APV PNEUMATIC SEEDERS STANDARD EDITION





AMBITION. PASSION. VISION.

GROWTH IS THE WAY.

GROWING SINCE 1997

Jürgen Schöls is an agriculturalist at heart. In 1997, the passionate farmer and inventor built his first machine, a spreader. Ever since, he has been developing agricultural equipment "for professionals, by professionals". Jürgen Schöls, himself a Demeter-certified farmer, develops each machine in a lively exchange with users, before it is professionally enhanced by the design department.

As an innovative company, naturally APV desires to play an important role on the market with its products. Together with customers around the world, APV refines its products on an ongoing contributution towards preserving the environment and improving cultivation and soil tillage. At APV job security is a high priority. All activities are aligned to



economic success and growth.



basis.

At the Dallein site in Waldviertel in Lower Austria, approximately 170 employees make a significant

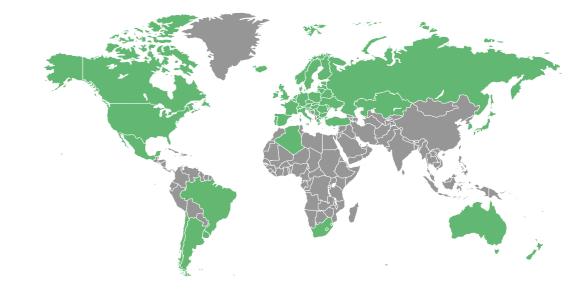




AND THE GOAL.

GROWTH KNOWS NO LIMITS

Over the years, the APV Team has fostered a consistent, unbroken drive for achievement; today the enterprise is a presence on the international market. There are APV locations and own sales subsidiaries in Poland, Romania, Russia, Germany,



A PASSION FOR GROWTH

Today APV is an agile family-owned company that is proud of its employees. Many of our employees have been involved with agriculture since their infancy and know precisely what matters and what's important for farmers when it comes to modern implements. An abundance of positive feedback from many, many satisfied customers confirms this approach.



Brazil, Turkey and the USA. Our network of APV contract partners in over 50 countries assures that our customers enjoy the highest level of service competence.



PNEUMATIC SEEDERS

Seed is transferred from the seed hopper into the air duct by the electrically controlled seeding shaft. In the air duct, by means of the fan, seed is conveyed through plastic hoses to dispersion plates that distribute it uniformly and close to the ground. This enables precise seeding, even when the wind is blowing.

PRECISION METERING WITH EXCELLENT LATERAL DISTRIBUTION

The Pneumatic Seeder from APV helps you deploy your operating resources efficiently.

- Less seed is required thanks to precise metering.
- Fewer field passes thanks to the combined use of a seed drill on a soil tillage implement; and this means reduced work time, less implement wear, reduced soil compaction, and you save fuel.
- Before making a purchase, take some time to learn about all the possible applications of the Pneumatic Seeder in order to choose the best implement for use on your farm.

ADVANTAGES OFFERED THE APV PNEUMATIC SEEDERS

- Precise lateral distribution across the entire working width
- Spread seed, regardless of wind conditions
- Easy operation with ISOBUS possible
- Mounting options on virtually all soil tillage implements, seed drills and cultivation implements regardless of the manufacturer
- Versatile combination options for hopper sizes, seeding shafts, fan types, technical equipment and expansion possibilities for the outlets (up to 32 outlets)
- Precise metering
- · Easy adjustment & convenient calibration test
- Fast and easy mounting
- State-of-the-art electronics The degree of automation depends on the control system
- Easy retrofitting of sensors
- Fast delivery times even during the season: Our employees at the order center would be pleased to answer any question you might have!
- Individual consultation and support before and after purchase

You can use the Pneumatic Seeder with the following machines and implements (see photos on the right):

Grassland Harrow	Harrow
Cultivator	Potato plan
Roller	Ridge plou
Grassland leveler	Corn seede
Seed drill	Hoeing imp
Disc harrow	Manure tan
Combine harvester	and much

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We look forward to your application reports! Send your application reports to marketing@apv.at. As a thank you for each contribution with photo, we will send you an APV surprise package.



THE APV SEED EXPERTS

PS 120 M1 / PS 200 M1 / PS 300 M1: THE SUPERB "SMALL SEEDERS"

The PS 120, 200 and 300 M1 are professional implements for use on small and mediumsized farms. They differ only in the volume of the seed hopper. Thanks to the compact dimensions, PS 120 and PS 200 M1 are ideal for implements where space is at a premium (e.g. folding implements). Another advantage is that minimal weight is exerted on the soil tillage implement. The PS 300 M1 enables enables convenient work at higher spread rates thanks to reduced refilling times.

PS 500 M2: THE SOLUTION FOR INTENSIVE APPLICATIONS

The PS 500 M2 is the professional implement for farmers and contractors with large areas under cultivation or where high spread rates are required. With a hopper volume

of 500 litres, this Pneumatic Seeder offers versatile implementation possibilities, ranging from reseeding on the grassland harrow to spreading large seeds at large working widths. The factory-standard fill level sensor provides timely alerts when seed must be refilled. Thanks to the high capacity of the hopper, fewer refills are required.

PS 800 M1: BIG VOLUME FOR BIG CHALLENGES

At 800 liters, the PS 800 M1 offers one the largest hopper capacities among Pneumatic Seeders and enables spreading of high quantities of seed per hectare. All components are perfectly designed and matched for the requirements of intensive operation. For example, the implement is equipped with 16

outlets, a strong hydraulic fan, a steel hopper, and many other extras. If you are unable to mount

the PS 800 M1 on your trailed implement due to the size and weight, we recommend combination with the APV MT2 M1 implement carrier between tractor and implement. Easier filling thanks to the largest hopper opening for big bag filling. This implement has a reversible hopper lid. This means you always have a second seeding shaft onboard in parking position.

PS 1600 M1: THE GIANT AMONG THE PS IMPLEMENTS

The PS 1600 M1 can be combined with many trailed soil tillage implements and has various seeding shafts for coarse and fine seed. This giant among the seed drills

saves time and effort, since far less refilling is required. The large opening also enables big bag filling. Furthermore, the PS 1600 M1 is equipped with implement monitoring sensors such as a speed sensor and fill level sensor. The implement has crane straps for easier mounting.



	PS 120 M1	PS 200 M1	PS 300 M1	PS 500 M2	PS 800 M1	PS 1600 M1	TWIN
Working width	up to 6 m	up to 12 m*	up to 12 m*	up to 12 m*	up to 12 m	up to 12 m	up to 12 m
Outlets are freely selectable up to	16	16 ¹	16 ¹	16 ¹	32 ²	32 ²	16
Electr. / electr. PLUS / hydraulic fan	x/x/-	x/x/x	x / x / x	x/x/x	- / - / x	- / - / x	x/x/x
Electr. / electr. PLUS / hydr. dimensions (height / width / depth in cm)	90x60x80 90x60x86 -	100x70x90 100x70x90 100x70x110	100×80×100 100×80×100 100×80×115	125x80x120 125x80x120 125x80x125	- 125×100×170	- 165 x 110 x 220 225 x 220 x 150 ³	105x75x100 105x75x100 105x75x115
Seed hopper (in liters)	120	200	300	500	800	1.600	300
Net weight, electr. / electr. PLUS / hydr. (in kg)	45 / 53 / -	60 / 68 / 83	70 / 78 / 93	100 / 108 / 123	- / - / 250	- / - / 470 (800 ³)	100 / 108 / 123
Power data	12 V / 25 A	12 V / 25 A	12 V / 25 A	12 V / 25 A	12 V / 25 A	12 V / 25 A	12 V / 40 A
Power data electr. fan PLUS		seeding shaft motor) eeding shaft motor)		eeding shaft motor) eding shaft motor)	-	-	Fan: 12 V / 40 A Seed shaft drive: 12 V / 15 A
Max. required pressure		180 bar	180 bar	180 bar	180 bar	180 bar	180 bar
Max. required oil quantity		38 I / min	38 I / min	38 I / min	38 I / min	38 I / min	38 I / min
Complete seed drill with hose system 25 m / 75 m	x / -	x / -	x / -	x / -	- / x	- / x	- / x
Seeding shaft for fine seed / coarse seed	x / x	x / x	x / x	x / x	x / x	x / x	x / x
6 m cable from the seed drill to the Control Box	x	x	x	x	x	x	x
Calibration slide, calibration bag, counter plate, seed scale	x	x	x	x	x	x	x
Agitator	x	x	x	x	x	x	x
Universal bracket for mounting on a soil tillage implement ⁴						x	
Display and monitoring of the fan speed on the hydr. fan		x	x	x	x	x	x
Dispersion plates	x	x	x	x	x	x	x
Hexagonal bars, 4 units / 8 units	x / -	x / -	x / -	x / -	- / x	- / x	- / x
Fill level sensor	optional (x)	optional (x)	optional (x)	x	x	x	optional (x)
Crane straps for easier handling when mounting					x	x	
Calibration button, optional	x	x	x	x	x	x	x
Extension cable PS MX 2 m/5 m / 14 m, optional	x/x/x	x/x/x	x/x/x	x / x / x	x / x / x	x / x / x	
Mounting kit for top link, optional	x	x	x	x			
Sensor system ⁵ , optional	x	x	x	x	x	x	х

* When using the hydraulic fan
 ¹ Optional (8 outlets with 8 Y-distributors (see page 13 and 22) or doubling pieces (see page 21) available as accessories)
 ² Optional (16 outlets with 16 Y-distributors (see page 13 and 22) or doubling pieces (see page 21) available as accessories)

³ With MT2
 ⁴ Only included for PS without MT2
 ⁵ For use with Control Box 5.2, 5.7, 6.2, and ISOBUS



MT2 M1 IMPLEMENT CARRIER

The setup of the Pneumatic Seeder on the MT2 M1 implement carrier ensures flexible operation, since there is no need to mount it directly on the trailed soil tillage implement. This results in ideal weight distribution. Instead of putting weight on the implement frame, the weight is shifted to the tractor's rear axle.

COMBINATION OPTIONS PS WITH MT2

Optimally combined with PS standard or **Fertilizer Edition**

- PS 120 M1
- PS 200 M1
- PS 300 M1
- PS 500 M2
- PS 800 M1
- PS 1200 M1
- PS 1600 M1

ADVANTAGES OF THE MT2 M1

- It is not necessary to mount the Pneumatic Seeder directly on the implement
- Axle loads and weight distribution are optimized.
- Increased pulling force because the weight is exerted on the towing vehicle
- Implements can be quickly disconnected from the implement carrier and can be operated solo
- Seeding combination with different mounted implements (cultivator, disc harrow, roller, strip till coulters, etc.)







WORKING WIDTH

A QUESTION OF CAPACITY

The working width of the Pneumatic Seeder is directly related to the output of the fan, the type of seed to be spread, and the number of hose outlets. To increase the number of hose outlets, we offer two options.

DOUBLING BY MEANS OF Y-DISTRIBUTORS

Y-distributors allow you to double the number of outlets. You can install the Y-distributors horizontally close to the dispersion plate. The hoses upstream from the Y-distributor must be at least 1 m long and routed as straight as possible without curves.

The Y-distributors are appropriate if

- You want to increase the number of outlets on your existing Pneumatic Seeder.
- · You are looking for a cost-effective version for increasing the number of outlets and want to stay flexible.
- You do not require precise lateral distribution.

If you want to maintain the customary APV precision when spreading seed with doubled outlets, we recommend the "PS for special applications"¹.



ТҮРЕ	SEED	RECOMMENDATION	ADVANTAGES
PS 120 M1	 Grass seed and fine granules¹ Catch crops, nurse crops, and reseeding All types of seeds 	 Small agricultural operations Viticulture Fruit and vegetable plantations Spreading fine seed with small working widths 	 Ideal for mounting on narrow soil tillage implements Minimal weight is exerted on the implement on which the PS is mounted Minimal space requirements for transport and mounting; also ideal for folding implements Easy mounting
PS 300 M1	 Grass seed and fine granules¹ Catch crops, nurse crops and reseeding All types of seed 	• Small and medium- sized agricultural operations	 Comfortable operation: reduce the frequency for refilling Easy mounting
PS 500 M2	 Grass seed and fine granules¹ Catch crops, nurse crops and reseeding All types of seed Large seeds² (peas, wheat, broad beans, forage rye) 	• Large farms • Contractors	 Numerous applications Increased working comfort thanks to higher basic equipment Easier refilling of the seed thanks to a large hopper opening
PS 800 M1 PS 1600 M1	 Grass seed and fine granules¹ Catch crops, nurse crops and reseeding All types of seed Large seeds² (peas, broad beans, wheat, forage rye) 	 Large farms Contractors Recommendation: Coupling with the APV implement carrier MT2 between the tractor and the soil tillage implement 	 Spreading at high rates with large seeds is possible Perfectly configured for intensive operation (16 outlets, strong hydraulic fan, steel hopper) Increased working convenience thanks to the many functions offered by the basic equipment

WHICH PS IS RIGHT FOR MY FARM?

Find the Pneumatic Seeder that is right for your requirements. APV offers five different basic versions in the standard edition. They differ in

- The size of the hopper (the numbers 120 to 1600 stand for the volume in liters)
- The type of fan
- The equipment level
- The design, weight, and mounting options

On the following pages, we provide an overview that shows which PS is suitable for what applications.

PS CONVERSION KIT FOR SPECIAL APPLICATIONS

With the PS conversion kit for special applications, you can increase the number of hose outlets. Order the conversion kit with your Pneumatic Seeder and it will be installed directly ex works. (More information is provided on page 21)

ТҮРЕ	SEED	RECOMMENDATION	ADVANTAGES
CONVERSION KIT PS 120-500: 16 OUTLETS	 Grass seed and fine granules¹ 	Metering of the seed	 Increased accuracy of lateral seed distribution
CONVERSION KIT PS 800/PS 1600 32 OUTLETS	Catch crops, nurse crops and reseeding	in 16 or 32 seeding coulters.	(compared to Y- distributors) when extending the working widths

A Not for large and heavy seed.

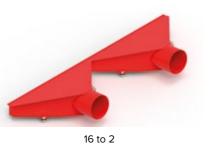
TRANSITIONS PS

These corrosion-resistant transitions reduce the 8 or 16 outlets of the pneumatic seeders (PS 120–1600) to one or two larger outlets. We recommend these transitions for applications in combination with distributor heads.

A hydraulic fan is required for these applications!



8 to 1



CONTROL BOXES

CONTROL BOX 1.2: THE SOLID BASIS

The Control Box 1.2 is the ideal entry-level box. Its compact size is one of its main advantages. It handles the most important basic spreading functions and it is also compatible with selected implement sensors. The rotational speed of the seeding shaft and fan can be configured quickly, easily, and without complications.

CONTROL BOX 5.2: OUR BEST-SELLING MODULE

The Control Box 5.2 is the most popular version of the APV Control Boxes; it handles an extensive range of functions. For example, functions such as adapting spread rate to travel speed, automatic shut-off on headlands, precise adjustability of the electrical fan, or automatic execution of the calibration test, massively facilitate your work.

CONTROL BOX 6.2: THE TOUCH MODULE

The Control Box 6.2 is impressive with even more functionality for the professional farmer and contractor. The large touch display shows all the essential machine processes at a glance. The menu is structured for intuitive operation with self-explanatory symbols. With the additional functions, such as automatic pre-metering of seed and creation of a seed library, you can organize the use of your seed drill for even more efficiency.

CONTROL BOX 5.7: THE TWIN MODULE

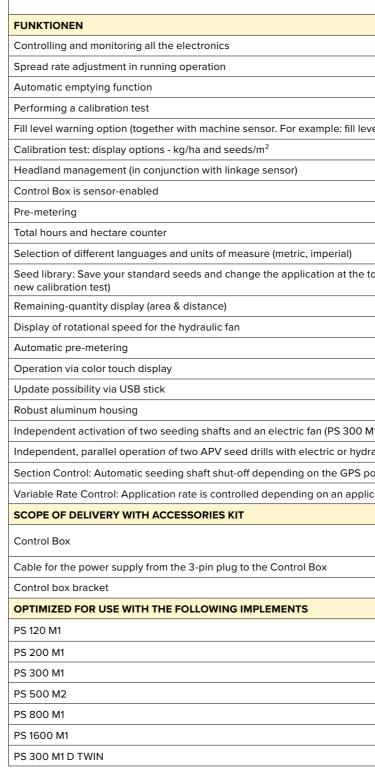
The Control Box 5.7 complements the PS 300 M1 D TWIN and enables separate activation of two seeding shafts. With the same mode of operation and with an additional adapter cable, it also offers the option of operating two APV seed drills in parallel and independently from each other. To complete the multitasking module's package, the controller is compatible and combinable with any sensor system.

Note, when using two PS modules with electric fan or two MDPs, there is a possible reduction of air capacity due to greater power consumption.

ISOBUS M2

All Pneumatic Seeders from APV can be controlled via the tractor's own terminal using the ISOBUS function. Only one ISOBUS connection needs to be available on the tractor. This enables even more professional operation and efficient use of the PS. You do not need an additional monitor in the cab and thus have a better overview. There is only one cable from the seeder to the tractor. The Section-Control enables automatic seeding wave shut-off depending on the GPS position. You can name your seed individually in the seed library. All functions of the Control Box 6.2 are available to you.











CONTROL BOX	1.2	5.2	6.2	5.7	ISOBUS ¹
CONTROL BOX	1.2	5.2	0.2	5.7	130803
	х	X	X	x	X
	х	X	X	x	X
	х	×	X	х	X
	х	×	X	х	X
vel sensor)	X	X	X	x	X
		x	x	x	x
		x	x	х	x
	x	x	x	х	x
		x	x	х	х
		x	x	х	x
		x	x	х	x
ouch of a button (without a			×		x
			x		x
		x	x	x	х
			x		x
			x		x
			x		х
			x	х	
11 D TWIN)				х	х
aulic fan				x	х
osition ²					x
cation map					x
	1.2	5.2	6.2	5.7	ISOBUS M21
	1,5 m 8 m				
	X				
	x				
	x				
	x				
	x				
				x	
	x	x	x	x	x
				x	x

SEEDING SHAFTS

One advantage of the APV Pneumatic Seeders is the large selection of seeding shafts.

STANDARD EQUIPMENT

Scope of delivery for all Pneumatic Seeders includes the following seed shafts

ТҮРЕ	рното	RELIABLE METERING OF THE FOLLOWING SEEDS			
fb-f-fb-fb		White mustard	• Phacelia	• Niger	
G-G-G		• Grass			

ACCESSORIES

The following seeding shafts can be purchased as accessories.

ТҮРЕ	РНОТО	RELIABLE METERING OF THE FOLLOWING SEEDS			
fb-fv-fv-fb	((+++++)=	Clover	• Cress	Fodder radish	
fb-fb-ef-eb-fb		• Рорру			
fb-efv-efv-fb	-	• Canola	• Camelina		
f-f-f-f		• Grass	White mustard	Cress	
GB-G-GB	6555555	 Buckwheat 	Fodder radish	Bristle oats	

FLEX SEEDING SHAFTS

Use the Flex seeding shaft for the spreading of seed mixtures and large seed types.

ТҮРЕ	рното	RELIABLE METERING OF THE FOLLOWING SEEDS			
Flex10 fb-Flex10-fb-fb		Seed mixtures	• Buckwheat • Vetch		
fb-Flex20-fb		Seed mixturesCereals	• Lupin • Vetch	• Peas • Beans	
Flex40		Seed mixturesCereals	• Lupin • Vetch	• Peas • Beans	

FAN

We recommend different types of fans for different applications. The fans differ in air output, connection requirements (electrical system, hydraulic system or PTO shaft), and price.

- The PS 120–500 can always be equipped with all three types of fans the electric fan, the hydraulic fan, and the PTO shaft fan. We recommend that you consult with our sales staff or sales partners to determine suitability of the specific fans for your applications.
- For the PS 800 + PS 1600 M1, we offer an even more powerful hydraulic fan as standard equipment.¹

An overview of the functions for each fan is shown below.

ELECTRIC FAN²

The electric fan is the basic version. It is suitable for spreading over small working widths. The advantage of the electric fan is that it does not require any hydraulic connection, and the seed drill has a lower net weight, therefore making it easier to install.

ELECTRIC FAN PLUS

The electric fan PLUS was developed to make the Pneumatic Seeders even more powerful and yet compact. In terms of performance, it is more than twice as powerful as the electric fan. This makes it possible, for example, to apply fine seeds (mustard, phacelia, oil radish, grass, ...) over a working width of up to 12 m.

HYDRAULIC FAN

If the air output of the electric fan is not sufficient, the hydraulic fan is the right choice. It is suitable for spreading over large working widths or for high spread rates. Max. required pressure: 180 bar Max. required oil quantity: 38 l/min







SENSORS

To take advantage of all of the functions of your Pneumatic Seeder, we offer a wide selection of sensors as accessories.

Selection of the right sensor depends on different factors. Our experts would be pleased to help you decide on the sensor that is best for your requirements.

SPEED SENSORS

Speed sensors transmit your forward speed to the Control Box¹. Based on this information, the controller automatically adapts the spread rate to the forward speed.

Select from the following sensors depending on your requirements:

- GPSa sensor
- MX 35 radar sensor
- · Wheel sensor
- 7-pin signal cable

SENSORS FOR HEADLAND MANAGEMENT

When you lift out your implement, this sensor transmits the information to the Control Box¹. The seeding shaft stops and will start automatically when the implement is again ready for operation.

Select from the following sensors depending on your requirements:

- Linkage sensor top link
- Linkage sensor chassis
- Linkage sensor pull switch
- Linkage sensor inductive

SENSORS FOR IMPLEMENT MONITORING

We offer implement sensors such as fill level sensors as well as fan speed sensors. These sensors make it possible to work with greater convenience.

- The fill level sensor tells you when the seed hopper is getting empty.
- The fan speed sensor for the hydraulic fan (installed on the hydraulic fan as standard equipment) continuously checks for proper speed of the hydraulic fan for your application.

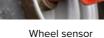






GPSa sensor

Linkage sensor top link



PS FOR SPECIAL APPLICATIONS

YOUR ADVANTAGES

- PS 120–500 are offered with 9–16 outlets
- On the PS 800 + PS 1600 M1, we offer doubling from 16 to 32 outlets
- Accurate lateral seed distribution for large working widths
- Precise seed placement
- Direct metering of the seed in up to 16 seeding coulters (PS 120–500) or up to 32 seeding coulters (PS 800/PS 1600)
- Custom adjustment: All components of the PS are adapted to the expanded outlets at the APV factory.
- Easy hose routing
- All quality standards are maintained

NOTE

The Pneumatic Seeders for special applications

- Are not suitable for large and heavy seeds (e.g. peas, beans).
- Can only be purchased when buying a new seed drill, since it is installed directly at the APV factory.

When buying, also seek advice on other possible areas of application.



OTHER ACCESSORIES

CALIBRATION BUTTON¹

Use the integrated magnets to attach the calibration button at the position you desire. Your advantage: Perform the calibration test and residual emptying directly at the implement. With the calibration button you decide for yourself how long the calibration test will run.



FILL LEVEL SENSOR FOR PS²

The fill level sensor triggers an alarm on the Control Box if there is not enough seed/fertilizer in the hopper. Your advantage: You are informed in due time that you must refill the hopper with the seed/fertilizer.



Our quick-lock system is used to swap out the PS and several soil tillage implements.

Your advantage: It can be dismounted without tools.



AIR SEPARATOR AIR GUARD

This adjustable air separator ensures that the airflow is separated and that fertilizer / micro granulate is securely deposited at the desired location and remains there (i.e., it is no longer blown out of the furrow). Your advantage: Safely and gently deposit your fertilizer.



The Y-distributor is mounted to divide a hose. It ensures that the seed is homogeneously mixed and optimally divided among the two hoses for further transport.

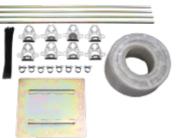
Your advantage: Precise lateral distribution in spite of splitting the hoses.

ACCESSORIES KIT FOR PS

The accessories kit contains the most important parts for mounting a PS 120 - PS 500 on another soil tillage implement.

Your advantage: This means you do not always have to mount and dismount these parts.





OTHER ACCESSORIES

CALIBRATION SLIDE

The calibration slide with a hose facilitates the calibration test and residual emptying of the PS hopper at locations where access is difficult. Your advantage: Easy calibration test

RETROFITTING THE 3-PIN STANDARD SOCKET¹

The 8 m cable is bolted directly on the terminals on the battery side, and on the other side, a 3-pin standard socket is mounted on the tractor¹, which is permanently installed in the tractor. Your advantage: This makes it easier to dismount and mount implements with a 3-pin standard plug.

MODULAR PLATFORM KIT

This kit allows you to retrofit a platform and a ladder on your soil tillage implement. Your advantage: Convenient seeder access.

UNIVERSAL MOUNTING AND PLATFORM KIT

This bracket for disk spreaders, multi-metering systems, and Pneumatic Seeders is installed on the rearmost cross beam of the soil tillage implement so that the spreader can be mounted. This mounting kit includes a platform plus ladder and a bracket with adjustable angle for mounting a disk spreader, multi-metering system, or PS 120–500 Pneumatic Seeder (with electr. or hydr. fan). Your advantage: The spreader can be used, even if there is no space to mount it on the soil tillage implement.

CONTROL BOX BRACKET

The Control Box bracket can be mounted on an existing Müller bracket (tube). Your advantage: Optimum fastening of the Control Box on your tractor.















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PS 200 M1

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