

***Einböck***

**The joy in  
weeding technology!**

# WEEDING TECHNOLOGY

**TINED WEEDER**  
AEROSTAR

**PRECISION TINED WEEDER**  
AEROSTAR-EXACT

**ROTATIVE WEEDER**  
AEROSTAR-ROTATION



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- » Weeding of standard crops (grain, maize, ...)
- » Gentle to aggressive weeding
- » Breaking of crusts
- » Aerate the soil and encourage tillering
- » Combing out of cleavers

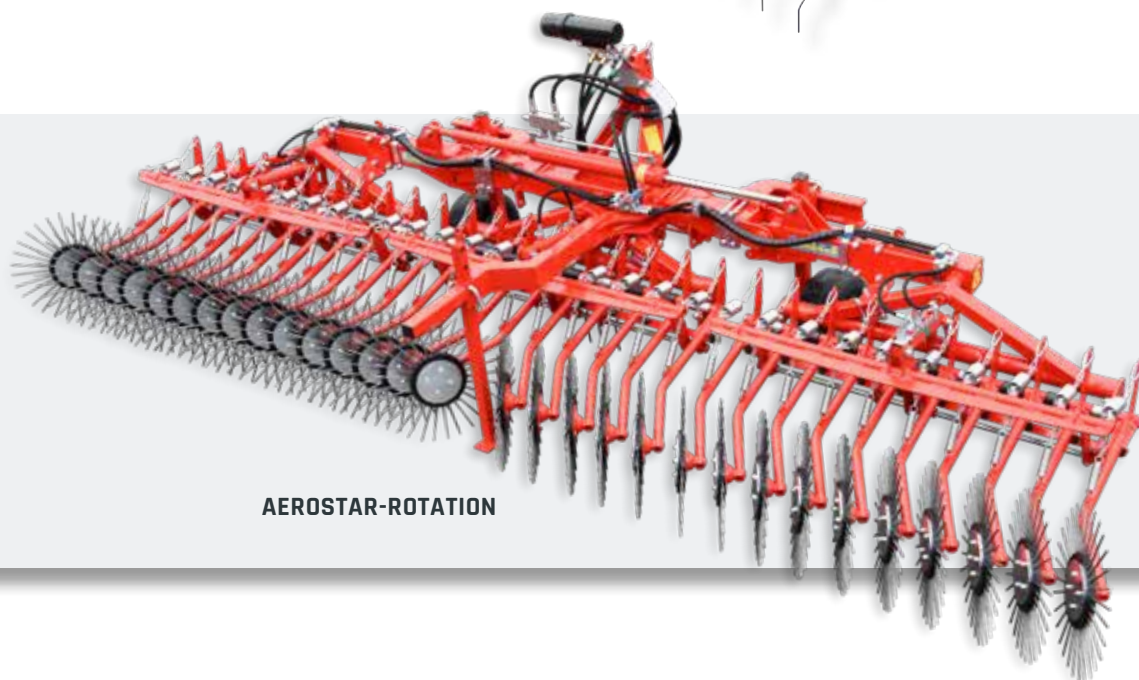
## **PRECISION TINED WEEDER AEROSTAR-EXACT | PAGE 26-33**

- » Blind weeding of many (special-) crops: maize, soybeans, beets, pumpkins, ...
- » Gentle and precise weeding
- » Aggressive weeding
- » Breaking of crusts
- » Aerate the soil and encourage tillering

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- » Clogging-free weeding in mulch-till and humid soil
- » Aerate the soil and encourage tillering
- » Weed soybeans/maize up to 6-leaf stage
- » Gentle and precise weeding
- » Aggressive weeding and crust breaking



**AEROSTAR****AEROSTAR-EXACT****AEROSTAR-ROTATION**



## ADVANTAGES OF WEEDING

### For the cultivated crop:

- » Weeds are removed mechanically, which enables the crop to grow better
- » Looser, damper soil promotes root growth in the cultivated crop
- » Water is conserved through breaking up capillary action, which means more water for the cultivated crop
- » Strain and leaf damage in the cultivated crop due to herbicide use is avoided
- » Weeds in the row are covered in soil and the cultivated crop is earthed up

### For the soil:

- » Aerating the soil and breaking up crusting after heavy rainfall boosts soil moisture
- » Mobilisation of nutrients and promotion of mineralisation, thus greater microorganism activity
- » Gentle humus cultivation – shallow cultivation of the upper soil layer
- » Incorporation of (organic) fertiliser – fertiliser mineralisation  
e.g. incorporation of slurry, mineral fertilisers and urea
- » Release of nutrients: "Twice weeded/hoed = once fertilised"

### For the environment:

- » Avoidance/reduction of herbicides and active substances
- » Reduced usage of active substances and removal of resistant weeds
- » Improved soil fertility and healthier, more resilient soils
- » Protection of waters
- » Safeguarding of biodiversity



**Agriculture is the root of all education in the world!**

Berthold Auerbach, politician / writer





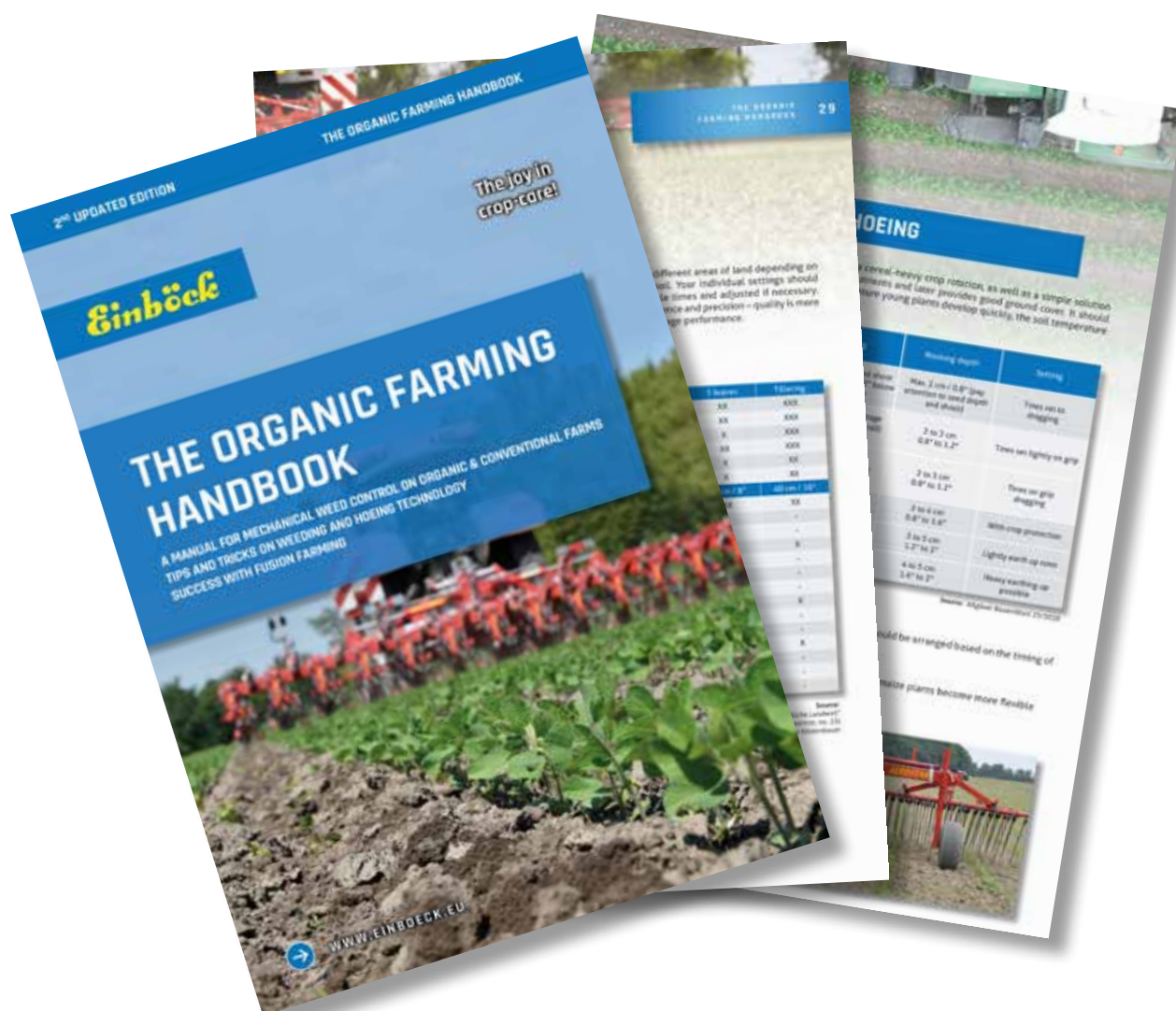
## WEEDING TECHNOLOGY IN PRACTICE

Experience reports or information on the practical use of our weeding 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 weed which crops
- » Principles of weeding such as time of operation 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/downloads](http://www.einboeck.at/en/downloads)





## SPECIAL FEATURES OF OUR TINED WEEDERS

AEROSTAR | AEROSTAR-EXACT

- » Sturdy profile tube frame and therefore extremely durable
- » Large ball bearing supported wheels and lubrication points on all joints
- » Tempered hinge bolts with bushings
- » End of U-frame supported with plastic pipes (no wear of the steel tubes)
- » Easy and exact adjustment of the tine position (mechanical or hydraulic)
- » Tines made of patented drawn spring steel wire
- » Increased vibration effect through special tine holder
- » No sharp edges and therefore no damage to plants
- » Spring coil and tine movement is not restricted (no risk of tine-breakage)
- » Quick-coupling pendular axle allows easy attaching and uncoupling to the tractor (up to model 900 N)
- » Large triangular struts prevent the side wings from swinging during operation on machines with large working width
- » Large selection of tines in different lengths and diameter
- » High frame position



**We have been producing and dealing with tined weeders for more than 35 years and know what is important in weeding!**





## WORKING WIDTH FROM 1.5 TO 24 M | 4.9 TO 78.7 FT



AEROSTAR-ROTATION 1.5 m | 4.9 ft



AEROSTAR 6 m | 19.7 ft



AEROSTAR-EXACT 6 m | 19.7 ft



AEROSTAR-ROTATION 12 m | 39.4 ft



AEROSTAR-ROTATION 18 m | 59.1 ft



AEROSTAR 24 m | 78.7 ft



## DIRECT SPRING-LOADED TINES

AEROSTAR | AEROSTAR-EXACT

All Einböck-tined weeders are equipped with direct spring-loaded tines. These have many advantages:

1. **Tines swivel** - ensuring effective weed control also in the row without harming the crop
2. **Highest adjustment range of the tine pressure** on the market - enables gentle blind weeding and aggressive crust breaking
3. **Vibration ensures self-cleaning of tines** - guarantees operation without clogging
4. **Weeds are uprooted from soil and dirt** - fast drying out prevents re-growth
5. **State of the art tine guidance system** - ensures weed control over the full surface



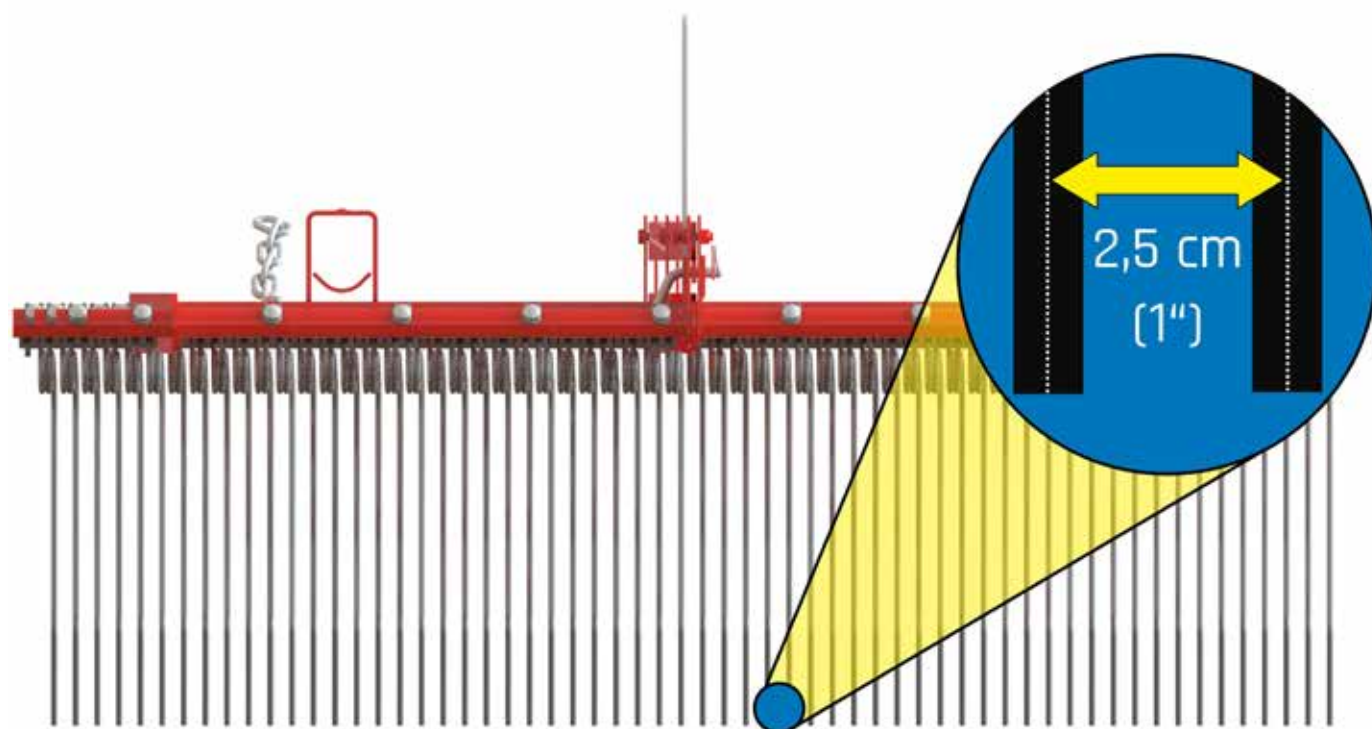


## LINE SPACING OF 2.5 CM | 1"

AEROSTAR | AEROSTAR-EXACT



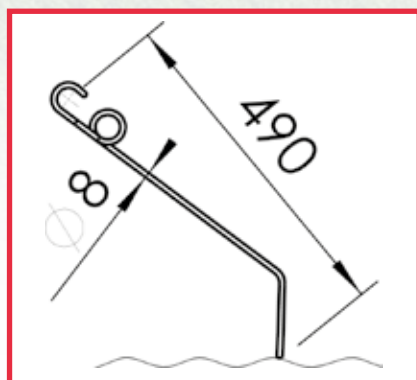
The line spacing has a decisive influence on the working effect and quality of the operation. With a 6-row arrangement of 60 tines per 1.5 m / 59.1" field, an effective line spacing of 2.50 cm / 1" is achieved. The basic requirement for efficient weed control is the smallest possible line spacing.



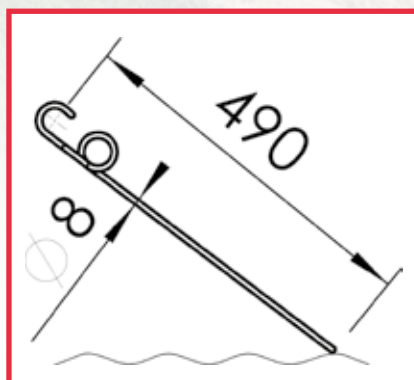


## THE RIGHT TINE

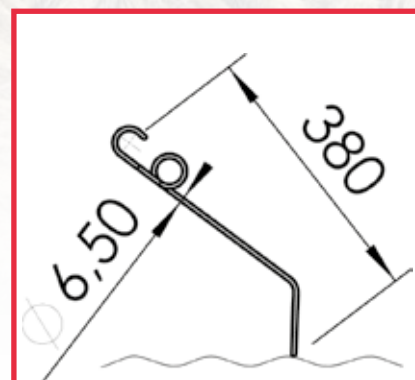
AEROSTAR | AEROSTAR-EXACT



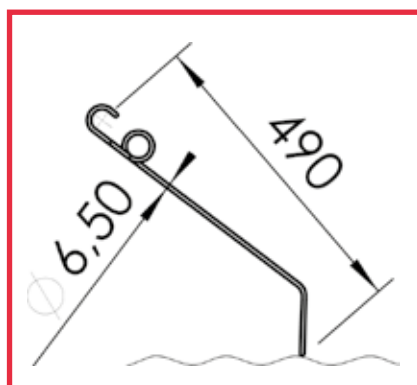
For tough soil conditions the tine with a diameter of 8 mm / 0.31" and a length of 490 mm / 19.3" should be used. This tine is the most commonly used in grassland cultivation.



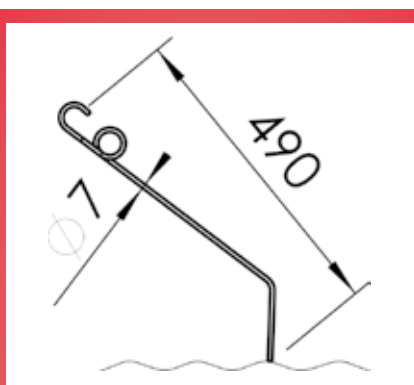
For rocky soil we recommend this straight tine so that the rocks are not moved to the surface. It has a diameter of 8 mm / 0.31" and a length of 490 mm / 19.3".



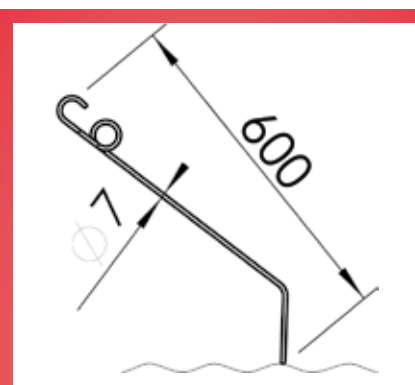
The tine with a diameter of 6.5 mm / 0.26" and a length of 380 mm / 15" is particularly suitable for medium soil.



The tine with a diameter of 6.5 mm / 0.26" and a length of 490 mm / 19.3" is designed for very light soil conditions.



This standard universal tine with a diameter of 7 mm / 0.28" and a length of 490 mm / 19.3" is ideal for medium to heavy soil conditions. This tine length can also compensate uneven spots in the field. This tine is the first choice in small grain farming.



This tine (standard for AEROSTAR-EXACT) with a diameter of 7 mm / 0.28" and a length of 600 mm / 23.6" is well suited for special crops. Due to its length it can also compensate uneven soil conditions in the field very well.



## PRECISE TINE POSITION AND TINE MOVEMENT

AEROSTAR | AEROSTAR-EXACT

The tines on the weeder are fixed to the sections by plastic holders to prevent them from twisting so the tine is aligned in the exactly working direction. The spring coil of the tine is mounted below the holder to ensure free tine movement and vibration out of the spring coil. As movement of the tine is not limited or restricted, breakage is very unlikely.







# TINED WEEDER AEROSTAR









## TINED WEEDER AEROSTAR

Proven thousands of times around the world - the classic weeder AEROSTAR has become an integral part of mechanical crop protection. For over 3 decades the weeder has continuously been developed and so it has become an excellent alternative for chemical weed control. The moving field sections of the AEROSTAR adapt perfectly to the various soil conditions, regardless of the working width. This guarantees an optimum working result. For sensitive, special crops or blind weeding the AEROSTAR can be equipped with extra long tines and a hydraulic tine adjustment. It then represents a preliminary stage to the AEROSTAR-EXACT, which has been further optimised in this respect.

Type/ Working width cm / ft	Sections m / ft	Wheels	Tines	from hp/kW	Weight approx. kg / lbs
<b>RIGID, not fondable</b>					
AEROSTAR 150 / 4.9	1x1.5 / 1x4.9	2	60	15/11	190 / 420
AEROSTAR 210 / 6.9	1x2.1 / 1x6.9	2	84	20/15	200 / 441
AEROSTAR 300 / 9.8	2x1.5 / 2x4.9	2	120	30/22	280 / 617
<b>Hydraulic folding</b>					
AEROSTAR 450 / 14.8	3x1.5 / 3x4.9	2	180	40/29	500 / 1002
AEROSTAR 510 / 16.7	1x2.1 / 6.9 2x1.5 / 4.9	2	204	50/37	520 / 1146
AEROSTAR 600 / 19.7	4x1.5 / 4x4.9	2	240	60/44	620 / 1367
AEROSTAR 600 / 19.7 <sup>3)</sup>	4x1.5 / 4x4.9	4	240	60/44	740 / 1631
AEROSTAR 750 / 24.6	5x1.5 / 5x4.9	4	300	65/48	850 / 1874
AEROSTAR 810 / 26.6	4x1.5 / 4x4.9 1x2.1 / 1x6.9	4	324	70/51	870 / 1918
AEROSTAR 900 N / 29.5 <sup>4)</sup>	6x1.5 / 6x4.9	4	360	70/51	980 / 2161
AEROSTAR 900 / 29.5 <sup>1)</sup>	6x1.5 / 6x4.9	4	360	80/59	1170 / 2579
AEROSTAR 1200 / 39.4 <sup>1)</sup>	8x1.5 / 8x4.9	4	480	90/66	1310 / 2888
AEROSTAR 1350 / 44.3 <sup>1, 2)</sup>	9x1.5 / 9x4.9	4	540	110/81	1350 / 2976
AEROSTAR 1500 / 49.2 <sup>1, 2)</sup>	10x1.5 / 10x4.9	4	600	130/95	1600 / 3527
AEROSTAR 1800 / 59.1 <sup>1, 2, 5)</sup>	12x1.5 / 12x4.9	6	720	180/133	2490 / 5490

1) With shear-retraction

2) Transport height approx. 4.6 m (15.1 ft) - hydr. transport lock

3) Can be extended to 9 m (29.5 ft)

4) Can be reduced to 6 m (19.7 ft)

5) Transport width 6 m (19.7 ft)





## STANDARD EQUIPMENT

- ✓ Tines Ø 7 mm / 0.28", length 490 mm / 19.3", individually changeable
- ✓ Tube frame section providing equal working pressure over the full width – 6 rows with central tine adjustment, per section
- ✓ Line spacing 2.5 cm / 1"
- ✓ Large, bearing mounted rubber support wheels
- ✓ The side sections fold in automatically through parallel guidance
- ✓ Parking support for machines with hydraulic folding
- ✓ For machines with shear-retraction two double-acting hydr. remotes are required



## OPTIONS

Tine holder for row crops

Protection against loss in case of tine breakage, per section

Hydraulic tine adjustment

Hydraulic transport lock

Spring-mounted front levelling plate with fixing of the section to the weeder fork

Section extensions 30 cm / 11.8"

For machines with shear-retraction working in light and sandy soils we recommend:  
Inside twin wheels 18x8.50-8  
Outside single wheels 18x8.50-8

Warning signs with holder and LED-lights

Pneumatic seeding box P-BOX

Tine 490 mm / 19.3" long, Ø 8 mm / 0.31"

Tine 490 mm / 19.3" long straight, Ø 8 mm / 0.31"

Tine 380 mm / 15" long, Ø 6,5 mm / 0.26"

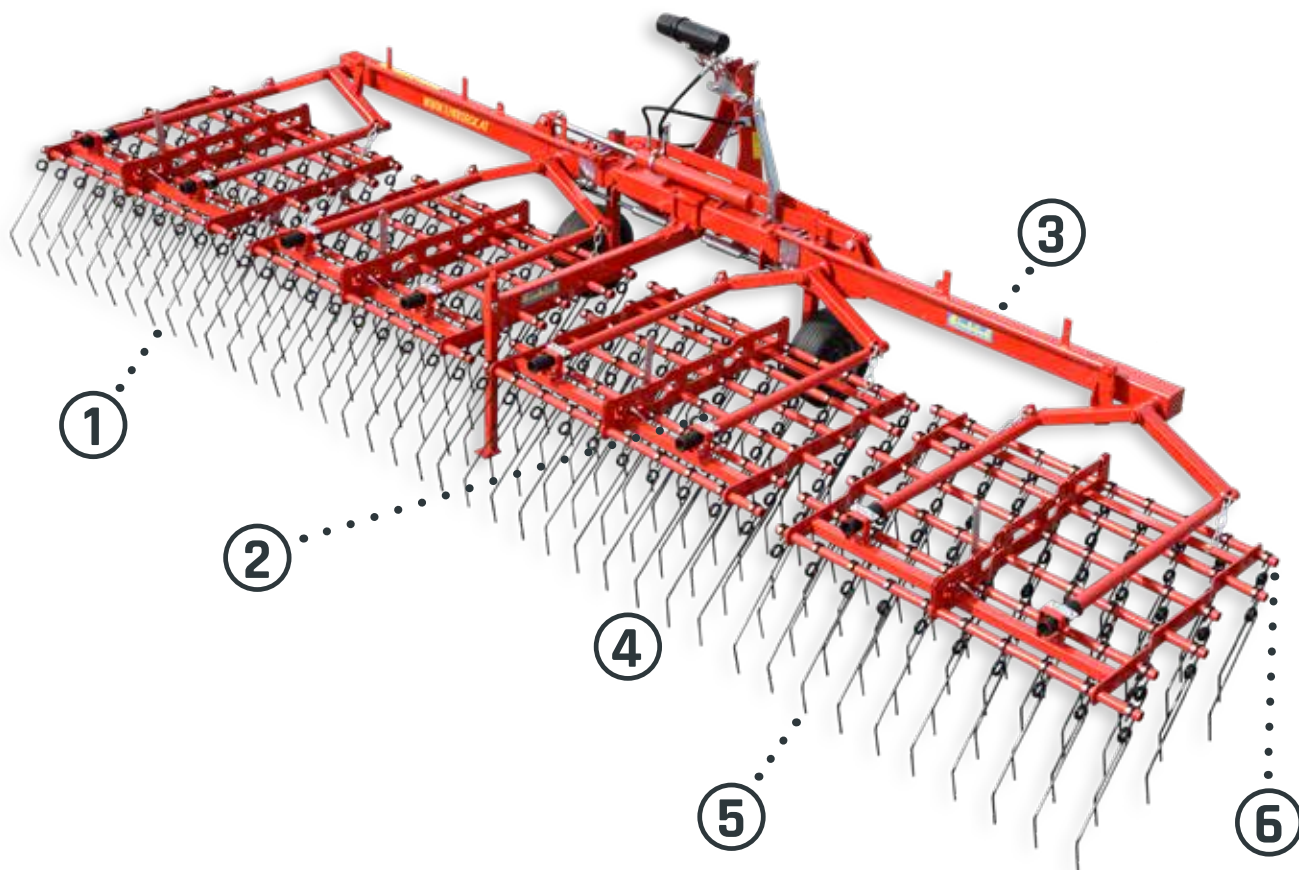
Tine 490 mm / 19.3" long, Ø 6,5 mm / 0.26"

Tine 600 mm / 23.6" long, Ø 7 mm / 0.28"



## CONCEPT AEROSTAR

1. **Increased tine vibration** due to special plastic holders
2. **One central lever per section** to adjust the tine position
3. Solid steel **tube frame**
4. Effective operation because of **narrow line spacing** of 2.5 cm / 1"
5. **Wide range of tines as options** = the right tine for every job
6. **Large frame clearance**

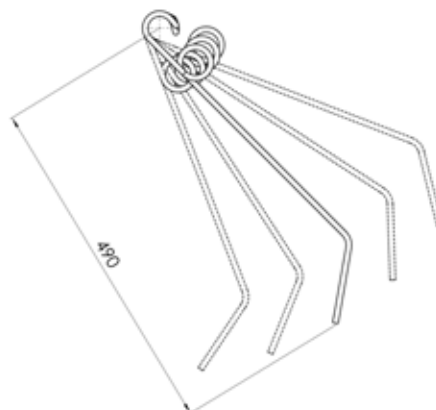




## DETAILS AEROSTAR

### SPRING TINES ADJUSTABLE WITH A CENTRAL LEVER

The aggressiveness of the spring tines can be adjusted with a central lever per section in five different positions. The positions can vary from dragging to "tip forward of the bend". A hydraulic adjustment of the tine position is also available.



### SUPPORT WHEELS FOR INDIVIDUAL TRACK SPACING AND UNEVENNESS

The ball-bearing mounted support wheels are adjustable in height in a halfbreadboard. As an option the wheel base of the support wheels is infinitely variable up to 2.15 m / 7.05 ft. The support wheels take over the depth control and prevent the spring tines from penetrating too deeply in light soil conditions. The AEROSTAR therefore adapts perfectly to uneven ground.



**The classic tined weeder aerostar works ideally in grain, among other crops!**



## ADVANTAGES AEROSTAR

### STABLE OPERATION

Due to the solid and strong frame construction the operation of machine and frame is very steady, even at higher working speeds. Also on hard soil the tined weeder can apply sufficient pressure on the tines without making the frame swing. In addition, the frame is designed to withstand heavy loads and many seasons of operation without any problems.



### LARGE FRAME CLEARANCE

A large frame clearance is guaranteed by the position of the sections and the frame. This ensures operation without damaging the crop even when the plants are higher.

### PLASTIC SUPPORT ON U-FRAME - NO WEAR AND TEAR ON STEEL TUBES

On the U-frame holding the weeder sections the supports guiding the section are covered with hard plastic. This prevents the U-frame from wearing.





### COMPACT RETRACTION

With machines with a working width of 12 m / 39.4 ft and 15 m / 49.2 ft can be folded to a transport width of only 3 m / 9.8 ft (except 18 m / 59.10 ft machines). Machines with a working width of 4.5 m / 14.80 ft to 9 m / 29.50 ft the side wings of the mainframe are folded upwards for transport. 9 m (29.5 ft) machines can be equipped with a double-fold system and a heavy-duty construction, from 12 m (39.4 ft) this is standard. On all versions a hitching very closely to the tractor is ensured.



### STRONGER CONSTRUCTION FROM 9 M / 29.5 FT WORKING WIDTH

A larger working width means greater forces acting on a machine. The triangular bracing on machines with double folding prevent the side wings from swinging and rocking even at higher working speeds. The tine aggressivity can be adjusted depending on the conditions.



The "weeding all-rounder" has been used on thousands of farms all over the world for decades!





# **TINED WEEDER AEROSTAR TRAILED**









## TINED WEEDER AEROSTAR TRAILED

For large farms we also produce the AEROSTAR in a semi-mounted version. However, we recommend to use this AEROSTAR only on really large fields. As the manoeuvrability is limited with the long chassis, the fields should have an appropriate size in order to work efficiently. The chassis, which is attached to the lower links of the tractor, is carried by two large wheels.

In working position, two additional adjustable wheels on the outer wings guarantee smooth operation of the tined weeder frame (no swinging down or up). A stable profile tube frame with a large triangular bracket prevents the frame from swinging forward or backward. When folding to transport position and when turning at the headlands the outer wheels do not touch the ground. This means that no crop is injured or damaged during this operation.



**Power for large fields - precise weeding on 18 m (59.1 ft) or 24 m (78.7 ft) working width!**

Type/ Working width cm / ft	Sections m (ft)	Wheels	Tines	from hp/kW	Weight approx. kg / lbs
AEROSTAR 1800 / 59.1	3x1.8 (5.9) / 6x2.1 (6.9)	4	720	180/133	3950 / 8708
AEROSTAR 2400 / 78.7	3x1.8 (5.9) / 6x2.1 (6.9) / 4x1.5 (4.9)	6	960	200/147	5460 / 12037





## STANDARD EQUIPMENT

- ✓ Tines Ø 7 mm / 0.28", length 490 mm / 19.3", individually changeable
- ✓ Suspended beams with hydraulic level control per section
- ✓ Line spacing 2.5 cm / 1"
- ✓ Tube frame section providing equal working pressure over the full width – 6 rows with central tine adjustment, per section
- ✓ Requires three double-acting hydr. remotes (1x with floating position)
- ✓ Tidy installation of hydraulic hoses and pipes
- ✓ Wheel chocks
- ✓ Parking support
- ✓ Wheels 10.0/75-15.3 AW on AEROSTAR 1800
- ✓ Wheels 13.0/55-16 AW on AEROSTAR 2400

## OPTIONS

Drawbar mounting with Ø 50 mm / 1.97" pin and hydraulic lifting instead of lower link mounting

Hydraulic tine adjustment - position fixed with bolts (per section)

Wide wheels

Support wheels for sensitive or blind weeding (1x per section)

Pneumatic trailer brake

Warning signs with holder and LED-lights

Tine 490 mm / 19.3" long, Ø 8 mm / 0.31"

Tine 490 mm / 19.3" long straight, Ø 8 mm / 0.31"

Tine 600 mm / 23.6" long, Ø 7 mm / 0.28"



## ADVANTAGES AEROSTAR TRAILED

### STURDY TUBE FRAME

A solid tube frame prevents the tine weeder from swinging and ensures a long life of the tines.



### PERFECT ADJUSTMENT WITH THE SUSPENDED BEAM - SYSTEM

All sections of the trailed version of the AEROSTAR are attached to suspend beams. These beams are hydraulically controlled (hydraulic level adjustment). This suspended beam system can adapt to uneven terrain in an excellent way. On soil with very hard crust the double-acting cylinders of the beams will allow you to put additional pressure on the sections.

### GUARANTEED TRANSPORT WIDTH OF 3 M

All tine weeders achieve a transport width of only 3 m (9.8 ft).





## PRACTICAL TURNING ON THE HEADLANDS BY SIMPLE LIFTING MECHANISM

At working widths of more than 18 m (59.1 ft), the additional outer wheels do not have contact with the ground during folding into the transport position. And while turning up they cannot damage the crop.







# **PRECISION TINED WEEDER AEROSTAR-EXACT**









## PRECISION TINED WEEDER AEROSTAR-EXACT

With the precision tined weeder AEROSTAR-EXACT, row crops such as maize, soya, sunflower, field bean, pumpkin as well as seeds or vegetables can be weeded at the cotyledon stage. But also precise blind weeding is possible with the AEROSTAR-EXACT - thanks to the exact depth control and above all the exact adjustment possibilities of the tine aggressiveness.

The AEROSTAR-EXACT is the professional version of the classic AEROSTAR tined weeder. Many of the AEROSTAR's options are already integrated in the standard equipment of the precision tined weeder AEROSTAR-EXACT.



**Precise (blind) weeding of corn, beets, pumpkins, soybeans, potatoes, wheat, rye, field beans, peas, etc.**

Type/ Working width cm / ft	Sections m / ft	Wheels	Tines	from hp/kW	Weight approx. kg / lbs
<b>RIGID, not foldable</b>					
AEROSTAR-EXACT 300 / 9.8	2x1.5 / 2x4.9	4	120	30/22	540 / 1190
<b>Hydraulic folding</b>					
AEROSTAR-EXACT 600 / 19.7	4x1.5 / 4x4.9	6	240	60/44	940 / 2072
AEROSTAR-EXACT 900 / 29.5 <sup>1)</sup>	6x1.5 / 6x4.9	6	360	90/66	1600 / 3527
AEROSTAR-EXACT 1200 / 39.4 <sup>1)</sup>	8x1.5 / 8x4.9	6	480	100/74	1880 / 4145
AEROSTAR-EXACT 1500 / 49.2 <sup>1,2)</sup>	10x1.5 / 10x4.9	6	600	150/110	2280 / 5027
AEROSTAR-EXACT 1800 / 59.1 <sup>1,2,3)</sup>	12x1.5 / 12x4.9	10	720	200/147	3220 / 7099

1) Shear retraction + hydr. transport lock  
2) Transport height approx. 4,5 m (14.8 ft)

3) Transport width 6 m (19.7 ft)





## STANDARD EQUIPMENT

- ✓ From 9 m / 29.5 ft working width with hydraulic transport lock
- ✓ Tines Ø 7 mm / 0.28", length 600 mm / 23.6" - ideal for uneven fields, individually changeable
- ✓ Tube frame section providing equal working pressure over the full width – 6 rows of tines
- ✓ Hydr. tine adjustment with indicator
- ✓ Line spacing 2.5 cm / 1"
- ✓ Upper link with slotted hole for ideal operation in hilly fields
- ✓ Large, bearing mounted rubber support wheels
- ✓ Exact depth guidance through front and rear support wheels
- ✓ Sections firmly connected to the weeder forks
- ✓ Wheels with following weeder tines on the pendular chassis
- ✓ Robust frame

## OPTIONS

Tine holder for row crops

Protection against loss in case of tine breakage

Weeder extension 30 cm / 11.8"

For machines with shear-retraction working in light and sandy soils we recommend:

Inside twin wheels 18x8.50-8

Outside single wheels 18x8.50-8

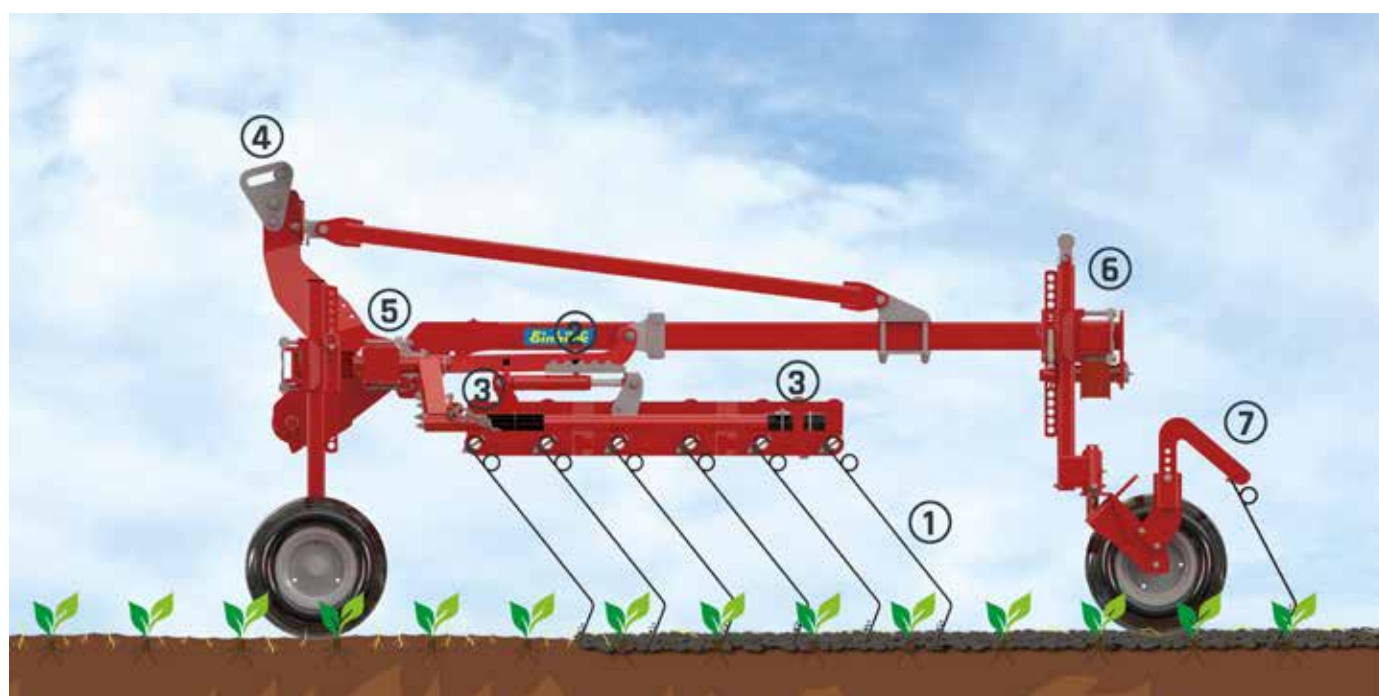
Warning signs with holder and LED-lights

Pneumatic seeding box P-BOX



## CONCEPT AEROSTAR-EXACT

1. Direct suspended spring tines with high clearance and a **line spacing of 2.5 cm / 1"**
2. Constant tine pressure over the entire working width by **hydraulic tine pressure adjustment**
3. **Fixed tine sections** to ensure the same working depth of all tine rows on each section
4. **Slotted hole** on the upper link mounting for ideal ground adaptation in hilly fields
5. Smooth operation of the weeder due to **compact design**
6. **Pendular axle** to compensate uneven ground
7. Loosening of the wheel tracks by **separate weeding tines**





## DETAILS AEROSTAR-EXACT

### TINE 600 MM / 23.6" LONG, Ø 7 MM / 0.28"

The precision tined weeder AEROSTAR-EXACT is equipped with 600 mm / 23.6" long and 7 mm / 0.28" thick cranked spring tines that adapt perfectly to uneven soil. They allow weeding operations even at late stages of the crop's development. These tines have also proved their worth in special crops, as longer tines can adapt even better to uneven soil!



### SUPPORT WHEELS FOR INDIVIDUAL TRACK SPACING AND UNEVENNESS

The ball-bearing mounted support wheels are adjustable in height in a halfbreadboard. The wheel base of the support wheels is infinitely variable up to 2.25 m (7.4 ft). The support wheels take over the depth control and prevent the spring tines from penetrating too deeply in light soil conditions. The AEROSTAR-EXACT therefore adapts perfectly to uneven ground.

### TRANSPORT LOCK

Transport lock is standard equipment on all machines. All machines up to 6 m (19.7 ft) are locked by a locking bar on the cylinder and machines bigger than 9 m (29.5 ft) with a hydraulic transport lock on the side wings. This provides additional safety when driving on the road or when the machine is parked.





## ADVANTAGES AEROSTAR-EXACT

### HYDRAULIC TINE PRESSURE ADJUSTMENT

The tine position is adjustable from the tractor via the centrally controlled and sensitive hydraulic section adjustment. This system also provides hydraulic pressure and level compensation of all the tine sections of the machine. The hydraulic tine adjustment facilitates the use of the tined weeder AEROSTAR-EXACT in changing soil conditions. When folding to the transport position, the tines can be adjusted to the flattest position very comfortably. The hydraulic pressure compensation ensures that the tines operate with equal aggressivity over the entire working width.



### PRECISE DEPTH CONTROL THROUGH SUPPORT WHEELS AND PENDULAR AXLE

Due to the precise depth control of the AEROSTAR-EXACT via support wheels at the rear and in the front (which are adjustable in a half-breadboard) it is perfectly suited for blind weeding. The pendular axle and the pivoting rear wheels ensure perfect ground adaptation. Sensitive adjustable tine pressure by the hydraulic tine adjustment guarantees precise depth guidance of the tines, particularly on uneven ground.

### FIXED SECTIONS FOR SMOOTH OPERATION

The sections are mounted on forks without clearance. This guarantees the machine works exactly in the set working depth. The sections can not turn and twist (for example when driving in tractor tracks) and are running very smoothly.



### STABLE OPERATION

Due to the solid and strong frame construction the operation of machine and frame is very steady, even at higher working speeds. Also on hard soil the tined weeder can apply sufficient pressure on the tines without swinging. In addition, the frame is designed to withstand heavy loads and many seasons of operating without any problems.



### TINE POSITION "TIP IS FORWARD OF THE BEND" FOR BREAKING UP THE SOIL CRUST

The soil crust is broken up better when the tines are placed "on grip". It is also gentler on the crop. In contrast to dragging tines, the plant is not pushed or pulled to the ground and thus not damaged. Thanks to the long tines, soil unevenness does not play a major role. The tines simply follow the contour of the soil.



### UPPER LINK WITH SLOTTED HOLE FOR PERFECT GROUND ADAPTION

A slot for the upper link allows the AEROSTAR-EXACT to perfectly compensate uneven soil conditions in driving direction.

### LARGE FRAME CLEARANCE

A large frame clearance is guaranteed by the position of the sections and the frame. This ensures operation without damaging the crop even when the plants are higher.



**Highest precision due to oscillating axle, hydraulic tine pressure adjustment, long tines and slotted upper link mounting!**







# ROTATIVE WEEDER AEROSTAR-ROTATION







## ROTATIVE WEEDER AEROSTAR-ROTATION

The rotative weeder AEROSTAR-ROTATION combines the advantages of a tined weeder and a rotary hoe. The result is a rotative weeder with a very wide range of applications. The work is carried out by steel pins which are embedded in a plastic disc set at an angle. The individually suspended, rotating working tools uproot and shed weeds, promote the tillage of yield crops and break up even hard soil incrustations without any problems.

This method of working makes the AEROSTAR-ROTATION also very suitable for weeding in mulch sowing. With the hydraulic pressure adjustment the pre-tension of the star wheel carriers can be infinitely varied between relief and load from the tractor cab. The relief goes so far that the star wheels are almost float. This makes the machine ideally suited for difficult soil conditions. In addition, this setting can be used to achieve precise blind weeding. The rotative weeder AEROSTAR-ROTATION, similar to the AEROSTAR-EXACT, can be used in almost all rows, as well as drilled crops.



**The special suspension & adjustment of the holder of the star wheel ensures the best possible weeding quality!**

Type/ Working width cm / ft	Sections m / ft	Wheels	Star wheels	from hp/kW	Weight approx. kg / lbs
<b>RIGID, not foldable</b>					
AEROSTAR-ROTATION 150 / 4.9	1x1.5 / 1x4.9	2	10	20/15	280 / 595
AEROSTAR-ROTATION 300 / 9.8	2x1.5 / 2x4.9	2	20	35/26	420 / 926
<b>Hydraulic folding</b>					
AEROSTAR-ROTATION 450 / 14.8	3x1.5 / 3x4.9	2	30	50/37	650 / 1433
AEROSTAR-ROTATION 600 / 19.7	4x1.5 / 4x4.9	4	40	65/48	810 / 1786
AEROSTAR-ROTATION 900 / 29.5 <sup>1)</sup>	6x1.5 / 6x4.9	4	60	90/66	1560 / 3440
AEROSTAR-ROTATION 1200 / 39.4 <sup>1)</sup>	8x1.5 / 8x4.9	4	80	100/74	1890 / 4167
AEROSTAR-ROTATION 1800 / 59.1 <sup>2,3)</sup>	12x1.5 / 12x4.9	6	120	150/110	3300 / 7276

1) With shear-retraction: no quick coupling bar,  
2 central support wheels 18x8.50  
2) Transport height 4,4 m (14.4 ft)

3 m (9.8 ft) machine: 1 double acting hydr. remote needed  
6 m (19.7 ft) machine: 1 double acting and one single acting hydr. remote  
needed

9 - 18 m (29.5 - 59.1 ft) machine: 3 double acting hydr. remotes needed  
3) Transport width 6 m (19.7 ft)





## STANDARD EQUIPMENT

- ✓ Diameter of the star wheel 500 mm / 19.7" -  
tine Ø 6.5 mm / 0.26"
- ✓ Line spacing 15 cm / 5.9"
- ✓ Maintenance free bearing of the star wheels - separate  
mounting of each star wheel
- ✓ Hydr. adjustable aggressivity - possibility to push down or lift  
the section up, with position indicator
- ✓ Pressure and level compensation between the working  
sections
- ✓ Large, bearing mounted rubber support wheels
- ✓ Parking support
- ✓ Robust frame

## OPTIONS

Double star-wheel instead of weeder tines in the centre of the machine (recommended for fields with a lot of residues)

For machines with shear-retraction working in light and sandy soils we recommend:

Inside twin wheels 18x8.50-8

Outside single wheels 18x8.50-8

Control valve: combines 2 double acting hydraulic connections to 1 (for machines with shear retraction)

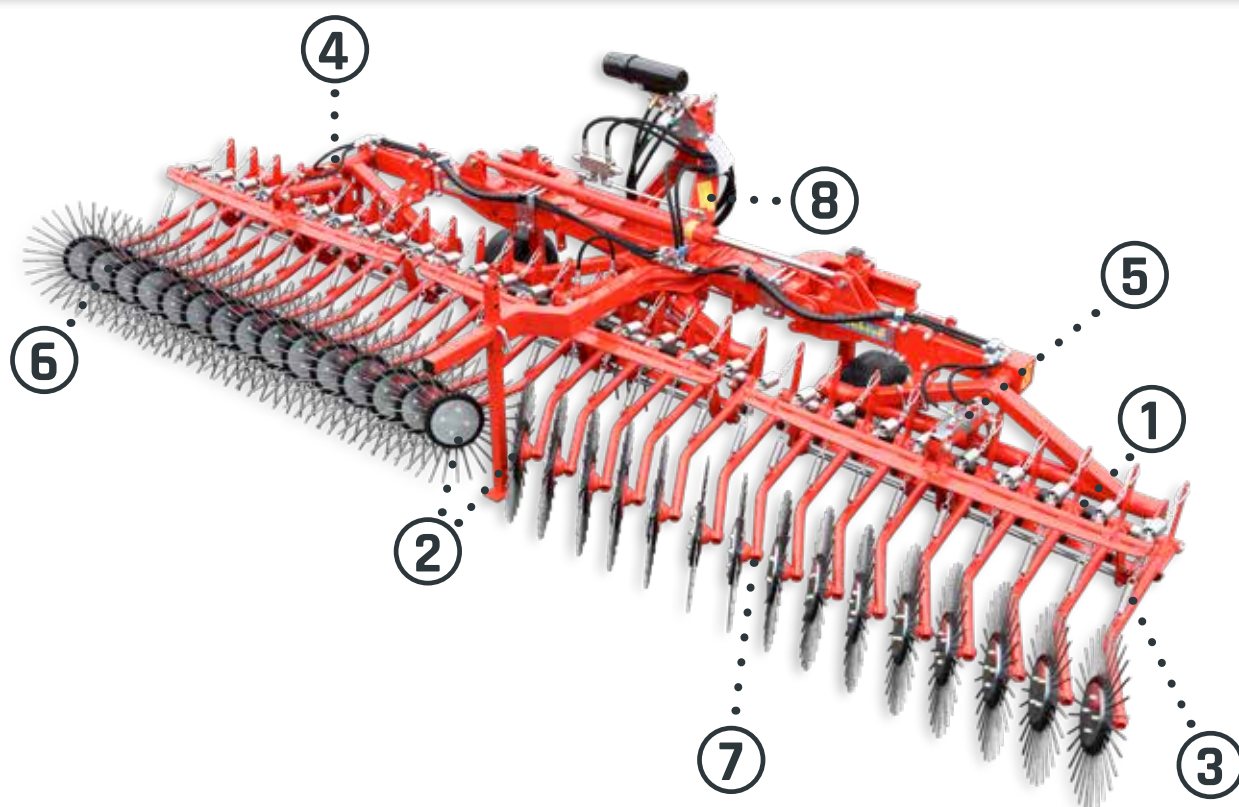
Warning signs with holder and LED-lights

Pneumatic seeding box P-BOX



## CONCEPT AEROSTAR-ROTATION

1. **Special mounting** of the star wheels
2. In order to compensate sideforces, **the stars are mounted bi-directional** (line spacing 15 cm / 5.9")
3. **Hydraulic adjustment of aggressivity** - pre-tension of the star wheel carriers can be infinitely varied between relief and load, with position indicator
4. **Hydraulic pressure and level compensation** of the sections for best adaption to the soil surface
5. **Position indicator** of the pressure and level compensation
6. **Diameter of the star wheel** 500 mm / 19.7", tine diameter 6.5 mm / 0.26"
7. **Maintenance free bearing** of the star wheels
8. Working speed **up to 10 km/h / 6.2 mph**











## DETAILS AEROSTAR-ROTATION



### TRANSPORT LOCK

Transport lock is standard equipment on all machines. All machines up to 6 m (19.7 ft) are locked by a locking bar on the cylinder and machines bigger than 9 m (29.5 ft) with a hydraulic transport lock on the side wings. This provides additional safety when driving on the road or when the machine is parked.

### BI-DIRECTIONAL ANGLE

The angle of the inclination of the star wheels is mirror-inverted on half of the machine to prevent a possible side pull. Standard weeder tines are used in the center where there is no star wheel because of the above mentioned above. As an option there is a star-wheel element available.



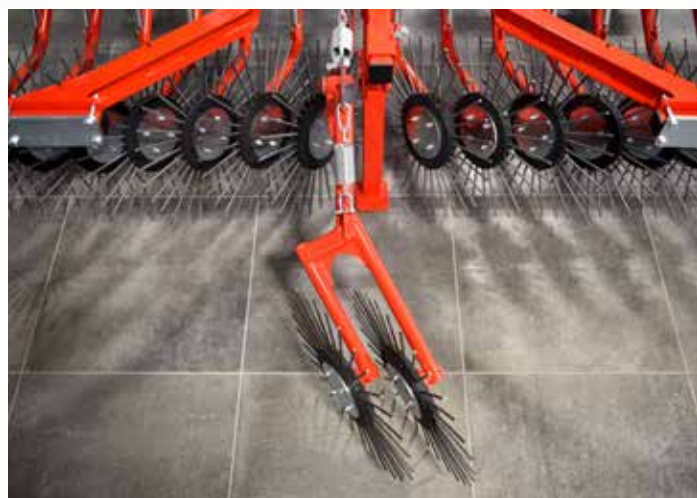
### DIAMETER OF THE STAR WHEEL 500 MM / 19.7" - TINE Ø 6,5 MM / 0.26"

The work is done by 6.5 mm / 0.26" thick spring steel tines casted into a plastic disc. Each of these 500 mm / 19.7" star wheels are suspended separately, therefore they adapt perfectly to any surface irregularities. In order to prevent the tines from falling out, they are casted in an u-form into the disc.



### LINE DISTANCE OF 15 CM / 5.9"

The discs are mounted at a line distance of 15 cm / 5.9" on sections of 1.50 m (4.9 ft). Even at low working speed, as often required for sensitive crops, the AEROSTAR-ROTATION works effectively.



### DOUBLE STAR-WHEEL

Rotation-weeding-element (optional available) instead of normal spring tines for working in the center of the machine (recommended when working in heavy residue).







## ADVANTAGES AEROSTAR-ROTATION

### CLOGGING-FREE WEEDING IN ORGANIC MATTER OR MULCH-TILL

Due to the rotating stars the machine can handle a big amount of organic matter (in mulch-till fields or in fields with heavy weed infestation) without clogging.



### HYDRAULIC ADJUSTMENT OF AGGRESSIVITY

The pressure is comfortably and infinitely adjustable from the tractor's seat. This innovative system uses the power of two counteracting tension springs. By extending the hydraulic cylinder, the tension of the preload spring increases. The pressure on the star wheels increases as well. When retracting the cylinder, the relieving spring is tensioned. If desired the pressure on the star wheels can be reduced, until absolutely no down pressure is left (the star wheels are nearly floating). **Kindly note:** You need experience and knowledge to choose the right aggressivity and working speed for the crop.

### IMPROVED BREAKING OF SOIL CRUSTS

Due to a tine pressure of up to 22 kg / 48.5 lbs per tine, it is possible to break up heavy soil crusts. The more aggressively you weed, the slower you should drive.





## MAINTENANCE FREE BEARING OF THE STAR WHEELS

The bearings of the stars are maintenance-free and durable. Therefore they remain without clearance even after many seasons and hectares in the field.



## PRESSURE ON THE ROTATING STAR WHEELS CAN BE HYDRAULICALLY REDUCED

When working in sensitive crops and light soils the pressure on the rotating star wheels can be hydraulically reduced, until there is no down-pressure anymore and the star wheels are floating. When down-pressure is minimized, the soil has to be very even for optimum performance.

## EARLY WEEDING EVEN IN HUMID SOIL

In contrast to the common tine weeder, the Aerostar-Rotation can already be used even if the soil is still moist. This way the rotative weeder has an increased time of application in comparison to the standard tined weeder. This is a great advantage in changing weather conditions.







## ADVANTAGES AEROSTAR-ROTATION

### EFFECTIVE ALSO IN A LATE GROWTH STAGE

An effective use of the machine is also possible in a late stage of growth, because the rotating wheel does not pull any plants, they simply pass through. The inclined position of the star wheels improves the weeding-effect in the row. Weeds are "swiped out" of the row as long as they are not too well established.



### INCLINED MOUNTED STAR WHEELS

The inclined mounting of the star wheels ensures that the weeder cleans itself from residue and it has an important effect on the aggressivity of operation. The faster you drive, the more aggressive the rotative weeder works. The more aggressive the setting, the slower you should drive.

### STABLE OPERATION

Due to the solid and strong frame construction the operation of the machine and frame is very steady, even at higher working speeds. In addition, the frame is designed to withstand heavy loads and many seasons of work without any problems.





### LARGE FRAME CLEARANCE

A large frame clearance is guaranteed by the position of the sections and the frame. This ensures operation without damaging the crop even when the plants are higher.



**Largest possibility to adjust the tine pressure:  
"stroking the soil" or most aggressive crust breaking  
up to 22 kg / 48.5 lbs per star wheel element.**



## SIMPLE MOUNTING OF A SEEDING BOX

The P-BOX-STI or P-BOX-MD seeder, for seeding of intercrops or catch crops etc., can be mounted on all AEROSTAR models. In addition to various additional options for the seeder, steps for filling are available as well.



### Pneumatic seeder P-BOX-STI

- » Precise, electrically controlled, metering and dosing via operating monitor
- » Grassland reseeding or fertilizer application
- » Seeding of intercrops or cover crops
- » Application of many different seed varieties
- » Can be mounted on many cultivators, weeders, etc.



### Pneumatic seeder P-BOX-MD

- » Mechanical adjustment of the seeding rate via a gearbox
- » Seeding roller driven by a flexible shaft
- » Grassland reseeding or fertilizer application
- » Seeding of intercrops or cover crops
- » Application of many different seed varieties
- » Can be mounted on many cultivators, weeders, etc.

You can find more information about the seeders on our website or in the seeders brochure!





## SPARE PARTS & SERVICE

### » **Original spare parts**

Only original Einböck tines and shares guarantee maximum service life and best quality. Only with Einböck spare parts you will achieve the optimum performance of your Einböck machine.

### » **Competent service - worldwide**

Our dealers with their service staff are at your disposal worldwide. With our partners you always have a competent and reliable contact nearby. Our dealers participate in product trainings on a regular basis, this ensures that they are always up-to-date and have best knowledge.

### » **Decades of availability**

We always have the right spare parts in stock, also for older types of machines. Therefore we can send them quickly to you. This helps you getting the machine back in the field fast.

### » **Perfect accuracy of fit**

With the perfect accuracy of our original spare parts save time and money while repairing. You always receive an original part from us, this means always the same quality like the original equipment.





## EINBÖCK AT A GLANCE

### "Everything from one source"

- » **In-house development from the idea to the finished product**  
Over 85 years of experience in the construction of agricultural machinery
- » **From practitioner for practitioners**  
75% of our sales and product management team are practitioners
- » **Suppliers from the region or Central Europe**  
Long-lasting supplier relationships ensure consistent product quality
- » **Manufacturing**  
Exclusively in Dorf an der Pram in Upper Austria
- » **Practical testing of all machines on our own test fields**  
Before prototypes are turned into serial production, they have to pass substantial tests in the field and on the road
- » **After-Sales-Service**  
Supply of wear and spare parts is guaranteed for decades and ensures long-term customer relationships

### 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!*

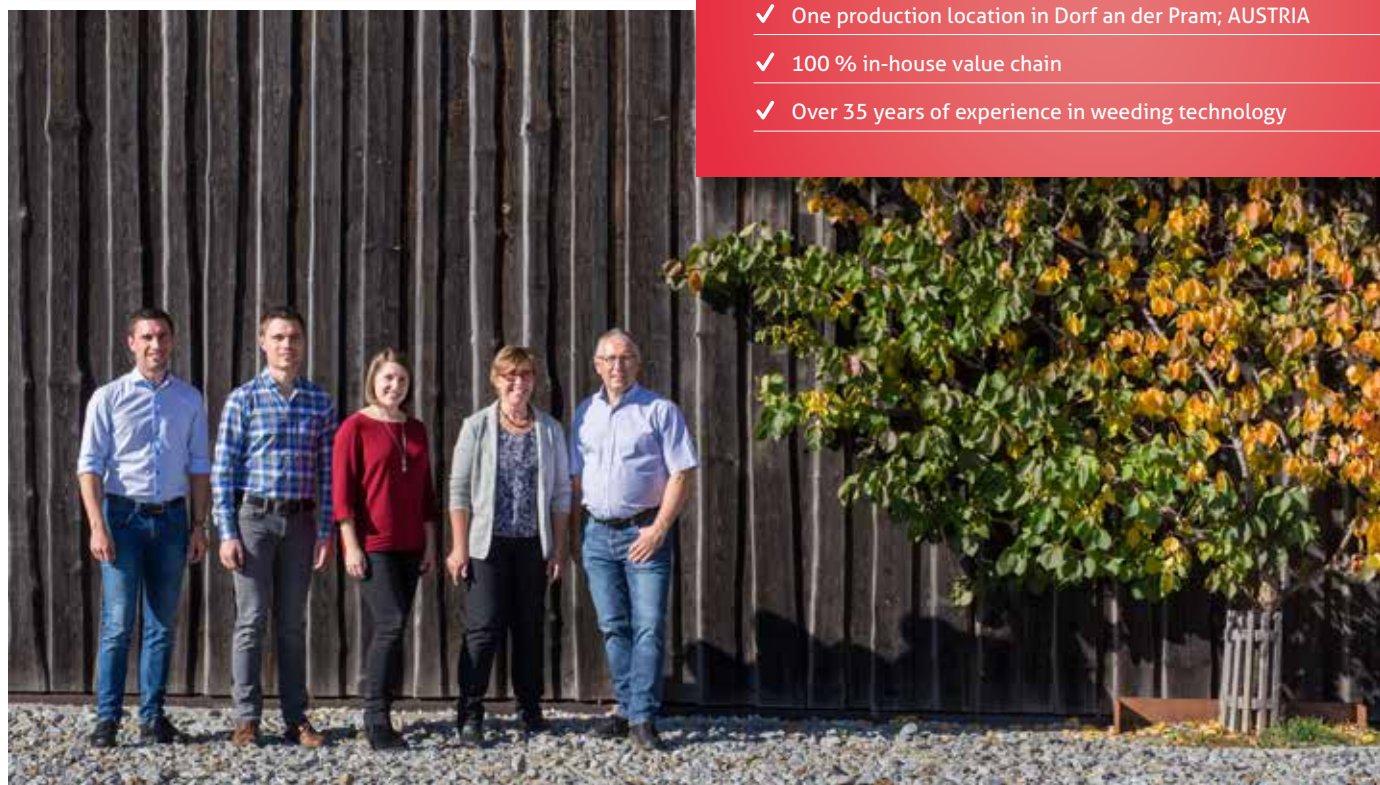
Family Einböck, management in 3rd & 4th generation







- ✓ Foundation 1934
- ✓ Owner-managed family business
- ✓ One production location in Dorf an der Pram; AUSTRIA
- ✓ 100 % in-house value chain
- ✓ Over 35 years of experience in weeding technology





WEEDER- TYPE	DIMENSIONS AND TECHNICAL DATA									FOLDING						CHASSIS			
	Model = Working width (cm)	Transport width (cm)	Parking height (cm)	Basic weight (approx. in kg)	Standard track width (approx. in cm), infinitely variable	Standard track width (approx. in cm), adjustment in 10 cm steps	Track width infinitely variable up to 2,15 m	Mounting category	Power requirement from HP/kW	Rigid	Hydraulically folding	Hydraulic double folding	Semi-mounted / trailed	Hydraulic transport lock	Extendable / reducible	Support wheels (standard)	Additional pair of rubber support wheels	Slotted upper link mounting & pendular chassis	Following weeder tines behind wheels on pendular chassis
AEROSTAR	150	154	140	190	136-140	-	●	I/22	15/11	✓	-	-	-	-	-	2	-	-	-
	210	213	140	200	136-140	-	●	I/22	20/15	✓	-	-	-	-	-	2	-	-	-
	300	300	140	280	136-140	-	●	I/28	30/22	✓	-	-	-	-	-	2	-	-	-
	450	260	170	500	136-140	-	●	I/28	40/29	-	✓	-	-	-	-	2	●	-	-
	510	260	200	520	136-140	-	●	I/28	50/37	-	✓	-	-	-	-	2	●	-	-
	600	300	245	620	136-140	-	●	II/28	60/44	-	✓	-	-	-	-	2	●	-	-
	600	300	245	740	136-140	-	●	II/28	60/44	-	✓	-	-	-	to 900	4	-	-	-
	750	270	320	850	136-140	-	●	II/28	65/48	-	✓	-	-	-	-	4	-	-	-
	810	270	350	870	136-140	-	●	II/28	70/51	-	✓	-	-	-	-	4	-	-	-
	900	300	400	980	136-140	-	●	II/28	70/51	-	✓	-	-	-	to 600	4	-	-	-
	900	300	350	1170	136-140	-	●	II/28	80/59	-	-	✓	-	●	to 1200	4	-	-	-
	1200	300	350	1310	136-140	-	●	II/28	90/66	-	-	✓	-	●	to 900	4	-	-	-
	1350	300	430	1350	136-140	-	●	II/28	110/81	-	-	✓	-	✓	-	4	-	-	-
	1500	300	430	1600	136-140	-	●	II/28	130/95	-	-	✓	-	✓	to 1200	4	-	-	-
	1800	600	430	2490	150-264 320-370	-	-	II/28	180/133	-	-	✓	-	✓	to 1500	6	-	-	-
	1800	300	390	3950	-	175-225	-	II/28+III/36	180/133	-	-	-	✓	✓	-	4	-	-	-
	2400	300	390	5460	-	175-225	-	II/28+III/36	200/147	-	-	-	✓	✓	-	6	-	-	-
AEROSTAR- EXACT	300	300	140	540	136-125	-	-	II/28	30/22	✓	-	-	-	-	-	4	-	✓	✓
	600	300	310	940	136-214	-	-	II/28	60/44	-	✓	-	-	-	-	6	-	✓	✓
	900	300	370	1600	136-225	-	-	II/28	90/66	-	-	✓	-	✓	to 1200	6	-	✓	✓
	1200	300	370	1880	136-225	-	-	II/28	100/74	-	-	✓	-	✓	to 900	6	-	✓	✓
	1500	300	450	2280	136-225	-	-	II/28	150/110	-	-	✓	-	✓	to 1200	6	-	✓	✓
	1800	600	450	3220	150-235 366-480	-	-	III/36	200/147	-	-	✓	-	✓	to 1500	10	-	✓	✓
AEROSTAR- ROTATION	150	180	140	280	136-225	-	-	I/28	20/15	✓	-	-	-	-	-	2	-	-	-
	300	300	140	420	136-225	-	-	I/28	35/26	✓	-	-	-	-	-	2	-	-	-
	450	290	240	650	136-225	-	-	I/28	50/37	-	✓	-	-	-	-	2	-	-	-
	600	300	310	810	136-214	-	-	II/28	65/48	-	✓	-	-	-	-	4	-	-	-
	900	300	350	1560	136-225	-	-	II/28	90/66	-	-	✓	-	✓	to 1200	4	-	-	-
	1200	300	350	1890	136-225	-	-	II/28	100/74	-	-	✓	-	✓	to 900	4	-	-	-
	1800	600	440	3300	150-264 320-370	-	-	III/36	150/110	-	-	✓	-	✓	-	6	-	-	-

✓ = standard equipment

● = optionally available

- = not possible



TINES / STARS / FIELDS															OPTIONS						
Tines 6,5 / 380 mm	Tines 6,5 / 490 mm	Tines 7,0 / 490 mm	Tines 7,0 / 600 mm	Tines 8,0 / 490 mm	Tines 8,0 / 490 mm STRAIGHT	Number of tines	Star wheels	Mechanical adjustment of aggressivity	Hydraulic adjustment of aggressivity	Protection against loss/section	Tine holder	Weeder extension	Line spacing (cm)	Number & size of sections (cm)	Warning signs + LED-lights to the rear	Warning signs + LED lights to the front and rear	Seeder P-BOX-STI	Seeder P-BOX-MD	Control valve: combining two hydraulic valves	Front mounting frame	Front levelling plate
●	●	✓	●	●	●	60	-	✓	●	●	●	●	2,5	1x150	●	●	●	●	-	●	●
●	●	✓	●	●	●	84	-	✓	●	●	●	-	2,5	1x210	●	●	●	●	-	●	●
●	●	✓	●	●	●	120	-	✓	●	●	●	●	2,5	2x150	●	●	●	●	-	●	●
●	●	✓	●	●	●	180	-	✓	●	●	●	●	2,5	3x150	●	●	●	●	-	●	●
●	●	✓	●	●	●	204	-	✓	●	●	●	●	2,5	1x210/2x150	●	●	●	●	-	●	●
●	●	✓	●	●	●	240	-	✓	●	●	●	●	2,5	4x150	●	●	●	●	-	●	●
●	●	✓	●	●	●	240	-	✓	●	●	●	●	2,5	4x150	●	●	●	●	-	-	●
●	●	✓	●	●	●	300	-	✓	●	●	●	●	2,5	5x150	●	●	●	●	-	-	-
●	●	✓	●	●	●	324	-	✓	●	●	●	●	2,5	4x150/1x210	●	●	●	●	-	-	-
●	●	✓	●	●	●	360	-	✓	●	●	●	●	2,5	6x150	●	●	●	●	-	-	-
●	●	✓	●	●	●	360	-	✓	●	●	●	●	2,5	6x150	●	●	●	●	-	-	-
●	●	✓	●	●	●	480	-	✓	●	●	●	●	2,5	8x150	●	●	●	●	-	-	-
●	●	✓	●	●	●	540	-	✓	●	●	●	●	2,5	9x150	●	●	-	-	●	-	-
●	●	✓	●	●	●	600	-	✓	●	●	●	●	2,5	10x150	●	●	-	-	●	-	-
●	●	✓	●	●	●	720	-	✓	●	●	●	●	2,5	12x150	●	●	-	-	●	-	-
-	-	✓	●	●	●	720	-	✓	●	●	-	-	2,5	3x180/6x210	-	●	-	-	-	-	-
-	-	✓	●	●	●	960	-	✓	●	●	-	-	2,5	3x180/6x210/4x150	-	●	-	-	-	-	-
-	-	-	✓	-	-	120	-	-	✓	●	●	●	2,5	2x150	●	●	●	●	-	-	-
-	-	-	✓	-	-	240	-	-	✓	●	●	●	2,5	4x150	●	●	●	●	-	-	-
-	-	-	✓	-	-	360	-	-	✓	●	●	●	2,5	6x150	●	●	●	●	-	-	-
-	-	-	✓	-	-	480	-	-	✓	●	●	●	2,5	8x150	●	●	●	●	-	-	-
-	-	-	✓	-	-	600	-	-	✓	●	●	●	2,5	10x150	●	●	-	-	●	-	-
-	-	-	✓	-	-	720	-	-	✓	●	●	●	2,5	12x150	●	●	-	-	●	-	-
-	-	-	-	-	-	-	10	-	✓	-	-	-	15	1x150	●	●	●	●	-	-	-
-	-	-	-	-	-	-	20	-	✓	-	-	-	15	2x150	●	●	●	●	-	-	-
-	-	-	-	-	-	-	30	-	✓	-	-	-	15	3x150	●	●	●	●	-	-	-
-	-	-	-	-	-	-	40	-	✓	-	-	-	15	4x150	●	●	●	●	-	-	-
-	-	-	-	-	-	-	60	-	✓	-	-	-	15	6x150	●	●	●	●	-	-	-
-	-	-	-	-	-	-	80	-	✓	-	-	-	15	8x150	●	●	-	-	●	-	-
-	-	-	-	-	-	-	120	-	✓	-	-	-	15	12x150	●	●	-	-	●	-	-

Conversion cm in inch = cm / 2,54    Conversion cm in feet = cm / 30,48





WWW.EINBOECK.EU

## Related brochures regarding "Organic Farming":



### HOEING TECHNOLOGY

- » Row-crop cultivator  
CHOPSTAR
- » Rollstar cultivator  
ROLLSTAR
- » Camera steering system  
ROW-GUARD
- » Rotary hoe  
ROTARYSTAR

### CULTIVATOR TECHNOLOGY

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



### ORGANIC FARMING

- » Guide to mechanical weed control
- » Tips and interesting facts about weeding and hoeing technology
- » With FUSION FARMING to success

### PRODUCT PROGRAM

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



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