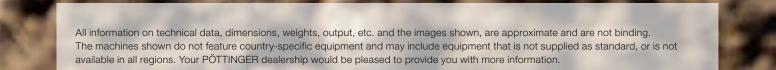
Hitch-mounted reversible ploughs SERVO



Perfect ploughing



Perfect ploughing





A straightforward and innovative control centre, an extremely robust turnover mechanism and a durable plough beam as well as optimised mounting geometry that can be adapted to any tractor: these are all essential factors that were taken into account during the development of these SERVO hitch-mounted reversible ploughs. Teamed up with proven moldboards and add-on tillage tools from PÖTTINGER, these ploughs have been engineered to deliver perfect working results year after year.

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The best soil

For optimum plant growth



Designed for success

Primary tillage lays the foundation in agronomic terms for the subsequent crop, which is why it has a decisive influence on the growth of the plants. To develop properly, these require an optimum supply of water and nutrients.

A loose soil structure with a natural pore distribution and no harmful compaction effects lets the crop develop strong and deep roots. The large amount of space available for roots is essential for taking in nutrients and groundwater during the principal growth stages. The risk of under nourishment or a shortage of water is minimized because the soil has plenty of capacity for storing water and nutrients. It means that the plants can bridge extreme conditions much better.

Crops that have a sufficient supply of water and nutrients are healthier and more resilient to pathogens. As a result, less plant protection measures are needed for a high yield, which forms the basis for a successful harvest.

Site-specific tillage

Tillage is about changing the structure of the soil. Sitespecific tillage improving the soil structure to actively influence the function of the soil.

During this process, the plough loosens the soil over the full depth of the seed bed and eliminates any compaction in the topsoil. As the soil passes the moldboard, the furrow ridge breaks along its natural structure. Depending on the type of soil and its condition, the plough is set up to create a seed bed that encourages downward root penetration and growth.

In loosened soils, the size distribution and volume of the pores also changes. The higher proportion of large pores leads to faster warming of the soil due to the larger air content, and water can infiltrate faster.









A good start

Primary tillage using a plough does more than loosen the soil for the next crop. The plough furrow creates a "clean slate", which results in further agronomic advantages. These have a direct impact on the follow-up processes and development of the crop.

The plough turns the soil over so that there are no harvest and plant residues at seed slot level, because these are reliably incorporated by the plough. Reliable seed emergence following lower demands on the seed drill technology is guaranteed.

In addition, the threat of weeds is reduced because weeds and their seeds are ploughed in and completely covered well below the surface. Especially in organic farming, the plough is still the tillage method of choice for a pre-emptive and active reduction of weeds, where weeds have become resistant and on problem sites.

For a healthy crop

Surface plant material and crop residues often result in increased phytosanitary risks for the next field crops. The organic material can harbor various diseases that go on to survive until the next round of infection.

The proven moldboards from PÖTTINGER, together with an extensive range of skimmer tools, ensure that organic matter is incorporated without leaving any residues on the surface. Consequently, this reduces the risk of wheat becoming infected by fungal diseases such as fusarium ear blight (fusarium graminearum) or tan spot (drechslera tritici-repentis), and leads to a healthier and more resilient crop that requires less plant protection measures.

In addition, clean and tidy incorporation of organic residues also facilitates the control of animal pests. It can suppress the spread and reproduction of the European corn borer, for example.

Convenient flexibility



Simplified set-up

A correct plough set-up is the basis for efficient and uniform work. The innovative SERVOMATIC control center with four-joint linkage makes it even easier and quicker to set up the plough correctly and adjust it to the tractor. This is especially important when the plough is used with different tractors.

Beam angle, front furrow width and pulling point can be adjusted in just a few steps. All the necessary setting points are intuitively configured, easily accessible and finely adjustable. The geometry of the headstock can also be adapted to the tractor using different attachment positions. Easier lifting of the plough is ensured.

The PLUS hydraulic furrow width adjustment enables quick adaptation to soil conditions. The triggering pressure of the NOVA stone protection system can be conveniently changed using the spool valve on the tractor.

Seamless merging between passes

The large adjustment range of the front furrow width makes it much easier to adapt the plough to tractors with different track widths. The adjustment can be carried out mechanically or hydraulically, and there is a scale for the inside track width of the tractor so that the correct position can be found quickly. When the furrow width is altered hydraulically, the front furrow is also adjusted automatically. Uniform turning of the furrow ridge from the first to last moldboard is how top quality results are ensured.

Always on course

The factory-set pulling point guarantees optimum power transmission while minimizing wear. However, it is still possible to fine-tune the set-up. The pulling point is automatically adjusted when the furrow width is changed, ensuring that the pull line intersects as close as possible to the center of the rear axle. There is no need for readjustment.







Variable width

A high degree of flexibility is a basic requirement for efficient work in the field. While working around obstacles is often difficult with a rigid plough, only one adjustment of the spool valve needs to be made with the PLUS hydraulic working width adjustment system. This allows the plough to be steered with accuracy around obstacles. The PLUS system also comes into a class of its own when ploughing triangular field sections, because it makes it a lot easier.

In addition to being more convenient, the furrow width can be quickly and precisely adjusted to different working conditions. Especially when the furrow depth is changed, adaptation of the furrow width is useful to make sure you always get the furrow ridge turned over properly to produce perfect quality seed bed. Organic material is reliably incorporated and the soil surface is finished with minimal voids.

All-in-one

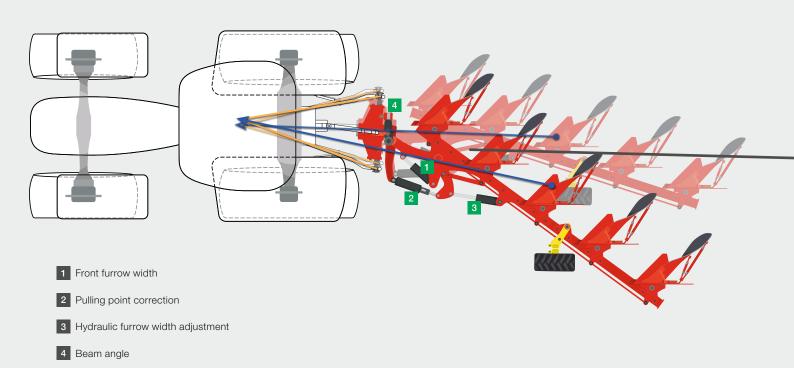
The on-land option on the SERVO 4000 series provides an additional level of variability. With this equipment, the plough can be used both in the furrow and on un-ploughed ground. Switching between on-land and in-furrow ploughing is possible at any time in a few simple steps without the need for tools.

Driving outside the plough furrow means that tractors with large tires or even tracks can be used. This results in less pressure being applied to the ground. Because the tire does not run along the bottom of the furrow, pressure does not reach the deeper soil layers and compaction in the furrow is avoided. This conserves the soil structure and promotes plant growth.

With the tractor driving parallel to the ground and not tilted sideways, driver comfort is increased, and can be further enhanced by using automatic steering systems.

Convenient flexibility

SERVOMATIC



Front furrow width

While designing the SERVOMATIC control center, great importance was placed on a large adjustment range of the front furrow width. The swept shape of the cast yoke covers a wide adjustment range for different tractor inside track widths between 3'3" and 4'11".

The main setting of the updated SERVOMATIC control center is based on the inside track width of the tractor and is set mechanically using the inside turnbuckle. A clearly visible scale helps to quickly find the correct position based on the inner track width of the tractor. As an option, this can be done conveniently with a hydraulic cylinder.

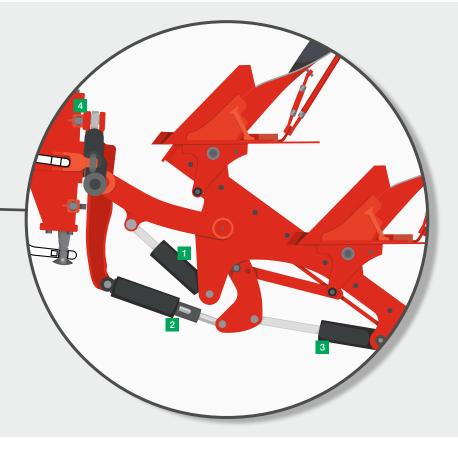
On SERVO P and N ploughs with hydraulic furrow width adjustment, the four-joint linkage automatically adjusts the front furrow when the furrow width is adjusted.

Pulling point correction

To achieve optimum power transmission and to reduce wear and fuel consumption, it is essential that the pulling point of the plough is set up perfectly. A pull line running through the middle of the tractor's rear axle results in a centered power transfer without the plough crabbing to one side or the other.

The pulling point on SERVO ploughs is factory preset for normal working conditions. The tractor's lower linkage arms sway so that the plough is automatically aligned along the optimal pull line, which intersects the middle of the tractor's rear axle.

For special requirements, such as ploughing on steep ground, or to change the landside pressure, the pulling point can be adjusted using a turnbuckle. If a plough beam pivot cylinder is fitted, the pulling point correction is integrated into this by a stop that limits cylinder travel when pivoting in.



Hydraulic furrow width adjustment

As an option, the furrow width of the individual bodies can be adjusted hydraulically. Depending on the point-to-point spacing, different furrow widths are possible. The front furrow is adjusted by the four-joint linkage of the SERVOMATIC control center so that it is synchronous with the rest of the bodies, and the pulling point is optimized accordingly.

Beam angle

The plough beam angle is set using the beam angle lift, and needs to be adjusted if the furrow depth is changed. The beam angle lift spindle is protected inside a closed guide and can be set without the need for tools.

Convenient flexibility

PLUS hydraulic furrow width adjustment



Variable furrow width

Taking into consideration the conditions in the field in terms of the type of soil and its characteristics, it may be necessary to adjust the furrow width accordingly to achieve the ideal working results. Depending on the point-to-point spacing, different furrow widths can be achieved.

To achieve a consistent turnover of the furrow ridge, the furrow width needs be adapted when the furrow depth is changed, in order to ensure a constant ratio of ploughing depth to furrow width.

It is also possible to change the formation of the furrow ridge for agronomic reasons by changing the furrow width.

The convenient PLUS

Adapting the furrow width on SERVO ploughs using the PLUS hydraulic furrow width adjustment system is easy, convenient and can be done on the move. This is so convenient that it allows the furrow width of the plough bodies to be adjusted without the need for tools. The disc colters and the depth wheels are also adjusted automatically.

To manage this, the tractor requires a double-acting spool valve. Once it has been set to the inside track width of the tractor, the front furrow width is automatically adjusted when the furrow width is changed. This is done by the four-joint linkage at the control center in accordance with the remaining furrows.





Indirectly controlled

The furrow width of each body on ploughs with hydraulic furrow width adjustment is controlled indirectly by a lever actuated by a hydraulic cylinder. When actuated, every change in the hydraulic cylinder is transmitted extremely smoothly and precisely to the plough body by the furrow width control lever.

Located alongside

On the PLUS adjustment system, the plough body pivot points are located alongside the plough beam tube. This means that no large holes are required through the tube, increasing plough beam strength. For an extended service life, the bearings of the pivot points are designed to be lubricated.



Several positions

On SERVO ploughs without hydraulic adjustment of the furrow width, the plough bodies are adjusted manually. This is done to match on-site requirements using a bolt and a hole matrix.

Furrow width on demand

	Furrow width with a point-to-point spacing of 35"	Furrow width with a point-to-point spacing of 37"	Furrow width with a point-to-point spacing of 40"	Furrow width with a point-to-point spacing of 45" *
SERVO 2000	11, 13, 15, 17, 18 in	12, 14, 16, 18, 20 in	13, 15, 17, 19, 21 in	
SERVO 2000 P	11 - 18 in	12 - 20 in	13 - 21 in	
SERVO 2000 N	11, 13, 15, 17, 18 in	12, 14, 16, 18, 20 in	13, 15, 17, 19, 21 in	
SERVO 3000		12, 14, 16, 18, 20 in	13, 15, 17, 19, 21 in	
SERVO 3000 N	11, 13, 15, 17, 18 in	12, 14, 16, 18, 20 in	13, 15, 17, 19, 21 in	
SERVO 3000 P		12 - 20 in	13 - 21 in	
SERVO 3000 PN	11 - 18 in	12 - 20 in	13 - 21 in	
SERVO 4000		12, 14, 16, 18, 20, 22 in	13, 15, 17, 19, 21, 23 in	
SERVO 4000 N		12, 14, 16, 18, 20, 22 in	13, 15, 17, 19, 21, 23 in	
SERVO 4000 P		12 - 22 in	13 - 23 in	14 - 25 in
SERVO 4000 PN		12 - 22 in	13 - 23 in	

* Point-to-point spacing of 3'9" only in combination with on-land equipment

Convenient flexibility

On-land equipment





Drive outside the furrow

For more soil conservation and convenience, the SERVO 4000 and the optional on-land equipment can be used with the tractor wheels in the furrow as normal, or with the tractor level on the un-ploughed land. The on land system allows tractors with wide tires and crawler tracks as well as steering systems to easily plough outside the furrow.



Control center

The principle of the SERVOMATIC control center and the configuration of the adjustment points remain unchanged with the on-land equipment. However, the hydraulic first furrow adjustment and the plough beam pivot cylinder are required for on-land operation. In addition, components such as the beam link differ from those on the in-furrow only version, which means that it is not possible to retrofit the on-land equipment.



Maximum width

Tractors with an external width of up to 9'10" can be used for on-land ploughing, leaving sufficient space to the furrow ridge. This allows ploughing to be carried out by tractors with large-volume wide tires. The pressure applied to the ground is minimized as a result. Driving in the furrow is possible with tractor inside track widths starting from 3'5".



SERVO 4000

Easy to switch over

To change from driving in the furrow to on-land ploughing, the frame is moved to the on-land position by the first furrow adjustment cylinder. The swing-out path can be set using an adjustment sleeve, depending on the outer width of the tractor. This minimizes the turn-over radius and reduces the forces acting on the plough. The pulling point is also preset for on-land operation, and is adjusted automatically by the linkages integrated into the control center, so it normally does not require any correction. The beam angle needs to be adjusted.

Convenient flexibility



Attaching the plough

The SERVO hitch-mounted reversible ploughs are attached to the tractor using a three-point linkage. In addition to the standard mounting axles in various categories, a mounting axle with double bearings and a steered axle are also available. The optional steered axle is especially recommended for ploughing fields with irregular shaped boundaries or many obstacles.

The mounting axles can be adjusted in four positions using the lower linkage plates. Two fixed holes and one slotted hole (SERVO 2000) or two slotted holes (SERVO 3000 and SERVO 4000) are provided for attaching the top link. This enables a precise match to the geometry of the tractor linkage. Depending on the model, the TRACTION CONTROL unit can be integrated in the headstock.

A pivoting parking stand is mounted on the plough beam for convenient handling while attaching and detaching the plough. This makes attachment and stowage safe and easy.

In the field and on the road

The integrated plough beam pivot cylinder not only supports the turnover process with increased ground clearance and optimum center of gravity, but also ensures smooth road transport with an enhanced level of safety. As the plough beam rotates towards the center, the transport width is narrow even with a higher number of furrows. The plough remains within the width of the tractor and road safety is enhanced.







Safe transport

Thanks to their large dimensions, the transport pivot wheels do more than ensure precise depth control. In a few simple moves they can also be used as transport wheels for road transport. This means that the weight is taken off the rear tractor linkage whilst driving on the road and there is more weight acting on the front axle. This improves handling and safety on the road. During transport that plough is rotated into the center position.

Turns night into light

The optional lighting rig is easily attached to the rear of the plough for road transport. Especially when driving at dusk or at night, the lighting rig provides excellent illumination of the plough to the rear so it is clearly visible to other road users.

Overview of hydraulic connections

A different number of hydraulic connections is needed on the tractor to operate the plough depending on the equipment options. In order to keep a clear overview even with many hydraulic functions, the hydraulic connections are clearly marked.

SERVO	SERVO N	SERVO P	SERVO PN
1 double-acting connection for turning over	1 double-acting connection for turning over	1 double-acting connection for turning over	1 double-acting connection for turning over
	1 single-acting connection for the triggering pressure	1 double-acting connection for the furrow width	1 double-acting connection for the furrow width
			1 single-acting connection for the triggering pressure

As an option, one double-acting connection is required for each of the front furrow setting and the setting of the depth wheels, as well as one single-acting connection for TRACTION CONTROL. Thanks to the ingenious combination of hydraulic functions, no additional connection is required for the press arm when ploughing with a furrow press. All the hydraulic hoses are routed through the hollow turnover shaft to protect them from damage and chafing. For added durability and safety, in-line filters are integrated into the hydraulic system to prevent component damage from contamination.

Reliability for the toughest conditions



For new challenges

SERVOs combine many years of experience in building ploughs, the needs of farmers and contractors in the field, and the very latest technical expertise. Strong components ensure reliability and robustness in the field.

The main beam, the components in the turnover mechanism and the headstock have been updated to meet current requirements and deliver reliable operation. On soils with a high stone content or rocks in the subsoil, SERVO ploughs with NOVA hydraulic stone protection deliver an impressive performance and guarantee reliable and uninterrupted operation without damage to the plough.

Robust frame construction

The plough beam and turnover unit have been engineered to absorb the loads acting on them during operation even better. The large-dimension main beam section absorbs tensile forces efficiently. In addition, the construction reduces loads acting on all bearing points to protect the plough components.

- Large dimensioned main beam section with robust design for high strength
- Enormous strength and the capacity to absorb bending forces ensure reliability
- Protects components and mounting elements





For high outputs

For a wide range of applications, SERVO 4000 ploughs are designed (depending on the equipment options fitted) for tractors between 140 and 360 hp. SERVO 3000 ploughs for the medium power segment are designed for tractors between 80 and 240 hp. The SERVOMATIC control center makes it quick and easy to adapt to different tractors and bring you maximum efficiency in the field.

The geometry of the headstock and the control center is optimized for use with different tractors. With a choice of top link mounting positions on the headstock and the height-adjustable mounting axle, the right mounting position can always be found. As a result of the new mounting geometry, the plough is easy to lift away.

Ready for the toughest jobs

The NOVA hydraulic stone protection system has been further developed to meet the toughest challenges. The configuration of the NOVA unit ensures a high triggering pressure and the best entry into the soil. The integrated cylinder is protected against dust and dirt. The central hydraulic accumulators are located close to the plough beam so that they are well protected to ensure even pressure distribution in the system.

- Hydraulically adjustable triggering pressure
- Rapid soil re-entry due to increasing pressure after tripping
- High and wide trip clearance
- Additional shear bolt for extreme loads

Reliability for the toughest conditions



For the toughest conditions

The plough beam tube has been optimized to absorb the loads acting on it during operation even better. To ensure the high strength of the beam, holes have been reduced to a minimum and arranged along the low-stress beam centerline. The beam material and strength are not compromised unnecessarily as a result. That is also the reason that the body mountings are also located outside the beam tube on ploughs equipped with hydraulic furrow width adjustment.

Extra rigid

The large-dimensioned main beam section ensures smooth transmission of the pulling power from the headstock and beam link to the plough beam. The main beam section extends from the first to third furrow on SERVO 3000 and SERVO 4000 models and up to the second furrow on SERVO 2000 ploughs. It is bolted to the plough beam on both sides using a backing plate inside the frame tube. This increases strength without squashing the beam profile.

Reliable turnover

The turnover mechanism on SERVO hitch-mounted reversible ploughs features a turnover shaft and a largedimensioned turnover unit. Due to the wide bearing spacing and the large tapered roller bearing, the forces on the bearing are reduced. In addition, the turnover shaft is designed as a hollow shaft and serves as a lead-through for hydraulic hoses, providing them with the best protection against damage.

The steel casting of the turnover unit ensures a high material quality for a long service life. The turnover unit is generously dimensioned to reduce the forces acting on the bearings. A double-sided lug on the turnover cylinder distributes the turnover force evenly. The bearing journal for the turnover cylinder is a forged component and integrated over a large area into the headstock tower.



Durable and dynamic

The large dimensioned beam link is made of high quality cast steel and is slightly curved. This ensures high strength and durability. The curved cast beam link provides more space for the front furrow to give the SERVO a wide range of front furrow adjustment. This makes it adaptable to a wide range of tractors.



Ready for action

The beam angle lift spindle is enclosed within the beam angle lift guide. Thanks to the enclosed design, the spindle is protected against contamination. Easy adjustment is guaranteed at all times.

In addition, stress on the turnover unit is prevented because the turnover cylinder rests on the beam angle lift during the turnover sequence.





Increased strength

For increased strength, the mounting brackets are bolted instead of welded. By deliberately avoiding weld seams, the material is not weakened at this point and retains its full strength

Easy replacement

To prevent overloading and possible damage, standard and PLUS versions of the SERVO 3000 and SERVO 4000 series feature shear bolts. When the shear bolt is triggered, there is no transverse deformation of the bolt so it does not jam between the leg and the mounting. This prevents them from being damaged. Easy replacement ensures that the plough is back in action quickly after the shear bolt has been triggered. This saves time and increases output. SERVO 2000 models have mechanical stone protection with a shear bolt.

Reliability for the toughest conditions

NOVA hydraulic trip leg system

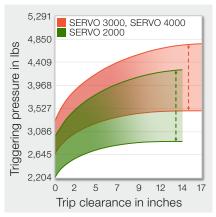




Ready for the toughest jobs

Uniform, trouble-free operation in areas with a high stone content or a rocky subsoil is not a contradiction in terms thanks to the reliable NOVA stone protection system. A selection of highly resilient materials combined with finely controllable hydraulics makes the system an indispensable tool for challenging conditions. Being able to work continuously while outputting high quality working results increases productivity and contributes to a igher area output.







Innovative

The optimized design of the system brings significant advantages in the field. The integrated cylinder is protected against dirt and damage by the pressed mounting bracket. The NOVA unit brings about a short weight transfer to the rear, is positioned close to the frame and allows for a large trip clearance path.

- SERVO 2000: 14 in upwards and 8" to the side
- SERVO 3000 and SERVO 4000:
 42 in upwards and 8 in to the side

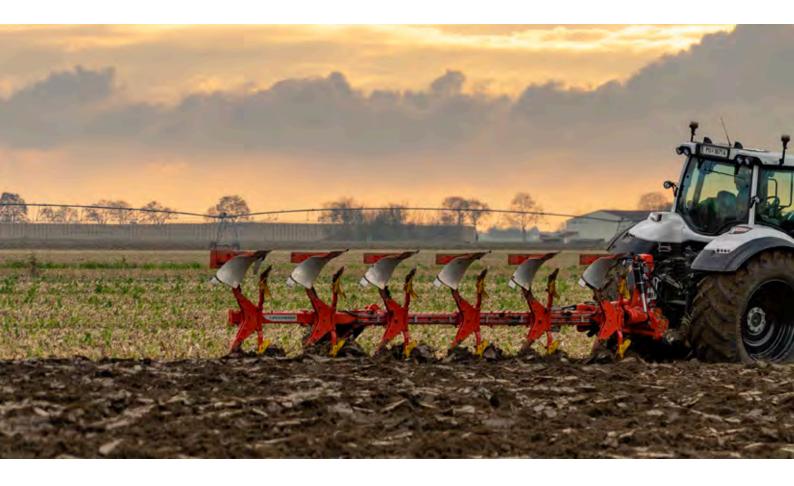
Controllable power

With a single-acting connection, the pressure in the hydraulic system can be adjusted accurately and quickly. "This results in a triggering pressure setting range of 2,205 to 2,976 lbs for the SERVO 2000 and 2,646 to 3,307 lbs for the SERVO 3000 and SERVO 4000. As the trip clearance increases, the force increases to ensure rapid soil re-entry. A central pressure control bank with hydraulic accumulators reliably absorbs high load peaks to protect the machine.

Safety first

In addition to the NOVA element, a shear bolt is installed to prevent damage to the plough in the event of it colliding with large obstacles. This ensures that the plough bodies and beam are protected from excessive loads. The shear bolt is hardened to ensure clean shearing so that it is easy to replace.

Cost effectiveness and efficiency



More traction

Especially in challenging conditions, it is essential to get enough traction to reduce wheel slip. If the tractor wheels slip, they can cause damage to the soil structure with smearing and compaction, which forms a barrier to water, nutrients and plant growth. Boosting traction to achieve efficient progress also reduces fuel consumption per acre and increases area output.

In addition to optimizing tire pressure and fitting sufficient ballast, SERVO hitch-mounted reversible ploughs offer an extra technical feature to help achieve this. With the integrated TRACTION CONTROL traction booster, power transfer from the tractor to the ground is improved by transferring weight from the plough to the rear axle of the tractor.

Wear resistant

A high wear resistance of the tillage tools is decisive for a long service life and ensures low wear costs. DURASTAR points and share blades ensure enhanced durability in the most difficult conditions and contribute to long replacement intervals and cost effective ploughing. In addition to reversible points, a particularly robust combined share and point is also available, which demonstrates incredible strength when working in soil with high levels of stones. Reliable soil penetration and perfect work quality are always guaranteed as a result.

- Long service life of the reversible points thanks to tungsten carbide armor plating
- Shares made of hardened boron steel







Easy turnover

For large furrow widths and a high number of furrows as well as low lift travel of the tractor hydraulics, the optional plough beam pivot cylinder makes the turnover sequence efficient and trouble-free. Pivoting the entire plough beam towards the center axis creates a small diameter arc of rotation. The tractor linkage and the turnover mechanism are protected by the lower forces acting on them, and ground clearance is significantly increased.

In combination with the hydraulic furrow width adjustment, the servo system only rotates through the necessary arc according to the set furrow width. This saves unnecessary travel. In addition, it is not necessary to reduce the furrow width to a minimum, and the components of the hydraulic furrow width adjustment system are not stressed during the turnover process.

Ploughing with a furrow press

Ploughing with a furrow press combines two work steps that can be carried out at the same time. Following immediately after ploughing, the loosened soil is consolidated. This helps to protect valuable moisture in the soil from evaporation and make it available to the seed that is going to be sown next, and also also saves on the number of passes, time and money.

The furrow press is drawn along by a large press arm. This is hydraulically decoupled at the headland. The catching position can be adjusted in several steps to guarantee smooth operation with different furrow widths. On SERVO PLUS ploughs with hydraulic furrow width adjustment, the catching position of the press arm is adjusted automatically according to the furrow width. For safe road transport, the press arm can be fixed within the width of the tractor.

Cost effectiveness and efficiency

TRACTION CONTROL



Powerful work

The optional TRACTION CONTROL traction booster can optimize the power transfer from the tractor to the ground. The additional weight applied to the rear axle of the tractor improves the traction of the tractor. The improved traction in turn results in less wheel slip and prevents harmful soil compaction due to smearing. In addition, fuel consumption per hectare ploughed is reduced and output is increased thanks to effective progress.

- Fuel consumption per acre reduced by up to 10%
- Wheel slip reduced by up to 50%
- Increased output

TRACTION CONTROL is available for the SERVO 3000 five and six-furrow models and all SERVO 4000 models from four to six furrows.

Increased traction against soil compaction

If the plough is operated using the tractor's active draft control, the electronics permanently regulate the height of the tractor linkage based on the draft required by the plough. This means that the plough is raised slightly in compacted areas to ensure the power requirement remains the same.

With the additional traction provided by TRACTION CONTROL, the plough can be pulled with more control over its position. This reduces the control intensity of the tractor linkage, and the linkage deviates less from its set lifting height. The result is that the plough maintains the same working depth even in compacted areas and the soil is ploughed and loosened at a consistent depth.



Simple, but ingenious

The hydraulic cylinder in the headstock moves the pin of the top link ball in the slotted hole backwards using a lever as soon as the system is under pressure. This pulls the tractor toward the plough slightly using the top link, similar to shortening the top link. This has the effect of applying weight to the rear axle of the tractor. Nevertheless, the plough is free to move within the slotted hole and can adapt to the contours of the ground.



Weight finely tuned

The additional weight on the tractor's rear axle is finely regulated using the hydraulic system and a single-acting cylinder. The clearly visible pressure gauge on the headstock shows the preloaded pressure in the system. This makes it easy to react to different situations. The load applied to the rear axle can be increased by up to 3,174 lbs.



Constant

To keep the weight transferred to the rear axle of the tractor constant, a hydraulic accumulator filled with nitrogen is integrated into the hydraulic system. This ensures a constant pressure even when driving through dips or over rises. The accumulated oil pressure compensates for fluctuations in the system pressure.

TRACTION CONTROL in the field

At the Austrian University of Natural Resources and Life Sciences (BOKU)[•] in Vienna, the system has been tested in the field using a SERVO 45 S on medium-heavy soils. They investigated the influence on fuel consumption and on the wheel slip characteristics of the tractor at a working width of 8'6" and a working depth of 9".

The following positive influences with the active traction boost system were determined:

Investigated parameter	without active TRACTION CONTROL	with active TRACTION CONTROL	Efficiency
Fuel consumption	2.19 gal/acre	1.97 gal/acre	.22 gal / acre
Rear wheel slip	4.8%	3.3%	- 1.5 % points
Area output	4.79 acres/h	5.11 acres/h	0.32 acres/h

^{*} Markus Schüller, Gerhard Moitzi, Institute of Agricultural Engineering Helmut Wagentristl, Experimental Farm Groß Enzersdorf

Cost effectiveness and efficiency

Wear parts



Durability

When cultivating the soil, the tillage tools are subject to unavoidable wear. This depends on various factors. Factors that cannot be influenced are the soil type and the different grain size distributions of the mineral fraction in the soil, and the mineral composition of the soil. In addition, soil density and soil moisture play an important role. In terms of the ploughing process, the driving speed and the ploughing depth also affect the rate of wear of the wear parts.

Tillage tools change their shape and geometry as they become more affected by wear, which can also influence the soil penetration angle, the ploughing effect and pulling power requirements. Special alloys, coatings and armor plating guarantee additional wear protection for more consistent work quality and long tool life.

Moldboards to meet all expectations

The requirements placed on moldboard materials are heavily influenced by the soil conditions. That is why PÖTTINGER offers moldboards made of different materials that have undergone additional treatment to increase wear resistance.

All moldboards with the designation Wc DURASTAR and UWc DURASTAR feature an extremely hard outer layer combined with a flexible core. These properties are achieved by carbonizing the moldboard. During this process, the outer layer is enriched with carbon. This makes the steel harder and more resistant on the outside, significantly increasing its resistance to wear. The core inside, on the other hand, remains resilient, which specifically prevents breaks and cracks. The carbonizing process also makes the surface finish smoother, reducing wear and preventing soil from sticking.





Shins

On full metal plate moldboards, i.e. without slats, the shins are mounted at the point of highest stress. That is why they are made of 8 mm thick fine-grained steel. Components are through-hardened for additional wear resistance. To ensure the best working results over the long term, the shins can be replaced quickly and cost-effectively.







Share blades

Hardened boron steel is also used for the share blades with a material thickness of 7/16". For good soil penetration performance, even in hard soil conditions, the share blades are angled forwards along the shin. Depending on the shape of the moldboard, they are offered with a length of 16 or 18 inches.

DURASTAR reversible points

The share blades are used in combination with DURASTAR reversible points. These are thermally coated with armored layers using deposition welding. During this process, tungsten carbide particles are embedded on the surface to form an extremely effective wear protection layer. Because the points can be reversed it is possible to use both sides, which ensures optimum utilization of the material and leads to a longer service life. Reliable soil penetration is ensured because the point retains its shape for a long time.

DURASTAR combined share and point and split share

For extremely hard and stony soils, DURASTAR combined shares and points are recommended, or split shares. The full length share of the combined share and point with its powerful wear tip guarantees penetration into the soil. Combined shares and points are particularly suitable for shallow ploughing. The split shares are similar in geometry and function to the combined share and points. Their advantage is that the point and share can be replaced separately. This means that worn points can be replaced independently of the share blade.

Precise incorporation



Perfect results

To ensure the best ploughing pattern, PÖTTINGER offers the right moldboards for all soil types and ploughing strategies. The different lengths and curvatures are available as sold as well as slatted moldboards. Shallow as well as deep ploughing can be achieved with consistent quality to match your requirements. This creates a "clean slate". This is the basis for a good start for the next crop.

More space

The wide furrow bottom clearing of the plough bodies means that wide tractor tires can be used to conserve the soil. A subsoiler can be added to loosen previous compaction and give plants access to deeper soil layers. As a result, there is then a higher volume of soil to accommodate roots, and there are more nutrients available for the crop.

For high volumes of residues

Incorporating large quantities of straw and plant residues places special demands on a plough. The underbeam clearance and point-to-point spacing are selectable. As a result, with a high underbeam clearance and sufficient point-to-point spacing, organic matter is reliably conveyed under the soil without blockages. Skimmers and trashboards provide additional assistance with this task. This creates the best conditions for subsequent work steps and has a positive phytosanitary effect. The risk of fungal disease from crop and stubble residues on the soil surface infecting subsequent crops is reduced.

- Under beam clearance 2'5", 2'7" or 2'11", depending on the model
- Point-to-point spacing depending on model 2'10", 3'1", 3'4"
- Wide selection of additional tillage tools for different requirements





To achieve satisfactory and uniform working results, consistent depth control of the plough is needed using the depth control wheels. Depending on the requirements, a choice of proven pivot depth wheels, dual depth wheels and transport pivot wheels are available. Attaching the depth wheel close to the plough beam improves precision when fence line ploughing, especially when using a narrow furrow width. This means that plant residues and weeds can be reliably incorporated right up to the edge of the field. This is essential for grasses such as couch grass, which often spread from outside the field. Clean and tidy work from the first to the last furrow is ensured.

Here, the optional disc colter and landside knife colter provide a well-defined furrow edge. This is particularly important with high volumes of organic matter and ploughing grassland or whole forage crop fields for clean and tidy working results.



For healthy forage

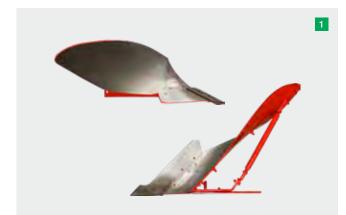
"For me as an arable farmer and pig breeder, ploughing is still a priority, because I want to ensure there are no toxins in the forage. Especially after harvest maize, I believe that the straw should be ploughed in properly to avoid fusarium in the wheat.

When it came to buying a new plough, we tried out a number of products, including the SERVO 4000 from PÖTTINGER. I came to the conclusion that this is a top plough and decided on the SERVO 4000 P with hydraulic furrow width adjustment and the hydraulic depth wheel. I especially like the excellent surface finish to the soil and the strong stability of the plough. What also intrigued me is how easy it is to set up. When I hooked it up, everything worked great right away. We are very satisfied with the plough."

Gerhard Neubauer Farmer Thalheim bei Wels | Austria

Precise incorporation

Mouldboards

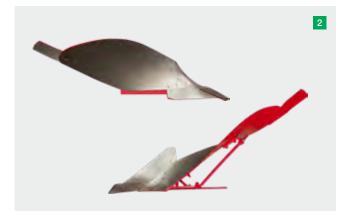


Long moldboards

1 27 Wc DURASTAR

Low draft, well suited to working on slopes. Ideal for ploughing meadow and flat land with good furrow clearing. Suitable for higher forward speeds.

- Working width up to 1'5"
- Working depth up to 9"
- Furrow clearing up to 1'7"



2 36 W

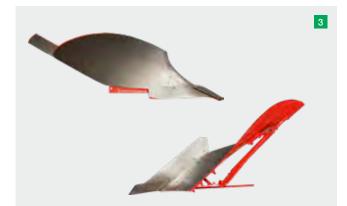
Long, curved moldboard for heavy, sticky soil. Suitable for moderate operating speeds.

- Working width up to 1'5"
- Working depth up to 9"
- Furrow clearing up to 1'3"

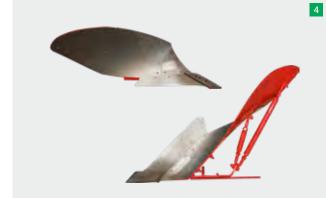


Long, curved moldboard for heavy, sticky soil. Suitable for moderate operating speeds.

- Working width up to 1'5"
- Working depth up to 11"
- Working width up to 1'5"



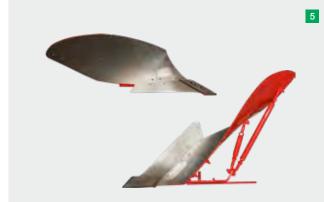




46 Wc DURASTAR

Carbonized moldboards with highly wear-resistant surfaces for maximum service life. Good seed bed and suitable for slopes, low draft in loam and clay soils, also light soil types. A moldboard for high working speeds without overlapping. Wide furrow clearing, low draft and excellent turning of the furrow ridge are the hallmarks of this moldboard.

- Working width up to 1'9"
- Working depth up to 1'2"
- Furrow clearing up to 1'9"

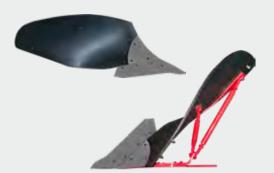


5 46 Wd

The through-hardened moldboards are hard and tough across the whole cross-section Good seed bed and suitable for slopes, low draft in loam and clay soils, also light soil types. A moldboard for high working speeds without overlapping. Wide furrow clearing, low draft and excellent turning of the furrow ridge are the hallmarks of this moldboard.

- Working width up to 1'9"
- Working depth up to 1'2"
- Furrow clearing up to 1'9"





Synthetic moldboard

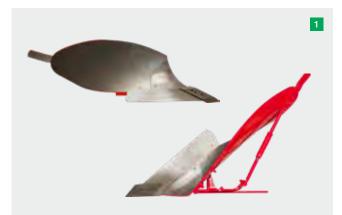
6 50 RW

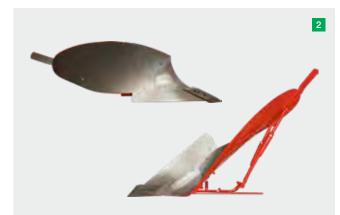
Material Robalon S, 9/16" thick, metal shin, geometry and frog same as the 46 W. Long, curved, high synthetic moldboard for soils with low stability. Provides wide furrow clearing and soil flows easily along the surface. The 50 RW moldboard is to be used only with a combined share and point and is not suitable for stony areas.

- Working width up to 1'9"
- Working depth up to 1'2"
- Furrow clearing up to 1'9"

Precise incorporation

Mouldboards





Universal mouldboard

1 36 UWc DURASTAR

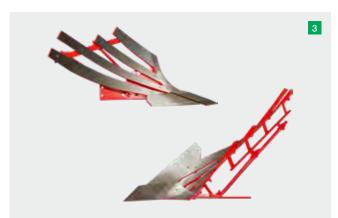
Universal moldboard with very good furrow clearing and excellent seed bed at normal working speed. Large quantities of harvest residues are ploughed in tidily. A low draft moldboard suitable for most soils.

- Working width up to 1'7"
- Working depth up to 11"
- Furrow clearing up to 1'7"

2 39 UWc DURASTAR

Large universal moldboard with very good furrow clearing and excellent seed bed at normal working speed. Large quantities of harvest residues are ploughed in tidily. A low draft moldboard suitable for most soils.

- Working width up to 1'9"
- Working depth up to 1'2"
- Furrow clearing up to 1'7"



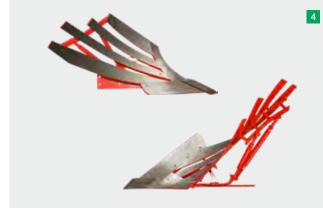
Slatted mouldboards

3 35 WSS

Slatted moldboards with strong turning characteristics, specially suitable for peaty, medium-density and sticky soil. Especially wide furrow clearing and excellent seed bed.

- Working width up to 1'9"
- Working depth up to 1'2"
- Furrow clearing up to 1'9"





4 38 WWS

Low-drag resistance moldboard with curved slats for excellent crumbling effect in medium to heavy soils (loam, clay). Good furrow cleaning for wide tires.

- Working width up to 1'9"
- Working depth up to 11"
- Furrow clearing up to 1'7"

5 DURASTAR moldboards

DURASTAR moldboards are carbonized. This does more than just optimize wear resistance. The extremely hard and therefore smooth outer layer ensures a solid working results even when ploughing soils with poor flow characteristics and varying structures.

Tilt adjustment

5

For use on hard and dry soils, the angle of all the plough bodies can be adjusted in relation to the ground in the direction of travel. Each body is tilted forwards or backwards using an offset bolt located on the spindle, which changes the soil entry aggressiveness.



Precise incorporation

Additional equipment

Skimmer

A wide choice of skimmer geometries achieves the best ploughing pattern for all conditions. The tools support the reliable incorporation of various plant residues for blockage-free work.

Skimmer adjustable without the need for tools

The depth is adjusted using the hole matrix on the leg without the need for tools. The position of the leg in relation to the moldboard can be adjusted using the hole matrix on the plough frame. The skimmer is protected against stones by a shear bolt.



1 Skimmer V1

Designed for all skimmer applications.

² Skimmer V2

Designed for high volumes of organic matter and deep ploughing.

3 Skimmer V3

Good working results especially when shallow ploughing.

4 Skimmer V4 RW

Special synthetic material especially for use on very sticky soils in combination with the 50 RW moldboard.

5 Skimmer V6

Large, high shape with additional trash board for incorporating large quantities of organic matter, especially maize straw.

Skimmers

The various shapes of skimmer are designed to cut the furrow ridge vertically ahead of the plough share. The clean cut makes it easier for the moldboard to turn the ridge and clear the bottom of the furrow, especially when ploughing crops with high density roots or grassland. This also helps the depth control of the plough because the tractor then drives at a consistent depth with the plough being guided by the tractor hitch.

Landside knife colter

A simpler alternative to the disc colter is the knife colter, which thanks to its low weight delivers excellent results in soil with low levels of organic residues. Can be mounted on the last furrow, or on all furrows.







Plain or scalloped disc colters

- Diameter 1'7" or 1'11" for optimum adjustment to the working depth with good self-cleaning properties
- Star-shape indentations for added strength
- Especially wide bearing spacing for the highest durability
- Scalloped disc colters for good rotation in high levels of organic matter

Spring-mounted colter disc

- Special linkage combined with spiral spring
- Pre-tension adjusted using spindle
- Simple method of avoiding stones and roots
- Only in combination with the NOVA stone protection system
- Plain or scalloped discs

Adjustable bracket

The horizontal position of the disc colter can be varied using the bracket. Depth is adjusted using toothed segments. On PLUS ploughs the disc colter adjusts automatically according to the furrow width.

- Bracket positioned forward: The disc colter is located in front of the skimmer. Plenty of free space for large volumes of organic matter (such as maize straw, for example).
- Bracket positioned back: The disc colter is close to the skimmer for light, free-flowing soil and shallow ploughing.

Precise incorporation

Depth wheels

In order to ensure precise depth control during ploughing, it is essential that the plough is aligned parallel to the soil surface. In addition to being guided by the tractor linkage, support provided by the depth wheel is also decisive. There is a choice of depth wheel versions available. Depending on the application, model and number of furrows, there is a choice of pivot depth wheels, dual depth wheels and transport pivot wheels. The location of the depth wheel on the plough depends on the version, and can be in front or behind the last furrow. Placing the depth wheel in the forward position supports good fence line ploughing performance. In this case, the clamping bracket is mounted close to the beam. This means it can plough right up to the edge of the field. Large tires distribute the weight of the plough over a large surface area to conserve the soil. Optional scrapers are available to keep the tires clean.







Pivot depth wheels

The pivot depth wheels are a popular equipment option, especially on smaller ploughs due to their lighter design. The pivot depth wheel can be mounted in a front or rear position. These are available with pneumatic tires or a steel rim. When the plough is turned over, the pivot depth wheel pivots to the other side. When the wheel enters the furrow, a mandrel brings it into position. The depth is set using a spindle.

Dual depth wheels

The dual depth wheel can be positioned in front or behind the last furrow. The forward position is particularly suitable for fence line ploughing. The wheels are infinitely adjustable separately using spindles, or a convenient hydraulic system is also available. In order to protect the top soil and ensure reliable guidance, the dual depth wheels are available with tires that conserve the soil and have a large contact surface.

Transport pivot wheels

The transport pivot wheels can be positioned behind the last furrow, or in front of it. The rear position provides the best depth control, while the forward position enables good fence line ploughing. Used as a transport wheel, it enables optimum driving performance on the road for more convenience and enhanced safety. Changing from depth wheel mode to transport wheel mode is done simply by pivoting the wheel unit. Large volume tires are used for low ground pressure. The mechanically adjustable pivot wheels are hydraulically damped for jolt-free pivoting when turning over the plough.



Depth and transport wheels Fitting Variants	Available with number of furro	SERVO 2000 ws	SERVO 3000	SERVO 4000
Pivot depth wheel 19" x 7" steel, plain mechanically adjustable	3 - 5			_
Pivot depth wheel 22" x 10" pneumatic tire, farm cleat profile mechanically adjustable	3 - 5			_
Pivot depth wheel 25" x 12" pneumatic tire, farm cleat profile mechanically adjustable	4 - 5	_		_
Dual depth wheel 19" x 7" steel, plain mechanically adjustable	3 - 5			_
Pivot depth wheel 22" x 10" pneumatic tire, farm cleat profile mechanically adjustable	3 - 5			
Dual depth wheel 25" x 12" pneumatic tire, farm cleat profile mechanically adjustable	3 - 5			
Pivot depth wheel 22" x 10" pneumatic tire, farm cleat profile hydraulically adjustable	4 - 5			
Dual depth wheel 25" x 12" pneumatic tire, farm cleat profile mechanically adjustable	4 - 5	_		
Transport pivot wheel behind 22" x 10" pneumatic tire, farm cleat profile mechanically adjustable, hydraulically damped	3 - 5			_
Transport pivot wheel behind 30" x 10" pneumatic tire, farm cleat profile mechanically adjustable, hydraulically damped	4 - 5	_	_	
Transport pivot wheel behind 30" x 10" pneumatic tire, farm cleat profile mechanically adjustable, hydraulically damped	5 - 6	_		
Transport pivot wheel behind 30" x 10" pneumatic tire, farm cleat profile hydraulically adjustable	5 - 6	_		
Transport pivot wheel behind 30" x 13" pneumatic tire, farm cleat profile mechanically adjustable, hydraulically damped	5 - 6	_		
Transport pivot wheel forward 30" x 13" pneumatic tire, implement profile hydraulically adjustable	5 - 6	_		

The advantages at a glance.







The advantages at a glance.



1 Mounting

Versatile three-point headstock can be individually adapted to the tractor with different mounting system categories. Optimized geometry for easy lifting away and perfect power transfer.

2 Turnover mechanism

A large turnover unit reduces bearing forces. Reliable beam angle setting thanks to closed beam guide and beam angle lift. The turnover shaft is a thick hollow shaft that also serves as a lead through for the hydraulic hoses. These are optimally protected against possible damage.

SERVOMATIC control center

The main setting of the SERVOMATIC control center is based on the inside track width of the tractor. The pulling point is automatically adjusted by the optimized four-joint linkage. Thanks to the floating lower linkage, the plough aligns itself along the ideal tractor-plough pull line.

Thanks to the neat layout of the control center, each of the adjustment points is easily accessible. The front furrow width is easily adapted mechanically or hydraulically. The pulling point correction take place mechanically and in combination with a plough beam pivot cylinder is integrated into this function. The plough beam pivot cylinder guarantees easy turnover even with a high number of furrows and a large furrow width, while minimizing wear.





4 PLUS

The furrow width of the individual bodies can easily be adjusted from the tractor seat. Depending on the point-topoint spacing and the plough series, different furrow widths can be achieved. The furrow width of the front plough body is adjusted automatically.

5 Plough beam

Thanks to the ingenious plough beam concept and the large main beam section with a reduced number of holes, the frame is extremely robust and resilient to stress. All bearing points and mounted tillage tools are protected by a design that is engineered to minimize the forces acting on them.

Depth wheels and transport wheels

For perfect depth control, a wide choice of dual depth wheels through to large transport pivot wheels is available, depending on your requirements. The depth control wheels are mounted close to the plough beam to improve fence line ploughing performance. For a quick change of the working depth, hydraulic depth wheel adjustment is available as an option.

NOVA trip leg system

The hydraulic stone protection system ensures reliable operation in areas with a high number of stones. The integrated hydraulic cylinders are optimally protected and ensure a smooth response when triggered thanks to the central accumulators.

Light hitch-mounted reversible ploughs

SERVO 2000 - 3 and 4-furrows - up to 130 hp







Light hitch-mounted reversible ploughs

SERVO 2000 - 3 and 4-furrows - up to 130 hp



Compact entry-level model

As the smallest in the PÖTTINGER hitch-mounted plough range, the SERVO 2000 is specially designed for light tractors up to 130 hp. This series features impressively compact design and weight-optimized construction to ensure the best possible results with smaller tractors.

The SERVO 2000 series is available with mechanical stone protection and mechanical furrow width adjustment, the SERVO 2000 N with NOVA stone protection, and the SERVO 2000 P with hydraulic furrow width adjustment. With three or four furrows and different point-to-point spacing, the plough can be optimally adapted to the tractor.

PLUS

For added convenience, the furrow width can be adjusted hydraulically on demand. This allows the furrow width to be matched to the site conditions while driving, and without the need for tools. The PLUS adjustment system makes it much easier to plough wedge-shaped fields and plough along boundaries, especially when working in small fields. The front furrow width, depth wheels and skimmers are also adjusted automatically.



For compact tractors

The headstock combines a high number of customization options with a geometry tailored to this performance class. Adapting the lower linkage attachment points allows the center of gravity to be brought as close as possible to the tractor. Two fixed holes and one slotted hole are provided for the top link.



Smooth turnover

The turnover shaft on the SERVO 2000 has a diameter of 2'11", and, together with the turnover unit made of highstrength cast materials, it ensures that the plough is turned over smoothly. What is more, the turnover shaft is implemented as a hollow shaft to create a lead-though for the hydraulic hoses. This way, they are protected.





Protected against stones

Like the larger series, SERVO 2000 ploughs are available with a NOVA hydraulic trip leg system. This offers

an impressive range of triggering pressures from 2,204 to 2,976 lbs In addition, the triggering pressure increases as the leg rises, which ensures rapid entry back into the soil. The NOVA units on the SERVO 2000 are closer to the tractor, making it easier to lift the plough. It also takes less load off the front axle so it is safer to transport.

Custom-tailored

Different underframe clearances, point-to-point spacings and number of furrows can be selected from a wide range of variants to match your specific requirements. Thanks to the lower underframe clearance of 2'5" and the shorter point-to-point spacing of 2'10", the center of gravity of the plough can be moved closer to the tractor, especially with the heavier SERVO 2000 N ploughs. This means that they can also be used with smaller tractors. The models with an underframe clearance of 2'7" and point-to-point spacing of 3'1" or 3'4" are recommended for high volumes of organic matter and deeper tillage.

Medium weight hitch-mounted reversible ploughs

SERVO 3000 - 3 to 6 furrows - up to 240 hp







Medium weight hitch-mounted reversible ploughs

SERVO 3000 - 3 to 6 furrows - up to 240 hp



Universal mid-range

The SERVO 3000 represents the mid-range of PÖTTINGER hitch-mounted reversible ploughs. Matched to tractors in the medium power class up to 240 hp, this plough features a simple yet impressive control center and a wide choice of customizable options, tailored to meet your needs.

The plough is available with three to six furrows. Choose between the standard plough, the SERVO 3000 N with innovative NOVA stone protection, the SERVO 3000 P with convenient PLUS furrow width adjustment and the SERVO 3000 PN as the top model with PLUS adjustment and NOVA trip leg system. Ultimately, there is always the right plough to meet your specifications.



Matches the tractor

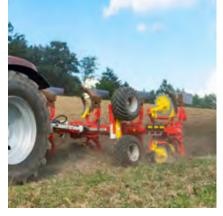
The headstock on the SERVO 3000 is specially designed to match the geometry of the linkages on mid-range tractors between 80 and 240 hp. Plough set-up can be optimized using the various adaptation options for the attachment points. This means that the plough is easy to lift away even for tractors with a lower hitch capacity.



Reliable turnover

The hollow turnover shaft with a diameter of 4" ensures a long service life of the turnover mechanism on the SERVO 3000. The hydraulic hoses for the optional hydraulic functions are routed through the shaft so that they are protected. This prevents kinking and damage to the hoses during the turnover process.





Choice of point-to-point spacing

To meet a wide range of practical requirements, three different point-to-point spacings are available on the medium series hitch-mounted reversible ploughs. The wide spacing of 3'4" is designed particularly for incorporating high volumes of organic matter and features impressive clearance. On ploughs with hydraulic stone protection, in addition to a point-to-point spacing of 3'1", a shorter spacing of 2'10" is also available, making the plough more compact to the rear and reducing the leverage forces. The point-to-point spacing of 3'1" combines a large clearance with a compact design.

Versatile depth control

In addition to adjusting the tractor hitch, the depth wheel on the plough is essential for optimum depth guidance. The SERVO 3000 offers a choice of configurations, ranging from the straightforward pivot depth wheel and dual depth wheel, to the transport pivot wheel located in the forward or rear position. Positioning the pivot wheel further forward is perfect for fence line work so that it is possible to plough right up to the edge of the field. This enables the entire field to be cultivated, preventing the spread of weeds from the edge of the field.

Heavy hitch-mounted reversible ploughs

SERVO 4000 - 4 to 6 furrows - up to 360 hp







Heavy hitch-mounted reversible ploughs

SERVO 4000 - 4 to 6 furrows - up to 360 hp



Power without compromise

Engineered to handle the toughest work and highest loads, working with powerful tractors and delivering an impressive output: these SERVO 4000 hitch-mounted reversible ploughs combine everything in one implement. With four to six furrows and a furrow width of up to 1'9", an overall working width of up to 11'6" can be achieved. To do this, the plough can be pulled by tractors with up to 360 hp, and be used as an on-land plough.

In order to make the most cost effective use of this tractor power, even in stony soils, SERVO 4000 N ploughs are available with NOVA hydraulic stone protection. For maximum flexibility, the SERVO 4000 P is available with the proven PLUS furrow width adjustment system. The SERVO 4000 PN combines both systems for maximum flexibility as well as efficient and reliable operation in the field.

Also outside the furrow

The optional on-land equipment enables the SERVO 4000 to plough inside and outside the furrow. This makes it possible to react quickly to requirements, the site soil conditions and the tractors available, including tractors with crawler tracks or wide tires.

In addition to reducing ground pressure in the deeper soil layers, this system also prevents any smearing that might be caused by the tires running in the furrow. The natural subsoil structure is conserved. This maintains the exchange of air and makes it easier for crop plants to establish their roots.



Successful turnover

The heart of the turnover mechanism on the SERVO 4000 is a hollow shaft with a diameter of 5". Due to the wide bearing spacing and the large tapered roller bearing, the forces on the bearing are reduced, resulting in a long service life. At the same time, the hollow shaft serves as a lead through for the hydraulic hoses.







More pull

All SERVO 4000 models can be equipped with the optional TRACTION CONTROL system to boost power to the ground. Transferring weight to the rear axle of the tractor improves traction. The result is reduced wheel slip, which guarantees efficient forward movement. In addition, reduced wheel slip results in lower fuel consumption and less soil compaction due to smearing.

Full-length strength

The full length 5" x 5" plough beam tube is specially built to remain completely straight and achieve even tighter bolted connections. To ensure the increased strength of the beam, the number of holes in the center of the tube have been reduced to a minimum. The large dimension main beam section ensures optimum power transmission from the tractor to the plough.

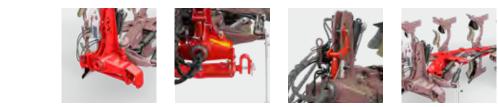
Pivot to the center

The optional plough beam pivot cylinder, which is standard on 6-furrow ploughs, makes the turnover process more efficient and easier. Pivoting the beam to the center before the plough is turned over reduces its outreach while increasing ground clearance.

The hydraulic furrow width adjustment remains completely unaffected. This protects the bearing points on the individual bodies and prevents wear.

In addition, the integrated hydraulic servo system ensures that SERVO 4000 P and PN ploughs are only pivoted by exactly the necessary amount. By interacting with the PLUS cylinder, the plough beam pivot cylinder moves to the set furrow width.

Equipment options





SERVO	Number of furrows	Mounting axle with double bearing	Steered axle Cat. 2	TRACTION CONTROL	On-land equipment
2000, 2000 P	3/4	- / -		- / -	- / -
2000 N	3/4	- / -		- / -	- / -
3000, 3000 P	3/4/5/6	-/-/-		-/-/□	-/-/-
3000 N, 3000 PN	3/4/5	-/-/-		-/-/□	-/-/-
4000, 4000 P	4/5/6		□/□/-		0/0/0
4000 N, 4000 PN	4/5/6		□/□/-		0/0/0





SERVO	Number of furrows	Skimmer	Landside knife colte	r Leg deflector	Trash board
2000, 2000 P	3/4	0/0	0/0	0/0	0/0
2000 N	3/4				
3000, 3000 P	3/4/5/6	0/0/0	0/0/0	0/0/0	0/0/0
3000 N, 3000 PN	3/4/5	0/0/0	0/0/0	0/0/0	0/0/0
4000, 4000 P	4/5/6	0/0/0	0/0/0	0/0/0	0/0/0
4000 N, 4000 PN	4/5/6	0/0/0			0/0/0

■ = Standard, □ = Optional N = NOVA, P = PLUS, PN = PLUS NOVA

¹ Landside protector on last body as standard













Hydraulic first furrow adjustment	Plough beam pivot cylinder	DURASTAR point	Combined share and point / split share	Plain or scalloped disc colters	Plain or scalloped spring mounted disc colters
0/0				0/0	- / -
		■/■		- / -	
					-/-/-
				-/-/-	0/0/0
					-/-/-
				-/-/-	0/0/0



Landside protector all bodies ¹	Furrow widener	Subsoiler	Scraper on transpor pivot wheel	rt Press arm	Baler & wrapper combinations
	0/0	0/0	-/-/-	-/-	0/0
	0/0	0/0	-/-/-	- / -	0/0
	0/0/0	0/0/0	-/-/□	0/0/0	0/0/0
	0/0/0	0/0/0	-/-/□	0/0/0	0/0/0
	0/0/0	0/0/0	0/0/0	0/0/0	0/0/0
	0/0/0				

Technical data

Light hitch-mounted reversible ploughs	Number of furrows	Underbeam clearance	Point-to-point spacing	Frame gauge
SERVO 2000	3 4	2'5" / 2'7"	2'10" / 3'1" / 3'4" 2'10" / 3'1" / 3'4"	4" x 4" x 3/8"
SERVO 2000 N	3 4	2'5" / 2'7"	2'10" / 3'1" / 3'4" 2'10" / 3'1"	4" x 4" x 3/8"
SERVO 2000 P	3 4	2'5" / 2'7"	2'10" / 3'1" / 3'4" 2'10" / 3'1" / 3'4"	4" x 4" x 3/8"
Medium weight hitch-mounted reversible ploughs	e			
SERVO 3000	3 4 5 6	2'7"	3'1" / 3'4" 3'1" / 3'4" 3'1" / 3'4" 3'1"	5" x 5" x 3/8"
SERVO 3000 N	3 4 5	2'5" / 2'7"	2'10" / 3'1" / 3'4" 2'10" / 3'1" / 3'4" 2'10" / 3'1"	5" x 5" x 3/8"
SERVO 3000 P	3 4 5 6	2'7"	3'1" / 3'4" 3'1" / 3'4" 3'1" / 3'4" 3'1"	5" x 5" x 3/8"
SERVO 3000 PN	3 4 5	2'5" / 2'7"	2'10" / 3'1" / 3'4" 2'10" / 3'1" / 3'4" 2'10" / 3'1"	5" x 5" x 3/8"
Heavy hitch-mounted reversible ploughs				

	4		3'1" / 3'4"	
SERVO 4000	5	2'7" / 2'11"	3'1" / 3'4"	6" x 6" x 3/8"
	6		3'1" / 3'4"	
	4		3'1" / 3'4"	
SERVO 4000 N	5	2'7"	3'1" / 3'4"	6" x 6" x 3/8"
	6		3'1"	
	4		3'1" / 3'4" / 3'9"	
SERVO 4000 P	5	2'7" / 2'11"	3'1" / 3'4"	6" x 6" x 3/8"
	6		3'1" / 3'4"	
	4		3'1" / 3'4"	
SERVO 4000 PN	5	2'7"	3'1" / 3'4"	6" x 6" x 3/8"
	6		3'1"	

 $^{\rm 1}$ Minimum transport length with 3'1" point-to-point spacing incl. lighting $^{\rm 2}$ Basic weight without additional tools



Turnover axle diameter	Mounting category	Power requirement	Transport length ¹	Basic weight ²	
	Cat. 2 / Cat. 3N / Cat. 3	80 - 110 hp	10'2"	1.984 lbs	
3"	Cat. 3N / Cat. 3	90 - 130 hp	12'9"	2,336 lbs	
3"	Cat. 2 / Cat. 3N / Cat. 3 Cat. 3N / Cat. 3	80 - 110 hp 90 - 130 hp	11'9" 14'5"	2403 lbs 2.910 lbs	
3"	Cat. 2 / Cat. 3N / Cat. 3 Cat. 3N / Cat. 3	80 - 110 hp 90 - 130 hp	10'2" 12'9"	2,182 lbs 2,623 lbs	

		80 - 110 hp	10'2"	2,491 lbs
4.1	Cat. 2 / Cat. 3N / Cat. 3	90 - 140 hp	12'9"	2,866 lbs
4"	Cal. 27 Cal. 3N7 Cal. 3	120 - 200 hp	15'9"	3,262 lbs
		160 - 240 hp	19'	3,659 lbs
		90 - 120 hp	11'9"	2,932 lbs
4"	Cat. 2 / Cat. 3N / Cat. 3	100 - 160 hp	14'5"	3,373 lbs
		140 - 200 hp	17'4"	3,836 lbs
		80 - 110 hp	10'2"	2,579 lbs
4"	Cat. 2 / Cat. 3N / Cat. 3	90 - 140 hp	12'9"	3,020 lbs
4	Gal. 27 Gal. 3N / Gal. 3	120 - 200 hp	16'	3,483 lbs
		160 - 240 hp	19'	3,968 lbs
		90 - 120 hp	11'9"	3,262 lbs
4"	Cat. 2 / Cat. 3N / Cat. 3	100 - 160 hp	14'5"	3,703 lbs
		140 - 200 hp	17'8"	4,188 lbs

	Cat. 3N / Cat. 3 / Cat. 4N	140 - 280 hp	13'9"	3,593 lbs
5"	Cat. 3N / Cat. 3 / Cat. 4N	170 - 320 hp	17'	4,188 lbs
	Cat. 3 / Cat. 4N	180 - 360 hp	20'3"	4,673 lbs
	Cat. 3N / Cat. 3 / Cat. 4N	180 - 300 hp	16'	4,034 lbs
5"	Cat. 3N / Cat. 3 / Cat. 4N	200 - 360 hp	19'	4,761 lbs
	Cat. 3 / Cat. 4N	220 - 360 hp	21'11"	5,423 lbs
	Cat. 3N / Cat. 3 / Cat. 4N	140 - 280 hp	13'1"	3,637 lbs
5"	Cat. 3N / Cat. 3 / Cat. 4N	170 - 320 hp	16'5''	4,255 lbs
	Cat. 3 / Cat. 4N	180 - 360 hp	19'8"	4,849 lbs
	Cat. 3N / Cat. 3 / Cat. 4N	180 - 300 hp	15'5"	4,079 lbs
5"	Cat. 3N / Cat. 3 / Cat. 4N	200 - 360 hp	18'4"	4,806 lbs
	Cat. 3 / Cat. 4N	220 - 360 hp	21'3"	5,556 lbs

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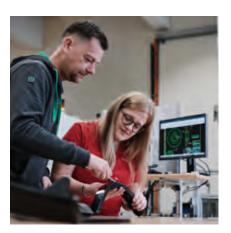


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