MECHANICAL SEEDERS AND PNEUMATIC AIRSEEDERS

DRILLBOX, MECHANICBOX, P-BOX-STI, P-BOX-MD

MECHANICAL SEEDERS AND PNEUMATIC AIRSEEDERS

DRILLBOX  MECHANICBOX
P-BOX-STI  P-BOX-MD
The P-BOX-STI has an electric seeding roller drive. An extensive, easy to use control and various sensors ensure an exact and precise seeding, always adapted to the working speed and easy to regulate.

INTERCROP SEEDING
In order to avoid nitrogen losses, sowing intercrops is gaining increasing importance and is often mandatory in water protection areas. Intercrop seeding should be done immediately after or during tillage operations in order to utilise soil humidity.

AFTERSOWING GRASS AND CLOVER INTO EXISTING PASTURES AND GRASSLAND
The natural balance of grassland can be disturbed by weather conditions and mistakes in cultivation. A technology to improve grass quality without destroying the existing turf is ideal to improve pasture.

With the DRILLBOX/MECHANICBOX you can seed 5 kg/ha of any intercrop and/or seed mix in a simple oversowing procedure. By using a knob for fine and a lever for coarse settings you can adjust the seeding rate from approx. 5 kg/ha. The SEEDBOX features an activation wheel system with baffle plates.

The P-BOX-STI has an electric seeding roller drive. An extensive, easy to use control and various sensors ensure an exact and precise seeding, always adapted to the working speed and easy to regulate.
The P-BOX-MD is an air seeder which can be mounted easily and fast to any machine (tined weeder, cultivator, hoe, disc harrow...). It is able to seed all standard seeds and their mixtures up to a size of 5 mm. It is driven by a rubber wheel or a following tail wheel.

**SPEED-TRONIC**

The SPEED-TRONIC control unit has an intuitive graphical user interface with physical keys for a fast and easy handling.

**UNDERSONING CLOVER OR CLOVER / GRASS IN GRAIN**

When grain has reached the 3 to 4 leaf stage, clover can be sown after 1-2 weeding operations. During autumn and winter a successful established clover in grain can collect as much as 100 kg nitrogen before ploughing for the summer-crop. Fields with winter greening after grain have a positive ecological effect due to the good nitrogen balance.

**UNDERSONING OF GRASS INTO MAIZE**

The grass will be sown in at a maize height of 20 – 30 cm after hoeing (which had been preceded by an earlier round of weeding or hoeing). The following advantages can be expected after successful underseeding of grass into maize:

- the ground can take heavier loads during harvesting or fertilising
- suppression of late-germinating weeds
- collection of nitrogen in autumn allowing an efficient utilisation of liquid manure
- improvement of ground fertility
- reduced amount of herbicide

The SPEED-TRONIC control unit has an intuitive graphical user interface with physical keys for a fast and easy handling.
The **mounting consoles**, which can be adjusted in an angle by a toothed wheel fit to 60, 70, 80, 90 and 100 mm steel tubes.

The **calibration pan** can also be used to enlarge the opening.

The **arm of the bottom drive wheel** is adjustable in length. Because of its large diameter of 600 mm the drive wheel grants an exact activation of the shearing wheels also in rough terrain.

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**Standard equipment**

**DRILLBOX / MECHANICBOX**

- Exact seeding via the shearing wheel system
- Mounting consoles adjustable via toothed wheel and dimensioned for 60, 70, 80, 90, and 100 mm tubes
- Stirring shaft can be retrofitted, just above the seeding wheel (standard on MECHANICBOX)
- Large bottom drive wheel with two long actuation metal drive cassettes
- Distribution deflector plates
- Monitoring window to the bottom of the tank
- High gusset plates (equal distribution of the seeds to all deflector plates)
- Lid cover (no seed loss when filling)
- Lid with caplock
- Calibration pan for calibration test
- Operating instructions

**Optional equipment**

**DRILLBOX / MECHANICBOX**

- Stirring mechanism (standard on MECHANICBOX)
- Price reduction when bottom drive is not required
- Additional console for mounting on different machines
  - (when mounting the SEEDBOX on a disc harrow we recommend to use an additional console because of the high vibrations during operation)

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**Technical data DRILLBOX / Seed-body-distance 34 cm**

<table>
<thead>
<tr>
<th>Type</th>
<th>Box width m</th>
<th>Transport width m</th>
<th>Tank volume litres</th>
<th>Number of outlets</th>
<th>Weight approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRILLBOX 260</td>
<td>2.72</td>
<td>2.95</td>
<td>215</td>
<td>8</td>
<td>145</td>
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<tr>
<td>DRILLBOX 300</td>
<td>2.84</td>
<td>3.00</td>
<td>230</td>
<td>9</td>
<td>150</td>
</tr>
</tbody>
</table>

**Technical data MECHANICBOX / Seed-body-distance 17 cm**

<table>
<thead>
<tr>
<th>Type</th>
<th>Box width m</th>
<th>Transport width m</th>
<th>Tank volume litres</th>
<th>Number of outlets</th>
<th>Weight approx. kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>MECHANICBOX 300</td>
<td>2.84</td>
<td>3.00</td>
<td>230</td>
<td>17</td>
<td>165</td>
</tr>
</tbody>
</table>

Further widths on request

Technical data and measurements are approximations and non-binding. We reserve the right to make changes in construction and model types.
The DRILLBOX/MECHANICBOX is suitable for the use on rigid tilling implements. In a very easy and solid way you can seed 5 kg/ha of any intercrop seed and seed mix in a simple oversowing procedure using a knob for fine and a lever for coarse settings. The seedbox features an activation wheel system with baffle plates and can also be equipped with a stirring shaft for an extra charge.

The specially shaped distribution deflector plates spread the seeds evenly. The system is activated by a separate large bottom drive wheel with metal drive cassette. The box is also available without these options at a reduced price. If you activate the DRILLBOX through the roller of your machine, however, the smaller diameter of the roller may raise the figure for the lowest possible seeding rate beyond the figure stated above. High gusset plates inside the tank keep the seeds from slipping and ensure exact seed distribution even on sloped terrain.

The MECHANICBOX should come into operation by slowly working machines (subsoiler, rotary harrow...) with a shallow mounting position respectively falling height. You should choose the DRILLBOX on the other hand on machines with high working speed (cultivator, disc harrow ...) and from approx. 70 cm mounting height.
We offer a wide range of seeding rollers which can be ordered. One seeding roller with fine and one with coarse tooth are part of the standard equipment.

The seeding rollers are suited for the following seeds depending on seeding quantity, working width and working speed (see table on page 23).

FOR EVERY SEED THE CORRECT SEEDING ROLLER

On these and the following four pages the technical details of the P-BOX are described.

This is followed by a detailed explanation of the P-BOX-STI (page 12), P-BOX-MD (page 16).
PRECISE PNEUMATIC SEEDING

The air seeders P-BOX-STI and P-BOX-MD are designed to seed all standard seeds and their mixtures up to a size of 5 mm. Depending on seeding quantity and speed you can adjust the seeding rate to anywhere between 1 kg and 300 kg per hectare in a simple adjustment step.

The air stream blowing the seeds to the deflector plates is produced either by an electric, hydraulic, shaft-driven or a special fan, which is attached directly to the PTO shaft of the tractor.

With the mechanical fan you can seed also heavy seeds and drive with higher working speed.
The standard P-BOX has 8 sections on the seeding roller, but with special rollers in combination with sealing plugs the outlets can be reduced. You can also use distributor heads for doubling the outlets (e.g. 16 outlets from eight sections).

If a P-BOX is mounted for example on a 9 m Einböck GRASS-MANAGER or AEROSTAR, you need a seeding roller with 6 sections and 2 sealing plugs.

The standard P-BOX is designed for grass seed to be sown at a volume of 40 kg/ha at a speed of 10 km/h.

If you want to seed a larger quantity, if the working speed is higher (disc harrows) or if larger, heavier seeds (grain) shall be distributed we ask you to contact us so we can arrange the best possible combination of seeding roller and fan type for you.

The deflector plates are equipped with a splash guard to make sure the seeds are evenly distributed. The holder of the plate can be adjusted infinitely variable.

When mounting the deflector plates you have to make sure, that the distance between two deflector plates is not more than 75 cm.
The seeding roller distributes the seeds into the eight divided and separated outlets. From there it is transported pneumatically via the PVC seed hoses to the deflector plates from where it is exactly spread over the entire working width. Since the seeds are blown pneumatically, wind does not matter as much as it would with mechanical seeders.

A lever adjusts the distance of the stripper according to the seed diameter.

The calibration plate for the calibration test is standard equipment.

The seeding roller can be changed without any tools.
The rubber sealing ensures the tank is properly closed - this is necessary for an optimal operation. The opening lid can be mounted with opening to the left or to the right.

On request the airseeders are available with a 500 litres seed tank (with tank support and extra-large opening).

The standard seed tank has a capacity of 300 litres. A stirring shaft prevents the seed mix from separating and from bridging in the tank.

Mechanic jogging unit for sticky seeds.

For heavy seeds we recommend the retaining plate mounted above the stirring shaft and the seeding roller.

Far left: Draining outlet with flexible drain hose

Monitoring window
Meeting the increasing demand, the arable farm land has to be healthy and fertile. To improve soil quality it is reasonable to keep it planted throughout the year. In many cases this is only possible by seeding intercrops.

In intensive grassland cultivation there is no room for natural regeneration of soil and crop, therefore this job needs to be done mechanically. Underseeding, overseeding grass, drilling of grass and/or intercrop seeds, distribution of slug granulates - EINBOCK offers the best possible solution for each of these tasks on any size farming operation.

Contact us and we will gladly advise you how to best combine our seeding implements with your existing machinery like cultivators, weiders, disc-harrows etc.
The linkage sensor turns off the seeding roller when the machine is lifted up.

The GPS-Sensor, mounted on the lid of the tank, is an option to measure the speed precisely.

With the **calibration button** on the rear of the machine, the calibration test can be done directly at the machine.

The power supply is done by the tractor. Several sensor signals can be obtained from the tractor via the **7-pole signal socket**.

The sensors of the **airflow monitoring** signalize, whether one or more seeding hoses are clogged.

The **tank level sensor** signalizes, when the tank is getting empty. The sensor works inductively, therefore it is vibration independent.
The P-BOX-STI is a pneumatic airseeder with electrical quantity dosage. The user-friendly SPEED-TRONIC control unit regulates the seed quantity depending on the factual working speed. The necessary speed info can be obtained via several sensors or via the 7-pole signal socket of the tractor.

With the P-BOX-STI (and also with the P-BOX-MD) it is possible to seed all standard seeds and their mixtures up to a size of 5 mm. Depending on the seeding rate and working speed it can be set to anywhere from 1 kg to 300 kg per hectare by a simple adjustment.

It can easily be retrofitted on Einböck machines and also on machines of other manufacturers.
### Technical data P-BOX-STI

<table>
<thead>
<tr>
<th>Type/Working width</th>
<th>Working width up to</th>
<th>Tank volume litres</th>
<th>Distribution plates</th>
<th>Weight approx. kg</th>
<th>Seeding rollers</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-BOX-STI 600</td>
<td>6.00 m</td>
<td>300</td>
<td>8</td>
<td>86</td>
<td>B, E</td>
</tr>
<tr>
<td>P-BOX-STI 1200</td>
<td>12.00 m</td>
<td>300</td>
<td>16</td>
<td>105</td>
<td>D, F</td>
</tr>
</tbody>
</table>

1. for seeding of grain on 6.00 m working width a mechanical fan is needed
2. with mechanical fan
3. with fine seeds
4. see photo seeding rollers page 6

Optional equipment P-BOX-STI

- Several assembly sets for Einböck cultivators, weeders, etc.
- Tank stabilizing support
- Larger tank volume (500 litres)
- Mechanic fan with PTO shaft
- Mechanic fan
- Hydraulic fan with oil pressure manometer (requirements: pressure free return line, maximum capacity of the oil pump must not exceed 50 litres per minute; recommendation: independent hydraulic valve or load sensing system)
- Retaining plate for heavy seeds
- Mechanic jogging unit for sticky seeds
- Ground wheel sensor for external support wheel
- Spike wheel with wheel sensor
- GPS-speed sensor
- 7-pole signal cable
- Upper link sensor
- Linkage sensor
- Radar sensor
- Tank level sensor
- Calibration button direct on the machine
- Airflow monitoring
- Longer cable 5 m for machine respectively sensors
- Filling steps
- Special seeding rollers with reduced number of outlets e.g. G, H, I (see page 8)

### Standard equipment P-BOX-STI

- Stirring shaft
- Separate section on the seeding roller per hose
- Mounting console
- Calibration plate + calibration pan
- Cable with big diameter and control unit
- Specially designed distribution plates with splash guard
- Seeding roller with coarse toothing
- Seeding roller with fine toothing
- Monitoring window + emptying opening
- 6.00 m machine with electrical fan, 12 Volt
- 12.00 m machines with mechanical fan and PTO shaft
- Operating instructions

Technical data and measurements are approximations and non-binding. We reserve the right to make changes in construction and model types.
Intuitive graphical user interface in many different languages

**SPEED-TRONIC**

CONSISTENT AND FAST SEEDING

- Hectare- and acre-counter (daily and total area)
- Operating hours counter
- Automatic calibration test – optional with calibration button directly on the machine
- Automatic switching off of the seeding roller at the headland
- Pre-dose function
- Tank level monitoring (optional)
- Airflow monitoring (optional)
The flexible drive shaft flanged to the rubber support wheel or tail wheel transfers the power to an infinitely variable oil-immersed gearbox, which powers the seeding roller and the stirring shaft by a chain drive.

**Bottom drive with air wheel**, fix mounted to the frame.

**Bottom drive with air wheel**, which is pressed on a roller.

Suspended bottom drive with 90° angle unit through **trailing tail wheel** instead of standard version.
A large-dimensioned chain with tightener transfers the power from the oil-immersed gear box to the seeding roller and the stirring shaft.

Simple adjustment of seeding quantity through a lever.

Drive redirection 90° for the bottom drive

ROOTS IMPROVE SOIL STRUCTURE
COVER CROPS ARE WORTH IT
In case there are areas you do not want to seed, you can disconnect the flexible shaft from the gearbox by taking away the bolt where the shaft enters the gearbox.

If you want to do so without leaving the tractor seat, you can get an electric adjustment of the seeding quantity (option), which allows you to adjust the seeding quantity to “0”.
UNDERSEEDING IN GRAIN OFFERS

MANY BENEFITS

For example, the preservation and improvement of soil fertility. Nurse crops fix nitrogen, control weeds and prevent against erosion.

With **this control unit**, that can easily be mounted in the tractor cabin with a velcro, you can switch on/off the electric fan.

The optional **airflow monitoring** checks the fan and warns of clogged seed hoses.
**Technical data P-BOX-MD**

<table>
<thead>
<tr>
<th>Type/Working width</th>
<th>Working width up to</th>
<th>Tank volume litres</th>
<th>Distribution plates</th>
<th>Weight approx. kg</th>
<th>Seeding rollers</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-BOX-MD 600 1</td>
<td>6.00 m</td>
<td>300</td>
<td>8</td>
<td>86</td>
<td>B, E</td>
</tr>
<tr>
<td>P-BOX-MD 1200 2</td>
<td>12.00 m</td>
<td>300</td>
<td>16</td>
<td>105</td>
<td>F, D</td>
</tr>
</tbody>
</table>

1 with the 6.00 m machine grain can be seeded up to 3.00 m
2 for seeding of grain on 6.00 m working width a mechanical or hydraulic fan is needed
3 with small seeds
4 see photos of the seeding rollers on page 6

**Optional equipment P-BOX-MD**

- Several assembly sets for Einböck cultivators, weeders, etc.
- Tank stabilizing support
- Cable to tractor 8.00 m instead of 3.00 m
- Hectare-counter (electronic)
- 90° angle unit for flexible shaft
- Flexible drive shaft 3.00 m instead of 2.10 m
- Additional flexible drive shaft 2.10 m with adapter for connection to the standard shaft
- Larger tank volume (500 litres)
- Mechanic fan with PTO shaft
- Hydraulic fan with oil pressure manometer (requirements: pressure free return line, maximum capacity of the oil pump must not exceed 50 litres per minute; recommendation: independent hydraulic valve or load sensing system)
- Airflow monitoring
- Stronger gear box for heavy seeds
- Retaining plate
- Mechanic jogging unit for sticky seeds
- Filling steps
- Bottom drive with air wheel, mounted on the mainframe
- Bottom drive with trailing tail wheel
- Bottom drive with air wheel, which is pressed on a roller
- Special seeding rollers with reduced number of outlets e.g. G, H, I (see page 6)
- Electric adjustment of seeding quantity
- Tank level monitoring

**Standard equipment P-BOX-MD**

- Mechanic dosing drive
- Stirring shaft
- Mounting console
- Calibration plate + calibration pan
- Cable with big diameter and control unit
- Specially designed distribution plates with splash guard
- Flexible drive shaft (length = 2.10 m)
- Separate section on the seeding roller per hose
- Seeding roller with coarse toothing
- Seeding roller with fine toothing
- Monitoring window + emptying opening
- 6.00 machine with electric double fan, 12 volts
- 12.00 m machines with mechanical fan and PTO-shaft
- Operating instructions

Technical data and measurements are approximations and non-binding. We reserve the right to make changes in construction and model types.
Tank level monitoring (optional)

The electronic hectare counter can be retrofitted easily.

QUICK GERMINATION, HIGH YIELDS
BEST RESULTS
The Einböck universal seeders are flexible in use and can easily and quickly be mounted on your existing equipment. Here are some examples of the P-BOX from practice:
WHICH SEEDS
FOR WHICH SEEDER?

The list gives an overview of the seeds which can be distributed with which machine.
We will be glad to advise you about other fields of applications!

<table>
<thead>
<tr>
<th>Seed</th>
<th>DRILLBOX</th>
<th>MECHANICBOX</th>
<th>P-BOX-STI</th>
<th>P-BOX-MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fieldbeans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buckwheat</td>
<td></td>
<td></td>
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<tr>
<td>Spelt</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Peas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fodder profi KM</td>
<td></td>
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</tr>
<tr>
<td>Barley</td>
<td></td>
<td></td>
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<tr>
<td>Grassland profi B</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Grassland profi NA</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Oats</td>
<td></td>
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<tr>
<td>Inkarnat clover</td>
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<tr>
<td>False flax</td>
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<tr>
<td>Flax seed</td>
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<tr>
<td>Lupines</td>
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<tr>
<td>Lucerne</td>
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<tr>
<td>Poppy seed</td>
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<td></td>
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<tr>
<td>Oil radish</td>
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<td></td>
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<tr>
<td>Phacelia</td>
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<tr>
<td>Rape</td>
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<tr>
<td>Rye</td>
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<tr>
<td>Red clover</td>
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<tr>
<td>Turnip rape</td>
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<tr>
<td>Slug pellets</td>
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<td></td>
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<tr>
<td>Mustard</td>
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<tr>
<td>Soybean</td>
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<tr>
<td>Sunflower</td>
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<tr>
<td>So-vetch</td>
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<td></td>
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<tr>
<td>Triticale</td>
<td></td>
<td></td>
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<tr>
<td>White clover</td>
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<tr>
<td>Wheat</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

possible, depending on working speed and working width
possible up to 6 m working width
but requires following options:
• Mechanic or hydraulic fan instead of electric fan
• Using the retaining plate
• Stronger gear box (only necessary for P-BOX-MD)
not possible
Related brochures

- CHOPSTAR-SEEDER - Row crop drill
- JUMBO - Pneumatic airseeder / Fertilizer spreader
  in CHOPSTAR brochure