

# The cost effective all-rounder



# The cost effective all-rounder



To meet the varying demands placed on the loader wagon in combination with individual customer requirements, PÖTTINGER now offers the TORRO models as combined loader/top-fill wagons.

Maximum versatility and increased machine utilisation are guaranteed as a result. In combination with its high output, the TORRO COMBILINE offers excellent cost effectiveness, again underlining the significance of the loader wagon as the harvesting process for the future.

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All information on technical data, dimensions, weights, output, etc. and the images shown, are approximate and are not binding. The machines shown do not feature country-specific equipment and may include equipment that is not supplied as standard, or is not available in all regions. Your PÖTTINGER dealership would be pleased to provide you with more information.

# The highest forage quality



# The best forage quality is the basis for your success

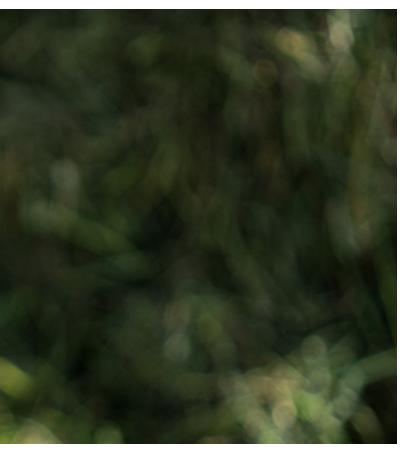
High yield dairy cattle need a high quality basic ration with optimum forage structure. This is readily consumed by the animals in sufficient quantities. That is the best way to prepare the rumen to process the forage as productively as possible. Improving base forage quality reduces the use of concentrates, promotes animal health and lowers your costs.

Healthy cattle express their gratitude with better fertility, by producing milk for longer, and with higher milk yields. The bottom line is that you benefit from clean, high quality forage with more profits from your dairy business.

# The best chopping quality and chopped length

In addition to the great importance of the optimum dry matter content, the chopped length of the forage has a significant influence on the quality of the grass silage. This reduces the rumination time and makes it easier for the rumen to process.

Both parameters lead to faster pH reduction, which reduces the risk of fermentation errors and has a positive effect on the stability of the grass silage. This lays the foundation for high dry matter intake.







### 34 mm chopped length

The TORRO is the ideal choice for the highest forage quality thanks to the short-chop knife bank with a theoretical chopped length of 34 mm.

The long arc of the knives ensures a slicing cut along the full length of the knife edge. The forage is chopped uniformly and has the optimum structure for ruminants.

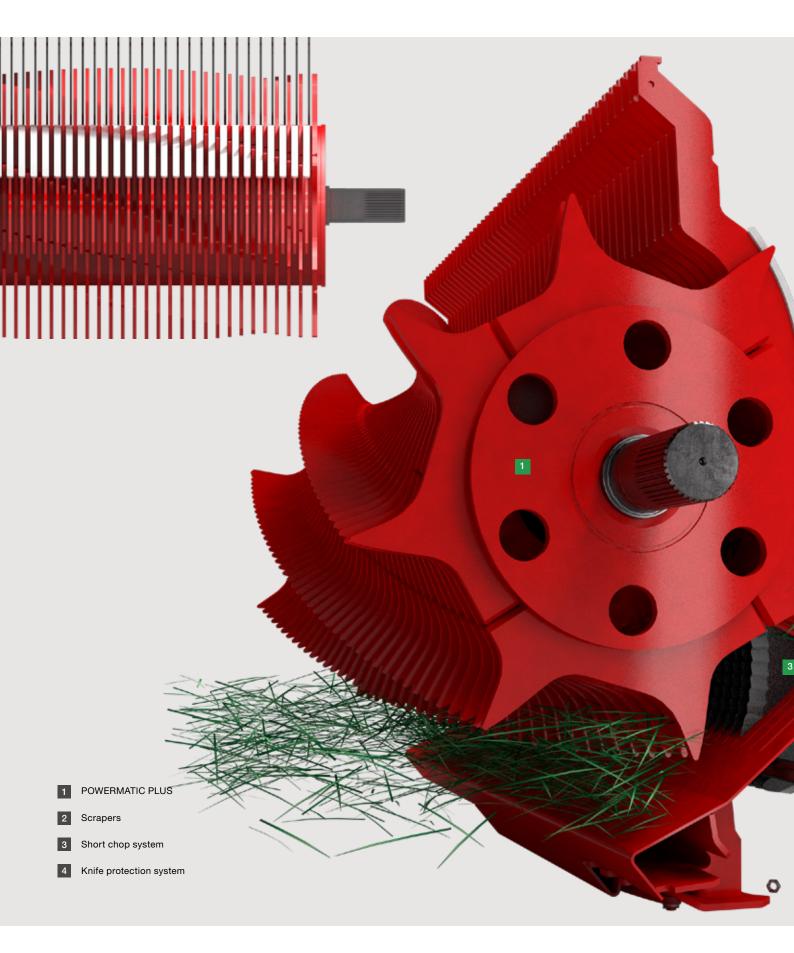
# Healthy animals as a key element to success

"It has become clear to me that with the short chop loader wagon, grass silage can be made more efficiently and milk can be produced more efficiently, so that the farm generates more profit.

In order for the cows to produce a high milk yield, the animals must be completely healthy..."

Colin Bowen Farm Manager Church Stretton | Great Britain

# The highest forage quality





#### POWERMATIC PLUS

The loading rotor with a diameter of 800 mm achieves a high throughput during chopping, conveying and compacting. The 10 mm thick conveyor tines are made of durostat 500 hardened and tempered boron steel and feed the crop perfectly into the chopping system.

### Scrapers

The individual scrapers with 20 mm wide backing plates inside the loading chamber provide a large scraper surface area for the best possible compaction. This ensures the loading chamber is filled to its maximum capacity.

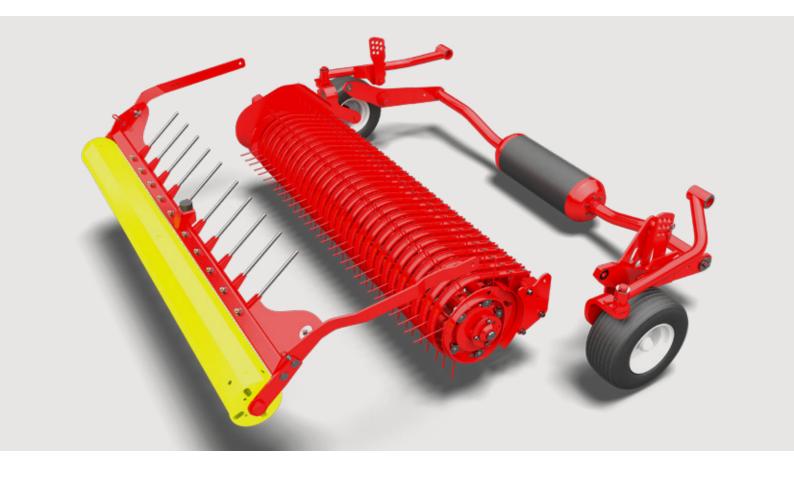
#### Short chop system

With a theoretical chopped length of 34 mm around 80 % of the forage is chopped < 40 mm.

### Knife protection system

The reliable knife protection system protects the loader wagon from foreign objects, avoids downtimes and promotes a consistent chop length for the highest possible forage quality.

# The highest forage quality



# Pick-up controlled from both ends for clean forage

The pick-up is 2 metres wide and is controlled from both ends by a steel cam track. The sealed twin-race roller bearings fitted to the cam rollers are designed to withstand high stresses.

The pick-up with perfect ground tracking for the lowest possible crude ash content makes the loader wagon particularly suitable for collecting forage.

#### Clean forage

The pick-up tines are controlled in a sweeping arc. This results in optimum protection of the sward, lower levels of soil contamination and prevents unnecessary wear to the tines. The shape of the wind guard has been optimised to the flow of crop over the controlled pick-up. A large swath roller supports perfect crop intake at high loading speeds and ensures clean and efficient forage collection. The interaction of the controlled pick-up with the floating pick-up suspension and the low pressure on the ground results in the cleanest possible collection of the crop. This

ensures the contamination level is within the limit values of 80-100 g  $/\mbox{ kg}$  of dry matter.

#### Perfect transfer

The fully active tine leg length on the controlled pick-up transfers the flow of crop smoothly to the rotor, even in difficult harvest conditions.

#### Best chopping quality

Instead of dragging the forage through, they promote the best possible chopping quality.



# Pick-up with perfect ground tracking for a low crude ash content

The two support arms on the pick-up as well as the height adjustable trailing jockey wheels in combination with the parallelogram guided additional jockey wheel chassis ensure perfect ground tracking. In addition, weight alleviation springs are provided as standard to ensure a low ground pressure of around 100 kg.







# Additional tracking roller for the highest forage quality

The optional additional tracking roller prevents the pick-up sinking into tractor wheel marks. It is located on the centreline behind the pick-up and covers a wide area of ground thanks to its generous dimensions. Together with the two jockey wheels, the additional tracking roller forms a support triangle for perfect ground tracking.

This considerably reduces the tines scraping the soil so contamination of the forage is avoided.

# Unique parallelogram guidance

The parallelogram linkage on the jockey wheels leads to significantly better ground tracking.

You get clean forage even in difficult conditions.

The freedom of movement of the pick-up is still 100%.

The working height is adjusted independently of the front jockey wheels.

#### Support triangle

The two jockey wheels and the optional additional tracking roller form a stable support triangle. This significantly increases the area of ground contact and ensures perfect crop collection even in bumpy terrain.

# The best silage quality



# A high quality basic ration is the basis for healthy animals

Healthy cows perform better, provide more milk with a higher quality and ensure more profit.

The choice of the right harvesting method has a great influence on the quality of the forage and is the prerequisite for bringing in forage with a high energy content.

Basically, all the machines in the harvesting process should be designed to meet the high requirements of forage conservation, ground tracking and high output. To ensure that the ensiling process achieves the best quality, it is important that a large quantity of forage is handled efficiently. Machine performance needs to be matched to the fields being harvested and the compaction vehicle in the clamp needs to be suitable to handle the rate of crop being delivered.

Even distribution and rolling in the clamp is usually the bottleneck in the harvest chain, since the machine performance available in the field is generally greater than the performance of the machinery in the clamp. This means that the speed of harvesting is actually determined by the machinery working in the clamp.

The rolling weight required when using the loader wagon should correspond to about one third of the material harvested in tonnes of fresh crop per hour.







# Beaters unload according to demand on the TORRO D

A uniformly distributed blanket of forage is essential for perfect compaction. Two beater rotors guarantee perfect distribution. The aggressive tines deliver an impressive performance even with highly compressed forage. Bars on the rotors ensure maize material can be unloaded effectively. A pressure sensor in the beater rotor bearings controls the scraper floor automatically.

#### Reinforced beater rotor driveline

The driveline to the beater rotors is concealed within the frame.

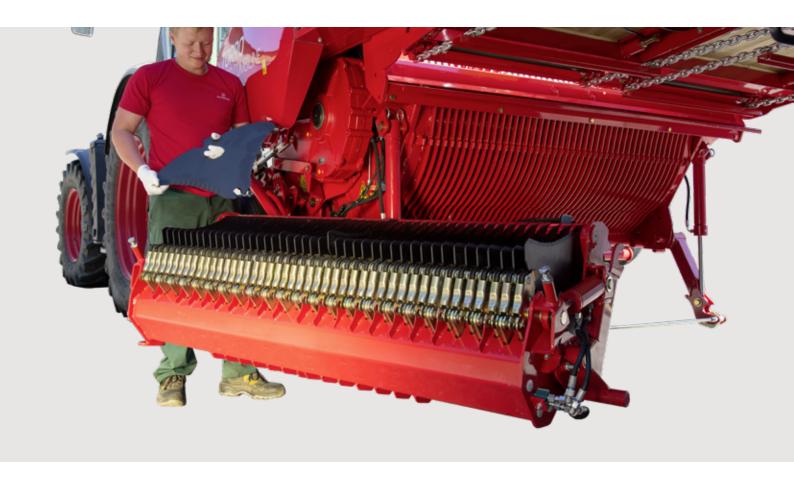
The high-strength drive shaft is protected by a cam-type clutch set at 1,700 Nm.

# "Compacts beautifully in the clamp..."

The large loading rotor installed on the TORRO ensures smooth, fuel-saving output during chopping and compacting. With the rows of tines arranged in a spiral, the crop is chopped right through precisely and evenly in packages. The chopped material is optimally structured for ruminants and can be compacted perfectly in the clamp. The optimum gap between the knives and tines ensures smooth operation and protects the knives from foreign objects. My customers and I describe the chopping quality as very good. With a full set of knives it almost achieves the specified 34 mm to produce almost the same quality as from a harvester, at least for ruminant feeding material.

Gerd Moser
Farmer and Contractor
Satteldorf-Horschhausen | Germany

# The best silage quality



# EASY MOVE swing-out knife bank

This unique swing-out knife bank makes light work of changing the knives.

Press a button on the side of the wagon to move the knife bank support arms downwards. After releasing the mechanical interlock, the knife bank can simply be pulled out to the side. Servicing can then be carried out ergonomically while standing upright.

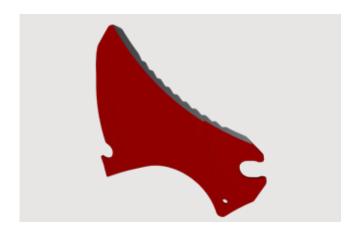
A central hydraulic knife release system is standard.

Press the central knife release button to disengage the knives so they can easily be removed without the need for tools.

#### Simply convenient

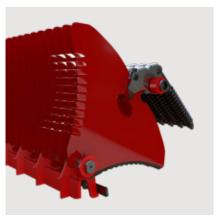
Using EASY MOVE, you can change the knives alongside the loader wagon.

It allows you to carry out servicing and inspection ergonomically.

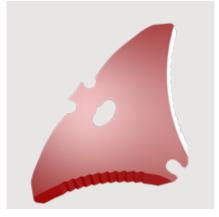


### Highest quality knives

The knives are designed for optimum throughput and made of hardened tool steel. The serrated edge ensures a consistent and precise chop. The extra thick rear edge of the knife guarantees maximum reliability.







### Your knife protection system

PÖTTINGER protects your loader wagon with our patented individual knife protection system. Foreign objects are a danger to the rotor and chopping system plus downtime can be expensive and reduce the quality of the forage.

The triggering force is adapted to the high throughput capacity. The knives are held in the correct position to make sure that they chop consistently.

The knife retention springs and rollers on the individual knife protection system are swung safely out of the way. This greatly reduces the contamination of the knife holders. The chopping system can be pivoted out directly from the tractor seat to clear any blockages.

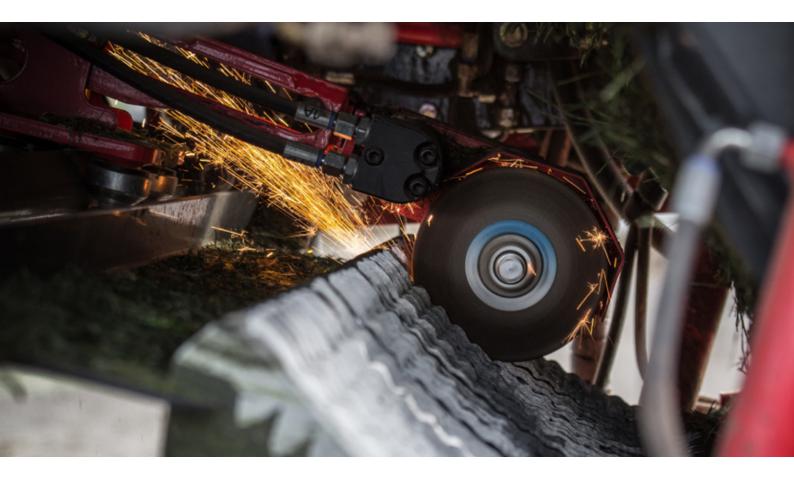
- 1 Foreign objects trigger the protection system. The knife moves in the direction of crop flow.
- The trigger roller is lifted out of its holder behind the knife.
- 3 The resistance of the knife is suddenly reduced so that the knife can allow the foreign object to pass through. The sharpness of the knife is retained.
- The knife is automatically brought back into the working position.

Any stones in the forage are not pulverised. The cattle leave them in the trough so that injuries to the digestive system are avoided.

# TWIN BLADE reversible knives

The optional TWIN BLADE reversible knives ensure twice the service life thanks to its patented new geometry. With TWIN BLADE you have a fresh blade to hand without needing to sharpen the knives or to have a second set with you. This guarantees you perfect chopping quality for as long as the working day lasts.

# The best silage quality



# Fully automatic AUTOCUT sharpening system

A precise and consistent chop is the basis for the best silage quality. AUTOCUT delivers consistent chopping quality throughout a whole working day.

Only really sharp knives can guarantee optimum chopping quality, lower power consumption and increased output. The sharpness of the knives deteriorates continuously during intensive operation.

To counter this, the AUTOCUT knife sharpening system is a convenient way to sharpen the knives directly on the loader wagon.

Depending on the wear of the knives, simply select the sharpening cycle using the control terminal. This considerably reduces maintenance expenses and at the same time guarantees long-lasting optimal chopping quality.

You can reduce fuel consumption by up to 15 % by using knives that are always sharp.

Maintenance work is reduced by about 45 minutes per day, because automatic sharpening can take place during a break.

The driver does not need to clean and sharpen the knives after a long working day.

In addition, the cleaning comb automatically cleans the space between the blades during each sharpening process, preventing deposits or blockages.

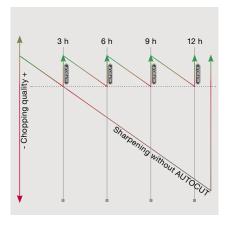
As a contractor, you can offer every customer the same cutting quality throughout the entire working day thanks to AUTOCUT and deliver impressive chopping quality and efficiency.



### Straightforward operation

The CAN-Bus control panel integrated on the side allows all functions on the chopping system, AUTOCUT and the parallel lift drawbar to be operated centrally, simply and conveniently.







### Much lower maintenance requirement

AUTOCUT sharpens the complete set of knives in around 4 minutes per sharpening cycle.

The number of sharpening cycles can be selected on the control terminal depending on the level of wear.

AUTOCUT reduces your maintenance work by up to 45 minutes per day.

# Your advantages with AUTOCUT

- Knives are always kept sharp to ensure best chopping quality
- Fully automatic sharpening of the complete set of knives at the press of a button
- Even sharpens contaminated knives
- Sharpening angle is adjustable
- Sharpening intensity can be regulated as needed
- Time during the sharpening process can be used for breaks, maintenance or work discussions

# Increase profit with sharp knives

"The quality of the cut is important so that you can compress the grass to expel all the air. If I have silage with a high protein and energy content, then I can expect to obtain a high milk yield and only need small quantities of additives - that is what makes production much more efficient."

Hans-Willi Thelen organic dairy farmer and TPS contractors Kall | Germany

# Efficiency and high output



### Efficiency and high output

The 2 m wide pick-up ensure fast and cleanly collected crop even with irregular swath shapes.

The POWERMATIC PLUS driveline is designed for tractors up to 300 hp and delivers a high compaction capability.

A maximum loading capacity without torque peaks for continuous crop flow is ensured by the loading rotor which has eight rows of tines arranged in a helix.

The scraper floor is lowered by 150 mm to enable improved loading and unloading performance.

TORRO unloads the whole wagon uniformly and rapidly in 40-60 seconds.

# Forage conservation at the highest level

In order to conserve the forage, PÖTTINGER implements more technical innovations such as the automatic loading system. This delivers in a smooth force curve without torque peaks during loading.

An adjustable sensor in the front panel of the loader wagon in combination with a torque sensor on the gearbox ensures optimum forage structure even in difficult and changing harvesting conditions.







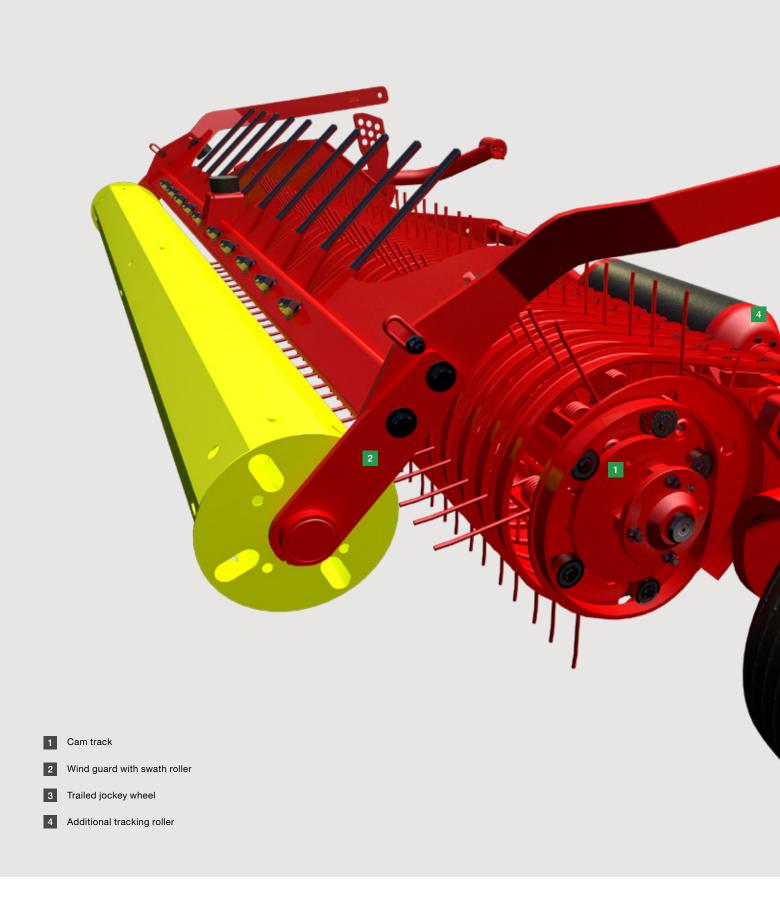
# Power transmission up to 2,300 Nm

The driveline is designed for high outputs. TORRO loader wagons are designed for tractors of up to 300 hp.

These models are driven by a PTO shaft with a wide-angled joint at both ends and a cam-type clutch to protect the driveline. The large-dimensioned grease filled rotor side drive gearbox is completely maintenance-free.

The main bearing is located on the rotor frame between the rotor and gearbox to protect the bearing and gearbox. The driveline is protected to an impressive torque of 2,300 Nm, corresponding to a peak performance of 221 kW / 300 hp.

# Efficiency and high output





### A controlled floating pick-up

Maximum intake thanks to the optimised 6-row, PÖTTINGER controlled floating pick-up with 180 mm of vertical travel and a working width of 2 m. High-quality components in the pick-up ensure a long service life with maximum reliability.

#### Cam track control

The shape of the cam track ensures optimum movement of the tines. This ensures the trailing tines pick up the forage at the correct angle. They convey the crop gently upwards, actively transfer the crop to the rotor at an adjusted speed and at the defined transfer point. The tine dips down at a right angle to prevent the forage from being drawn in.

# Efficiency and high output



### A controlled floating pick-up

#### Maximum intake

The optimised 6-row floating pick-up combines high intake with maximum reliability.

As harvest time windows become shorter, time is an increasingly important factor in harvesting forage. That is why this pick-up was developed especially for the increasing performance requirements.

It combines a consistently high pick-up performance even at high travel speeds and high forage quality even in difficult harvesting conditions.

#### Perfect ground tracking

Two support arms ensure the pick-up has complete freedom of movement. A spring alleviates the pick-up weight so less pressure is exerted on the ground. Height-adjustable 16 x 6.5-8 trailed jockey wheels contact the ground on precisely the same line as the tines to ensure perfect ground tracking and cornering.

- Unique travel of 180 mm for perfect ground tracking and exact contouring.
- The pick-up switches off automatically on TORRO D models equipped with unloading beater rotors.



### TORRO with tailgate

The TORRO delivers maximum unloading performance in the clamp.







# TORRO with beater rotors

The optional beater rotors on the TORRO unload quickly and evenly.

#### Multifunction tailgate

The tailgate opening angle can be set to different positions from the tractor seat to minimise the effects of crosswinds.

- Powerful beater rotor driveline protected to 1700 Nm.
- Automatic chain tensioner
- Easily accessible, central greasing point
- Third beater rotor available as an option

# Precise unloading with cross conveyor belt

The optional cross conveyor belt is 890 mm wide and is powered hydraulically.

- Runs to left or right
- Tailgate locking system

### Efficiency and high output



#### POWERMATIC PLUS

The heart of the TORRO series is robust, powerful and designed for almost unlimited tractor power. The rotor and its gearbox deliver high output chopping and compression.

Thanks to the wide areas at the tips of the tines on the 8-row rotor, it takes over the crop perfectly from the pick-up, even with a wet and short crop.

The rotor tines are arranged in a helix formation, with a diameter of 800 mm to guide the forage actively and smoothly through the 34 mm short-chop chopping system. The rotor is mounted directly on the chopping system frame in order to protect the gearbox as much as possible even under heavy load.

The best possible compression is achieved by an optimised tine shape in combination with the large scraper surfaces inside the loading chamber.

The 10 mm thick conveyor tines are made of durostat 500 hardened and tempered boron steel and are therefore designed for maximum loads. In order to achieve exact positioning and maximum strength, the tine rings are hooked into the inner drum and welded several times around the circumference.

The scrapers inside the loading chamber are slotted in and bolted individually. They feature a 20 mm wide back plate made of Hardox and ensure the highest possible compression, depending on how the automatic loading system is set.







#### Lowered scraper floor

The scraper floor has been lowered by 150 mm at the front end. The forage is pushed upwards as it moves to the rear. This ensures smooth, hassle-free unloading with a low power requirement. Four powerful drive chains ensure rapid unloading.

- Two-speed motor for an unloading speed of up to 18 metres per minute
- Centrally positioned scraper floor drive

The PÖTTINGER scraper floor guarantees long term reliability. The load chamber floor is constructed of pressure treated, durable wood. The tongue and groove boards are bolted to the frame. The hardened bars are offset and easily accessible and the the greasing points for the scraper floor shafts are located at the side of the wagon.

#### Load sensing

All PÖTTINGER loader wagons are load-sensing compatible. The required oil flow rate is precisely measured and adjusted to demand. This prevents the oil from heating up and saves power by up to 20 hp (15 kW).

### Automatic unloading

A push of a button at the control terminal is all that is needed. The automatic unloading system automatically controls all functions such as the tailgate, scraper floor and beater rotors. The full cross-section of the wide opening enables unloading in one minute. The automatic unloading system makes life easier for the driver and protects the machine.

### Cost effectiveness



#### The cost effective process

Choosing the most efficient process must take into consideration the respective requirements of the farm and the local conditions.

In different circumstances, different harvesting processes can be more efficient or suit your harvesting strategy better. The personnel and machines required also have a crucial influence on your choice.

The loader wagon can carry out the operations of crop take-up, chopping, compaction and transport in one machine. That is why the loader wagon is often referred to as a two-person harvest system. Modern loader wagons are generally offered as multipurpose loader wagons so they also meet the requirements of a fully-fledged transport wagon. Because of their flexibility (loading and transport), the machine achieves optimum utilisation.

The loader wagon process guarantees the best quality forage and silage at low harvesting costs, making it the harvesting process of the future.

# Soil conservation with high performance technology

Increasing loading volumes, greater field to farm distances and high transport speeds call for a strong and soil conserving chassis, high quality tandem and tridem chassis and tyres with a large footprint.

High performance technology in conjunction with soil conserving tyres helps to maintain soil health and protect the sward.

Soil compaction can have a direct effect on your profits. Deep wheel marks cost up to 10 % more diesel. Damage due to compaction can result in fertiliser costs up to 20 % higher.







# Forage conservation and cost effectiveness at the highest level

The smooth delivery of power during loading without torque peaks is what makes a modern loader wagon with an automatic loading system stand out. A sensor in the front panel of the loader wagon in combination with a torque sensor on the gearbox ensures optimum forage structure even in difficult and changing harvesting conditions. The loading strategy can be adjusted conveniently from the tractor cab.

The volume of the loader wagon can then always be used in the best possible way.

# Cost efficiency as a key element to success

"The loader wagon really helps to save costs.

You need fewer personnel and the soil is less compacted because you only need one machine instead of two, three, four or even five in the field.

So the loader wagon has many advantages."

Steven Bowen Contractor Church Stretton | Great Britain

### Cost effectiveness



### Automatic loading

The standard automatic loading system guarantees that the wagon is filled right up to achieve maximum transport capacity. The forage is already carefully compressed in the transfer throat to make full use of the loading chamber.





A sensor at the lower end of the front panel measures the loading pressure for damp, heavy grass and switches the scraper floor on and off accordingly.

This prevents the forage from being mashed due to excessive load on the loading rotor.

The second sensor in the forage compression flap measures the compression inside the loading chamber. The forage is compressed uniformly and the loading chamber filled to the optimum capacity.

### Engineered bodywork

The steel profile structure is designed for use as a harvest transport wagon. It can be loaded from above without any problems because it does not need roof bars for reinforcement. The large surface area of the forage compression flap ensures best compression of the crop and maximum use of the loading chamber. It can be equipped with an optional hydraulic cylinder which can be controlled from the tractor seat. This enables a rapid change between pick-up loading and top-fill loading.





#### Loader wagon mode

In loader wagon mode, the forage compression flap is folded upwards to allow the flow of the crop into the wagon, which is then regulated by the automatic loading system. Compression is adjustable so it can be set to ideally match the power of the tractor.

#### Harvest transport mode

To make full use of the loading chamber, the forage compression flap is lowered inwards.

Due to the sloped mudguards, no forage is left lying around even in harvest transport mode.





### Folding rotor duct cover

The optional duct cover prevents crop from falling into the rotor duct while the wagon is being used for transport. On PÖTTINGER wagons the duct cover simply folds away without any modifications required.

### Roof ropes

Roof ropes for a rear tarpaulin are available as an option for crop material with a low density.

The roof ropes can be changed quickly and easily.

In loader wagon mode, they keep the forage compact inside the loading chamber.

They ensure optimum load retention and increase the loading volume by up to 3 m<sup>3</sup>.

# Reliability



### Reliability

Due to constantly growing demands in terms of output with ever shorter harvest time windows, it is all the more important to have a reliable machine available.

TORRO stands for excellent reliability and high performance forage collection, even in difficult harvesting conditions.

### A controlled floating pick-up

The 6 row pick-up is controlled from both ends by a steel cam track.

The tines are slightly trailed to sweep in a controlled arc and adapt ideally to contours. Clean forage is guaranteed as a result.

The fully active tine length up to the withdrawal point ensures the forage is transferred to the rotor perfectly.

Thanks to the reduced speed of the rotor, the forage is not "dragged through". It is fed into the rotor actively. This guarantees maximum conveying performance at high driving speeds and a reliably high intake performance in differing harvesting conditions.







# "High focus on basic ration performance"

The hydraulic tridem chassis with its smooth running in the field and stability on steep ground are particularly important in our area, which features a lot of moorland that is tricky to drive on.

We operate our TORRO 8010L COMBILINE to be independent and choose the best time window for the cut. As a pure grassland farm, we have a particularly high focus on basic ration performance, which is why we appreciate the pick-up on the TORRO. It really conserves the soil while loading extremely cleanly.

The enormous intake capacity and the relatively low power requirement make the TORRO particularly cost effective.

Marcus Kirchmann Dairy farmer Allgäu | Germany

# Reliability



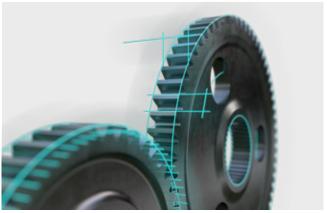
### Strength with the highest quality

The rugged frame construction is made using high quality QStE fine grained steel. Frame and side pillars are fastened using fine thread bolts - no welds. High-strength side profiles and closely-spaced pillars ensure the highest strength.



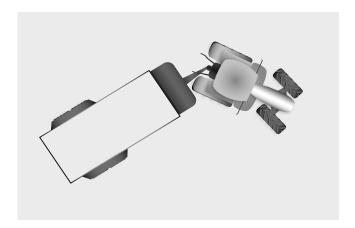
#### High quality components

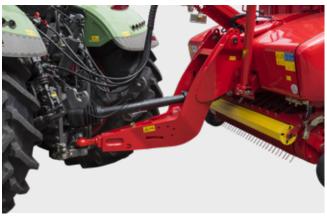
Durability and top performance are characteristics that PÖTTINGER is committed to delivering. Using the highest quality components is a central criterion. That is why we manufacture our parts from the highest quality materials.



# Continuous testing and ongoing development

To further develop its product ranges, PÖTTINGER continually invests in Research & Development and expanding its own test centre at the Technology and Innovation Centre (TIZ), the cornerstone of its quality assurance system. Here, we test our products as to their suitability in field conditions in order to pass on only the very best to our customers. Our testing centre is one of the most modern in agricultural technology worldwide.





### Easy hitching

Depending on the type of tractor and the tyres fitted, a turning angle of up to 60° is possible thanks to the narrow design of the drawbar.

All hoses and cables are routed tidily through the hose holder.

### High or low drawbar

Choose 2 t, 3 t or 4 t drawbar load, the drawbar shock absorber is fitted as standard equipment. For even more convenience, automatic transport and loading positions are available as an option.





### Hydraulic steered axles

This steering system complies with the DIN ISO 26402 standard and guarantees that the wagon follows in the tractor's tracks on steep ground and in the clamp.

- Compact, fail-safe design
- Track rod with automatic interlock for single-handed attachment

### Electro-hydraulic steered axles

A high level of stability when driving at high speeds and the best manoeuvrability in tight corners is ensured by the speed-dependent steering angle adjustment system. In the field, a tighter turning angle ensures greater manoeuvrability and protects the ground. At high driving speeds, less of a turning angle ensures a higher level of safety. Tandem and tridem axles only require a single track rod control.

# Reliability





### Parabolic leaf spring chassis

- 18 t parabolic leaf spring chassis with 22.5" tyres
- 18 t parabolic leaf spring chassis with 26.5" tyres and anti roll bar
- Stable longitudinal linkage design
- Trailed steered axle

#### Optional:

- Mechanical steered axles
- Electronic steered axles on tridem chassis
- Intelligent trailed axles driver assist system
- EBS electronic braking system with Roll Stability Program (RSP)

# Chassis with hydro-pneumatic suspension

 20 t hydro-pneumatic suspension chassis with 26.5" tyres

#### Optional:

- Mechanical steered axles
- "Intelligent trailed axle" driver assist system with axle lock controlled by driving direction detection and inclination sensor
- Electronic steered axles
- EBS electronic braking system with Roll Stability Program (RSP)
- Lifting axle on tridem chassis
- Weighing system

The entire vehicle is designed in accordance with regulation (EU) 2015/68, so it fully complies with the latest legislation.

# Reliability



### Parabolic leaf spring chassis

The compensator arm on the parabolic leaf spring chassis ensures the load is distributed dynamically. When braking this ensures the same load acts on each wheel and excellent deceleration values are achieved.

- Large spring spacing at front 1100 mm and rear 856 mm.
- Strong longitudinal linkages apply the braking and steering force.
- The trailed steered axle protects the sward even with heavy loads (standard).

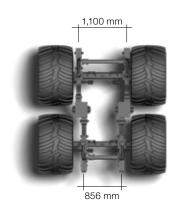
# 18 t parabolic leaf spring chassis with 22.5" tyres

With an axle load of 18 t you can drive through difficult terrain with this chassis.

This chassis together with 22.5" tyres offers a very low centre of gravity, especially for working on inclines.

# 18 t parabolic leaf spring chassis with 26.5" tyres

26.5" tyres offer even lower rolling resistance in difficult conditions and in the clamp.





# Parabolic leaf spring chassis with anti roll bar

The anti roll bar gives you 20 % greater driving stability, best possible load distribution and better handling on steep ground and when cornering.

A torsion bar on each axle connects the springs on each end to the chassis frame. When loads act on the bar it transfers the pressure automatically to the opposite end.







# Hydraulic steered axles

The coupling point for the steered axles on the tractor according to ISO DIN 26402 is based on the 80 mm ball head coupling. This solid towing device guarantees accurate tracking evenon steep ground and in the clamp. It features a track rod with a K50 mm ball coupling with automatic interlock for single-handed attachment.

# Electronic steered axles

To enhance safety and ensure a smooth ride on the road and in the field, you can equip your TORRO with additional electronic steered axles. In contrast to mechanical controlled steering, a safety steering computer controls the steering angle together with a hydraulic unit, for the steering cylinders and an angle sensor on the steered axle.

The axle is controlled by a separate control terminal.

On the Tridem chassis you can choose between several steering programs:

- 1 Normal steering
- 2 Crab steering
- 3 Offset

# "Intelligent trailed axles" driver assist system

This enables you to lock the axle automatically in all operating conditions even without ISOBUS.

A direction-of-rotation sensor axle detects the direction of rotation along with the speed and locks the axle within the defined speed range.

The inclination sensor also locks the axle when the defined inclination is reached.

If the defined inclination value is exceeded, you can also have a warning displayed on the control terminal screen.

# Reliability



### Enhanced safety and positive driving performance thanks to hydro-pneumatic suspension chassis

The hydro-pneumatic chassis gives you a wider wheel spacing of 1,085 mm for safe driving characteristics in all situations.

An impressive increase in driving comfort has been achieved by fine-tuning the suspension characteristics. Using a different hydraulic accumulator when the loader wagon is empty from the one when the wagon is full noticeably increases driving comfort.

A decisive advantage of this new hydro-pneumatic suspension is the axle guidance provided by the longitudinal linkages. As a result the chassis is extremely stable on slopes and enhances safety at high transport speeds.

The large axle compensation of up to 270 mm ensures better climbing ability on inclines, in the clamp and on poor quality roads.

- Standard spring version, mechanically lockable
- Wide support of the guide springs with anti roll bar effect – the axle and guide springs form one unit.
- Highest level of driving comfort in traffic and off-road
- Optimum braking power thanks to equal axle load distribution



## TORRO COMBILINE



# Hydro-pneumatic tandem chassis

Hydro-pneumatic suspension for an axle load of 20 t. Perfect suspension characteristics in the clamp and smooth running in the field and on the road. The high strength longitudinal linkages apply the braking and steering force.







# Hydro-pneumatic tridem chassis

This chassis is available on the TORRO 7010 and 8010.

With steered axles up to a total weight of 31 t.

The tridem chassis distributes heavy loads over a large surface area. The pressure on the ground remains especially low.

Larger axle equalisation ensures a uniform distribution of braking force to all axles. This reduces the pressure on the ground to an average of 0.2 bar. At the same time the wagon follows precisely in the tractor's tracks on steep ground and in the clamp.

# Weighing system for hydro-pneumatic suspension chassis

The optional weighing system on the TORRO enables dynamic weighing as a rough guide while driving, and outputs exact\* measurements when parked.

If the maximum value defined by you is exceeded, a warning is displayed on the control terminal and an acoustic signal is given.

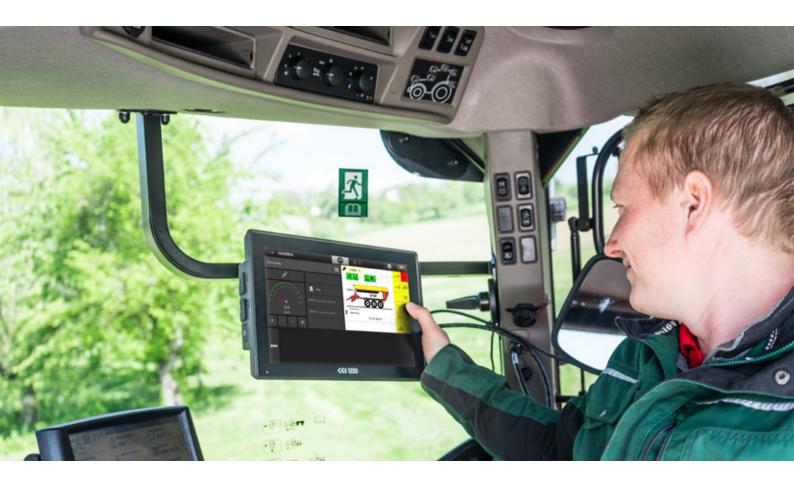
# Lifting axle on tridem chassis

The lift axle function enables you to increase the drawbar load at short notice in exceptional situations during operation.

A safety pressure valve automatically lowers the lift axle in the event of an overload to protect the tractor. The system is operated conveniently from the control terminal.

 $<sup>^{\</sup>star)}\mbox{Measuring tolerance}$  in the range +/- 2.5 %

## Intelligent operation and ISOBUS terminal



## A shared language

# How machine and tractor communicate, even if they are from different manufacturers

Communicating in a common language is what stands behind the term ISOBUS. The need for this stemmed from the fact that each agricultural machinery manufacturer originally developed its own electronics solution. This was an obstacle for any farmer whose machinery consists of equipment from different manufacturers.

ISOBUS refers to the standardised communication system between tractor and implement using standardised hardware and software that is not limited to a single manufacturer: This really makes your daily work a great deal easier.

### More convenience using ISOBUS

ISOBUS eliminates isolated solutions by establishing a standardised, compatible connection between tractor and implement, which should work with all combinations using plug and play: Simply plug the ISOBUS plug into the

ISOBUS socket and you are ready to go. A single ISOBUS terminal replaces the large number of implement-specific terminals inside the tractor cab.

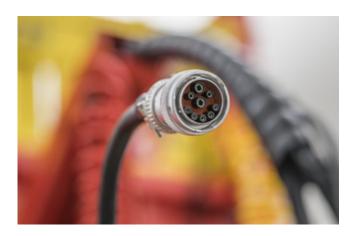
Source: www.aef-online.org

#### The right solution for every requirement

A modern ISOBUS system consists of various components, including tractor, terminal and implement. It always depends on what the terminal and attachments are able to do in each situation, alongside what equipment options have been installed. This is where the ISOBUS functions come into play.

ISOBUS functions are independent modules or building blocks within the ISOBUS system. These work as soon as they are included in all the components involved.

## Digital agricultural technology



### ISOBUS terminals

The ISOBUS terminals EXPERT 75 and CCI 1200 enable professional operation of all ISOBUS-compatible machines made by PÖTTINGER as well as other manufacturers. Both terminals are AEF certified.







# POWER CONTROL – electronic control system

Optional on TORRO models.

The new entry-level POWER CONTROL terminal can be used to operate a wide selection of ISOBUS-capable machines made by PÖTTINGER. The most important feature is the keys that are printed with the relevant machine functions to ensure intuitive operation for both experienced and newbie drivers.

More functions can be controlled and user inputs made using the 5" colour touch display. Optimised for day and night operation, the display also provides clear information on the operating status of the machine.

# EXPERT 75 ISOBUS terminal

Optional on TORRO models.

The compact 5.6" EXPERT 75 ISOBUS terminal can be operated both directly via the touchscreen and using keys or a scroll wheel. Safe one-hand operation is supported by the grip bar. The ambient light sensor and the illumination of the function keys ensure convenient handling even at night.

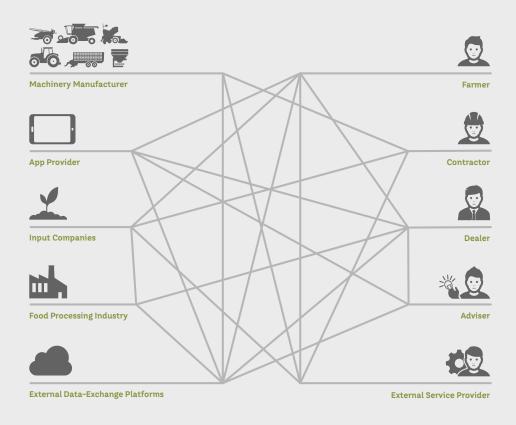
## CCI 1200 ISOBUS terminal

Optional on TORRO models.

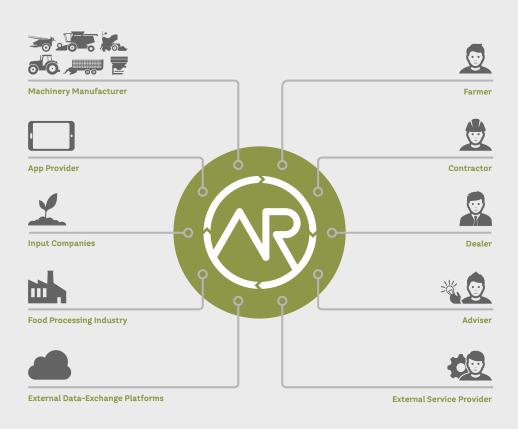
The new 12" CCI 1200 ISOBUS terminal offers the professional farmer a comprehensive function package. The terminal is operated like a tablet using a touchscreen. Navigation is kept simple so you find what you need with just a few taps. The integrated ambient light sensor automatically adjusts the brightness of the display.

# Manufacturer-independent, wireless data exchange

# Without agrirouter

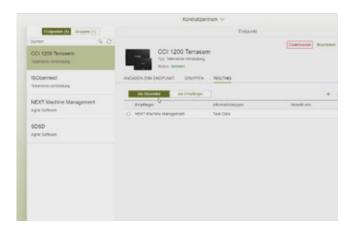


## With agrirouter



## agrirouter

Thanks to the ISOBUS standard, machines from different manufacturers can easily communicate and exchange data with each other. In order to use this data once work has been completed, it makes sense to import it into a farm management system and evaluate it for documentation purposes. While data transfer between agricultural machines from different manufacturers is now straightforward, it has still been difficult to transfer data between machines and software products from different suppliers. This was due to a lack of standards - until now. That is why various agricultural equipment manufacturers, including PÖTTINGER, have joined forces to develop the agrirouter. The agrirouter enables manufacturer-independent, wireless data exchange between machines and agricultural software whilst reducing the number of communication interfaces to a minimum.





# agrirouter - the "data forwarding service"

The agrirouter is a web-based data exchange platform. A free account can be used to send data such as jobs from your field indexing software directly to the CCI 1200 terminal in the tractor. This can also be carried out in the reverse direction by sending machine-related data directly to your farm PC.

#### Transparency

You define the routes on which the agrirouter transports your data.

#### Data security

agrirouter does not store any data - you retain full control.

## We are ready for agrirouter

You can use the agrirouter for sowing technology in conjunction with our VITASEM and AEROSEM with electric metering drives and TERRASEM seed drills. In the harvesting sector, our ISOBUS-compatible loader wagon range FARO, EUROPROFI, TORRO and JUMBO can be connected to the agrirouter.

These machines are able to document and make available data that is meaningful in terms of the work carried out. This data can be sent wirelessly from the tractor to the office as a standardised ISO-XML file using the CCI 1200 terminal. Likewise, you can send jobs wirelessly from your farm management system to the CCI 1200 terminal in the tractor. You no longer need a USB drive for data transfer. Even a machine fleet from a variety of manufacturers poses no problem for data transfer via agrirouter, provided the respective manufacturer is a member of the agrirouter consortium.

More information can be found at www.my-agrirouter.com

## Accessories











	POWER CONTROL	EXPERT 75 CCI 1200 CCI ISOBUS	Additional tracking roller for pick-up	AUTOCUT knife sharpening system	TWIN BLADE Reversible knife
TORRO 5510 L COMBILINE	0				
TORRO 5510 D COMBILINE					
TORRO 6010 L COMBILINE					
TORRO 6010 D COMBILINE					
TORRO 6510 L COMBILINE					
TORRO 6510 D COMBILINE					
TORRO 7010 L COMBILINE					
TORRO 7010 D COMBILINE					
TORRO 8010 L COMBILINE	0				
TORRO 8010 D COMBILINE					

### More equipment options

- Tyres: 710/50R26.5", 800/45R26.5"
- Mechanical controlled steering
- Electro-hydraulic controlled steering
- Lift axle for Tridem with auto lowering function
- Terminals
- LED work lights package 2 and 3
- Weighing system
- DURASTAR knives
- Roof profiles
- Flashing beacon
- EBS braking system
- Video systems
- Warning signs
- Pick-up with hydraulic weight alleviation

- Roof ropes with rear tarpaulin
- Cross conveyor belt

# Often ordered together.













Loading torque sensing	Parabolic spring 22.5	Parabolic spring with anti roll bar 26.5"	Hydro-pneumatic tandem chassis	Hydro-pneumatic tridem chassis	Low drawbar 3 / 4 t
	•	-	-	-	
		-	-	-	
	•			-	
				-	
				-	
				-	
		•			•
					•
					•
		•			•

Configure your own machine.

# Technical data

TORRO L COMBILINE	Load volume DIN   load volume with roof ropes 22.5" / 26.5"	Pick-up width	Knives   knife spacing	Loading area length/width
5510 L COMBILINE	28 m³   29.5 m³ / -	2.0 m	45 pcs   34 mm	5.65/2.30 m
6010 L COMBILINE	31.5 m <sup>3</sup>   33 m <sup>3</sup> / 32 m <sup>3</sup>	2.0 m	45 pcs   34 mm	6.33/2.30 m
6510 L COMBILINE	35 m³   36.5 m³ / 35.5 m³	2.0 m	45 pcs   34 mm	7.04/2.30 m
7010 L COMBILINE	40 m³   41 m³ / 40 m³	2.0 m	45 pcs   34 mm	7.72/2.30 m
8010 L COMBILINE	43 m³   44.5 m³ / 43 m³	2.0 m	45 pcs   34 mm	8.40/2.30 m

## TORRO D COMBILINE

5510 D COMBILINE	27 m³   28.5 m³ / -	2.0 m	45 pcs   34 mm	5.42/2.30 m
6010 D COMBILINE	30.5 m <sup>3</sup>   32 m <sup>3</sup> / 31 m <sup>3</sup>	2.0 m	45 pcs   34 mm	6.10/2.30 m
6510 D COMBILINE	34 m³   35.5 m³ / 34.5 m³	2.0 m	45 pcs   34 mm	6.79/2.30 m
7010 D COMBILINE	38.5 m <sup>3</sup>   39.5 m <sup>3</sup> / 38.5 m <sup>3</sup>	2.0 m	45 pcs   34 mm	7.47/2.30 m
8010 D COMBILINE	42 m <sup>3</sup>   43 m <sup>3</sup> / 42 m <sup>3</sup>	2.0 m	45 pcs   34 mm	8.15/2.30 m

# TORRO COMBILINE

External dimensions length/width	Overall height 22.5"   26.5" tyres	Standard unladen weight	Permissible total weight
8.44/2.55 m	3.65   - m	8.25 t	22 t
9.12/2.55 m	3.65   3.78 m	8.45 t	22 t
9.80/2.55 m	3.65   3.78 m	8.65 t	24 t
10.48/2.55 m	3.73   3.86 m	8.95 t	31 t
11.16/2.55 m	3.73   3.86 m	9.15 t	31 t
8.92/2.55 m	3.65   - m	8.75 t	22 t
9.60/2.55 m	3.65   3.78 m	8.95 t	22 t
10.28/2.55 m	3.65   3.78 m	9.15 t	24 t

31 t

31 t

9.45 t

9.65 t

10.96/2.55 m

11.64/2.55 m

3.73 | 3.86 m

3.73 | 3.86 m

# MyPÖTTINGER



## MyPÖTTINGER - it's easy. Anytime. Anywhere.

NEW STARTING 17/11/2021

#### Benefit from numerous advantages

MyPÖTTINGER is our customer portal that provides you with key information about your PÖTTINGER machines.

Get specific information and useful tips on your PÖTTINGER machines in "My machines". And find out more about the PÖTTINGER product range.

#### My machines

Add your PÖTTINGER machinery to "My machines" and assign a name. You will receive valuable information such as: useful tips on your machine, operating instructions, spare parts lists, maintenance information, as well as all the technical details and documentation.

### Info on the product range

MyPÖTTINGER provides you with machine-specific information for all machines built starting 1997.

Scan the QR code on the machine's data plate with a smartphone or tablet or go to www.mypoettinger.com and enter the machine number from the comfort of your own home. You will immediately receive all the information on your machine, such as: instruction manuals, equipment options information, brochures, photos and videos.

## **ORIGINAL PARTS**





CLASSIC **DURA**STAR **DURA**STAR

### Rely on the original

PÖTTINGER Original Parts meet the highest demands in terms of functionality, reliability and performance. These are characteristics that PÖTTINGER is committed to delivering.

That is why we manufacture PÖTTINGER Original Parts from the highest quality materials. We ideally match each individual spare part and wear part to your machinery's overall system. This is because different soil and operating conditions often need to be taken into consideration.

He have been listening to our customers and now offer three different lines - CLASSIC, DURASTAR and DURASTAR PLUS - to make sure you have the right part to meet every requirement. Original parts are worth every cent, because know-how cannot be copied.

### Your advantages

- Immediate and long-term availability.
- Maximum durability thanks to innovative production processes and the use of the highest quality materials.
- Avoidance of malfunctions due to a perfect fit.
- The best working results thanks to optimum match to the overall system of the machine.
- Save time and costs thanks to longer replacement intervals on wear parts.
- Comprehensive quality testing.
- Ongoing advancement through research and development.
- Worldwide spare parts supply.
- Attractive, competitive prices for all spare parts.

### Wear parts

The CLASSIC line is for standard duty applications. With these ORIGINAL INSIDE parts we have defined the benchmark for quality, best price/performance ratio and reliability.

DURASTAR is the innovation on the wear components market - durable, high quality, productive and reliable.

Are you used to putting your machines to work in the most extreme conditions? Then the DURASTAR PLUS line is the right choice for you.

## **#POTTINGER**





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## Harvest quality

- The cost effective all-rounder that produces the best silage and forage quality thanks to innovative short chop technology
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