# Catalogue 2017/2018









# DAKR Ltd.



DAKR Ltd. is a Czech family company with head office in the gate of Moravia in Hranice. The original trust in our own abilities and strong family background enabled us to establish a company at very good level with the minimum of our own finances due to our honest and hard work. In 2000 we

reconstructed a part of our production halls of former textile company and we have 50 employees currently. The tradition of our production reaches back to 1990 when we begun production of the drum mowers for high grass. We focus on the production of garden, agricultural, and municipal machinery. Most of our activities comprise the design, production, and servicing of the rotary mowers for high grass.





We employ our own designers but we gain ideas and experiences from our customers, dealers and servicemen too. During the development we place a great emphasis on the machine function, its reliability and safety. Besides our own testing of each machine, they are certified according to the standards by testing body. Our quality management system on the fields of development, construction, production, sale and service is certified according to EN ISO 9001. During the development there arise completely new and unique solutions which do not have parallel which illustrate series of utility designs. A successful development enables us to keep the production in Czech Republic and offer high quality machines to the customers.

At the time when many companies reduce their own production and move it to China we are constantly expanding so the quality of the production is monitored during the whole production process. All begin by purchase of the metal sheets, tubes, profiles which are gradually transformed into the parts for assembling of our products. Turning, milling and bending is performed on the most modern machines. The metal sheet parts are made by CNC fibre laser machine and bent on CNC bending machine. We have also 2 CNC lathes and a CNC 4-spindle machine tool. The tubes are bent on NC spatial bending machine. The CNC welding robot makes joints and afterwards welds the frames of our machines completely. The main advantage of this technology is that these components are always welded in their ideal position with ideal position of the welding nozzle in constant speed. Thanks to this all the produced parts are identical and there is no fatigue to inaccuracy or welder's hand. All the powder coated parts go through a special advance maintenance by sandblasting. On the assembling link there are mounted 3-6 different products at the same time so that we can assemble 60 machines per day.



Coming up with something completely different and putting new ideas into practice are what we enjoy. And so we can boast that we were the first firm in Europe to market gardening equipment with drum mowers, disc mowers and salt spreaders with a special spout mechanism. We also have a range of unique designs that are protected by Czech or European copyright. In this respect 2017 is also an important milestone for us. We will be coming out with the four-wheel Panter FD-5, which is unrivalled in how many different jobs it can be used for, including in meadows, fields or for clearing pavements and paths in summer and winter. Or, it can also be used simply as anoff-road vehicle for driving into the countryside.

# The following parameters are important when choosing the right mower for you:





We manufacture more than 50 different types of mowers and mulchers for long grass, so our portfolio includes something for everyone. To make the choice of machine as easy as possible for you, the following symbols will be used throughout the catalogue. By taking the basic requirements into account you can choose a suitable machine that will serve you reliably for years, will never have a problem getting through difficult terrain, will handle exactly how you need it and can also be used for other work. As our machines are designed to be modular, you get equipment that will help you all year round, with a great deal of additional functionality.



Choosing the right deck size can save you a lot of time when working. Our range includes mowers and mulcherswith a working deck size of 55, 60, 69, 71, 100, 121 and 125cm. The maximum operating power of the machine can easily be calculated from the cutting deck size and the speed; in real conditions the actual power is equivalent to around 1/3 to 2/3 of maximum power.

EXAMPLE: The Tekton mower with a cutter deck size of 60cm will cut up to 1,800m<sup>2</sup> in an hour, although generally you'll manage to mow around 1,000 m<sup>2</sup>/hour.

The Panter FD-3 + RZS-121 mower with a cutter deck size of 121 cm will cut up to 12,100m<sup>2</sup> in an hour's work, although it can usually manage to mow around 4,000m<sup>2</sup>/hour.



If you plan to cut grass on a slope, we recommend paying careful attention to the tyres. They should have a large diameter, a good tread and be made of high-quality rubber. Scrimping on wheel size and the quality of compound tyres and their tread has a considerable effect on cut quality when mowing on slopes or on level ground. The figure shown indicates the outer diameter of the wheel in mm.



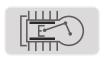
Perhaps you don't want to have a multi-purpose machine at home just for cutting grass. Choose from our Tekton and Panter modular kits. Do you have an old kit or engine with an 80 or 120 mm centrifugal clutch and would prefer to use our machines? We don't force you to buy a whole new machine from us, but you can purchase our RZS Panter drive unit and use it with all attachments designed for the Panter FD-2 system, such as a DZS 125 mower with a cutter deck size of 125 cm.



Other customers want to be able to easily adjust their cutting height, as they have one plot of land that is flat and another that isbumpy. This has been a feature of mulchers for many years now. If you're looking for a drum mower with these options, the only model for you is the RZS-70K drum mower, as no other manufacturer makes a mower like that for long grass.



Electric starters are very popular with more powerful engines, but sometimes they do have drawbacks, such as the fact that the customer cannot start the motor at all if the battery fails. The FD-3 and FD-5 drive units can be started using a key, like a car, but not even a flat battery is a setback, as the engine is fitted with a completely independent backup manual starter.



Engine manufacturers often state maximum power to "wow" customers, and so we recommend that it is better to compare the engine capacity and bear in mind how long it will last. A cast-iron roller will last for roughly twice as long as an aluminium roller. Please don't confuse the 850 engine with the 850 I/C.



The type of axle used has a considerable effect on the traction of mowers and how well they handle. The system that handles best is one with a classic differential and manually controlled lock, as it gives you control over wheel tractionas well as travel direction.



A self-locking differential orsplit self-locking axle makes it nice and easy to manoeuvre around obstacles, travel over asphalt, etc. Whencornering, the wheels turn independently of one another, each one separately, but moving in a straight line they turn together. Working with a machine fitted with this system makes it easy to move around treesand mow on rugged terrain.



The rigid axle is completely maintenance-free andalways guides the machine with precision, and so is particularly suitable for more demanding terrain, where good traction is the principal requirement. Its excellence when moving in a straight line comes at the price of more difficult cornering, as the machine needs to be put into a skid. This system is therefore recommended more for land that is free of obstacles.



Our modern technology enables us to make some components from stainless steel, which means they are particularly long-lasting. Mulcher boxes and sweeper brush collection boxes simply need to be cleaned mechanically and they'll stay looking new for years.



Our development projects, which we implement using entirely our own resources, often result in completely new solutions that are unparalleled elsewhere, as can be seen in our range of utility models. Our products bearing the seal of the Industrial Property Office are the result of many years spent striving to provide customers with originality coupled with technical benefits.



# PROTON DRUM MOWERS

#### - reliable mower, elaborate construction, low price

PROTON mowers belong amongst the only single purpose mowers which we produce. They result in our best-selling TEKTON machines. Not propelled PROTON 1 mower is intended for final mowing around the growing patches, and mowing on flat areas or between trees. PROTON 2 mower thanks to its self-propelled mechanism, 2 travel speeds and solid axle can cope in hilly terrain too. PROTON uses high per formance XP-200 engine with 6 HP output, 60cm mowing disc with plastic slider with 2 blades (or optional 4 blades). We recommend to use 2 blades for those who dry the grass for hay for domestic animals and to use 4 blades when composting the grass. Based on the testing 4 blades cut the stubble several times and the juices containing the valuable contents and enzymes leak out. The comfort during work is provided by the antivibration sleeve on the handlebars which are adjustable. With tilted handlebars it can be easily loaded in the trunk of passenger car. The control bars are constructed in such way the stretching efficiency was as high as possible, the forces for pressing are minimum, and control is intuitive.





PROTON 1 mower is suitable for smaller flat areas with bigger amount of trees, kerbs and garden beds. These areas are mostly maintained with brush cutter. If you use instead of it our PROTON 1, you will mow the area 3 times faster, consume a half of petrol and the exhaust fumes and the howling sounds will bother you not so much.

PROTON 2 can be used in more demanding terrain. This mower has solid axle with V-shape tread pattern wheels and two speeds of travel. It naturally includes the independent switching of the travel and mowing.



DESIGNATION ORDER NO.	ENGINE	MOWING MECHANISM	TRAVEL
PROTON 1 01233.001	XP-200, 200 cc, 6.0 HP, cast-iron cylinder	Disc with small slider, 2 blades (4 optional), 60 cm operating width, side flap	Without travel, the wheels are independent freely rotatable
PROTON 2 01233.003		Disc with small slider, 2 blades (4 optional), 60 cm operating width, a standard protection cover	Two travel speed (2.3 km/hour + 3.0 km/hour), solid axle, 400 mm wheels with V-shape tread pattern

#### SPECIAL ACCESSORIES Side flap

Order No.: 11200.000



Set of fixing (blade, bolt, nut, washer)

Order No.: 2 x 51200.074 + 2 x 01200.010



#### Steel slider

Order No.: 51200.200



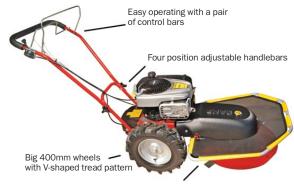
#### TEKTON KIT

#### - mowing, mulching, snow removal. All simple with one machine!

Tekton modular machine is recognized for simple operation and low weight. One machine can be used as drum mower for high and low grass, mulcher or snow blade. To the complete machine it is possible to purchase the adaptors for other works. We select the mower for grass mowing according to the size of the land, if it is on flat land, in low slope or in steep slope, if it is a meadow free from obstacles or a garden with many trees, growing patches, and curbs. Small garden with many bushes requires completely different mower than one hectare meadow with no trees. We always ask our customers how often they plan to mow their meadow, if they plan to dry the grass for hay or they just want to keep the appearance of the meadow. Tekton, with simple disc or double disc, is suitable for gardens and meadows with many obstacles which must be bypassed (trees, growing patches, curbs, etc.). The machine with self-locking divided axle replaces the differential with the shutter, and it leads the machine in hill terrain with obstacles. Tekton mower is light, very easily connected and disconnected travel. The control bar can be held with one hand only, therefore you can mow under low trees by walking next to the mower without bending the branches. Individual Tekton modules differ with the applied engine and work adaptor. Tekton enables the use of SUNI single mowing disc, SUNI 2 full sur face covered double disc, which you can change to the mulching machine, snow plough or any other accessories.

#### **Common Features of All Tekton Machines:**

- · light and easily manageable machine that can be operated with one hand
- · a kit that can be used as a mower, a mulcher or a snow blade
- two different travel speeds
- comfortable 4 position adjustable handlebars with the antivibration sleeve
- · exceptionally low noise
- separate, independent travel and cutting tool switches
- axle with automatic disconnection of the shutter during the travel disconnection
- · axle with automatic connection of the shutter during the travel use
- safety break for quick stop of the blade
- space-saving machine with collapsible handlebars which can be put into a car by a single person



A protection cover protects operator and allows to check the mowed surface



#### + compatible adaptor\*

- · SUNI single-disc drum mower adaptor
- · SUNI 2 double-disc drum mower adaptor
- · MUNI mulcher adaptor
- · RUNI snow blade
- \* To each Tekton chassis it is possible to attach any of the compatible adaptors. To rebuilt the adaptor takes 15 minute at the most.

In range of our modular mowers we use Briggs&Stratton and Honda engines which service is guaranteed all over the Europe.u.

#### **COMPATIBLE ADAPTOR**

**SUNI** single-disc drum mower adaptor

Order No.: 01235.186

SUNI 2 double-disc drum mowe r adaptor

Order No.: 01235.181



\*If you buy a new SUNI single-disc or SUNI 2 double-disc we recommend to buy also a protective cover.

#### **MUNI** mulcher adaptor

Oredr No.: 01235.184



#### RUNI snow blade

Order No.: 01235.190



Order No.: 11200.942



#### **TEKTON DRUM MOWERS**

#### - grass mowing with elegance, flexibly, simply and fast

Tekton mowers can be successfully used not only for mowing grass on fields, in gardens and around houses, but also everywhere it is necessary to mow the grass daily for livestock. The main advantage of the Tekton is it's unique construction combined with low weight and high hourly per formance.

The customer can choose between two types of mowing (SUNI single disc or SUNI 2 double disc). Due to the divided rotor shaft, it is possible to fit the mulching adaptor, and change the drum mower to fully functional mulching device or snow plough. The modular construction of TEKTON provides 4 operating adaptors in total.

#### **TEKTON** mower with single or double disc

We have focused on the production of drum mowers from 1990, for the whole period we have promoted the advantages of our single disc solution which has been proven in time and most of our customer have used it for over 10 years. The production of the mowing discs utilizes the most accurate machinery technology – CNC laser cutting, and all discs in the location of the blade attachment are reinforced with the welded braces and we solidify the bends. Each customer has free option to decide on the mowing with single or double disc. Each solution has its benefits. Single disc forms nicer stubble field, even in case the grass is laying down or run over because it 'combs' the grass. Uneven terrain may result in the blade contact with the terrain. Double disc does not enable the blade contact with the soil even in uneven terrain, it has lower mowing resistance but leaves higher stubble during mowing flatted grass.



#### Operator comfort and safe control even in more demanding terrain

All TEKTON mowers have divided travel band pulley and with the switched off travel works as differential, after the travel switching on, the axle closes and both wheel operate at the same time. Our solution enables to turn as required without any difficulties, and also keeps accurate direct travel movement even in demanding terrain. The construction design provides accurate and safe control, it is much better solution than the free wheels, the machine does not accelerate during downhill travel but uses the motor braking. Both wheels operate uphill.





DESIGNATION ORDER NUMBER	ENGINE	MOWING MECHANISM **	TRAVEL
<b>TEKTON</b> 01233.017	Briggs&Stratton 650 Series 190 cc, 5.5 HP, aluminium cylinder	Single disc with small slider, 2 blades (4 optional), 3.5 cm stubble height, 60 cm operating width, protection cover	
<b>TEKTON 2</b> 01233.037	Briggs&Stratton 650 Series 190 cc, 5.5 HP, aluminium cylinder	Double-disc, 4 blades, 4 cm stubble height, 60 cm operating width, protection cover	
<b>TEKTON ENDURO</b> 01233.018			Two travel speeds
TEKTON ENDURO 2 Briggs&Stratton 850 I/C Series * 190 cc, 6.5 HP, cast iron cylinder, oil filter, oil pump		Double-disc, 4 blades, 4 cm stubble height, 60 cm operating width, protection cover	(2.3 km/hour + 3.0 km/hour) with self-locking divided axle,
<b>TEKTON GCV 160</b> 01233.016	Honda GCV 160, 160 cc, 5.5 HP, aluminium cylinder	Single disc with small slider, 2 blades (4 optional), 3.5 cm stubble height, 60 cm operating width, protection cover	400 mm wheels with V-shaped tread pattern
<b>TEKTON GCV 160 2</b> 01233.036			
		Single disc with small slider, 2 blades (4 optional), 3.5 cm stubble height, 60 cm operating width, protection cover	
<b>TEKTON GCV 190 2</b> 01233.035	Honda GCV 190, 190 cc, 6.5 HP, aluminium cylinder	Double-disc, 4 blades, 4 cm stubble height, 60 cm operating width, protection cover	

<sup>\*</sup> Do not mistake Briggs&Stratton 850 I/C Series for Briggs&Stratton 850 Series engine. We only use the Briggs&Stratton 850 I/C Series engine with cast iron cylinder and oil filter. The I/C specification means the engine is equipped with cast iron cylinder and its life time is about 2 times longer compared to engine with aluminium cylinder.

<sup>\*\*</sup> See the available discs types on page 5.

#### TEKTON MULCHER



#### Why mulching?

Mulching is becoming increasingly common method of meadow, garden, and grass area maintenance. The mulching mowers have become more popular in recent years. During mulching, we leave the grass mass on the land. Mulching the grass saves work, there is no necessity to rake the cut grass, and remove it from the land. Such work is a pleasure. This process provides nutrients for the whole plot, the placed cut grass mass becomes the source of humus. It is not necessary to add further fertilizer. Fresh mulched grass decomposes quickly, ideal grass mulching is up to 40 cm maximum length. It always depends on the type of grass, the density, moisture content, and age. With dense and flexible grass, problem may be present with height 20 cm.



#### **Correct mulching method?**

We know what mulching brings to people who maintain lands. What is the best procedure to prevent the grass devaluation which occurred due to the effects of bad procedure. In case of correct mulching, the grass should be reduced to 5-15 cm, then such cut grass mass has a great chance for timely processing before the soil sur face is closed, which would represent the risk of the soil acidity. Tekton includes the advantage that in case of difficult or impossible mulching, it fits the mowing plate instead of mulching, and the problem is solved. If we combine mowing with mulching, we can mow the first load, and mulch the after-grass which is not commonly as dense. During winter period, the mulch decomposes well.



#### During the machine selection we should focus on:

- the option of the stubble height setting. It enables correct stubble height setting and also optimum length of the grass reduction
- the option of combining the mowing and mulching. Only the alteration of these two forms of maintenance provide the best results. Mulch requires sufficient time for processing in the soil and changing into humus.
- sufficiently power ful engine. The mulching is more demanding than mowing because grass must be crushed.

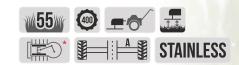
 $TEKTON\, mulching\, machine\, cover\, is\, from\, stainless\, steel\, in\, all\, variants.\, The\, height\, setting\, is\, per\, formed\, by\, central\, lever.$ 

# Tekton mulcher kit Common Features: 4 engines at choice 2 travel speeds (2.3 km/hour + 3.0 km/hour) Self-locking divided axle Operating width 55 cm, leading wheels Stainless casing, central height adjustment Max. hourly performance 1,650 m2/hour Stubble height 4-10 cm The possibility of rebuilt into single disc or double disc drum mower or blade etc.

#### SPECIAL ACCESSORIES

There are 2 different mowing adaptors and a snow blade as option compatible to Tekton mulcher. All the adaptors are illustrated on the page 5.





DESIGNATION ORDER NUMBER	ENGINE	MULCHING MECHANISM	TRAVEL	
TEKTON MULCHER 01233.019	Briggs&Stratton 650 Series 190 cc, 5.5 HP, aluminium cylinder			
TEKTON ENDURO MULCHER 01233.021	Briggs&Stratton 850 I/C Series * 1190 cc, 6.5 HP, cast iron cylinder	Stainless casing, operating width 55 cm,	Two travel speeds (2.3 km/hour + 3.0 km/hour) with self-locking divided axle,	
<b>TEKTON GCV 160 MULCHER</b> 01233.020	Honda GCV 160, 160 cc, 5.5 HP, aluminium cylinder	central height adjustment, stubble height 4-10 cm	400 mm wheels with V-shaped tread pattern	
<b>TEKTON GCV 190 MULCHER</b> 01233.023	Honda GCV 190, 190 cc, 6.5 HP, aluminium cylinder			

<sup>\*</sup> Do not mistake Briggs&Stratton 850 I/C Series for Briggs&Stratton 850 Series engine. We only use the Briggs&Stratton 850 I/C Series engine with cast iron cylinder and oil filter. The I/C specification means the engine is equipped with cast iron cylinder and its life time is about 2 times longer compared to engine with aluminium cylinder.



# PANTER – do not adapt to the machine, adapt the machine to your requirements

Panter is a machine that incorporates all our expertise acquired up to this moment. It is a fully professional kit intended for small growers as well as professional gardeners requiring the most modern machines. Thanks to our efforts, you can attach a whole set of adaptors to one driving unit. This attribute makes the Panter a machine to be used throughout the year. You can cut the grass, mulch, rake the hay, ted, throw aside cohesionless material, remove the snow, transport loads, shred branches or spud. Panter is simply a tireless machine intended for everyday use. The modular kit consists of the driving unit and the working adaptor. The parts enable to assemble many unique machines.

#### **Panter Kit Merits:**

- · universal machine for professional use
- · easy change of adaptors
- · selection of several driving units
- much lower price than purchase, storage and maintenance of several single-purpose machines
- · continuous development of new adaptors compatible with older driving units
- · option to sit on a seat while cutting
- · simple operation and maintenance
- · high quality professional engines



- · significant reduction of vibration due to the structural design of frame and silent block mounting of the engine
- · wide wheel gauge and low position of the mass centre for works on slopes
- · height and side adjustable handlebars
- selection of 17 adaptors and other accessories compatible with Panter FD-2 and FD-2H driving units
- · selection of 20 adaptors and other accessories compatible with Panter FD-3

The driving unit is the mechanical heart of the machine. There are 5 available models. All driving units Panter include the use of professional Briggs&Stratton engine with cast iron cylinder. The life time of the cast iron cylinder is about 2 times longer compared to engine with aluminium cylinder. The Briggs&Stratton 850 Series engines with cast iron cylinder are titled I/C.

More power ful Powerbuilt engines are made in no other way than with cast iron cylinder. The basic model PANTER FD-2 includes manual gearbox and solid axle. The Panter FD-2H and FD-3 (both with reverse) provide more comfort in the form of gradual speed regulation forward and backwards, and the axles with differential and shutter.

The new for 2017 is a modern Panter FD-5 driving unit which mows as well as ploughs.

#### Panter FD-2, FD-2H and RZS driving units allow:

- · drum and disc mower
- · blade mulching
- · hay turning and raking
- · soil ploughing and lawn aerating
- · branch shredding
- load transporting
- snow sweeping and snow removal
- · salt and artifical fertilizer spreading

#### SPECIAL ACCESSORIES FOR PANTER DRIVING UNITS

Chains for FD-2, FD-2H, Panter RZS



hardened pieces

Order No.: 10100-081















#### Panter FD-3 driving unit allows:

- drum and disc mower
- · blade and flail mulching
- hay turning and raking
- soil ploughing and lawn aerating
- · branch shredding
- load transporting
- snow sweeping and snow removal
- · salt and artifical fertilizer spreading

FD-3 driving unit











#### SPECIAL ACCESSORIES FOR PANTER DRIVING UNITS

**Axle extension** for Panter FD-3 driving unit

**Double wheels** for Panter FD-3 driving unit

Steel wheels for Panter FD-3 driving unit **Chains for FD-3** 



Wheel track with axle extension is 940 mm



Wheel track with double wheels is



1,190 mm

Order No.: 40000.0160



Hardened pieces

Order No.: 01236.100

Order No.: 10100.082



#### Panter FD-5

The Panter FD-5 follows on from our popular and proven Panter range of modular drive units. This means that this entirely new drive unit can be used with a wide range of tested work attachments that can be linked to the machine. The Panter FD-5 is therefore a highly versatile piece of equipment; you can use to it mow, mulch and rake grass, loosen soil, clear snow, sweep dirt and carry cargo, and now also to plough land, haul things, etc. When developing this machine we drew on our 27 years of experience in the manufacture and sale of small farm machinery, enabling us to create completely new and unique solutions not previously available on the market. When developing our products we place great emphasis on the easy operation and high utility value of our machines. We are convinced that the Panter FD-5 will serve as a versatile piece of equipment to benefit cottagers, small farmers and growers, and that its compact size will make it extremely useful for wine-growers as well as in the communal sector. The machine is driven by the tried and tested Briggs&Stratton PowerBuilt Series 4145 singlecylinder 4-stroke engine, which has a maximum power of 15.5 HP. The engine can be started either electrically or using the manual (backup) starter. The machine is propelled by a TUFFTORQ K62 hydrostatic transmission with a mechanical differential lock and reinforced half-axles 25.4mm in diameter. The transmission is also fitted with our unique cooling system (protected by a utility model), which keeps the engine cool even under high, persistent load. Use of the hydrostatic transmission enables the both the forward and reverse speed to be adjusted fluidly, even when under load. The drive speed can be changed at any time. The chevron tyresare made by the Czech manufacturer MITAS, which is a world leader in the production of tyres for farming. This means that the tyre mixture guarantees exceptionally high adhesion and a long service life. The machine is very comfortable to drive thanks to the sprung industrial seat, which has adjustable tension and can be adjusted forwards or backwards, and the backrest can also be tilted. The Panter FD-5 is designed as a modular machine with the option to add functions to suit the customer's needs. The basic model is fitted with a tow bar at the rear to attach a trailer.







#### **Additional accessories:**

- **PN1** FD-5 front carrier for connection of the front adaptors from Panter range (RZS-121, MC-100, SB-110, RAP-100, ROT etc.). A component of the carrier it is also a system for the front adaptor's drive which includes an electromagnetic clutch. The way of connection is unique (protected with utility design) and it is characterized by very low resistance during the ride
- **ZN1** FD-5 rear carrier for connection of the rear tools (ploughshares, harrows etc.).
- **ON1** FD-5 control levers for the front and rear carriers lifting. The ON1 controllers are necessary in case of the front adaptors or rear tools connection.
- Extra weight for wheels 2x12,5kg
- Extra weight for rear hitch 25kg totally

#### **ILLUSTRATION OF THE MOST USING SETS**







#### Panter FD-5 driving unit allows:

- · soil ploughing, harrowing, lifting
- · potate lifting
- drum and disc mower
- blade and flail mulching
- · hay turning and raking
- · lawn aerating
- load transporting
- snow sweeping and snow removal
- salt and artifical fertilizer spreading



Order No.: 01237.010













#### **OPTIONAL ACCESSORIES**

PN1 - Front carrier for FD-5

**ZN1** - Rear carrier for FD-5



Set of weights for FD-5 wheels (2 x 12,5kg)



**Set of weights** for rear hitch (25kg)



Order No.: 01237.035

for FD5

Order No.: 01237.020

#### **ACCESSORIES FOR FIELD WORKS WITH FD-5**

Single sided ploughshare with blade



Order No.: 141045

#### Double sided ploughshare with blades



Order No.: 141048

#### Lifting ploughshare



Order No.: 141019

#### **Adjustment body**



Order No.: 141042

#### **Harrows**



Order No.: 141024

#### Lister ploughshare



Order No.: 140200

DRIVING UNIT	FD-2	FD-2H	FD-3 344 cc	FD-3 500 cc	FD-5
ORDER NUMBER	01235.011	01235.019	01236.000	01236.001	01237.000
ENGINE		850 I/C Series	Briggs&Stratton Powerbuilt Series 3125		verbuilt Series 4145
ENGINE OUTPUT [HP]	6.5 HP (4.8kW) 5.0 HP (3.7kW)		13.2 HP (9.7kW) at 3,600 rpm	15.5 HP (11.3k	W) at 3,600 rpm
TORQUE [Nm]	11.5 Nm at	3,060 rpm	25.7 Nm at 3,600 rpm		
ENGINE CAPACITY [cc]	1	90	344	50	00
ENGINE CONSTRUCTION	Air c	Air cooled spark-ignition 4-stroke engine with valve distribution OHV and cast iron cylinder			inder
STARTING	Manual,	ReadyStart	Manual	and electric start	
OTHER	high and side adju	ne fixing on silentblocks, istable handlebars ng any tools	12V battery, light, engir high and side adju without usii	12V battery, light oil temperature indicator seat rigity adjustment, electronic machine's securing, parking brake	
FUEL TANK CAPACITY [L]	1	.1	2	.6	7.5
NUMBER OF SPEEDS	3 speeds (2.1 + 3.0 + 4.4 km/hour)	Single slide control of speed forward (0÷6 km/hour) and back (0÷3 km/hour)	Single slide contro (0÷10 km back (0÷5	Single slide control of speed for ward (0÷10 km/hour) and back (0÷10 km/hour)	
REVERSE SPEED	No	Yes			
METHOD OF GEARING	By changing of the V-belt´s position in the groove on the pulley	The control lever on handlebars (it is possible to change the speed during operation)			The foot peda (it is possible to change the speed during operation)
POWER TRANSMISSION	TOS worm gearbox with hardened, grinded worm and bronze wheel + chain gearing	Tufftorq K46DE Hydrostatic gearbox		K46DE ic gearbox	Tufftorq K62 Hydrostatic gearbox with additional oil cooler strengthened half-shaft 25.4 mm
AXLETREE	Solid	Differential with automatic locking		rential ontrolled from handlebars)	Front - swinging with ridge gearing Rear - differential with locking (controlled by pedal)
WHEELS		mm wheels I tread pattern		mm wheels I tread pattern	Blown wheels wit V-shaped tread pattern Front diameter 425 mm Rear diameter 512 mm
WHEELS TRACK [mm]	650 or 680	670	76	60	890
WEIGHT [kg]	52	64	120		Basic model - 215 Completely equipped model without weight - 256 Wheels weight – 25 Weight for rear hitch – 25
FRONT CARRIER FOR WORKING ADAPTORS		Y	Additional equipment		
REAR HITCH		Yes, shackle for the tra	iler or seat attachement		Trailer's hitch included 2-point hitch as additional equipment
ADAPTORS LIFTING			Additional equipment (from the operator's position)		

DRIVING UNIT	FD-2	FD-2H	FD-3 344 cc	FD-3 500 cc	FD-5
RZS-70K ONE DRUM MOWER	Yes	Yes	Yes	Yes	No
DZS-125 FOUR-DISC MOWER	Yes	Yes	Yes	Yes	Yes
RZS-121 TWO-DRUM MOWER	No	No	Yes	Yes	Yes
BP SEAT	Yes	Yes	Yes	Yes	No
BPR STEERABLE SEAT	No	No	Yes	Yes	No
BPR 2 STEERABLE SEAT	Yes	Yes	No	No	No
M-70 MULCHER	Yes	Yes	Yes	Yes	Yes
M-70 MULCHER	No	No	Yes	Yes	Yes
M-121 MULCHER	No	No	Yes	Yes	Ne
MC-100 FLAIL MOWER	No	No	Yes	Yes	Yes
OP-114 HAYMAKER	Yes	Yes	Yes	Yes	Yes
SF-70 SNOW BLOWER	Yes	Yes	Yes	Yes	Yes
RAP-85 BLADE	Yes	Yes	Yes	Yes	No
RAP-100 BLADE	Yes	Yes	Yes	Yes	Yes
DV-70 CHIPPER-SHREDDER	Yes	Yes	Yes	Yes	No
VD-100 CART	Yes	Yes	Yes	Yes	No
KOR-220 CHASSIS	Yes	Yes	Yes	Yes	No
ALL THE BODIE FOR KOR-220 CHASSIS	Yes	Yes	Yes	Yes	No
VARES HV 220/S CART with 220 kg load capacity	Yes	Yes	Yes	Yes	No
VARES TR 220/S with 400 kg load capacity	No	No	No	No	Yes
SB 110 CYLINDRICAL BRUSH	Yes	Yes	Yes	Yes	Yes
ROT ROTARY CULTIVATOR	Yes	Yes	Yes	Yes	Yes
VERTI AERATOR	Yes	Yes	Yes	Yes	Yes
PLOUGH, HARROWS, LIFTING OR LISTER PLOUGHSHARE	No	No	No	No	Yes

#### **COMPATIBLE ADAPTORS**



The driving units enable the connection of the adaptor for the grass mowing, vegetation mulching, turning and raking of grass, snow removal, road cleaning, crushing of branches, moving the loads, soil ploughing, etc.

During the orders of independent adaptors, we highlight the necessity to specify the driving unit subject to the adaptor use. Some adaptors differ in dimensions of the V-belt, some include different pull rods, supports, or differently assembled guiding axles. Observing this instruction during the ordering simplifies work during the machine assembly.





#### **SEAT**

The connecting seats for the mowers for high grass are designed for work on large, flat and mildly sloping land. People are often not aware that mowing 1 hectare of meadow means walking at least 20 kilometres with smaller machines with real operating width 50 cm. More powerful machines with greater operating width with attached seat enable cutting with higher speed, it achieves much higher hourly rate of the cutting per formance. If the mower operator walks with the machine and works several hours a day, the operating speed is commonly 3-5 km/hour. If you connect the seat and sit during mowing, you can work with travel speed 5-10 km/hour. The modular assembly PANTER enables the selection from three types of seats.



#### **BPR** steerable seat

- Unique solution of turning which requires minimum force
- · Protected with utility design
- Controlled rear axle, turning by means of handle bars of the driving unit
- Suitable for use on plains and slight slopes up to 10°
- Max. seat capacity 130 kg
- Springs by means of damper
- Pedal for the transport position security of the adaptor (it replaces the transport wheels)
- Practical basket for canister with petrol
- · Compatible for driving units Panter FD-3 only

Order No.: 01235.091





- Unique solution of turning which requires minimum force.
- Protected with utility design
- Suitable for use on plains and slight slopes up to 5°
- Max. seat capacity 110 kg
- Controlled rear axle, turning by means of two pedals
- Practical basket for canister with petrol
- Compatible for driving units Panter FD-2, FD-2H, Panter RZS



Order No.: 01235.092



#### MOWING

The RZS-70K mower can be used to cut short as well as very overgrown grass. The RZS-70K drum mower with its adjustable cutting height is designed to now work at three different height settings. As grass height and thickness varies so much it is a very good idea to change the cutting height as you work, as the wheel arch can sink down if the ground is soft, while if the height is too low it can damage the grass. When the cutting height is set too high it is very difficult to cut flattened grass, and can cause problems when raking. As the 480 mm diameter wheel arch can be adjusted, the mower copies the terrain perfectly in all situations. Being able to set the cutting height is a real benefit. The rotor is designed to stop grass wrapping around it, placing less strain on the engine and requiring less frequent servicing to replace the bearings. The cutting plateis made from steel and is strengthened where the blades attach by pressed and welded reinforcements. Underneath there is a metal swivelling wheel on two bearings, which provides access to the blades, which is very convenient when replacing, sharpening or cleaning them. The exposed blade screws help to cut flattened-down grass. The price of the mower also includes a top cover to prevent flying debris.



A standard protective cover as a component of the adaptor

#### **RZS-70K One-drum mower**

- Operating width 69 cm
- Unique solution of cutting height adjustment protected with utility
- This adaptor enables mowing long as well as short grass
- · The mower lays the grass on the right side in the mow
- 3 levels of stubble height adjustment (2.5-4.5 cm on average)
- · A standard protective cover as a mower component
- A steel slider on ball bearings
- It is possible to purchase protection EU protective cover
- · It is possible to purchase four-blade disc
- · It is possible to purchase the disc set with the tongue
- · Compatible for driving units Panter FD-2, FD-2H, FD-3, Panter RZS

Order No.: 01235.021











#### **ACCESSORIES RZS-70 EU Protective cover**

Order No.: 11200.937



#### Disc with a tongue

A special design of the tongue makes disc's lifetime longer. The blade will hide after hits an obstacle and the force is distributed on fixing.

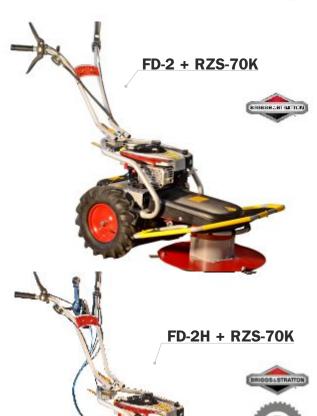
Order No.: 41220.930





#### SET OF PANTER DRIVING UNITS AND RZS-70K MOWER

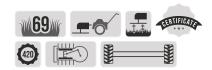






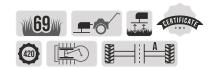
#### FD-2 + RZS-70K

It is the basic Panter model. The mower is intended in demanding and hilly terrain. On the plains and gentle slopes it has satisfactory output. It is also strength enough to attach a compatible seat which makes the operating more comfortable. There are more than 15 compatible adaptors (please see the page 12).



#### **FD-2H + RZS-70K**

It is a modular drum mower with hydrostatic gearbox and single slide control of speed forward and reverse. The axle with differential and automatic locking makes the operating around obstacles, crossing the asphalt roads, etc. easier. You can also ride on the seat while working. There are more than 15 compatible adaptors (please see the page 12).



#### FD-3 + RZS-70K

The RZS-70K mower in connection with the Panter FD-3 driving unit is our strongest one-drum mower. The machine is simply controllable thanks to classic solution of the differential with manual locking which gives you control over the wheels and the machine direction. You can also ride on the seat while working. There are more than 20 compatible adaptors (please see the page 12).



DESIGNATION ORDER NUMBER	ENGINE	MOWING MECHANISM	TRAVEL
FD-2 + RZS-70K 01235.001	Briggs&Stratton 850 I/C Series	Disc with steel slider, 3 blades, adjustable stubble height 2.5 - 4.5 cm, operating width 69 cm, standard protective cover	Three travel speeds (2.1 km/hour + 3.0 km/hour + 4.4 km/hour), solid axle, 420 mm wheels with V-shaped tread pattern
<b>FD-2H + RZS-70K</b> 01235.029	190 cc, 6.5 HP, cast iron cylinder, oil filter, oil pump		Single slide control of speed for ward and back (forward 0-6 km/hour, back 0-3 km/hour), differential with automatic locking, 420 mm wheels with V-shaped tread pattern
FD-3 344 + RZS-70K 01236.000 + 01235.021	Briggs&Stratton Powerbuilt Series 3125, 344 cc, 13.2 HP, cast iron cylinder, electric start		Single slide control of speed for ward and back (forward 0-10 km/hour, back 0-5 km/hour),
FD-3 500 + RZS-70K 01236.001 + 01235.021	Briggs&Stratton Powerbuilt Series 4145, 500 cc, 15.5 HP, cast iron cylinder, electric start		differential with locking, 480 mm wheels with V-shaped tread pattern



#### RZS-121 two-drum mower

Order No.: 01236.010

Panter FD-3 with RZS-121 is most suitable for work under more demanding conditions. Two-drum mower includes 2 mowing discs which rotate opposite each other and leave the mow in one line. Each two-drum grass mower at first cuts the grass and then presses it between rotors. The competitive two-drum mowers with the operating width below 100 cm are often susceptible to clogging mowed surface. The adaptor is driven with the V-belt of 17 mm width.

of a gap between both rotors and the machine stops mowing. RZS-121 is constructed in such way the gap, which is important for the machine to mow high grass, is 400 x 250 mm. Due to this solution and high per formance engine of the driving unit, you can manage high density and grown grass higher than 1 meter. This machine has no limits and manages to mow the meadows which have not been mowed for several years, where other machines do not stand a chance; quality mowing of the stubble field is natural. The blades routes on both plates overlap, their timing is secured by the gearbox and chains, which ensures the blades to not collide. The mower includes steel rotary wheel housing on the ball bearings on both drums, which specify the stubble height. Adaptor RZS-121 is oscillating, it copies the terrain unevenness even in the transverse direction. The adaptor includes the protection cover and the top mesh, which prevents from the flying off sparkling particles; at the same time it prevents the monitoring of the For transport to the mowing locations, we recommend purchasing the transport wheel TK121 or steerable seat BPR, which provide the security of the lifted



**RZS-121** two-drum mower









#### **SETS**



DESIGNATION ORDER NUMBER	ENGINE	MOWING MECHANISM	TRAVEL
<b>FD-3 344 + RZS-121</b> 01236.020	Briggs&Stratton Powerbuilt Series 3125, 344 cc, 13.2 HP, cast iron cylinder, electric start	Two double discs, the blades timing by gearbox and chains not to meet, 2 blades on each disc,	Single slide control of speed for ward and back (forward 0-10 km/hour, back 0-5 km/hour), differential with
<b>FD-3 500 + RZS-121</b> 01236.006	Briggs&Stratton Powerbuilt Series 4145, 500 cc, 15.5 HP, cast iron cylinder, electric start	stubble height 3.5 cm, operating width 121 cm, protective cover, swing mounting of the adaptor, option to buy a transport wheel for crossings	locking, 480 mm wheels with V-shaped tread pattern

MADE IN CZ

#### DZS-125 four-disc mower

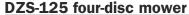
The DZS-125 adaptor was developed by our company for DAKR driving units Panter RZS, FD-2, FD-2H, FD-3 and FD-5. This machine is protected by European industrial patent and utility designs. We are the only ones who produce the disc single axis mowing machine.

It includes the disc mower which due to the exceptionally low resistance during mowing enables the stroke 125 cm even with 6.5 HP engine. DZS-125 combines the advantages of the bar and rotary mowing. The mowing is provided by four blades ground on both sides driven by chain in the oil tank and set on the cutting pins. The cutting pins protect the gear from damage in case of impact to the objects protruding from the ground which cannot be bypassed (for example the tube, stump.). In case of molehills the mower passes without any defects. The overlapping of the blade is designed to correspond with the travel speed and the disc cutting speed. This machine is designed for cutting large maintained meadows for the purposes of hay drying. The stubble height can be set within 2-5 cm, the bar is tilting.

The mowed grass is not thrown anywhere; it falls and stays behind the machine, spread within the whole mow width. It is not necessary to spread grass prior to drying. The grass seeds are not released.

#### **SETS**













#### **SPECIAL ACCESSORIES** TK125 transport wheel





















DESIGNATION ORDER NUMBER	ENGINE	MOWING MECHANISM	TRAVEL
<b>FD-2 + DZS-125</b> 01236.016	Briggs&Stratton 850 I/C Series 190 cc, 6.5 HP, cast iron cylinder oil filter, oil pump		Three travel speeds (2.1 km/hour + 3.0 km/hour + 4.4 km/hour), solid axle, 420 mm wheels with V-shaped tread pattern
<b>FD-2H + DZS-125</b> 01236.013		Four-disc cutting mechanism, chain timing, protection against overload by shear pins, adjustable stubble height 2-5 cm, operating width 125 cm, swing mounting of the adaptor, option to buy a transport wheel for crossings	Single slide control of speed for ward and back (forward 0-6 km/hour, back 0-3 km/hour), differential with automatic locking, 420 mm wheels with V-shaped tread pattern
<b>FD-3 344 + DZS-125</b> 01236.017	Briggs&Stratton Powerbuilt Series 3125, 344 cc, 13.2 HP, cast iron cylinder, electric start		Single slide control of speed for ward and back (forward 0-10 km/hour,
<b>FD-3 500 + DZS-125</b> 01236.019	1 4145 500 cc. 15.5 HP cast Iron		back 0-5 km/hour), differential with locking, 480 mm wheels with V-shaped tread pattern



#### **MULCHING**

#### M-70 Mulcher

M-70 single blade mulching machine with stainless covering has 71 cm operating width. It is equipped with special covered rotor with large diameter which decreases resistance during mulching, spares engine output and provides high protection of the bearings. This rotor's solution is protected by utility design.

This adaptor can be connected to the all Panter driving units. Thanks to low weight it is easily controllable machine with high per formance which suits for yearlong mulching around the cottages, on the meadows, in the orchards, for reeds mulching around the ponds etc. The height setting is per formed centrally by lever and it is quick and easy.





#### M-70 Mulcher

- Operating width 71 cm
- Mowing by means of special mulching blade
- Central height setting of the stubble height (4-12 cm)
- Compatible for Panter FD-2, FD-2H, FD-3, FD-5 Panter RZS driving units



CERTIFICATE

Order No.: 01235.052 for FD-2, FD-2H, Panter RZS

Order No.: 01235.053 for FD-3, FD-5





DESIGNATION ORDER NUMBER	ENGINE	MULCHING MECHANISM	TRAVEL
<b>FD-2 + M-70</b> 01235.011 + 01235.052	Briggs&Stratton 850 I/C Series	Stainless steel covering.	Three travel speeds (2.1 km/hour + 3.0 km/hour + 4.4 km/hour), solid axle, 420 mm wheels with V-shaped tread pattern
FD-2H + M-70 01235.019 + 01235.052	<ul> <li>190 cc, 6.5 HP, cast iron cylinder, oil filter, oil pump</li> </ul>		Single slide control of speed for ward and back (forward 0-6 km/hour, back 0-3 km/hour), differential with automatic locking, 420 mm wheels with V-shaped tread pattern
FD-3 344 + M-70 01236.000 + 01235.052	Briggs&Stratton Powerbuilt Series 3125, 344 cc, 13.2 HP, cast iron cylinder, electric start	central height setting (4-12 cm)	Single slide control of speed for ward and back (forward 0-10 km/hour, back 0-5 km/hour),
FD-3 500 + M-70 01236.001 + 01235.052	Briggs&Stratton Powerbuilt Series 4145, 500 cc, 15.5 HP, cast iron cylinder, electric start	cc, 15.5 HP, cast iron	differential with locking, 480 mm wheels with V-shaped tread pattern

MADE IN CZ

#### M-121 Two-blade mulcher

The two-blade M-121 mulcher is only compatible with Panter FD-3 driving unit and together make high-performance machine with 121 cm operating width so it suits for large maintained areas. Two rotors with specially shaped blades carry out the mulching. The blade timing is provided by means of chains in order to ensure overlapping blade's routes. The stubble height is set by the lever turning which is arrested in required height. All the grass is crushed in small pieces. If you mulch 3 times per year you won't rake anything. Good combination is also to mow once and mulch next time (mow the first grass from June to July, make hay and mulch the second grass). It is up to you how you decide to farm your grass areas.



#### M-121 Two-blade mulcher

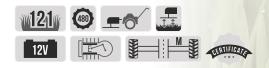
- Operating width 121 cm
- Mowing by means of 2 special mulching blades
- Mowing device driven by the gear and chain
- Oscillating location of the adaptor copying the terrain
- Central height setting of the stubble height (3-10 cm)
- It leaves the stubble field such as garden tractors
- Compatible for Panter FD-3 driving units











DESIGNATION ORDER NUMBER	ENGINE	MULCHING MECHANISM	TRAVEL	
<b>FD-3 344</b> <b>+ M-121</b> 01236.000 + 01236.005	Briggs&Stratton Powerbuilt Series 3125, 344 cc, 13.2 HP, cast iron cylinder, electric start	344 cc, 13.2 HP, on cylinder, electric start  Mulching by means of 2 special mulching blades, operating width 121 cm, adjustable stubble height 3-10 cm	Single slide control of speed for ward and back (forward 0-10 km/hour, back 0-5 km/hour),	
FD-3 500 + M-121 01236.001 + 01236.005	Briggs&Stratton Powerbuilt Series 4145, 500 cc, 15.5 HP, cast iron cylinder, electric start		differential with locking, 480 mm wheels with V-shaped tread pattern	



#### MC-100 Flail mower

MC-100 flail mulching machine is designed for most demanding conditions. The machine manages to mulch grass higher than 1 m. It resists to impacts to various stones and other solid obstacles than other types of mowers and mulching machines. It also manages the mulching of natural seeding bushes. The mowing equipment comprises of horizontal rotor with 36 oscillating special blades. The stubble height can be set within 3-12 cm, by means of adjusting the travel roller. The MC-100 mulching machine remains after connection with the driving unit FD-3 horizontally tilting, it copies the terrain unevenness and it is sufficiently stable even in the hilly terrain. The mowing device is covered in steel sheet metal, which minimizes the option of flying off stones, wood, and other objects which can occur in the mowing area.





#### MC-100 Flail mower

- Operating width 100 cmMowing by means of 36 special oscillating blades (18Y)
- · Mowing device driven by the cone gear and V-belt
- Oscillating location of the adaptor copying the terrain
- The option of stubble height setting (3-12 cm) by means of travel roller adjustment
- Balanced shaft
- Compatible for Panter FD-3 and FD-5 driving units
- It manages cutting the year old vegetation and natural seeding







Order No.: 01236.008



















DESIGNATION	ENGINE	MULCHING MECHANISM	TRAVEL
FD-3 344 + MC-100	Briggs&Stratton Powerbuilt Series 3125, 344 cc, 13.2 HP, cast iron cylinder, electric start	Mowing by means of 36 special oscillating blades (18Y), mowing device drive by	Single slide control of speed for ward and back (forward 0-10 km/hour, back 0-5 km/hour), differential with locking, 480 mm wheels with V-shaped tread pattern, wheel track 760 mm
FD-3 500 + MC-100 + rozšíření	Briggs&Stratton Powerbuilt Series 4145, 500 cc, 15.5 HP, cast iron cylinder, electric start	the cone gear and V-belt, adjustable stubble height 3-12 cm, operating width 100 cm, swing mounting of the adaptor	Single slide control of speed for ward and back (forward 0-10 km/hour, back 0-5 km/hour), differential with locking, 480 mm wheels with V-shaped tread pattern, wheel track 760 mm

#### **SPECIAL ACCESSORIES** Flat blade

Order No.: 51200.043

With the blade it is necessary to buy a hardened MC 100 blade's insert (order No. 51200.039) too.

Order No.: 51200.039



Each rotor is dynamically balanced at working revolutions.



MADE IN C7

#### **TURNING AND RAKING**





#### **OP-114** Hay turner

- · Operating width 90 cm
- It is intended for tedding and raking the grass and hay
- 5 position of height adjustment
- · Pivoting axle with blown wheels
- Lockable wheels for straight ride
- Compatible for Panter FD-2, FD-2H, FD-3, FD-5, Panter RZS driving units



Order No.: 01235.180

#### **GARDEN WORKS**

#### **Cultivation**

The rotavator is a great helper in spring as well as in autumn. At the beginning of the season, it prepares beds for planting and in autumn, it can be used for composting. Unlike the single purpose machines, the rotary cultivator is geared much faster, its effectiveness is much higher and work much faster. It is used also by professional gardeners for the terrain levelling during the completion works in the gardens. The machine is equipped 5 kg weights and with reinforcement for FD-2 and FD-2H driving units. In case of processing into greater depths and in heavier soils we recommend adding another weight. The rotary cultivator comprises of 6 stars with 30 cm diameter and 80 cm stroke, after narrowing to 4 stars, the stroke is 54 cm.



#### **ROT Rotary cultivator**

- Operating width 80 cm
- Gear by means of worm gearbox
- Gearbox with grounded worm and bronze wheel made by TOS Znojmo company
- A weight and a blade are components of the cultivator
- Compatible for Panter FD-2, FD-2H, FD-3, FD-5, Panter RZS driving units



Order No.: 01235.130

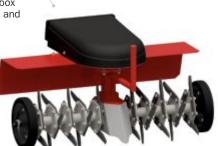


#### **VERTI** Aerator

- Operating width 70 cm
- Hardened blades made of spring steel
- Gear by means of worm gearbox
- Gearbox with grounded worm and bronze wheel made by TOS Znoimo company
- Compatible for Panter FD-2, FD-2H, FD-3, FD-5, Panter RZS driving units

Order No.: 01235.135





#### SPECIAL ACCESSORIES

Aerator's blades set compatible for the ROT rotary cultivator

Order No.: 51200.125



#### **BRANCH SHREDDING**

You can shred all the branches with diameter up to 4.5 cm directly in the forest, vineyards or in the garden without need of electricity. Thanks to the special shape of the chimney you can shred also ramified branches. The crushed waste is convenient use for mulching, composting or as fuel.



#### DV-70 Chipper – shredder

- Shredding up to 4.5 cm diameter
- Suitable for fresh as well for dr y branches
- Compatible for Panter FD-2, FD-2H, FD-3, Panter RZS driving units
- It can manage 0.25 m3/hour



Order No.: 01235.082





#### **LOAD TRANSPORT**

#### **KOR-220 Steerable cart chassis**

- Multipurpose chassis for extensions (rigid body, yard-woods body, plastic crate body)
- Suitable even for the most demanding terrain, great manoeuvring
- Steerable wheels
- Max. allowed capacity 220 kg
- Simple turning by means of the control lever or the
- · Compatible for Panter FD-2, FD-2H, FD-3, Panter RZS driving



Order No.: 01235.122



#### **ACCESSORIES**

#### **Rigid body**

#### Yard-woods body

#### Plastic crate body



#### VD-100 Cart

- The chassis with free rotar y wheels and sheet metal tilting body
- · Max. allowed capacity 100 kg
- · Compatible for Panter FD-2, FD-2H, FD-3, Panter RZS driving units



Order No.: 01235.031



#### Vares HV 220/S Cart

- Removable front end, dumping with the lockingParking and driving brake

- Blown wheels with the terrain design
  Compatible for Panter FD-2, FD-2H, FD-3, Panter RZS driving units





#### **SWEEPING AND WINTER MAINTENANCE**

# MADE IN CZ

#### SB 110 Cylindrical brush

- Operating width 110 cm
   It is used for removing dirt and snow
- Two rotation speeds of the brush (summer and winter operation)
- Brush diameter 40 cm
- Side brush turning from the operator location
- Two height adjustable travel wheels
- · Gear by means of screw gearbox and V-belt
- The collecting container as optional accessory
- Compatible for Panter FD-2, FD-2H, FD-3, FD-5, Panter RZS driving units



Order No.: 01235.145





#### **SPECIAL ACCESSORIES** SB110-C Collecting container

- · Stainless casing
- Large wheels
- Container volume 54 litres





#### SF-70 Snow blower

- Operating width 69 cm
- It is used for removing fresh fallen snow
- Two speed turning of the discharge blade
- It manages even wet snow
- Side turning of the chimney
- Adjustable tongues
- · Gear by means of screw gearbox and chain
- Compatible for Panter FD-2, FD-2H, FD-3,
- Panter RZS driving units



Order No.: 01235.071



#### SPECIAL ACCESSORIES

**RAP-85 Blade** 

RAP-100 Blade

**Chains for Panter** FD-2, FD-2H, **Panter RZS** 

**Chains for Panter** FD-3

Order No.: 01235.040

Order No.: 01235.041

Order No.: 10100.081

Order No.: 10100.082











### SINGLE PURPOSE SWEEPING BRUSH

Sweeping brush SB85 is designed for sweeping of dir t, snow, etc. This machine is used during the whole year. Due to the operating width 85 cm it efficiently cleans larger areas of the car parks, but it passes through more narrow locations of the pavements, pass the houses, etc. The brush roller rotates against the travel direction, the swept material is in forward direction, potentially into the stainless collecting container, which causes significant dust level reduction. The sweeping brush SB85 is controlled by means of two levers on the handlebars. The travel start and the brush start is performed independently. The travel speed is selected with the gear lever on the handlebars. Extended lever sets the transverse brush direction controlled from the operator location, i.e. the direction the brushed material should be swept; there are in total 5 positions of the side turning. The brush has diameter 40 cm, it provides the best discharge and higher snow layers. The selection of two speed revolutions of the sweeping brush helps reaching more efficient use of the machine. Low revolutions are suitable for summer operation (they reduce the dust level, increase the service life of the bristles), high revolutions can be used for winter maintenance during snow removal, snow is removed to longer distance due to higher speed.

#### SB85 Sweeping brush

- Briggs&Stratton I/C 850 Series engine
  Cast-iron cylinder, oil pump and oil filter
- · Automatic choke with easy start even in winter
- Low vibration thanks to engine placing on silent blocks
- · Compact construction suitable for the use in limited area
- · Overlap of the rolling brushes with the option of side turning provides perfect cleaning of locations difficult to be accessed
- Operating width 85 cm
- Brush diameter 40 cm
- · 2 rotation speeds of the brush summer/winter
- 3 travel speeds, simple gearing on the handlebars, gear with geared wheels
- The option of connecting the collecting container SB85-C
- Professional blown support wheel adjustable with lever





#### SPECIAL ACCESSORIES SB85-C Collecting container

- Stainless casing
- · Large wheels
- · Container volume 43 litres



Order No.: 01234.001

**STAINLESS** 

#### Remote controlled flail mulching machine GOLEM 1

For demanding users on lands with difficult access – e.g. photovoltaic power plants, fruit orchards etc., we have developed the remote controlled flail mulching machine.

- Operating width 100 cm
- Mowing by means of 36 special oscillating blades (18Y)
- It manages cutting even an year old vegetation and natural
- Briggs&Stratton I/C 500 cc engine with 15.5 HP output
- The option of steel wheels (designed for sloped areas with defect elimination) or blown wheels for less demanding applications
- Driven front axle, controlled rear axle
- Long lasting slope availability 20°, short term 30°
- The option of using steel wheels (designed for sloped areas, defect elimination)
- TuffTorq K46DE Hydrostatic gearbox
- Single slide control of speed for ward (10 km/hour) and back (10 km/hour)
- Ergonomic controller with the reach of 50 m enables the travel speed for ward, backwards, turning, switching on the mulching
- The batter v lasts during permanent operation for approximately 16 hours
- The controller weight including the batteries is 900 g



The total machine weight with blown wheels: ca. 260 kg (standard design) Total width: 1,135 mm Total length: 2,060 mm Height: 760 mm

#### **ACCESSORIES FOR LAWN TRACTORS**



#### **Screw Jack**

With this type of jack, you can lift the lawn tractor or rider on their back or front axle. A high-strength screw and a nut secure the jack. The screw is ended with a handle and the bottom part leans on hole of the safety rod which is connected to the jack's frame





Order No.: 01235.166

Max. load: 350 kg Weight: 12,5 kg

#### **Tubular Jack**

The main advantage of this jack is its perfect operation and storability. Its use is similar to the finger lifting bar. When the work is done, the jack can be disassembled into four parts so it saves you a lot of space.



Order No.: 01235.160

Max. load: 220 kg Weight: 12 kg

#### **MCT Flail mower**

The adaptor is compatible for SECO STARJET lawn tractors which are equipped with front univesal hitch and heavy drive. The flail mower start is per formed by means of lever fixed to a lifting rod of the front adaptor. It is not necessary to demount the original cutting mechanism while the MCT flail mower is attached so there is possibility to change use of the machine quickly. So you can use one machine for mowing with collection as well as elimination of overgrown grass. MCT flail mower compared with a standard mowing mechanism cut the high grass much better.

- Operating width 100 cm
- Mowing by means of 36 special oscillating blades (18Y)
- Oscillating location of the adaptor copying the terrain
- Balanced shaft
- Compatible for tractors SECO STARJET fitted with front multipurpose suspension
- It manages cutting the year old vegetation and natural seeding



Order No.: 01236.009





# DZS 125 four-disc mower in adaptation for STIGA PARK PRO 21 4WD

- operating width 125 cm
- adaptor lifting
- mowing by 4 special blades
- the blade timing is provided by means of chain and for the protection against overload there are the shear pins











## RZS Modular Machine - Upstanding and Tireless Workhorse

Our RZS Kit is the right solution for everyone, who needs time-proved and high-quality machine for soil cultivation, cleaning and mowing. If you need to mow, do not hesitate. We offer two extraordinary modules. The first one is a well-proven disc mower RZS-69 that has found 19,000 satisfied customers. The second module is a modified Panter RZS chassis. It manages not only cutting the grass but also many other types of work.

#### **Engine Units for RZS Modular Machine**

Engines with the 80 mm centrifugal clutch are the base of the all modular machine. Two-stroke engines JIKOV represent timeproven and traditional driving unit. Their strong side is their very easy maintenance and high reliability. Four-stroke engines HONDA stand out in particular by their modern construction with OHC valve gear. To offer you branded 4-stroke engine with cast iron cylinder and 6.5 HP output we have developed our designed revolutions regulator for Briggs&Stratton 850 I/C engine. The engine is intended for professional use and compared to the engines with aluminium cylinder its lifetime is 2 times longer.

# JIKOV two-stroke engine



# **HONDA** four-stroke engine



# **BRIGGS&STRATTON** four-stroke engine



	Jikov 1453 Iskra	Jikov 1454 DV Vape	Jikov 1447 DV Iskra	Honda GCV 160E	Honda GCV 190E	Briggs&Stratton Series 850 I/C
TYPE		2-stroke			4-stroke	
CAPACITY	133 cc	133 cc	153 cc	160 cc	190 cc	190 cc
CYLINDER	cast-iron	cast-iron	cast-iron	aluminium	aluminium	cast-iron
HORSEPOWER	4.7 HP	4.7 HP	5.2 HP	5.5 HP	6.5 HP	6.5 HP
FUEL		petrol+oil			petrol	
CLUTCH		80 mm centrif	ugal clutch with attachi	ment for DAKR, Terra a	nd Vari chassis	
OTHER FEATURES	Contact ignition	Electronic ignition	Contact ignition	Low fuel consumption	Low fuel consumption	Oil pump and filter
ORDER NUMBER	110020	110231	110313	810018	810023	810009

Frequently asked question is: "What is the maximum slope accessibility for machines equipped with 4-stroke engine? The answer is not definite because it is necessary to differentiate among 3 limit situations:

- · maximum slope accessibility while the engine securely lubricates and there is no danger of damage
- maximum slope accessibility while the machine is stable and not overturn
- maximum slope accessibility from safety point of view

The producers of 4-stroke engines state the permanent slope accessibility up to 20' while there is no danger of damage or oil leak. In the short term for 1 minute it is possible to incline the machine in any direction up to 30' but please notify of possible small oil leak through the breather pipe of the crankcase. Only the long-term oil leak under the minimum level in the crankcase would lead to serious damage. To avoid the air filter pollution we recommend to drive the machine with the air filter higher in the slope.

We keep the stability of the machine in mind while design them.

#### ACCESSORIES UR 201 Handlebars

Order No.: 01102.011



# UR 201 Travel Control Bar with the safety switch

Order No.: 41000.097



MADE IN CZ

#### **RZS 69 Mower**

The mowing chassis RZS 69 is our well-proven product. With the cutting width of 69 cm you can at one time mow 1 hectare or even more. The mower has a light tube frame and the travel with a worm-gear unit in sliding carriage. The cutting disc is equipped with 3 double-ended knives and a plastic arch. The divided shaft provides for the OP 111 turner-raker attachment.







#### **Panter RZS Multi-Purpose Chassis**

You can find a detailed description of this chassis including all attachable adaptors on page 8. The chassis is intended for the engines with 80 mm and 120 mm centrifugal clutch owners. The clutches were used in Terra, Vari, Dakr, Jikov and other kits.





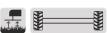


#### A standard protective cover is a component of the mower.











	RZS-69/W 2T	RZS-69/W 4T	RZS-69/W 2TA	RZS-69/W 4TA	RZS-69/W 2T 1:20
OPERATING WIDTH	Disc with smaller slider, 3 blades, 69 cm operating width				
TRAVEL	Switching travel, 1 travel speed, c. 2.0 – 2.7 km/hour				
WHEELS	Big air-pressured 420 mm wheels (inner tube, tyre)				
CLUTCH DIAMETER	80 mm Terra, Vari		120 mm Agzat		80 mm Terra, Vari
ENGINE TYPE	2-stroke	4-stroke	2-stroke	4-stroke	2-stroke
ORDER NUMBER	01221.013	01223.013	01222.013	01222.014	01221.010

	RZS-69/V 2T	RZS-69/V 4T	RZS-69/V 2TA	RZS-69/V 4TA	
OPERATING WIDTH	Disc with smaller slider, 3 blades, 69 cm operating width				
TRAVEL	Switching travel, 1 travel speed, c. 2.0 – 2.7 km/hour				
WHEELS	Big full rubber 410 mm wheels				
CLUTCH DIAMETER	80 mm Terra, Vari		120 mm Agzat		
ENGINE TYPE	2-stroke	4-stroke	2-stroke	4-stroke	
ORDER NUMBER	01221.012	01223.012	01222.012	01222.011	

	Panter RZS 2T	Panter RZS 4T	Panter RZS 2TA	Panter RZS 4TA	
COMPATIBLE ADAPTORS	RZS-70K and DZS-125 mowers,M-70 mulcher, OP-114 haymaker, SF-70 snow blower, SB-110 sweeping brush, RAP-85 and RAP-100 snow blades, KOR-220, KOR-100 and HV-220 trailers, ROT rotary cultivator,VERTI aerator, DV-70 chipper shredder, BP and BPR2 seats				
TRAVEL	Mechanical gearbox, 3 travel speeds 2.1 + 3.0 + 4.4 km/hour				
WHEELS	Big air-pressured 420 mm wheels, solid axletree				
CLUTCH DIAMETER	80 mm Terra, Vari		120 mm Agzat		
ENGINE TYPE	2-stroke	4-stroke	2-stroke	4-stroke	
ORDER NUMBER	01235.003	01235.002	01235.006	01235.007	



#### HAND TRUCK WITH BLADE

Hand truck is very useful for moving of bins, wood in basket, ashes in barrel, crates with fruit, shopping bags etc. You can also simply attach a blade for snow removal in winter. The hand truck is thanks to big air-pressured wheels easily controllable not only on the pavements and roads but also on the lawns, unpaved areas and while crossing the stairs and uneven terrain too. There are several holes on the frame in different heights for hooks to hang the load in required position. To adjust the blade into required height above the ground there is an adjustable leading wheel. This inconspicuous assistant makes the everyday troubles easier.











#### **FP FLOATING PUMP**

#### **FP Floating pump**

- Profi motor Briggs&Stratton I/C 850 with cast iron cylinder, oil pump and oil filter
- Maximum discharge height 15 m
- Maximum flow 900 I/min
- Termination for fire hose B75
- Weight 32 kg
- Stainless shaft



The pump is designed mostly for the pumping of murky and messy water during floods, for pumping water lagoons from the fields, tanks, etc. The pump is recognized for high resistance against the clogging from materials which are commonly present in water during floods such as leaves, grass, bags, etc.



#### SPREADERS FOR SOIL SPREADING



Our manually pushed spreaders are in particular intended for tur f establishment at large gardens, football stadiums and golf courses, in parks and at other places where the main factor is the beauty of the tur f. When we constructed the spreaders, we placed special attention to developing a fully professional machine, which distributes the soil with the constant density. We did the majority of testing in the Great Britain, where specialist devote to very high-quality turfestablishment. We offer two types of the spreader to our customers. All their components are identical; they only differ in the operating width and the wheel size.





	KRR - Green Wizard 70	KRRJ - Green Wizard 40
HOPPER VOLUME	180 litres	100 litres
MAX. LOAD	200 kg	120 kg
OPERATING WIDTH	70 cm	40 cm
TOTAL SPREADER WIDTH	1010 mm	700 mm
EMPTY SPREADER WEIGHT	40 kg	30 kg
OUTER WHEEL DIAMETER	410 mm	300 mm

#### GRANULATED FERTILISERS AND WINTER SALT SPREADERS

These spreaders can be used throughout the year. In summer, they can be used for fertilisation and in winter, for path and road maintenance. Moreover, the salt makes no damage to the spreader - with the exception of KRH 01E, the spreading mechanism is made of corrosion-free materials. The figures below are stated for British Road Treatment Granulated Salt BS 3247.



#### **KRH 01 – Matterhorn**

With full hopper, KRH 01 Matterhorn manages to treat up to 625 m<sup>2</sup>. The width of the belt is approx. 3 m. It can be used for fertilisation as well as for spreading in winter. We recommend using this spreader around family houses, stores and other small business premises. The drive of the spreading mechanism occurs from wheels with a simple mechanical transmission made of stainless steel.

> Spreading apparatus drive: corrosion-free geared transmission Spreading apparatus drive: corrosion-free geared transmission
> Spreading system: rotar y spinner plate, special activator
> Working speed: 1-4 km/hour
> Max. operating width: 1-3 m
> Salt volume per m²: adjustable to 63 g/m²
>
> Treated area with full hopper: 400-625 m²
> Empty spreader weight: 8 kg
> Recommendation: households, petrol stations and business premises
> to 2,000 m²

Order No.: 01021.028

#### KRH 06 - Olympus Turbo

Order No.: 01021.031

It is the spreader with robust profi construction for spreading at exact 70 cm width belt.

Hopper capacity: 80 kg of salt
Spreading apparatus drive: mechanical, from wheels with chains
Spreading system: line spreading in precise width
Working speed: 1 – 4 km/hour
Operating width: 70 cm
Salt volume per m²: adjustable 30 - 100 g/m²
Treated area with full hopper: 800 – 2,650 m²
Empty spreader weight: 37 kg
Recommendation: municipalities, professional use



#### **KRH 02 - Mont Blanc**

This profi construction manages to treat up to 1,000 m<sup>2</sup> with full hopper. The width of the belt is up to 4.5 metres and it has the hopper capacity of exact 40 kg. These parameters make this spreader road, larger business premises and supermarket parking lots treatment power ful helper. The drive of the spreading mechanism is derived from the wheels with a worm gearbox. It is possible to disassemble the spreading mechanism with locking in wheel's hub during crossing.



Order No.: 01021.027

Hopper capacity: 40 kg of salt

Hopper capacity: 40 kg of salt

Spreading apparatus drive: worm-gear unit

Spreading system: rotar y spinner plate, special activator

Working speed: 1-4 km/hour

Max. operating width: 1-4.5 m

Salt volume per m²: adjustable to 90 g/m²

Treated area with full hopper: 550-1,000 m²

Empty spreader weight: 22 kg

Recommendation: towns and business premises over 2,000 m²



#### **Car-pulled or tractor-pulled spreaders**

These spreaders are pulled similar to trailers behind cars or garden tractors. The drive of the spreading mechanism is derived from the wheels with a steel oil-filled clutch and can be switched off. The salt hopper is made of laminated plastic very resistant to mechanical damage as well as extreme climatic conditions. Parts of the spreader exposed to salt are made of stainless steel.



**KRH 03 - Everest** 

Less powerful spreading machine is equipped with a 150 kg capacity hopper. The weight of an empty spreader is 65 kg. It is indented for medium-size business premises and parking lots treatment. With full hopper, it is capable of 6,000 m<sup>2</sup> treatment.

Hopper capacity: 150 kg of salt
Spreading apparatus drive: bevel gearbox
Spreading system: rotar y spinning plate, special activator
Working speed: pulled by car up to 10 km/hour
Operating width: 3 – 6 m
Salt volume per m²: adjustable 25 - 75 g/m²
Treated area with full hopper: 2,000 – 6,000 m²
Facilities: steel sieve, cap, eye for tractor pin, attachement for trailer hitch
Empty spreader weight: 65 kg
Recommendation: municipalities and business premises

#### **KRH 03 - Everest with seat**

This machine can be attached to the driving unit Panter FD-2, FD-2H, Panter FD-3 or other small two-wheel tractor.



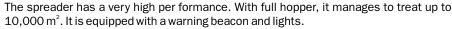
Hopper capacity: 150 kg of salt
Spreading apparatus drive: bevel gearbox
Spreading system: rotar y spinning plate, special activator
Working speed: pulled by car up to 10 km/hour
Operating width: 3-6 m
Salt volume per m2: adjustable 25-75 g/m²
Treated area with full hopper: 2,000-6,000 m²
Facilities: steel sieve, cap, seat
Empty spreader weight: 78 kg
Recommendation: municipalities and business premises





## KRH 04 - Fuji





Hopper capacity: 250 kg of salt

Spreading apparatus drive: bevel gearbox

Spreading system: rotar y spinning plate, special activator

Working speed: pulled by car up to 15 km/hour

Operating width: 3 - 6 m

Salt volume per m²: adjustable 25 - 75 g/m²

Treated area with full hopper: 3,300 - 10,000 m²

Facilities: steel sieve, cap, eye for tractor pin, attachment for trailer hitch

Empty spreader weight: 95 kg

Recommendation: traffic, CZ public highways

Order No.: 01021.021

#### Certification for KRH 04 - Fuji for the operation on public roads

The spreader KRH 04 - Fuji is supplied with the additional set of reflection plates and other safety elements, which enable the spreader operation on public roads and it is provided with technical certification. This set can be extended for all existing KRH 04.

Order No.: 01200.015



#### **KRH 07 - K2**

It is professional spreader which pours salt on the belt 150 cm wide. The amount of poured material can be gradually regulated. The internal area of the container includes the profiled roller which feed the poured material. The rollers are driven by gear from the spreader wheels. During the travel to the pouring location, the rollers can be switched off. KRH 07 has electrical installation for the direction and reflection lights which are connected into the vehicle socket for additional trolleys. It also includes two auxiliary adjustable wheels used in order to enable the spreader handling, even independently without the connection to the traction vehicle. The upper part of the container includes a screen which prevents the falling of large frozen or attached parts of compound material. The spreader in basic design is designed for carrying on three-point tractor suspension. It is possible to purchase accessories - shafts with terminals for the traction devices of vehicles, and lug for the connection behind the main tractor. It is also possible to purchase a beacon.



Hopper capacity: 500 kg of salt
Spreading apparatus drive: from wheel with V-belts
Spreading system: line spreading by profiled roll
Operating speed: Pulled or carried behind the vehicle up to max. 15 km/hour
Operating width: 1.5 m
Salt volume per m²: adjustable up to 120 - 350 g/m²
Treated area with full hopper: 1.400 - 4.100 m²
Empty spreader weight: 250 kg
Recommendation: municipalities, sports fields, business premises

KRH 07 - K2: Order No.: 01021.032

## The tradition of drum mowers production since 1990



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