

» **SAMSON SP SPREADER** SP9/11, SP12/15 and SP14/17



- growing together



» SP Spreaders: Innovation

Many years' know-how – an uncompromising design

The SP spreaders are the result of 65 years of SAMSON AGRO know-how. The series has continuously been improved and adapted to intensive use in farming.

With the SP spreaders, SAMSON AGRO became the first producer in the world to launch spreading equipment with vertical beaters. This significantly increased its capacity. The most important characteristic of the SP series is its ability to easily, precisely and effectively chop and spread an even layer of animal dung/muck on the field. This is crucial for the utilization of the nutrients in dung by the plants.

The SP series is very versatile and geared to cope with all forms of spreading tasks – both on large farms, for agricultural sub-contractors, at biogas plants and machine cooperatives. This is a very robust series of spreaders with very low maintenance costs.

Capacities

The SP spreader is available with and without side extensions. The smallest model without extensions is the SP9. With the higher sides it becomes SP11. The mid-range model without side extensions is called SP12 and with higher sides SP15. The largest model is SP14 without extensions and SP17 with the higher sides.

New for 2015

The SP-series has been improved and adapted to user needs in 2015:

- Capacity has been increased to include top of the range SP14/17. The box on this model is 55 cm longer than on SP12/15
- Gear box and oil engines have been upgraded to give a more high-powered conveyor chain
- Spreaders are now fitted with new integrated 13-tonne axles from BPW
- New design of the front grille/stone guard gives better visibility from the tractor when filling and emptying
- The SP spreader can as an option be fitted with a hydraulic back door, that opens 100 mm higher than previously
- Stronger mud guards are now an optional extra. These guards are also tilted to such an angle to stop the accumulation of mud on guards
- Spreading limitation is available to the left, to the right or to both sides





» Well thought through design
 Outstanding durability



Conical box

The SAMSON AGRO box construction is conical in shape, with the wider end towards the rear which ensures a natural and effective flow of the material from the front to the back. The conical shape also prevents material forming a bottleneck in the box even when the manure has a high straw content.

High-quality finish

The SAMSON AGRO spreaders are sandblasted and then primed and painted. This gives optimal protection and durability of the surface of the spreader.

Domex steel

Just like all other SAMSON AGRO spreaders, the vital parts on the SP spreaders are constructed from high-strength steel that combines low weight with high strength. For example, most of the box is produced from Domex high-strength steel. Depending on the shape and the types of stress the parts in this high quality are exposed to, the components in Domex high-strength steel can cope with stresses that are four times higher than standard grade 235 steel.



» An effective work machine

Low loading height

The SP spreader from SAMSON AGRO is constructed with a low centre of gravity and wheels that are closely aligned with the box to give maximum stability and one of the lowest loading heights in the market. Despite the low centre of gravity, the SP spreader can be fitted with large wheels (up to 1.82 m diameter).

The SP spreader can easily be loaded using for example a tractor with front loader. The construction of the box and the stability of the spreader mean that it can be filled to an impressively high level. Even when driving on sloping ground with a full load the SP spreader is very stable.

Ideal power transmission

Because the wheels are positioned so far to the rear, there is no risk of negative pressure on the drawbar eye. Even when the box is nearly empty, power transmission is never a problem.



Watertight

The material in the box is moved towards the beaters by two double chains. Rubber flaps are fitted both to the bottom of the box and the top of the spreading table so the liquid in the material does not leak from the box, even when very watery material needs to be spread.



Perfect visibility

The SP spreader is equipped with a tall and wide front grill/stone trap so the driver of the tractor is protected against flying stones from the spreader and which also ensures good visibility from the tractor at the filling and emptying stage of the box.



Extreme comfort

The SP spreader is equipped with four shock absorbers in rubber (two above and two below the three-point hitch) to give a good suspension both when the box is completely filled and nearly empty.

» SAMSON AGRO BEATERS: A UNIQUE CONCEPT



Unrivalled experience, precision and performance

SAMSON AGRO has in cooperation with experts from independent research institutes developed a unique design for the beaters on the SAMSON AGRO spreaders. The design gives an optimal and uniform spreading pattern and allows dosages from 4 to 70 tonnes per hectare. The individual beater is like most other beaters a screw construction, but the spiral turns in the opposite direction for the lower third of the beater. Along with powerful deflectors on the spreading table this means that the material is perfectly spread without the wind having a large impact on the spreading pattern.



1

For the top two-thirds of the beater, the spiral turns left. Counter-clockwise. This gives a parabolic and uniform distribution of the material.

2

For the bottom third of the beater, the turn of the spiral is reversed. This gives a downward spread with a shorter arch, so the spread is less sensitive to the wind.

3

The deflectors at the bottom of the beaters on the spreading table remove the remaining material in the box of the spreader and the majority of any foreign objects.



Sharp knives

The sharp knives on the beaters are reversible and bolted on. They are made from 24MnB5 steel that has subsequently been hardened. They are uniquely designed to allow perfect shredding/tearing and a wide-angle spreading of the material.



Smart-design spreading table

The SP spreader is fitted with a uniquely formed spreading table. It is made from high-strength steel to increase its durability. The curved shape around the deflectors ensures a natural discharge of all the material. The spreading table can be replaced as it is bolted onto the spreader.



Ball bearing on the beaters

The beaters are hung from a in-built ball bearing system, which means that a beater can swerve if a foreign object enters the system. The transmission is fully protected. Lubrication points for these ball bearings are placed in mans height.



» A versatile spreader for many types of tasks

High performance

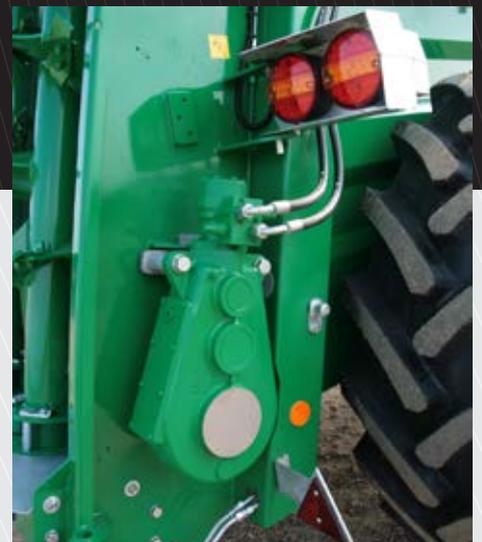
The SP spreaders have been designed to meet user needs and their desire to be able to spread heavy and compact material or material with a high straw content. The SP spreaders are

therefore a good choice when a good performance needs to be combined with a guaranteed wide spreading span and a precise spreading pattern.



Very tough construction

The SP spreader box has a unique design. The vertical sides have a bend/folded design, which gives a very strong construction, allowing very sticky material to be spread without problems, since the suction effect that is possible with straight sides is prevented.



Strong torque

The powerful gear configuration ensures a smooth drive of the floor chains.

» EXTREMELY STRONG DOUBLE FLOOR CHAIN FITTED AS STANDARD



Stable flow of material

A double floor chain ensures a regular and stable flow of material to the rear of the spreader. The chain is made from strong steel and is powered by a strong gearbox. The floor chains of the SP spreader can work in both directions.

L-shaped carriers

The carriers are made from hardened steel and cover 95 per cent of the floor of the spreader box. They are placed at 330 mm intervals. The L-shaped profile makes them very strong and ensures a more complete emptying of very sticky material. The material furthermore falls off before the chain and carriers move back to the front of the spreader under the box, avoiding spillages on the road.

Flat SAMSON chains

The flat-link chains only used by SAMSON AGRO are very robust, which means a long working life and low maintenance costs. The flat chains make the SAMSON double floor chains extraordinarily durable.



Uniform wear

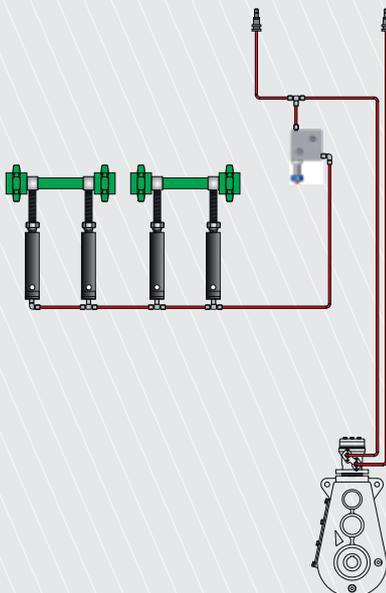
It only takes a few minutes to shorten the chain. When the chain has been correctly adjusted, the hydraulic chain tensioner (optional extra) ensures that the chain is uniformly tightened. This helps reduce wear on the chain.



Self-cleaning wheel sprockets

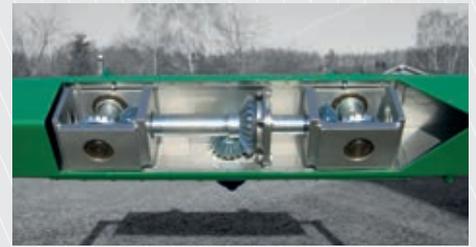
The chain is cleaned by wheel sprockets on the floor chain axles that are located at the front and rear of the box. This means that each link on the chain in the spreader is automatically cleaned leaving no material to drop off under the spreader.

» FLOOR CHAIN TENSIONER - OPTIONAL EXTRA



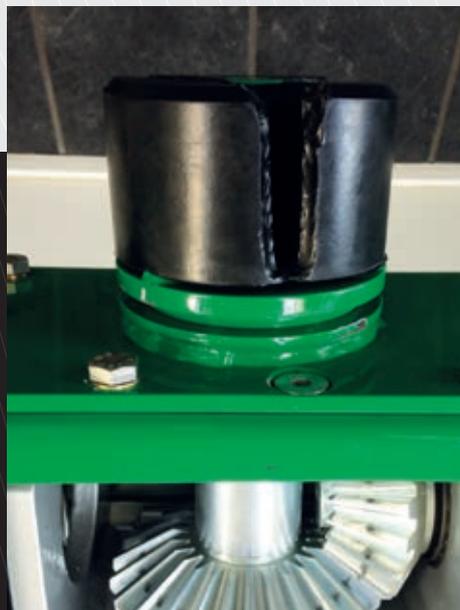
Muck spreaders from SAMSON AGRO can be fitted with a patented hydraulic chain tensioning system (optional extra) that increases the working life of the spreader because it ensures that the chain tensions are always optimal relative to the weight of the material carried in the box. Four cylinders placed in a series ensure a correct tightening of the four chains. The easy use and the controlled tightening of the chains result in low maintenance costs.

» VERY STRONG GEARBOX



SAMSON gearbox

SP spreaders are equipped with SAMSON's high-performance, unique triple block transmission with integrated flexible couplings. This powerful gearbox allows the beaters to work at 534 rpm leading to a good shredding/tearing of the material. The high oil capacity of the gearbox (27 litres) ensures a constant lubrication, performance and natural cooling without stoppages/downtime and thus a long life.



Excellent strength

The SAMSON gearbox that was launched over 40 years ago has continuously been improved since then. With the extra large conical couplings it is an excellent choice when a high output is needed. The gearbox also gives rigidity to the subframe. Easy access to the gearbox makes maintenance easy.

Inbuilt safety

There are integrated and flexible couplings between the gearbox and beaters. The couplings absorb knocks from any foreign bodies ejected by the beaters, thus protecting the gearbox.

Wooden Pobjco bearings

The main transmission cable is mounted on wooden bearings. This solution, which SAMSON AGRO has used for more than 40 years, eliminates the need for maintenance and lubrication. The bearings at the front and rear of the drive shaft have easily accessible lubrication points.

» STANDARD EQUIPMENT



» High-quality product

Standard equipment for the SP spreaders includes:

- Vertical beaters with flails suspended deflectors
- Wide-angle PTO with safety clutch (automatic clutch) with freewheeling
- The bearings of the beaters can be lubricated manually at eye height
- Hydraulic adjustment of the chain speed and emergency control
- Three-point hitch is mounted /supported by four rubber shock absorbers
- Manually adjustable floor chain speed
- Wide front grill to capture stones and providing good visibility of the filling and emptying of the box
- Easy access for floor chain lubrication
- Access ladder

For better road safety

LED lights are fitted as standard on SP12, SP15, SP14 and SP17, while SP9 and SP11 are fitted with incandescent rear lights. An optional extra is a hydraulic flap for the lights and wheel guards, so the lights are not soiled during application of animal manure. These options are different for SP9 and SP11 compared with the larger SP spreaders.



»» OPTIONAL EXTRAS



»» HYDRAULIC BACK GATE

A hydraulic gate can be mounted on all SAMSON spreaders. It ensures that no material is spilt when driving on roads. The smart design with two actuators/cylinders of two different diameters ensure an even rise of the back gate. The rear end of the SP spreader is wider than the front end, which means that material is continuously flowing towards the beaters.



»» BACK GATE INDICATOR

The scale indicates the height of the raised hydraulic back gate.



»» SAFETY BACK DOOR

It is possible for the spreader to be fitted with a safety back door, which for example is compulsory on the German market.



SPREADING OF COMPOST

All SP spreaders can be fitted with a compost distributor for the spreading of dry and light material. The opening to the SAMSON AGRO compost distributor can be adjusted at the bottom, which makes it suitable for spreading compost at dosages from 2 to 3 tonnes per hectare.

DEFLECTOR GUARD FOR COMPOST

We recommend a deflector guard for the spreading of compost. This ensures an even spread of the compost.



»» LOAD LOGGER

An intelligent counter, exclusive to SAMSON AGRO, can record the individual loads taken to the field. The load logger can also count the number of loads per day or throughout the life of the spreader. The load logger is controlled from a sensor located at the front of the driveline.

»» MUCKCONTROL

With Muckcontrol the operator can regulate the speed of the floor chain by using a potentiometer. The spreading is started and stopped manually using a simple, manually-operated button.

»» MUCKMASTER 1000

The Muckmaster 1000 is a dosing computer unit that controls the speed of the floor chain hydraulically and adjusts it according to the actual speed of the tractor. Dosing is therefore accurate and constant irrespective of the speed of the tractor. The SP spreaders are equipped as standard with hydraulic control, but they can also be fitted with Muckmaster 1000, which automatically regulates the speed of the floor chain.



»» CENTRAL HYDRAULICS

The integrated central hydraulic system allows the operator to change the direction of the floor chain and to raise and lower the back gate. This push-button system can be connected to SAMSON AGRO's other electronic control systems.



»» RETURN FLOW FILTER

An optional return flow filter on the hydraulic system ensures that the oil in circuits on both spreader and tractor remain clean. This reduces maintenance costs.

» Why you should buy an **SP** spreader

» Long life

- Well tested and robust construction
- Domex high-strength steel construction gives a strong spreader with a low weight
- Fully welded seams – no exceptions!
- Knives on the beaters are made from hardened steel
- Unique SAMSON triple block gearbox with integrated flexible couplings
- Many SP spreaders in the market are still going strong after more than 20 years
- Two double floor chains with carriers that ensure a steady flow to the spreader. Reverse rotation possible. Low maintenance costs
- High-quality surface coating



» Extremely efficient

- Stable construction with low centre of gravity. Stable spreader. Faster speed possible
- Large wheels reduce power requirements
- Low loading height with rapid loading and higher productivity
- Beater knives and angles: thoroughly tested design
- Optimal diameter and speed of rotation of beaters

» Proven technology and know-how

- SAMSON have more than 65 years' experience with the spreading of animal dung/muck/manure
- SAMSON was the first in the world to equip their SP spreaders with double vertical beaters

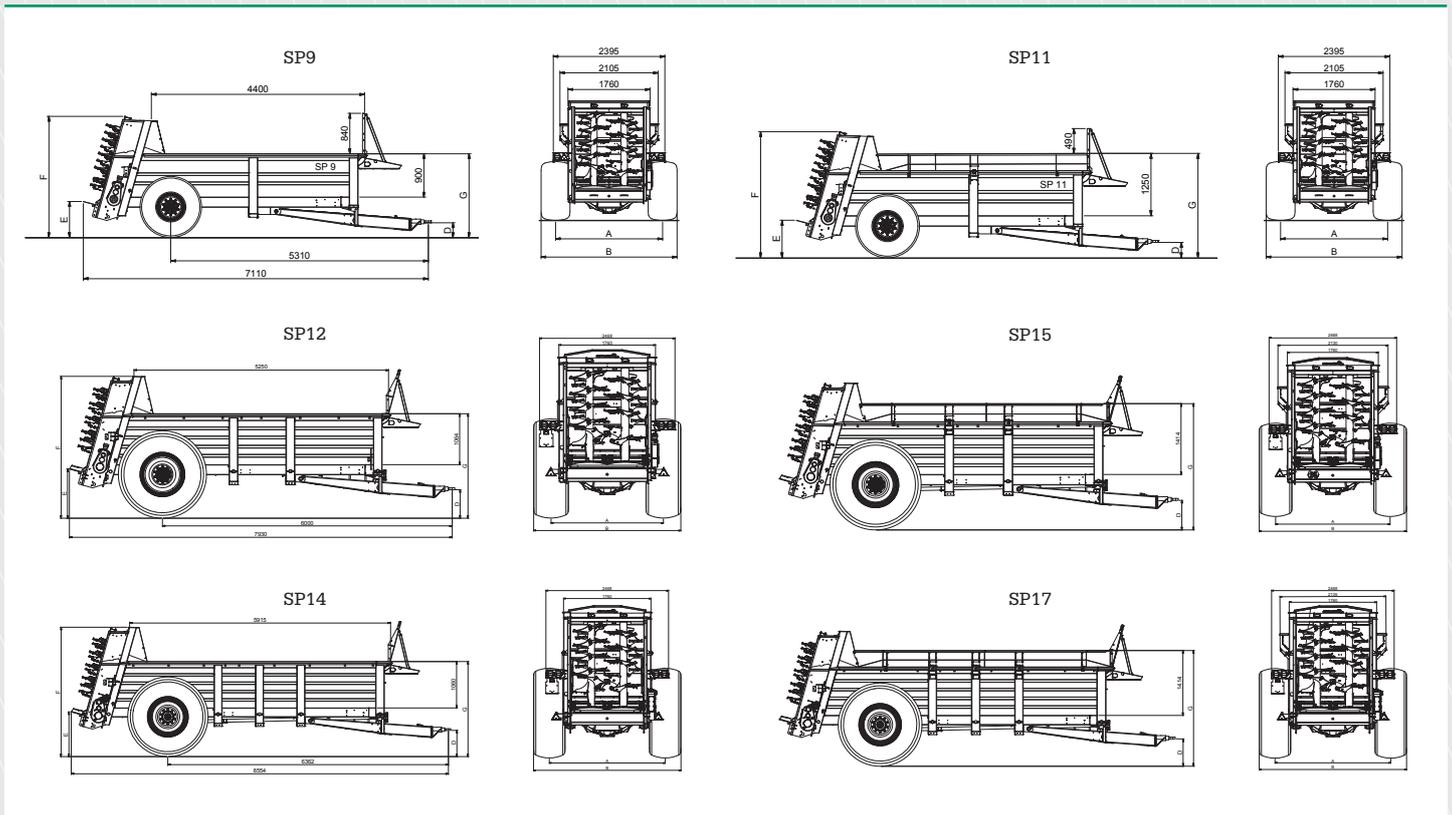
» Low fuel consumption

- Low empty weight – less power required
- Large wheels give a better weight transfer to the tractor and reduces rolling resistance

» Optimal spreading

- Unmatched performance
- Can spread all types of material
- Conical linear shape of the box ensures a natural flow of material to the spreader equipment
- Double vertical SAMSON beaters
- Design of beaters and knives ensure optimal shredding/tearing, dosing and spreading of the material
- Optimal spreading pattern that ensures best use of animal dung/muck/manure
- Robust gearbox: copes with dosages from 4 to 70 tonnes per hectare
- Safety during transport and no spillages on the road when driving with watery materials and using a hydraulic back gate

» TECHNICAL SPECIFICATIONS



» SP 9-11

Wheel mounting (Measurements in mm)	Dia- meter	A	B	D	E	F	G (SP9)	G (SP11)	Weight (kg)	
									SP9	SP11
Alliance 18,4-15x34, Diagonal	1650	2045	2537	474	956	2708	1880	2230	2990	3111
Alliance 600/65 R34 - A365	1648	2215	2817	473	955	2707	1878	2228	3110	3231
Alliance 620/75 R26- A375	1593	2255	2843	446	928	2680	1745	2095	3115	3236

» SP 12-15

Wheel mounting (Measurements in mm)	Dia- meter	A	B	D	E	F	G (SP12)	G (SP15)	Weight (kg)	
									SP12	SP15
18,4 R34 Alliance Diagonal Type 324	1650	2045	2515	482	930	2848	2085	2435	3975	4160
23,1 R26 Alliance Diagonal Type 347	1605	2215	2802	460	907	2826	2063	2413	4095	4280
600/65 R34 Alliance Radial Type 365	1648	2215	2835	481	929	2847	2084	2434	4115	4300
620/75 R34 Alliance Radial Type 375	1593	2215	2855	567	1015	2820	2057	2407	4175	4360
650/65 R38 Nokian Radial Type TRI 2	1811	2215	2860	563	1010	2929	2166	2516	4275	4460

» SP 14-17

Wheel mounting (Measurements in mm)	Dia- meter	A	B	D	E	F	G (SP14)	G (SP17)	Weight (kg)	
									SP14	SP17
18,4 R34 Alliance Diagonal Type 324	1650	2162	2632	513	930	2848	2085	2435	4270	4480
23,1 R26 Alliance Diagonal Type 347	1605	2332	2922	490	907	2826	2063	2413	4290	4500
600/65 R34 Alliance Radial Type 365	1648	2332	2932	512	929	2847	2084	2434	4310	4520
620/75 R34 Alliance Radial Type 375	1593	2332	2952	598	1015	2820	2057	2407	4370	4580
650/65 R38 Nokian Radial Type TRI 2	1811	2332	2977	593	1010	2929	2166	2516	4470	4680

The weight is only indicative. It is dependent on the configuration of the machine.

Brochure 70030-000