

SelfLine 4.0 System 500+ 2519

innovative, efficient, reliable, comfortable



SILOKING



Our philosophy

The challenges associated with securing a global food supply in the future are immense. This is why new directions are currently being taken across many sectors of the international agricultural markets. Thanks to our innovative products and intelligent solutions for a modern feeding technology, we support future-oriented farms that think in a progressive manner and would like to lay the foundation for a sustainable and successful cultivation of their dairy farming operations. We at SILOKING take a stand for agricultural entrepreneurs and young people who desire a perspective for a sustainable future in agriculture.

SILOKING SelfLine 4.0 – the new standard

The SILOKING **SelfLine 4.0** System 500+ 2519 sets a new standard when it comes to increased efficiency, productivity and profitability. This innovative product proves that placing your trust in the technology of one of the world's leading professional feeding equipment manufacturers means benefiting from state-of-the-art technology – with all the performance you will need tomorrow.

Fit for the future

The SILOKING **SelfLine 4.0** helps to further increase productivity, ensuring future competitiveness. The tried and tested assemblies of the mixing and milling units, drive, chassis, cab and controls have all been consistently developed on the basis of practical experience. The goal at all times has been to provide enhanced performance and comfort that can be both measured and felt.

SILOKING's engineers and product designers have equipped the machine with numerous new future-oriented features to further optimize performance. Private contractors and farmers who choose SILOKING **SelfLine 4.0** System 500+ 2519 will be optimally equipped to meet the challenges of the future.





STRONG – on the farm and on the road

Your requirements – a faster and more agile all-rounder

Dairy farms with multiple sites, feeding communities and private contractors are all looking for the same things from a self-propelled feed mixer. It needs to be as fast on the road as it is impressive in tight farmyard spaces. With the new **SelfLine 4.0 System 500+ 2519**, SILOKING has developed precisely this kind of all-rounder to meet the needs of professional users. Fast and extremely agile, this modern self-propelled feed mixer impresses in all conditions.

Perfect in motion



SILOKING vertical mixers guarantee highest feed quality

The one thing that matters most while feeding: the well-being of your cows. To protect and increase their well-being, the structure of the feed and precise mixing must be prioritized. In short: first-class mixing quality is always the focus. And SILOKING vertical mixers deliver.

Designed for peak performance

With hopper volumes from 19 m³ to 25 m³, the **SelfLine 4.0** System 500+ 2519 offers plenty of room for large amounts of feed.

Hopper geometry and turbo auger are optimally matched

The size of the mixing hopper and the mixing auger are of great importance for a homogeneous mixing of the feed. Only if both of these aspects match one another can the best possible results be achieved. Because the hopper geometry is so important in achieving the best mixing characteristics, every model of the SILOKING **SelfLine 4.0** has its own hopper that is carefully designed in accordance with the required shape, height and width. The size of the turbo auger is optimally matched to the required hopper dimensions.

Feed in perfect motion

Thanks to the precisely matched distance between the turbo auger and the conical hopper, the feed is always in perfect motion. The edged hopper slows down the feed in its circular movement and supports vertical mixing. Its waisted center enables additional benefits when mixing smaller quantities.

Homogeneous, structure-gentle rations

The intelligent concept of SILOKING not only ensures a thorough mixing of materials – the large, slowly rotating mixing auger is also gentle on the structure of the feed. No matter if the system is dealing with very long or very short feed components. This not only achieves rations that are always homogeneous and structure-gentle, but also serves to optimize mixing times, thereby saving much time and fuel costs as a constant „stirring“ of materials can be avoided.

A guarantee for a long service life and reliability

The areas on the sides of the discharge doors and the wedge-shaped hopper recesses for 2-auger models are equipped with SILONOX as standard. If higher loads are expected, for example when regularly mixing 40 tonnes of TMR or more per day, SILOKING recommends to have the hopper walls, bottom and the mixing auger be provided with SILONOX as well.

SILOKING planetary gearboxes wherever power is transmitted

This newly developed planetary gearbox was exclusively designed for use in SILOKING feed mixers. This gearbox with 4 planetary gear wheels and optimal reduction stages was specifically designed for the requirements of feed mixers, even under extreme loads. The gearbox is 100% oil-lubricated, which equates to easy maintenance.

When push comes to shove



SILONOX – the ultimate wear protection of SILOKING

Those components of SILOKING feed mixers that are subject to the highest degrees of frictional load are provided with wear-resistant plates made of SILONOX as standard. The hopper waist, the wedge-shaped hopper recesses between the mixing augers as well as areas where an exact guide is important (such as on the sides of the discharge openings) are provided with SILONOX linings. The cutting edge of the discharge doors is made entirely out of SILONOX.

For highest requirements

The SILONOX wear protection consists of a special stainless steel alloy that is resistant to corrosion, acids and abrasions. It minimizes wear even with high throughput quantities. This allows for the service life of the machine to be greatly expanded without requiring any retrofits.

Durability that pays off

The turbo auger, the hopper wall and hopper bottom of the SILOKING **SelfLine 4.0** System 500+ 2519 can be refitted with the extremely stable SILONOX material (optional) via standard welding procedures. Even the hopper wall itself can be made entirely out of SILONOX for high mechanical loads, if desired.

Mixing matters



The turbo auger – for that extra bit of performance

Large auger plus low speed equals a gentle treatment of feed structure – that is the convincing equation in favor of the turbo auger. It rotates at a speed that can be described as gentle in spite of moving a high quantity of feed inside the mix with every rotation. The turbo auger is the result of years of experience and extensive testing by SILOKING. It perfectly matches the geometry of the hopper in size and form and maintains the exact distance to the hopper wall that is required to quickly process the feed components while still mixing in a gentle manner. This results in precise rations and reduced power requirements.

Mixing quality affects safety

The mixing auger of the SILOKING **SelfLine 4.0** System 500+ 2519 is provided with an additional turbo flight by default. This turbo flight ensures an optimal mixing of smaller ration quantities and a quick and even emptying of the mixing hopper. It is also equipped with a heavy-duty magnet to protect against metallic foreign materials inside the feed. This optional heavy-duty magnet is placed so that all foreign materials are reliably removed from the feed.

Better cutting, faster mixing

The “pulling cut” is a special feature of the turbo auger’s XS knives. This results in an improved cutting effect (even for long-fibered substrates), less power requirement and an improved, gentle treatment of the feed. The cutting angle of the XS knives can be adjusted in three stages and thereby easily adapted to individual requirements.

Perfect loading of concentrates

The flat scraping bar immediately collects even the finest of components directly from the bottom of the hopper. This guarantees a precise mixing, even if concentrates are loaded first and allows for any desired loading sequence of fine feed components. The exact distance between hopper bottom and mixing auger is ensured in the long term due to its adjustability. The hardened and wear-resistant scraping bar is also an example of high stability, even under immense loads.

Maximum preservation of feed structure

Practical tests and the experience of users of self-propelled machines highlight the gentle manner in which feed is loaded using the SILOKING milling head. These experiences were confirmed in comparative testing (top agrar 07/08).

Milling head does not affect feed structure

Concerning gentle handling of feed, SILOKING follows the maxim: "less is more". This is also true for silo extraction. The two-meter wide high-performance milling head of the SILOKING **SelfLine 4.0** System 500+ 2519 is equipped with 42 cranked knives coated in tungsten carbide and an equal number of transport shovels – exactly the right amount and with the perfect arrangement to not impair the feed structure while ensuring a high loading performance at the same time.

Designed for a long service life

The milling head can load feed components of all types exactly. The milling drum is made of wear-resistant SILONOX and designed for a long service life. The robust HARDOX scraping bar can be easily replaced, if required.

Smooth feed transport

As opposed to many models made by other manufacturers, the conveying channel of the SILOKING **SelfLine 4.0** System 500+ 2519 is arranged almost symmetrically in the center of the self-propelled. This guarantees a quick transport of feed as there is no risk of backflow. The conveying channel itself guarantees a smooth material flow as well. Thanks to its width of 700 mm, its cross section is uniquely large. Two heavy, standing lifting cylinders ensure stable guide of the milling head and conveying channel at the same time.

A photograph showing a row of cows in a feedlot. The cows are of various breeds, including Friesians and Holsteins, and are all eating from a large pile of yellow hay. They are standing in a line, with their heads lowered into the feed. The background shows the metal bars of the feedlot.

Convincing structure

Clean transfer between conveying channel and mixing hopper

The drive of the loading conveyor belt with power belt is arranged in such a manner that the belt always pulls.

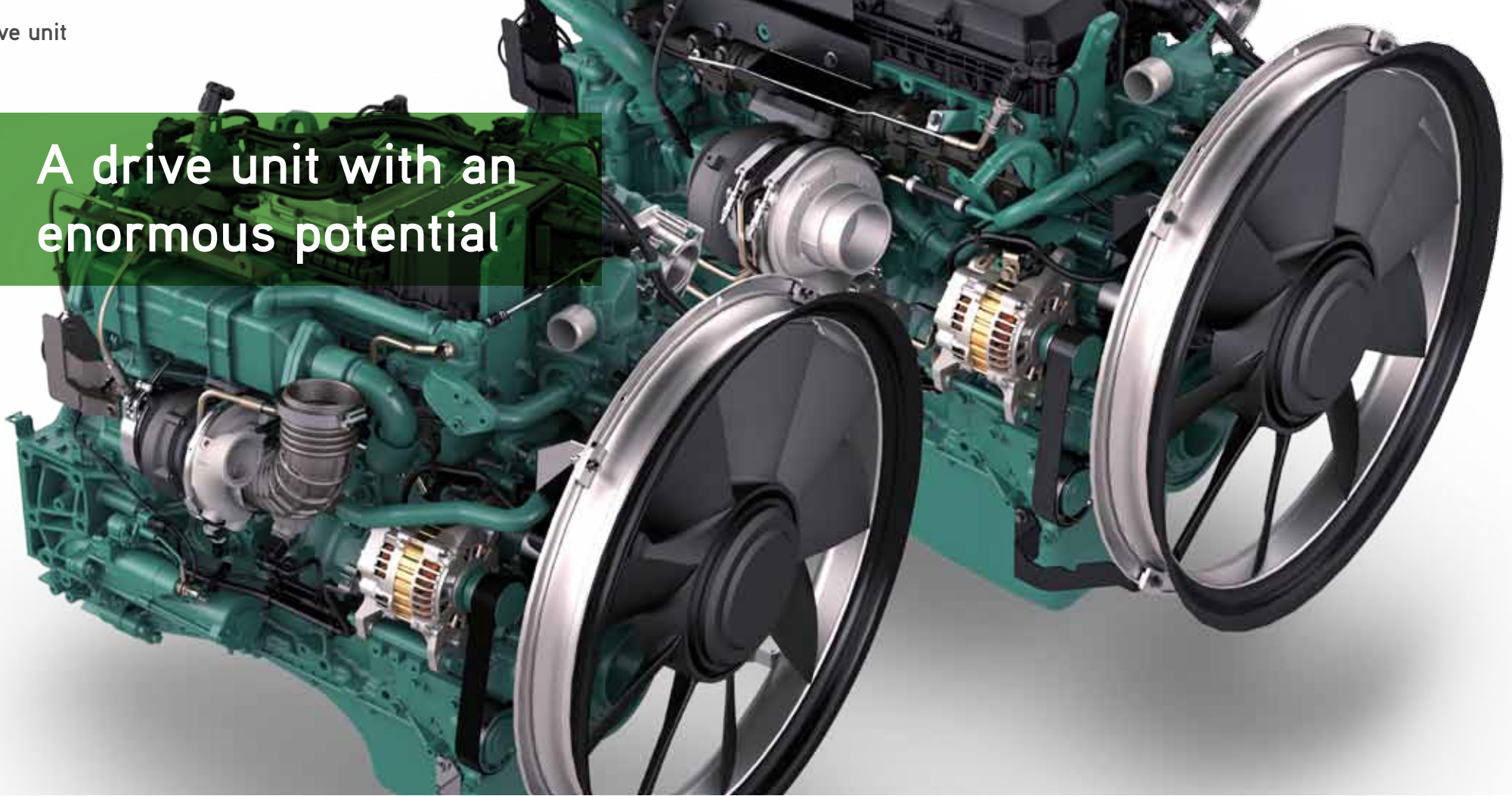
The newly designed transfer area between conveying channel and mixing hopper improves the efficiency of feed transport even further. The new and extendable discharge flap made of flexible plastic ensures an unhindered flow of materials into the hopper.

Convincing qualities

Wherever space is tight, the **SelfLine 4.0 System 500+ 2519-19** is the model of choice. With an overall height of less than 3 meters, even low cowsheds are no obstacle. At the same time, unloading heights of 5.0 or 5.5 meters mean that the **SelfLine 4.0 System 500+ 2519-25** also features impressive reach.



A drive unit with an enormous potential



Central arrangement of drive unit

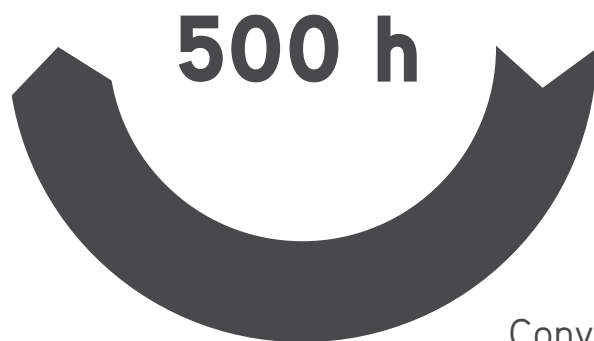
Short distances equal low losses. This simple formula was applied to the overarching concept of the drive unit (engine, hydraulics, filter and air filter) of the SILOKING **SelfLine 4.0 System 500+ 2519**. The central arrangement of the drive unit with all its hydraulic components on the front axle makes a lot of sense. For a short distance to the hydraulic consumers equals a high degree of efficiency and minimized oil quantities. In other words: pure efficiency.

Optimal weight distribution for optimal performance

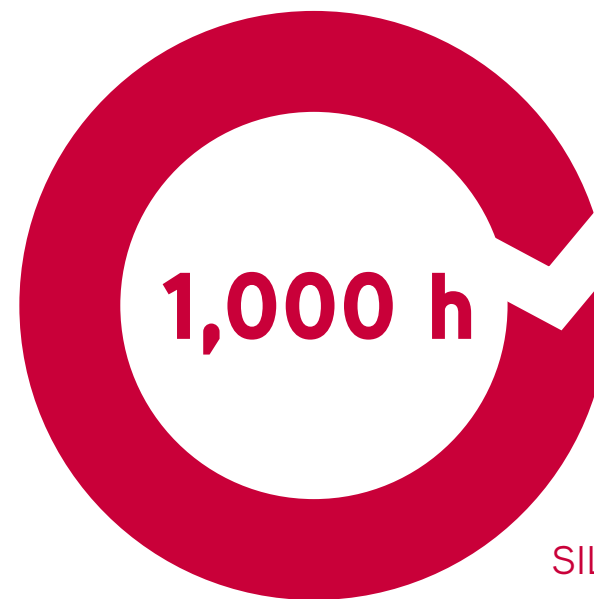
The central arrangement of the drive unit also allows for intelligent weight distribution and provides additional traction to the front axle – of great importance for a clean feed extraction from the silo. This guarantees a high degree of efficiency, safety and driving comfort.

A strong heart

Inside the SILOKING **SelfLine 4.0 500+ 2519** beats a strong heart: a Volvo 6-cylinder with Stage IV exhaust. The high-torque Volvo D8 engine is not only extremely powerful and fuel-efficient. Thanks to its extremely long 1,000-hour service intervals, it is also uniquely economical.



Conventional
engine technology



SILOKING 4.0
engine technology

Reliable power

A cylinder capacity of 7,7 litres and 160 kW (218 hp) make the Volvo D8 engine a reliable powerhouse. The engine has proven its robustness and reliability in use around the world in the worst of conditions a thousand times over. Its extremely high torque at low speed results in very low fuel consumption. The economic viability of the engine is also expressed by its long service life. As the low speeds cause significantly fewer vibrations, the wear on the engine and its attached components is decreased.

Maintenance-free exhaust gas treatment

The maintenance-free exhaust gas treatment system of the Volvo engine offers additional savings potentials. Thanks to SCR technology (selective catalytic reduction), the emission of harmful nitrogen oxides is reduced to a minimum – in a pleasingly easy manner. Whereas other manufacturers require additional units and particle filters to satisfy the strict emission standards, only one thing is necessary for the Volvo system: to refill a bit of AdBlue every now and then. Apart from that, the maintenance-free catalytic converter does all the work.

Two partners you can rely on

SILOKING and Volvo form a partnership of trust and strength that SILOKING customers can greatly benefit from. The service network audited by SILOKING is already equipped with the required diagnostics equipment at the time of market launch. Trained and capable personnel ensure proper maintenance for the new SILOKING **SelfLine** 4.0 models from now on.

Maintenance every 1,000 hours only

The engine oil must only be replaced every 1,000 operating hours. This allowed for the entire maintenance interval of the SILOKING **SelfLine** 4.0 System 500+ 2519 to be changed to 1,000 hours. Compared to engines of similar power, this equals 50 % less maintenance time and costs as well as much higher machine availability. The fact that standard engine oils can be used also has an additional positive effect on operating costs. The engine is also equipped with other features, such as the electronic oil gauge, which alerts the user to a critical oil level. Easy access to the engine itself is another factor in contributing to the maintenance-friendliness of the SILOKING **SelfLine** 4.0 System 500+ 2519.

Smooth hydraulics

Uncompromising quality and highest efficiency

The hydraulic system of the SILOKING **SelfLine** 4.0 System 500+ 2519 is just one of many highly efficient units of the new self-propelled machine, which only have one goal: achieving the best productivity and efficiency. The hydrostatics and pumps made by world market leader Bosch Rexroth ensure that this goal is confidently reached. All units of the SILOKING **SelfLine** 4.0 System 500+ 2519, such as the loading unit, mixing unit and drive unit are hydraulically driven. In spite of the high number of consumers, the sophisticated hydraulic system only requires 250 l of hydraulic oil. The developers at Bosch Rexroth and SILOKING rightly take pride in their work.

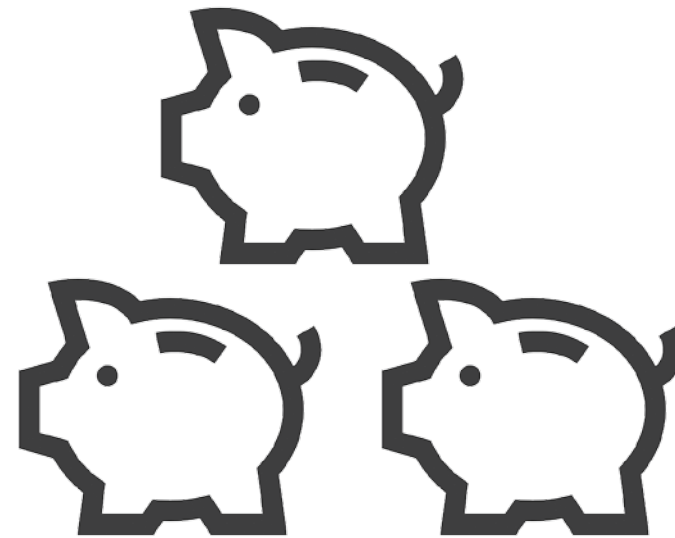
Simple and inexpensive maintenance

The technically sophisticated new filter system with return filter means that the hydraulic oil is filtered completely. This results in long maintenance intervals of 1,000 operating hours, which further reduces the maintenance costs of the SILOKING **SelfLine** 4.0 System 500+ 2519. The value for money provided by the new solution is also evident in the fact that standard oils and filters can be used.



Best cold-start behavior

The new SILOKING self-propelled machine is also equipped with a hydraulic oil pre-heating system as standard, which results in an excellent cold-start behavior.



SILOKING 4.0
hydraulic system

More than efficient cooling

Best cooling performance for highest efficiency

The SILOKING **Self**Line 4.0 System 500+ 2519 is equipped with a large single-surface radiator, which ensures highest cooling power and therefore efficiency. The modules for oil, water, engine and charge air are arranged next to one another instead of behind one another and form a large-scale radiator unit. This inevitably leads to an excellent cooling performance. An optimal cooling performance under all operating conditions is therefore ensured.

Always proper air supply

In daily use in the silo and barn, the radiator is always exposed to a high degree of dust pollution. The SILOKING self-propelled is therefore equipped with a Cleanfix switching fan for radiator cleaning purposes by default, which cleans any contaminated radiator using a concentrated air flow. The radiator cleaning system, which is interval-based by default, minimizes cleaning requirements enormously. The efficient cooling system thereby saves fuel and maintenance costs.

Clean air for optimal outputs

The air filter of the SILOKING **Self**Line 4.0 System 500+ 2519 is a multi-filter system, consisting of a coarse dirt separator, a centrifuge and a large filter cartridge. The upstream coarse dirt separator, which is maintenance-free, minimizes the cleaning efforts of the air filter significantly.

The overall design of all assemblies is another example for the high degree of service-friendliness of the new self-propelled vertical feed mixer of SILOKING.





Outstanding on-road performance

The first choice under all conditions

The **SelfLine 4.0 System 500+ 2519** plays to its strengths everywhere where reliability and performance count, even under difficult conditions. Thanks to four-wheel steering, it also copes easily with rough terrain and paved surfaces.

The machine features large tires and is very agile, thanks to the two steered axles. High levels of traction are guaranteed even when empty, delivered by the front drive axle with its clustered drive and hydraulic power units.

Perfect driving comfort

With its superior characteristics, the SILOKING **SelfLine 4.0 System 500+ 2519** is as impressive on the road as it is on the farm. The machine is available in three speed versions (25/40/50 km/h). On all versions for fast road driving, the front and rear air suspension and automatic level control – even under varied loading – guarantee excellent ride comfort, driving stability and therefore safety. High levels of comfort on uneven farmyards or dirt roads is not only good for the driver. Because the excellent suspension effectively absorbs vibrations caused by irregular surfaces, it also protects the mechanical assemblies of the SILOKING **SelfLine 4.0 System 500+ 2519**.

Economical in use

Low-wear drum brakes are used in the 40 km/h and 50 km/h versions of the SILOKING **SelfLine 4.0 System 500+ 2519**. Due to the low running resistance of the brakes, consumption can be reduced even further. Along with the automotive design of the engine control (rev-reduced driving on roads), this results in an economically very interesting package.

A first-class workplace

The perfect environment for relaxed working

The cab of a self-propelled feed mixer is the driver's daily workroom, often for hours at a time. With this in mind, SILOKING **SelfLine** 4.0 System 500+ 2519 has been equipped to ensure that the driver enjoys maximum comfort, good ergonomics and safety in all conditions. For SILOKING knows: high driving and operating comfort not only make the work of the driver a pleasure, they also make it significantly more efficient.

Comfort and technology for significantly better performance

The large-space cab designed by the specialists at Lugstein makes working with the SILOKING **SelfLine** 4.0 System 500+ 2519 a true delight thanks to its spaciousness, excellent all-round visibility and perfect operation of the controls. The combination of carefully thought out innovations and improvements with a perfect sense of well-being results in a daily performance that is increased by up to 30 %.

One man, one machine

The high degree of work comfort offered by a modern self-propelled, such as the SILOKING **SelfLine** 4.0 System 500+ 2519 translates directly to increased outputs, as motivated and happy drivers work more productively and achieve better results. On professional dairy farms, the self-propelled feed mixer is their daily workplace. Seven days a week, 365 days a year. In summer as well as winter, as bad as the weather conditions might be.

A workplace that suits professional requirements

SILOKING **SelfLine** 4.0 System 500+ 2519 is a machine for professionals. It is therefore a matter of course that the driver has certain professional workplace requirements that must be satisfied by the machine. And the cab of the SILOKING **SelfLine** 4.0 System 500+ 2519 satisfies these to the fullest!





All of a piece

The cab delights with numerous features, such as a seat with air suspension and ergonomically optimized multi-functional armrest as standard. This armrest is used to easily control all functions using an intuitive button and joystick control assignment. It is adjustable in height and length independent of the seat surface itself. The three-way adjustable steering column optimally matches the driver's seating position. Thanks to the large wipers, the driver is provided with a clear view even in the worst weather. In very warm weather, the automatic climate control system that is both easy to control and maintain can be of great benefit (optional). It improves working conditions inside the cab even more, as does the top-quality finishing and refinement of the cab itself, which keeps noise levels inside to a minimum.

Everything at a glance

The 7-inch display provides the driver with all the required information regarding operating conditions and loading as well as unloading functions. The quick selection button in the armrest allows for a convenient selection of the different modes (driving mode, loading mode, unloading mode, air-conditioning control mode, system mode).

The simple and innovative control of the machine is supported by this solution. It was the goal of this development for the new **SelfLine 4.0** System 500+ 2519 to not impair the driver's field of view in any way. This was successful as well.



Comfort makes efficiency

Functions on demand

The intelligent CAN-bus control system mounted on the multi-functional armrest of the driver's seat achieves further increases in working efficiency. The button and joystick control assignments are intuitive and thereby extremely efficient. Working processes are easily and quickly programmed and simply started on the press of a button.

Reduced workload at the push of a button

One great example for the manner in which workloads can be reduced is the comfortable Feed Table Management. Instead of requiring a plethora of manual inputs, a single press of a button is enough to initiate multiple hydraulic functions in an automated manner, such as the "extend discharge conveyor", "switch on discharge conveyor" and "open discharge door" functions. It's hard to think of a simpler and more convenient way.





A clear view

Ensuring a clear view for the driver of the SILOKING **SelfLine 4.0** System 500+ 2519 was an important development goal. This had a number of beneficial side effects. In this regard, the cab is equipped with a windscreen at an optimal angle that also prevents dirt from depositing while offering more space inside the cab. The increase in space is accompanied by a similar increase in driver well-being.

Comfortable entry and immediate overview

The wide and wide-opening door as well as the low entry level to the cab provide additional safety and comfort. To ensure that the driver also finds his way in darkness, the cab of the SILOKING **SelfLine 4.0** System 500+ 2519 is provided with interior lighting as standard.

Great all-round and upward view

After the driver has taken his seat, he is provided with fantastic all-round visibility thanks to the unique cab design. Thanks to the latter, his view on the silo cutting surface is also improved significantly. A roof window with protective grille ensures good visibility upward. For cleaning purposes, this grille can be lifted without requiring any tools to do so if the window becomes excessively dirty. Speaking of cleaning windows: the effective wipers and water jets of the SILOKING **SelfLine 4.0** System 500+ 2519 restore visibility as quickly as possible.

Excellent visibility, even in the dark

If lighting conditions are poor, the LED lighting strip ensures great visibility at close range. It is integrated into the roof grille and illuminates the main working area of the self-propelled feed mixer in an optimal fashion.

Cab functions that are easy to maintain

The high-performance air conditioning and heating system of the SILOKING **SelfLine 4.0** System 500+ 2519 are housed in the cab roof where they are easily accessible. The filter systems for these two installations are also easily accessed from the ground for maintenance purposes. The electric fuse box is also located outside the cab. Located next to the entry door, it can be reached effortlessly and quickly.

Quality without compromise



Quality is the foremost principle at SILOKING

The name SILOKING stands for highest quality in feed mixing technology around the world. Thousands of farmers and agricultural contractors trust in the excellent quality and reliable functioning of feed mixers as well as mixing and dosing systems from Tittmoning in Bavaria. The principle of utmost quality extends to all business divisions of SILOKING and culminates in machines that convince customers through maximum performance and guarantee a top-rate mixing quality at all times. Our modern series production and an active quality consciousness contribute their parts in equal shares.

Quality assurance without “ifs” or “buts”

Quality assurance and service-friendliness go hand in hand at SILOKING. For example, specific color markings clearly and unambiguously mark those electrical connections and hydraulic connections that belong together. It is also a matter of course at SILOKING that all important screw connections are color-coded after tightening. The standardized hydraulic hoses and cable harnesses (with rodent protection) contribute their parts to a high degree of operating safety.



Oil dialysis ensures pure hydraulic oil

After completion of a SILOKING **Self**Line 4.0, its entire hydraulic system is subjected to a 7-hour oil dialysis. This not only ensures that any contaminations are filtered out of the hydraulic oil, hydraulic damage during commissioning is also prevented by 100 %.



Extreme testing of milling head

After that, the milling head is subjected to a severe load test for a duration of 90 minutes. By simulating extreme loads, SILOKING can guarantee the operational reliability of its feeding equipment under all possible conditions.



Rigorous testing

Prior to delivery to the customer, every machine is rigorously tested for one and a half days. This includes another check of all electric and hydraulic functions as well as road testing. After such a thorough inspection, there's nothing that stands in the way of your SILOKING **Self**Line 4.0 System 500+ 2519 living a long and equally intense work life.



First-class-partnership for maximum success

Nationwide service network

SILOKING operators have access to a nationwide service network offering spare parts, qualified service technicians on-site and 24-h long availability for feeding technology is used every day of the year. The SILOKING hotline enables customers to find a competent point of contact around the clock if required. The centralized spare parts warehousing as well as nationwide service network with audited service partners and a high number of parts available on-site complete SILOKING's extensive customer care program.

Mayer Maschinenbaugesellschaft mbH

Kehlsteinstraße 4 | 84529 Tittmoning | Germany

Phone +49 (0) 86 83 / 89 84-0 | Fax +49 (0) 86 83 / 89 84-55

E-Mail mayer@siloking.com

Your SILOKING Partner

SILOKING

simply
intelligent
feeding

www.siloking.com



P000486-11/15/1.000_1We