A single pass is all you need

SWIFTER
SN, SO, SO_F
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

**AGRONOMIC ADVANTAGES OF THE MACHINE**

- Implementing several working operations in one brings lower costs for seedbed preparation.
- 3-leveling bars produce a very flat surface.
- 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.

“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 Hodová, private farmer
Pocaply, Litomerice district, Czech Republic
area: 70 ha
machine: **Swifter SN 4000**

"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 Hodová, private farmer
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.

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**A DEMONSTRATION ON A PLOUGHED FIELD**

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

**A DEMONSTRATION IN A MINIMUM TILLAGE SYSTEM**

After a good incorporation of plant residue in a plough-free system of farming the Swifter makes a superb job.

**DEMONSTRATION OF WORK IN SUMMER SEASON**

Seedbed preparation during the summer 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 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.
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.

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.

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.

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.
“It is not unusual for us to face extremely difficult conditions in our fields. For me, the Swifter has proven itself regarding soil preparation in wet conditions, preparing the rough furrow magnificently. Frame springs contribute to work comfort. I would not hesitate to invest in a Swifter again for soil preparation.”

Jiri Richter, private farmer
Czech Republic
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 share.

Usage – Summer and autumn preparation when the soil needs to be loosened and mixed after the harvest.

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.

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.

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

A simple and cheap solution for the spring cultivation of light soils.

- **weight:** 78 kg/m
- **diameter:** 370 mm

**DUAL ROW SLATTED ROLLER**

Suitable for all-year-round cultivation of light soils. The rollers of 320/370 mm diameter create the effect of a “soil cutter”.

- **weight:** 168 kg/m
- **diameter:** 350/370 mm

**SINGLE ROW CROSSKILL**

The single row crosskill with scraper system is made from cast iron, suitable for crushing clods.

- **weight:** 92 kg/m
- **diameter:** 370 mm

**DOUBLE ROW CROSSKILL**

The double row crosskill self-cleaning roller made from high-quality cast iron, creating a thorough clod crushing effect. Only for Swifter SO/SO_F.

- **weight:** 194/212 kg/m
- **diameter:** 350/440 mm

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

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

The bar roller made of coil shaped rods crushes the clods along the surface of the field. Its design gives it an excellent crumbling effect, even in the coarse furrow.

Overlapping 270 mm width shares ensure the perfect undercut and loosening along the entire width of the machine. They work on a flexible tine, with 3-sided mobility (“3D effect”).
Ensure the soil profile is cut over the machine's whole working width without vertically mixing the soil. This means no moisture is lost.

Ensure the clods are crumbled to a fine grain, which remains on the surface after the work of the previous working components. Simultaneously its pressure finely tightens the surface.

Ensure the perfect loosening and warming of soil without the loss of moisture. The Gamma-tines are positioned at a negative angle, so there is no humidity released to the soil's surface.

4 ROWS OF SUSPENDED GAMMA-TINES
Ensure the perfect loosening and warming of soil without the loss of moisture. The Gamma-tines are positioned at a negative angle, so there is no humidity released to the soil's surface.

4 ROWS OF SPRING SHARES (SB-SECTION)
Ensure the soil profile is cut over the machine's whole working width without vertically mixing the soil. This means no moisture is lost.

LEVELLING BAR
Evens the surface making life easier for the rear rollers. Working height is easily set by positioning the chain in the shape eye with a latch.

REAR CRUMBLING ROLLERS
Ensure the clods are crumbled to a fine grain, which remains on the surface after the work of the previous working components. Simultaneously its pressure finely tightens the surface.

FINISH ROLLER OF 270 MM DIAMETER
Thanks to the high circumferential speeds intensive crumbling is guaranteed ("soil cutter effect"). In combination with the crosskill rollers you will reach optimum soil crumbling.

REAR LEVELLING BAR
Creates a perfectly level field which is 100% ready for seeding for even the smallest seeds such as spring barley, poppy seed, rape etc.
BEDNAR SWIFTER SN
is a mounted seedbed cultivator designed for tractors from 75 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

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**SWIFTER SN series**

<table>
<thead>
<tr>
<th>BEDNAR SWIFTER</th>
<th>SN 3000</th>
<th>SN 4000</th>
<th>SN 4000R</th>
<th>SN 5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working width</td>
<td>m</td>
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<tr>
<td>Transport width</td>
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<td>2–12</td>
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<tr>
<td>Number of shares</td>
<td>pcs</td>
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<td>16</td>
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<tr>
<td>Number of shares SB-section</td>
<td>pcs</td>
<td>19</td>
<td>30</td>
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<tr>
<td>Number of gamma-tines</td>
<td>pcs</td>
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<td>40</td>
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<tr>
<td>Total weight**</td>
<td>kg</td>
<td>1 080–1 410</td>
<td>1 650–2 080</td>
<td>1 510–2 120</td>
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<td>Recommended output**</td>
<td>HP</td>
<td>90–120</td>
<td>140–160</td>
<td>140–160</td>
</tr>
</tbody>
</table>

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

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**CONNECTED WITH A 3-POINT LINKAGE**
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.

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**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.

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**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.

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**BEDNAR SWIFTER SO_F**

is 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)

**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.

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**BEDNAR SWIFTER**

<table>
<thead>
<tr>
<th></th>
<th>SO 4000F</th>
<th>SO 5000F</th>
<th>SO 6000F</th>
<th>SO 7000F</th>
<th>SO 8000F</th>
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<tr>
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<td>Transport width</td>
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<tr>
<td>Working depth*</td>
<td>cm</td>
<td>2–12</td>
<td>2–12</td>
<td>2–12</td>
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<tr>
<td>Number of shares</td>
<td>pcs</td>
<td>16</td>
<td>20</td>
<td>24</td>
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<tr>
<td>Number of shares SB-section</td>
<td>pcs</td>
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<td>38</td>
<td>45</td>
<td>51</td>
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<tr>
<td>Number of gamma-tines</td>
<td>pcs</td>
<td>34</td>
<td>44</td>
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<tr>
<td>Total weight**</td>
<td>kg</td>
<td>3 200–4 000</td>
<td>3 600–4 700</td>
<td>4 100–5 700</td>
<td>4 300–5 700</td>
</tr>
</tbody>
</table>

*depends on soil conditions  **depends on the machine accessories
BEDNAR SWIFTER SO

Swifter SO series /Swifter Concept/

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

- semi-mounted machine
- working widths of 4, 5, 6, 7 m
- unique system of interchangeable working sections (Swifter Concept 3-in-1) - share / gamma-tine / SB-section, disc

<table>
<thead>
<tr>
<th>SWIFTER</th>
<th>SO 4000</th>
<th>SO 5000</th>
<th>SO 6000 2S</th>
<th>SO 6000 4S</th>
<th>SO 7000</th>
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<tr>
<td>Transport length m</td>
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<td>7</td>
<td>7</td>
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<tr>
<td>Working depth cm</td>
<td>2–12</td>
<td>2–12</td>
<td>2–12</td>
<td>2–12</td>
<td>2–12</td>
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<tr>
<td>Number of shares pcs</td>
<td>16</td>
<td>20</td>
<td>24</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>Number of shares SB-section pcs</td>
<td>30</td>
<td>38</td>
<td>45</td>
<td>45</td>
<td>53</td>
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<tr>
<td>Number of gamma-tines pcs</td>
<td>40</td>
<td>48</td>
<td>60</td>
<td>60</td>
<td>70</td>
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<tr>
<td>Total weight** kg</td>
<td>3 100–4 100</td>
<td>3 500–4 800</td>
<td>4 000–5 500</td>
<td>4 300–5 800</td>
<td>5 000–6 500</td>
</tr>
</tbody>
</table>

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

SECTION REPLACEMENT

It is very simple to replace the Swifter SO seedbed cultivator working sections for the SwifterDisc XO disc section. The disc section is affixed to the side frame using bolts, and main screws with casing through the side frame girders. The exchange takes roughly 2–3 hours.

SUSPENSION OF THE WORKING SECTIONS

The machine working sections are suspended using leaf springs. All bumps in the direction from the soil to the main frame of the machine and consequently to the tractor are reduced using these springs. The machine works solidly and at high speeds.

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.
SWIFTER
Easy to set up

**HYDRAULICALLY ADJUSTABLE WORKING DEPTH (GAMMA-TINES)**
Set the working depth with ease and comfort right from the tractor cabin.

**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.

**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 silent block also serves to protect against slips.
The side deflector located on the machine sides prevent earth from being transferred outside the machine working width. This prevents the formation of ridges. Connections between each pass are not visible.

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.
Product range

The technical data and illustrations are approximate. Reservations are made for any design changes.

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Czech Republic

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E: info@bednarfmt.com
W: www.bednar-machinery.com

Product range

**TILLAGE**

- Straw harrows STRIEGEL-PRO
- Disc cultivators SWIFTERDISC
- Disc cultivators ATLAS

**TILLAGE**

- Seedbed cultivators SWIFTER
- Versatile cultivators FENIX
- Chisel ploughs TERRALAND

**TILLAGE**

- Trailed packers CUTTERPACK, PRESSPACK, GALAXY
- Inter-row cultivator ROW-MASTER

**SOWING AND FERTILISING**

- Seed drills OMEGA
- Fertiliser hopper FERTI-BOX

**ROTARY CUTTERS**

- Rotary cutters MULCHER

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Your authorised dealer

www.bednar-machinery.com