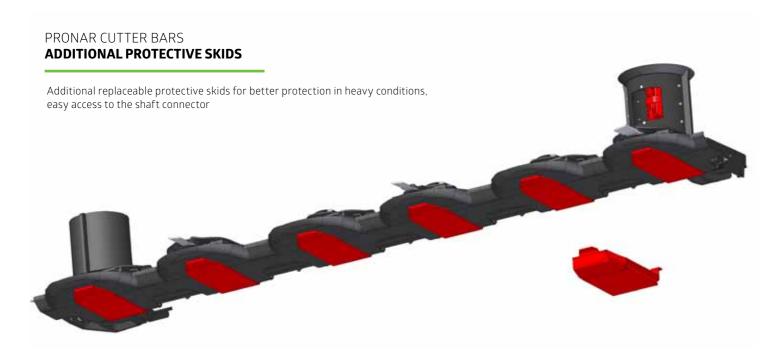
<sup>\*</sup> with maximum cutting width set up
\*\* depending on the compatible front mower (2.6 to 3.4 m) and the set value of the overlap of the mowing areas

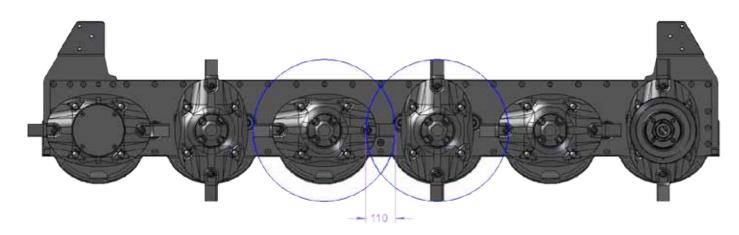
# PRONAR CUTTER BARS

**PRONAR CUTTER BAR** are bars of high strength with an additional stiffening profile enclosed in the cutter bar body.

Optimum capacity of oil pan provides an excellent cooling. Replaceable protective slides and additional protective skids are made of hardened steel resistant to abrasion. Innovative shape of Pronar discs ensure less resistance to cutting and less power demand per width unit of the cut,

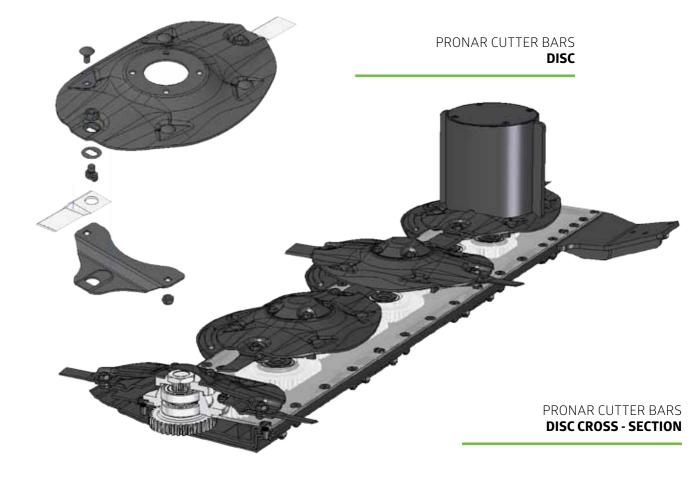
discs mounting by means of two ball type bearings enlarged with high quality gears, that reduce noise, and a system of quick-replacement of knives.

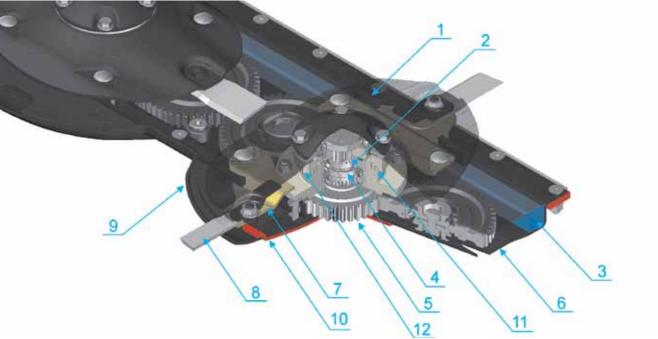




PRONAR CUTTER BARS **ROBUST CHUTE WITH A STIFFENING PROFILE** 

Overlapping of mown areas - 110 mm





- 1 discs of hardened boron steel with an innovative shape that provides less resistance to cutting and higher resistance to abrasion
- 2 modular design ensures quick replacement of parts
- 3 additional stiffening profile enclosed in the cutter bar body
- 4 stable mounting by means of two ball bearings
- 5 higher gears with ground teeth to reduce noise 6 - optimum capacity of oil sump ensures perfect cooling
- 7 system of guick replacement of knives, hardened holders made of boron steel
- 8 120 mm long solid angled knives
- 9 replaceable slides made of hardened boron steel 10 additional removable protective slides (high cutting slides as an option)
- 11 construction of the hub ensures labyrinth seal
- 12 special construction of the upper hub ensures overload protection
- cutting height adjustable in the range of 30 70 mm by changing the inclination angle of the cutter bar
- possible knives replacement in the central position at the front of cutter bar reduces the danger of losing the knife

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### TRI-WING MULCHER

### TRI-WING MULCHER PRONAR KPR500 TORNADO

The design of the KPR500 mower is based on a rigid and strong frame consisting of the main part and two wings, moving from 25° downwards and up to 93° upwards. This solution in combination with a specially designed suspension system enables the mower to perfectly follow the ground. The drawbar and wheels and mower wings form the suspension structure. All these elements are synchronized with each other through a system of ties in such a way that the KPR500 mower, by lifting on the drawbar and wheels, maintains a constant angle to the ground, regardless of the height of elevation (thanks to this, changing the cutting parameters does not require additional adjustment of the mower's position to the ground).

Strong knives make it a universal machine, designed for mowing large areas. It can be used in many works, e.g. cutting and chopping grass, weeds, mowing stubble and scrub.

### TRI-WING MULCHER PRONAR KPR500 TORNADO



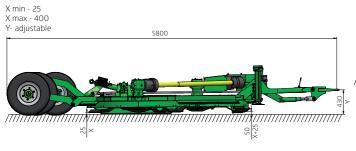
Side wings raised to transport position.

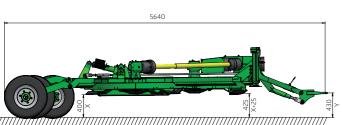
Easy and quick cutting height adjustment.

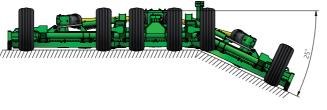
Additional reinforcements made of high resistant metal for maximum durability.

Precise ground following.

### **GROUND FOLLOWING:**





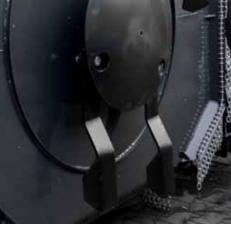




### TECHNICAL DATA: KPR500

Dimensions:		
Width In working position:	5200	[mm]
Width In transport position:	Below 3000 (depends on adjustments)	[mm]
Height In transport position:	2500	[mm]
Length In transport position:	5700	[mm]
Useful parameters:		
Cutting width:	5000	[mm]
Overlapping of knives:	125	[mm]
Tare weight:	2800	[kg]
Drawbar eye load:	1050	[kg]
Min. power requirement:	88/120*	[kW/HP]
PTO rotation speed:	1000	[rmp./min]
Zaczep	ø 40	
Number of cutting heads:	3	[pcs.]
Number of knives on the cutting head:	3	[pcs.]
Cutting Hades rotation speed:	1000	[rmp./min]
Cutting height:	25-400	[mm]
Transport position	Towed, wings folded, secured with lock, suspension system maximally raised up	
Number of Wheel:	6	[pcs.]
Tires	10.0/75-15.3 10PR	
Required hydraulic output	one one-acting section and one one-acting section with a floating position	

<sup>\*</sup> the power demand depends on the working conditions and the properties of the cut material



Three horizontally rotating heads, equipped with three cutting knives



KPR500 - transport position



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Rotary tedder PWP460 is the latest model in Pronar's range of tenders. Rotary tedder Pronar PWP460 is designed for spreading freshly mown grass or scour lightly dried hay, in order to speed up the drying process. PWP460 evenly spreads and rolls the material without destroying. It also deprives the material of the earth, peat, so that in the final stage received feed is free from contaminants. Robust design makes the rotary tedder reliable and efficient, high-quality workmanship ensures a long service life. Rotary tedder PRONAR PWP460 follows the ground perfectly and allows you to work on the slopes. Possible aggregation with small tractors makes it the perfect device for each farm, irrespective of their area or meadow location. Additionally, thanks to a simple and uncomplicated construction of the machine, the operator can very quickly set the appropriate machine parameters.



TECHNICAL DATA:	PWP460	
Dimensions:		
Total length:	2400	[mm]
Width in working/transport position:	5000/2990	[mm]
Height in working/transport position:	1700/3900	[mm]
Useful parameters:		
Working width:	4600	[mm]
Number of rotors:	4	[pcs.]
Number of operating arms on one roto:	6	[pcs.]
Suspension type:	active, shock absorption	
Suspension hitch:	Cat. I and II acc. to ISO 730-1	
Type of the central transmission:	wet (oil bath)	
Type of rotary transmission:	maintenance-free (grease lubrication)	
Overload protection:	Clutch 900Nm	
Minimum tractor power requirement:	22/30	[kW/HP]
Maximum PTO speed:	540	[rpm]
Weight:	600	[kg]
Recommended working speed:	10	[km/h]
Working efficiency:	4,6	[ha/h]
Tyres:	16 x 6.5 - 8 (6PR)	
Required tractor hydraulic outputs:	One double-acting secion with floating position	
Adjustment of the spreading angle:	Manually, each wheel separately in the range of 13°, 19	[°]
Tedding near the field border:	After manual wheel adjustment (each wheel separately)	
Lifting the rotors to transport position:	Hydraulic - synchronized	
Ground following ability: - up - down	up to 30° up to 6°	[°]

 $\label{eq:compatible} \textbf{COMPATIBLE} \cdot \text{can be connected to each}$ tractor equipped with suspension system Cat. I and II

**EFFICIENT** - despite the small size it reaches efficiency 4,6 ha/h

**FUNCTIONAL** - elastic tines the same for left and right rotation of the rotor

**DRIVE** - rotary transmissions sealed hermetically, grease lubricated, maintenence-free

Durable, maintenance-free rotor gearbox



\* for set with a front mounted disc mower of min. 3m working width







Rotary tedder PRONAR PWP530 is a carousel type device. It is designed for spreading mowed green plants and hay or for tedding and spreading cutted plants in cultivated fields and meadows. PRONAR PWP530 rotary tedder is easy to use and very economical so it is perfectly suited for each farm. This tedder has working width of 5,3m and is equipped with four carousels, each with seven operating arms. Thanks to that it is possible to achieve high performance at work (5,3 ha/h). Active suspension with shock absorption ensures perfect ground following ability.

### ROTARY TEDDER **PRONAR PWP530**



TECHNICAL DATA:	PWP530	
Dimensions:		
Total length:	2550	[mm]
Width in working/transport position:	5650/2990	[mm]
Height in working/transport position:	1810/3900	[mm]
Useful parameters:		
Working width:	5300	[mm]
Number of rotors:	4	[pcs.]
Number of operating arms on one roto:	7	[pcs.]
Suspension type:	active, shock absorption	
Suspension hitch:	Cat. I and II acc. to ISO 730-1	
Type of the central transmission:	wet (oil bath)	
Type of rotary transmission:	maintenance-free (grease lubrication)	
Overload protection:	Clutch 900Nm	
Minimum tractor power requirement:	22/30	[kW/HP]
Maximum PTO speed:	540	[rpm]
Weight:	685	[kg]
Recommended working speed:	10	[km/h]
Working efficiency:	5,3	[ha/h]
Tyres:	16 x 6.5 - 8 (6PR)	
Required tractor hydraulic outputs:	One double-acting secion with floating position	
Adjustment of the spreading angle:	Manually, each wheel separately in the range of 13°, 16°, 19	[°]
Tedding near the field border:	After manual wheel adjustment (each wheel separately)	
Lifting the rotors to transport position:	Hydraulic - synchronized	
Ground following ability: - up - down	up to 30° up to 6°	[°]

Cat. I and II **EFFICIENT** - despite the small size it reaches efficiency 5,3 ha/h

**COMPATIBLE** - can be connected to each

tractor equipped with suspension system

**EASY TO USE** - operator can easily set needed

**LOW OPERATING COSTS** - in the production process, the most modern technical solutions and materials were applied

parameters



Rotary tedder PWP530







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# PRONAR PWP770

Designed for spreading mowed green plants and hay or for tedding and spreading cutted plants in cultivated fields and meadows. Rotary tedder **PRONAR PWP770** is equipped with six carousels, each with seven operating arms. Thanks to that it is possible to achieve high performance at work (7,7 ha/h). Active suspension with shock absorption ensures perfect ground following ability.

TECHNICAL DATA:	PWP770	
Dimensions:		
Total length:	2550	[mm]
The width in the working/transport position:	8275/2990	[mm]
Height in working/transport position:	1810/3900	[mm]
Useful parameters:		
Working width:	7700	[mm]
Number of rotors:	6	[pcs.]
Number of operating arms on one rotor:	7	[pcs.]
Suspension type:	active, shock absorption	
Suspension hitch:	Cat. I and II acc. to ISO 730-1	
Type of the central transmission:	wet (oil bath)	
Type of rotary transmission:	maintenance-free (grease lubrication)	
Overload protection:	Clutch 1200Nm	
Minimum tractor power requirement:	37/50	[kW/HP]
Maximum PTO speed:	540	[rpm]
Weight:	915	[kg]
Recommended working speed:	10	[km/h]
Working efficiency:	7,7	[ha/h]
Tyres:	16 x 6.5 - 8 (6PR)	
Required tractor hydraulic outputs:	One double-acting section with floating position	
Adjusting the angle of spreading:	Manually, each wheel separately in the range of 13°, 16°, 19°	[°]
Tedding near the field border:	After manual wheel adjustment (each wheel separately)	
Lifting the rotors to transport position:	Hydraulic - synchronized	
Ground following ability: Central segment - up - down External segment	up to 30° up to 6°	[°]
- up - down	up to 6° up to 6°	

**COMPATIBLE** - can be connected to each tractor equipped with suspension system Cat. I and II

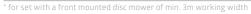
EFFICIENT - 7,7 ha/h

**FUNCTIONAL** - elastic tines the same for left and right rotation of the rotor

**DRIVE** - rotary transmissions sealed hermetically, grease lubricated, maintenence-free

Shock absorber between the frame and TUZ  $\stackrel{\cdot}{\cdot}$ 







Rotary tedder **PWP770** 







**PRONAR PWP900** tedder is a machine with a working width of 9 m. It is a larger version of the PWP460 tedder extended to 8 carousels and 6 work arms on one carousel. It is intended for spreading cut grass and dried hay, or for tedding and spreading mowed plants in arable fields and meadows. **PRONAR PWP900** swath tedder can work with medium power tractors (approximately 70 hp).

TECHNICAL DATA:	PWP900	
Dimensions:		
Total length:	2400	[mm
The width in the working /transport position:	9450/2995	[mm
Height in working /transport position:	1720/3900*	[mm
Useful parameters:		
Working width:	9000	[mm
Number of rotors:	8	[pcs
Number of operating arms on one rotor:	6	[pcs
Suspension type:	active, shock absorption	
Suspension hitch:	Cat. I and II acc. to ISO 730-1	
Type of the central transmission:	wet (oil bath)	
Type of rotary transmission:	maintenance-free (grease lubrication)	
Overload protection:	Clutch 1200Nm	
Minimum tractor power requirement:	51/70	[kW/HF
Maximum PTO speed:	540	[rpm
Weight:	1200	[kg
Recommended working speed:	10	[km/h
Working efficiency:	9	[ha/h
Tyres:	16 x 6.5 - 8 (6PR)	
Required tractor hydraulic outputs:	One double-acting section with floating position	
Adjusting the angle of spreading:	Manually, each wheel separately in the range of 13°, 16°, 19°	
Tedding near the field border:	After manual wheel adjustment (each wheel separately	
Lifting the rotors to transport position:	Hydraulic - synchronized	
Ground following ability: [°] Central segment - up - down External segment - up - down	up to 30° up to 6° up to 6° up to 6°	

**COMPATIBLE** - can be connected to each tractor equipped with suspension system Cat. I and II

**EFFICIENT** - 9 ha/h

**FUNCTIONAL** - elastic tines the same for left and right rotation of the rotor

**DRIVE** - rotary transmissions sealed hermetically, grease lubricated, maintenence-free

Tedder optimal tines fastening parameters:



<sup>\*</sup> for set with a front mounted disc mower of min. 3m working width



### PWP900





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# PRONAR ZKP300, ZKP350, ZKP420, ZKP460T

Rotary rakes enhance the quick raking of the green fodder. The machines are extraordinarily efficient, their simple construction can be aggregated with most types of the tractors on the market. **ZKP300** is a single rotor rotary rake with working width of 3 m, equipped in eight working arms. Each arm ends with three double raking tines. **ZKP300** is a single rotor rotary rake with working width of 3 m, equipped in eight working arms. Each arm ends with three double raking tines. **ZKP420** is a single rotor rotary rake with working width of 4,2 m, equipped in eleven working arms. Each arm ends with four double raking tines.

New rotary rake Pronar **ZKP460T** unlike in previously produced linked rakes is a trailed version mounted to a tractor. The new model is designed primarily for small farms owners. **ZKP460T** is equipped with twelve working arms and each arms ends with four double raking tines. Simplicity of the design correspond with attractive price and long durability. **ZKP460T** provides high performance combined even with small tractors.

TECHNICAL DATA	ZKP300	ZKP350	ZKP420	ZKP460T	
Length in working/transport position:	3030/2190	3250/2430	3730/2875	5480/4510	[mm]
Working width: - minimum - maximum	3135 3635	3405 3905	4015 4515	4175 4925	[mm]
Transport position width:	1110	1110	1615	2360	[mm]
Height in working/transport position:	1120/1855	1120/1985	1175/2280	1242/2700	[mm]
Working width:	3000	3500	4200	4600	[mm]
Number of raking tines on one arm:	8	9	11	12	[pcs.]
Number of raking tines on one arm:	3	3	4	4	[pcs.]
Suspension:	fixed	fixed	active, shock absorption	drawbar connected to the lower transport beam of the tractor	
Linkage system:	Fixed category I and II	Category I and II	Category I and II	vertical beam	
Traction system:	two wheels	two wheels	four wheels in tandem arrangement	four wheels in tandem arrangement	
Type of central gear:	wet (oil bath)	wet (oil bath)	wet (oil bath)	wet (oil bath)	
The overload protection:	clutch 600 Nm	clutch 600 Nm	clutch 900 Nm	clutch 1000 Nm	
Power requirement:	15/20	18/25	22/30	22/30	[kW/HP]
PTO speed:	540	540	540	540	[rpm]
Weight:	290	315	500	680	[kg]
Recommended moving speed:	10	10	10	10	[km/h]
Working efficiency:	3	3,5	4,2	4,6	[ha/h]
Tyres:	15x6.0-6	15x6.0-6	15x6.0-6	16x6.5-8(6PR)	

### ZKP30,ZKP350 - Additional equip ment (optional):

Active suspension with a four-wheeled tandem chassis, with wheels placed close to the raking tines

# **ROTARY RAKE ROTARY RAKE PRONAR ZKP350 PRONAR ZKP300**

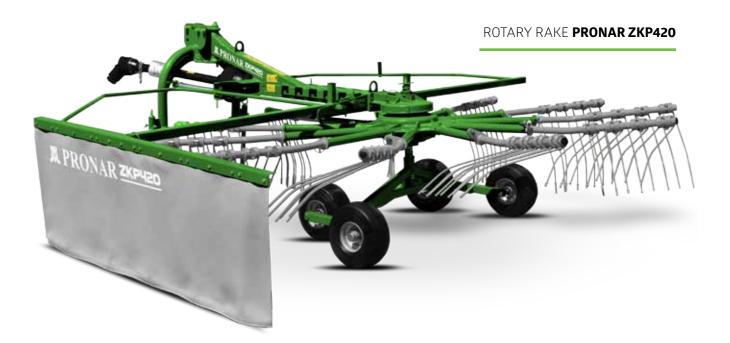
**EFFICIENT** - efficiency from 3 to 4 ha/h despite the small size **EASY TO US** - operator can easily set needed parameters

**RELIABLE** - raking spring tines are made of very durable steel of 9,5 mm of thickness

MODERN - rotor transmissions in oil bath

### Additional equipment (optional): - Tires 340 / 55-16

- Hydraulically adjustable working width Protection of raking fingers against loss
- Document tube



### ROTARY RAKE **PRONAR ZKP460T**



**COMPATIBLE** - can be connected to each tractor equipped with suspension system Cat. I and II

**EFFICIENT** - despite the small size it reaches efficiency from 4,2 to 4,6 ha/h

**EASY TO USE** - operator can easily set needed parameters

**DRIVE** - hermetically sealed rotary gears, greased (continuously lubricating), maintenance-free

FUNCTIONAL - spring tines have the same design - there is no distinction between the left tines and the right tines

**COST-EFFECTIVENESS** - In the production process to use the most modern technologies and components.





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The **ZKP 690** rake consists of two rotary rakes with 3,1 m working diameters located on a supporting frame. Rakes rotate in opposite directions, which allows the raked material to be gathered into one centrally located roll. Each of the two rakes forming the **ZKP 690** is equipped with a tandem chassis and coupled to the support arm via a cross swivelling system, which stabilizes the machine in the transport position. The telescopic structure of the rake arms ensures smooth adjustment of the working width in the range from 6,4 to 7,2 m. By adjusting the working width we adjust the width of the raked roll.



TECHNICAL DATA	ZKP690	
Total length in working/transport position:	5400/5400	[mm]
Width in working/transport position: – mini- mum – maximum	6970 7670	[mm]
Height in working position:	1450	[mm]
Height in transport position: – rakes off – rakes on	3450 4100	[mm]
Working width:	6440-7140	[mm]
Distance between rakes:	350-1050	[mm]
Number of rotors:	2	[pcs.]
Number of working arms:	11	[pcs.]
Number of raking tines on one arm:	4	[pcs.]
Suspension system:	Cat. I and II (in acc. with ISO 730-1)	
Drawbar running gear:	two swivel wheels	
Rake system running gear:	five swivel wheels	
Type of rotary gear:	wet (in oil bath)	
Overload protection WPT:	Single direction and overload protectecting clutch 900 Nm	
Power requirement:	51/70	[kW/HP]
PTO speed WOM:	540	[rpm]
Weight:	1840	[kg]
Recommended moving speed:	10	[km/h]
Tyres: – drive system – mrotors drive system	10.0/75-15.3 16x6.5-8(6PR)	
Voltage stability of electric power system:	12	[V]
Required hydraulic outputs:	single section with floating position	
Raking width adjustment:	manual	
Raising and lowering of rotors:	hydraulic and synchronized system	

### Additional equipment (optional):

- Hydraulically adjustable working width
   Protection of raking fingers against loss
- Document tube

### FUNCTIONALITY:

Easy transport and storage Removable raking arms Raised forming shield

Raking arms with four double resilient fingers



ZKP690 - transport position





Rotary rakes enhance the quick raking of the green fodder. The machines are extraordinarily efficient, their simple construction can be aggregated with most types of the tractors on the market.

The working width of ZKP800 from 7m to 8m is set hydraulically. Manual lock of desired width ensures efficiency of 7ha/h.

Depending on the settings, swath width is from 0,9 do 1,9m. Turing hitch ensures the required driving route of the rake behind the tractor. Rear turing wheels of the drawbar improve manoeuvrability. Tandem axle system of the rotors guarantees correct ground surface tracking. The hitch attachment which pivots freely both longitudinally and in the direction of travel ensures optimum ground following.

#### TECHNICAL DATA ZKP800

Total length in working/transport position:	5400/5400	[mm]
Width in working/transport position: – minimum – maximum	7500/2800 8500/2800	[mm]
Height in working position:	1450	[mm]
Height in transport position: – rakes off – rakes on	3550 4200	[mm]
Working width:	7000-8000	[mm]
Swath width:	900-1900	[mm]
Number of rotors:	2	[pcs.]
Number of working arms:	11	[pcs.]
Number of raking tines on one arm:	4	[pcs.]
Suspension system:	Cat. I and II (in acc. with ISO 730-1)	
Turning wheel of the drawbar:	Pneumatic on tandem axle, front axle steering	
Drive system for the rotors:	tandem type with 6 wheels	
ype of rotary gear:	dry (lubrication with grease )	
Overload protection WPT:	Single direction and overload protectecting clutch 900 Nm	
Power requirement:	59/80	[kW/HP]
PTO speed WOM:	540	[rpm]
Veight:	1940	[kg]
Recommended moving speed:	10	[km/h]
Tyres: – drive system – mrotors drive system	10.0/75-15.3	
/oltage stability of electric power system:	16x6.5-8(6PR)	[V]
Required hydraulic outputs:	12	
Raking width adjustment:	double-sided single section + double-sided single section in floating position	
Raising and lowering of rotors;	hydraulic and synchronized system	

### DOUBLE-ROTOR ROTARY RAKE

### **PRONAR ZKP800**

**COMPATIBLE** - for operations on tractors cat. I and II

**EASY TO USE** - operator can easily set needed parameters

**DRIVE** - hermetically sealed rotary gears, greased (continuously lubricating), maintenance-free

**FUNCTIONAL** - spring tines have the same design – there is no distinction between the left tines and the right tines

**ZKP800** - transport position





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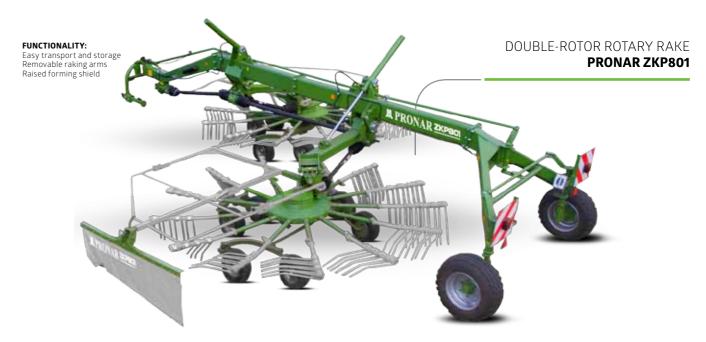






# PRONAR ZKP801, ZKP900D

**ZKP801** and **ZKP900D** are rakes with the largest working width among all those produced by Pronar. Machines successfully meet the requirements of farms with large areas of grassland. Side folding of the swath is a feature of both rakes: **ZKP801** and **ZKP900D**. They are built on a rigid, very durable frame equipped with a steering system, ensuring the maintenance of the desired track. Two rotors are mounted on the frame, which are equipped with thirteen raking arms and independent chassis with swivel wheels. These elements allow very accurate raking of the cut grass. The adjustable rake depth system helps to optimally adapt to soils of different hardness.



TECHNICAL DATA	ZKP801	ZKP900D	
Transport position dimensions: - total length - total width - height with rakes removed - height with rakes inserted	8500 2800 3950 4650	8300 2800 3950 4650	[mm]
Working position dimensions: - total length - minimal width - maximal width - height	8500 7265 7970 2350	8300 7150 9050 2300	[mm]
Useful parameters:			
Number of rotors:		2	[pcs.]
Number of working arms:		13	[pcs.]
Number of raking tines on one arm:		4	[pcs.]
Suspension system:	Cat. I and II (i	n acc. with ISO 730-1)	
Number of rolls rolled:	one roll	one roll or two rolls	
Drawbar running gear:	two	swivel wheels	
Rake system running gear:	six swivel wheels in tandem system		
Type of rotary gear:	dry (lubric	cation with grease)	
Overload protection WPT:	Single direction and overload protectecting clutch 900 Nm		
Power requirement:		80/59	[kW/HP]
PTO speed WOM:		540	[rpm]
Weight:	2520	2500	[kg]
Recommended moving speed:		10	[km/h]
Noise level:	l de la companya de	below 70	[dB(A)]
Tires: -tire -air pressure in the tires:	10.	.0 / 75- 15.3 400	[kPa]
Raking system tires: -tire -air pressure in the tires	16 x	6.5 – 8 (6PR) 160	
Electrical system voltage:		12	[V]
Required hydraulic outputs:	single section with floating position	single section with floating position + one hydraulic single section with floating position	
Lifting to transport position:	hydraulic	hydraulic	

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The **ZKP1400** is a rake with the largest working width among all PRONAR products. The machine will successfully meet the requirements of farms with large areas of grassland. A feature of the **ZKP1400** rake is that the swath is deposited inside by means of four rotors each equipped with thirteen raking arms and independent running gears.

TECHNICAL DATA	ZKP1400	
Overall length in working position	9250	[mm]
Overall length in transport position	9250	[mm]
Width in working position - minimum - maximum	11960 13600	[mm] [mm]
Width in working position	2990	[mm]
Height in working position	1880	[mm]
Height in transport position - Rake removed	3990	[mm]
Numer of rake rollers	1	[unit]
Working width	11300 - 13500	[mm]
Numer of carousel	4	[unit]
Number of working arms on one carousel	13	[unit]
Number of raking tines per arm	4	[unit]
Suspension system	kat. II wg ISO 730-1	
Frame running gear	Two wheels on a braked axel	
Driving system of the raking assembly	Six tandem wheels	
Types of carousel gear	Dry (grease-lubricated)	
Minimum tractor power requirements	59/80	[kW/KM]
PTO rotation speed	540	[rot/min]
Weight	6030	[kg]
Axel load	5415	[kg]
Weight on coupling	615	[kg]
Tyre size : - Running gear - Raking unit	500/45-22,5 16x6.5-8(6PR)	
Raking width adjuster	Hydraulic	



Green forage machinery pronar.pl 33 >>>>>>







The round baler **PRONAR Z500K** is a modern and efficient round baler. It is a fix chamber chain baler which ensures a high bale density by giving perfectly cylindrical shape of compressed bales. Designed for straw, hay and grassland. Double string binder shortens binding proces and protects the spoil from unbinding. Application of elastomer springs in rear flap bolting system mechanism guarantees high density of bale, which is important to the final quality of the silage.

TECHNICAL DATA	Z500K	
Empty weight:	2220	[kg]
Dimensions (length x width x height):	3490x2460x2220	[mm]
Chamber diameter:	1200	[mm]
Chamber width:	1200	[mm]
Pickup header width:	1800	[mm]
Total number of fingers to pick-up:	96 (2 x 48)	[pcs]
Power demand:	40,4/55	[kW/HP]
PTO speed:	540	[rmp]
Number of tractor hydraulic connectors:	4 (2 pairs)	[pcs]
Binding:	Double string binder	
Bale wrapping density:	3 ranges	
Nominal pressure of the hydraulic system:	160	[bars]
Tyres:	400/60-15,5	



UNIVERSAL - ideal for pressing straw, hay

and grassland

**COMFORTABLE TO OPERATE** - placing the round baler control panel in the tractor cab allows the operator to fully control both machines

FAILURE-FREE - perfectly designed system of feeding the material into the baling chamber

**ECONOMIC** - bale ejector enables to unload the bale from the chamber without stopping what speeds up the work **ECOLOGICAL** - designed to protect the environment

1,8 m-wide pickup header with adjustable rubber wheels guarantees accurate collection of material



Fix chamber chain baler

Rolling chain makes it possible to collect over-dried material as well as moist material





Round Baler PRONAR Z500KG - caterpillar tracks allow to work in wetlands conditions

The round baler **PRONAR Z500KG** retains all the advantages of round baler Z500K. It is designed for straw, hay and grassland especially for harvesting grass and reed from wetlands. To work in such conditions the caterpillar tracks were used . Which can also be aggregated with the groomer. For the protection of soil and grass surface, special sips with rubber inserts in the caterpillar were used to minimize damage of the soil. They can also be used on the roads.

TECHNICAL DATA	Z500R	
Empty weight:	3060	[kg]
Dimensions (length x width x height):	3780x2737x2430	[mm]
Chamber diameter:	1200	[mm]
Chamber width:	1200	[mm]
Pickup header width:	2035	[mm]
Total number of fingers to pick-up:	112 (2x56)	[pcs]
Power demand:	47,8/65	[kW/HP]
PTO speed:	540	[rmp]
Number of tractor hydraulic connectors:	4 (2 pairs)	[pcs]
Diameter of the rotor:	423	[mm]
Number of knives in cutting system:	15	[pcs]
Minimum cutting length:	67	[mm]
Binding:	4 (2 pairs)	
Adjustement of number of bale wraps:	1,2 to 3,2	
Nominal pressure of the hydraulic system:	160	[bars]
Tyres:	400/60-15,5	

TECHNICAL DATA	Z500KG	
Empty weight:	2800	[kg]
Dimensions (length x width x height):	4090x3760x2300	[mm]
Chamber diameter:	1200	[mm]
Chamber width:	1200	[mm]
Pickup header width:	1800	[mm]
Total number of fingers to pick-up:	96 (2 x 48)	[pcs]
Power demand:	40,4/55	[kW/HP]
PTO speed:	540	[rmp]
Number of tractor hydraulic connectors:	4 (2 pairs)	[pcs]
Binding:	Double string binder	
Density of bale wrapping:	3 ranges	
Nominal pressure of the hydraulic system:	160	[bars]
Chassis and suspension	Two tracks with a width 800 mm, each track on two independent wishbone	

The round baler **PRONAR Z500R** -Z500R is a new, enhanced version of the round baler Z500. It uses the rotor which choppes crops. The use of rotor affects on the density of bale what minimizes the access of air to silage. The round baler uses a new type of pick-up header 2035 mm working width, which provides increased productivity of the machine.

FUNCTIONAL - Rotor ensures efficient cutting of the green fodder by maintaining high quality of bale and its density

The round baler **PRONAR Z500R** 





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# PRONAR Z245, Z245/1



 $Bale\ wrapper\ \textbf{PRONAR}\ \textbf{Z245}\ is\ designed\ for\ medium\ and\ large-size\ green\ crops\ farms.\ Self\ loading\ and\ unloading\ system\ shortens\ the\ time\ of\ support\ of\ support$ the next wrapping cycle. Loading arm allows loading a bale on the wrapping table without stopping. The wrapper has a functional system of loading arm by picking up the bale from the front side. Turntable allows unloading a bale in two ways: on its side or front surface. The electric steering system with LCD control panel operting four functions can be used as an option for **Z245** bale wrapper.

### **TECHNICAL DATA Z245**

Weight:	2070	[kg]
Length in transport/working position:	4876/5560	[mm]
Width in transport/working position:	2494/3790	[mm]
Maximum height:	2665	[mm]
Width:	1200,1500	[mm]
Bale diameter:	up to 1800	[mm]
Permissiable bale weight:	1100	[kg]
Width of the wrapping foil:	500 or 750	[mm]
Power requirement:	35,3/48	[HP/kW]
Required tractor hydraulic outputs:	2 (1 pair)	[pcs.]
Suspension;	single axle, rigid	
Tyres:	340/55-16	
Maximum:	30	[km/h]

 $\textbf{ECONOMICAL} \cdot \textbf{self loading system while operating the tractor}$ without stopping

 $\textbf{COMFORTABLE} \cdot \text{Due to the hydraulic splitter and wrapping}$ counter it is possible to operate the bale wrapper without leaving the tractor cab

 $\mbox{\bf FUNCTIONAL}$  - easy to use and quick aggregation with the tractor

 $\textbf{ECONOMIC} \cdot \text{low operating costs}$ 

### $Hydraulic\ system\ of\ wrapping\ foil\ cutting\ and\ catching\ cuts\ and\ hold\ the\ foil\ in\ the\ start$



### BALE WRAPPER **PRONAR Z245**





**Bale wrapper PRONAR Z245/1** has a functional system of loading arm by picking up the bale from the side (the wrapper follows the path of round baler). Loading arm allows loading a bale on the wrapping table without stopping. Standard version of bale wrapper is equipped with a hydraulic cutting mechanism what saves the time. Turntable allows unloading a bale in two ways: on its side or front surface what helps to easily load the bales onto the trailer.

 $\ensuremath{\mathbf{INNOVATIVE}}$  - unloading the bale in two ways

**FUNCTIONAL** - loading a bale on the wrapping table without stopping

**ERGONOMIC** - the hydraulic distributor allows to operate the work process from the tractor's cabin

#### **TECHNICAL DATA Z245/1**

Weight [kg]	165
Length in transport/ working position [mm]	5890/610
Width in transport/working position [mm]	2220/337
Maximum height [mm]	257
Nidth [mm]	max 125
ale diameter	from 1200 to 1500 [mn
Permissible bale weight [kg]	100
Vidth of the wrapping foil [mm]	500 or 75
ower requirement [[HP/kW]	35,3/4
equired tractor hydraulic outputs [pcs.]	(no.) 2 (1 pai
Suspension	single axle, rigi
yres	340/55-1
Maximum [km/h]	3

### BALE WRAPPER **PRONAR Z245/1**



Side approach for bale loading





Unloading a bale either on its side or front surface





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BUCKET	5
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### FRONT LOADERS - MOUNTING ELEMENTS

		FRONT LOADI	FR TYPE		
BRAND   TRACTOR TYPE		TROIT LOAD	- N 1 1 1 2		
PRONAR	ŁC - 1650	LC2	LC-3	LC-4	LC-5
320 AMK		Χ			
1025A	X		Χ	X	Χ
1025A*	Χ				
1025A**	X				
1025AII	Χ		Χ	Χ	Χ
1025AII*	Χ				
1025AIII				Χ	
1221A	Χ			Χ	Χ
1221AII	Χ			Χ	Χ
1523A	Χ			Χ	Χ
5112/5122			Χ		
5110/5130			Χ		
5110/5130*			Χ		
5115/5135			Χ		
5340			Χ	Χ	
6170					Χ
6180					Χ
7150					X
82A			Χ	Χ	
82SA			X	X	
82TSA			X	X	
82AII			X	^	
82TSAII			X		
82SAIII			X		
	LC 4450	LCO		10.4	ICE
BELARUS	ŁC - 1650	LC2	LC-3	LC-4	LC-5
1025	X		X		
1025**	X				
1025.3	X		X	Χ	
1025.3**	Χ				
1025.5			X		
1221	Χ				
1221.3				Χ	Χ
1222.3				Χ	Χ
1523 only MMZ	X				
1523.3				Χ	Χ
820			Χ	Χ	
920			Χ	X	
952			Χ	Χ	
920.3			Χ	Χ	
920.4			Χ	X	
952.3			Χ	Χ	
952.4			Χ	Χ	
КІОТІ	ŁC - 1650	LC2	LC-3	LC-4	LC-5
DK451C		Χ			
DK451C*		Χ			
DK551C*		Χ			
DK751C			Χ		
DK901C			X		
DK904C			X		
DX7510			X		
NX4510*		Χ			
NX5510*		X			
PX1103		^	Χ		
RX7320*			X		
RX6020			X		
	LC 1650	162		I.C.A.	LCF
HATAT A110	ŁC - 1650	LC2	LC-3	LC-4	LC-5
A110	X	1.62	163		I.C.E
ZEFIR	ŁC - 1650	LC2	LC-3	LC-4	LC-5
40		X			
40K		X			
40 <sup>*</sup>		Χ			
40K*		Χ			
85			X		
85K			X		

### FRONT LOADERS - MOUNTING ELEMENTS

BRAND   TRACTOR TYPE		FRONT LOAD!	ERTYPE		
ZETOR	ŁC - 1650	LC2	LC-3	LC-4	LC-5
5320	20 1030	X	203	20.7	200
8441		,,	X		
MAJOR 60			X		
Proxima 85			X		
Proxima 90			X		
Proxima Power 100			X	V	
Forterra 100 HSX				X	
Forterra 105				Χ	
KUBOTA	ŁC - 1650	LC2	LC-3	LC-4	LC-5
M6040		Χ			
9540			X		
M7060			Χ		
M135GX				Χ	
M110GX				Χ	
NEW HOLLAND	ŁC - 1650	LC2	LC-3	LC-4	LC-5
TD5.95			X		
Γ5040			X		
TD5010			X		
ID5030			X		
			X		
ID5040					
TD5050, TD5050 (MODERNISE)			X		
TD80D			X		
TD95D			X		
T6010				Χ	
DEUTZ FAHR	ŁC - 1650	LC2	LC-3	LC-4	LC-5
AGROFARM 420			Χ		
AGROFARM 430 (engine SAME)			Χ		
AGROFARM M610					Χ
AGROLUX 75 (with cabin NAGLAK)			Χ		
AGROLUX 410 (open version)			Χ		
AGROPLUS 77			X		
5105.4G HD			^	Χ	
5090.4G MD					
				X	
5105.4G MD				Χ	
5100				Χ	
5110C				X	
JOHN DEERE	ŁC - 1650	LC2	LC-3	LC-4	LC-5
5720			Χ		
5080M			Χ		
FARMTRAC	ŁC - 1650	LC2	LC-3	LC-4	LC-5
685DT			X		
MASSEY FERGUSON	ŁC - 1650	LC2	LC-3	LC-4	LC-5
3625	20 1000		X		
8120					Χ
CASE	ŁC - 1650	LC2	LC-3	LC-4	LC-5
	EC- 1050	LLZ		LC-4	LC-5
X90			X		
IX80			X		
55C FARMALL			Χ		
BSC FARMALL			Χ		
95A FARMALL			X		
35A FARMALL			X		
MAXXUM 120				Χ	
ANDINI	ŁC - 1650	LC2	LC-3	LC-4	LC-5
5-100H			X		
POWERFARM DT 100A			Χ		
URSUS	ŁC - 1650	LC2	LC-3	LC-4	LC-5
914		<u> </u>	X		<u> Le J</u>
5314			X	V	
1014				X	
I014*				Χ	
1224					Х
STEYR	ŁC - 1650	LC2	LC-3	LC-4	LC-5

\* possibility of using a hatch of front 3 point hitch system \*\* possibility of using a hatch of front 3 point hitch system + WOM MOUNTING ELEMENTS OF FRONT LOADERS FOR OTHER TYPES OF TRACTORS ON SPECJAL ORDER

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### LC2 + FASTENING ELEMENTS

The **PRONAR LC2** front loader is a device intended for works like loading and unloading of various materials.

It is equipped with suspension system which reduces the impact of transported mass when driving the tractor on uneven roads. In addition it is equipped with the third circuit hydraulic system necessary to work with the active grippers such as bale grapples, manure grapples. The front loader has the control joystick located in the tractor cabin and it is equipped with the function of running the attached equipment parallel to the ground which is very helpful during loading usage of eg. pallet forks. The front loader is mounted on the tractor frame by a special carrier frame. Front loader and frame are made of steel components which provides high strength with relatively low weight. As a result, the loader weight does not exceed 356 kg. Lifting and lowering is done by using two hydraulic cylinders supplied with external hydraulic system of the tractor. Front loader LC2 mounted on eg. the **Pronar 320 AMK** tractor, equipped with front linkage and PTO, is an example of a modern machine that can be used both on the farm, as well as with municipal work in the city where small size, maneuverability and good performance are the main advantages.

LC2	VALUE/DESCRIPTION	REMARKS
Maximum lift [kg]	1300	defined in the center of gravity of the bucket 35C at a height of 300 mm from the ground for the pressure specified in point 3 and to each model of tractor individually
Optimal tractor power [hp]	40-70	possible mounting to the tractor depends on its type and has to be checked individually.
Maximum working pressure [MPa]	18,5	-
Power supply of 3rd hydraulic section of a loader	12	from the tractor's lighter socket
Activation of the 3rd hydraulic section of the loader	By pushing a joystick button	-
Maximum working speed [km/h]	6	-
Maximum transportation speed [km/h]	15	-
Weight [kg]	356	Without components
Optional equipment	2 or 3 section steering	-
Additional equipment	bumpers	-

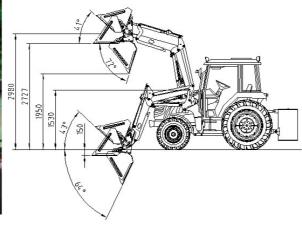
**FUNCTIONAL** - quick-lock frame for fast replacement of equipment such as pallet forks, buckets and other **ERGONOMIC** - hydraulic accumulators do not reduce the field of view and increase comfort of work

**DURABLE** - the supporting structure of LC2 front loader with the outriggers on the tractor rear axle ensures durable and reliable mounting

UNIVERSAL - the loader can be aggregated with a variety of attachments making it a multi-tasking device

**SIMPLE AND RELIABLE** - the LC2 loader is a lightweight and durable construction made of modern types of materials and ensures failure-free and long life





## LC3 + FASTENING ELEMENTS

The **PRONAR LC3** front loader is a device intended for works like loading and unloading of various materials. The general feature of the loader is an easy replacement of the equipment that determines the nature of its use and a quick assembling and disassembling the loader from the tractor.

The lifting arm of the front loader is equipped with quick coupling frame which enables to assemble the attachments without tools, regardless of their fasting type.

The front loader consist of supporting construction mounted on the tractor to which the lifting arm is connected. The arm is a light frame construction, equipped with two cylinders: lifting – intended to lift or lower the attached component, Leaning- intended to lean back and forward. The lifting arm is also equipped with straight leading system for appropriate attachment position while lifting or lowering without cylinders usage.

LC3	VALUE/DESCRIPTION	REMARKS
Maximum lift capacity	1820	defined in the center of gravity of the bucket type 35C15 at a height of 300 mm from the ground for the pressure specified in point 3 and to each model of tractor individually
Optimal tractor power (HP)	70-110	Possible mounting to the tractor depends on its type and has to be checked individually.
Maximum working pressure (MPA)	18,5	-
Power supply of 3rd hydraulic section of a loader	12	From the tractor's lighter socket
Activation of the 3rd hydraulic section of the loader	by pushing the joystick button	-
Maximum working speed (KM/H)	6	-
Maximum transporting transportation speed (KM/H)	15	-
Weight (KG)	406	Without components
Additional Equipment	Bumpers	

UNIVERSAL - can be used in agriculture, forestry and municipal sector

**FUNCTIONAL** - can be applied to different types of tractors with the power range from 70 up to 100HP

**DURABLE** - solid construction made of high quality fabrics

**MULTIPURPOSE** - can be connected with many different attachments

**EASY FASTENING** - easy assembling and disassembling from the tractor, as well as easy system of exchanging of the attachments



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### LC4 + FASTENING ELEMENTS

### The **PRONAR LC4** front loader is a device designed to be aggregated with tractors ranging from 80 to 130 HP.

Depending on the type of equipment, PRONAR LC4 ensures fast loading and handling from place to place and it can also be used for transportation of various materials over short distances. Its maximum lift capacity in the upper position is 1300 kg and 2080 kg in the bottom position. The loader's weight, only 495 kg, is relatively small comparing to its dimensions. Lifting height with the attachment is more than 4 m.

LC4	VALUE/DESCRIPTION	REMARKS
Lift capacity	2080	defined in the center of gravity of the bucket Type 35C at a height of 300 mm from the ground for the pressure specified in point 3 and to each model of tractor individually
Optimal tractor power	80-130	Possible mounting to the tractor depends on its type and has to be checked individually.
Maximum working pressure	18,5	-
Power supply of 3rd hydraulic section of a loader	12	From the tractor's lighter socket
Activation of 3rd hydraulic section of a loader	By pushing a button in joystick	-
Maximum working speed	6	-
Maximum transportation speed	15	-
Weight	490	Without components
Additional Equipment	bumpers	-

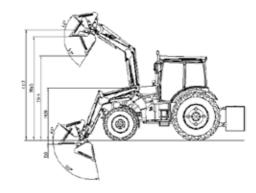
**SIMPLE** - day to day handling

**FUNCTIONAL** - quick-lock frame for the fast replacement of attachment such as pallet

forks, buckets and other

**SAFE** - high visibility from the tractor's cab achieved by compact design

**ERGONOMIC** - one ergonomically positioned control lever **RELIABLE** - rigid and resistant to overload construction



Quick, tool-less assembling system on the loader of wide range of attachments. Photo with a bucket multifunctional Pronar CW-18E





### The **PRONAR LC5** front loader is the biggest front loader in the Pronar's offer.

Thanks to its large lift capacity, **PRONAR LC5** significantly increases the functionality of the tractor. The **LC5** loader is equipped with suspension system and quick coupling frame for fast replacement of equipment. Locking of the equipment is proceeded from the operator's position. All this makes the front loader **LC5** an excellent tool for loading, handling and transportation over short distances.

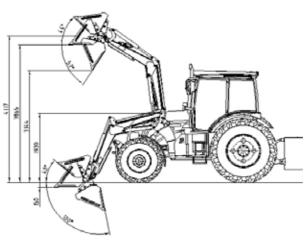
LC5	VALUE/DESCRIPTION	Remarks
Lift capacity	2320	Defined in the center of gravity of the
		bucket Type 35C at a height of 300
		mm from the ground for the pressure
		specified in point 3 and to each model of
		tractor individually
Optimal tractor power	100-180	Possible mounting to the tractor
		depends
		on its type and has to be checked
		individually.
Maximum working pressure	18,5	-
Power supply of 3rd hydraulic section of a	12	From the tractor's lighter socket
loader		
Activation of 3rd hydraulic section of a loader	by pushing a joystick button	-
Maximum working speed	6	-
Maximum transportation speed	15	-
Weight	526	Without components
Additional equipment	bumpers	-

 $\textbf{RELIABLE} \cdot \text{made of fine-grained high strength steel}$ 

**UNIVERSAL** - large lift capacity and the ability to aggregate with tractors of different manufacturers

**ERGONOMIC** - provides convenient lever control in the tractor's cab

**SAFE** - double - sided hydraulic shock absorption system and quick coupling system **LIGHT WEIGHT** - favorable ratio of mass to the parameters of their own work





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### AGRICULTURAL ATTACHMENT THREE POINT HITCH



The rectangular frame is equipped on one side with a fixing eye on a three-point suspension system of the tractor. On the other side frame is equipped inholders for attaching tools for front loaders fromeuro type frame. Fastening the product to the tractor is done manually. Attaching the tool is taken from the position of the tractor operator, but bolted manually with bolts in the lower eye of the tool.

PARAMETERS	AT2E
Lift capacity [kg]	2500
Height [m]	0,75
Width [m]	1,15
Length [m]	0,25
Weight [kg]	60
Three point hitch	2 WG ISO 730-1 ( spacing between the balls 870mm)

## SQUARE BALE GRAPPLE

**PRONAR** square bale grapple is used for various options like collecting from the storage points, loading on means of transport, handling from place to place cylindrical and rectangular bales of hay, straw and silage. Robust construction of arms ensures safe transportation of bales. The bale is gripped by two gripper arms operated by two hydraulic cylinders controlled by quick hitch solenoid valve of the front loader's third section.



**PRACTICAL** - square bale grapple design protects bale from damage **EASY TO USE** - fastening system EURO or LC-1650 or Euro-SMS **UNIVERSAL** - can be operated with other front loaders manufacturers **DURABLE** - Powder paint coating applied

PARAMETERS	168CB	168CBE	168CBS
Maximum bale diameter [m]		2,04	
Minimum bale diameter [m]		0,64	
Width when opened [m]		2,27	
Minimum width [m]		1,21	
Height [m]		0,51	
Length [m]		1,7	
Nominal pressure [MPa]		18,5	
Weight [kg]		324	
Grabbing depth [m]		1,06	
Number of hydraulic cylinders		2	
Fastening	ŁC-1650	EURO	EURO-SMS
Lift capacity [kg]		2000	

### AGRICULTURAL ATTACHMENT

### ROUND BALE GRAPPLE

**PRONAR** round bale grapple **35CB / 35CB1 / 35CB2** are used during harvesting grass and straw for loading and unloading round bales. In particular for collecting from storage, loading on means of transport, handling from place to place and transportations for short distances cylindrical-shaped bales. The bale grapple can be aggregated on a front loader with EURO-type fastening or LC-1650 or Euro-SMS. Round Bale grapple consists of a frame to which two arms are attached (right and left). The movement of the arms of the gripper is carried out by means of a hydraulic cylinder placed inside the frame.

PARAMETERS	35CB	35CB1	35CB2
Bale diameter [m]		max 1,2	
Width when opened [m]	2,27		
Width when closed [m]		1,56	
Height [m]		0,67	
Length [m]		1,37	
Nominal pressure [MPa]		18,5	
Weight [kg]		235	
Fastening	ŁC-1650	EURO	EURO-SMS



**PRACTICAL** - round bale grapple design protects against bale

**EASY TO USE** - fastening system EURO or LC-1650 or Euro-SMS UNIVERSAL - can cooperate with other front loaders manufacturers

FUNCTIONAL - wide range of applications by working with different diameters of cylindrical hales



**PRONAR log fork CK / CKE** is mainly used in sawmills and forestry. The attachment provides efficient collection of logs from the storage, loading on means of transport and transporting from place to place it allows for transport over short distances. Appropriate design of the gripper and brackets allows fast assembling and disassembling of the gripper to the pallet fork carriage. The element biasing the log to the fork is a movable arm operated by hydraulic cylinder controlled by quick hitch solenoid valve of

PARAMETERS	CK	CKE
Log diameter* [m]	gripping of	a single log
Height* [m]	1,	22
Width [m]	0,	,12
Length* [m]	1,	43
Nominal pressure [MPa]	1	8
Weight [kg]	7	'5
Holder quality grade	2A (acc. I	SO 2328)
Hydraulic system	ŁC-1650 (two pins)	EURO (pin+socket)
*with pallet fork (35WP1	or 35WP type)	

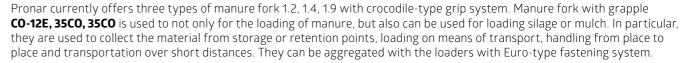


**STRENGTH** - robust and reliable gripper design provides FUNCTIONAL - very easy log fork assembling and

EASE OF USE - with a joystick UNIVERSAL - possibility to work with devices from other manufacturers (forks for pallets, forklifts); a wide range of thick-borne logs

### AGRICULTURAL ATTACHMENT

# MANURE FORK PRONAR 1.2, 1.4, 1.9



PARAMETERS	CO-12E	35CO1	35C03	35C04	35C05	35C0	35C02	
Width [m]	1,23		1,42			1,92		
Height [m]	0,86			0,9	),94			
Height when opened [m]	1,39	1,42						
Length [m]	1,06	6 1,14						
Nominal pressure [MPa]				18,5				
Number of horizontal tines [pcs]	7		-	7		9	)	
Number of vertical tines [pcs]	6	6			8			
Weight [kg]	191	26	5	22	0	29	95	
Number of hydraulic cylinders	1	2		1		2		
Fastening	EURO	ŁC-1650	EURO	ŁC-1650	EURO	ŁC-1650	EURO	



**FUNCTIONAL** - wide range of applications by working with different types of transported material PRACTICAL -thanks to the screw teeth possibility of quick replacement of damaged teeth, simple and easy to use, EASY TO USE - EURO fastening system, UNIVERSAL - can cooperate with other front loaders manufacturers

### **DURABLE** - powder paint coating applied

### AGRICULTURAL ATTACHMENT MULTIFUNCTIONAL BUCKET



Multifunctional bucket is intended to lift up, to transport or to reload different types of material. It enables both: earthworks and loadings. Multifunctional bucket CW 18-E can be used for short distance transport in agriculture as well as in forestry and municipal sector. It is addopted to work with PRONAR front loaders LC3, LC4, LC5 mounted on tractors up to 180HP.

PARAMETERS	CW-18E
Capacity [m³]	0,52
Load capa city [kg]	1900
Width [m]	1,89
Height [m]	0,85
Length [m]	0,76
Volume [m]	0,6
Weight [kg]	410
Fastening	TYP EURO



**DURABILITY** - protected against the damage by using leading edge made of non abrasive HARDOX steel

**PRACTICAL** - rotary part of the bucket ensures wide opening by usage of two cylinders

**UNIVERSAL** - addopted to work with other brands of front loaders

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**PRONAR BIG BAG** sling **ZB10** is very helpful in the transport of bulky bags, including the food for animals on the farm or blanks in factories. It is designed for aggregation with Pronar front loaders (LC2, LC3, LC4 and LC5). It can also work with other brands of front loaders equipped with Euro-fastening. It makes work easy and quick and thereby increases the level of security.

PARAMETERS	ZB10
Capacity [kg]	1000
The height of coupling	1,26 - 1,56
Dimensions (L. X W x H). [m]	0,6 x 1,1 x 1,2
Weight [kg]	70
Fastening	EURO

**VARIOUS APPPLICATIONS** - intended to use in agriculture and construction **STRONG AND RESISTANT** - Strong and durable design ensures safety during the operation COMPATIBLE WITH OTHER MANUFACTURERS OF FRONT LOADER - Thanks to the EURO-fastening



AGRICULTURAL ATTACHMENT

### SILLAGE CUTTER 1.25, 1.5



In modern agriculture it is observed the growing importance of silage and haylage as the preservation of green fodder. However skillful preparation of silage is only a half of the success – it is also important to collect and transport material in the right way. For this purpose **PRONAR** silage cutter was created. Daily cut of silage blocks with hand tools is time consuming and inefficient. Silage cutter makes it very easy. To fulfill customer demands, **Pronar** recommends silage cutters with 1.25m and 1.5m width and various fastening systems. Silage cutters manufactured by **Pronar** have compact and resistant construction what

guarantees quick cutting of the silage blocks. Closing of the silage cutter is carried out by two hydraulic cylinders controlled by solenoid valve of the front loader 3rd section. Mechanical scraper simplifies unloading on the ground.



PARAMETERS	WK1.25E	WK1.25EW	WK1,25	WK1.25W	WK1,25SMS	WK1.25SMSW	WK1.5E	WK1.5EW	WK1.5	WK1.5W	WK1.5SMS	WK1.5SMSW
Volume of the cut block [m³]				0,85						1,0		
Width [m]				1,35						1,59		
Cutting width [m]				1,25						1,49		
Height after opening [m]						1,38						
Height after closing [m]						0,95						
Opening height [m]						0,86						
Depth [m]	1,	,12			1,14		1	,12			1,14	
Cutting depth [m]						0,73						
Weight [kg]	546	530	546	530	550	534	600	580	600	580	604	584
Number of horizontal teeth				9+2						11+2		
Nominal pressure [MPa]						18,5						
Linkage	EL	JRO	ŁC-	1650	EUR	0-SMS	El	JRO	ŁC-	1650	EUR	O-SMS
Knives fastening system	WELDED	BOLTED	WELDED	BOLTED	WELDED	BOLTED	WELDED	BOLTED	WE- LDED	BOLTED	WELDED	BOLTED

**CUTTING FORCE** - two cylinders make simple cutting of even hard dense material **DURABILITY** - used by Pronar materials provide durability and resistance to deformation

**SPEED** - compact design provides a quick cutting of silage block

**AGGREGATION** - silage cutter has a choice of various fastening types: EURO, EURO-SMS, LC-1650

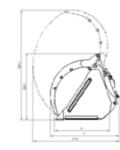
FORK REPLACEMENT - easy replacement of the forks



**PRONAR** grapple buckets are used for loading and unloading various materials, handling from place to place and transporting them over short distances. They can be used for bulk materials (seeds, sand), loosely bound materials (manure, silage) and volume materials (sawdust, garbage, leaves, biomass).

PARAMETERS	CHC15	CHC15E	CHC15SMS	CHC18	CHC18E	CHC18SMS	CHC20	CHC20E	CHC20SMS
Capacity		0,69			0,82			0,91	
Width		1,54			1,84			2,04	
Working width		1,5			1,8			2,0	
Minimum height					0,94				
Maximum height					1,55				
Depth					0,98				
Working depth					0,78				
Maximum depth					1,22				
Weight		350			394			421	
Fastening	ŁC-1650	EURO	SMS	ŁC-1650	EURO	SMS	ŁC-1650	EURO	SMS
		LC2 / LC3			LC3 / LC4 / LC5			LC3 / LC4 / LC5	





**EASY TO OPERATE** - working by using the joystick mounted in tractors

**COMPREHENSIVE** - intended for transportation of various materials such

as sand, silage, sawdust

**COMPATIBLE** - universal fastening system allows to aggregate the buckets with front loaders of different manufacturers

**DURABLE** - construction made of high quality materials

### AGRICULTURAL ATTACHMENT

# BALE CUTTER PRONAR PB-1.5 E W

Bale cutter PRONAR PB-1.5 EW is mainly designer to cutting bale of haylage and staw. It can also be used for transportation of bales to feeding place or loading mixer wagons with holding of foil or net. Bale cutter is and accessory for front loaders, telescopic handlers, skids with EURO fastening mounting system.

PARAMETERS	PB-1.5 EW
Diameter of the cut bale [mm]	1200÷1500
Cutting width [mm]	1350
Opening height (from fork to teeth) [mm]	1450
Depth to the bumper (from the fork blade)	850÷950 (regulated)
Width [mm]	1780
Height of opening [mm]	1700
Height of closing [mm]	1100
Depth of closing [mm]	1350
Number of hydraulic cylinders of frame [pcs./mm]	2 (Ø100)
Number of hydraulic cylinder of holder [pcs./mm]	1 (Ø40)
Number of teeth	6
Spacing of teeth [mm]	300
Number of fork	5
Spacing of fork [mm]	280
Weight [kg]	500
Fastening type	EURO (standard)
Holder of foil/net	SATANDARD
Power supply	Hydraulic
	(1 pair of connectors)
Nominal pressure [MPa]	18,5



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### AGRICULTURAL ATTACHMENT

## BUCKET FOR BULK MATERIALS, VOLUME BUCKET

PRONAR buckets for bulk materials are used for loading and unloading bulk materials like ground, gravel, fertilizer, grain, snow etc. They can be used in agriculture, forestry and municipal sector. The buckets are also compatible with front loaders of other manufacturers. The buckets are not recommended for heavy ground works.

Volume bucket **PRONAR CV24E, CV24, CV24S** consists of well sealed scoop with the leading edge's "cutting of and separating" function. Durable elements made of non abrasive HARDOX steel and mounting elements for front loader's quick fastening frame. The volume bucket is intended to collect from the storage points, to transport for short distances, to load on different types of transport vehicles or to unload bulk materials, snow, sawdust or fertilizers. It might be applied to **LC1650** by Euro or SMS fasting type.

	CV24E	CV24	CV24S	CM15E	35C15	35C15E	35C18	35C18E	35C20	35C20E
Capacity [m³]		1,26		0,32	0,	6	0	,7	0	,8
Working width [m]		2,43		1,5	1,	5	1,	8	2,	0
Height [m]		0,93		0,61			(	),71		
Length [m]		1,22		0,63			C	,86		
Working depth [m]		1,07		0,57			C	,78		
Weight [kg]	ght [kg] 348			80	185		210		230	
układ zawieszenia	TYP	TYP	TYP	TYP	TYP	TYP	TYP	TYP	TYP	TYP
	EURO	ŁC-1650	EURO-SMS	EURO	ŁC-1650	EURO	ŁC-1650	EURO	ŁC-1650	EURO

LONG SERVICE LIFE -hardened leading edge on the bottom of the bucket protects against

**ERGONOMIC** - extended construction of the upper edge prevents loss of material

UNIVERSAL - different mounting systems allow to aggregate it with various brands of low

**DURABLE** - made of abrasion resistant stee



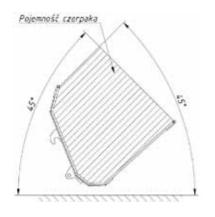


The material bucket PRONAR COK20 is intended to collect from the storage points, to transport for short distances, to load on different types of transport vehicles and to unload bulbs of root crops. This material bucket is adapted to PRONAR front loaders LC3, LC4, LC5 which might work with 180 HP tractors. This material bucket provides perfect solution for potatoes and root crops producers. It can be mounted on front loaders of other manufacturers.

**FUNCTIONAL** - openwork construction allows to separate crops from the soil

**INNOVATIVE** - made with reinforcements and protections along the edges of the bucket

**DURABLE** - protected against the damage by using non abrasive HARDOX steel blade



PARAMETERS	COK20	
Capacity [m³]	1,1	
Weight [kg]	1000	
Width [m]	2,55	
Working width [m]	2,14	
Height [m]	0,85	
Length [m]	0,95	
Working depth [m]	0,86	
Loading capacity [kg]	235	
Fastening	TYP EURO	TYP SMS





### AGRICULTURAL ATTACHMENT **MANURE FORK**

There are 5 different types of of manure forks among Pronar wide range of products: **PRONAR 35WO, 35WO1, 35WO2, 35WO3, WO-12E**. All of them can be aggregated to front loaders by both EURO and **LC1650** types of fastenings. Solid and durable frame is equiped with horizontal teeths intended for driving into the transported materials. Pronar currently offers three types of manure fork 1.16, 1.34, 1.84. Thanks to solid and durable construction, **Pronar's** manure fork ensures safe and long lasting usage It is a propper solution for both small and big farms.

**FAILURE-FREE** - high quality and solid constuction ensures long lasting usage

FUNCTIONAL AND UNIVERSAL - wide range of applications by working with different types of transported materials like manure, compost .etc. **EASY TO USE** - construction enables easy assembling and disassembling



PARAMETERS	35W01	35W02	35WO	35W03	WO-12E
Width [m]	1,3	34	1,8	34	1,16
Height [m]		0,8	85		0,68
Volume [m]		0,9	94		0,83
Weight [kg]	12	25	16	i5	102
Number of tines [pcs.]	7	7	ģ	)	7
Fastening	ŁC-1650	EURO	ŁC-1650	EURO	EURO

### AGRICULTURAL ATTACHMENT **PALLET FORKS**



PRONAR pallet forks 35WP1 / 35WP and WP-25E (2.5 tonnes) is a perfect complement of a front loader which increases the efficiency of daily work in each farm. Robust design and high quality of execution ensure trouble-free operation. Pallet forks are used for loading and unloading pallets and boxes, as well as logs (by using a special gripper for logs). The guide frame is equipped with two sliding feet, which width can be changed by leaps and bounds.



PARAMETERS	WP-25E	35WP	35WP1
Holder quality grade	3A (WG ISO 2328)	2A (WG ISO	2328)
Lift capacity [kg]	2500	1650	
Height [m]	0,655	0,59	
Width [m]	1,2	1,22	
Length [m]	1,39	1,35	
Tines length [m]	1,2	1,1	
Weight [kg]	226	175	
Steel tines adjustment range [mm]	180-1080 (every 90mm)	120 - 1080	(co 60 mm)
Fastening	- EURO, JCB2CX - SMS, WEIDEMANN 2070CX50	– ŁC-1650 – SMS	- EURO

**SIMPLE DESIGN** - solid construction combined with accurate finish provide a long term usage **EASY AGGREGARTION** - the use of universal suspension system ensures ease mounting **FUNCTIONAL** - the ability to transport a variety of materials placed on pallets or in boxes

### AGRICULTURAL ATTACHMENT



### **COUNTERWEIGHTS 400/1000 KG**

Among wide ranage of **PRONAR** products can be found 400KG (volume 0.2m3) and 1000KG (volume 0.5m3) tractor's counterweights. It helps to keep certain stability while transporting heavy materials. The counterweights reduce wheels and front axels load and thereby increase their resistance.





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