

Shaping, separating, planting in bed cultivation

Innovative cultivation: Bedforma BF/BFL-series,
stone and clod separator CS/CW-series with ROTA-Power
and 2-, 4- and 6-row bed planting machines



High quality on stony and cloddy soils

Start to think about the harvest quality before planting: conditions for well shaped and evenly grown potatoes without unwanted stones and clods is well prepared soil in the spring. Growers all over

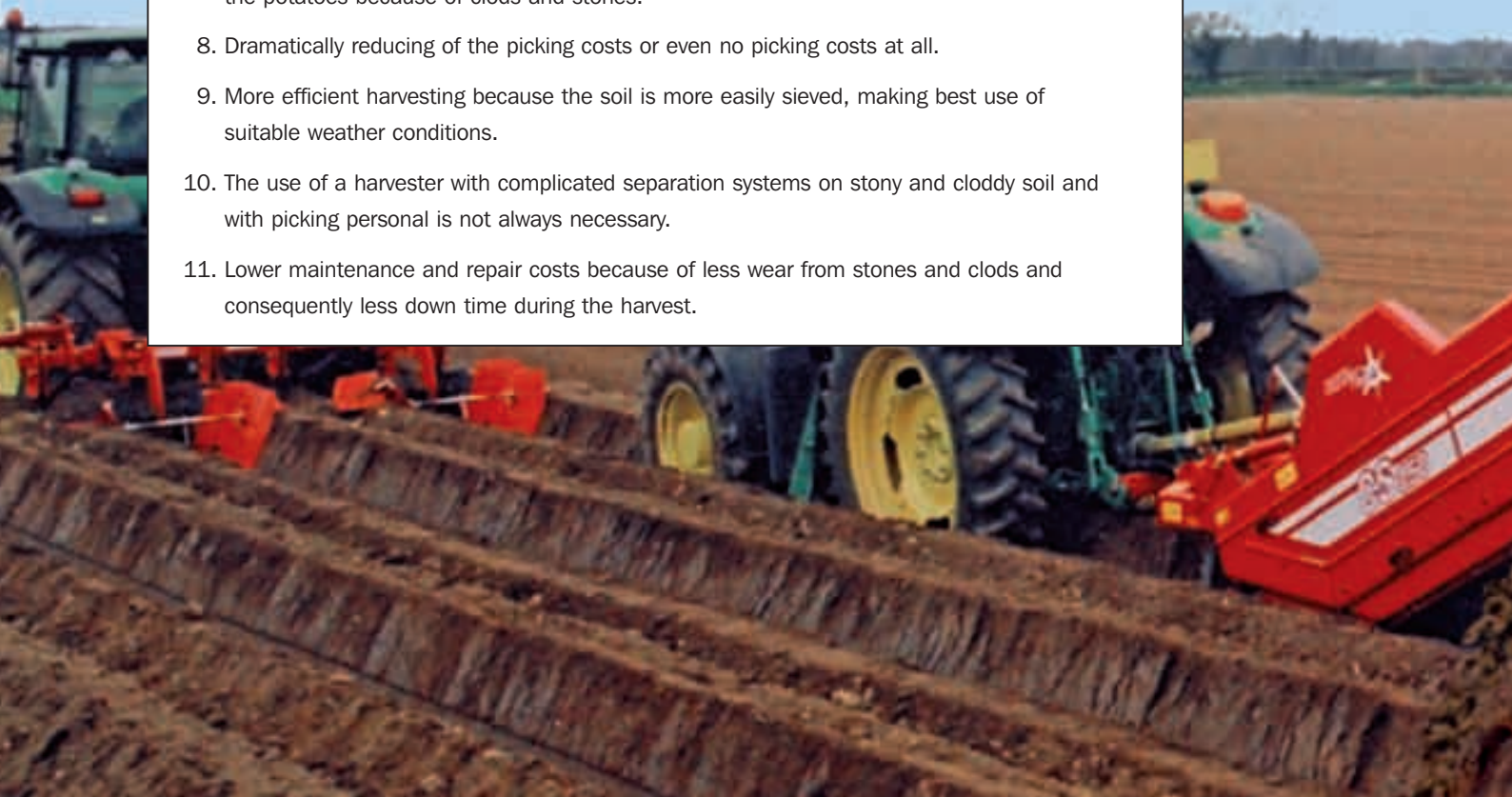
Europe use the advantages of the 3-phase system – bedforming, separating and planting in a bed system. For eleven good reasons:

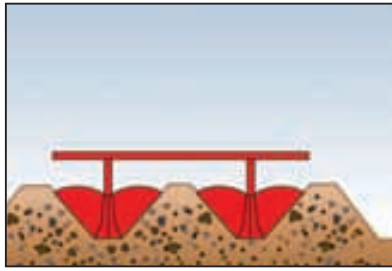
The advantages at cultivation

1. The potatoes are planted in 25–30 cm of loose soil. Because of the shaping and separating the usual soil cultivation is unnecessary.
2. Through the lifting and intense sieving of the soil it warms up by about one or two degrees above the normal temperature and allows air in it at the same time.
3. Faster emergence of the potatoes because of ideal growing conditions in loose, trash free and warm soil.
4. The precise planting of the seed potatoes and the high volume of soil in the ridges reduce the risk of green potatoes.
5. The riding body behind the planting machine forms complete ridges, making the use of ridging hiller or rotary hiller after planting unnecessary.
6. The bed technology with the fixed wheel tracks ensures that the area where the potatoes grow will not be driven over or be compacted. This improves the watering of the plants because of good long roots to the bottom as a basis for a higher yield.

The advantages at harvest

7. Visibly more saleable crop because of less green potatoes, less miss-shaped potatoes, less smaller or bigger sized potatoes because of the even growing and less damage of the potatoes because of clods and stones.
8. Dramatically reducing of the picking costs or even no picking costs at all.
9. More efficient harvesting because the soil is more easily sieved, making best use of suitable weather conditions.
10. The use of a harvester with complicated separation systems on stony and cloddy soil and with picking personal is not always necessary.
11. Lower maintenance and repair costs because of less wear from stones and clods and consequently less down time during the harvest.





Phase 1: Bedforma of the BF/BFL-series shape beds. The track and bed widths can be determined.

More information on pages 4-7



Phase 2: Bed separation with stone and clod separator of the CS/CW-series. The separator lifts the whole bed width and completely sieves the soil.

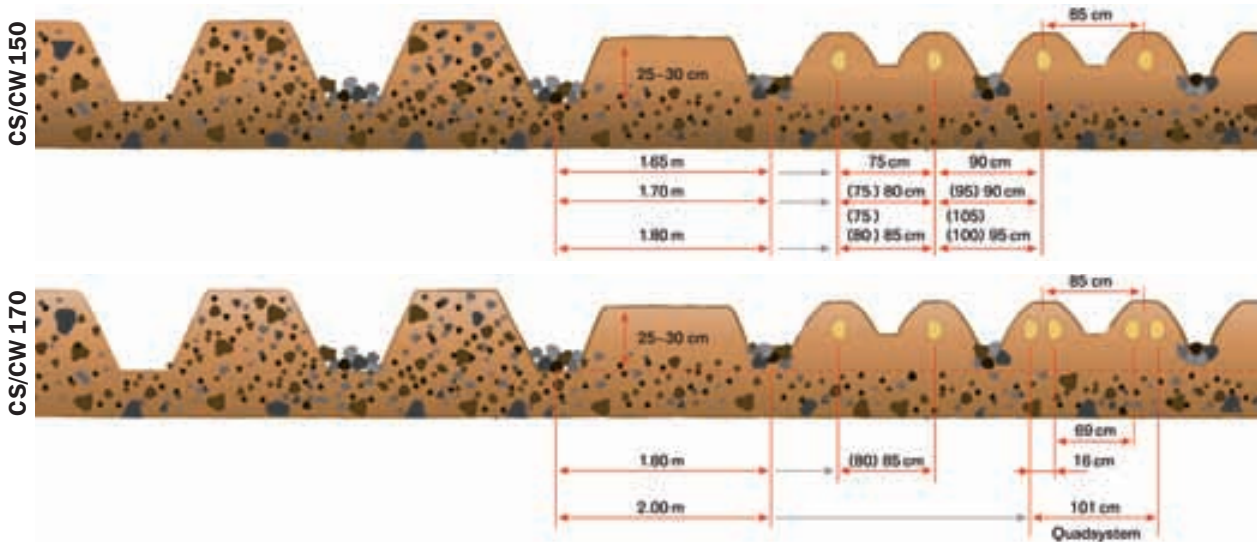
More information on pages 8-15



Phase 3: Potato planting with the bed system. Planting starts straight after the separating with the 1-, 2- or 3-bed system.

More information on pages 16-17

Typical bed and row width depending on the cultivation system, stones and regimes on the farm



Top shape on all soils!

The first step of the separation system is to set up the beds. The shaping of the beds is a decisive first working step. The track and bed width is determined by this step. – Grimme offers two basic models: the large Bedforma of the BF-series for use especially on medium to heavy soil with big stones and large amount of clods. The BFL-series for use on all soil as well as for smaller beds. The long side shapers keep

the loose soil in the bed, preventing it for falling back into the furrow. The BF/BFL 200 models shape with each crossing of the field two beds, the BF/BFL 600 models shape 3 or 4 beds. Decide for the exact shaped beds with even distances and clean, constantly deep furrows. Well prepared for the following separation.





BF 200 , BF 600

The all-rounder also for heavy soils



A real all-rounder: the large BF-body for the use on medium to heavy soils – also with many stones and clods. Suitable for a bed width from 1.8 meter. Possible to deposit the big stones and clods into the wide furrow (410 mm) without problems.



BFL 200 , BFL 600

Perfect beds also at light soils



The angular share top makes the bedforma easy to pull.



The BFL-body suits also beds under 1.8 meter width. Stones and clods are compact stored in smaller furrows (330 mm) with steeper ridge sides to avoid lifting of it during harvest. The angular arranged share top lift the soil, the bulbous bodies turn the soil around and the long shaper press and shape the ridges.

Connect a strong basic package with even stronger options!

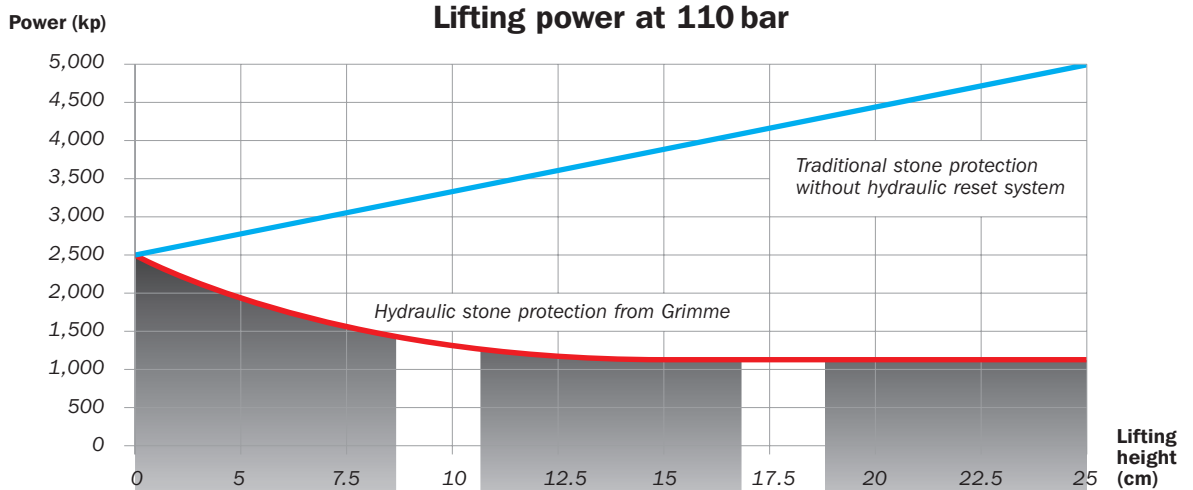
Stone protection: the mechanical shearbolt stone protection (1) for ridging bodies. Long life shearing mechanism through grooved shearbolts and reinforced bushes of the shearing holes with plough leg and bracket.

Double top: exchangeable, double-sided useable wearing top (2) and side shares with 12 mm hardened steel.

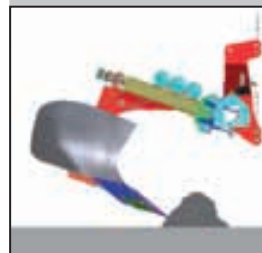


Automatic cover: automatic hydraulic stone protection (3). With automatic release via accumulator to reduce down times.

Visible track: the hydraulically operated lane marker with disc (4). Just fold the lane marker to the rear for road transport, height keeps under 4 meters.



Hydraulic stone protection (option) with hydraulic reset system: after the lifting power is released, lowers the power of the lifted body – because of the link geometry – for better and easier lifting at big stones. Compared to traditional systems is this gentle to all parts.





Loosens the soil: depth loosening tine with shearbolt protection (1)

Frame extension: the outer tines on the telescoping frame extension (2) (option) loosens the soil in the two following beds. Picture 1 shows transport position with the retracted frame extension.

It pays off: the bed loosening tines with spring loaded retention spring (option) for stone protection (3)

For special requests: the BFL 400 with 3 BFL-bodies (4) on a fixed frame. This will also erase soil compaction in the beds caused by the tractor wheels.

Practical: folded-in (5) for road transport but also possible to use the BFL 600 as a single-bedforma in the headlands.

Couple for an even working depth: feeler wheel l/h-side and r/h-side for BF/BFL 600 (6)

Parallelogram BF/BFL 600 (7): to control the working depth of the outer shaping bodies. To avoid pulling force from the side for the shaping of 3 beds run the outer bodies at the first go on only 2/3 working depth and at full depth at the 2nd run.

Solely potatoes: without stones, without clods!

The second step for high quality potatoes on stony and cloddy soils is optimum soil separation in the beginning. Here begins the new generation of stone and clod separator. Grimme products a new standard with the new innovation ROTA-Power for more power, separation quality and

efficiency. The CS/CW 150 with 1,500 mm and the CS/CW 170 with 1,660 mm separation width persuades with its special combination of star roller and main webs. These innovations profit the user from several detailed solutions for more output and efficiency.



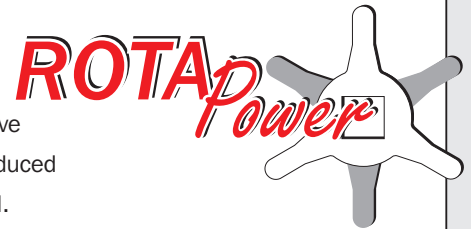


CW 150 , CS 150

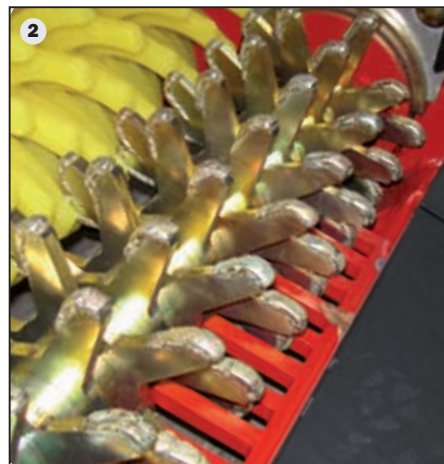
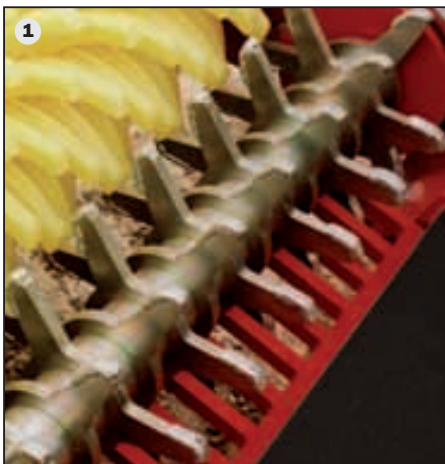
Full Power with ROTA-Power – we take it out for a patent!

Increase your sieving output up to 25% compared to traditional machines – with ROTA-Power! A rotor breaks off the soil and spreads it over the stars or main web for better sieving. This also reduces the wearing of the following star rollers or

webs. Another advantage is the easy pulling of the machine because of the short share and active ROTA-Power intake which means reduced fuel and less horsepower is required.



Patent applied: ROTA-Power shaft breaks effectively the compacted soil. For a more efficient clod and stone separation from the following star shafts and webs.



Full power as standard: the ROTA-Power shaft with 3-tine rotor for the use with following main web pitch 35 mm, 40 mm, 45 mm or 50 mm (1).

Smaller and finer: we recommend 5-tine rotors for main web pitch 28 mm, 32 mm or 35 mm and in soil with flat stones (option), including fine sieved soil (2)!



BASIC EQUIPMENT

Well equipped – the basic

Improved bed profile (1): even soil spreading with the intake width of 1,500 mm (CS/CW 150) and 1,660 mm (CS/CW 170). Soil losses into the furrow are immense minimized. The cross tube running across the axle ensures a perfect shaped bed.

You have the choice of: two-point bottom linkage for category 3 lift arms (2) ...
... or a robust hitch drawbar (3) (depending on the country regulations)



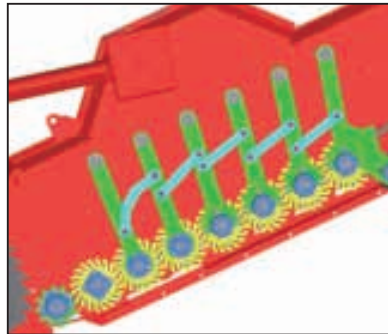
Well proven: The diablo roller automatically controls the working depth (4). The setting is made from the operator terminal and the depth is shown on the well positioned indicator.

Practical standard: hydraulic height adjustment of the clod mat (5) from the operator terminal!

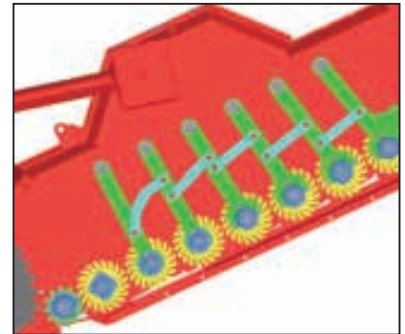




Low maintenance: the robust drive unit



Close together! 7 stars for your success



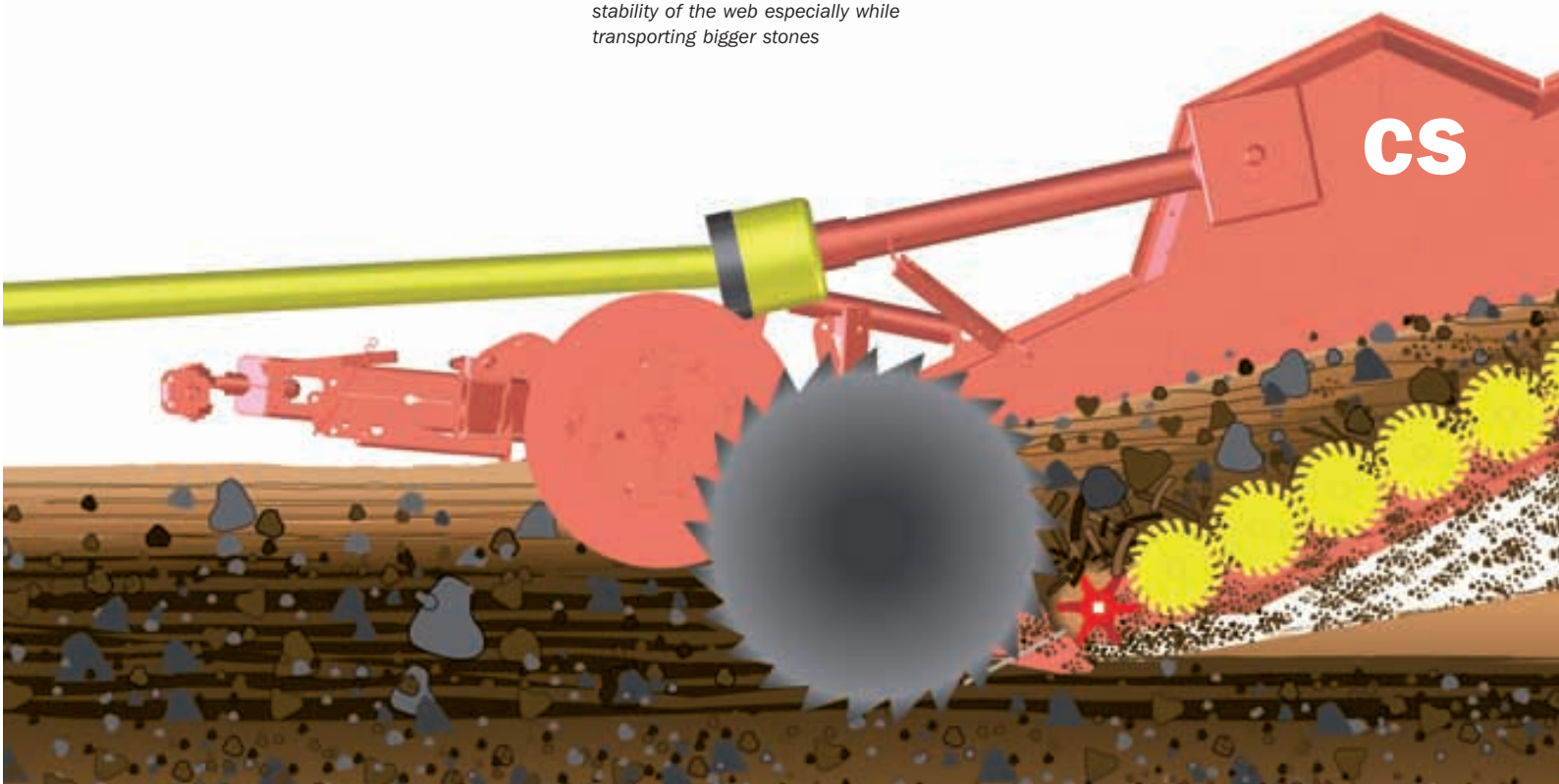
Bigger gap! 7 stars for your success: distance adjustment of the star roller (option) on the CS150/170 to set the sieving capacity. For longer use: closer distance of the star rollers to equalize the wearing.



All models have a cross conveyor with 22 mm pitch as standard.

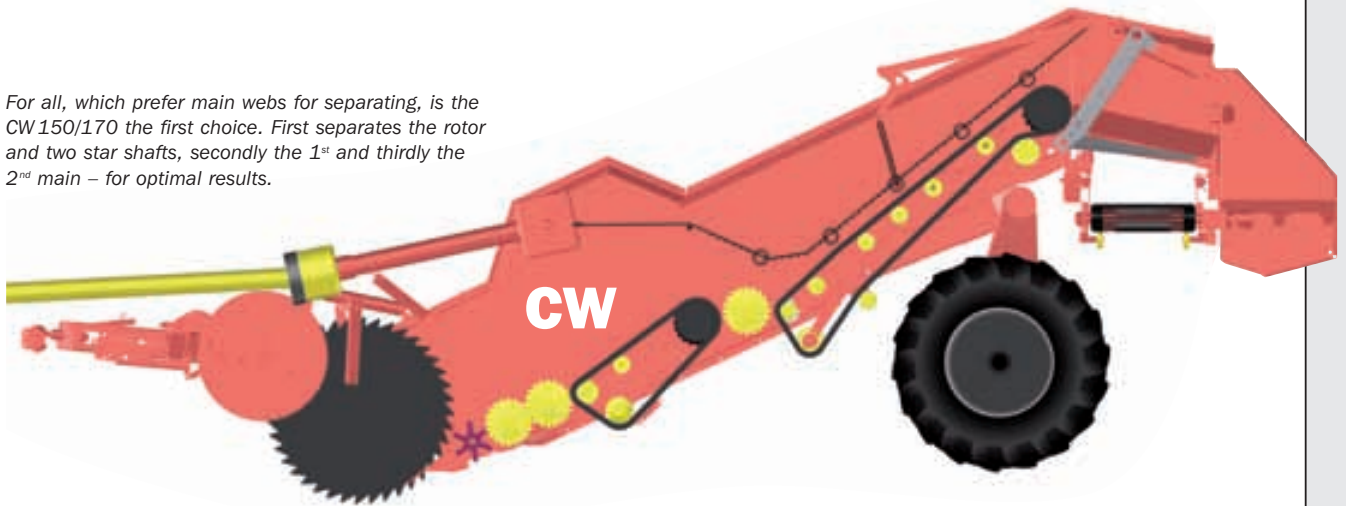


Every sixth web has a diameter of 16 mm. That gives you 3 important advantages: optimized soil transport on the webs, supported clod breaking and a higher stability of the web especially while transporting bigger stones



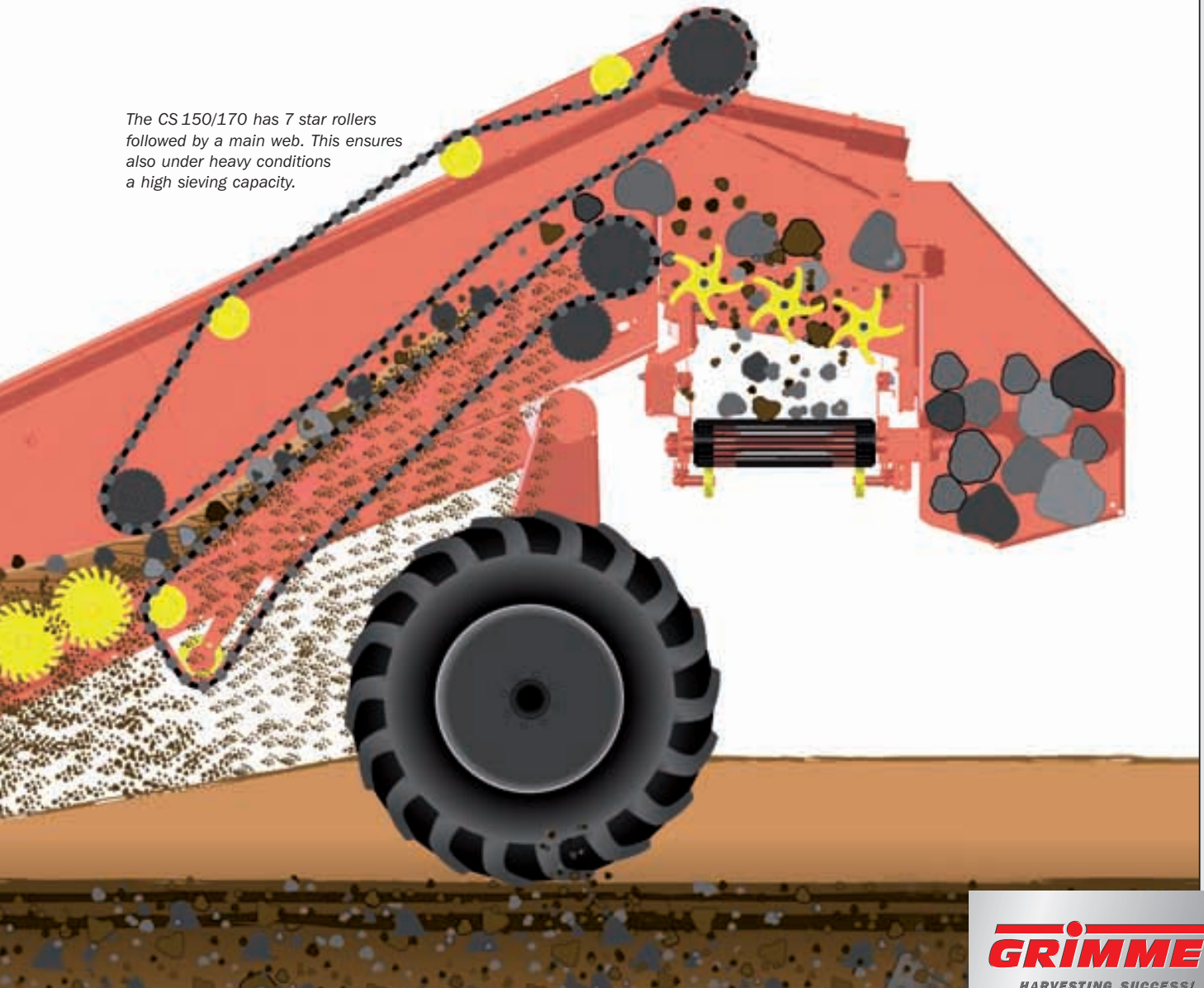


For all, which prefer main webs for separating, is the CW 150/170 the first choice. First separates the rotor and two star shafts, secondly the 1st and thirdly the 2nd main – for optimal results.



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The CS 150/170 has 7 star rollers followed by a main web. This ensures also under heavy conditions a high sieving capacity.





Low-wear with drive: The 2nd main web (at CW also the 1st main web) is standard driven via wide PU-finger discs (1). The wearing of the main webs is immensely reduced without the steel finger sprockets.

Not only ideal for abrasive soil: Changing the main web pitch during the season (e.g. contractor), appreciates the pitch independent friction drive (2) with drive support roller.

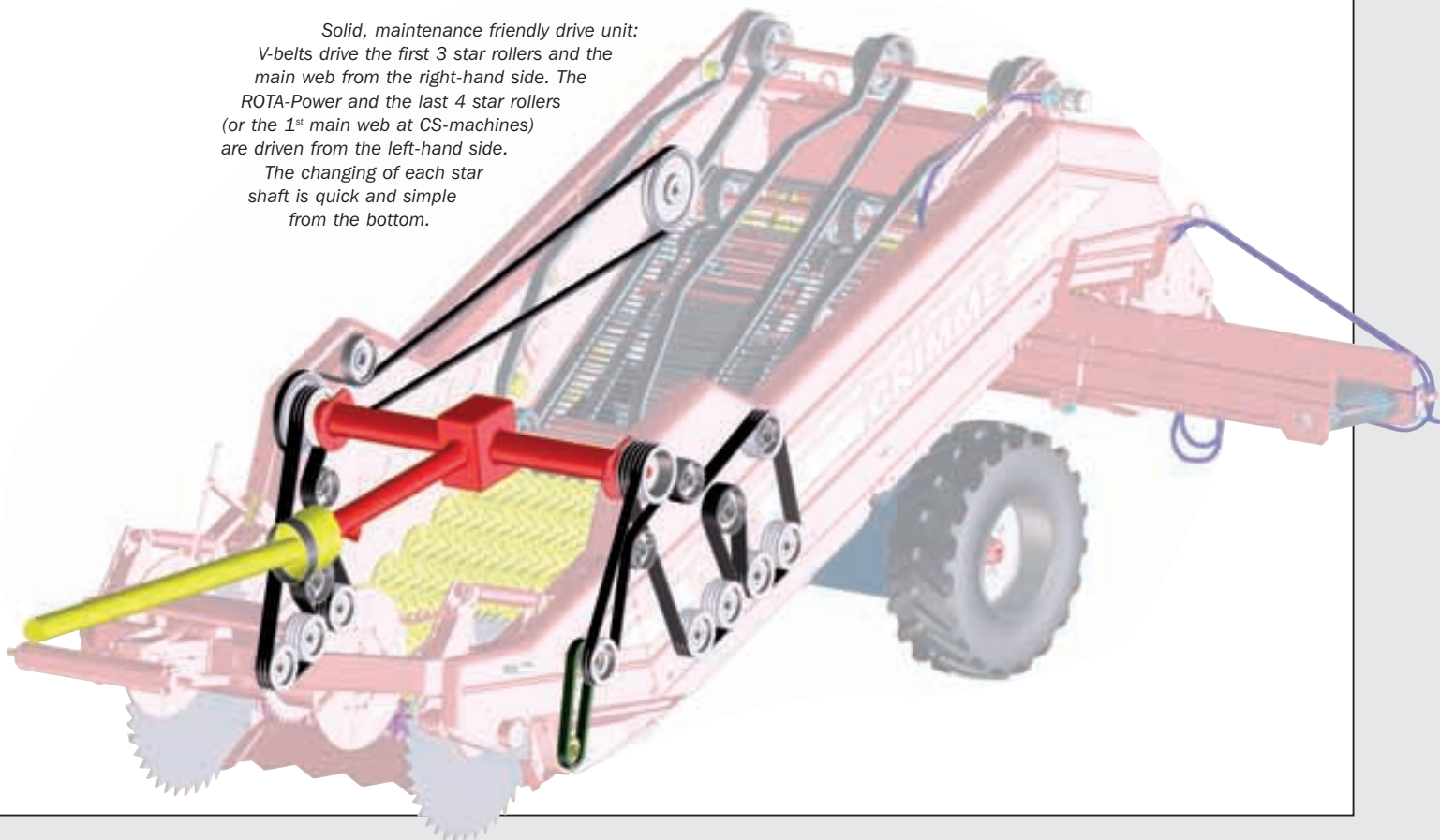


34 degree for more agility: The axle steering (3) with steering angle of 34 degree increases the agility of the already compact stone- and clod separator.

Hydraulic chassis height adjustment (4): For adoption to hillside located fields or optimisation of the sieving output, it is possible to change the intake angle of the machine up to 350 mm lifting height.

Solid, maintenance friendly drive unit:
V-belts drive the first 3 star rollers and the main web from the right-hand side. The ROTA-Power and the last 4 star rollers (or the 1st main web at CS-machines) are driven from the left-hand side.

The changing of each star shaft is quick and simple from the bottom.



EQUIPMENT

For even better running: the Grimme options!

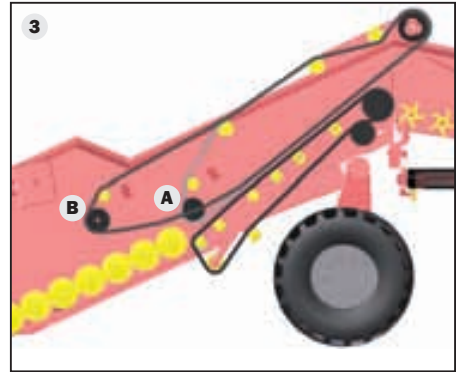
Hydraulic drawbar stone protection (1): A ram in the telescopic drawbar is connected to accumulators allowing the drawbar to extend. As the pre-set pressure reached, the drawbar extends up to 240 mm and absorbs the pressure.



Optimally coordinated: The hydraulically driven clod mat (2) ensures an even soil and trash flow – even in soils with much trash.



Extension driven clod mat: The standard driven clod mat (3, A) has a forward extended clod mat (option, B) for even transport of big stones in hillside fields.



Three stars for big stones: the 3-star separating (4) with stone box



Nothing can pass it: The tine rakes separation (5) for large stones with stone box, allowing choice of separation with the adjustable rakes.



Everything clear: the operator terminal with monitor (6) (option) for monitoring control





Unloading elevator: If stones and clods are unwanted in the furrow an unloading elevator (2 meter loading height) elevates to the right hand side (1).



Big boulder box: Store the stones directly into a big boulder box with 2.5 tonnes capacity (2). Two star rollers between web and bunker take off the rest soil.

Keeps better in track (3): bigger wheels (14.0-20 AS, 360 mm wide, 1,220 mm high – left-hand side) in lieu of standard wheels (12.5-20 AS, 320 mm wide, 1,140 mm high – right-hand side)



Well levelled: The hydraulic levelling adjustment (4) at the side keeps the machine horizontal on hillside located fields or in different furrow heights – for a constant even sieving and even ridge height. Additional option: the automatic levelling

Good planting – the bed planter!

The third step – planting into separated beds. Various cup planter from the GL30 series as well as the belt planter from the GL40 series are available as bed planting machines. Your advantage: both series use

the loose soil for planting and shape the ridges in one step. You can rely on the power and reliability, for planting – with Grimme.





GL 42 T

Reliable: the 2-row GL 42 T



Short, compact, efficient – the GL 42 T: ideal for planting chitted seed in small planting distances. You also benefit from the FLOW-BOARD (option) – a furrow opener integrated in to the shaping board with automatic height levelling – which is DLG-awarded! Ridging bodies and cage rollers are another possible combination (see picture).



Interested? Ask for the GL 40 T-series leaflet!

GL 34 T

Multi talent: the 4-row GL 34 T



For all conditions individual equipment – the GL 34 T: either centre or off-set trailed. Following options are necessary or available on demand:

- hydraulic drawbar steering
- hydraulic side adjustment of the drawbar
- special axle with 2 wheels 12.4-24 AS
- hydraulic axle steering
- soil deflection plates
- divided shaping board with covering discs in the front



Interested? Ask for the GL-T-series leaflet!

GL 36 T

Powerful: the 6-row GL 36 T



6-row potato planter for high planting power – GL 36 T: Increase the output with a bedforma BF 600, which shaped 3 beds in one go to avoid double overrun of the following beds.

- Necessary options are:
- shaping board divided in 3 parts
 - soil deflection plates



Technical data

	CS 150	CW 150	CS 170	CW 170
Length/with stone bunker	6,600 mm/7,100 mm	6,600 mm/7,100 mm	6,600 mm/7,100 mm	6,600 mm/7,100 mm
Machine width	2,530 mm	2,530 mm	2,700 mm	2,700 mm
Height	2,750 mm	2,750 mm	2,750 mm	2,750 mm
Intake	Through typed share 1,350/1,450 mm	Through typed share 1,350/1,450 mm	Through typed share 1,450/1,600 mm	Through typed share 1,450/1,600 mm
Separating width	1,500 mm	1,500 mm	1,660 mm	1,660 mm
Bed width	1,600 mm – 1,850 mm	1,600 mm – 1,850 mm	1,750 mm – 2,050 mm	1,750 mm – 2,050 mm
ROTA-Power	Series	Series	Series	Series
Rows of star shafts	7	2 + 1	7	2 + 1
Star spacing	40, 45, 47, 50 mm	40, 45, 47, 50 mm	40, 45, 47, 50 mm	40, 45, 47, 50 mm
Main webs	1	2	1	2
Pitch	28, 32, 35, 40, 44 or 50 mm	28, 32, 35, 40, 44 or 50 mm	28, 32, 35, 40, 44 or 50 mm	28, 32, 35, 40, 44 or 50 mm
Bar diameter	11 mm, every 6 th bar Diameter = 16 mm	11 mm, every 6 th bar Diameter = 16 mm	11 mm, every 6 th bar Diameter = 16 mm	11 mm, every 6 th bar Diameter = 16 mm
Light clod mat	Series	Series	Series	Series
Heavy duty clod mat	Option	Option	–	–
Hydraulically driven clod mat	Option	Option	Option	Option
Hydraulic height adjustment of the chassis	Series	Series	Series	Series
Hydraulic levelling	Option	Option	Option	Option
Stone bunker (tine rakes or star rollers)	Option	Option	Option	Option
Steering axle	34 degree	34 degree	34 degree	34 degree
Brakes/Road lights	Depending on the country regulations	Depending on the country regulations	Depending on the country regulations	Depending on the country regulations

Your Grimme Partner for advice and service:

GRIMME
HARVESTING SUCCESS!

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