

Einböck

**When hoeing
is joy!**

HOEING TECHNOLOGY

CAMERA STEERING SYSTEM
ROW-GUARD

ROW-CROP CULTIVATOR
CHOPSTAR-TWIN

RIDGER
HILLSTAR

ROW-CROP CULTIVATOR
CHOPSTAR

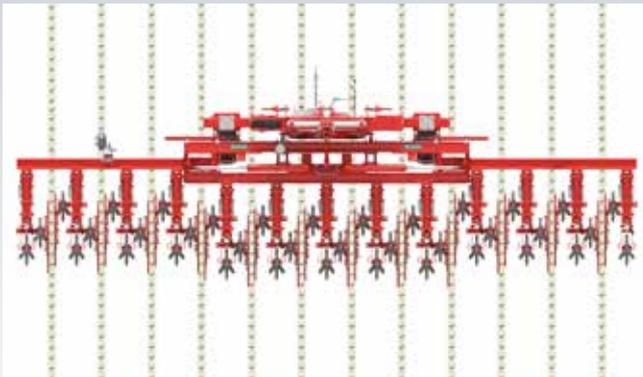
PLATE CULTIVATOR
CHOPSTAR-HYBRID

ROTATIVE CULTIVATOR
ROLLSTAR



WWW.EINBOECK.EU

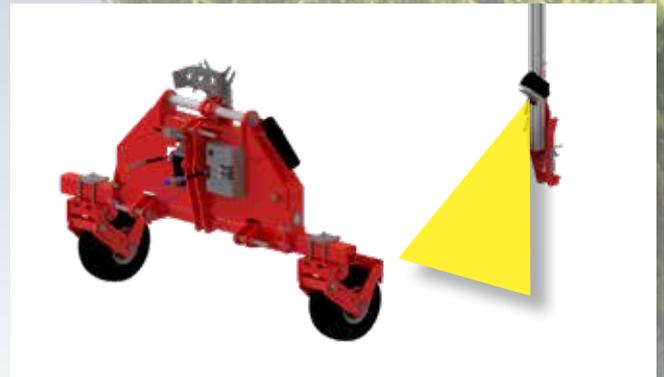
CONTENTS



EINBÖCK HOEING TECHNOLOGY AT A GLANCE

PAGE 4-13

- ✓ Advantages and practices of hoeing
- ✓ Frame, track width, special features & steering



CAMERA STEERING SYSTEM ROW-GUARD

PAGE 14-23

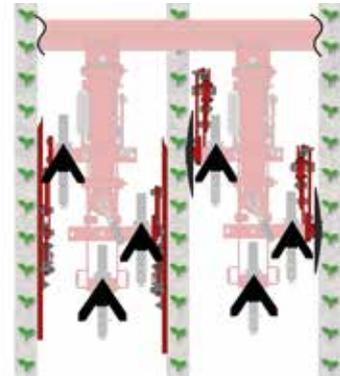
- ✓ Camera guided sideshift frame for inter row-crop cultivators
- ✓ Steering of the hoe via the latest camera technology



ROW-CROP CULTIVATOR CHOPSTAR 1-30

PAGE 24-27

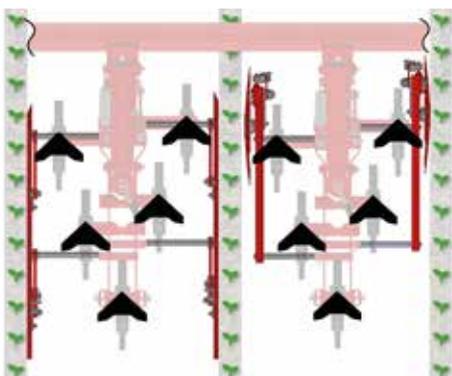
- ✓ Hoeing at row spacings up to 30 cm / 11.80" (front or rear)
- ✓ E.g. for grain, peas, lupine, vegetables, ...



ROW-CROP CULTIVATOR CHOPSTAR 3-60

PAGE 28-31

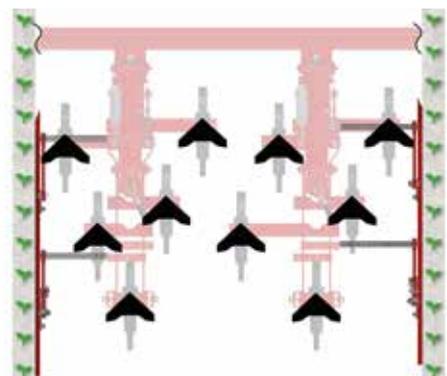
- ✓ Hoeing at row spacings up to 60 cm / 23.60" (front or rear)
- ✓ E.g. for beet, soybean, field bean, ...



ROW-CROP CULTIVATOR CHOPSTAR 5-90

PAGE 32-35

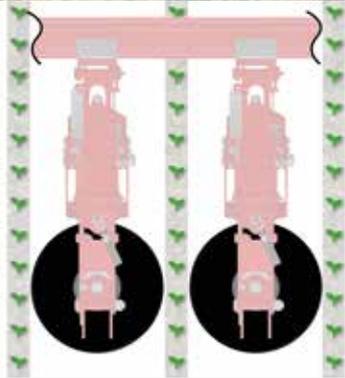
- ✓ Hoeing at row spacings up to 90 cm / 35.40" (front or rear)
- ✓ E.g. for corn, sunflowers, ...



ROW-CROP CULTIVATOR CHOPSTAR 10-150

PAGE 36-39

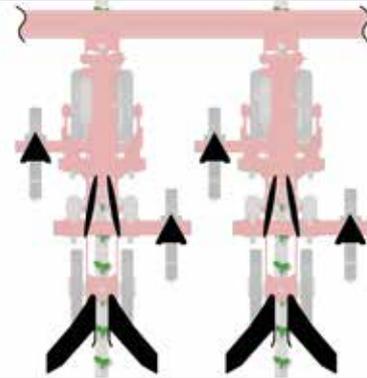
- ✓ Hoeing at row spacings up to 150 cm / 59.10" (front or rear)
- ✓ E.g. for pumpkin, ...



**PLATE CULTIVATOR
CHOPSTAR-HYBRID**

PAGE 40-43

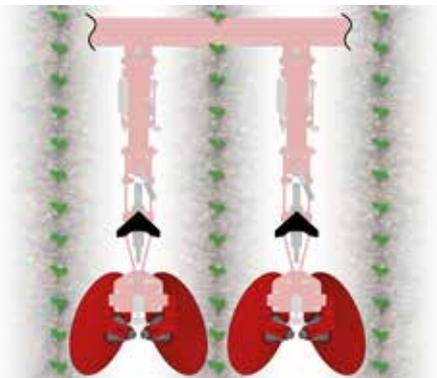
- ✓ Hoeing in mulch seeded crops and fields with organic matter (rear)
- ✓ For row spacing up to 50 cm / 19.70"



**PRECISION ROW-CROP CULTIVATOR
CHOPSTAR-TWIN**

PAGE 44-47

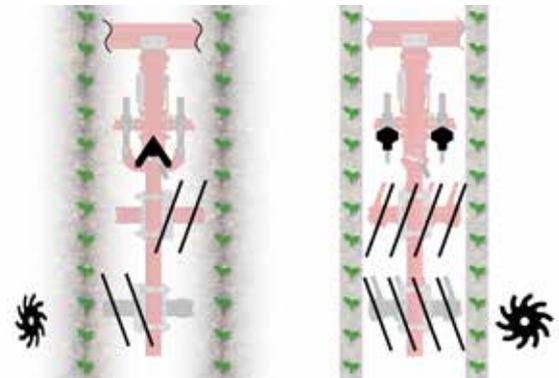
- ✓ Hoeing above the row (rear) for row spacing up to 75 cm / 29.50"
- ✓ E.g. for beet, soybean, field bean, corn, special crops



**RIDGER
HILLSTAR**

PAGE 48-51

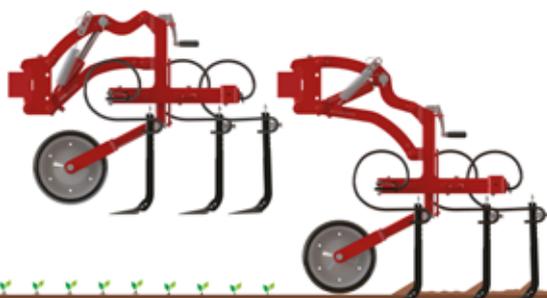
- ✓ For hilling crops on ridges up to 80 cm / 31.50"
- ✓ E.g. for potato



**ROTATIVE CULTIVATOR
ROLLSTAR**

PAGE 52-55

- ✓ Hoeing in row spacing up to 80 cm / 31.50" with rotating stars (rear)
- ✓ E.g. for corn, potato, soybean, field bean, beet, ...



**HYDRAULIC LIFTING OF SECTIONS
SECTION CONTROL**

PAGE 56-57

- ✓ GPS or manual control
- ✓ Precise hoeing at the headland



**FINGER WEEDERS & ROTATIVE
WEEDERS OTHER HOEING TOOLS**

PAGE 58-65

- ✓ Hoeing in the row; tines, coulters, weeder tines behind the hoe element ...
- ✓ for corn, soybean, beet, field beans, ...

ADVANTAGES OF HOEING

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 crusts 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



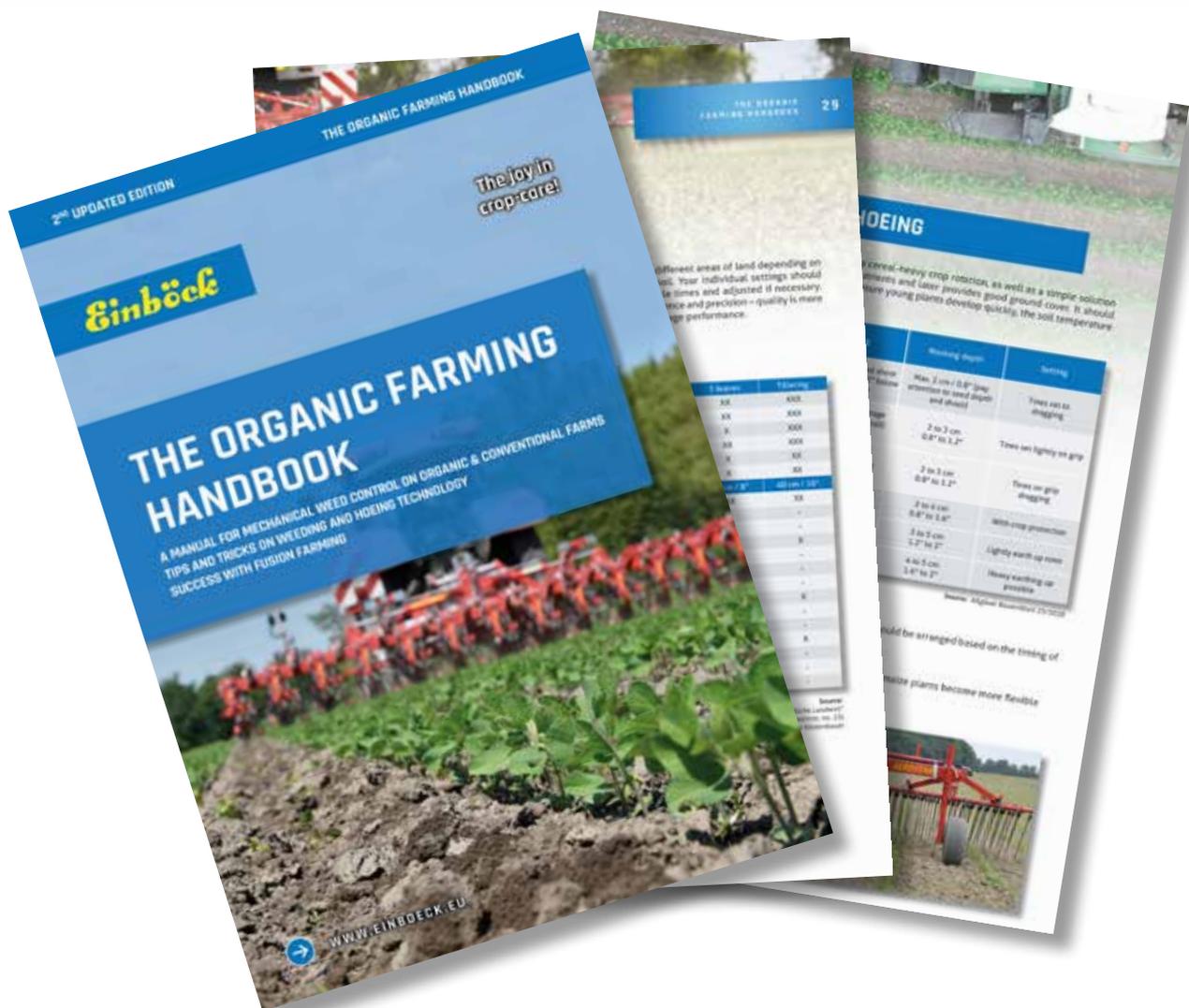
HOEING TECHNOLOGY IN PRACTICE

Experience reports or information on the practical use of our 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 hoe which crops
- » Principles of hoeing such as time of operation or device settings
- » Settings of finger hoes and rotor hoes
- » Hoeing and weeding of grain, corn, soybeans, field beans, sugar beets, pumpkins & potatoes
- » Intercrops: sowing, incorporation, advantages

You can download the handbook at www.einboeck.at/en/downloads

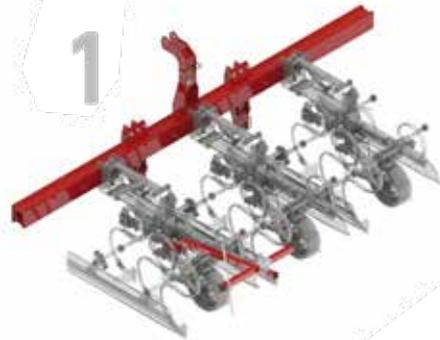


STRUCTURE OF EINBÖCK ROW-CROP CULTIVATORS

Strong frame for high loads

Rigid or hydraulically folding machines have a strong frame, on which the parallelograms are mounted. The special Einböck-profile-frame allows a fast and simple assembly of the parallelograms. Because of the special frame-form the frame can stand a very high number of hoeing seasons without any problems. Furthermore, the different row spacing can be adjusted quickly and infinitely variable.

1. Frame for a front-mounted rigid machine

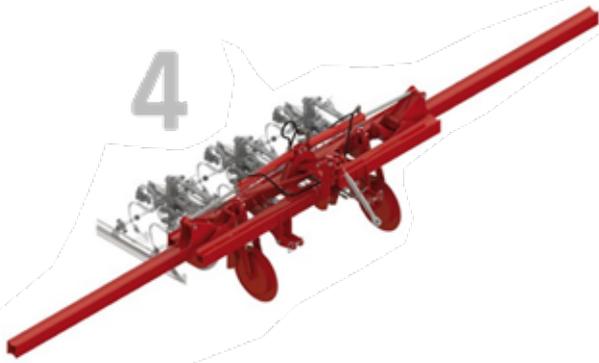


2. Frame for a rear-mounted rigid machine with upper-link-steering

3. Frame for a front-mounted machine, hydraulic folding



4



4. Frame for a rear-mounted machine, hydraulic folding with upper-link steering

5. Frame for a rear-mounted machine, with double folding for reduced transport width for large machines

5



6



HOEING FRAME IN XXL VERSION

Large machines with big working width (e.g. 72-row grain, 24-row beets, 16-row corn) are available in two different versions:

6. Frame for rear-mounted machine with extra-wide middle-frame (transport width more than 3m / 9.84 ft)

7. Frame for rear-mounted machine with trailing chassis (transport width not more than 3m / 9.84 ft)

7



TRACK WIDTH ON EINBÖCK HOES

Row spacing	Crop (examples)	Number of rows between the track		Example
		EVEN	ODD	
25 cm / 9.80"	Grain	150 & 200 cm 59.00" & 78.70"	175 & 225 cm 68.90" & 88.60"	Graphic 1; Graphic 2;
37,5 cm / 14.80"	Field bean, soy	150 & 225 cm 59.00" & 88.60"	180 cm / 70.90"	
45 cm / 17.70"	Beet, field bean, soy	180 cm / 70.90"	225 cm / 88.60"	
50 cm / 19.70"	Beet, soy, field bean, corn	200 cm / 78.70"	150 cm / 59.00"	Graphic 3; Graphic 4;
70 cm / 27.60"	Corn	150 cm / 59.00"	210 cm / 82.70"	
75 cm / 29.50"	Corn, potatoe	150 cm / 59.00"	225 cm / 88.60"	Graphic 5; Graphic 6;

Number of total rows - rows between the track = even = **symmetric** (e.g. 12-4 = 8)

Number of total rows - rows between the track = odd = **asymmetric** (e.g. 8-3 = 5)

Number of rows OUTSIDE the track	Frame	Example
EVEN (e.g. 8 rows)	SYMMETRIC	Graphic 1; Graphic 4; Graphic 5;
ODD (e.g. 5 rows)	ASYMMETRIC	Graphic 2; Graphic 3; Graphic 6;

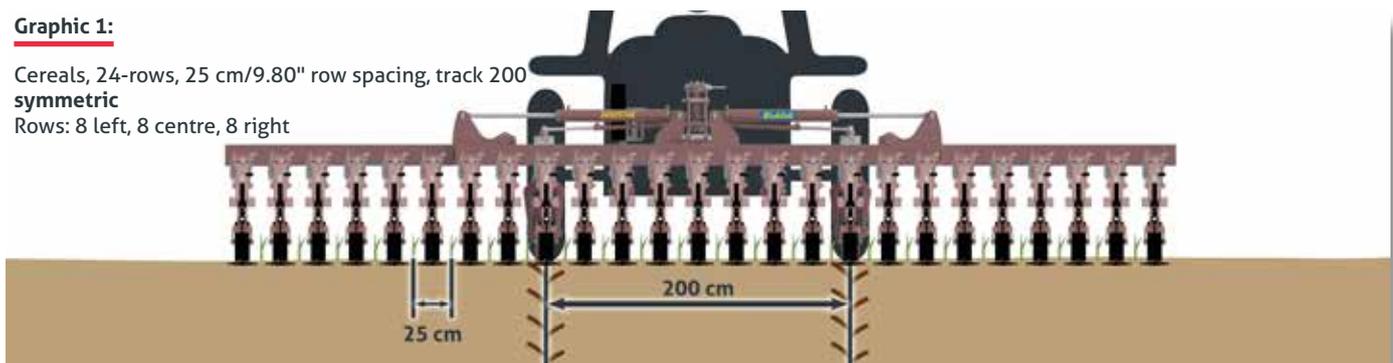


For highest precision und accuracy, a row-crop cultivator should work symmetrically!

Graphic 1:

Cereals, 24-rows, 25 cm/9.80" row spacing, track 200
symmetric

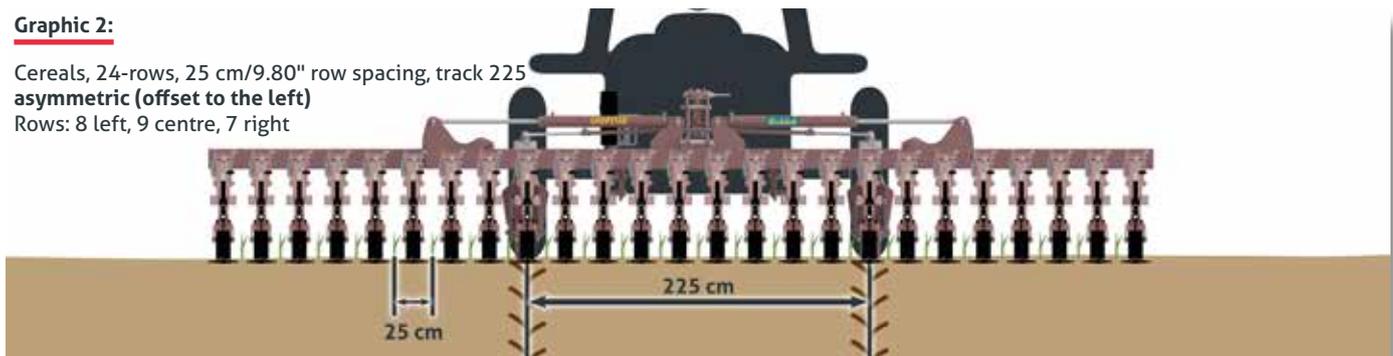
Rows: 8 left, 8 centre, 8 right



Graphic 2:

Cereals, 24-rows, 25 cm/9.80" row spacing, track 225
asymmetric (offset to the left)

Rows: 8 left, 9 centre, 7 right

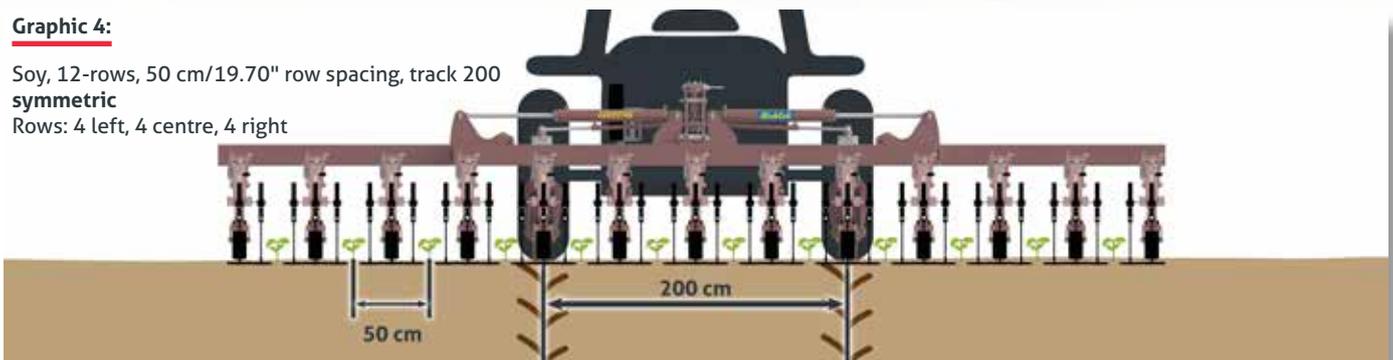


Graphic 3:

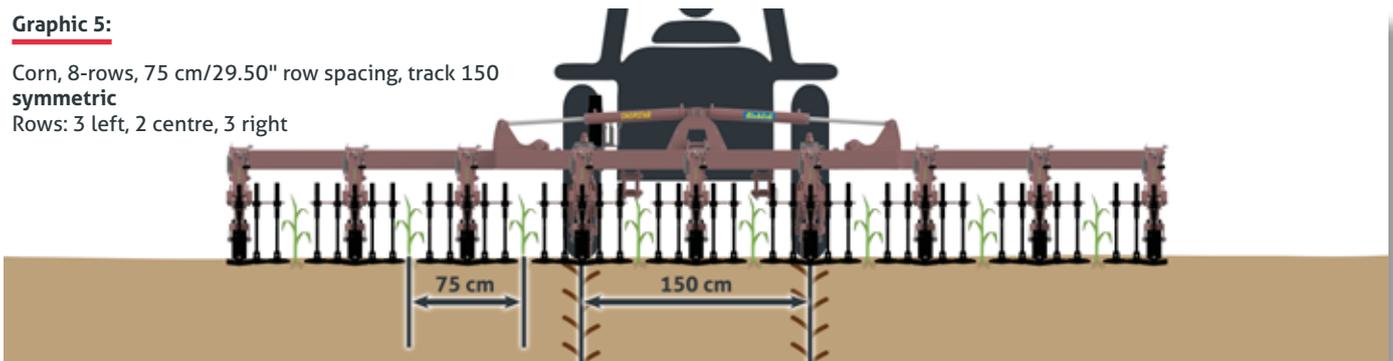
Soy, 12-rows, 50 cm/19.70" row spacing, track 150
 asymmetric (offset to the right)
 Rows: 4 left, 3 centre, 5 right

**Graphic 4:**

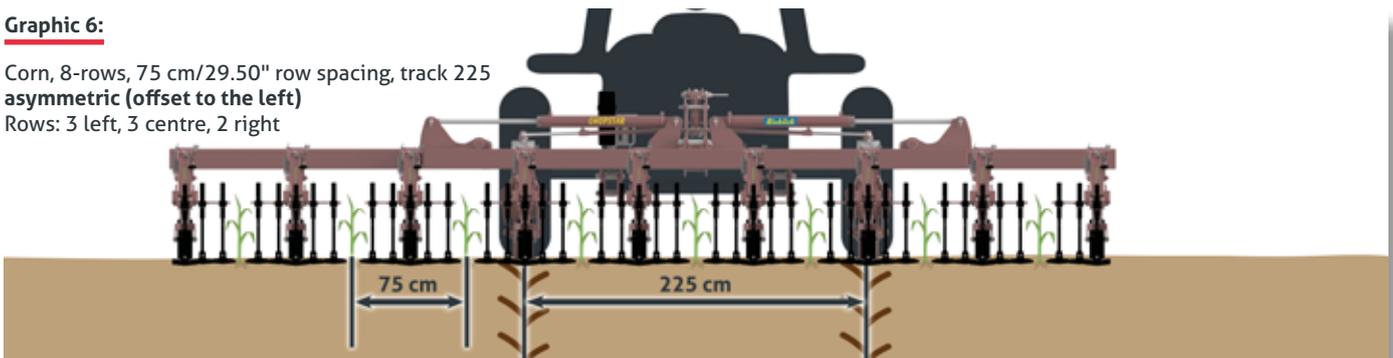
Soy, 12-rows, 50 cm/19.70" row spacing, track 200
 symmetric
 Rows: 4 left, 4 centre, 4 right

**Graphic 5:**

Corn, 8-rows, 75 cm/29.50" row spacing, track 150
 symmetric
 Rows: 3 left, 2 centre, 3 right

**Graphic 6:**

Corn, 8-rows, 75 cm/29.50" row spacing, track 225
 asymmetric (offset to the left)
 Rows: 3 left, 3 centre, 2 right



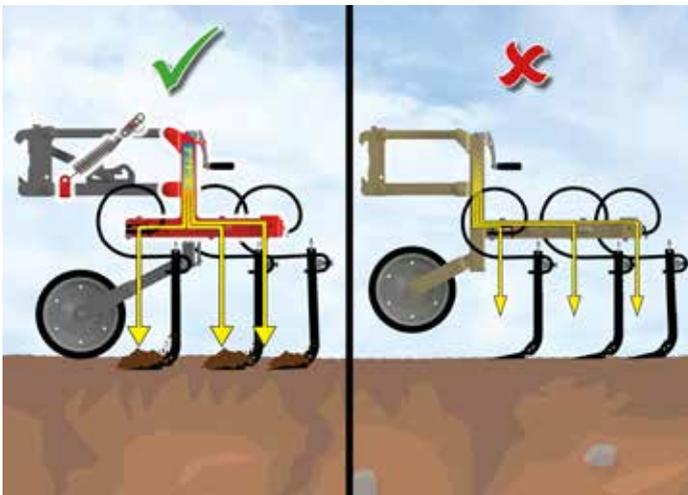
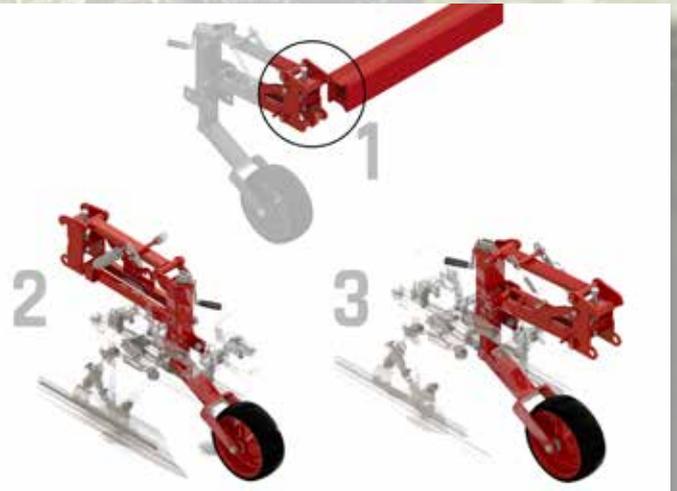
SPECIAL FEATURES

LONG PARALLELOGRAMS WITH RETRACTION SUPPORT

The wide parallelograms are equipped with retraction support and durable Farmflex feeler wheels. Furthermore they can be adjusted in the joints, this guarantees a high (side)stability and accuracy even after many years of use.

1. The parallelogram is fixed with a clamping lever to the frame
2. Parallelogram for front-mounted machines
3. Parallelogram for rear-mounted machines

The long parallelograms provide enough space to compensate unevenness of the fields on each element, on hills or pans. The retraction support, which you can adjust in three steps, guarantees a better penetration of the hoeing tools, also in hard crusted soils. This allows to work with increased working speed without vibration or jumping of the elements.

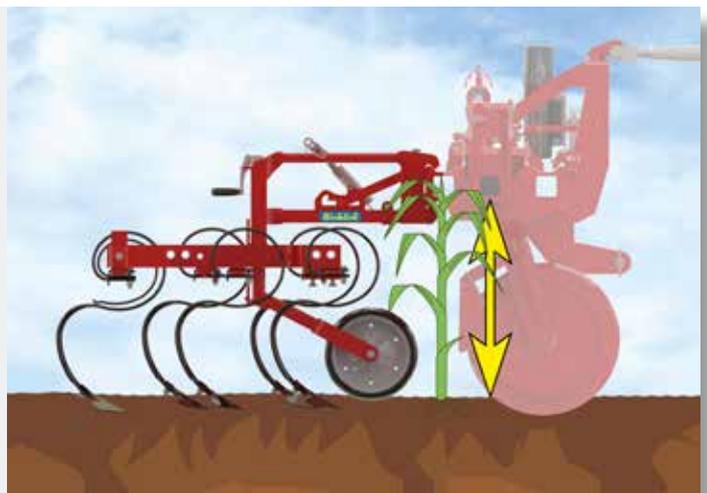


ARRANGEMENT OF THE HOEING ELEMENTS - RETRACTION SUPPORT OF THE PARALLELOGRAM

With the tine hoeing elements (e.g. beet, soy, field bean, corn, etc.) from 30 cm / 11.80" row spacing, the hoeing element is placed "under" the elongated parallelogram. It's advantage is that the hoeing elements and tines are pulled in better even in soils with heavy crusts and hard soils. Due to the long parallelogram, less pressure is needed to push in the tines as if the hoeing elements would be placed "behind" the parallelogram. In addition, an adjustable retraction spring guarantees that the hoeing element gets pushed into the soil and maintains the set working depth.

HIGH FRAME CLEARANCE

A frame clearance up to 70 cm / 27.60" makes working in bigger crops like corn, sunflowers, etc. possible. So efficient and careful hoeing / ridging up in late growth stage does not cause any problem.



BOLTED OR CLAMPED MOUNTING OF THE WORKING TOOLS

All working tools are bolted or clamped to the frame. This has the following advantages for the user:

- » Always a tight fit (don't get loose) of the working tools, especially during working on the field
 - » Set distances or working depth are precisely maintained
 - » No deflection of the connections and minimal wear and tear
 - » Durable fixings/clamps withstand many hoeing seasons
- Fixing of the tools without clearance what results e.g. in exact guidance of the sweeps
- » Allows very precise, infinitely variable adjustment



GAUGE WHEELS ON IMPLEMENTS WITH UPPER LINK STEERING

The gauge wheels ensure perfect guidance of the hoe and stability at hilly conditions. The tractor's front wheels are not relieved of load, as the weight of the machine is carried by the gauge wheels. Especially on hilly conditions, the gauge wheels help prevent the implement from drifting. Scrapers ensure that the gauge wheels do not become clogged.

SET OF WRENCHES

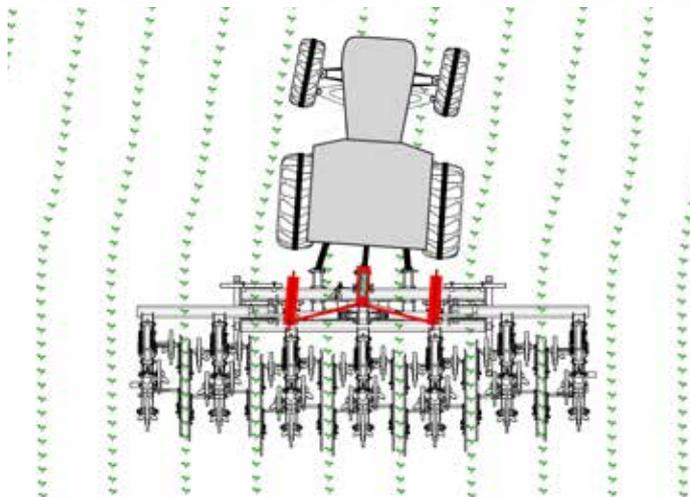
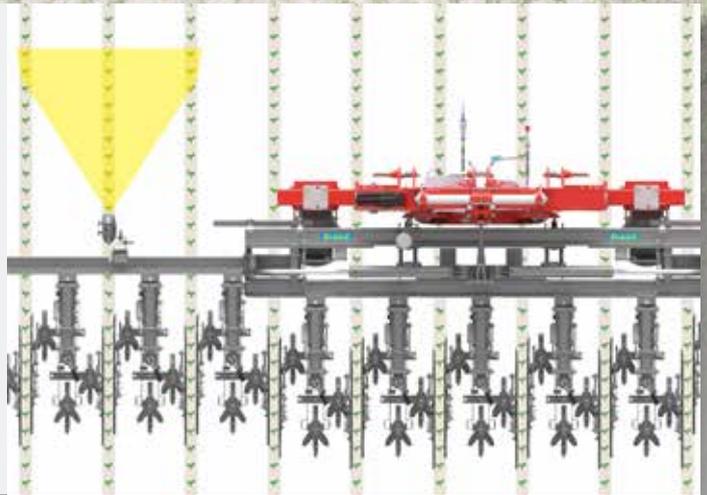
A set of wrenches, suitable for the screws which are mounted on the row-crop cultivator, is included in the standard delivery. So the few bolted holders can be adjusted easily. Bolted tine-holders, as well as holders for fingerweeders, guarantee exact adjustment and precise hoeing.



STEERING OF EINBÖCK ROW-CROP CULTIVATORS

AUTOMATIC SIDESHIFT FRAME WITH CAMERA-GUIDANCE

A ROW-GUARD sideshift frame can be mounted to each row-crop cultivator, also retro-fitted.



UPPER LINK STEERING

An automatic upper link steering system is mounted as standard on rear-mounted hoeing machines. This ensures precise hoeing even on hilly conditions and curves. Hoeing on hills with an incline of up to 6% is possible. Even in curves, the row-crop cultivator runs as close as possible behind the tractor track. Steering is done via gauge wheels. The implement does not need to be carried by the tractor. It is therefore used with position control and swinging lower links (approx. 7 cm / 2,80" each side). With the CHOPSTAR-TWIN, a ROW-GUARD sideshift frame with camera steering or hydraulic steering control is recommended so that the narrowest possible hoeing band can be achieved.

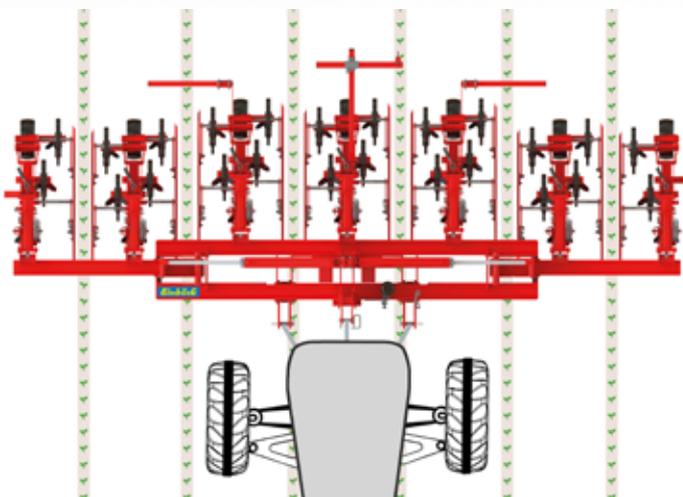
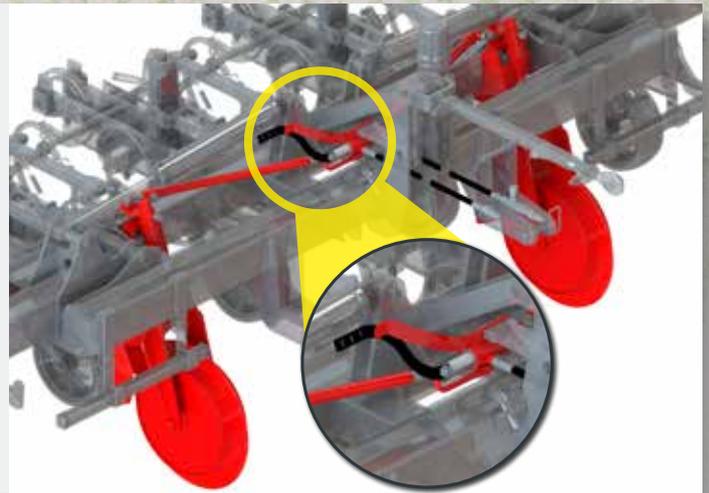
MANUAL HYDRAULIC STEERING

In order to increase the precision of a row-crop cultivator without camera steering or to reduce the width of the hoeing band, a manual hydraulic steering is optionally available. This accessory allows a person to steer the row-crop cultivator independently from the tractor. The seat is positioned so that the best view on the crop row is guaranteed. The steering is hydraulically operated, so that even longer hoeing operations can be done. The hydraulic steering is not or only partially usable on machines with fingerweeders and hydraulic lifting of the parallelograms.



HYDRAULIC UPPER-LINK STEERING SUPPORT

The effect of the upper-link steering can be increased hydraulically. At the headland the cylinder always has to be switched to the other direction. It is recommended for slopes over 6 %.



PUSHED SECTIONS ON FRONT MOUNTED MACHINE

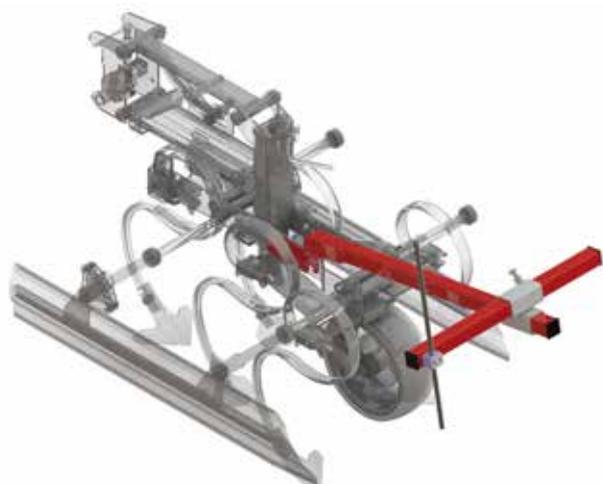
The front-mounted row-crop cultivator can be used without an extra front mounting support as the elements are strong enough to be operated in pushed position. This results that the row-crop cultivator is mounted very closely to the tractor, which has following advantages:

- » Less side pull when working in hills
- » More exact adaption of each separate element because the Farmflex-wheels are running in front of the element
- » Reduced weight to reduce soil compaction
- » Short distance between cultivator and front axle, therefore higher precision in steering
- » Advantage when driving curves during operation, as well as road transport
- » Better visual control during operation and also road transport

There is a front mounting support available as an option in case needed (e.g. for ROLLSTAR rotative cultivators).

TRACK INDICATOR

Because the front-view to the crops is often restricted, front mounted machines come standard with a track indicator.





CAMERA STEERING SYSTEM ROW-GUARD





CAMERA STEERING SYSTEM ROW-GUARD

The ROW-GUARD camera steering system steers the hoe with absolute precision along the crops via a sideshift frame. This guarantees precise and close work of the hoe even at high speeds and will relieve the driver. Even with very small plants (from approx. 2 cm / 0,80") as well as in different colours or with heavy weeds, the ROW-GUARD camera steering in organic and conventional cultivation brings increased precision.

The automatic camera steering can be conveniently set from the tractor via an operating terminal. With the help of different setting parameters, adapted to the crop (row spacing, number of rows in the camera's field of view, plant width and height), an appropriate grid is laid over the image. Based on this data, the hoe is centred exactly along the row with the help of the sideshift frame. This ensures a narrow hoeing belt which guarantees maximum weed control.



Precision can be increased - with camera and sideshift frame!

Type/ Working width cm	Info	Hoe kg / lbs	Weight approx. kg / lbs
ROW-GUARD 500	for frame up to 6.99 m / 22.90 ft	≤ 2500 / 5511	390 / 859
ROW-GUARD 500 SR	for frame up to 12.2 m / 40.00 ft	≤ 3900 / 8598	530 / 1168
ROW-GUARD 500 SRHD	for frame up to 12.2 m / 40.00 ft	> 4000 / 8818	960 / 2116



STANDARD EQUIPMENT

- ✓ Sideshift-frame with total offset of 500 mm / 19.70"
- ✓ Upper and lower links guided on both sides
- ✓ Upper and lower links equipped with hardened bushings
- ✓ Mounting category CAT II / category CAT III for type SR and SRHD
- ✓ Quick couplers for quick changing of the inter-row-crop cultivator
- ✓ Guidance shafts made from high-strength, coated metal for minimised wear and tear
- ✓ Parking support when ordered without hoe
- ✓ Camera with 2 vertically placed, high definition lenses with different exposure for improved operation in changing light conditions
- ✓ Holder for camera for Einböck hoes
- ✓ Stabilising wheels with high gauge wheels or rubber version when supplied with Einböck hoeing machines
- ✓ Wheel sensor with holder and cable (length 3 m / 9.80 ft) suitable for the stabilising wheels of the ROW-GUARD
- ✓ Sensor on the upper link to determine the position of the 3 point linkage
- ✓ Control unit with touchscreen und integrated video-monitor and universal-holder for the tractor cab



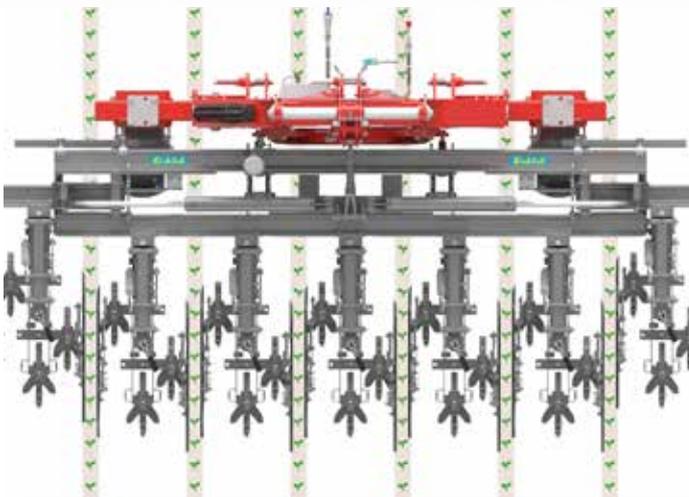
OPTIONS

- LED-lights
- Mechanical feeler
- 7 pin signal cable
- Additional camera for working with section control
- Stabilising wheels with high gauge wheel or rubber version when ordered without hoe

ADVANTAGES ROW-GUARD

CONCEPT

- » Camera-guided sideshift-frame in 3 different versions
- » latest camera software - recognizes 1-5 crop rows in HD and 2D or 3D
- » One ROW-GUARD can be used for various row-crop cultivators
- » Rubber wheels or metal-gauge-wheels
- » Options: mechanic feeler, LED-lights



SHORTEST CONNECTION OF SIDESHIFT FRAME AND ROW-CROP CULTIVATORS

Because of the narrow construction of the Einböck-linear-sideshift frame the centre of gravity remains very closely to the tractor. This construction offers the following advantages:

- » Reduced axle load on the tractor and therefore reduced soil compaction
- » The wider the construction of the sideshift frame, the higher the load on the rear axle and the lifting power requirement of the tractor increases
- » the extremely narrow construction of the ROW-GUARD moves the centre of gravity only 20 cm / 7.90" to the rear
- » Machines with parallelogram shifting extend the position of row-crop cultivator up to 80 cm / 31.50" and more to the rear
- » Especially when fields are not straight or in hilly conditions the short construction is a big advantage

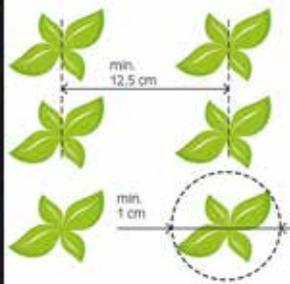
ONE SIDESHIFT FRAME = SEVERAL ROW-CROP CULTIVATORS

Simple and quick coupling and uncoupling of the Einböck sideshift frame allows to use different row-crop cultivators with only one sideshift frame.



LATEST VERSION OF HARD- AND SOFTWARE

- » Highest level of quality and excellent construction of the sideshift frame
- » Smooth and consistent movement because of the high-quality proportional valve
- » Millimetre-accurate control of the linear sideshift frame
- » State-of-the-art and intuitively operated touch-screen terminal
- » 100% control of functionality before leaving the factory
- » Spare connection for manual control like feeler or hand steering



RELIABLE PLANT RECOGNITION OF DIFFERENT ROW-CROPS

The system can be used in various crops with the following color modes: green/blue, green/yellow and red. From row spacing 12,5 cm / 4.90" and applicable from a plant size of 1 cm / 0.40" (depending on the crop)

FLEXIBLE POSSIBILITIES TO ADJUST THE CAMERA

- » Number of rows 1-5
- » Row spacing up to 1,5 m / 4.90 ft
- » Quickly adjustable to different crop dimensions





ADVANTAGES ROW-GUARD

BEST VISIBILITY - EVEN IN FIELDS WITH HEAVY WEED INFESTATION AND SMALL CROPS

The software recognizes the plant rows even in case of heavy weed infestations and/or small plants. The settings can be adjusted easily on the conditions.

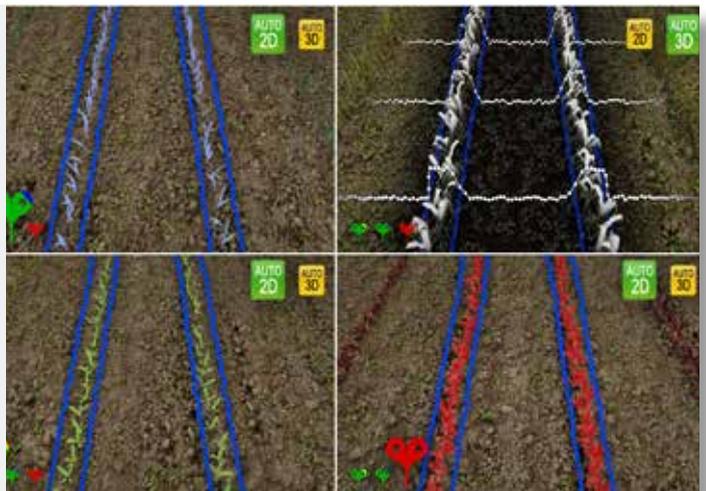


SPECIAL FEATURES:

- » Proportional hydr. valve: dynamic control of the valve for smooth operation of the sideshift frame
- » 3D-mode: the machine recognizes the row because of the difference in height between crop and weeds
- » Automatic recognition of height and angle position of the camera: comfortable adjustment of camera height
- » Colour options in the 2D-mode (green/yellow, green/blue, red)
- » Automatic switching of offset
- » High camera resolution
- » Recognition of different row structures (single or multiple rows)
- » Integrated chart for recommended camera height
- » Saving of settings

ADAPTATION OF THE CAMERA APPLICATION TO THE CULTURE

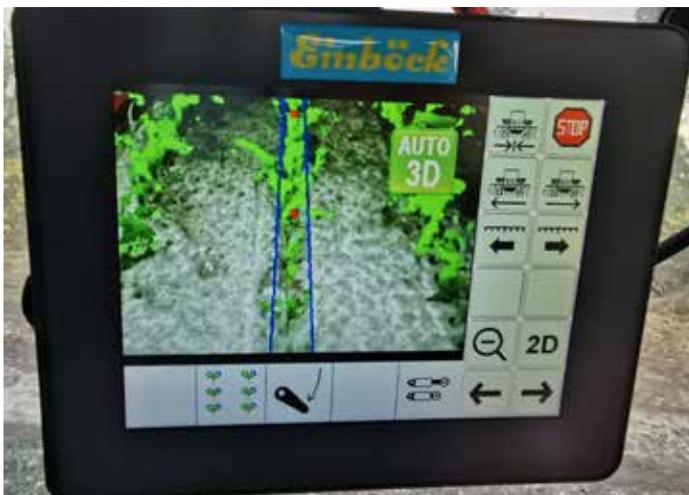
The camera setting can be adjusted to suit the colour or height of the crop. You can choose between green/yellow (e.g. corn), green/blue (e.g. soybeans, vegetables) or red (vegetables e.g. beetroot) in 2D mode. The 3D mode can be used for corn, soybeans, sunflowers, etc., if the plant rows have a clear growth advance (approx. 10 cm / 3,90") over the weed. Correct adjustment to the crop further increases the accuracy of row guidance.



STABILISING WHEELS OF THE SIDESHIFT FRAME

When ordering an Einböck row-crop cultivator height-adjustable stabilising wheels are included in the standard configuration. The wheels can be adjusted to the track width of the tractor and the row distance.

Depending on the type of soil you can choose between rubber stabilising wheels (1) or metal gauge wheels (2).

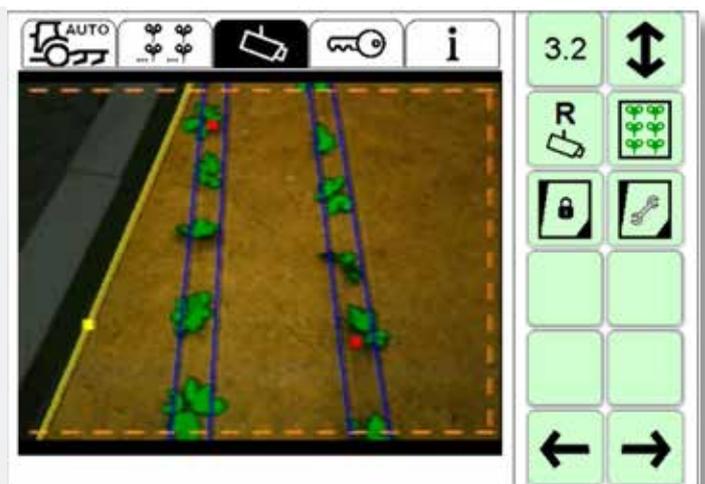


3D-MODE

Rows can also be detected on the basis of the height difference. Especially in heavy weed-infested fields this additional option ensures additional precision.

CUTTING OF THE IMAGE

Tractor tracks or other elements in the image would prevent the ROW-GUARD from precise working (especially in smaller working widths). Therefore, it is possible to cut the image easily and quickly.

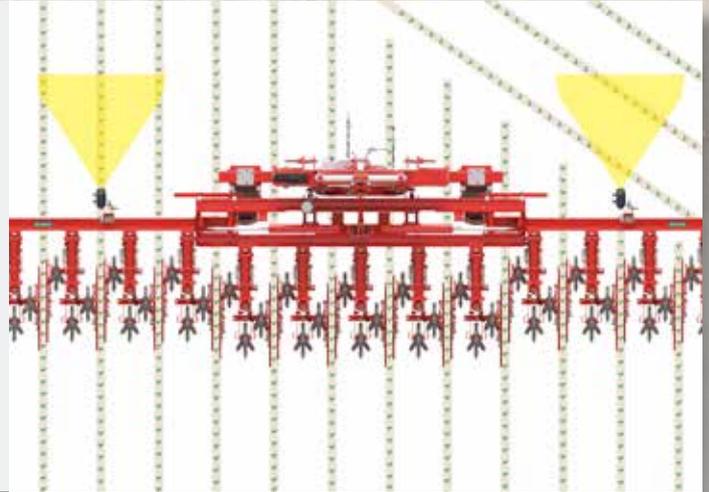




OPTIONS ROW-GUARD

MAXIMUM PRECISION - 2ND CAMERA (OPTIONALLY)

A row-crop cultivator can be controlled by two cameras simultaneously. Especially for very small crops, an additional camera, by looking on additional plant rows, ensures a great result. Especially for hoes with hydraulic lifting "Section Control": For example, on pointy rows at the headlands a row of plants always remains within the camera's field of view. This ensures hoeing until the last unworked row and guarantees a weed control on the full surface of the field.



MECHANICAL FEELER

- » For sensing a crop row (row spacing > 35 cm / 13.8")
- » Supports the ROW-GUARD shortly before or after row closure

LED-LIGHTS

For working at night or at dust.



ROW-GUARD HOTLINE

In case the operator needs help to correctly set the machine, a trilingual 24h phone-hotline is available during the season of hoeing. Its number can be found in the operating instructions.





ROW-CROP CULTIVATOR CHOPSTAR 1-30

The CHOPSTAR 1-30 has 1 tine per hoeing element and can be used in row-crops with a row spacing of up to 30 cm / 11.80", e.g. cereals, field beans, lupins, etc. Depending on the conditions and the aim of the hoeing pass, weeder tines mounted behind the element or different sweeps (such as ultra-flat) can be mounted on the front or rear hoeing machine.

The precision of the CHOPSTAR 1-30 can be further optimized with the camera steering and the ROW-GUARD sideshift frame, the SECTION-CONTROL parallelogram lift and other additional options.



For hoeing grain, peas, lupine, etc.

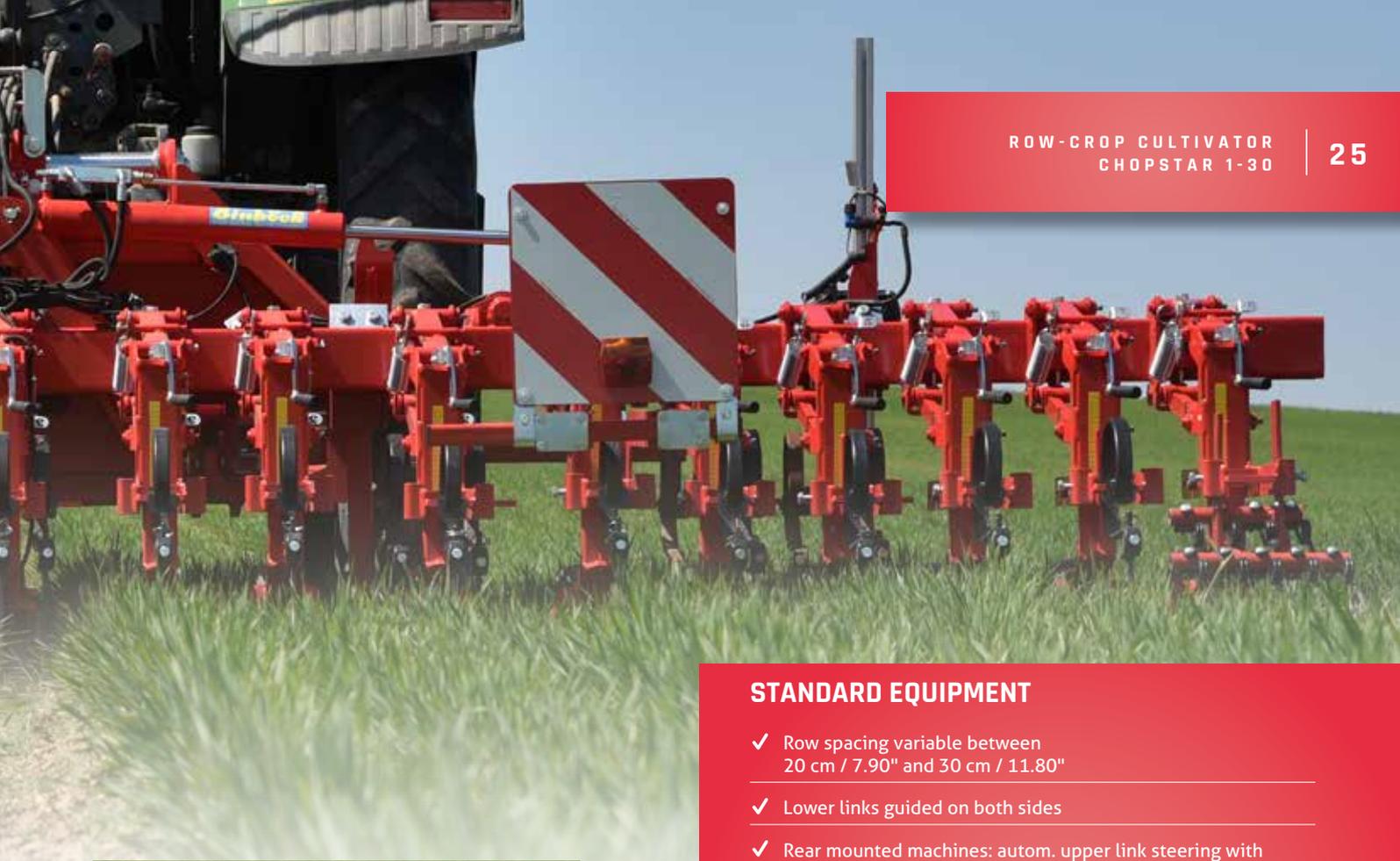
Type/ Working width cm	Transport width in m / ft ²⁾	Frame length in m / ft mounting category	Tines	Hoe elements	from HP/KW ¹⁾	Weight approx. kg / lbs
Rear mounted (Recommendation - use with camera steering system ROW-GUARD)						
EGS 12-rows RIGID	3.20 / 10.50	3.20 / 10.50 / II	13	13	40/30	700 / 1543
EGS 16-rows HG ³⁾	3.00 / 9.80	4.20 / 13.80 / II	17	17	70/51	1200 / 2645
EGS 24-rows HG ³⁾	3.00 / 9.80	6.20 / 20.30 / II	25	25	80/59	1560 / 3439
EGS 32-rows HG ^{3,4)}	3.30 / 10.80	8.20 / 26.90 / II	33	33	90/66	2120 / 4673
Front mounted						
EGS 12-rows RIGID	3.20 / 10.50	3.20 / 10.50 / II	13	13	40/30	680 / 1499
EGS 16-rows HG ³⁾	3.00 / 9.80	4.20 / 13.80 / II	17	17	70/51	1100 / 2425
EGS 24-rows HG ³⁾	3.00 / 9.80	6.20 / 20.30 / II	25	25	80/59	1450 / 3196
EGS 32-rows HG ³⁾	3.30 / 10.80	8.20 / 26.90 / II	33	33	90/66	1940 / 4276

1) HP/kW figures only valid for basic equipment

2) Depending on row spacing - details on request or on order confirmation

3) Hydraulic folding - triple-frame

4) 2 high-gauge-wheels instead of upper link steering and 1 rubber support wheel each on the outer wing



STANDARD EQUIPMENT

- ✓ Row spacing variable between 20 cm / 7.90" and 30 cm / 11.80"
- ✓ Lower links guided on both sides
- ✓ Rear mounted machines: autom. upper link steering with spindle and high-gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Farmflex-feeler-wheels adjustable through spindles, ball bearing mounted, Ø 300 mm / 11.80" / 100 mm / 3.90" wide
- ✓ Robust, adjustable parallelogram
- ✓ Vibrotine 32 x 12 with holder 30 x 10
- ✓ Hoe element with 1 duckfoot sweep 180 mm / 7.10"
- ✓ Front mounted machines with track indicator for improved guidance
- ✓ Conversion from rear to front mounting

OPTIONS

Various vibro tines and sweeps

Height-adjustable weeder tines mounted behind the hoeing element

Parallelogram-guided protection plates height-adjustable, from row spacing 25 cm / 9.80"

Height-adjustable protection discs, from row spacing 30 cm / 11.80"

Warning signs with LED-lights

Hydraulic steering pilot for extreme slopes

Hydraulic manual steering with seat

Camera steering system ROW-GUARD

Seeder for undersowing or fertilizing

Other accessories customizable

CONCEPT CHOPSTAR 1-30

CONCEPT

- » E.g. for grain, peas, rapeseed, lupines, ...
- » Equipped with 1 vibrotine
- » Row spacing: up to 30 cm / 11.80"
- » Following elements: weeder tines
- » Sweeps and tines: duckfoot sweeps, EINBÖCK-special-vibrotines, ultraflat sweeps
- » Protection elements: without protection element, crop deflector shields or discs



INDIVIDUAL EQUIPMENT OF HOEING ELEMENTS

The row-crop cultivator with 1 tine per hoeing section is designed for hoeing of fields with a row distance of up to 30 cm / 11.80". This version is e.g. for grain, peas, rape or lupines. Furthermore you can use deflector elements to protect the plants from spilling (especially in early crop stage). Deflector plates are optionally available from a row distance of 25 cm / 9.80". From 30 cm / 11.80" you can also use deflector discs. The different tracking tools and sweep options can be found further back in the brochure. The big range of different hoeing tools make the CHOPSTAR a row-crop cultivator, which can be adapted to every condition, crop or type of soil.







ROW-CROP CULTIVATOR CHOPSTAR 3-60

The CHOPSTAR 3-60 has up to 3 tines per hoeing element and can be used in row-crops with a row spacing of up to 60 cm / 23.60" (such as beets, soybeans, field beans, etc.). Depending on the conditions and the aim of the hoeing pass, a wide range of tools such as heaping elements, heaping sweeps, weeder tines mounted behind the elements, finger weeders, etc. can be attached to the front or rear hoeing machine.

The precision of the CHOPSTAR 3-60 can be further optimized with the camera steering and the ROW-GUARD sideshift frame, the SECTION-CONTROL parallelogram lift and other additional options.



For hoeing beets, soybeans, field beans, etc.

Type/ Working width cm	Transport width in m / ft ²⁾	Frame length in m / ft mounting category	Tines	Hoe elements	from HP/KW ¹⁾	Weight approx. kg / lbs
Rear mounted						
ERS 5-row RIGID ⁸⁾	2.45 / 8.00	2.45 / 8.00 / II	16	6	30/22	620 - 630 1366 - 1388
ERS 6-row RIGID	3.00 / 9.80	3.00 / 9.80 / II	19	7	40/30	640 - 660 1410 - 1455
ERS 8-row HG ³⁾	3.00 / 9.80	3.80 / 12.50 / II	25	9	60/44	980 - 990 2160 - 2182
ERS 12-row HG ³⁾	3.00 / 9.80	5.60 / 18.40 / II	37	13	70/51	1380 - 1390 3042 - 3064
ERS 15-row HG ^{3, 6)}	3.20 / 10.50	6.95 / 22.80 / II	46	16	90/66	1650 - 1780 3637 - 3924
ERS 18-row HG ^{3, 7)}	4.80 / 15.70	8.30 / 27.20 / III	55	19	130/96	2120 - 2160 4673 - 4761
ERS 18-row HG ⁴⁾	3.00 / 9.80	8.30 / 27.20 / II	55	19	130/96	2310 - 2360 5092 - 5202
ERS 24-row HG ^{3, 5)}	6.70 / 22,00	11.00 / 36.10 / III	73	25	160/118	2700 - 2770 5952 - 6106
ERS 24-row HG ⁴⁾	4.00 / 13.10	11.00 / 36.10 / III	73	25	160/118	2840 - 2910 6261 - 6415
Front mounted						
ERS 6-row RIGID	3.00 / 9.80	3.00 / 9.80 / II	19	7	40/30	830 - 860 1829 - 1895
ERS 8-row HG ³⁾	3.00 / 9.80	3.80 / 12.50 / II	25	9	60/44	970 - 1000 2138 - 2204
ERS 12-row HG ³⁾	3.00 / 9.80	5.60 / 18.40 / II	37	13	70/51	1270 - 1300 2799 - 2866

1) HP/kW figures only valid for basic equipment

2) Depending on row spacing - details on request or on order confirmation

3) Hydraulic folding - triple-frame

4) Hydraulic retraction - double folding frame, 4 air wheels 18x8.50

5) 4 gauge wheels and 1 rubber support wheel on each side wing instead of upper-link steering

6) 2 gauge wheels and 1 rubber support wheel on each side wing instead of upper-link steering

7) 4 gauge wheels instead of upper-link steering

8) With intermediate block - flanged wheels in the tractor track



STANDARD EQUIPMENT

- ✓ Row spacing adjustable up to 60 cm / 23.60"
- ✓ Lower links guided on both sides
- ✓ Rear mounted machines: autom. upper link steering with spindle and high-gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Farmflex-feeler-wheels adjustable by spindles, ball bearing mounted, Ø 300 mm / 11.80" / 100 mm / 3.90" wide
- ✓ Robust, adjustable parallelogram
- ✓ Parallelogram guided crop deflector plates (height adjustable) or crop deflector discs (can be lifted)
- ✓ Vibrotine 32 x 12 with holder 30 x 10
- ✓ Full hoeing element with 2x vibrotine 140 mm / 5.50" & 1x 160 mm / 6.30"
- ✓ Half hoeing element with 1x vibrotines 140 mm / 5.50" & 1x 160 mm / 6.30"
- ✓ Front mounted machines with track indicator for improved guidance
- ✓ Conversion from rear to front mounting without extra charge

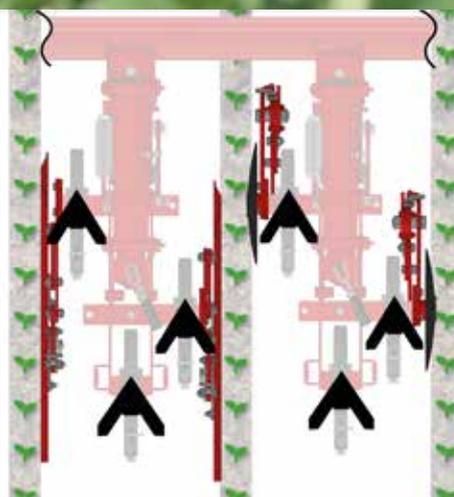
OPTIONS

- Finger hoe
- Rotation weeder element
- Height-adjustable weeder tines mounted behind the elements
- Various vibro-tines, sweeps, angle knives, heaping sweeps and elements
- Warning signs with LED-lights
- Hydraulic steering pilot for extreme slopes
- Hydraulic manual steering with seat
- Camera steering system ROW-GUARD
- P-BOX seeder for undersowing or fertilizing
- Other accessories customizable

CONCEPT CHOPSTAR 3-60

CONCEPT

- » E.g. for beets, soybeans, peas, rapeseed, ...
- » Equipped with up to 3 vibrotines
- » Row spacing: up to 60 cm / 23.60"
- » Following elements: weeder tines, rotative weeder or finger hoe
- » Sweeps and tines: EINBÖCK-special-vibrotines, ultraflat sweeps, angle-knives, heaping shares, ...
- » Protection elements: without protection element, crop deflector shields or discs



INDIVIDUAL EQUIPMENT OF HOEING ELEMENTS

The hoeing section for a row distance up to 60 cm / 23.60" is equipped with up to 3 tines per element. This element is designed e.g. for beets, soybeans, field beans, or rapeseed. Even when working in shallow working depth the vibro tines ensure perfect weed control by cutting the full surface in between the crop rows. Protection elements are responsible to protect the plants from spilling (especially in early crop stage). The different tracking tools and sweep options can be found further back in the brochure. This big range of different hoeing tools make the CHOPSTAR a row-crop cultivator, which can be adapted to each condition, crop or type of soil.







ROW-CROP CULTIVATOR CHOPSTAR 5-90

The CHOPSTAR 5-90 has up to 5 tines per hoeing element and is used in row-crops with up to 90 cm / 35.40" row spacing, such as corn, sunflowers, etc. Depending on the conditions and the aim of the hoeing pass, a variety of tools such as heaping elements, heaping sweeps, weeder tines mounted behind the elements, finger weeders etc. can be attached to the front or rear implement.

The precision of the CHOPSTAR 5-90 can be further optimized with the camera steering and the ROW-GUARD sideshift frame, the SECTION-CONTROL parallelogram lift and other additional options.

Type/ Working width cm	Transport width in m / ft ²⁾	Frame length in m / ft mounting category	Tines	Hoe elements	from HP/KW ¹⁾	Weight approx. kg / lbs
Rear mounted with deflector discs						
EMS 2-row RIGID ⁵⁾	1.60 / 5.20	1.60 / 5.20 / II	11	3	20/15	470 / 1036
EMS 4-row RIGID	3.00 / 9.80	3.00 / 9.80 / II	21	5	40/30	640 / 1410
EMS 4-row HG ³⁾	3.00 / 9.80	3.00 / 9.80 / II	21	5	50/37	920 / 2028
EMS 6-row RIGID	4.40 / 14.4	4.40 / 14.40 / II	31	7	60/44	930 / 2050
EMS 6-row HG ³⁾	3.00 / 9.80	4.40 / 14.40 / II	31	7	60/44	1120 / 2469
EMS 8-row RIGID	5.80 / 19.00	5.80 / 19.00 / II	41	9	80/59	1140 / 2513
EMS 8-row HG ³⁾	3.20 / 10.40	5.80 / 19.00 / II	41	9	80/59	1320 / 2910
EMS 12-row HG ^{3, 6)}	4.80 / 15.70	8.60 / 28.20 / III	61	13	140/103	2040 / 4497
EMS 12-row HG ⁴⁾	3.00 / 9.80	8.60 / 28.20 / II	61	13	140/103	2270 / 5004
EMS 16-row HG ^{3, 6)}	6.90 / 22.60	11.40 / 37.40 / III	81	17	160/118	2550 / 5621
EMS 16-row HG ⁴⁾	4.00 / 13.10	11.40 / 37.40 / III	81	17	160/118	2800 / 6172
Front mounted with deflector discs						
EMS 2-row RIGID	1.60 / 5.20	1.60 / 5.20 / II	11	3	20/15	390 / 859
EMS 4-row RIGID	3.00 / 9.80	3.00 / 9.80 / II	21	5	40/30	560 / 1234
EMS 4-row HG ³⁾	3.00 / 9.80	3.00 / 9.80 / II	21	5	50/37	700 / 1543
EMS 6-row RIGID	4.40 / 14.40	4.40 / 14.40 / II	31	7	60/44	720 / 1587
EMS 6-row HG ³⁾	3.00 / 9.80	4.40 / 9.80 / II	31	7	60/44	1020 / 2248
EMS 8-row HG ³⁾	3.20 / 10.50	5.80 / 19.00 / II	41	9	80/59	1220 / 2689

1) HP/kW figures only valid for basic equipment

2) Depending on row spacing - details on request or on order confirmation

3) Hydraulic folding - triple-frame

4) Hydraulic retraction - double folding frame, 4 air wheels 18x8.50 instead of upper link steering - Cat. II

5) With intermediate block - flanged wheels in the tractor track

6) 4 gauge wheels instead of upper-link steering



STANDARD EQUIPMENT

- ✓ Row spacing adjustable up to 90 cm / 35.40"
- ✓ Lower links guided on both sides
- ✓ Rear mounted machines: autom. upper link steering with spindle and high-gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Farmflex-feeler-wheels adjustable by spindles, ball bearing mounted, Ø 300 mm / 11.80" / 100 mm / 3.90" wide
- ✓ Robust, adjustable parallelogram
- ✓ Last tine with reinforcement spring and height adjustable
- ✓ Particularly good side adjustable tines
- ✓ Parallelogram guided crop deflector plates (height adjustable)
- ✓ Hoeing element complete with 5 S-tines
- ✓ Hoeing element with 3 S-tines
- ✓ Front mounted machines with track indicator for improved guidance
- ✓ Conversion from rear to front mounting

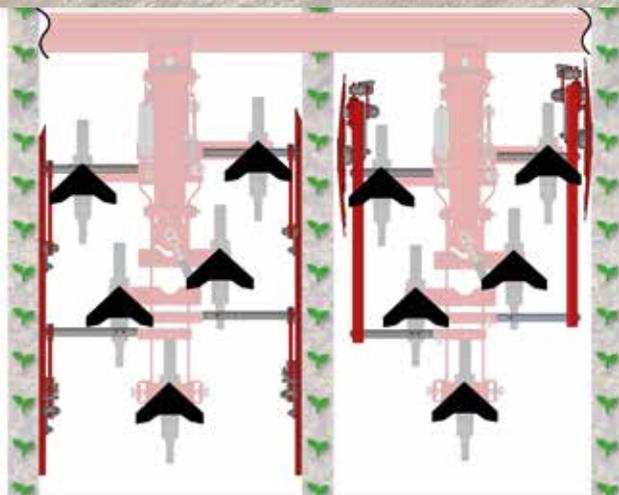
OPTIONS

- Finger hoe
- Rotation weeder element
- Height-adjustable weeder tines mounted behind the element
- Various vibro-tines, sweeps, angle knives, heaping sweeps and heaping elements
- Serrated crop protection discs, can be fixed in an upright position
- Warning signs with LED-lights
- Hydraulic steering pilot for extreme slopes
- Hydraulic manual steering with seat
- Camera steering system ROW-GUARD
- P-BOX seeder for undersowing or fertilizing
- Other accessories customizable

CONCEPT CHOPSTAR 5-90

CONCEPT

- » E.g. for corn, sunflowers, sorghum, ...
- » Equipped with up to 5 tines (S-tines or vibrotines)
- » Row spacing: up to 90 cm / 35.40"
- » Following elements: weeder tines, rotative weeder or finger hoe
- » sweeps and tines: Einböck-special-vibrotines, ultraflat sweeps, angle-knives, heaping shares, ...
- » protection elements: without protection element, crop deflector shields or discs



INDIVIDUAL EQUIPMENT OF HOEING ELEMENTS

The hoeing section for a row distance up to 90 cm / 35.40" is equipped with up to 5 tines per hoeing element. It is designed e.g. for corn or sunflowers. Protection elements are responsible to protect the plants from spilling (especially in early crop stage). The different tracking tools and sweep options can be found further back in the brochure. This big range of different hoeing tools make the CHOPSTAR a row-crop cultivator, which can be adapted to each condition, crop or type of soil.







ROW-CROP CULTIVATOR CHOPSTAR 10-150

The CHOPSTAR 10-150 has two hoeing elements per row with up to 10 tines and can be used in row-crops with a row distance of up to 150 cm / 59", such as pumpkin, etc. Depending on the conditions and the aim of the hoeing pass, a variety of tools can be attached to the front or rear implement, such as heaping elements, heaping sweeps, weeder tines mounted behind the element, finger weeders, etc.

The precision of the CHOPSTAR 10-150 can be further increased with the camera steering and the ROW-GUARD sideshift frame, the SECTION-CONTROL parallelogram lift and other additional options.



For hoeing pumpkin in front or rear with many additional options such as protection plates or discs, finger weeders or camera steering.

Type/ Working width cm	Transport width in m / ft ²⁾	Frame length in m / ft mounting category	Tines	Hoe elements	from HP/KW ¹⁾	Weight approx. kg / lbs
Rear mounted with deflector discs						
EKS 2-row RIGID	3.00 / 9.80	2.55 / 8.40	20	4	40/30	480 / 1058
EKS 3-row HG ³⁾	3.00 / 9.80	4.05 / 13.30	30	6	60/44	1000 / 2204
Front mounted with deflector discs						
EKS 2-row RIGID	3.00 / 9.80	2.55 / 8.40	20	4	40/30	440 / 970
EKS 3-row HG ³⁾	3.00 / 9.80	4.05 / 13.30	30	6	60/44	900 / 1984

1) HP/KW figures only valid for basic equipment

2) For a row width of 150 cm / 4.90 ft

3) Hydraulic folding - triple-frame



STANDARD EQUIPMENT

- ✓ Row distance variable up to 150 cm / 59"
- ✓ Lower links guided on both sides
- ✓ Rear mounted machines: autom. upper link steering with spindle and high-gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Farmflex-feeler-wheels adjustable through spindles, ball bearing mounted, Ø 300 mm / 11.80" / 100 mm / 3.90" wide
- ✓ Robust, adjustable parallelogram
- ✓ Last tine with reinforcement spring and height adjustable
- ✓ Particularly good side adjustable tines
- ✓ Parallelogram guided crop deflector plates (height adjustable)
- ✓ Double hoeing element complete with 10 S-tines 180 mm / 7.10"
- ✓ Hoeing element with 5 S-tines 180 mm / 7.10"
- ✓ Front mounted machines with track indicator for improved guidance
- ✓ Conversion from rear to front mounting



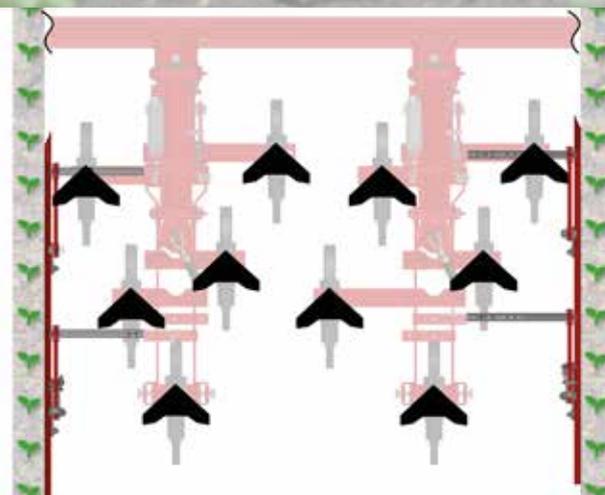
OPTIONS

- Finger hoe
- Rotation weeder element
- Height-adjustable weeder tines mounted behind the element
- Various vibro-tines, sweeps, angle knives and heaping sweeps,...
- Serrated protection discs, can be fixed in an upright position
- Warning signs with LED-lights
- Hydraulic steering pilot for extreme slopes
- Hydraulic manual steering with seat
- Camera steering system ROW-GUARD
- P-BOX seeder for undersowing or fertilizing
- Other accessories customizable

CONCEPT CHOPSTAR 10-150

CONCEPT

- » E.g. for pumpkins, ...
- » Equipped with up to 10 tines (S-tines or vibrotines)
- » Row spacing: up to 150 cm / 59"
- » Following elements: weeder tines, rotative weeder or finger hoe
- » Tines: duckfoot sweeps, EINBÖCK-special-vibrotines, ultraflat sweeps, angleknives, heaping shares
- » Protection element: without protection element, crop deflector shields or discs



INDIVIDUAL EQUIPMENT OF HOEING ELEMENTS

The hoe element for a row distance of up to 150 cm / 59" is equipped with up to 10 tines per element. These elements are designed e.g. to hoe pumpkins. Crop deflector shields are responsible to protect the plants from spilling (especially in early crop stage). The different tracking tools and sweep options can be found further back in the brochure. This big range of different hoeing tools make the CHOPSTAR a row-crop cultivator, which can be adapted to each condition, crop or type of soil.



A front mounted hoe hooked up closer to the tractor is easier to steer!





PLATE CULTIVATOR CHOPSTAR-HYBRID

The CHOPSTAR-HYBRID plate hoe is the perfect solution for hoeing weeds in mulch seeded crops. Flat plates are mounted on the hoeing elements and can rotate free. These discs cut through the soil just below the surface. This cuts through the roots of the weeds or hoes the weeds just below the surface and under the mulch layer. Gauge wheels can be optionally mounted in front of the discs, which cut into the soil and mulch layer and guarantee smooth, blockage-free running of the discs.

This disc hoe is also the best choice for use in special crops, in vegetable production and in crops with a lot of organic material, as it can work under the material and the crop is not damaged in the process. Through the flat plates and the cutting gauge wheels mean that the machine does not become blocked when there are a lot of weeds, as it might be the case with tines. The hoeing can therefore be done without any problems.



For blockage-free hoeing in mulch seeded crops as well as fields with a lot of organic matter.

Type/ Working width cm	Transport width in m / ft ²⁾	Frame length in m / ft mounting category	Tines	Hoe elements	from HP/KW ¹⁾	Weight approx. kg / lbs
Rear mounted without protecting elements						
EHH 6-row RIGID	3.00 / 9.80	3.00 / 9.80 / II	7	7	60/44	660 / 1455
EHH 8-row HG ³⁾	3.00 / 9.80	3.80 / 9.80 / II	9	9	70/51	990 / 2182
EHH 12-row HG ³⁾	3.00 / 9.80	5.60 / 18.40 / II	13	13	90/66	1380 / 3042
EHH 15-row HG ^{3, 6)}	3.00 / 9.80	6.95 / 22.80 / II	16	16	100/99	1780 / 3924
EHH 18-row HG ^{3, 7)}	4.80 / 15.80	8.30 / 27.20 / III	19	19	130/96	2120 / 4673
EHH 18-row HG ⁴⁾	3.00 / 9.80	8.30 / 27.20 / III	19	19	130/96	2310 / 5092
EHH 24-row HG ^{3, 5)}	6.70 / 22.00	11.00 / 36.10 / III	25	25	160/118	2700 / 5952
EHH 24-row HG ⁴⁾	4.20 / 13.80	11.00 / 36.10 / III	25	25	160/118	2910 / 6415

1) HP/kW figures only valid for basic equipment

2) Depending on row spacing - details on request or on order confirmation

3) Hydraulic folding - triple-frame

4) Hydraulic retraction - double folding frame, 4 air wheels 18x8.50

instead of upper-link steering Cat. II on 18 rows, Cat. III on 24 rows

5) 4 gauge wheels and 1 rubber support wheel on each side wing instead

of upper-link steering

6) 2 gauge wheels and 1 rubber support wheel on each side wing instead

of upper-link steering

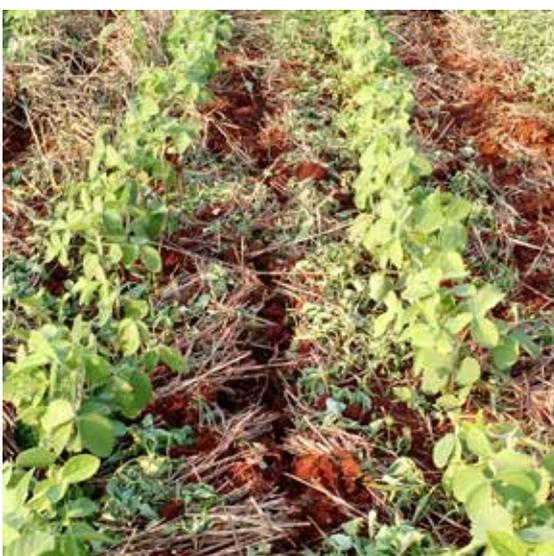
7) 4 gauge wheels instead of upper-link steering

STANDARD EQUIPMENT

- ✓ Depending on configuration and number of rows, as well as diameter of the horizontal plate, a row spacing between 25 (9.80") - 50 cm (19.70") (diameter of horizontal disc 180 mm / 7.10" - 450 mm / 17.70") is possible
- ✓ Lower links guided on both sides
- ✓ Rear mounted machines: autom. upper link steering with spindle and high-gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Farmflex-feeler-wheels adjustable by spindles, ball bearing mounted, Ø 300 mm / 11.80" / 100 mm / 3.90" wide
- ✓ Robust, adjustable parallelogram - XL Version
- ✓ Carrier for horizontal disc with shearbolt overload protection
- ✓ Element full with horizontal disc Ø 350 mm / 13.80"
- ✓ Half-element with horizontal disc Ø 250 mm / 9.80"

OPTIONS

- Other cutting disc diameters on request
- Metal gauge wheels instead of Farmflex-wheel
- Finger hoe
- Rotation weeder element
- Parallelogram guided crop deflector plates (height adjustable)
- Protection discs (can be fixed in upright position)
- Warning signs with LED-lights
- Hydraulic steering pilot for extreme slopes
- Hydraulic manual steering with seat
- Camera steering system ROW-GUARD
- P-BOX seeder for undersowing or fertilizing
- Other accessories customizable

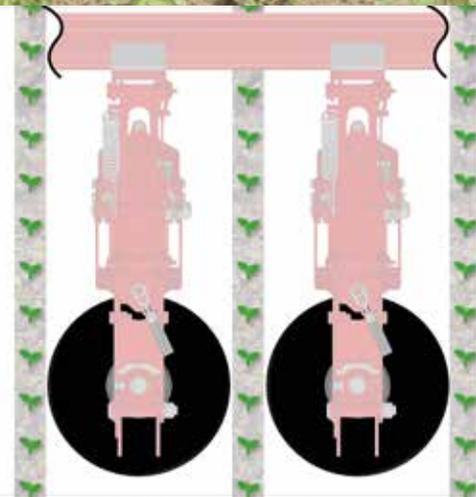




CONCEPT CHOPSTAR-HYBRID

CONCEPT

- » For mulch till and fields with organic matter
- » For row spacing up to 50 cm / 19.70"
- » Equipped with 1 disc up to 45 cm / 17.70" diameter
- » With farmflex-wheel or metal gauge wheel
- » Protection element: without protection element, crop deflector shields or discs



LONG PARALLELOGRAMS WITH RETRACTION SUPPORT

The wide parallelograms are equipped with retraction support and durable Farmflex feeler wheels. Furthermore they can be adjusted in the joints, this guarantees a high (side)stability and accuracy even after many years of use.

1. Parallelogram with Farmflex feeler wheels (standard)
2. Parallelogram with metal gauge wheel (optional)

The long parallelograms provide enough space to compensate unevenness of the fields on each element, on hills or pans. The retraction support, which you can adjust in three steps, guarantees a better penetration of the hoeing tools, also in hard crusted soils. This allows to work with increased working speed without vibration or jumping of the elements.

HYBRID-HOEING ELEMENT WITH HORIZONTAL DISCS

A horizontal disc works the complete area between the rows, so all roots of the weeds are cut. The disc carrier is mounted on the parallelogram so the disc can rotate freely. Therefore the possibility of clogging is reduced to a minimum as the section cleans itself before organic material can build up too much. Against overload the section is protected by a shearbolt. Optionally the element can be equipped with a steerable metal gauge wheel instead of the Farmflex-wheel, what has a very big advantage. Organic matter is cut in front of the holder of the horizontal disc in order to reduce the risk of clogging even more. The hybrid hoeing section is available for rows up to 50 cm / 19.70".

1. Element with horizontal disc, 2. Crop deflector discs (optional), 3. Crop deflector shields (optional)





ROW-CROP CULTIVATOR CHOPSTAR-TWIN

The CHOPSTAR-TWIN precision hoe was developed for precise hoeing above the row. The hoeing parallelogram does not work between the rows, but is mounted directly above the row. This allows a very narrow hoeing belt, which makes it possible to hoe young crops very early and narrow at the same time.

This is achieved by two cutting disc adjustable in angle in combination with following angle knives: two Farmflex wheels running close to the crop row ensure an exact working depth of the hoeing elements. The CHOPSTAR-TWIN, in combination with the camera steering system ROW-GUARD, is perfectly suited as a precision hoe for special crops, cereals, soybeans, beets, corn, vegetables, herbs, etc.



For hoeing many arable crops such as corn, beet, soybeans or field beans and special crops (vegetables, herbs,...).

Type/ Working width cm / ft	Transport width in m / ft ²⁾	Frame length in m/ft. mounting category	Tines	Hoe elements	from HP/KW ¹⁾	Weight approx. kg / lbs
Rear mounted (Recommendation - use with camera steering system ROW-GUARD)						
ETH 5-row RIGID ³⁾	2.30 / 7.50	2.00 / 6.60 / II	10	5	30/22	580 / 1278
ETH 6-row RIGID	2.75 / 9.00	2.45 / 8.00 / II	12	6	40/30	610 / 1344
ETH 8-row HG ⁴⁾	3.00 / 9.80	3.35 / 11.00 / II	16	8	60/44	940 / 2072
ETH 12-row HG ⁴⁾	3.00 / 9.80	5.15 / 16.90 / II	24	12	70/51	1330 / 2932
ETH 15-row HG ^{4,7)}	3.20 / 10.50	6.50 / 21.30 / II	30	15	90/66	1730 / 3813
ETH 18-row HG ^{4,8)}	4.80 / 15.80	7.85 / 25.80 / III	36	18	130/96	2070 / 4563
ETH 18-row HG ⁵⁾	3.00 / 9.80	7.85 / 25.80 / II	36	18	130/96	2260 / 4982
ETH 24-row HG ^{4,6)}	6.70 / 22.00	10.55 / 34.60 / III	48	24	160/118	2650 / 5842
ETH 24-row HG ⁵⁾	4.00 / 13.10	10.55 / 34.60 / III	48	24	160/118	2860 / 6305

1) HP/kW figures only valid for basic equipment

2) Depending on row spacing - details on request or on order confirmation

3) Cannot be used with ROW-GUARD

4) Hydraulic folding - triple-frame

5) Hydraulic retraction - double folding frame, 4 air wheels 18x8.50 instead of upper-link steering Cat. II on 18 rows, Cat. III on 24 rows

6) 4 gauge wheels and 1 rubber support wheel on each side wing instead

of upper-link steering

7) 2 gauge wheels and 1 rubber support wheel on each side wing instead of upper-link steering

8) 4 gauge wheels instead of upper-link steering



STANDARD EQUIPMENT

- ✓ Depending on the specification and the configuration, mainly the width of the sweeps, the row spacing can be adjusted from 30 cm / 11.80" up to 75 cm / 29.50"
- ✓ Lower links guided on both sides
- ✓ Automatic upper link steering with upper link spindle and gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Two adjustable Farmflex-feeler wheels, bearing mounted, Ø 300 mm / 11.80" / 65 mm / 2.56" wide per parallelogram
- ✓ Robust, adjustable parallelogram
- ✓ Vertical cutting discs Ø 220 mm adjustable in angle and in distance to each other
- ✓ Vibrotine 40x12 with holder 35x11 and angle knife 120 mm / 4.70" incl. guiding plate
- ✓ Hoeing parallelogram mounted above the crop row

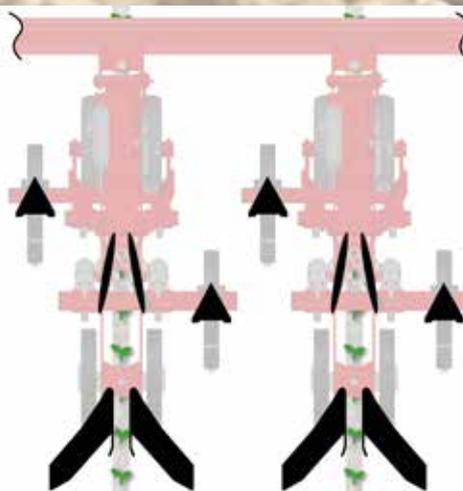
OPTIONS

- Finger hoe
- Rotation weeder element
- Height-adjustable weeder tines mounted behind the element
- Various vibro-tines, sweeps and angle knives
- Bypass tines for hoeing the unworked space
- Warning signs with LED-lights
- Hydraulic steering pilot for extreme slopes
- Hydraulic manual steering with seat
- Camera steering system ROW-GUARD
- P-BOX seeder for undersowing or fertilizing
- Other accessories customizable

CONCEPT CHOPSTAR-TWIN

CONCEPT

- » Precision row-crop cultivator for hoeing over the row
- » Narrow hoeing band with unworked area less than 5 cm / 1.90"
- » E.g. for corn, soybeans, field beans, beets, ...
- » Row spacing: up to 75 cm / 29.50"
- » Equipped with 2 cutting discs and up to 4 tines (2 angle-knives and up to 2 bypass-tines)
- » Following elements: weeder tines, rotative weeder or finger hoe



LONG PARALLELOGRAMS WITH RETRACTION SUPPORT

The wide parallelograms are equipped with retraction support and durable Farmflex feeler wheels. Furthermore they can be adjusted in the joints, this guarantees a high (side)stability and accuracy after many years of use. The long parallelograms provide enough space to compensate unevenness of the fields on each element, on hills or pans. The retraction support, which you can adjust in three steps guarantees a better penetration of the hoeing tools, also in hard crusted soils. This allows to work with increased working speed without vibration or jumping of the elements.



WEED CONTROL OVER THE FULL SURFACE

The earlier and the closer to the row hoeing can take place, the easier the weed control in the row can be done (e.g. by fingerweeders or rotative weeder elements). This ensures reduced weed pressure and supports a good establishment of the crop.



TWIN-HOEING ELEMENT WITH VERTICAL CUTTING DISCS AND ANGLE KNIVES

The hoeing section is guided by two Farmflex-support wheels left and right of the row. It is equipped with two vertical cutting discs, which are followed by two angle knives. They are mounted on vibro-springs, so it is possible to work very closely and shallowly to the crop. The result is that young crops can be hoed earlier, closer to the crop and with higher working speed than with standard row-crop cultivators without burying plants. In ideal conditions a hoeing band of less than 5 cm / 1.90" can be realized. The CHOPSTAR-TWIN can be configured from 30 cm / 11.80" up to 75 cm / 29.50".





RIDGER HILLSTAR

The HILLSTAR is a ridger for hill-crops with large, concave discs. These machines are used to push soil up in hill-crops. A pre-loosening tine breaks up the soil and the inclined discs transport the earth, pulled down by erosion, up the hill again. So a perfect maintenance of the hill-crops (e.g. potatoes) can be reached.

Due to the large smooth discs no hair roots of the crop close to the surface are harmed. The discs have high quality, maintenance free bearings and can be ideally adjusted in the angle. The optional guided hill-weeder (3 sections) additionally fights weeds.



Heaping causes regulation and burying of weeds!

Type/ Working width cm	Transport width in m / ft ²⁾	Frame profile length in m / ft	Tines	Hoe elements	from HP/KW ¹⁾	Weight approx. kg / lbs
EHG 2-row RIGID ¹⁾	1.60 / 5.20	1.60 / 5.20	3	3	20/15	360 / 793
EHG 4-row RIGID	3.00 / 9.80	3.00 / 9.80	5	5	40/30	600 / 1322
EHG 4-row HG ³⁾	2.80 / 9.20	3.00 / 9.80	5	5	50/37	720 / 1587
EHG 6-row RIGID	4.40 / 14.40	4.40 / 14.40	7	7	60/44	850 / 1873
EHG 6-row HG ³⁾	3.00 / 9.80	4.40 / 14.40	7	7	60/44	980 / 2160
EHG 8-row RIGID	5.80 / 32.20	5.80 / 32.20	9	9	80/59	1040 / 2292
EHG 8-row HG ³⁾	3.20 / 10.50	5.80 / 32.20	9	9	80/59	1350 / 2976
EHG 12-row HG ^{3, 5)}	4.80 / 15.70	8.60 / 28.20	13	13	120/88	1580 / 3483
EHG 12-row HG ⁴⁾	3.00 / 9.80	8.60 / 28.20	13	13	140/103	2100 / 4629

1) HP/kW figures only valid for basic equipment

2) Depending on row spacing - details on request or on order confirmation

3) Hydraulic folding - triple-frame

4) hydraulic retraction - double folding frame, folds to 3 m / 9.80 ft transport width with 4 air wheels 18x8.50 instead of upper link

steering - Cat. II

5) 4 gauge wheels instead of upper-link steering

6) With intermediate block - flanged wheels in the tractor track



STANDARD EQUIPMENT

- ✓ Row distance variable up to 80 cm / 31,50"
- ✓ Lower links guided on both sides
- ✓ Automatic upper link steering with spindle and high-gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Robust, adjustable parallelogram
- ✓ Farmflex-feeler-wheels adjustable through spindles, ball bearing mounted, Ø 300 mm / 11.80" / 100 mm / 3.90" wide
- ✓ Hoe element complete - with duckfoot sweep 180 mm and hilling double disc
- ✓ Hoe element half - with duckfoot sweep 180 mm and single disc
- ✓ Separate depth adjustment of the hilling discs in a breadboard
- ✓ Hilling discs laterally adjustable
- ✓ Soil loosening tine with sweep 180 mm / 7.10"
- ✓ Exact adjustment of the angle of the discs

OPTIONS

Guided hill-weeder with parallelogram and comb weeder (3 part)

Warning signs with LED-lights

Hydraulic steering pilot for extreme slopes

Hydraulic manual steering with seat

Camera steering system ROW-GUARD

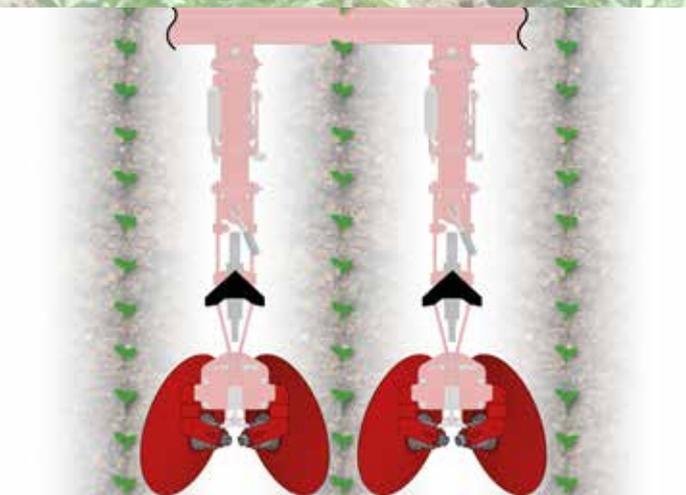
P-BOX seeder for undersowing or fertilizing

Other accessories customizable

CONCEPT HILLSTAR

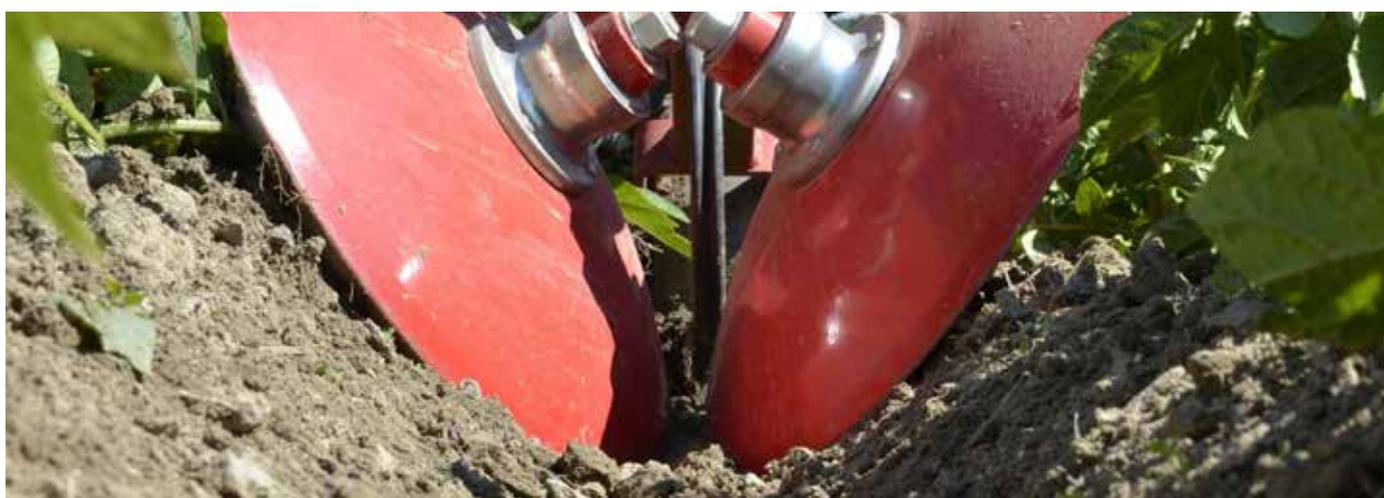
CONCEPT

- » Heaping element for hill-crops
- » E.g. for potatoes, ...
- » Row spacing: hill-crops up to 80 cm / 31.50"
- » Equipped with 1 S-tine and two discs



ADJUSTABLE HILLING DISCS

The hoe section of the HILLSTAR is equipped with big, concave discs so the soil can be pushed up in hill crops. For different hill shapes the discs can be adjusted in angle and height. The S-tine with duckfoot-sweep breaks the soil in front of the disc to get enough loose soil for maintaining the hills.







ROLLSTAR CULTIVATOR ROLLSTAR

The ROLLSTAR has star-shaped discs and can be used in row-crops such as potatoes, corn, vegetables, etc. Depending on the hoeing width, the machine is equipped with a larger or smaller number of hoeing stars. In combination with a hill weeder, the ROLLSTAR is also perfect as a hoe for hill crops.



Rotative hoeing in corn and potato!

Type/ Working width cm	Transport width in m / ft. ²⁾	Frame profile length in m / ft	Hoe elements	Hoe stars	from HP/KW ¹⁾	Weight approx. kg / lbs
Corn version: row distance adjustable 60 - 70 cm / 23.60" - 27.60"						
EMR 2-row RIGID ⁵⁾	1.90 / 6.20	1.60 / 5.20	3	16	20/15	550
EMR 4-row RIGID ⁵⁾	3.30 / 10.80	3.00 / 9.80	5	32	40/30	820
EMR 4-row HG ³⁾	3.00 / 9.80	3.00 / 9.80	5	32	50/37	1080
EMR 6-row RIGID	4.70 / 15.40	4.40 / 14.40	7	48	60/44	920
EMR 6-row HG ³⁾	3.00 / 9.80	4.40 / 14.40	7	48	60/44	1180
EMR 8-row HG ³⁾	3.20 / 10.50	5.80 / 19.00	9	64	80/59	1450
Potatoe version: row distance adjustable 60 - 70 cm / 23.60" - 27.60"						
EKR 2-row RIGID ⁵⁾	1.90 / 6.20	1.60 / 5.20	3	8	20/15	520
EKR 3-row RIGID ⁵⁾	2.50 / 8.20	2.30 / 7.50	4	12	30/22	490
EKR 4-row RIGID	3.30 / 10.80	3.00 / 9.80	5	16	40/30	750
EKR 4-row HG ³⁾	3.00 / 9.80	3.00 / 9.80	5	16	50/37	1010
EKR 6-row RIGID	4.70 / 15.40	4.40 / 14.40	7	24	60/44	800
EKR 6-row HG ³⁾	3.00 / 9.80	4.40 / 14.40	7	24	60/44	1060
EKR 8-row HG ³⁾	3.20 / 10.50	5.80 / 19.00	9	32	80/59	1450
EKR 12-row HG ⁴⁾	3.20 / 10.50	8.60 / 28.20	13	48	140/103	2000

1) HP/kW figures only valid for basic equipment

2) Depending on row spacing - details on request or on order confirmation

3) Hydraulic folding - triple-frame

4) hydraulic retraction - double folding frame, folds to 3 m / 9.80 ft transport width with 4 air wheels 18x8.50 instead of upper link

steering - Cat. II

5) With intermediate block - flanged wheels in the tractor track



STANDARD EQUIPMENT

- ✓ Row distance variable up to 80 cm / 31.50"
- ✓ Lower links guided on both sides
- ✓ Autom. upper link steering with spindle and high-gauge wheels
- ✓ Adjustable retraction support on each parallelogram
- ✓ Robust, adjustable parallelogram
- ✓ Farmflex-feeler-wheels adjustable through spindles, ball bearing mounted, Ø 300 mm / 11.80" / 100 mm / 3.90" wide
- ✓ Active wear resistant hoe stars through optimal distribution of chrome and molybdenum – microcarbides
- ✓ Height-adjustable pre-loosening tine with wide sweeps per hoe element
- ✓ Hoe stars with angular roller bearing – individually removable

OPTIONS

Reinforced bearings for large scale farms and communities or when working in sandy soil

Crop deflector plates

Front mounting support with steering support wheels

Guided hill-weeder with parallelogram and comb weeder (3 part)

Warning signs with LED-lights

Hydraulic steering pilot for extreme slopes

Hydraulic manual steering with seat

Camera steering system ROW-GUARD

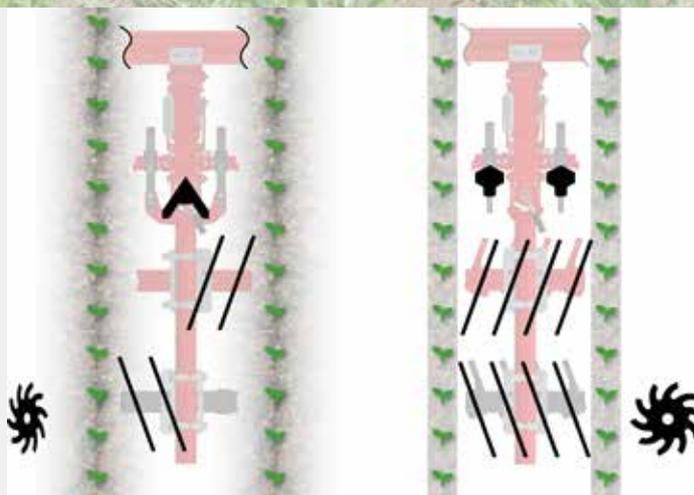
P-BOX seeder for undersowing or fertilizing

Other accessories customizable

CONCEPT ROLLSTAR

CONCEPT

- » Hoeing for row spacing up to 80 cm / 31.50" with roll-stars (rear-mount)
- » E.g. for corn, potatoes, soybeans, field beans, beets, ...
- » Aggressive hoeing and crust breaking without clogging in fields with organic matter
- » Corn-version: 8 stars (per row) and 2 S-tines
- » Potatoe-version: 4 stars (per row) and 1 vibro-tine



HOEING WITH ROLL-STARS

To ensure hoeing without clogging, even in aggressive operation, the row cultivator can be equipped with ROLLSTAR-hoeing sections. It is developed for hoeing of hill crops, but it also can be used for field crops, if the row distance is wider than 40 cm / 15.70". Optional protection shields are responsible to protect the plants from spilling (especially in early crop stage). To break up the soil and to guarantee the stars can enter the soil easily, there are S-tines at the corn-version and vibro-tines at the potatoe-version of the ROLLSTAR element. Depending on the crop there are different setups of the hoeing-elements available:

1. Field crops: corn, sunflowers, beets, soybeans, ...
2. Hill crops: potatoes, ...

WEAR-RESISTANT HOEING STARS

Because of the perfect choice of the material, the hoeing stars are extremely wear-resistant and they can stand many years of operation.



BEARING MOUNTED AND INDIVIDUALLY REMOVEABLE

Each hoe star is equipped with an angular roller bearing (this increases the stability) and it is adjustable and individually removeable.



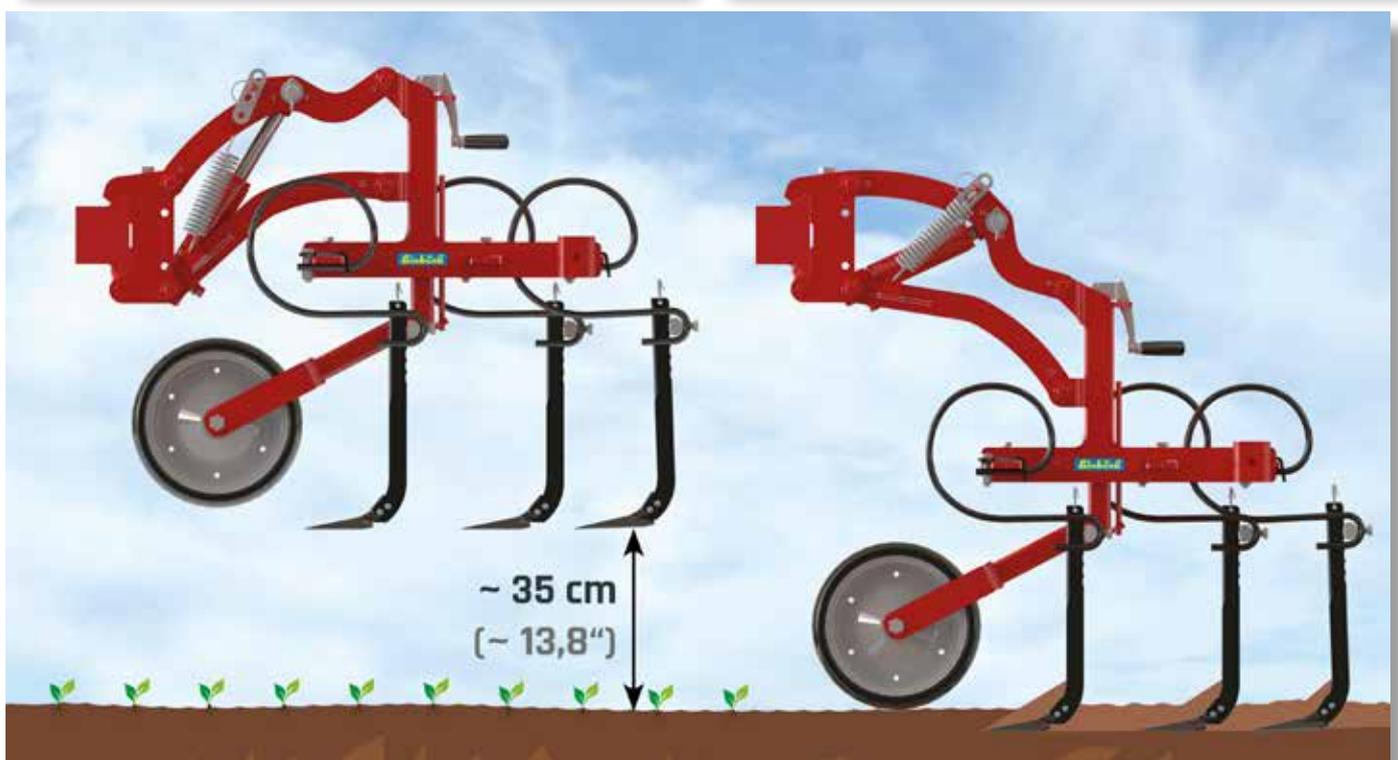
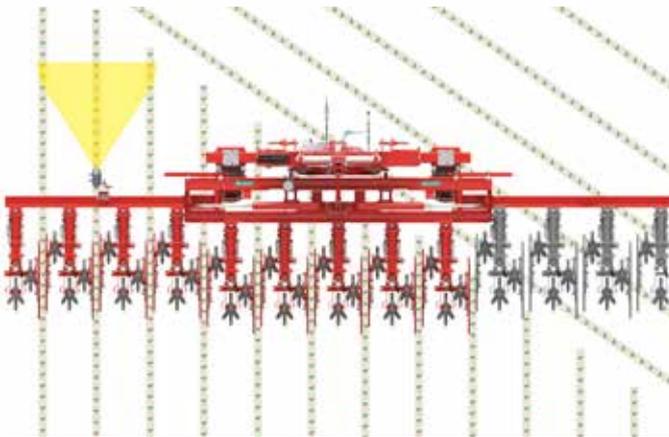
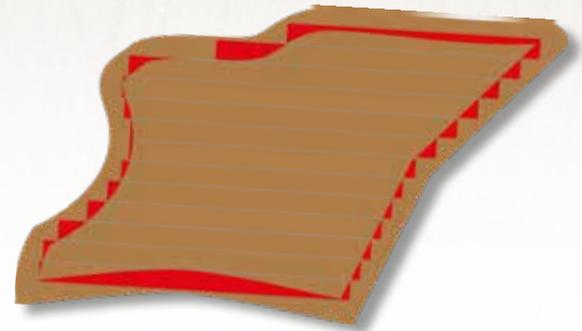
SECTION-CONTROL FOR ROW-CROP CULTIVATORS

Section-Control – hydraulic lifting sections

The hydraulic parallelogram lift has up to 35 cm / 13.80" lift height (depending on machine configuration and soil conditions) and is controllable by GPS or pressure switch.

Even with misshapen areas, nothing is hoed out at the headland. This option is especially recommended for contractors or farms with a lot of misshapen areas.

Hydraulic lifting is also possible for finger hoes.





FINGER WEEDERS FOR EINBÖCK MACHINES

CHOPSTAR 3-60 | 5-90 | 10-150 | TWIN | HYBRID | ROLLSTAR



The finger weeders allow weeds to be pulled out and spilled between plants. They cannot be adjusted in angle to each other, as the fingers move parallel to the ground in the row of plants anyway when adjusted correctly. Finger hoes are also available for front machines

A spring-loaded holder ensures optimal and 100% retraction of the finger weeders. This is necessary so that they can work perfectly even on crusty or uneven surfaces. There are three different designs of finger weeder hardness, depending on the crop and soil conditions.

A parallel arrangement as well as separate finger weeder holders per row are important for a clean working of the finger weeders. Especially with the CHOPSTAR-TWIN, a perfect working result is achieved, as the finger weeders can work the narrow, unworked hoeing band cleanly and over the entire surface.

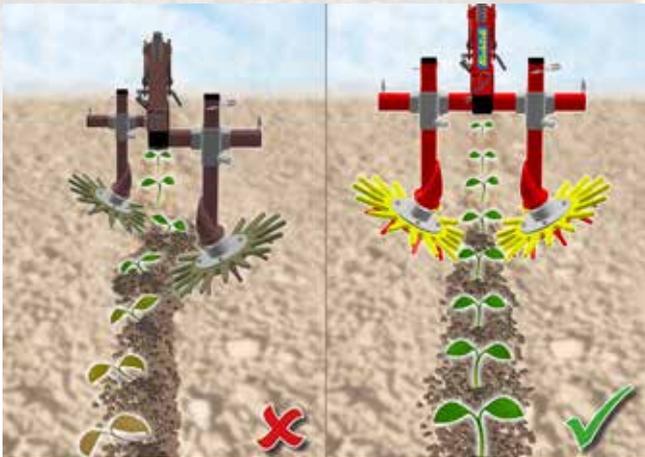
Finger weeder for double folding frames

Special finger weeder holders are available to ensure that the transport width of machines with double folding is kept as narrow as possible despite the finger weeders. Like all Einböck finger weeders, these have a separate holder on which a parallelogram is mounted that guides the stars to the left and right of the row of plants. Despite the different design, they achieve the same perfect results as the standard holders.



You can find more info on setting the finger hoes in our "Organic Farming Handbook"!

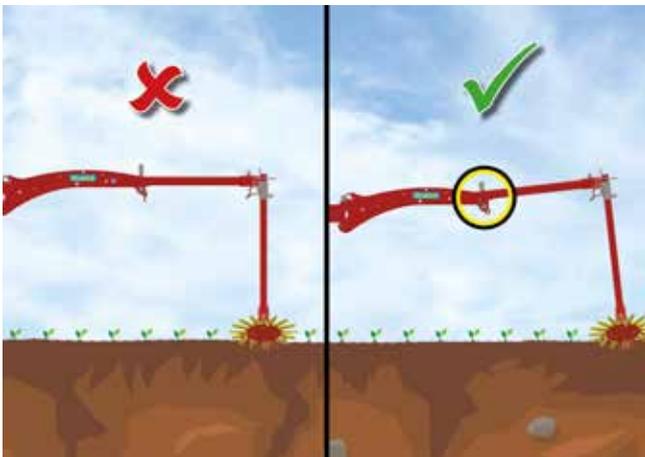




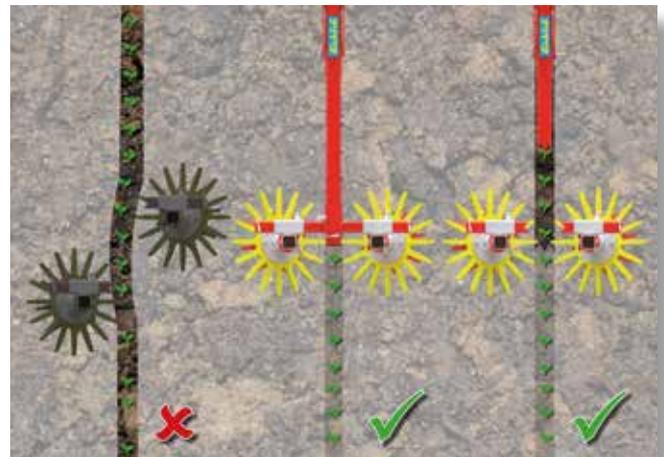
Finger weeders must be guided in parallel arrangement



Equal working depth of both finger weeders due to common extension arm



A preload spring ensures consistent working quality of the finger weeders



No sideshift of the plant row due to parallel arrangement



ROTATION WEEDER ELEMENT

CHOPSTAR 3-60 | 5-90 | 10-150 | TWIN | HYBRID | ROLLSTAR

ROTATION WEEDER ELEMENT

Similar to the finger weeder the rotation weeder element works the unworked hoeing-strip close to / in the row. The rotating stars "comb" weeds out of the row. The rotation weeder element is used in mulch-till and fields with organic matter, because it works without clogging. The holder on which the rotative weeder elements is mounted is the same as the one of the fingerweeder. Therefore both options can be exchanged easily.

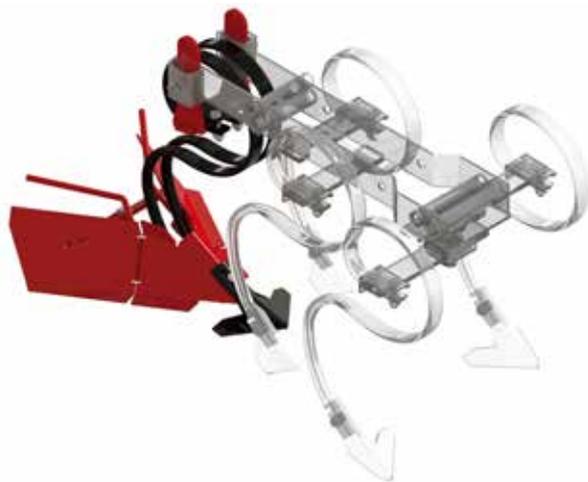
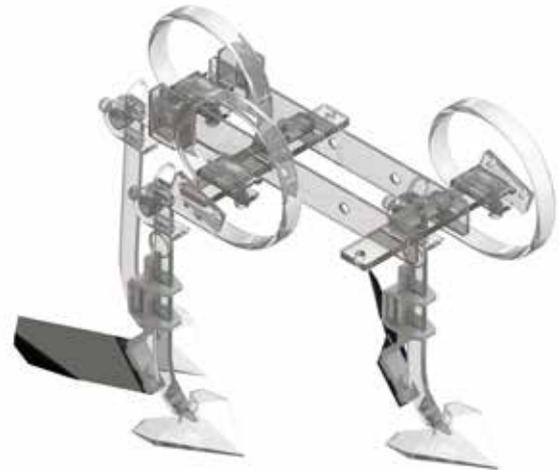


HEAPING ELEMENTS

CHOPSTAR 1-30 | 3-60 | 5-90 | 10-150

HEAPING SHARES FOR VIBRO-TINES

Heaping shares are used for hilling up plant rows in late crop stage (e.g. last use with soya). This strengthens the crop plant (and root) and buries weeds in the row.



HILLING ELEMENT

This hilling element can be mounted instead of the rear tine for aggressive hilling of the CHOPSTAR 5-90 to maintain potato hills or other hill crops.

HILLING DISCS

For some crops precise and effective hilling is necessary. This is possible with these hilling discs which can be very precisely adjusted. They cannot be combined with following weeder tines, rotative weeder elements or fingerweeders.

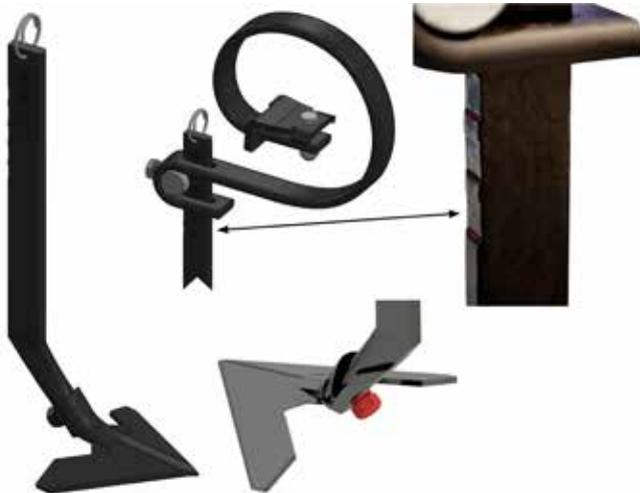


TINES, SHARES & KNIVES

CHOPSTAR 1-30 | 3-60 | 5-90 | 10-150 | TWIN

WIDE RANGE OF DIFFERENT WIDTHS OF DUCKFOOT SWEEPS FOR THE VIBROTINES

The flat position of the sweeps which can be mounted on the vibrotines, enables the machine to cut the full surface between the rows in a shallow working depth, which is important for effective weed control. According to the row distance, crop and consistency of the soil the vibrotines with **30x10 mm (1.18" x 0.39")** can be equipped with duckfoot sweeps in the widths of 80 up to 300 mm (3.14" x 11.8"). To change the working depth easily the holders are equipped with slotted grooves. The duckfoot sweeps are mounted with screws to the holders, which ensure a secure mounting, but nevertheless they can be changed quickly.



EINBÖCK-SPECIAL-VIBROTINES WITH DUCKFOOT SWEEPS

The flat position of the sweeps which are mounted on the vibrotines allows to cut the entire surface even at a shallow working depth, what is important for effective weed control. Duckfoot sweeps for the **40 x 12 mm (1.57" x 0.47")** vibrotines are available from 80 mm to 300 mm (3.14" x 11.8") width to meet different row spacings, crop and soil conditions. Slotted grooves on all holders ensure easy adjustment of height position and working depth. The extremely wear-resistant duckfoot sweeps are mounted with a single bolt, what ensures a safe fixing, but they still can be replaced quickly.

EINBÖCK-SPECIAL-ULTRAFLAT DUCKFOOT SWEEPS

To enable a clean and flat cut, extra flat Einböck special duckfoot sweeps with lowest possible earth movement are available as an additional option. These are offered in the following widths: 140 up to 220mm (5.5 - 8.6")

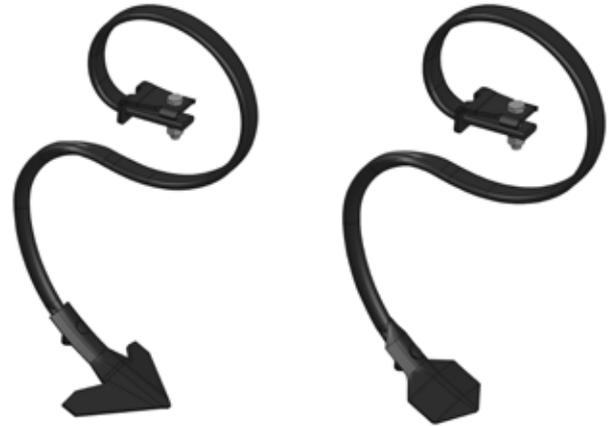
They are available for the 30x10 mm (1.2x0.4") holder and can be mounted on the 32x12 mm (1.2x0.5") and 40x12 mm (1.6x0.5") vibro-tine.

Like all Einböck holders, they also have slotted grooves for easy adjustment of the working depth. This special-ultraflat duckfoot sweep is specially recommended for row-crop cultivators working in narrow row spacing, e.g. grain.



S-TINE

For deeper work there are S-tines with 100 mm or 180 mm (3.93" x 7.08") duckfoot sweeps instead of the standard vibrotines.



REINFORCEMENT SPRING

Reinforcement spring for the S-tine and the vibrotine ensure ideal work in soil with hard crust, heavy soil as well as stony conditions.

ANGLE KNIVES

Straight (1) or offset angle (2) knives are available on request. They are cutting the soil near the plant row and guide the earth flow away row. They cut weeds near the row, but minimise the risk of burying. The unworked hoeing-strip can be cleaned by accessories such as fingerweeders or rotative weeder elements. Angle knives can be mounted on Einböck-special-vibrotines with duckfoot sweeps (40x12) and 35x11 holder and are offered in the following widths: 120 up to 200 mm (4.70" up to 7.90").



WEEDER TINES

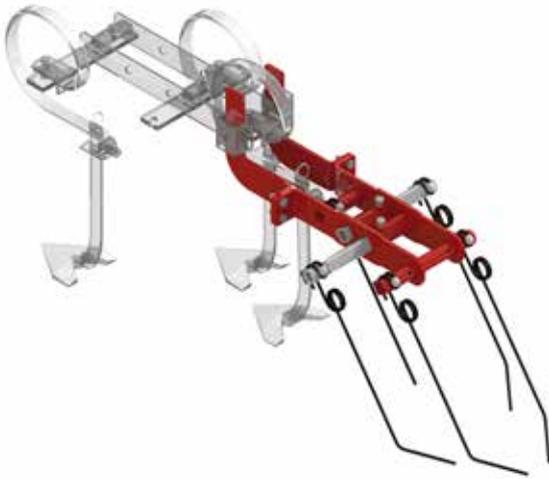
CHOPSTAR 1-30 | 3-60 | 5-90

Adjustable weeder tines

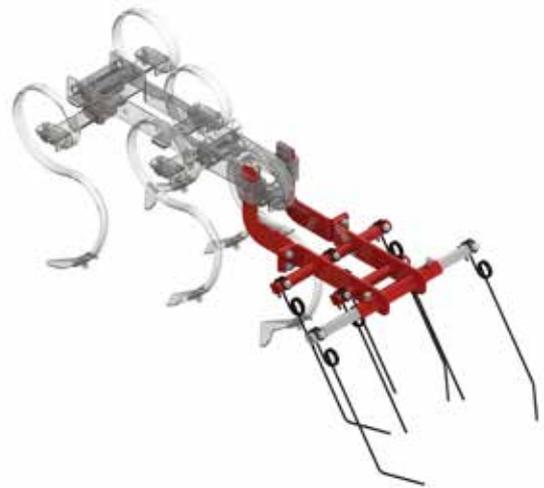
Adjustable weeder tines can be mounted for pulling weeds to the surface and ensure they dry out. They clean the roots of the weeds from soil and the same time they slightly level the cultivated are areas. The outer tines on the element can be exchanged to direct the earth flow either to or away from the crop row (principle of torsion hoe). This also enables a slight hilling effect.



CHOPSTAR 1-30



CHOPSTAR 3-60



CHOPSTAR 5-90



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 hoeing 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.



Underseeding fixes nutrients, improves soil structure, builds up humus, protects against erosion, suppresses weeds and increases above- and below-ground biodiversity in the field.



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
- ✓ 40+ years of experience in hoeing and weeding technology





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



WEEDING TECHNOLOGY

- » Tined weeder
AEROSTAR
- » Precision tined weeder
AEROSTAR-EXACT
- » Rotative weeder
AEROSTAR-ROTATION

TILLAGE

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

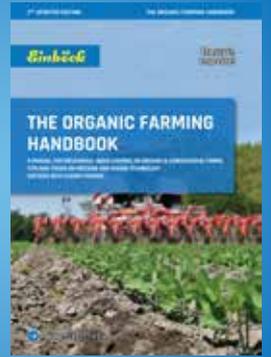


**ROTARY HOE
ROTARYSTAR**

- » Break crusts
- » Regulate weeds
- » Aerate soil

ORGANIC FARMING

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



EINBÖCK



Einböck GmbH
 Schatzdorf 7
 4751 Dorf an der Pram
 Austria

+43 7764 6466 0
 +43 7764 6466-390
 info@einboeck.at

Technical changes and mistakes are subject to change without prior notice!

In order to introduce the benefits of our continuous product development, we reserve the right to make technical changes without prior notice. Printing and typesetting errors or changes of any kind do not entitle the customer to any claims. Individual equipment specifications, which are illustrated or described here, are only available as options.

In case of contradictions between individual documents regarding the scope of supply, the information in our current price list shall apply.

All pictures are symbol pictures and may contain options which are available for an additional charge. For further information please contact our sales team.