









#### **MAIN ADVANTAGES** OF THE MACHINE

- Interchangeable working sections such as mixing shares (autumn), gamma tines and SB-sections for
- Crushbar hydraulic front paddle levelling bar - ensures adabtability in varying conditions.
- Crosskill rollers optimise consolidation and crumbling across the
- Finishing rollers behind the crosskill create a soil cutter effect, leaving your land thoroughly prepared.
- Hydraulically adjustable working depth on the machines (SO\_F) for precise seedbed preparation.
- · Eradicators located behind the tractor wheels eliminates any pos-
- Zero-maintenance "High quality" bearings ready for high circumferential speed at which the grinding aggression is increased.



#### **AGRONOMIC ADVANTAGES** OF THE MACHINE

- Implementing several working operations in one brings lower costs for seedbed preparation.
- · 3-leveling bars produce a very flat
- Creating accurate and identical seedbed for all plants on the plot means excellent and uniform germination.
- Intensive clod crumbling with the crosskill and finish rollers. The crushing becomes more intensive by increasing the roller circumferential speed.
- The cultivator can be used for both conventional systems of farming (ploughing) and in minimum tillage systems as well.
- Due to the technical design of the machine it is possible to work at high working speeds, easier to meet the required agronomical deadlines.

BEDNAR SWIFTER is a progressively designed seedbed cultivator which allows you to create uniform seedbeds in just one pass irrespective of the high working speeds and reduces operating costs for the user.

Crops such as oil seed rape, sugar beet and maize require high quality seedbed establishment. This is a requirement for a successful harvest and achieving high yields per hectare. The SWIFTER seedbed cultivators excel in their modern design and simple construction. The technical features of the SWIFTERs make them popular machines which are able to perform high quality work, even in very difficult soil and climatic conditions.



"SWIFTERs are simple machines which in just one pass make excellent seedbed and high quality topsoil structure. A uniform seedbed created in this way is a basic condition for placing seeds at the same starting depth over the whole drill working width. This creates a solid basis for a successful harvest."

Ladislav Bednar



#### Savings are inevitable thanks to:

- The integration of up to 8 operations in a single pass = one pass instead of several.
- The high working speeds = less time required, easy to reach agronomical deadlines.
- Fewer passes = helps to eliminate the compaction of the soil.
- Thoroughly prepared seedbed = better quality and faster work of seed drills, the basis for high quality crop germination.



Jan Hodoval Pocaply, Litomerice district, Czech Republic

area: 70 h machine: SWIFTER SN 400

"The SWIFTER prepares the soil in just one pass in almost any conditions. This means I can start to plant or seed vegetables earlier. Vegetables are my main commodity."

Jan Hodoval, private farme

#### You can use the SWIFTER for seedbed preparation in:

Conventional farming systems with a plough – the plant residues are incorporated by ploughing to greater depths and by winter processed furrows are easily cultivated in a single pass. Two passes are recommended in tougher conditions, which will literally turn your field into a "garden".

Minimisation systems – the preparations with the plant residue play an important role at this point, their length, depth of incorporation and the degree of decay. To get the most out of your SWIFTER the plant residue in the soil should have a maximum length of 5 cm (easily reached by previous mulching) and evenly incorporated at a depth greater than 7 cm. This will ensure that the tines of the SWIFTER don't bring up any plant residue to the surface while working.

### A DEMONSTRATION ON A PLOUGHED FIELD

The SWIFTER tills the topsoil after winte in just one pass to an almost perfectly fla level. In very dry conditions, two passes are required.



### A DEMONSTRATION IN A MIMIMUM TILLAGE SYSTEM

After a good incorporation of plant res due in a plough-free system of farming the SWIFTER makes a superb job.



### DEMONSTRATION OF WORK IN SUMMER SEASON

is very demanding due to hard clods caused by the sharp sun and drought. The system of 3–4 rollers guarantees the crushing quality and the soil preparation e.g. for sowing oilseed rape.



# Spring and summer seedbed preparation



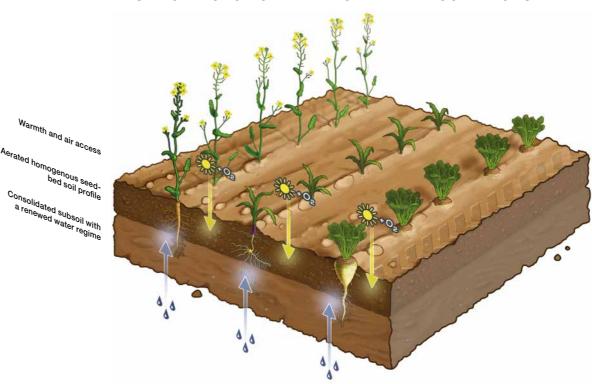
Spring seedbed preparation – inappropriate soil preparation damaging the soil structure and its moisture content can result in damage to spring cropping, which significantly impacts final harvest yields. Preparing the soil too early results in soil stickiness, while late preparations results in reduced water stores for spring crops. As such, you should choose the fewest number of passes and suitable soil maturity for preparation. The BEDNAR SWIFTER sequence of working parts is able to prepare the soil and its surface structure fast and at high quality without loss of starting moisture. If you're preparing soil for, e.g. sowing sugar beet, you should choose an SB-section which undercuts through the soil over the whole working width without any vertically mixing. This preserves moisture and creates a solid base for precisely placed seeds. For maize, fast aeration and warming should be done with gamma tines without transferring wet particles to the surface.

Summer seedbed preparation – similar complications as in spring preparation occur in summer, when it is often necessary to prepare the soil when harvesting is still going on so that sowing can begin, generally winter rapeseed followed by other crops. In summer, frost and snow doesn't help till the soil into a suitably disintegrating structure as occurs in winter before spring preparation. Intensive seedbed preparation is needed in summer, for which the SWIFTER ploughshare section is suitable, made up of two rows of arrow-shaped shares (270 mm) with overlapping. The aggressive angle means the soil is tilled and mixed. The final part of seedbed preparation is secured by the rear crosskill rollers which can be completed with a finish roller. This combination, required for smaller seed types (e.g. rapeseed seeds), creates the necessary fine structure even in a very dry summer.

#### SWIFTER

### **Uniform crop germination**

#### UNIFORM CROP GERMINATION IN IDEAL CONDITIONS



#### Creating the ideal seedbed structure

- Thorough soil relief levelling of the prepared land so that it is perfectly level after the previous working operations, is an essential and a key part of seedbed preparation.
- A warm and aerated soil profile is the foremost requirement for fast, uniform germination of all crops planted.
- Creating a precise level throughout the whole of the prepared area secures a precisely set depth for the seedbed cultivator on the basis of the agro requirements of the future crop.
- The ideal structure and proportion of soil particles helps crop germination. Suitably sized soil particles throughout the land are an integral part of thorough seedbed preparation.
- Consolidated subsoil under the prepared surface layer renews the soil water regime, which is absolutely essential to start seed growth.

The BEDNAR **SWIFTER** is a seedbed cultivator which creates a seedbed in just the way intensive farming systems require with the focus on maximising yield potential.



# Seedbed preparation in tough conditions



Wet and heavy soil – the SWIFTER deals with the complications of wet and heavy soil conditions without any hassle in just one pass thanks to its carefully designed working parts and overlapped rear double crosskill rollers.



**Stony soil** – for stony conditions, the crosskill rollers can be separated from each other. As such, the rollers do not get blocked by stones. You can work and prepare high–quality seedbeds even in these harsh conditions.



Soil with a large amount of post-harvest residue – the SWIFTER can even work with a large amount of post-harvest residue remaining on the surface after the winter. A ploughshare working section is ideal for working with a large amount of post-harvest residue.



The seedbed is cut over the whole working width at a constant depth. A high quality seedbed is very important for uniform crop germination. The BEDNAR SWIFTER creates a high quality seedbed irrespective of how tough the conditions are.

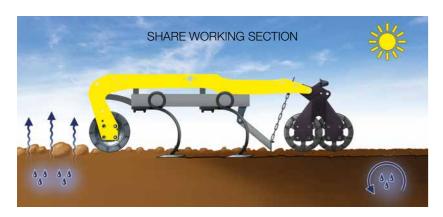




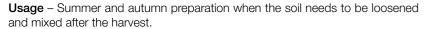
# Choose the suitable working section

#### Interchangeable working sections

The machine design allows the easy replacement of the working sections internal frame (2 rows of ploughshares / 4 rows of gamma tines / 4 rows of SB-shanks with shares). Thus you can easily adjust the machine to the changing conditions over the course of the year.



2 rows of overlapping 270 mm shares guarantee the undercut of the soil profile across the entire range of the machine by which a solid base of the machine is formed. At the same time the soil, thanks to the working angle of the shares, is aggressively cultivated and thus a loosened upper layer is formed. Each share is attached to a flexi tine, which enables the "3D effect" (horizontal and vertical movement), which protects the













4 rows of gamma-tines under a negative angle safely loosen, air and warm the soil without bringing wet parts up to the surface preserving the winter moisture. It is particularly important to start the growth of spring crops. The individual suspension of each tine enables you to work fast at speeds of up to 15 km/h. This saves valuable time that you cannot spare come spring.

**Usage** – Spring seedbed preparation, for maintaining winter moisture in the soil.





**Usage** – Spring sowing preparation while maintaining moisture. Especially suitable for sugar beet.



Spring shares placed in 4 rows of S-tines ensure quality tillage in the spring. The shares' angle does not produce the vertical mixing of soil, retaining the moisture in spring, which is a key factor for the quality and speed of the germination process. Moreover, the required horse power is reduced.

#### SWIFTER

#### Choose the suitable roller



#### More rollers, less clods

SWIFTER SN and SO\_F cultivators standardly come equipped with 2 rollers – a front slatted roller and back slatted (crosskill) rollers. The SWIFTER SO\_F can also be equipped with two-row rollers in the rear machine section (slatted roller / crosskills). The SWIFTER SO\_PROFI always standardly comes equipped with 3 rollers – a front slatted roller and rear slatted (crosskill) rollers. The number of rollers on the machine multiplies the effect of clod crumbling. Basic rollers can be added if requested with a third 270 mm diameter finish tube roller with a high circumferential speed. This way you can achieve the thorough crushing effect of a "soil cutter". Together with the levelling bars, the machine performs the thorough preparation even in difficult conditions.

#### SINGLE ROW SLATTED ROLLER

simple and cheap solution the spring cultivation of light ils.

weight: 58 kg/m diameter: 370 mm



#### DUAL ROW SLATTED ROLLER

Suitable for all-year-round cult vation of light soils.

weight: 115 kg/m diameter: 370 mm



### SINGLE ROW CROSSKILL

craper system is made from ast iron, suitable for crushing

weight: 123 kg/m diameter: 350 mm



### DOUBLE ROW CROSSKILL

he double row crosskill elf-cleaning roller made from igh-quality cast iron, creating thorough clod crushing effect.

weight: 162/167 kg/m diameter: 350/440 mm





### **Working parts**

#### **ERADICATORS**

Massive eradicators with spring securing which are used for cultivating pressed soil after the narrow tyres of tractors.



#### FRONT LEVELLING **BAR MECHANICAL**

Mechanically adjustable front slide bar levels coarse unevenness, through which it enhances the work effectiveness of the subsequent parts.



## CRUSHBAR - FRONT



### SWIFTER SN





### SWIFTER SO/SO\_F



#### REAR LEVELLING BAR

Creates a perfectly level field which is 100% ready for seeding for even the smallest seeds such as spring barley



#### FINISH ROLLER **OF 270 MM DIAMETER**





### **HYDRAULICAL PADDLE LEVELLING BAR**



#### FRONT **CRUMBLING ROLLER**

crushes the clods along the surface of the field. Its design gives it an excellent crumbling effect, even in the coarse



#### 2 ROWS OF SHARES WITH FLEXI TINE

Overlapping 270 mm width share ensure the perfect undercut and loos ening along the entire width of the ma chine. They work on a flexible tine, wit 3-sided mobility ("3D effect").



### 4 ROWS OF SUSPENDED GAMMA-TINES



#### 4 ROWS OF SPRING SHARES (SB-SECTION)



#### LEVELLING BAR



#### REAR CRUMBLING ROLLERS





#### **BEDNAR** SWIFTER **SN**

is a mounted seedbed cultivator designed for tractors from 90 HP

- mounted machine
- working widths of 3, 4, 5 m
- 4 m folded and 4 m fixed models
- sections are interchangeable (share / gamma-tine / SB-section)
- easy to transport thanks to its centre of gravity

BEDNAR SWIFTER		SN 3000	SN 4000	SN 4000R	SN 5000	
Working width	m	3	4	4	5	
Transport width	m	3	2,33	4	3	
Transport length	m	2,75	3,02	3	2,7	
Working depth*	cm	2–12	2–12	2–12	2–12	
Number of shares	pcs	12	16	16	20	
Number of shares SB-section	pcs	19	30	30	38	
Number of gamma-tines	pcs	29	40	40	48	
Total weight**	kg	1 080–1 410	1 650–2 080	1 510-2 120	2 300–2 850	
Recommended output*	HP	90-120	140-160	140-160	145-200	
*depends on soil conditions **depends on the machine accessories						

The mounted SWIFTER SN is connected to the tractor using a 3-point linkage; the SWIFTER SN 3000 with a category II. and III., the SWIFTER SN 4000 with a category III.

**CONNECTED WITH** 

A 3-POINT LINKAGE



### CENTRE OF GRAVITY

The SWIFTER SN model is designed to be as close as possible to the tractor hitch. This means it has a centre of gravity which even stabilises the set with small tractors without weighing.



#### FOLDABLE SWIFTER SN

The SWIFTER SN model is also designed to be foldable with a working width up to 3 m so it can be used on the roads within the EU.



#### BEDNAR SWIFTER SO\_F

is a a semi-mounted seedbed cultivator designed for tractors from 120 HP

- semi-mounted machine
- working widths of 4, 5, 6, 7, 8 m
- sections are interchangeable (share / gamma-tine / SB-section)

BEDNAR SWIFTER		SO 4000F	SO 5000F	SO 6000F	SO 7000F	SO 8000F
Working width	m	4	5	6,2	7,2	8
Transport width	m	2,7	2,7	2,7	2,7	2,95
Transport length	m	7,3	7,3	7,3	7,3	7,3
Working depth*	cm	2-12	2-12	2–12	2–12	2–12
Number of shares	pcs	16	20	24	28	32
Number of shares SB-section	pcs	30	38	45	51	59
Number of gamma-tines	pcs	34	44	54	64	74
Total weight**	kg	3 200-4 000	3600-4700	4 100-5 700	4 300-5 700	4 800-6 100
Recommended output*	HP	120-150	145-200	155-215	180-220	210-230
"depends on soil conditions "depends on the machine accessories						

#### NDS

### WORK ON HEADLANDS WITHOUT LIFTING UP

Lifting at headlands wastes time, which reduces the machine efficiency by up to 25 %. The SWIFTER SO\_F design means the machine doesn't lift up at headlands.



### CONNECTION TO THE TRACTOR ARMS

The SWIFTER SO\_F is connected to the tractor simply by the tractor arms. Easy, fast connection. Fast response to any obstacles.



#### TRANSPORT DIMENSIONS

The SWIFTER SO\_F is designed for transport on roads throughout the European Union. The machine's transportation width is up to 3 m and height up to 4 m for all working widths.



15

14



#### BEDNAR SWIFTER SO\_PROFI

is a semi-mounted seedbed cultivator designed for tractors from 120 HP

- semi-mounted machine
- working widths of 4, 5, 6 m
- unique system of interchangeable working sections – share/gamma-tine /SB-section

SWIFTER		SO 4000 PROFI	SO 5000 PROFI	SO 6000 PROFI
Working width	m	4	5	6,1
Transport width	m	3	3	3
Transport length	m	7,8	8	8
Working depth*	cm	2–12	2–12	2–12
Number of shares	pcs	16	20	24
Number of shares SB-section	pcs	29	38	45
Number of gamma-tines	pcs	36	44	54
Total weight**	kg	3000-4500	3500-4950	3500-5450
Recommended output*	HP	120-150	140-200	160-230

\*depends on soil conditions \*\*depends on the machine accessories

#### SPRING-LOADED FRAMES

SWIFTER SO\_PROFI has spring-loaded side frames. This design makes it possible to work with the machine at higher speeds. All impacts are absorbed by the springs and they are not transferred onto the main frame and the tractor.



#### FINISH CROSSKILL

a finish crosskill roller. This end crosskill has a diameter of 350 mm and completes the entire operation. This finish crosskill is important mainly for winter oil seed rape cultivators and for sugar beet growers.



#### SAFE TRANSPORT

BEDNAR **SWIFTER** SO machines are designed for transport on roads throughout the EU. The transportation width is 3 m for all models, and height up to 4 m.

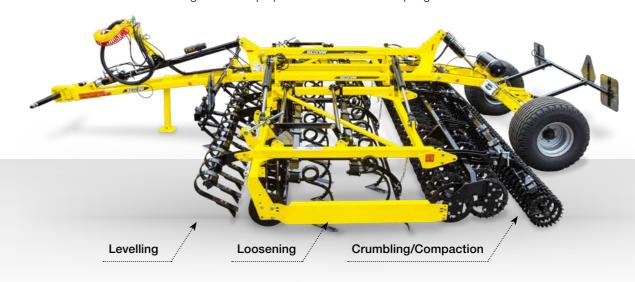


#### **SWIFTER Concept**

The SWIFTER Concept is the term for a range of machines with a universal frame and various interchangeable working components. Thus offers a solution for varying requirements for spring or autumn seedbed preparations. Acquisition of the entire SWIFTER Concept range (universal frame + 4 working sections) saves 34 % on costs as opposed to buying 3 separate machines.

#### **CULTIVATOR SECTION**

A wide selection of sections for thorough seedbed preparation in autumn and spring.



#### Share working section



**Usage** – summer and autumn preparation when the soil needs loosening and mixing after the previous harvest.

#### Gamma-tines working section



**Usage** – spring seedbed preparation for keeping spring moisture in soil.

### Working section with spring shares (SB-section)



**Usage** – spring sowing preparation while maintaining moisture. Especially suitable for sugar beet.



## Further information

#### MECHANICALLY SETTING THE SHARE (GAMMA-TINES) WORKING DEPTH

You can easily set the working depth using the trapezoidal screw with removable handle. The numbered scale with indicator ensures the precise setting.



#### HYDRAULICALLY ADJUSTABLE WORKING DEPTH (GAMMA-TINES)

Set the working depth with ease and comfort right from the tractor cabin.



#### SET THE WORKING HEIGHT FOR THE LEVELLING BARS AND FINISH ROLLERS

You can easily set the working position using the regulating handle which determines the position of the stop screw against the silent block. The silentblock also serves to protect against slips.



### MAINTENANCE-FREE BEARINGS

The rear roller bearings, prepared for high circumferential speed, are maintenance-free. The machine operator does not need to regularly lubricate each bearing, of which there are generally a large number for seedbed cultivators.



#### SIDE DEFLECTOR

he side deflector located on the mahine sides prevent earth from being ansferred outside the machine working width. This prevents the formation of dges. Connections between each pass are not visible.





## I did maximum for more yield this year

#### soil cultivation



STRIEGEL-PRO Harrows



**SWIFTER** Seedbed Cultivators



OF L

SWIFTERDISC Disc Cultivators



FENIX Versatile Cultivators





ATLAS
Disc Cultivators



**TERRALAND**Chisel Ploughs



TERRALAND DO Combined Chisel Plough

### seeding and fertilizing







# inter-row cultivation mulching





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