



machine program

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PROVEN AGRICULTURAL TECHNOLOGY FOR MORE THAN JUST GOOD PROFESSIONAL PRACTICE.

International agricultural policy calls for the sustainable use of increasingly scarce resources worldwide. This can be achieved by increasing efficiency. VOLMER® Agritec GmbH markets the solutions for this worldwide.

The development and construction of efficient agricultural equipment requires not only technical know-how but also experience and basic knowledge from daily practical use and plant cultivation. The optimum placement of nutrient deposits from liquid, fine or granulated mineral fertilizers leads to the required results.

The VOLMER® Agritec product range complements and expands the VOLMER® Engineering GmbH machine range and turns them into universal devices for sowing and fertilizing.



8. Absorber

- High-quality rubber buffers (75° Shore) ensure that vibrations and impact (e. g. stones) are reduced.

1. Hosing

- Hosing with robust spiral suction and delivery hose made of rubber with an inside diameter of 50 mm and a maximum pressure of 10 bar.
- The hoses are held in the filling pipe, this means that there is no inner edge.

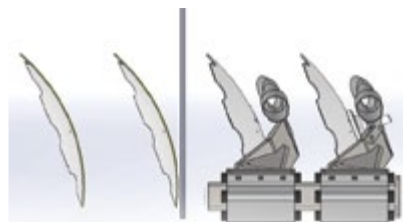
2. Spring elements

- Torsion spring elements made of a special, durable rubber compound.
- Rubber mounts are embedded in the edges.
- High-quality 10.9 bolts.
- Very high lateral stiffness of the disc arms.

7. Bearings

- Absolutely maintenance-free bearing units.
- Quality resistant cassette seals with eight sealing lips.
- Seals filled with lubricating grease as well as grease between the sealing elements.
- Optimised, thick-walled housing construction with very high mechanical strength and stability in the area of the seals.

5. Disc arrangement



Plan view

The special combination of disc curvature, inclination and angle of attack results in the following advantages:

- Good penetration of the soil.
- Good turning of the soil even when driving slowly and/or shallow working depth.
- Rapid turning of the soil enables a short design of the short disc harrow.
- Easy to pull with low wear on the disc

4. Slurry pipes

- The slurry pipe is attached to the disc arm.
- The discs of the first row draw soil grooves in which the slurry is deposited; the neighbouring disc covers this groove directly with soil.
- The discs in the second row work the remaining intermediate furrows.
- The hoses are attached to the disc arms and follow the lateral movements.

3. Data

Unit of measurement		TRG-W 401	TRG-W 501	TRG-W 601
Working width	m	4.00	5.00	6.00
Number of discs	piece	32	40	48
Number of outlets	piece	16	20	24
Transport width	m	3.00	3.00	3.00
Approx. weight incl. tube bar roller	kg	2,700	3,200	3,600
Max. working depth	mm	120	120	120
Distribution heads	piece	1	1	1
Number of rollers	piece	2	2	2
Unit height	m	2.25	2.75	3.20
Beam spacing	mm	765	765	765

Weights and measures are approximate and non-binding. We reserve the right to make changes.



9. Absorber

- High-quality rubber buffers (75° shore) ensure that vibrations and impact loads (e.g. stones) are reduced.

1. Hosing

- Hosing with robust spiral suction and pressure hose made of rubber with an inside diameter of 50 mm and a maximum pressure of 10 bar.
- The hoses are held in the slurry pipe, so there is no inner edge.

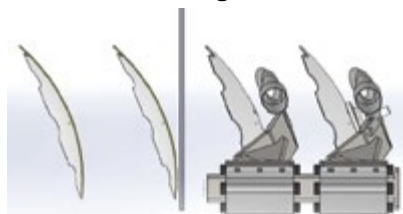
2. Spring elements

- Angular torsion spring elements made of a special, durable rubber compound.
- Rubber mounts are embedded in the edges.
- High-quality 10.9 bolts.
- Very high lateral stiffness of the disc arms.

8. Bearing

- Absolutely maintenance-free bearing units.
- Quality resistant cassette seals with eight sealing lips.
- Seals filled with lubricating grease as well as grease between the sealing elements.
- Optimised, thick-walled housing construction with very high mechanical strength and stability in the area of the seals.

6. Disc arrangement



Plan view

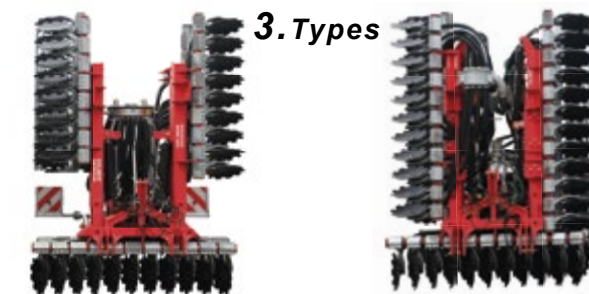
The special combination of disc camber, inclination and angle of attack results in the following advantages:

- Good penetration of the soil.
- Good turning of the soil even when driving slowly and/or shallow working depth.
- Rapid turning of the soil enables a short design of the short disc harrow.
- Easy to pull implement with low wear on the disc.

5. Slurry pipes

- The slurry pipe is attached to the disc arm.
- The discs of the first row draw soil grooves in which the slurry is deposited; The neighbouring disc covers this groove directly with soil.
- The discs in the second row work the the remaining intermediate furrows.
- The hoses are attached to the disc arms and follow the lateral movements.

3. Types



- Type 6000, 6500 und 7000
- One central horizontal slurry distributor
- Type 7500, 9000, 9000+
- Two lateral vertical slurry spreaders
- Telescopic units

4. Data

	Unit of measurement	TRG-W 6000	TRG-W 6500	TRG-W 7000	TRG-W 7500	TRG-W 9000	TRG-W 9000+
Working width	m	6.00	6.50	7.00	7.50	8.50	9.00
Number of discs	piece	48	52	56	60	68	72
Number of outlets	piece	24	26	28	30	34	36
Transport width	m	3.00	3.00	3.00	3.00	3.00	3.00
Approx. weight incl. tube bar roller	kg	4,100	4,200	4,500	5,100	5,500	5,800
Max. working depth	mm	120	120	120	120	120	120
Distribution heads	piece	1	1	1	2	2	2
Number of rollers	piece	3	3	3	3	3	3
Telescopic unit		-	-	-	✓	✓	✓
Unit height	m	3.40	3.65	3.90	3.6	3.85	4.10
Beam spacing	mm	875	875	875	875	875	875
Floating position		-	-	✓	✓	✓	✓

Weights and measures are approximate and non-binding. We reserve the right to make changes.



Proven technology for the highest demands. All models of our compact disc harrows are designed for the highest loads during soil cultivation. The unique disc combination promotes rapid turning of the soil. This enables the particularly short design of our compact disc harrow and a close centre of gravity to the towing vehicle. It can also be retrofitted with VOLMER[®]-Engineering slurry technology at a later date.

8. Lighting support

- Stable lighting support with platform for mounting catch crop spreaders
- Reflective warning signs incl. three-chamber LED lighting with indicator failure check



7. Absorber

- High-quality rubber buffers (75° Shore) ensure that vibrations and shock loads (e.g. stones) are reduced.



6. Bearings

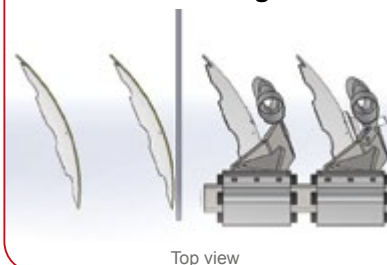
- Absolutely maintenance-free bearing units
- Quality resistant cassette seals with eight sealing lips.
- Seals filled with grease and sealing grease between the sealing elements
- Optimised, thick-walled housing design with very high mechanical strength and stability in the area of the seals



5. Discs

- The serrated discs (510 mm diameter and 5 mm thick) penetrate the soil optimally and cut up plant parts.

4. Disc arrangement

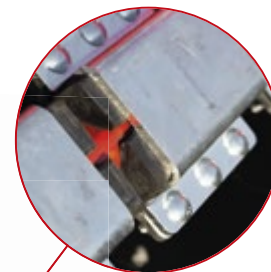


The special combination of disc curvature, inclination and angle of attack results in the following advantages:

- Good penetration behaviour into the soil
- Good turning of the soil even at slow speeds and/or shallow working depths
- Rapid turning of the soil enables a short design of the compact disc harrow
- Smooth-running device with low wear on the disc

1. Modular design with retrofit option for slurry technology

- Particularly robust construction of the components, designed for continuous use by contractors and self-propelled vehicles.
- The basic version has all the structures for retrofitting the proven VOLMER[®]-Engineering slurry technology.



2. Spring elements

- Angular torsion spring elements made from a special, long-life rubber compound
- Rubber mounts are moulded into the edges
- High-quality 10.9 screws
- Very high lateral rigidity of the disc arms

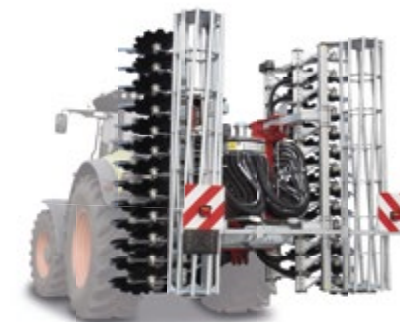


fig.: TRG-W 601 with slurry technology (retrofitable), with tube bar rollers, folded.

3. Data

3. Data

	Unit of measurement	TRG-W 401	TRG-W 501	TRG-W 601
Working width	m	4,00	5,00	6,00
Number of discs	Piece	32	40	48
Transport width	m	3,00	3,00	3,00
Approx. weight incl. tube rod roller	kg	2.550	2.950	3.250
Max. working depth	mm	120	120	120
Number of rollers	Piece	2	2	2
Device height	m	2,25	2,75	3,20
Bar spacing	mm	765	765	765

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9. Lighting support

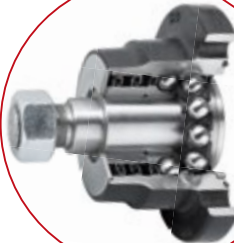
- Stable lighting support with platform for mounting catch crop spreaders
- Reflective warning signs incl. three-chamber LED lighting with indicator failure check



fig.: TR 7000

8. Absorber

- High-quality rubber buffers (75° Shore) ensure that vibrations and shock loads (e.g. stones) are reduced.



7. Bearings

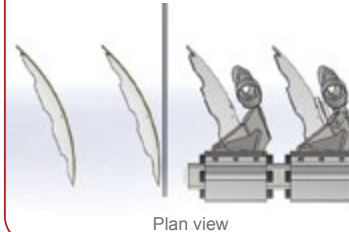
- Absolutely maintenance-free bearing units
- Quality resistant cassette seals with eight sealing lips.
- Seals filled with grease and sealing grease between the sealing elements
- Optimised, thick-walled housing design with very high mechanical strength and stability in the area of the seals

6. Discs

- The serrated discs (510 mm diameter and 5 mm thick) penetrate the soil optimally and cut up plant parts.



5. Disc arrangement

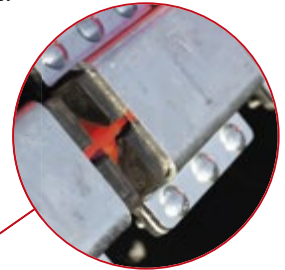
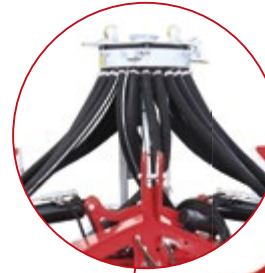


The special combination of disc camber, inclination and angle of attack results in the following advantages:

- Good penetration of the soil.
- Good turning of the soil even when driving slowly and/or shallow working depth.
- Rapid turning of the soil enables a short design of the short disc harrow.
- Easy to pull implement with low wear on the disc.

1. Modular design with retrofit option for slurry technology

- Particularly robust construction of the components, designed for continuous use by contractors and self-propelled vehicles.
- The basic version has all the structures for retrofitting the proven VOLMER[®]-Engineering slurry technology.



2. Spring elements

- Angular torsion spring elements made of a special, durable rubber compound.
- Rubber mounts are embedded in the edges.
- High-quality 10.9 bolts
- Very high lateral stiffness of the disc arms

3. Types

(Illustration with slurry technology)



• Type TR6000, TR6500 und TR7000



• Type TR7500, TR9000, TR9000+

4. Data

Unit of measurement		TR-W 6000	TR-W 6500	TR-W 7000	TR-W 7500	TR-W 9000	TR-W 9000+
Working width	m	6,00	6,50	7,00	7,50	8,50	9,00
Number of discs	Piece	48	52	56	60	68	72
Transport width	m	3,00	3,00	3,00	3,00	3,00	3,00
Max. working depth	mm	120	120	120	120	120	120
Approx. weight incl. tube rod roller	kg	3.750	3.850	4.100	4.650	5.100	5.400
Number of rollers	Piece	3	3	3	3	3	3
Telescopic unit		-	-	-	✓	✓	✓
Device height	m	3,40	3,65	3,90	3,6	3,85	4,10
Bar spacing	mm	875	875	875	875	875	875
Floating position		-	-	✓	✓	✓	✓

Weights and dimensions are approximate and non-binding. Subject to change without notice.

Strip-Till CULEX

The CULEX System is an innovative technology designed to apply two fertilizer (e.g. slurry) lines at different heights, allowing for more precise nutrient application and improved crop yields.

*This unique strip-till technique, which involves applying fertilizer underneath the soil surface and subsoil, can effectively optimize nutrient utilization in row crops such as **potatoes, maize, raps, beets, sunflowers** and many others. This innovative approach to fertilization can improve crop yields while reducing the amount of fertilizer needed, making it a more sustainable and cost-effective solution for farmers.*

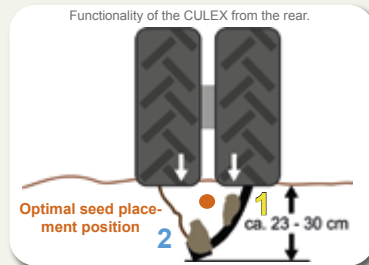
Significant Advantages of the Culex-System for Plant-Cultivation:

- Application of two fertilizer (e.g. slurry) lines at different heights in a single, seamless operation.
- Minimal damage to the soil structure caused by excessive moisture in the fertilizer depot.
- Efficient conversion of organically bound nutrients by mixing the slurry with the soil (soil bacteria).
- Better root penetration in the entire area due to greater nutrient attraction (less drought stress).
- No abrupt transitions between loosened and non-loosened soil parallel to the soil surface. (no solidified soil to the bottom due to the working tine/no smear layer)

VOLMER Engineering STRIP-TILL - More effective with less effort

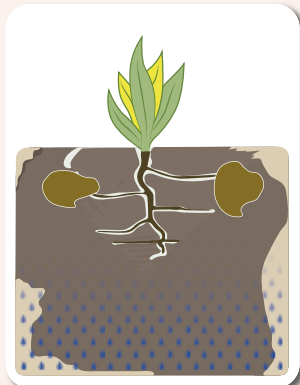


- V-shaped, up to 30 cm deep soil loosening
- Good rootability
- Good reconsolidation
- Optimally positioned double fertiliser and moisture reservoir (1 + 2)



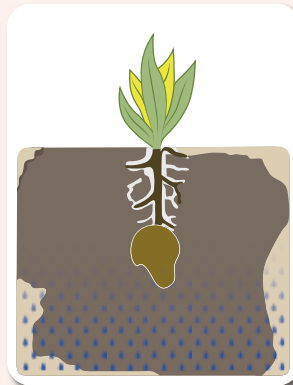
- 1/3 of the pressure wheels run on solid ground and guide the tine to the working depth.
- Wheel pressure automatically increases at higher working speeds due to the under-grip of the tines.
- Intentional compression of soil into the slurry

Disadvantages of conventional systems:



Weak growth can result from wrong fertilizer placement and lack of loosening.

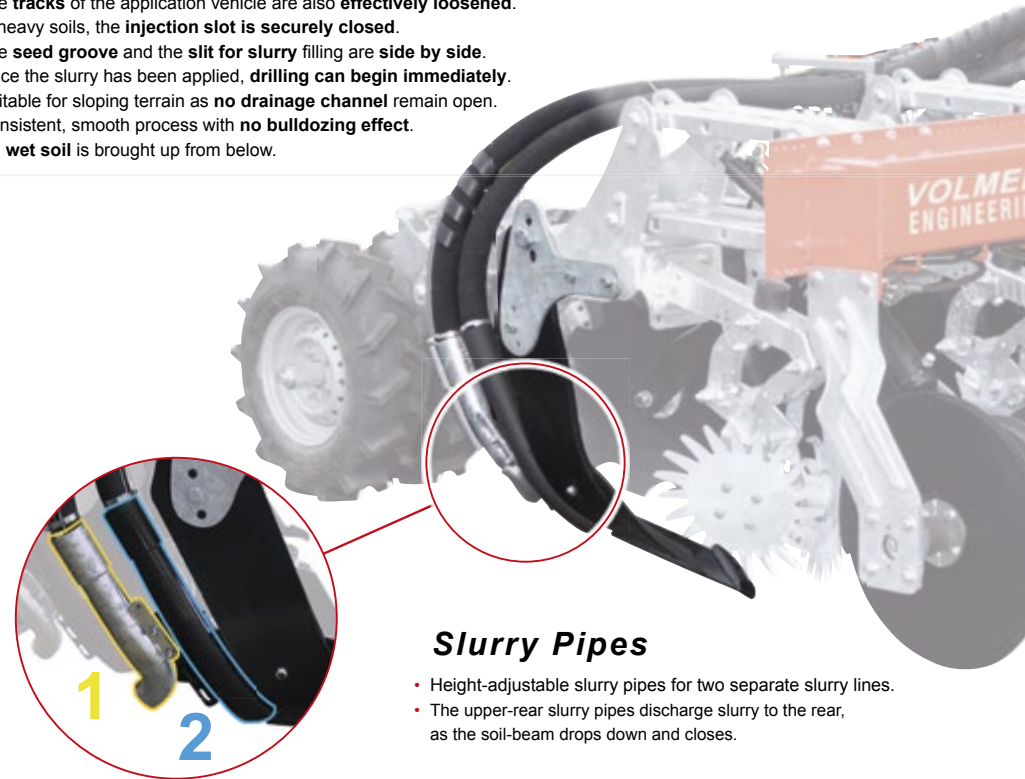
The rooting depth determines the volume of the soil from which plants draw water.



The Strip-Till Parabolic Tine Centerpiece of the CULEX System

Soil-mechanical Advantages of the Culex-System:

- Good loosening of the soil, **very effective** against the „flowerpot-effect“
- The **tracks** of the application vehicle are also **effectively loosened**.
- In heavy soils, the **injection slot** is **securely closed**.
- The **seed groove** and the **slit** for slurry filling are **side by side**.
- Once the slurry has been applied, **drilling can begin immediately**.
- Suitable for sloping terrain as **no drainage channel** remain open.
- Consistent, smooth process with **no bulldozing effect**.
- **No wet soil** is brought up from below.



Slurry Pipes

- Height-adjustable slurry pipes for two separate slurry lines.
- The upper-rear slurry pipes discharge slurry to the rear, as the soil-beam drops down and closes.



VOLMER Engineering CULEX



Competition

- Both units are in compliance with "the 12 cm rule".
- With the CULEX system, the lower edge of the second slurry line is at a depth of about 30 cm.

All CULEX models are equipped with the Strip-Till parabolic tine!

Strip Till **CULEX** CL 12.50



CULEX *ST* STANDARD



Parallelogram

- Each unit is attached to the main frame with an extra strong parallelogram. This allows accurate depth control of each row.

Hose System

- Robust spiral pressure hoses with 50mm ID and 10 bar maximum pressure made of rubber.
- Due to the hoses being secured within the slurry pipe, there is no inner edge.

Non-Stop Stone Protection

- Work safely up to 30cm deep.
- High release force of 1,800 kg for uninterrupted cultivation, even in stony soil conditions.

Rollers and Cutting Discs

- The rollers hold the main frame at the specified working height and support its weight. This makes it easy to move the lifting unit (3 point hitch) to the floating position.
- Additional reconsolidation in loose soil by the rollers.
- The cutting discs have a diameter of 570 mm and a thickness of 6 mm and cut up all the weeds in the path of the tines.

Filling Discs

- The filling discs run at about the same height as the field. They throw the soil thrown off by the tines back onto the row.

fig.: CULEX ST 8.75

CULEX <i>ST</i>	Unit of meas.	CULEX ST 4.75	CULEX ST 8.75
	units/cm	4/75	8/75
Rows/Distance	units/cm	4/75	8/75
Working depth	cm	23 - 30	23 - 30
Working width	m	3,00	6,00
Transport width	m	3,00	3,00
Weight	kg	2,050	3,800
Outlets per row	units	2	2
Adjustable upper outlet		✓	✓
Pressure roller per row	units	2	2
Non-Stop Stone Protection		✓	✓

Weights and measures are approximate and non-binding.
We reserve the right to make changes.

fig.: CULEX ST 8.75 folded



CULEX *ML* MODULAR



Pressure Wheels

- The stepless height-adjustable pressure wheels keep the parabolic tines precisely at the specified working depth, ensuring optimum reconsolidation of the soil.

Mounting Device

- Stable three- or four-point mounting device (Categorie 2 +3)
- High strength bolts of category 3

Front Wheels

- The front wheels carry the main frame at the specified working height and support its weight. This makes it easy to move the lifting unit (3 point hitch) to the floating position.

Cutting Discs

- The cutting discs cut up all the weeds in the path of the tines.
- All discs are protected by non-stop stone protection system, as standard.
- Cutting Disc Diameter: 570 mm
Disc thickness: 6 mm

Star-Shaped Scrapers

- The parallelogram-guided scrapers tear up and push crop residues out of the way.
- This assembly is configured to work in all situations without adjustment (plug and play).

fig.: CULEX ML 8.75

fig.: CULEX ML 8.75 folded

Row Spacing 60 cm

CULEX ML	Unit of meas.	CULEX ML 5.60	CULEX ML 7.60	CULEX ML 9.60	CULEX ML 11.60
Rows /Distance	units/cm	5/60	7/60	9/60	11/60
Working depth	cm	23 - 30	23 - 30	23 - 30	23 - 30
Working width	m	3,00	4,20	5,40	6,60
Transport width	m	3,00	3,00	3,00	3,00
Weight	kg	2,250	3,350	3,960	4,550
Outlets per row	units	2	2	2	2
Height-adjustable upper slurry pipe		✓	✓	✓	✓
pressure roller per row	units	2	2	2	2
Non-Stop Stone Protection		✓	✓	✓	✓

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Row Spacing 70 cm

CULEX ML	CULEX ML	CULEX ML
4.70	6.70	8.70
4/70	6/70	8/70
23 - 30	23 - 30	23 - 30
2,80	4,20	5,60
3,00	3,00	3,00
2,100	3,100	3,800
2	2	2
✓	✓	✓
2	2	2
✓	✓	✓

Row Spacing 75 cm

CULEX ML	Unit of meas.	CULEX ML 4.75	CULEX ML 6.75	CULEX ML 8.75
Rows /Distance	units/cm	4/75	6/75	8/75
Working depth	cm	23 - 30	23 - 30	23 - 30
Working width	m	3,00	4,50	6,00
Transport width	m	3,00	3,00	3,00
Weight	kg	2,100	3,100	3,850
Outlets per row	units	2	2	2
Height-adjustable upper slurry pipe		✓	✓	✓
pressure roller per row	units	2	2	2
Non-Stop Stone Protection		✓	✓	✓

Weights and measures are approximate and non-binding. We reserve the right to make changes.

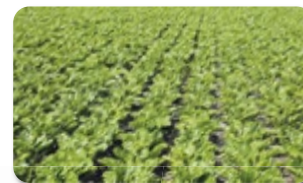
Row Spacing 80 cm

CULEX ML	CULEX ML	CULEX ML
4.80	6.80	8.80
4/80	6/80	8/80
23 - 30	23 - 30	23 - 30
3,20	4,80	6,40
3,20	3,00	3,00
2,200	3,120	3,900
2	2	2
✓	✓	✓
2	2	2
✓	✓	✓

CULEX **CL** CLOSE



The CULEX CL's short row spacing makes it ideal for sunflowers, rape, beet and more.



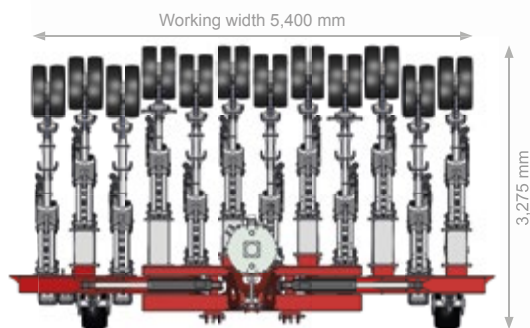
Beets - row spacing 45 cm



Raps - row spacing 50 cm

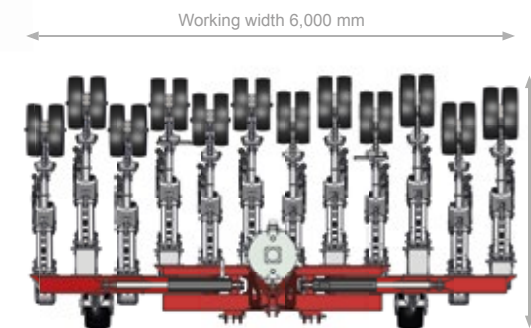


Sunflowers - row spacing 50 cm



Row spacing 45 cm / Tine Spacing in length 56 cm

Due to its design, the CULEX CL is only supplied **without** star-shaped scrapers and **without** filling discs!



Row spacing 50 cm / Tine Spacing in length 56 cm



fig.: CULEX CL 12.50

Front Wheels

- Stepless height adjustable units
- The front wheels carry the main frame at the specified working height and support its weight. This makes it easy to move the lifting unit (3 point hitch) to the floating position.



fig.: CULEX CL 12.50 folded

Row Spacing **45 cm**

CULEX CL	Unit of meas.	CULEX CL 6.45	CULEX CL 8.45	CULEX CL 10.45	CULEX CL 12.45
Rows/Distance	units/cm	6/45	8/45	10/45	12/45
Working depth	cm	23 - 30	23 - 30	23 - 30	23 - 30
Working width	m	2,70	3,60	4,50	5,40
Transport width	m	3,00	3,00	3,00	3,00
Weight	kg	2,650	3,750	4,450	5,290
Outlets per row	units	2	2	2	2
Height-adjustable upper slurry pipe		✓	✓	✓	✓
pressure roller per row	units	2	2	2	2
Non-Stop Stone Protection		✓	✓	✓	✓

Weights and measures are approximate and non-binding. We reserve the right to make changes.

Row spacing 45 cm / Tine Spacing in length 56 cm

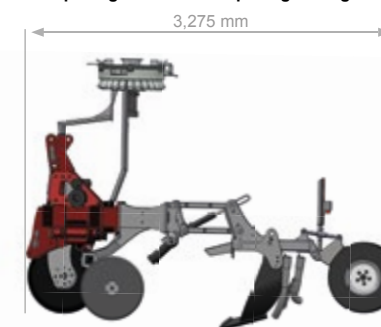


Row Spacing **50 cm**

CULEX CL	Unit of meas.	CULEX CL 6.50	CULEX CL 8.50	CULEX CL 10.50	CULEX CL 12.50
Rows/Distance	units/cm	6/50	8/50	10/50	12/50
Working depth	cm	23 - 30	23 - 30	23 - 30	23 - 30
Working width	m	3,00	4,00	5,00	6,00
Transport width	m	3,00	3,00	3,00	3,00
Weight	kg	2,500	3,650	4,300	5,050
Outlets per row	units	2	2	2	2
Height-adjustable upper slurry pipe		✓	✓	✓	✓
pressure roller per row	units	2	2	2	2
Non-Stop Stone Protection		✓	✓	✓	✓

Weights and measures are approximate and non-binding. We reserve the right to make changes.

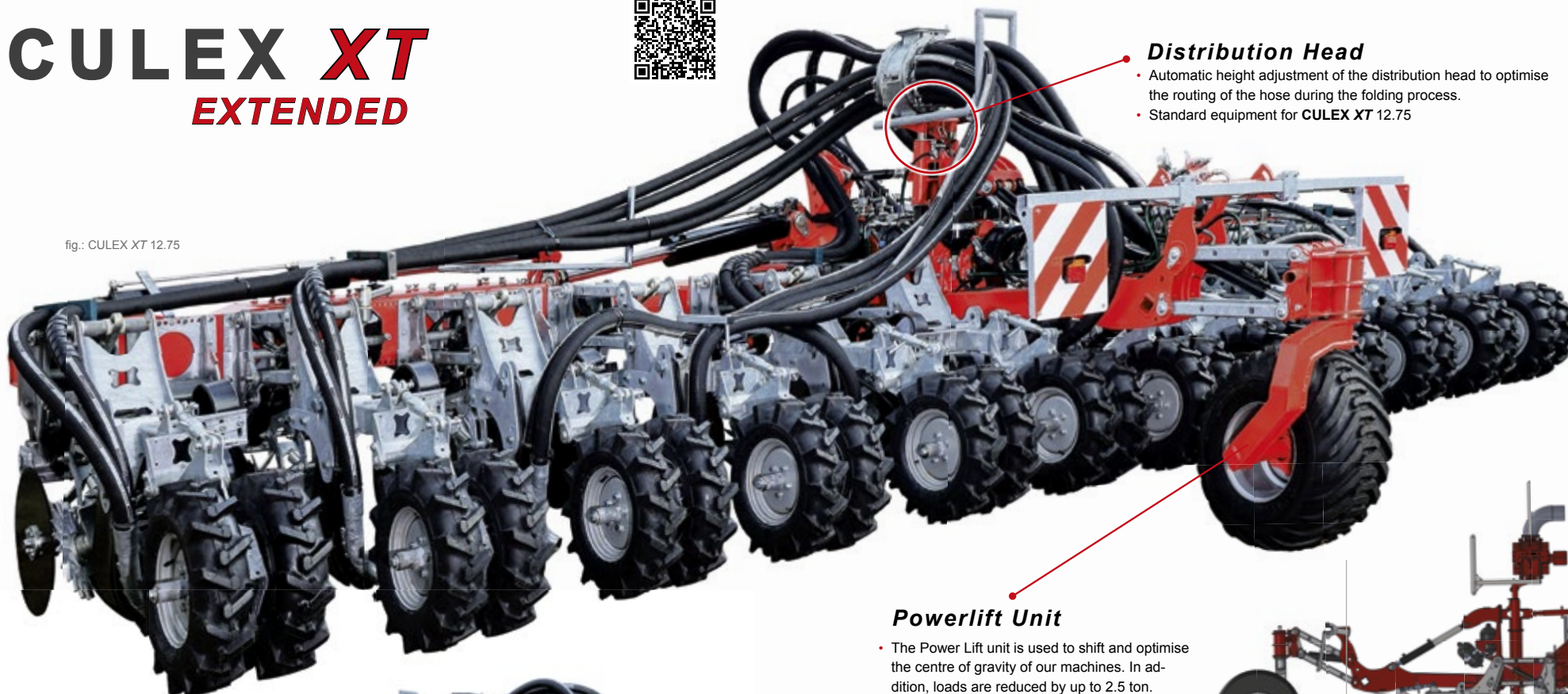
Row spacing 50 cm / Tine Spacing in length 56 cm



CULEX XT EXTENDED



fig.: CULEX XT 12.75



Distribution Head

- Automatic height adjustment of the distribution head to optimise the routing of the hose during the folding process.
- Standard equipment for CULEX XT 12.75

Powerlift Unit

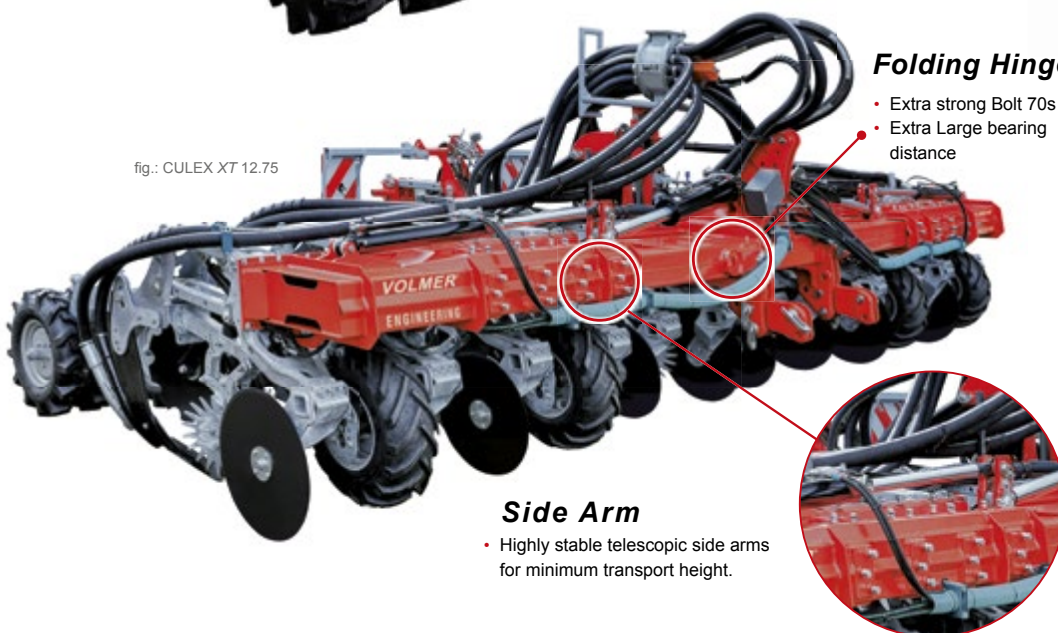
- The Power Lift unit is used to shift and optimise the centre of gravity of our machines. In addition, loads are reduced by up to 2.5 ton.
- Load capacity approx. 1,200 to 1,400 kg
- Standard Equipment on the CULEX XT 10.75 and CULEX XT 12.75.



Folding Hinge

- Extra strong Bolt 70s
- Extra Large bearing distance

fig.: CULEX XT 12.75



Side Arm

- Highly stable telescopic side arms for minimum transport height.

CULEX XT

Row Spacing 75 cm

	Unit of meas.	CULEX XT 10.75	CULEX XT 12.75
Rows/Distance	units/cm	10/75	12/75
Working depth	cm	23 - 30	23 - 30
Working width	m	7,50	9,00
Transport width	m	3,00	3,00
Transport height	m	3,97	3,87
Weight	kg	5.300	7.350
outlets per row	units	2	2
Telescopic side arms and distribution head		✗	✓
Height-adjustable upper slurry pipe		✓	✓
pressure roller per row	units	2	2
Non-Stop Stone Protection		✓	✓

Weights and measures are approximate and non-binding.
We reserve the right to make changes.

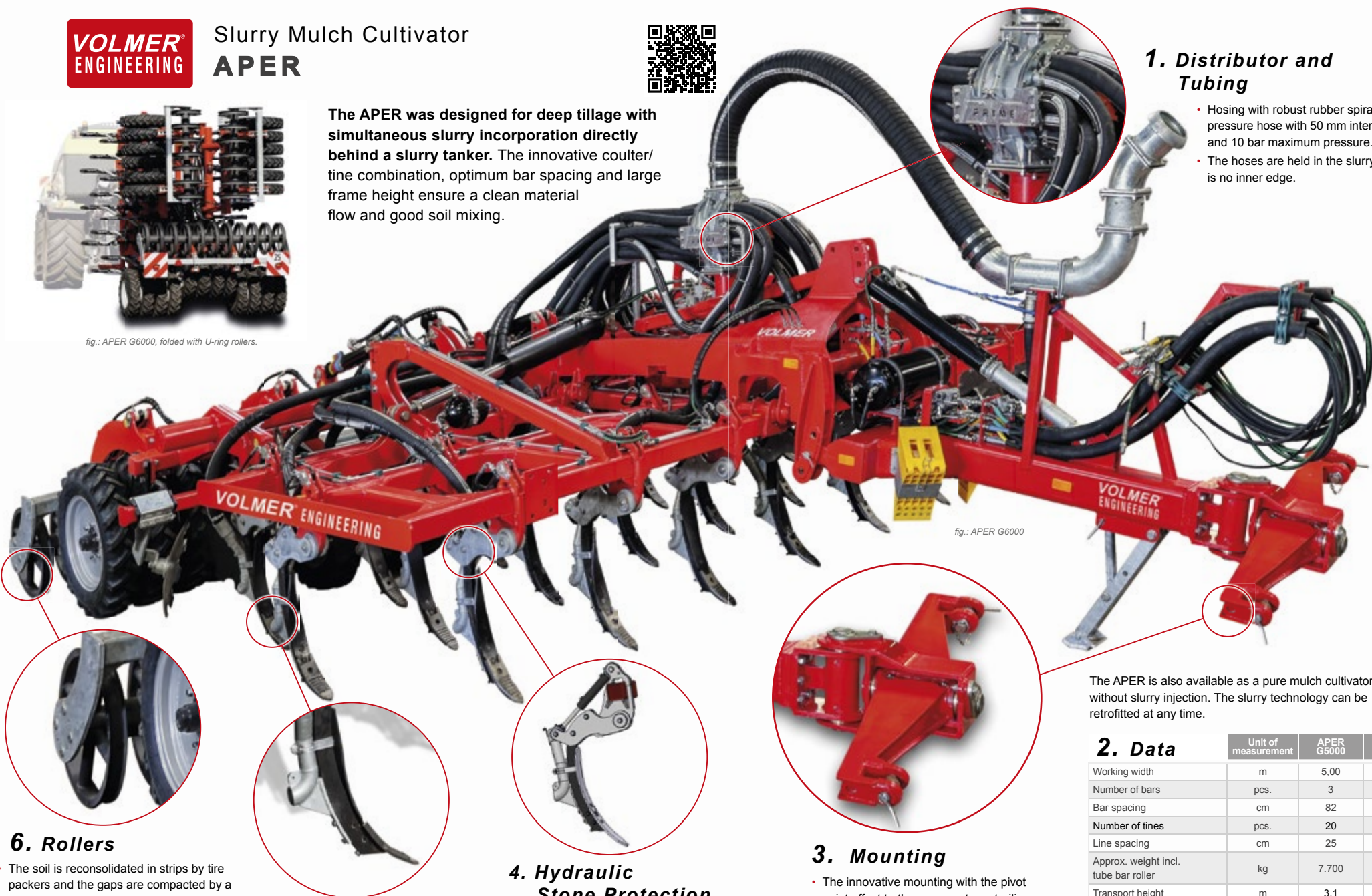


fig.: CULEX XT 12.75 folded



fig.: APER G6000, folded with U-ring rollers.

The APER was designed for deep tillage with simultaneous slurry incorporation directly behind a slurry tanker. The innovative coulter/tine combination, optimum bar spacing and large frame height ensure a clean material flow and good soil mixing.



1. Distributor and Tubing

- Hosing with robust rubber spiral suction and pressure hose with 50 mm internal dimensions and 10 bar maximum pressure.
- The hoses are held in the slurry tube, so there is no inner edge.

fig.: APER G6000

6. Rollers

- The soil is reconsolidated in strips by tire packers and the gaps are compacted by a trailing U-ring roller.
- The reconsolidation pressure of the roller can be stepless adjusted hydraulically.
- Three-part rollers ensure maximum stability.

5. Tines & Slurry Pipes

- Optimum placement height of the slurry in the upper area of the loosened soil.
- Slurry deposit depth can be adjusted downwards with optional baffle plates. (mounting-hole available)

4. Hydraulic Stone Protection

- Individually adjustable release force for a wide range of ground conditions.
- Large release travel - reliable protection of tines, slurry tube and superstructure even with large ground obstacles.
- Quick reset after release in operating

3. Mounting

- The innovative mounting with the pivot point offset to the rear creates a trailing effect for good maneuverability.
- The robust construction is designed for maximum turning and sharpening forces.
- Different mounting options are available.

The APER is also available as a pure mulch cultivator without slurry injection. The slurry technology can be retrofitted at any time.

2. Data

	Unit of measurement	APER G5000	APER G6000
Working width	m	5,00	6,00
Number of bars	pcs.	3	3
Bar spacing	cm	82	82
Number of tines	pcs.	20	24
Line spacing	cm	25	25
Approx. weight incl. tube bar roller	kg	7.700	8.300
Transport height	m	3,1	3,6
Compressed air brake system		✓	✓
Tire size		7.5-20	7.5-20
Number of wheels	pcs.	20	24
Braked wheels	pcs.	8	8

Weights and dimensions are approximate and non-binding. Subject to change without notice.



The FZG was specially designed for easy incorporation of slurry directly behind a slurry tanker. The stable three-row structure combined with a high frame passage ensures optimum material flow and clean incorporation of harvest residues. The following reconso- lidation of the soil is carried out by individual rollers, adapted to the soil requirements and optionally available scrapers.

fig.: FZG 603

8. Absorber

- High-quality rubber buffers (75° Shore) ensure that vibrations and shock loads (e.g. stones) are reduced.

1. Distributor and Tubing

- Hosing with robust spiral suction and pressure hose made of rubber with 50 mm internal dimensions and 10 bar maximum pressure.
- The hoses are held in the slurry tube, so there is no inner edge.

2. Spring Elements

- The curved, optimally positioned spring elements ensure excellent self-cleaning thanks to their vibration as well as stone protection. The particularly strong and wide leaf spring ensures that each tine is guided with lateral stability.

3. Tines

- Spiral coulters with two or three rows of tines ensure optimum mixing of a wide range of harvest residues.

fig.: FZG folded with U-profile rollers

6. Rollers

- Three-part rollers for maximum stability.
- Optionally available with tubular bar, spring or U-profile roller.

5. Slurry Pipes

- The injection pipes are mounted directly on the tine and ensure optimum guidance of the tines for an ideal positioning of the slurry in the groove.

7. Scraper

(optionally available)

- Automatic height control by the trailing roller.
- Manual fine adjustment for optimum adaptation to the ground conditions.
- Reliable closing of the cultivator slots and clean soil covering of the inserted Liquid manure.

3. Data

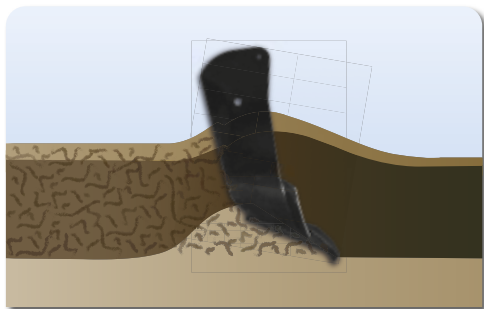
Unit of measurement	FZG 502	FZG 503	FZG 602	FZG 603	FZG 702	FZG 703
Working width	m	5,00	5,00	6,00	6,00	7,00
Number of bars	Piece	2	3	2	3	2
Bar spacing	cm	100	50	100	50	100
Number of tines	Piece	16	20	19	24	22
Line spacing	cm	32	25	32	25	32
Approx. weight incl. tube rod roller	kg	2.950	3.100	3.450	3.650	3.900
Number of rollers	Piece	3	3	3	3	3
Device height	cm	295	295	320	320	345

Weights and dimensions are approximate and non-binding. Subject to change without notice.



7. Deep loosening

The use of ever larger and heavier machines on the fields leads to massive soil compaction at a depth of 30 to 40 cm (plough-bed compaction). With the curved, 70 cm long tines, the TL lifts the soil, breaks it up and loosens it. At the same time it keeps up its natural stratification. Unlike straight tines, there are no smear layers.



6. Full lifting gear

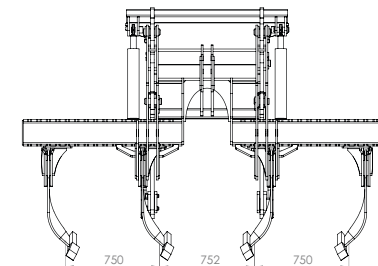


The subsoiler has a fully-fledged, parallel-guided linkage with integrated upper linkage point. This allows the working depth of the subsoiler compared to the follow-up device to be adjusted hydraulically during work. Due to the specially developed hydraulic three-point linkage the entire implement combination is only extended by only approx. 85 cm when driving on the road.

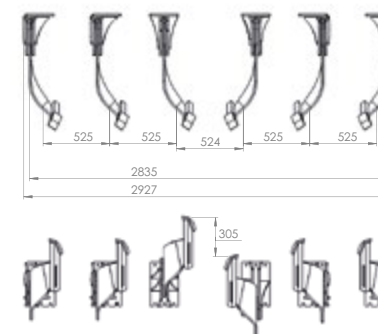


1. Subsoiler 4 tines with unique maize mode

- Two, four or six tines can be fitted in 7.5 cm increments, also behind the lower link points.
- As the only manufacturer on the market, we thus offer you the possibility, four tines in the classic **75 cm maize mode**.



2. Subsoiler 6 tines



- Offset tines for good passage.

Simple combination with other implements

The TL subsoiler is extremely stable and can be easily and quickly combined with other implements, such as the short disc harrow, the cultivator, the packer or the roundabout harrow (PTO shaft drive).

3. Data

	Unit of measurement	TL 3m 4 tines	TL 3m 6 tines
Working depth	mm	150 - 550	150 - 550
Working width	m	3.00	3.00
Weight	kg	850	1,000
Transport width	m	3.00	3.00
Frame height	mm	850	850
Min. power requirement approx.	KW/PS	80/110	100/136
Hydraulic connection	DW	1	1

Weights and measures are approximate and non-binding. We reserve the right to make changes.

4. Tips

- Various wear tips

5. Suspension

- Interchangeable catch hooks: Category 2 or category 3 possible
- Lifting height individually adjustable by moving the suspension



Advantages when rolling up and down:

- Higher operating speeds than conventional systems
- Rewinding and active unwinding is possible at driving speeds of up to 15 km/h
- Thanks to the high constant torque, even longer hose segments can be pulled out of the field and rolled up
- The hose can be rewound from left to right thanks to the swivel mechanism. This saves time when driving straight ahead, e.g. through tracks

5. Mounting

- Unique drum holder with automatic threading of the carriers

4. Swivel Mechanism

- The swivel range is 12 degrees to each side and is easy to limit using clips, as both cylinders are mounted as single-acting, pulling cylinders.

3. Control Unit (optional)

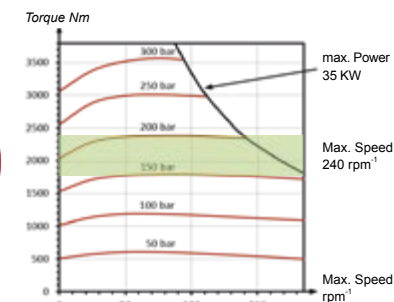
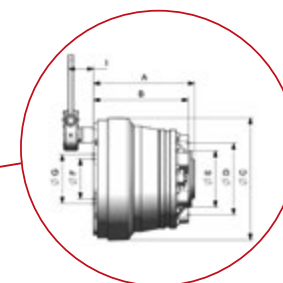
- Electrohydraulic control units with electric joystick incl. remote control for the function „Drum turning“

Advantages when changing the hose winder:

- Max. time saving, only the hose drum needs to be changed
 - Convenient control from the driver's cab/one-person operation
 - The drum is changed without the driver having to get in and out of the vehicle
 - All hydraulic lines remain engaged during the entire work process
 - Contamination from oil, dust and sand is avoided
 - Up to 1,600 m hose length/roll
- 



1. Drive



- High torque across the entire speed range
- Internal radial piston motor with 800 cm³ and P max. 300 bar
- Overload protection for haul: 2 DBV 200 bar
- Powerful torque 3,590 Nm
- Torque at 180 bar approx. 2,300 Nm
- Mechanical freewheel
- Drum brake Ø 320 x 75 (up to 3,500 Nm)
- Max. Shaft load on the drive side: 4,500 kg
- Max. Shaft load on running axle stub: 2,850 kg
- No exposed mechanical components

2. Data

2. Data

	Unit of measurement	VSH 1000	VSH 2000
Max. Drum diameter	mm	1.850	2.000
Tongs frame height	mm	740	940
Max. Swivel angle right and left	Degree	12	12
Brake	Nm	3.500	3.500
Motor (180 bar)	Nm	2.300	2.300
Mechanical freewheel		✓	✓
Weight without drum	kg	1.700	1.900
Weight incl. full drum	kg	3.650	4.500
Transport width	mm	2.950	2.950
Max. Hose length (6 inches) per drum approx.	m	1.000	1.600
Max. Hose length (8 inch) per drum approx.	m	500	800

Weights and dimensions are approximate and non-binding. Subject to change without notice.

Accessories:

- Crane with hose guide for lateral placement of the hose





9. Usage

Thanks to its compact design, the telescopic silage shield can be used like a conventional blade when retracted. With five different attachment heights, it fits all common tractor types from 80 to 400 KW.



1. Shield Width

During operation, the outer width of the blade can be stepless adjusted from the driver's cab. By moving the outer plates, the silage can be moved from the inside to the outside. The blade shape remains the same at any working width and ensures optimum and even pushing behavior.



8. View Opening

Optimally positioned viewing openings on both sides allow the driver to see from the driver's cab when the blade is empty.



7. Drive-on Wedge

Replaceable drive-on wedges made of HARDOX[®] effectively prevent sticking to edges and uneven surfaces.



6. Support Stands

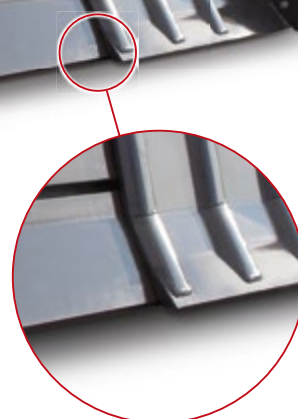
Sturdy, folding supports at the rear ensure that the sign stands securely.



5. Wear Bar

Wide wear bars made of HARDOX[®] prevent damage to the floor covering of the mobile silo and ensure smooth and even sliding behavior. The sliding edge always remains in line.

Fig.: VTS 270



4. Shield Edge

The lower grip of the cutting edge shifts the silage weight onto the tractor, thus increasing the amount of material per push. The result is significantly lower fuel consumption. The design ensures that the silage slides off the lower edge of the blade in the best possible way.



2. Camber

Due to the curved shape, the blade fills very quickly and evenly up to the upper edge. This prevents the tractor from braking abruptly.



3. Data

	Unit of measure	VTS 240	VTS 270	VTS 300
Working Width	m	2.40 - 3.80	2.70 - 4.30	3.00 - 4.80
Transport Width	m	2.40	2.70	3.00
Weight	kg	1,850	2,050	2,240
LED-Limitation-Lights		✓	✓	✓
Attachment points bottom link	pieces	3	3	3
Attachment points top link	pieces	5	5	5
Wide Coupling Point	Kat.	2	2	2
Ø Bolts	Kat.	3	3	3
Hydraulic Connection	DW	1	1	1

Weights and dimensions are approximate and non-binding. Subject to change without notice.



FUNCTIONAL DESCRIPTION



- The red line shows the center of gravity/balance point of the compact disc harrow. This means that the machine can be lifted in a balanced manner with a crane at this point.
- The further the center of gravity is from the pivot point, ...
- ... the more counterweight is required.
- This results in a negative support load.



Operation

Operation should work in combination with the linkage if possible. Usually, this is realized by headland management of the tractor, the self-propelled vehicle or slurry tanker.

Single-Acting

The linkage is lifted = The oil line of the Power-Lift axle is set to floating position, the axle lifts the machine under its own power. The floating position remains switched on during the entire use

The linkage is lowered = the oil line is pressurized with oil for 6-8 seconds, the axle is lifted out and then the oil line is shut off by the control unit of the towing vehicle (closed center position)

Double-Acting

A valve combination is installed that generates the floating position and the closed center position.



- The Power Lift axle is designed, that it always pushes the attachment machine upwards with the same force. This force is calculated that the top link pin is loose.
- This shifts the center of gravity further forward. At this point, the machine could be lifted with a crane in a balanced manner. The remaining weight of the compact disc harrow is now much closer to the pivot point and therefore requires ...
- ... less counterweight.
- Sufficient weight remains on the attachment point.

Pivot point

In tandem vehicles, the pivot point is located between the axles. The boogie and swing-axle chassis are the least favorable here. Here the pivot point is very far forward. On single-axle and self-propelled vehicles, the pivot point is in the rear axle. The dimension to the linkage/bottom link is determined by the tire size.

Conclusion

- By eliminating the weight furthest away from the pivot point, the weight on the axle (pivot point) is significantly reduced.
- The system provides a remedy for negative support loads.

Data

	Unit of measurement	SERIE 101	SERIE 1000	CULEX 75 CM
Wheels	Piece	1	2	2
Load capacity	kg	1.000	2.000	2.000
Field use		excavate	excavate	excavate
Hand pump	Piece	-	✓	-
Tires		33x15.5-15	33x15.5-15	33x15.5-15
Approx. weight	kg	350	700	800

Weights and dimensions are approximate and non-binding. Subject to change without notice.



12. Swivel arm

- Six inch swivel arm for tubing
- Stable swivel joint at connection
- Installation point for flow meter
- Hydropneumatic suspension for height adjustment when pulling the hose

11. Power-Lift

- The centre of gravity of the short disc harrow is shifted to the front.
- The top link does not carry a load, so less weight is on the rear axle of the towing vehicle.

10. Harrow

- Harrow instead of rollers (only with sensing wheels)

8. Edge disc

6. Feeler wheels

- Available as single and double sensing wheel

7. Edge plates

- Front and/or rear edge plates

1. Slurry distributor

- Extra low slurry distributor for tractor vehicles with own hosing arm.

2. Spreader

- Intercrop spreader with baffle plates.

3. Height adjustment

- Hydraulic adjustment of the working depth.

4. Receptacles

- Firmly welded mountings for dome triangle or as three-/four-point suspension available.

5. Tube bar, spring and U-profile rollers

9. Info

	SERIES 101	SERIES 1000
Rollers	2 pieces	3 pieces
Power lift axle	1 wheel	2 wheels
Hydraulic height adjustment	4 cylinders	6 cylinders
Feeler wheels 1 wheel	✓	-
Feeler wheels 2 wheels	✓	✓
Coupling triangle	✓	only 7 m
Four-point linkage	✓	-
Intercrop spreader	✓	✓

We reserve the right to make changes.

	Unit of measurement	PIPE BAR ROLLER	PIPE BAR ROLLER	SPRING ROLLER	U-PROFILE ROLLER
Diameter	mm	550	650	580	560
Approx. weight per metre with frame	kg	85	110	155	110 plus ground in U-profile
Rust protection		galvanised	galvanised	RAL 9005	RAL 9005
Rings at 3 m	piece	8	7	15	16

Weights and measures are approximate and non-binding. We reserve the right to make changes.

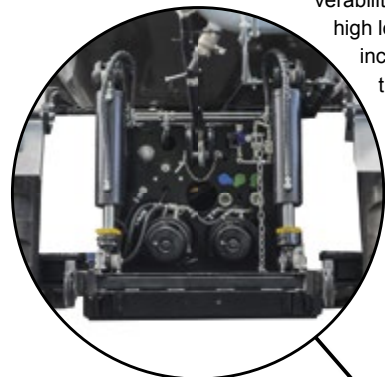
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Fertilizer/Seed Wagon PLÆNTY 3000 with GRANU-Inject

The PLÆNTY 3000 fertilizer/seeder wagon is designed for spreading large quantities of seed or fertilizer. The compact design enables maximum maneuverability with a high load capacity. The drawbar and tires are designed for high loads, even behind self-propelled vehicles. All Attachments for slurry incorporation are possible: Strip-Till, cultivators, short disk harrows, slitting implements, etc.



8. Lifting Gear

- On the lifting gear of the PLÆNTY 3000 category III lower link hooks with category III width are installed.
- The linkage is operated via a tractor control unit as standard.
- Mechanically adjustable lifting and lowering limiter, locking-block as well as electrically switched floating position are factory-fitted.



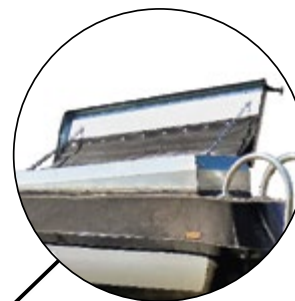
7. Axis

- A GPS-controlled steering axle can be fitted as an option.
- Drifting can be corrected on slopes.
- The wagon follows the tractor track exactly at the headland.



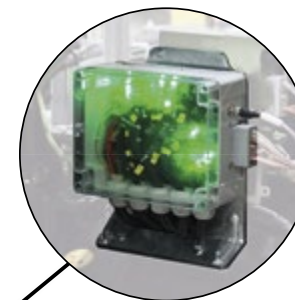
6. Tires

- Single tires: 750/45R26,5
800/45R26,5
- Dual tires: 270/95 R36
- Steering axle: 750/45R26,5



1. Filling Opening

- The PLÆNTY fertilizer seed wagon can be filled via a 2,050 mm x 800 mm opening. The top cover also forms the rear boundary when filling with a telescopic or front loader.
- A sieve holds back larger lumps.



2. Control System

- The PLÆNTY is supplied with an ISOBUS control system as standard.
- The application and sowing quantities can be regulated via application maps.
- When using the GRANU-Inject the ingredient measurement of the slurry or fermentation substrate is not affected, as the fertiliser is added downstream of the NIR sensor.



3. Drawbar

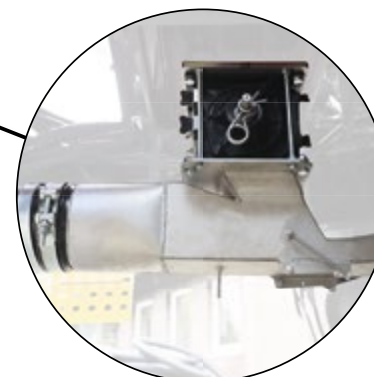
- The PLÆNTY 3000 is driven in the lower links as standard. The pivot point is offset to the rear, making the trailer extremely maneuverable.
- The top cylinder fitted as standard on the drawbar ensures sufficient drawbar load on the towing vehicle, even with heavy attachments.

4. Data

	Unit of measurement	PLÆNTY 3000
Container volume	litre	3.000
Empty weight	kg	3.600
Permissible total weight	kg	14.000
Lifting force three-point	kg	6.500
Maximum speed	km/h	40
Length	m	4,68
Height	m	2,90
Transport width	m	3,00
Dosing system	pcs.	1
Air brake system		Series
Steering axle		optional

Weights and dimensions are approximate and non-binding. Subject to change without notice.

fig.: PLÆNTY 3000 with GRANU-Inject



5. Dosing Unit

- The metering drive is ISOBUS-controlled, which means that the target admixture quantity can also be controlled via application cards.
- Media from 0 - 600 kg per hectare can be applied.

PLÆNTY 3000 - Use as a Fertilizer/Seeding Wagon:



- Single Grain Drill
Maize/rape/beet/sunflowers and other row crops
- Seeding Rail
Cereals/grass/intercrope with sowing bar for Intertillage
- Disc harrow/spring tine
more volume for larger agriculture crop land
- Hydraulically driven fertilizer spreader
Applying fertilizer mineral fertilizer depot
Grass reseeding
- Hoeing at row crops
- Strip-Till
- Harrow

Additional use with GRANU-Inject for granulated fertilizers:

By additionally injecting fine and granulated fertilizers, nutrient gaps in organic farm manure can be closed!



- e.g.:
- Addition of ESTA® Kieserit fine (magnesium + sulphur)
 - Addition of nitrogen fertilizers such as urea
 - Addition of potassium fertilizers
 - Addition of fertilizers with micronutrients
 - Addition of phosphorus fertilizers

Most positive effects are achieved when correctly placed fertilizer deposits are created in root crops.

How GRANU-Inject works

■ Slurry ■ Air ■ ESTA® Kieserit fine or granulated fertilizers

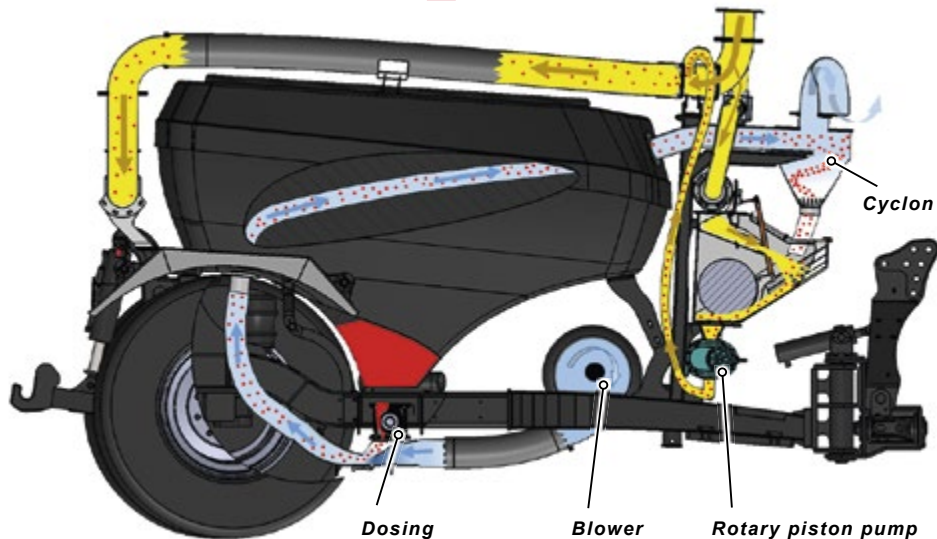
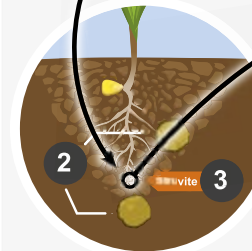
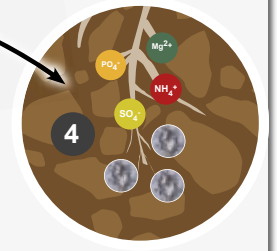


fig.: PLÆNTY 3000 with GRANU-Inject and CULEX CL 12.50



1. Mixing ESTA® Kieserit fine + liquid manure/digestate
 2. Deposit in two slurry-lines underfoot
 3. Formation of struvite (magnesium ammonium)
 4. Loosed nutrients (NPKMgS) and struvite crystals ($(\text{NH}_4)\text{Mg}[\text{PO}_4] \cdot 6\text{H}_2\text{O}$) in the slurry or digestate band
- N is protected from nitrification
 - P is protected from „ageing“
 - All nutrients fully accessible and directly available through root exudates



MAP-PRECIPIATION

The aim here is to use the magnesium from kieserite and the ammonium and phosphorus from the slurry to grow struvite crystals in the slurry lines.

Struvite has a sand-like structure with a typical nutrient composition of 5%N, 23%P O22 and 12%MgO. Struvite is a magnesium ammonium phosphate (MAP), which has the efficiency-improving advantage that part of the nitrogen from the liquid manure is bound as ammonium in struvite and is protected from nitrification and washout losses. Furthermore, the phosphate from the liquid manure in the new Struvite compound has very good citric

acid solubility and thus plant availability via root exudates, equal with triple superphosphate. The phosphate is thus protected against ageing and remains readily available to plants. Due to its relatively high weight (bulk density 1,380 kg/m³), Kieserit fine is difficult to mix homogeneously into a 20 m³ slurry tanker, for example. The „just-in-time“ introduction of Kieserit fine into the distribution head has the advantage that an exact mixture can be produced and that crystallization only begins in the soil and no sand-like deposits can occur in the spreading vehicle. The media can no longer unmix until they enter the soil.

CONCLUSIONS:

- Close nutrient gaps in organic farm manure for Mg and S
- Improvement of N and P efficiency through the struvite effect
- More root growth, more vital plants and better grain filling
- Phosphorus content in the soil will be reduced in the medium and long term

Fertilizer Injection GRANU-Inject Mini 600

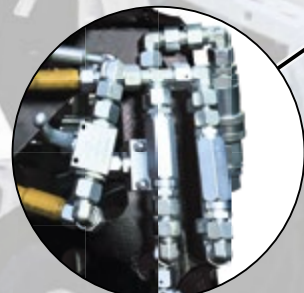


The GRANU-Inject fertilizer injector was designed for use with the Strip-Till CULEX ST and CULEX ML 8.75. The concept enables the simple addition of fine and granulated fertilizers „just in time“ into the slurry flow and thus directly into the fertilizer depot of the maize or potato plants.



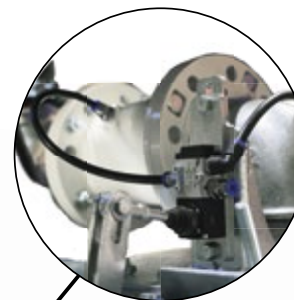
7. Distribution Head

- The slurry is divided into main and side streams.
- The inoculated slurry is fed back into the main flow under pressure via the center of the distribution head.
- The rotor in the distribution head reliably mixes the slurry from the main and side streams.



6. Oil Supply

- The rotary piston pump is supplied with oil in series with the slurry distributor. A simple valve ensures that the pump always rotates in the same direction.



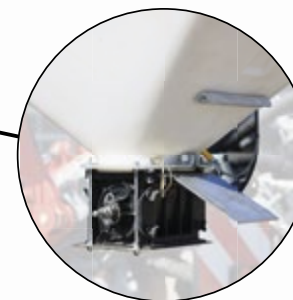
1. Valve

- A float-controlled pinch valve ensures a continuous flow of slurry to flush away the granulate.



2. Control System

- The GRANU-Inject Mini 600 is supplied with an ISOBUS control system as standard.
- The target-admixture quantity can be regulated via application cards if necessary.
- The ingredient measurement of the slurry or fermentation substrate is not affected, as the fertilizer is added downstream of the NIR sensor.



3. Dosing Unit

- The metering drive is ISOBUS-controlled, which means that the target-admixture quantity can also be controlled via application cards.
- Media from 0 - 600 kg per hectare can be applied.



5. Rotary Piston Pump

- Hydraulically driven rotary piston pump Blue Line Nova from BÖRGER.



fig.: GRANU-Inject Mini 600 folded on Strip-Till CULEX ML 8.75

4. Data

	Unit of measurement	GRANU-Inject MINI 600
Container volume	litre	600
Empty weight	kg	740
Spacing wheel blow-out device		Series
Automatic transport position		Series

Weights and dimensions are approximate and non-binding. Subject to change without notice.

fig.: GRANU-Inject Mini 600 on Strip-Till CULEX ML 8.75

By injecting additional fine and granulated fertilizers, nutrient gaps in organic farm manure can be closed!

- e.g.:
- Addition of ESTA® Kieserit fine (magnesium + sulphur)
 - Addition of nitrogen fertilizers such as urea
 - Addition of potassium fertilizers
 - Addition of fertilizers with micronutrients
 - Addition of phosphorus fertilizers

Most positive effects are achieved when correctly placed fertilizer depots are created in root crops.

The container can be lowered to the floor for easy filling. The Container filling quantity corresponds to a Kieserit BigPack with the Standard weight of 600 kg.



How GRANU-Inject Mini 600 works

■ Slurry ■ ESTA® Kieserit fine or granulated fertilizers

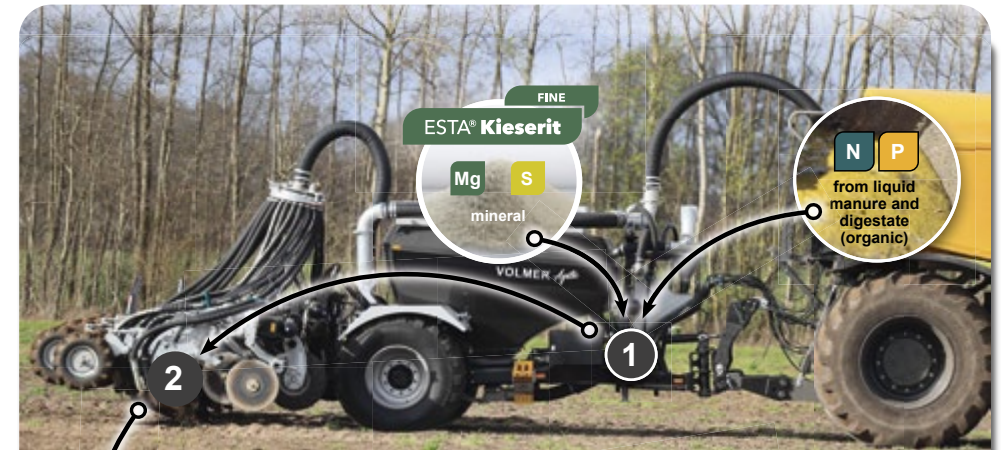
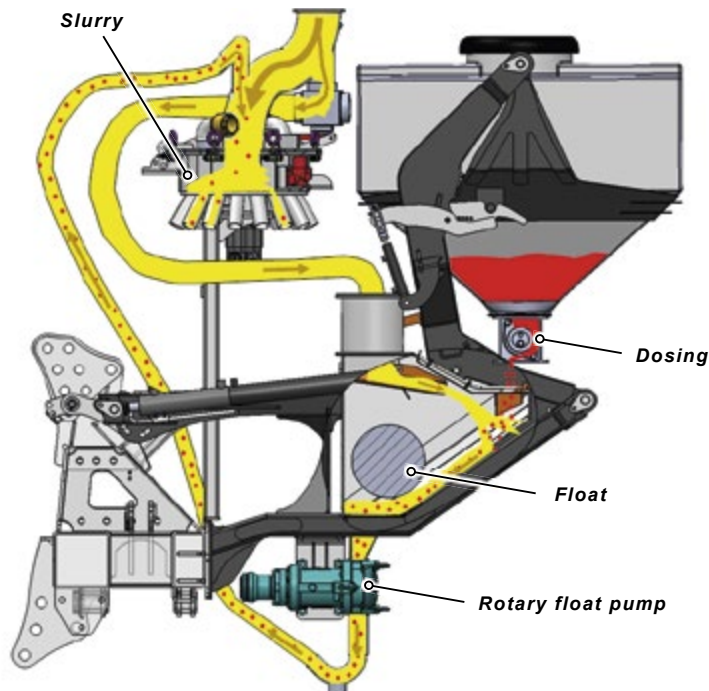
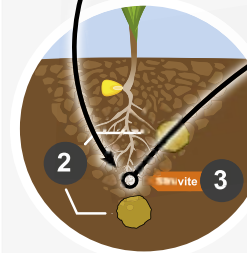
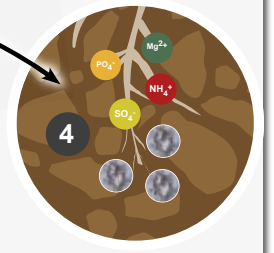


fig.: PLÄNTY 3000 with GRANU-Inject and CULEX CL 12.50



1. Mixing ESTA® Kieserit fine + liquid manure/digestate
 2. Deposit in two slurry-lines underfoot
 3. Formation of struvite (magnesium ammonium)
 4. Loosed nutrients (NPKMgS) and struvite crystals ($(\text{NH}_4)\text{Mg}[\text{PO}_4] \cdot 6\text{H}_2\text{O}$) in the slurry or digestate band
- N is protected from nitrification
 - P is protected from „ageing“
 - All nutrients fully accessible and directly available through root exudates



MAP-PRECIPITATION

The aim here is to use the magnesium from kieserite and the ammonium and phosphorus from the slurry to grow struvite crystals in the slurry lines.

Struvite has a sand-like structure with a typical nutrient composition of 5%N, 23%P O22 and 12%MgO. Struvite is a magnesium ammonium phosphate (MAP), which has the efficiency-improving advantage that part of the nitrogen from the liquid manure is bound as ammonium in struvite and is protected from nitrification and washout losses. Furthermore, the phosphate from the liquid manure in the new Struvite compound has very good citric

acid solubility and thus plant availability via root exudates, equal with triple superphosphate. The phosphate is thus protected against ageing and remains readily available to plants. Due to its relatively high weight (bulk density 1,380 kg/m³), Kieserit fine is difficult to mix homogeneously into a 20 m³ slurry tanker, for example. The „just-in-time“ introduction of Kieserit fine into the distribution head has the advantage that an exact mixture can be produced and that crystallization only begins in the soil and no sand-like deposits can occur in the spreading vehicle. The media can no longer unmix until they enter the soil.

CONCLUSIONS:

- Close nutrient gaps in organic farm manure for Mg and S
- Improvement of N and P efficiency through the struvite effect
- More root growth, more vital plants and better grain filling
- Phosphorus content in the soil will be reduced in the medium and long term



EcoZIP

First patented injector for emission-free placement of nutrient-deposits on vegetated areas (grassland, grain, corn etc.).

The VOLMER EcoZIP is a true allround injector, designed for precise and efficient application in a wide range of conditions – from grassland and cereals to maize and more. It's also ideally suited for cultivated and direct-seeded fields. Its mission: to place a nutrient-rich (slurry) depot at depths of up to 10 cm while securely closing the slot – all with minimal disturbance to existing crops and root systems. Soil structure and plant health remain intact. On pre-cultivated land, such as winter ploughing, the EcoZIP's uniquely engineered tools ensure a fine, crumbly soil texture – the perfect foundation for optimal growth.



8. Drop Stop / Section Control (optional)

- Reduced operating costs
- Minimized crop damage and lower environmental impact
- No overlaps in the field or on headlands due to automatic section control
- Uniform row spacing and consistent plant growth – even on headlands



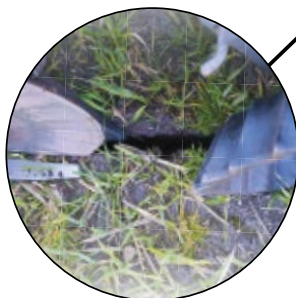
7. WTC-System

- Our unique Wheel Tire Closing System (WTCS) ensures both precise depth control of the injection unit and reliable closing of the injection slit – without displacing slurry from the soil.



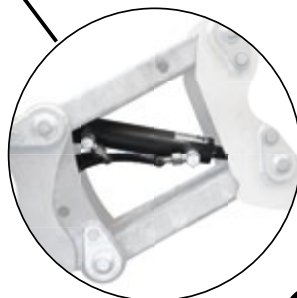
6. Tools

- 6 mm thick cutting discs cleanly slice through the turf.
- The interchangeable coulter open the soil and determine the fertilizer amount to be applied.
- The slurry tubes place the nutrient depot approximately 8 - 10 cm deep into the soil.



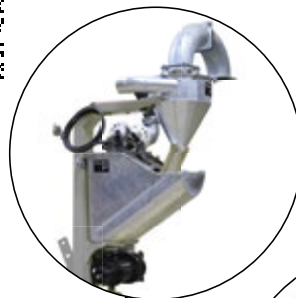
5. Ground Contour Following

- All units follow ground contours independently and with ease.
- The individual adjustment of coulter pressure allows adaptation to a wide range of conditions.



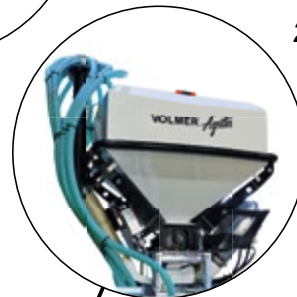
1. Fertilizing Equipment (optional)

The GRANU-Inject allows the simultaneous application of kieserite or other mineral fertilizers directly into the slurry stream. The additional injection of fine and granulated fertilizers can close nutrient gaps in organic farm manure!



2. Seeding Equipment (optional)

In the same pass, seeds for grassland or cereals can be injected, for example in combination with our VOLMER PLÄNTY or EXCEEDER. The EcoZIP enables simultaneous fertilizing and seeding, as well as seeding only.



3. Mounting Drawbar (or classic 3-point linkage))

- The innovative mounting system with a rearward-offset pivot point creates a trailing effect for improved maneuverability.
- The robust design is built to withstand high torsional and shear forces.
- Various mounting options available, including standard 3-point linkage.

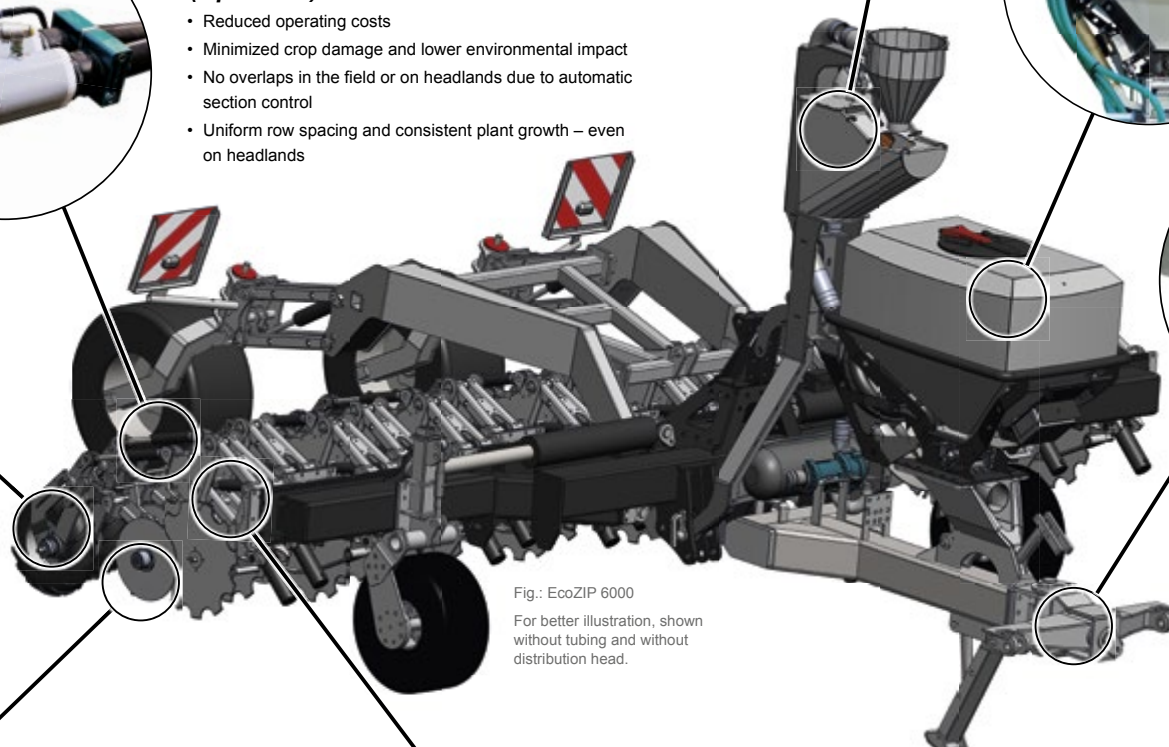
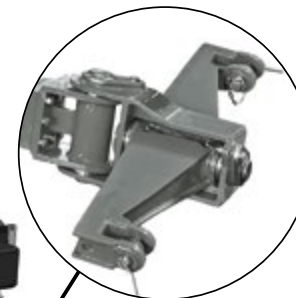


Fig.: EcoZIP 6000

For better illustration, shown without tubing and without distribution head.



Fig.: EcoZIP 6000 folded

4. Data

	Unit of measurement	EcoZIP 3000	EcoZIP 6000	EcoZIP 9000	EcoZIP 12000
Rows/Distance	cm	18.75	18.75	18.75	18.75
Working depth	cm	8 - 10	8 - 10	8 - 10	8 - 10
Working width	m	3.00	6.00	9.00	12.00
Transport width	m	3.00	3.00	3.00	3.00
Approx. weight	kg	2,750	5,500	8,250	11,000
Outlets	pcs.	16	32	48	64
Hydraulic pressure adjustment		✓	✓	✓	✓
Chassis		✓	✓	✓	✓

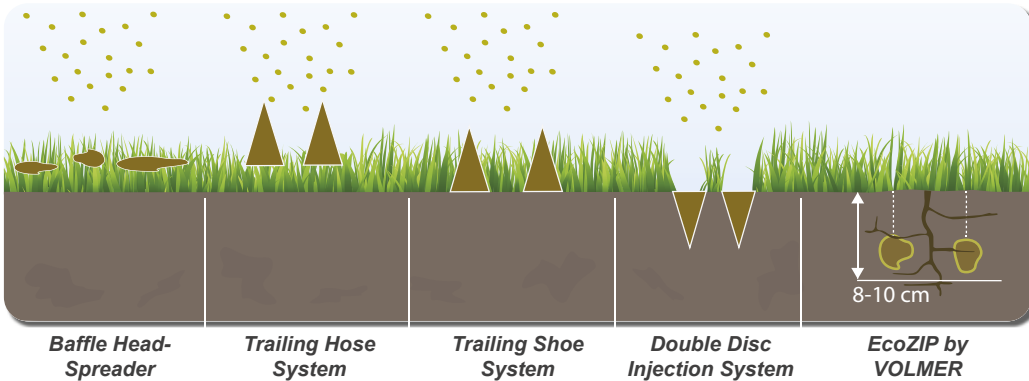
Weights and dimensions are approximate and non-binding. Subject to change without notice.

EcoZIP - System Advantages:

- ✓ Depot fertilization: Nutrients are precisely placed in the root zone where they are needed, not just near the soil surface.
- ✓ Nitrogen losses are reduced to zero.
- ✓ Improved plant development and higher dry matter yields (up to +30% expected in grassland).
- ✓ Animals can return to treated areas more quickly.
- ✓ Feed, silage, hay & grain remain uncontaminated by slurry, reducing the risk of livestock diseases.
- ✓ No odor or air pollution (no fine dust emissions).
- ✓ Unlike competing systems, the injection slit is completely closed without damaging plants.
- ✓ Reduced fertilization frequency lowers operational and labor costs.
- ✓ Vertical, root-conserving insertion of patented tools makes EcoZIP ideal for established crops.
- ✓ Electronically controlled hydraulic coulter pressure ensures a consistent work pattern, even on sandy or loess soils.
- ✓ Always optimal working depth – even in wheel tracks or compacted zones – thanks to electronic control of each row.
- ✓ No clod formation – EcoZIP promotes a loose, crumbly soil structure.
- ✓ Ideal for No-Till cropping systems, as there is no soil disturbance.
- ✓ Organic matter remains on the surface and is not incorporated (maintaining the C/N ratio).

System Comparison

The VOLMER EcoZIP is the first machine to place slurry into the turf rather than on it – completely emission-free.



Application versatility:

Whether organic slurry, liquid fertilizer (ASL), or mineral fertilizer – even in combination – the VOLMER EcoZIP delivers targeted depot fertilization exactly where it's needed. Perfect for seeding, reseeding, and undersowing maize. Apply nutrients during or independently from seeding – flexible to your system.

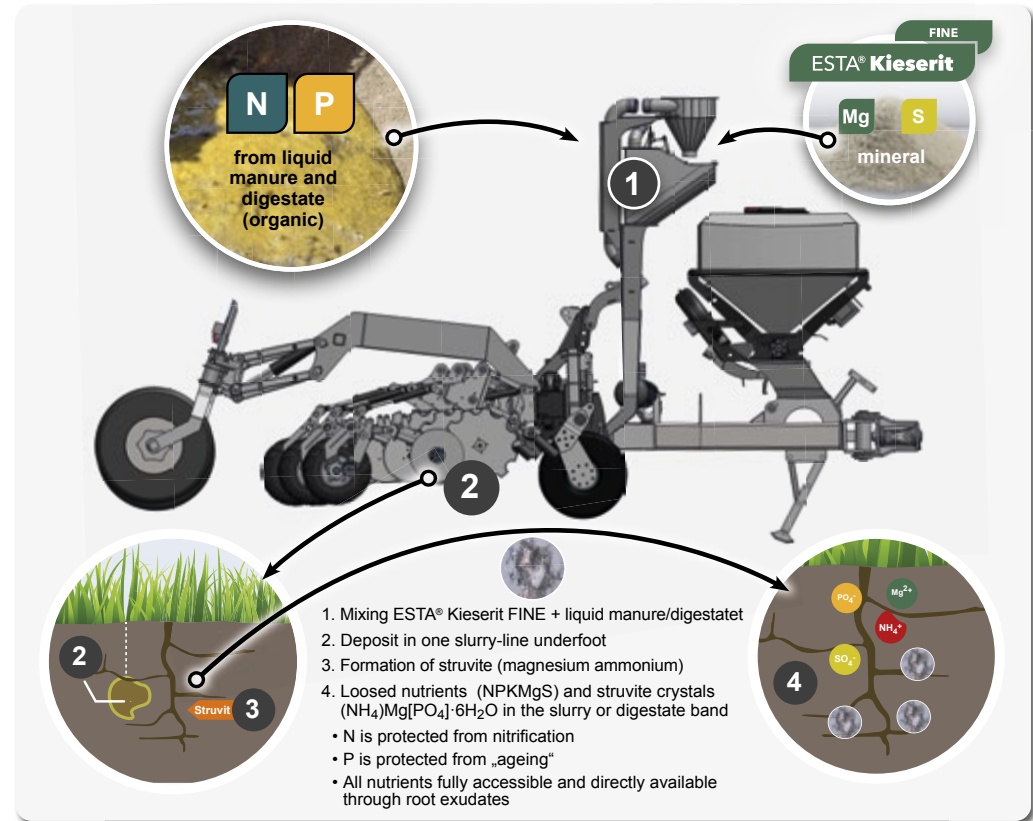
Application area:

Grassland, cereals, maize, cover crops, etc. Also ideally suited for cultivated fields or no-till systems, as there is no soil disturbance.

Advantages:

Nitrogen losses are reduced to zero. Improved plant development and increased dry matter yields (up to +30% expected in grassland). The result: active root growth in the slit area or directly at the nutrient depot.

Injection slit completely closed



MAP-PRECIPIATION

The aim here is to use the magnesium from kieserite and the ammonium and phosphorus from the slurry to grow struvite crystals in the slurry lines.

Struvite has a sand-like structure with a typical nutrient composition of 5%N, 23%P O22 and 12%MgO. Struvite is a magnesium ammonium phosphate (MAP), which has the efficiency-improving advantage that part of the nitrogen from the liquid manure is bound as ammonium in struvite and is protected from nitrification and washout losses. Furthermore, the phosphate from the liquid manure in the new Struvite compound has very good

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Distribution Head DOMAX

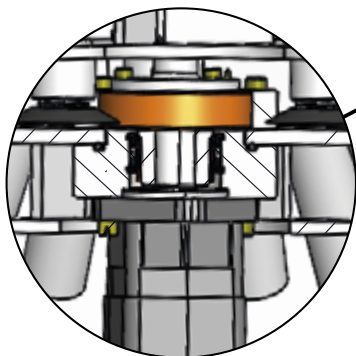


The DOMAX distribution head was specially developed to meet the high demands of modern application vehicles with high pumping capacities (up to 12,000 l/min). A low-wear design as well as high-quality assemblies and bearings, ensure trouble-free operation and short maintenance times. Even small application rates can be dosed with absolute precision. Quantity adjustments and maintenance can be carried out in just a few simple steps.

fig.: DOMAX 24/50H

7. Housing

- Fully galvanized steel housing
- UV-stable materials
- Large, pressure-resistant sealing
- Hydraulic safety valve



6. Storage

- Robust rotor bearing separated from the slurry circuit
- Durable and pressure-resistant triple-sealing



5. Motor

- Hydraulic motor with large displacement 400 cm³
- High torque even at low speed
- Standard hydraulic connections



4. Bracket

- Universal holder
- Matching counter plate available, to weld on



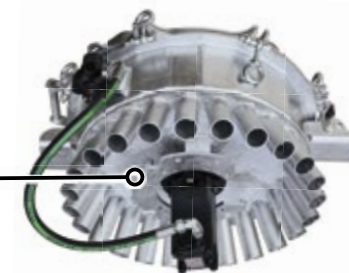
2. Rotor & Knife

- Hardened, low-wear circular blades, spring-mounted with flow-through holes to avoid pulsation
- Low-wear counter blade with flow rate adjustment
- Quick change of the rotor



1. Top-Cover

- Stable steel handle
- Top-cover lock with locking bolt
- 8 top-cover fastener
- 6" Universal connection
- 1" Flush-connection with GEKA coupling
- 22" Air connection with non-return valve for quick emptying when lifting (headland)



3. Data

	Unit of measurement	DOMAX 16/50H	DOMAX 24/50H	DOMAX 28/50H
max. flow rate	l/min	12.000	12.000	12.000
Outlets	Piece	16	24	28
Pipe diameter outlets	mm	50	50	50
Distribution head diameter	mm	~ 535	~ 660	~ 740
Mounting plate height up to 6" connection	mm	295	295	295

Weights and dimensions are approximate and non-binding. Subject to change without notice.



autoFLOAT ISOBUS

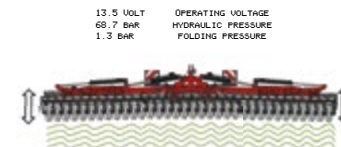
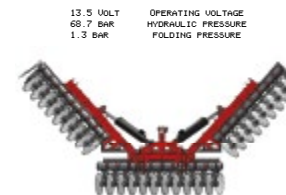
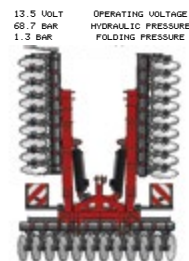
Automatic switching on and off of a floating position for machines or linkages.



With the floating position function, oil chambers of hydraulic cylinders are electrically connected to the tank line. This allows the cylinders to move freely. In order for the cylinders to be able to do their work again, the electrically operated valves must be closed again. This is exactly the function autoFloat takes over automatically. Sensors register when the floating position should be switched on or off.

12 volt coils are used to switch the hydraulic valves. At 24 volt operating voltage, autoFLOAT regulates this down to 12 volt operating voltage, so the 12 volt coils can continue to be used.

This has the advantage that, for example, when changing the towing vehicle from a self-propelled vehicle with 24 volt operating voltage to a tractor with 12 volt operating voltage, the coils do not have to be replaced. The power supply can be via an ISOBUS plug or a three-pin plug with 12 volts or 24 volts.

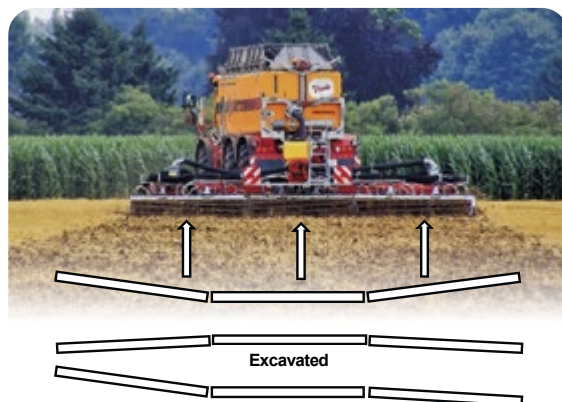


Important information from the compact disc harrow can be displayed in the vehicle cab via ISOBUS. If no ISOBUS connection is available, this information can also be shown via a data cable with a separate display. If none of the options described are available, the system also works completely autonomously.

12 volt coils are installed to switch the hydraulic valves. If 24 volts operating voltage is applied, autoFLOAT reduces this to 12 volt operating voltage. The 12 volt coils can still be used. This has the advantage that no coils need to be replaced when changing the towing vehicle, e.g. from a self-propelled vehicle with 24 volt operating voltage to a tractor with 12 volt operating voltage.

The box also monitors the folding process on models with a telescopic unit.

Application Volmer Engineering T-RUBBER compact disc harrow



The TR disc harrows in the 1000 series have a 3-part design. In the working position, it is advantageous if the disc harrow adapts to the unevenness of the ground.

Our Floating technology offers the following advantages:

- Despite the flat setting, the soil is treated evenly across the entire width of the machine.
- On slopes, the lateral inclination of the towing vehicle is compensated, by sinking into the tires.
- There is significantly less tension in the disc harrow and the tractor unit.
- The machine is easier to pull, which reduces fuel consumption per hectare.

The floating position function electrically switches the oil chambers of the folding cylinders to the tank line. This allows the cylinders to move freely. To fold the machine, the electrically operated valves must be closed again.

Our autoFloat controller automates this function. The system registers that the machine is unfolded and switches the float position on. When the machine is to be folded in, autoFloat registers the hydraulic pressure and automatically switches the float position off.

Many users use the folding function, especially on headlands with wider machines, to increase the distance between the compact disc harrow and the ground.



The VOLMER® AGRITEC machine range

TRG Series 1000



TR Series 1000



Strip-Till CULEX



TRG Series 101



TR Series 1000



Slurry cultivator FZG



Slurry mulch cultivator APER



Telescopic shield VTS



Subsoiler TL



Hose reel VSH



T-RUBBER Accessories



Power-Lift-Axle PLA



PL/ENTY



GRANU-Inject



GRANU-Inject Mini



Allround-Injector EcoZIP



DOMAX



autoFLOAT ISOBUS



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