Einböck

When seeding is joy!

# SEEDING & FERTILIZING

PHEUMATIC
SEEDING BOXES
P-BOX-MD & STI

PNEUMATIC FRONT TANK
JUMBO-SEED

MECHANICAL INTERCROP
SEEDER
DRILL- & MECHANICBOX

ROW-CROP DRILL

CHOPSTAR-SEEDER

MECHANICAL
FERTILIZER BOX
FERTIBOX





#### **HANDBOOKS**

- PAGE 4
- Practical reports and useful tips
- Correct use, different approaches, timing of use
- Successful hoeing and weeding
- **Fusion Farming**



#### **VERSATILE APPLICATION POSSIBILITIES** OF OUR SEEDING TECHNOLOGY

PAGE 5

- Intercropping
- Reseeding of grass and clover in existing pastures and grasslands
- Undersowing of a wide variety of crops in field crops & row crops



#### **PNEUMATIC SEEDING BOXES** P-BOX-MD & STI

**PAGE 6-27** 

- Exact mechanical (MD) or electronical (STI) metering and extremely user-friendly monitor in the tractor cab (STI)
  Reseeding of grassland or distribution of fertilizer
- Seeding cover crops or green manure crops
- Distribution of many different varieties of seeds
- Assembling on many different cultivators, weeders, etc. possible



#### PNEUMATIC FRONT TANK **JUMBO-SEED**

**PAGE 28-39** 

- Effective fertilizing or sowing Can be individually combined with rear units Saves work steps & reduces soil pressure
- Four dosing units
- Perfect weight distribution





#### **ROW-CROP DRILL CHOPSTAR-SEEDER**

- **PAGE 40-55**
- Row seeding of legumes and grain
  In combination with seeding box JUMBO or P-BOX-STI
  Seeding in rows for special crops
- Exact adjustment of seeding depth
- Flexible adjustment of the row distance
- Practical reports CHOPSTAR-SEEDER



#### **MECHANICAL INTERCROP SEEDER DRILL- & MECHANICBOX**

**PAGE 56-59** 

**PAGE 61** 

- Mechanically metered intercrop seeding
- Cost-efficient seeding cover crops
  Can be mounted on rigid machines
- Seeding of winter greening
- Easy adjustment of seeding rate



#### **MECHANICAL FERTILIZER BOX FERTIBOX**

- PAGE 60
- Application of fertilizer for row distances between 60-80 cm / 23.6-31.4" Universal machine for different types of fertilizer
- Stainless steel tank for fertilizer application at rigid machines
- Easy adjustment of the distribution rate
- Mechanic drive via ground wheel



#### WHAT KIND OF SEEDER **FOR WHICH SEED?**

Seed drilling with P-BOX, JUMBO-SEED, CHOPSTAR-SEEDER, DRILL- & MECHANICBOX

# THE ORGANIC FARMING HANDBOOK

Experience reports and information of the practical use of our weeding- & hoeing technology you can find in our "Organic farming handbook". There you will find everything about weeding and hoeing as well as other topics related to "Fusion Farming".

Topics which might be interesting for you:

- » When and how to regulate mechanically which crops?
- » Principles of weeding & hoeing such as timing of application or blind weeding
- » Our "Top 10 of weeding"
- » Hoeing and weeding of grain, maize, soybeans, field beans, sugar beets, pumpkins & potatoes
- » Intercrops: sowing, incorporation, advantages

You can download the handbook at www.einboeck.at/en/know-how



# **GRASSLAND WEEDING IN PRACTICE**

Experience reports and information of the practical use of our grasslandcare-weeding-technology you can find in our "Grassland care handbook". There you will find everything about grassland weeding and reseeding as well as other topics related to the management of grassland.

Topics which might be interesting for you:

- » Different solutions
- » Maintenance and reseeding of grassland
- » Liming, fertilization, grass mixtures
- » Rolling in grassland
- » Trial reports

You can download the handbook at www.einboeck.at/en/know-how



# VERSATILE APPLICATION POSSIBILITIES

OF OUR SEEDING TECHNOLOGY

#### Intercrop seeding

In order to avoid loss of nitrogen, 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.

#### Reseeding in existing pastures and grasslands

The natural balance of grassland can be disturbed by weather conditions and mistakes in cultivation. Regular maintenance and reseeding help to avert cost-intensive ploughing and to ensure good yields for many years.

#### **Undersowing**

#### Undersowing in area-field crops

For example, when doing the final weeding in autumn, clover can be underseeded in the grain when it is in the 3-4 leaf stage. A successful establishment of clover in grain can collect up to 100 kg of nitrogen in autumn and winter before ploughing for summer grain. Greened areas after grain are very environmentally friendly because of the good nitrogen balance.

#### Undersowing in row crops

Successfully established nurse crops in row crops provide various advantages. Underseeding with the last hoeing-operation, when the corn is 20-30 cm 7.90-11.80" high, gives the best effect.

#### Advantages of undersowing

- » Improved trafficability of the soil during harvesting and fertilization
- » Suppression of late germinating weeds
- » Immediate soil cover after harvest
- » Improvement of soil fertility and humus build-up
- » Protection from erosion
- » Reduced herbicide use
- » etc.

#### **Fertilization**

To supplement or improve the supply of nutrients for the crops, fertilizer can be applied with a weeder or hoe in addition to arable crop management.











# **PNEUMATIC SEEDING BOX P-BOX-MD**

The P-BOX-MD is an air seeder which can be mounted easily and fast to a lot of Einböck machines and also on machines of other manufacturers. It is able to seed all standard seeds and their mixtures up to 1 kg/ha. The seed is pneumatically distributed via hoses to the distribution plates, where an exact spreading takes place. The seed roller is driven by a flexible shaft, which is driven by the support rubber wheel of the machine (or separate tail wheel).

The seed rate of the pneumatic seeding box can be infinitely varied between 1 kg - 300 kg/ha by simple adjustment depending on the working width, travel speed and fan variant. With the P-BOX-MD many possible applications such as seeding of intercrops, catch crops, winter greening, new seeding, reseeding, fertilization, etc. can be done.

#### Pneumatic seeding box P-BOX-MD

- » Mechanic drive of the seeding roller via flexible shaft connected to a ground wheel
- » Overseeding in grassland or fertilizing
- » Seeding of intercrops or catch crops
- » Distribution of a big variety of different seeds
- » Mounting on many different cultivators, weeders, etc.



Type/ Working width cm	Working width max. <sup>3)</sup>	Tank volume in litre	Deflector plates	Weight approx. kg / lbs	Seeding rollers
P-BOX-MD 600 <sup>1)</sup>	6.00 m / 19.70 ft.	300	8	86 kg 190 lbs	B, E
P-BOX-MD 1200 <sup>2)</sup>	12.00 m / 39.40 ft.	300	16	105 kg 232 lbs	D, F





#### **STANDARD EQUIPMENT**

- P-BOX-MD = seeding rate controlled via ground wheel
- Steel tank including steel substructure
- ✓ Bottom drive through air wheel and assembly kit
- ✓ Stirring shaft
- ✓ Calibration plate + calibration pan
- ✓ Specially designed distribution plates with splash guard
- ✓ Flevible shaft 2.1 m / 6.90 ft
- ✓ Seeding roller with separate section per hose
- ✓ One seeding roller with fine and one with coarse toothing
- ✓ Seeding roller can be changed without tools
- ✓ Monitoring window + opening to fully empty the box
- √ 6 m / 19.70 ft. machine with electric fan, 12 volts and 24 m /
  78.70 ft. hose
- 12 m / 39.40 ft. machines with mechanical fan, PTO-shaft and 40 m / 132 ft. hose

#### **OPTIONS**

Various options of ground wheels

Mechanical jogging unit

Cable to tractor 8 m / 26.20 ft. instead of 3 m / 9.80 ft.

Hectare-counter electronic

Retaining plate

Tank support

500 l tank; plastic tank instead of steel tank

Mechanical fan (standard at P-BOX-MD 1200)

Hydraulic fan

Airflow monitoring; alarm when seeding box is getting empty

90° angle unit for flexible shaft

Electric adjustment of seeding quantity

Steps for filling and different mounting kits

P-BOX-MD with seeding unit made from stainless steel

Special seeding rollers; dummy plug

# **CONCEPT** P-BOX-MD

- 1. Quantity dosage dependent on speed
- 2. Mechanical bottom drive with trailing tall wheel without sensors
- 3. Seeding roller with coarse and a fine toothing
- 4. Electric double fan (up to 6 m / 19.70 ft.; electric power supply via 3-pin socket) or mechanical fan (from 6 m / 19.70 ft.); option: hydraulic fan





Simple and reliable seeding for many different applications.



## **DETAILS & ADVANTAGES** P-BOX-MD

# FAST & UNCOMPLICATED ADJUSTMENT OF THE SEEDING RATE

The seeding rate can be adjusted quickly and without electronics via a lever.





#### **CONTROL UNIT FOR ELECTRIC AIR FAN**

With the control unit, which can be easily fixed in the tractor cab with a Velcro fastener, the electric air fan can be switched on and off.

#### **EXACT SEEDING OF MANY SEED VARIETIES**

The seeding roller is driven by a ground wheel which turns a flexible shaft that transmits the actual speed to the seeding roller via a gearbox. This ensures that the set sowing rate is accurately applied even when working different speeds. On machines up to 6 m / 19.70 ft. the air flow is generated by an electric double fan (picture). For machines bigger than 6 m / 19.70 ft. working width a mechanical fan is used as standard. A hydraulic fan is available as an option.





# **PNEUMATIC SEEDING BOX P-BOX-STI**

The P-BOX-STI is a pneumatic airseeder with electrical quantity dosage. The user-friendly electonic 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 it is possible to seed all standard seeds and their mixtures up to 1 kg/ha. The seed is pneumatically distributed via hoses to the distribution plates, where an exact seeding takes place. The seed rate can be infinitely adjusted by simple setting in the SPEED-TRONIC terminal. With the P-BOX-STI many possible applications such as seeding of intercrops, catch crops, winter greening, new seeding, reseeding, fertilization, etc. can be done.

#### Pneumatic seeding box P-BOX-STI

- » Precise electric metering and distribution via terminal
- » Overseeding in grassland or fertilizing
- » Seeding of intercrops or catch crops
- » Distribution of a big variety of different seeds
- » Mounting on many different cultivators, weeders, etc.



Type/ Working width cm	Working width max. <sup>3)</sup>	Tank volume in litre	Deflector plates	Weight approx. kg / lbs	Seeding rollers
P-BOX-STI 600 1)	6.00 m / 19.70 ft.	300	8	86 kg 190 lbs	B, E
P-BOX-STI 1200 <sup>2)</sup>	12.00 m / 39.40 ft.	300	16	105 kg 232 lbs	D, F







#### STANDARD EQUIPMENT

- ✓ P-BOX-STI = electric drive of the seeding roller, controlled by the STI terminal in the tractor, speed info coming from wheel, GPS or radar sensor or from the tractor via 7-pin signal cable.
- Stirring shaft, console holder
- Calibration plate + calibration pan
- ✓ Specially designed distribution plates with splash guard
- ✓ Seeding roller with separate section per hose
- One seeding roller with fine and one with coarse toothing
- ✓ Seeding roller can be changed without tools
- ✓ Tank made from sheet steel
- ✓ Monitoring window + opening to fully empty the box
- √ 6 m / 19.70 ft. machine with electric fan, 12 volts and 24 m /
  78.70 ft. hose
- 12 m / 39.40 ft. machines with mechanical fan and PTO-shaft and 40 m / 132 ft. hose

#### **OPTIONS**

Wheel sensor for ground wheel; tail wheel with speed sensor  $% \left\{ 1\right\} =\left\{ 1\right\}$ 

GPS-speed sensor or radar sensor

7-pole cable

Upper link sensor, lifting gear sensor

Automatic area-specific dosing of the seeding rate in combination with the ISARIA sensor

Alarm when seeding box is getting empty

Calibration button at the seeding machine, airflow monitoring

Extension cable 5 m / 16.40 ft. for machine or sensors

Mechanic jogging unit; Retaining plate

Tank support; 500 l tank; plastic tank instead of steel tank

Mechanical (standard at P-BOX-STI 1200) or hydraulic fan

Deflector plate made from stainless steel

Holder for control terminal

Steps for filling and different mounting kits

P-BOX-STI with seeding unit made from stainless steel

Special seeding rollers; dummy plug

# **CONCEPT** P-BOX-STI

- 1. Constant seeding rate
- Electric drive and speed control of the seeding roller "SPEED-TRONIC" terminal (control unit in the tractor cabin)
- Different seeding rollers for distribution of many seed varieties
- Electric double fan (up to 6 m / 19.70 ft.; electric power supply via 3-pin socket) or mechanical fan (from 6 m / 19.70 ft.); option: hydraulic fan





## **DETAILS & ADVANTAGES** P-BOX-STI

# "SPEED-TRONIC" OPERATING MONITOR IN THE TRACTOR CABIN DEVELOPED BY EINBÖCK

- » Automatic computer-controlled constant seeding rate
- » Intuitive, graphical and colourful menu navigation in many different languages (>15)
- » Large 5 inch colour display
- » Many individual settings
- » Raised buttons ensure an easy operation even while driving; no slipping of the fingers and "blind" operation is possible
- Resistant to dust and water
- » Compact and robust case
- » Tank emptying function





# MANY INDIVIDUAL FUNCTIONS OF THE "SPEED-TRONIC" CONTROL:

- Automatic calibration function (optional with a calibration directly on the machine)
- » Automatic switch-off the seeding roller at the headland
- » Pre-dosing function
- » Hectare counter of daily und total area
- » Operating hours counter (daily and total hours)

# EXACT SEEDING OF DIFFERENT SEED VARIETIES

The seeding shaft is driven by an electric motor which communicates with various sensors (listed in the options). This ensures that the set seeding rate is accurately applied even when working different speeds. On machines up to 6 m / 19.70" the air flow is generated by an electric double fan. For machines bigger than 6 m / 19.70 ft. working width a mechanical fan is used as standard (picture). A hydraulic fan is available as an option.



# DETAILS & ADVANTAGES

P-ROX-MO | P-ROX-ST

#### **STRIPPER DISTANCE**

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





#### **SEEDING TANK 300 L**

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. (Optional: 500 litres tank)

Dimensions in cm/inch (height - width - depth):

300L: 104 - 92 - 65 cm | 41 - 36.2 - 25.6" 500L: 127 - 100 - 105 cm | 50 - 39.4 - 41.4"

#### PROTECTED CHAIN DRIVE INSTEAD OF BELTS

A large-dimensioned, protected chain with chain tensioner forms the power transmission from the stepless oil bath gearbox or electric drive to the seeding and stirring shaft. This combination ensures a constant drive of the seeder and thus uniform sowing.





#### **TYPES OF FANS**

The air stream blowing the seeds to the deflector plates is produced either by an electric, hydraulic, PTO-driven or a special fan. With the mechanical or hydraulic fan(s), heavy seed can be spread over larger working widths and at higher working speeds.

- Electric double fan (12 volts; until 6 m / 19.70 ft. working width as standard)
- Mechanic fan with PTO shaft (more than 6 m / 19.70 ft. working width)
- Hydraulic fan with oil pressure manometer (optional 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)
- Mechanic fan, directly attached to the PTO-shaft of the tractor (optional)





#### **SECOND SEEDING ROLLER**

The 2nd seeding roller is safely stored in a storage box on the machine and therefore always with you. So the seeding roller can be changed quickly for different seed types.

#### **RUBBER SEALING**

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.



# DETAILS & ADVANTAGES P-BOX-MD | P-BOX-STI

#### **CALIBRATION PLATE AND CALIBRATION PAN**

A calibration plate and calibration pan ensure simple and uncomplicated adjustment and calibration of the seed box. The parking position on the box guarantees quick accessability.





#### **MONITORING WINDOW**

A visibly placed monitoring window helps the operator to check the level of the seeds left in the tank at any time from the tractor

#### **DRAINING OUTLET WITH FLEXIBLE HOSE**

As the seed tank is often not emptied completely, excess seed can be drained from the tank via a flexible drain hose. By placing it directly above the seeding roller the tank is emptied almost without residue.



# MANY POSSIBLE APPLICATIONS AND MACHINE COMBINATIONS

Such as the application of intercrops (picture), catch crops, winter greening, new seeding, reseeding, fertilization, etc. Mounted on: weeder (picture), row crop cultivators, cultivators, subsoilers, etc.



# A B C D E F G H I

# THE RIGHT SEEDING ROLLER FOR EVERY SEED

From the wide range of seeding rollers one seeding roller with fine and one with coarse toothing are part of the standard equipment. This guarantees that the appropriate seeding roller can be used for different seeds. Further seeding rollers (9 in total) are available. Special seeding rollers can also be offered.

#### **SPLASH GUARD FOR EXACT DISTRIBUTION**

The deflector plates are equipped with a height-adjustable splash guard to make sure the seeds are evenly distributed. The holder of the plate can be adjusted infinitely variable. In addition, the splash guard is fixed in a slotted hole so it can be adjusted to different types of seed.



# DETAILS & ADVANTAGES

P-ROX-MO | P-ROX-ST

#### **SPREADING OF MANY SEED VARIETIES**

Field bean, buckwheat, peas (x), fodder pro KM, barley, grassland pro B+NA, oats (x), clover, gold of pleasure, linseed, lupins, lucerne, poppy seed, oil radish, phazelia, rape, rye (x), red clover, turnip rape, slug pellet, mustard, soya bean, sunflower (x), soy vetch, triticale (x), white clover, wheat (x), ...

Attention - not all seed varieties can be sown with the standard equipment. For all seeds marked with (x) the following options must be ordered: Mechanical or hydraulic fan instead of electric fan as well as retaining plate. For the P-BOX-MD a reinforced gearbox is also necessary. Ask your Einböck consultant for further information.





# QUICK CHANGE OF THE SEEDING ROLLERS WITHOUT TOOLS

The seeding rollers are installed in an easily accessible position and can be changed quickly and without tools.

# WEATHER INDEPENDENT AND ACCURATE SOWING THROUGH SEEDING ROLLER AND HOSES

The seeding roller distributes the seeds into eight separated outlets. There they are transported pneumatically via PVC sowing hoses to the deflector plates which are adjustable in angle. In the over seeding method the seed is precisely distributed over the entire working width. In contrast to rotary broadcasters, seeding with the P-BOX system is insensitive to wind.

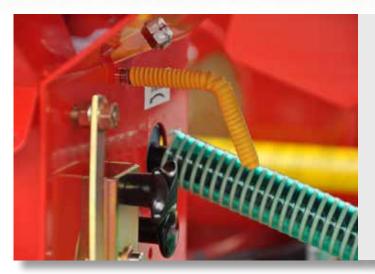




#### **SEED TANK MADE OF SHEET METAL**

The tank of the P-BOX is made of sheet metal, which is environmentally friendly and cannot become brittle. Due to the excellent quality of the powder coating, the colour does not fade even after many years. In addition, the steel tank withstands shocks and can be easily bent out or repaired if damage occurs.





#### **MECHANICAL DRIVE MONITORING**

A yellow indicator finger shows whether the seed roller is turning. This way it can be continuously checked whether the electric motor drives the chain and also the seeding roller.

#### **ROBUST SUBSTRUCTURE**

The seeding unit, constructed by Einböck manufactured inhouse, is designed for long life. Precise welds executed by welding robots ensure a perfect setup and smallest tolerance for years of trouble-free work.



# DETAILS & ADVANTAGES P-BOX-MD | P-BOX-STI

#### NUMBER OF OUTLETS CAN BE ADAPTED AS REQUIRED

The P-BOX-STI and P-BOX-MD are equipped with eight outlets as standard. But with special seeding rollers in combination with blind plugs the outlets can be reduced. You can also use distributer heads for doubling the outlets (e.g. 16 outlets from eight sections). If a P-BOX is mounted for example on a 9 m / 29.53 ft. GRASS-MANAGER or AEROSTAR-CLASSIC, you need a seeding roller with 6 sections (the hoses are split to 12 deflector plates), 2 seeding plugs and 6 splitters.











#### SIMPLE MOUNTING ON EINBÖCK **IMPLEMENTS AND OTHER BRANDS**

The seeding box P-BOX can be easily and simply mounted on many Einböck machines as well as on machines of other manufacturers. For Einböck machines there are also mounting kits and steps for filling available.



The secrets of success of the P-BOX are: many options, reliable operation and uncomplicated adjustment, very practible!



Undersowing in grain



Reseeding of grassland



Undersowing in corn with a row-crop cultivator



Weeding and reseeding of grassland



Seeding cover crops with a blade cultivator



Výsev krycích plodin univerzálním kultivátorem

## **OPTIONS** P-BOX-MD

#### **ADDITIONAL MONITORING AND CONTROL UNITS AVAILABLE**

- Hectare counter
- Airflow monitoring: this detects if one or more sowing hoses are blocked. In this case an acoustic and visual error message appears on the operating terminal
- Tank level sensor: it warns when the seeds in the tank are coming to an end. This sensor works independently from vibrations.
- Electric adjustment of seeding quantity: for increased convenience, the seed rate can be adjusted from the tractor via an electric control terminal.





#### **ANGLE UNIT**

A long service life of the flexible drive shaft is achieved if the bending radius is not smaller than 20 cm / 7.87". An angle unit ensures the shaft is well positioned not to come below this bending radius. The flexible shaft, as well as the angle unit are protected from stones and heaps of earth.

#### **FURTHER OPTIONS FOR TURNING THE FLEXIBLE SHAFT:**

- Ground drive via an air wheel, which is pressed on a roller
- Ground drive via a tail wheel, which is mounted on the main frame





## **OPTIONS** P-BOX-STI

#### **REQUIRED SPEED SENSOR**

Different sensors are available for speed detection.

- Via the 7-pin signal socket of the tractor the speed info and the info about the position of the 3-point hitch can be obtained
- Ground wheel sensor for support wheel (different versions depending on wheel and machine) - additional top link or linkage sensor required
- The GPS sensor is mounted on the filling lid of the box to precisely determine the speed - additional top link or linkage sensor required
- Sensor mounted on a following tail-wheel (different versions depending in wheel and machine) - additional top link of linkage sensor required (not shown)
- Radar sensor additional top link or linkage sensor required (not shown).

















#### **VARIOUS OTHER SENSORS**

Many other optional sensors are available for increased safety, efficiency and accuracy at work

- Upper link sensor: the seeding shaft is automatically switched off when the implement is raised
- Linkage sensor: the seeding shaft is automatically switched off when the implement is lifted (mounting example)
- Airflow monitoring: this detects if one or more seeding hoses are blocked. In this case an acoustic and visual error message show up on the operating terminal
- Level sensor: it warns when the seeds in the tank are coming to an end. This sensor works independently from vibrations.

#### **CALIBRATION BUTTON ON THE SEED TANK**

A calibration button on the tank enables the calibration test to be carried out directly on the machine.



### **OPTIONS**

P-BOX-MD | P-BOX-STI

#### **500 LITRE TANK**

Seeding machines with a 500 litre tank are standard equipped with tank stabilizers, retaining plate and extra large filling opening (Attention: the 500 l box does not fit on all Einböck machines; sometimes only with additional options)





#### **PLASTIC TANK**

Instead of the standard steel tank, a 265l plastic tank can be installed. This corrosion-resistant design plastic tank is made of the highest quality materials and is thus extremely durable and unbreakable.

#### **RETAINING PLATE**

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





#### **MECHANIC JOGGING UNIT**

A mechanic jogging unit can be installed to avoid bridging. This is only necessary for seeds that have a particular tendency to bridge.

# MOUNTING KITS AND STEPS FOR FILLING FOR EINBÖCK MACHINES

For Einböck machines such as tine weeders, row-crop cultivators, rotary hoes, rotative weeders, cultivators, grassland seeders, etc. a mounting kit including steps for filling are available. Due to the universal mounting bracket, the seeding boxes can also be mounted on many machines of other producers.









The combination of the pneumatic front tank JUMBO-SEED with rear mounted machines, for example row-crop drill CHOPSTAR-SEEDER, row crop cultivator CHOPSTAR or tined weeder AEROSTAR-CLASSIC ensures ideal distribution of weight, therefore reduces ground pressure and saves time. The metering is carried out via up to 4 seeding units, which can be closed by sliders as required. This allows the front tank to be individually adapted to the required number of outlets which depends on the number of rows or the working width of the implement.

The powerful hydraulic fan distributes fertilizer or seeds (such as grain, beans, rape, grass seed, catch crops, clovers, mixtures, undersowings, etc.) to the rear of the tractor to the distribution heads, where they are split to the required number of outlets (depending on number of rows or working width). The seeding rate is controlled from the tractor via the STI control system and ensures a precise, uniform distribution.



Perfection in every detail: electric control of the 4 separate seeding units, with SPEED-TRONIC user terminal, 4 outlets, effective hydraulic fan, etc.

Туре	Tank volume in litre	Dimensions in cm/"	Weight approx. kg / lbs
JUMBO-SEED 1600	1600	167 - 230 - 146 / 65.75 - 90.55 - 57.48	600 kg 1103 lbs





#### **STANDARD EQUIPMENT**

- STI control terminal with electric drive of the seeding roller and stepless adjustment of the seeding rate
- ✓ 1600 litre tank with sieve made from stainless steel
- ✓ Bottom part and dosing unit made from stainless steel
- ✓ Hydraulic fan (1 single acting hydraulic valve with up to 30 l/min capacity and pressure free return line with 3/4" coupling necessary)
- ✓ One seeding roller with fine and one with coarse toothing
- ✓ Agitator shaft (can be switched on and off
- ✓ Up to 4 dosing units with airlock and connecting tube to the
- ✓ Calibration pan
- ✓ Filling steps
- ✓ Mounting category II
- Big opening for comfortable filling of the tank

#### **OPTIONS**

Hydraulic hose kit (for tractors without hydraulic valves in the front)

Calibration button mounted on the  ${\tt JUMBO\text{-}SEED}$ 

Tank level sensor for JUMBO-SEED

Wheels on the parking support

Warning signs with holder for front tank - with indicators to the front

Wheel sensor or GPS - speed sensor (additional upper link or 3-point linkage sensor needed)

7-pole cable for info plug of the tractor (speed info and info about the position of the 3-point linkage are provided by the tractor)

Upper-link sensor, mechanical

Linkage sensor (switches when getting close to metal)

Cable extension 5 m / 16.40 ft. for sensors

# **CONCEPT** JUMBO-SEED

- 1. 4 dosing units (2x2) with airlock made of stainless steel and connecting tubes
- 2. Electronic dosing via STI-Terminal
- 3. Hydraulic fan
- 4. Disconnectable agitator shaft
- 5. 1600 litre tank (can be split)
- 6. Big opening for comfortable filling of the tank
- 7. Interial tank grid made from stainless steel
- 8. 2 steps for filling
- 9. Parking supports with parking position on the machine (optional with wheels)
- 10. Parking position for second seeding roller for fine seeds



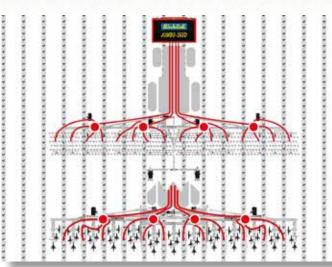


# **DETAILS & ADVANTAGES** JUMBO-SEED

#### **2X2 DOSING UNITS - 4 OUTLETS**

The 2 dosing units distribute the seeds evenly to up to 4 outlets, which in return provide perfect distribution accuracy with a distribution head for each outlet on the rear implement. If not all outlets are needed, blind plugs (1) or sliders ensure the ones not needed are switched off.





#### LARGE WORKING WIDTHS POSSIBLE

Up to 4 distribution heads ensure that the front tank can also be used with larger rear implements. In addition, they ensure short hose lengths on the machine before application. For example, precise distribution of nures-crop or fertilizing can be easily realized with a 12 m / 39.40 ft. weeder or big row-crop cultivators.

#### MANY APPLICATIONS AND MACHINE **COMBINATIONS**

The front tank in combination with different rear mounted machines can be used for many applications: band-seeding (picture), underseeding, distribution of catch crops or winter greening, new- or re-seeding of grassland, fertilizing, etc. The front tank can be combined with many machines: row-crop

drills (picture), weeders, cultivators, rollers, etc.

Attachment kits and distribution systems are available for many Einböck machines.

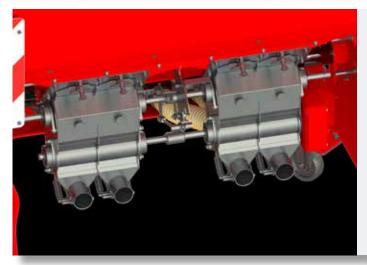


# **DETAILS & ADVANTAGES** JUMBO-SEED

#### **4 DOSING UNITS FOR HIGH FLEXIBILITY**

The 4 seeding units ensure not only the front tank can work with implements with large working widths, but they also provide the needed flexibility to adjust the machine to different numbers of rows when working with row-crop cultivators. Perfect adaptation to the row-crop cultivator is immensely important for the exact application of fertilizer or catch crops!





# TWO DOSING UNITS MADE OF STAINLESS STEEL WITH ROTARY AIRLOCK

The tank is equipped with 2 double dosing units with an integrated rotary airlock. The dosing units distribute the seeds evenly to 2 hoses, so there are 4 hoses in total. The rotary airlock directs the air flow into the hoses (prevents the air from escaping to the seed tank), and thus the seeds are transported easier and more precisely to the distributors at the rear mounted machine.

# "SPEED-TRONIC" OPERATING MONITOR IN THE TRACTOR CABIN DEVELOPED BY EINBÖCK

- » Automatic computer-controlled constant seeding rate
- » Intuitive, graphical and colourful menu navigation in many different languages (> 15)
- » Large 5 inch colour display
- » Many individual settings
- » Raised buttons ensure an easy operation even while driving; no slipping of the fingers and "blind" operation is possible
- » Resistant to dust and water
- » Compact and robust case
- » Tank emptying function





# MANY INDIVIDUAL FUNCTIONS OF THE "SPEED-TRONIC" CONTROL:

- » Automatic calibration function (optional with a calibration button directly on the machine)
- » Automatic switch-off of the seeding roller at the headland
- » Pre-dosing function
- » Hectare counter of daily and total area
- » Operating hours counter (daily and total hours)





#### CONNECTING TUBE TO THE REAR MOUNTED MACHINE (E.G. FOR ROW-CROP CULTIVATORS OR ROW-CROP DRILL)

The connecting tubes are placed under the tractor. This provides a direct connection between the front tank and the rear mounted machine, which in return increases accurancy and precision.

# CALIBRATION PAN WITH HOLDER DIRECTLY ON THE FRONT TANK

A calibration pan is fixed to the tank with a holder as standard equipment. This means that the calibration test can be carried out quickly, precisely and conveniently at any time (optionally with an additional calibration button on the unit).



# **DETAILS & ADVANTAGES** JUMBO-SEED

#### SPREADING OF MANY DIFFERENT SEEDS

Grain, canola / rape, grain legumes (soya, field beans, ...), catch crops, grass seeds, clover, fertilizer, etc. as well as different seed mixtures.





#### "INTELLIGENT" FRONT WEIGHT

The front tank Jumbo-Seed enables the powerful distribution of fertilizer or or seeds from low to high distribution rate also for larger rear implments. As part of the weight of the seed drill (incl. seeds) is moved to the front of the tractor, the weight of the seed drill (incl. seed) at the front of the tractor, the weight distribution is optimised and soil compaction is prevented. This has an extremely positive effect when working with large implements in particular, as putting the complete weight at the rear of the tractor would cause heavy soil compaction.

# BIG OPENING FOR COMFORTABLE FILLING OF THE TANK AS WELL AS INTERIAL TANK GRID

The big tank opening and the 2 foldable filling steps ensure comfortable filling. A sieve made from stainless steel above the dosing unit prevents foreign objects from entering the dosing unit.

Dimensions in cm/inch (height - width - depth): 1600L: 167 - 230 - 146 cm | 65.8 - 90.6 - 57.5"





#### **HYDRAULIC FAN WITH HIGH CAPACITY**

The hydraulic fan requires max. 35 litres/min oil flow and a pressure free return line. The special fan enabels a higher capacity to distribute seed or fertilizer accordingly.



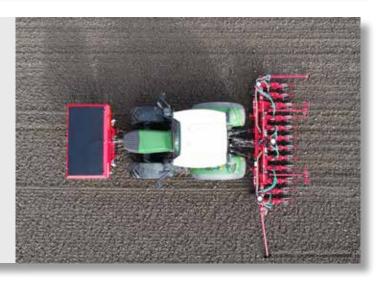


# DIFFERENT SEEDING ROLLERS FOR SMALL AND LARGE APPLICATION RATES INCL. PARKING POSITION

The different seeding rollers ensure perfect and correct seeding for small and large application rates. To prevent the seeding shafts from being damaged or lost, a parking position is provided on the front tank. Here, the seeding shafts are protected and always on the machine.

#### COMPACT MOUNTING ON THE TRACTOR

Close mounting on the tractor protects the soil and avoids high front axle loads.



# **OPTIONS** JUMBO-SEED

#### WHEELS ON THE PARKING SUPPORT

Wheels for the parking supports are available for easier and faster handling.





#### **CALIBRATION BUTTON ON THE MACHINE**

A calibration button on the tank enables the calibration test to be carried out directly on the machine.

#### **NECESSARY SPEED SENSOR**

Different sensors are available for speed detection.

- Via the 7-pin signal socket the values of the tractor can be taken over (e.g. speed information and linkage signal come from the tractor) (picture)
- The GPS sensor is mounted on the front tank to precisely determine the speed - additional top link or linkage sensor is required
- Radar sensor additional top link or linkage sensor is required.





#### **VARIOUS OTHER SENSORS**

Many other optional sensors are available for increased safety, efficiency and accuracy at work

- Upper link sensor: the seeding shaft is automatically switched off when the implement is raised (not shown).
- Linkage sensor: the seeding shaft is automatically switched off when the implement is lifted (not shown).
- Level sensor: it warns when the seeds in the tank are coming to an end. This sensor works independently of vibrations (picture).





WARNING SIGNS WITH HOLDER AND LED-LIGHTS AS WELL AS INDICATOR TO THE FRONT



Very precise metering and high flexibility because of 4 seeding units and the SPEED-TRONIC terminal.







# **ROW-CROP DRILL CHOPSTAR-SEEDER**

The row crop drill CHOPSTAR-SEEDER has been specially designed for seeding of legumes in rows (e.g. soybeans), but also for various other crops (like e.g. wheat) which can be sown in rows. Adapted to the prevailing working conditions, this flexible system is the right solution for maintaining exactly the adjusted working depth, precise seed placement and reliable emergence of the crop. Seeding is carried out either by double-disc or suffolk coulters, which are guided by parallelograms and pressure rollers to maintain the exact seeding depth.

As seed tank the JUMBO-SEED front tank is the perfect solution for big farms because of the big volume, small machines can be combined with the P-BOX-STI as a more economic solution.



### Individually adjusted seeders - in combination with P-BOX-STI, JUMBO-SEED or similar seeders!

Type/ working width	Transport width m / ft. <sup>3)</sup>	Frame profile length m / ft.	Wheels	Seeding units	from HP/kW <sup>2)</sup>	Weight approx. kg / lbs
CHOPSTAR-SEEDER 6-rows	3.00 m / 9.80 ft.	2.45 m / 8.20 ft.	2	6	70/51	420 kg 926 lbs
CHOPSTAR-SEEDER 9-rows HG 1)	3.00 m / 9.80 ft.	3.80 m / 12.50 ft.	2	9	80/59	880 kg 1940 lbs
CHOPSTAR-SEEDER 12-rows HG <sup>1)</sup>	3.00 m / 9.80 ft.	5.15 m / 16.90 ft.	2	12	90/66	1080 kg 2380 lbs

Hydraulic folding - triple-frame
 In combination with JUMBO-front tank
 Depending on the row-distance





#### **STANDARD EQUIPMENT**

- ✓ Row distance infinitely adjustable from 25 cm / 10"
- ✓ Lower links guided on both sides
- ✓ Levellers to close the seeding slot
- Adjustable retraction support on each parallelogram
- Adjustable farmflex-pressure and depth guidance wheels, bearing-mounted, Ø 360 mm / 14.17" / 33 mm / 1.30" wide
- ✓ Large-dimensioned, adjustable parallelograms
- ✓ Suffolk coulter with wear blades
- 2 double acting hydr. remotes for the CHOPSTAR-SEEDER necessary (plus additional ones for the JUMBO-SEED front tank)
- Hydraulic folding markers, adjustable in length
- Spring mounted track-looseners

#### **OPTIONS**

Seeding unit with disc coulter instead of suffolk coulter

Trailed weeder tines for disc coulter

Support wheels for constant frame position

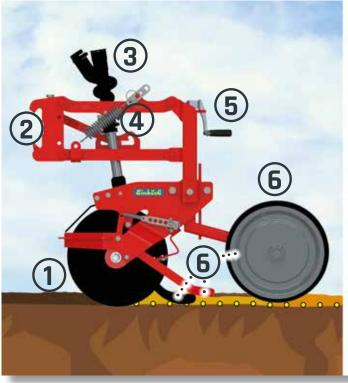
Price reduction for markers (if they are not needed)

Warning signs with holder and LED-lights backward

Warning signs with holder and LED-lights back- and forward

### **CONCEPT** CHOPSTAR-SEEDER

- 1. Double disc coulters ensure an ideal seed placement even in wet conditions, as well as in fields with organic matter
- 2. Row distance infinitely adjustable from 25 cm / 9.80"
- 3. Adjustable cyclones which can be adapted to different seeds
- 4. Large-dimensioned parallelograms with retractable springs for up to 180 kg downpressure on the coulter
- 5. Precise seed placement through continuous variable adjustment of seeding depth
- 6. Seed firmer, levellers and double pressure rolls close the seed furrow and ensure an optimal seed to soil contact
- 7. Suffolk coulter for precise seed placement





### **DETAILS & ADVANTAGES** CHOPSTAR-SEEDER

#### TWO DIFFERENT SEED COULTERS

The two different seed coulters (suffolk or double disc) guarantee that the best solution for different soil and ground conditions are available.





# RETRACTION SPRING FOR A OPTIMUM SEEDING DEPTH

The heavy-duty retraction spring on the parallelogram can be adjusted to 3 stages and therefore allows to adjust the coulter pressure from light to extremely high. Thus, a CHOPSTAR-SEEDER parallelogram can generate up to 180 kg of coulter pressure, ensuring a precise working depth - even under difficult conditions.

# LEVELLING BARS & SEED FIRMER AFTER EACH SOWING COULTER

The levelling bars close the seed furrow and after that the press rollers consolidate the soil. The levelling bar of the double disc coulters can be lifted. A seed firmer presses the seed onto the bottom of the seed furrow, resulting in better soil contact and a constant seed depth even at high working speeds. This prevents the seed from jumping. The seed firmer is part of the standard version of the disc coulters.

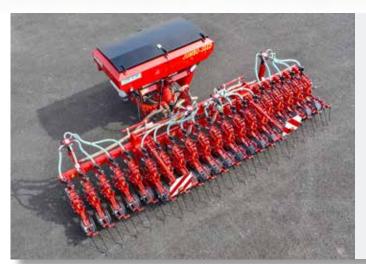


## **DETAILS & ADVANTAGES** CHOPSTAR-SEEDER

# ADJUSTABLE CYCLONE FOR INDIVIDUAL ADAPTATIONS

The adjustable cyclone offers the possibility to reduce or increase the air separation depending on the seed and air volume.



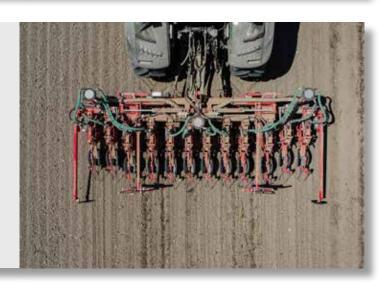


#### INDIVIDUALLY ADJUSTABLE ROW DISTANCE

The CHOPSTAR-SEEDER is available from 25 cm / 10" in all standard row spacings (25, 37,5, 50 cm, etc. / 10, 15, 20", etc.). Row-spacing can be adjusted infinitely variable in many different spacings.

#### **ECONOMIC AND POWERFUL SEEDING**

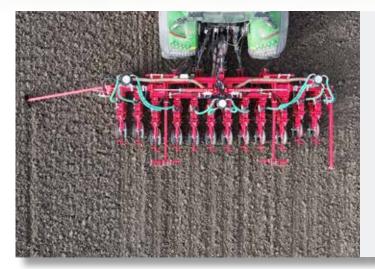
The Chopstar-Seeder is a simple and economic seeding machine for row crops, whereby it is not a precision planter. It is available from small to large working width and can be configured individually, depending on the customer's needs.





The suffolk coulter is ideal for a well crumbled seedbed with little crop residue / organic matter in the field.





#### **HYDRAULIC FOLDING MARKERS**

The hydraulically folding markers ensure precise and accurate driving, as well as comfortable operation.

#### **SPRING MOUNTED TRACK-LOOSENER**

Track looseners are standard equipment. The track looseners loosen the tracks behind the tractor wheels. They are quickly and easily adjustable in height.



### **DETAILS & ADVANTAGES** CHOPSTAR-SEEDER

# PRECISE SEED PLACEMENT INDIVIDUALLY ADJUSTABLE

The levellers and the FARMFLEX double pressure wheels close the seed furrow and ensure an optimum reconsolidation. Spring mounted trailed weeder tines (optional) ensure a level and open soil surface the pressure wheels. Furthermore the pressure wheels perform the task of depth guidance. This is the reason why they can be individually adjusted for each seeding unit in order to achieve the ideal seeding depth for each row (e.g. behind the tractor wheels).





#### LARGE-DIMENSIONED SEEDING RATES

Large-dimensioned seeding units are perfect for large quantities of seeds.



User-friendly adjustment, as well as high reliability for many years!

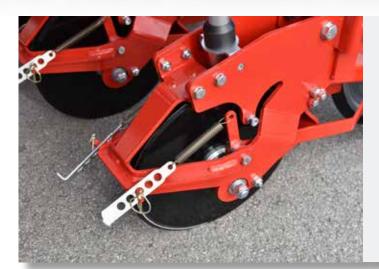
# **OPTIONS** CHOPSTAR-SEEDER

#### **DIFFERENT SEEDERS**

To carry seeds and meter them, the Chopstar seeder must be combined with different seeding machines, e.g. with the JUMBO-SEED (1) or with the P-BOX-STI (2).







#### **DISC COULTER**

The ideal solution for operation in mulch-till crops are the disc coulters. In addition, the double disc coulter can always achieve the desired seeding depth in difficult soil conditions (e.g. wet ground).

#### **TRAILED WEEDER TINES**

The trailed weeder tines level the soil surface behind and break the soil behind the pressure rollers.





# **EXPERIENCE REPORT** CHOPSTAR-SEEDER



# **EXPERIENCE OF OUR CUSTOMERS**

By example of 4 of our customers, who tested the CHOPSTAR-SEEDER in operation intensively, we want to show you in which operations the machines have shown the best results. Not only the photos of seeding with the machine are of interest, even more important are the pictures of the emerged crop.

We want to take the opportunity to thank our customers for providing the information and pictures. For us the intensive cooperation with the operators of our machines is very important. This ensures we get first hand feedback, which influence the further development and design of our products.

# **GUT DÖLNITZ**

THOMAS SCHUBERT, D-06132 HALLE AN DER SAALE

Gut Döllnitz operated the CHOPSTAR-SEEDER on 80 ha in total. They were drilling 2 different varieties of soybeans with different germinability, 140 - 270 kg / ha, peas 180 kg / ha and field beans 230 kg / ha.

The high seeding rate was no problem, the machine did not plug and there was very little damage on the seeds. Metering was done (as recommended) with the fine seeding roller instead of the coarse one. The seeding rate and distribution over the 12 rows have been checked properly - the minor deviation was no problem.

Depth control via the V-pressure wheels was sufficient. Also depth adjustment via the spindles worked excellent. Cleaners in front of the seeding untis were not necessary, but could be helpful in mulchtill fields.

All in all the achieved result in seeding, germination and the harvested yield was excellent. There was no negative aspect in this comparison. On the contrary, the versatility with some options would be even bigger. (Note Einböck: These have meanwhile been incorporated into product development)





When weighing the seeds there were only minor Seeding of soybeans with the CHOPSTAR-SEEDER.





Seeding depth and distance between the seeds was





Germination of the seeds in various crop stages.



### **LUPINE-NETWORK**

The project "Lupine-Network" is part of the "Protein-Strategy" of the German government. This nationwide network shall improve the distribution and technology for growing and processing of lupines.

In cooperation with Einböck the CHOPSTAR-SEEDER was used for seeding of test plots. Variability and universal use of the machines were very important, positive aspects. Instead of using the fronttank JUMBO, this machine was equipped with a P-BOX.

Seeding was done with a row-spacing of 37,5 cm / 14.80", whereby many different varieties of lupines, different working depth and seeding rates were tested.

Seeding depth: 4 to 5 cm / 1.60 to 2.00"

Seeding rates: 190 - 200 kg / ha, 09 - 120 seeds / m<sup>2</sup>











"Finkes Hof" farms more than 80 ha, following Bioland-rules. Maximilian Finke decided to purchase the CHOPSTAR-SEEDER out of the following reasons:

- » Light and simple machine, without complicated technology
- » Perfect weight distribution between front and rear
- » Possibility to specify the machine according to the customer's needs (row-spacing, working width, tramlines - other producers could not offer these possibilities)
- » The field is not worked with heavy machine like rotary harrows anymore, only the tramlines are loaded
- » Direct seeding in prepared ground is possible
- » Exact seeding depth, precise metering of the seeding rate

These crops have been seeded with the CHOPSTAR-SEEDER: 7,75 ha feed barley, 2,5 ha feed wheat, 17 ha peas, 2 ha rye, 7,5 ha field beans, 10 ha oat, 17 ha lupines, 10 ha spinach









Germination of peas in different growth stage (roots were cleaned manually!)









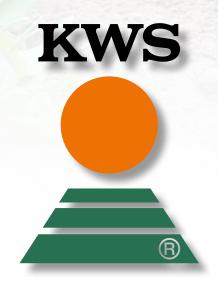
Germination of wheat

# KWS KLOSTERGUT WIEBRECHTSHAUSEN D-37154 NORTHEIM

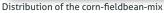
KWS Wiebrechtshausen GmbH, a daughter company of KWS SAAT SE, rents and farms since 2002 the "Gut der Klosterkammer Hannover"

Especially in early summer, before harvesting of grain, the experimental fields are visited by many farmers and pupils. The farm is also an official test station for various official authorities.

On the farm the CHOPSTAR-SEEDER seeded a mix between corn and field beans for the field test. These are photographs of the seeding and the germination of the mix in direct seeding.









Germination of the mix



Operation of the CHOPSTAR-SEEDER in direct seeding



Germination of the mix



### **MECHANICAL INTERCROP SEEDER** DRILLBOX & MECHANICBOX

The Einböck DRILLBOX or MECHANICBOX can be mounted on any rigid machine (cultivators, disc harrows, ...). With the mechanical seeders, all catch crops and their mixtures can be seeded easily and economically using the push wheel system with distribution plate in the seeding process. The simple seed rate adjustment is carried out via a rotary knob for fine adjustment and by a lever for coarse adjustment, from approx. 5 kg of seed per hectare. The specially designed distribution plates assure an evenly distribution of the seeds. The seeder is activated through a large tail wheel with actuation cartridge. High gusset plates inside the tank ensure exact seeding also in hilly terrain.

#### **DRILLBOX:**

The DRILLBOX mechanical seeder is best suited for faster working speeds (cultivator, disc weeders, ...) and from approx. 70 cm / 27.60" body height (with 8 or 9 outlets).

#### **MECHANICBOX:**

The mechanical seed drill MECHANICBOX should be used with slow working implements (subsoilers, power harrow, ...) and with low structure height or drop height (with 17 outlets).



Proven seeding technology - suitable for many rigid cultivators, disc harrows, etc.

Type/ working width cm	Box width in m / ft.	Transport width in m / ft.	Tank volume in litres	Outlets	Weight approx. kg / lbs
DRILLBOX 260	2.72/9.90	2.95/9.70	215	8	145 kg 320 lbs
DRILLBOX 300	2.84/9.32	3.00/9.80	230	9	150 kg 331 lbs
MECHANICBOX 300	2.84/9.32	3.00/9.80	230	17	165 kg 364 lbs





#### **STANDARD EQUIPMENT**

- Large-sized bottom drive Ø 600 mm / 23.60" with two long actuation metal cartridges
- Calibration pan
- ✓ Exact distribution through drive wheel system
- Mounting bracket with toothed wheel adjustable in angle and can be put on 60-, 70-, 80-, 90- or 100 mm (2.36-, 2.76-, 3.15-, 3.54-, 3.94") tubes
- ✓ Cover with bonnet fixing
- ✓ Price reduction for seeders without bottom drive
- Distribution deflector plates
- High gusset plates (equal distribution of the seeds to all deflector plates)
- Sealed cover (no loss of seeds)
- Monitoring window at the bottom of the box

#### **OPTIONS**

Stirring shaft for all types

Holding brackets, for mounting on additional implements (when mounting on a disc harrow, we recommend an additional holding bracket due to large vibrations).

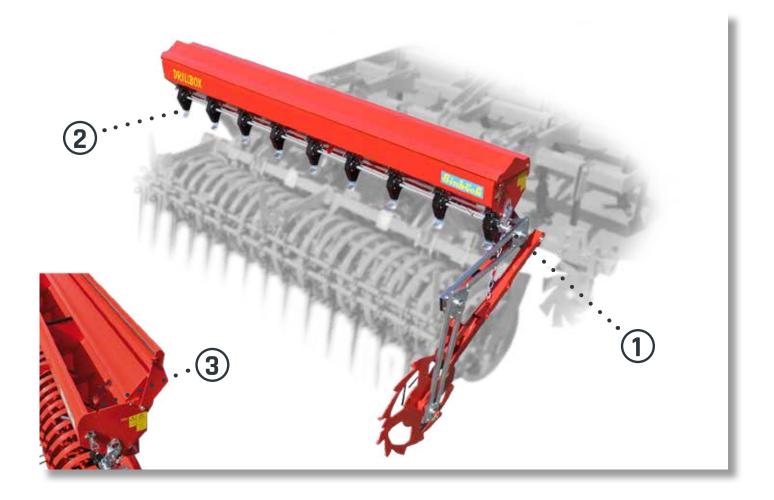
Agitator shaft can be retrofitted and is located just above the sowing wheel  $% \left\{ 1,2,\ldots,n\right\}$ 

Alternatively, the drive cassette can also be driven via the roller of the unit on which the box is mounted



# **CONCEPT** DRILLBOX & MECHANICBOX

- 1. Quick and easy adjustment by using a knob or a lever
- 2. Central adjustment of the seeding rate
- 3. High gusset plates ensure exact seed distribution even on hilly terrain



# **DETAILS & ADVANTAGES** DRILLBOX & MECHANICBOX

#### **EXACT ACTIVATION IN ROUGH TERRAIN**

The arm of the bottom drive wheel is adjustable in length. Because of its large diameter of 600 mm / 23.60" the drive wheel grants an exact activation of the seeding units also in rough terrain.





#### **CALIBRATION PAN**

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

# SPECIALLY SHAPED DISTRIBUTION DEFLECTOR PLATES

The specially shaped distribution deflector plates spread the seeds evenly.



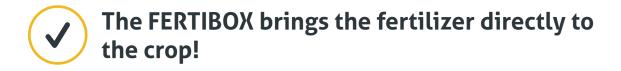


### MECHANICAL FERTILIZER BOX FERTIBOX

The mechanical fertilizer box FERTIBOX is usable for row-crop cultivators. The fertilizer is available only for rigid hoes with row distance of 65 cm / 25.60", 70 cm / 27.60" and 75 cm / 29.50"

Enables precise application of different types of fertilizer in row crops. The combination of row fertilizer distributor and row-crop cultivator safes working time and increases the effect of the fertilizer by directly incorporating it into the soil.

The drive is mechanical via a ground drive. Two outlets per crop-row ensure precise fertilization. The distances to the plant can be adjusted manually.



Туре	Tanks	Outlets	Drives	Capacity in litres	Weight approx. kg / lbs
FERTIBOX 4-rows	2	8	1	2x275	290 640
FERTIBOX 8-rows	4	16	2	4x275	580 1279

# WHICH SEEDS WITH WHICH SEEDER?

CROP	DRILLBOX MECHANICBOX	P-BOX-MD P-BOX-STI	JUMBO-SEED with CHOPSTAR-SEEDER 6m/19.70 ft.	JUMBO-SEED with AEROSTAR-CLASSIC
Field beans	✓	<b>✓</b>	✓	<b>√</b> *
Buckwheat	✓	✓	✓	✓
Spelt	✓	-	✓	<b>√</b> *
Peas	✓	•	✓	<b>√</b> *
Futterprofi KM	✓	✓	✓	✓
Barley	✓	•	✓	<b>√</b> *
Grünlandprofi B	✓	✓	✓	✓
Grünlandprofi NA	✓	✓	✓	✓
Oat	✓	•	✓	<b>√</b> *
Clover	✓	✓	✓	✓
Wild flax	✓	✓	✓	✓
Flaxseed	✓	✓	✓	✓
Lupines	✓	✓	✓	✓
Alfalfa	✓	✓	✓	✓
Poppyseed	✓	✓	✓	✓
Oilseed radish	✓	✓	✓	✓
Phacelia	✓	✓	✓	✓
Canola	✓	✓	✓	✓
Rye	✓	•	✓	<b>√</b> *
Red clover	✓	✓	✓	✓
Wild turnip	✓	✓	✓	✓
Slug pellets	✓	✓	✓	✓
Mustard	✓	✓	✓	✓
Soybeans	✓	<b>✓</b>	✓	<b>√</b> *
Sunflowers	✓	•	✓	<b>√</b> *
Vetch	✓	<b>✓</b>	✓	<b>√</b> *
Triticale	✓	•	✓	<b>√</b> *
White clover	✓	✓	✓	✓
Wheat and various mixtures	✓	•	✓	<b>√</b> *

<sup>√ =</sup> possible

✓ = possible, bigger seeding rates might be difficult to reach from 12 m / 39.40 ft. working width or higher working speed

- = possible till 6 m / 19.70 ft. working width; following options needed:
  - » mechanical or hydraulic fan instead of electric
  - » retaining plate needed
  - » stronger gearbox (only needed for P-BOX-MD)
- = not possible

 $The \ mentioned \ list of seeds \ is \ not \ complete. \ The \ machines \ out \ of \ the \ P-BOX-Series \ can \ also \ distribute \ similar \ seeds.$ 



#### "100 % made by EINBÖCK in AUSTRIA"

- » In-house development from the idea to serial production: We have over 85 years of experience in designing agricultural machinery.
- » From users for users: 75 % of our sales and product management team are farmers, so we develop practice-oriented, user-friendly machines and adjustment options. Our top priority is to provide the right machines and suitable product specifications.
- » **Suppliers from the region and Central Europe:** Long-lasting relations with our suppliers ensure a consistent quality of raw materials and components, as well as supply reliability.
- » Manufacturing exclusively in Dorf an der Pram in Upper Austria: Our high vertical range of manufacture guarantees the best quality and long working life. "100 % made by Einböck in Austria" ensures superior quality in all areas of production.
- » Practical trials of all machines on our own test fields: Before prototypes are turned into serial production, they have to withstand extensive tests on fields and roads. This allows us to achieve absolute precision and reliability.
- » After-Sales-Service: A decades-long supply of wear and spare parts ensures a maximum service life of the machines as well as direct and close contact with customers.

#### Einböck-values

- » Sustainability and environmental protection: Environmentally friendly production of sustainable products
- » Consulting and service: Sharing of acquired knowledge and first-class customer service
- » Reliability and quality: Keeping promised delivery dates and selling high quality products
- » Honesty and loyalty: Collaboration with customers, suppliers, employees, partners, dealers, etc. at eye level



Our goal is the production of market-oriented, user-friendly, innovative, environmentally friendly and high-quality products!

Family Einböck, management in 3rd & 4th generation





SEEDING & FERTILIZII





#### Related brochures regarding "organic farming & mechanical weed control":



#### **WEEDING TECHNOLOGY**

- **Tined weeder** AEROSTAR-CLASSIC
- **Precision tined weeder** AEROSTAR-EXACT
- Premium tined weeder **AEROSTAR-FUSION**
- **Rotative weeder** AEROSTAR-ROTATION



- » Seedbed cultivator **VIBROSTAR**
- » Blade cultivator TAIFUN
- » Universal cultivator HURRICANE
- » Seedbed combination **EXTREM**





#### **GRASSLAND CARE**

- GRASS-MANAGER (-PRO)
- **Grassland seeder** PNEUMATICSTAR (-PRO)



#### **PRODUCT PROGRAM**

- » Crop-care
- » Tillage
- » Grassland-care
- » Seeding & fertilizing



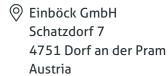












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