



APV - Technische Produkte GmbH

Dallein 15, AT-3753 Hötzelsdorf

Telefon: +43 / (0) 2913 / 8001 Fax: +43 / (0) 2913 / 8002

office@apv.at www.apv.at

facebook.com/APV.Austria

Innovations for the future

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BETTER SOWING, SPREADING & CULTIVATING

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CATCH CROP CULTIVATION

Catch crops have an immense value for soil health and fertility. They are a simple tool for exploiting the soil's full potential and at the same time, for saving operating resources such as crop protection agents and fertiliser.

The following are suitable for use as catch crops:

- Alfalfa and other clover varieties
- Grasses
- Mustard
- Forage rye
- Fodder radish
- Phacelia
- Forage rape
- Peas

These and other varieties can also be used in mixtures.

With all catch crops, the desired effect is only obtained when the seed is evenly distributed over the whole surface. Broadcast seeding is the most effective method in most cases.

Other advantages of catch crop cultivation are:

- Reduction in soil erosion
- Weed and pest suppression
- Improving the friable structure of the soil
- Increasing biological activity
- Enrichment of the soil with an easily biodegradable organic substance
- Improved utilisation of farm fertiliser
- Option to use for forage
- Regeneration of the soil
- Legumes serve as nitrogen accumulators

The combination of field passes by using APV catch crop seeders on e.g. cultivators or disc harrows saves unnecessary field passes.

APV implements enable the seeding of catch crops and nurse crops at very small rates.

Types and costs of the individual catch crop-sowing processes:

Machine overview		Conventional tilling	Tilling with APV's implements	
			ES 100 M3	PS 300 M1 el.+
			Special + sensor	5.2 control box
		2 passes	1 pass	1 pass
Tractor 136 HP	88	45,51	45,51	45,51
Cultivator 4 m	st pass	48,62	48,62	48,62
APV's implement	7		3,49	10,91
Tractor 136 HP	SS	45,51		
Rotary harrow 3 m	nd pass	33,60		
Seeder 3 m (12.000 EUR)	2	22,61		
Total costs		195,85	97,62	105,04
Savings per working hour		0	98,23	90,81
APV implement costs		1.478 EUR	3.552 EUR	
APV implement pays for itself after ha (at 2.5 ha/h)		37,62 ha	97,79 ha	

Amounts in EUR, exclusive of VAT/VAT to be added. The prime cost values were taken from the ÖKL (Austrian Council for Agricultural Engineering and Rural Development) reference values for 2016.



FERTILISATION & SLUG PELLETS

Fertilisation *⊗* nutrient supply

As a matter of principle, plants require light, heat and air to be able to grow. Nitrogen, potassium and phosphorus are also important for healthy growth. The soil often contains too little nutrients. For this reason, farmers must always ensure a sufficient supply of all nutrients.

FERTILISATION & SLUG PELLETS

(Law of the minimum by Carl Sprengel).

Slug pellets

The risk of slug damage to oil seed rape and other crops is very high. The most dangerous time for damage from slugs for most crops is between seed germination and the 4 leaf stage. It is recommended and expedient to treat your crops with slug pellets 3 days after seeding.

APV implements are capable of metering fertiliser, micropellets and slug pellets at very low rates!















KS 40 M2 - MINI BROADCASTER

Due to its low weight and compact nature, the KS 40 M2 is extremely versatile in its uses. This makes it the ideal implement for smaller farms to spread grass or catch crops.

TECHNICAL DATA

Working width	1 - 12 m
Dimensions	H 60 cm, W 45 cm, D 60 cm
Seed tank	. Plastic tank with 40 I capacity
Net weight	19 kg
Power data	12 V / 25 A

STANDARD SCOPE OF DELIVERY

- Electric control box 2.1 (transition over the course of the year 2016 to control box 2.10 with identical functions) with steel bracket, mountable in the driver's cab
- Complete spreader with electrically driven spreader disc and adjustable throw blades
- 1 guide plate, upper linkage mounting mechanism, counter plate, agitator extension
- All required cables: 3 m cable to supply power from the battery to the control unit, 6 m cable from the control unit to the spreading unit

ACCESSORIES

- Truck bed mounting bracket
- Mounting kit tow-bar
- Mounting kit quad bracket
- Mounting kit quad bracket height adjustable
- Cable extension ES SS 5 m

BENEFITS VERSUS THE COMPETITION

- High quality control box (RPM control and measurement and control)
- Automatic starter for compacted scatter material
- Large refill opening
- Practical and compact spreader
- Varied mounting options
- Large scope of delivery as standard. All necessary mounting parts included!

CONTROL BOX FUNCTIONS 2.1

- Soft start motor
- Controls spreader disc and slide valve
- RPM control
- Easy-to-regulate spreader disc

The implement is equipped with an automatic starter and RPM control.

The spreader disc is driven by a 12 V electric motor and can be operated via the control box in the driver's cab. The control box can be used to regulate and monitor the speed of the spreading disc. It allows you to easily adjust the spreading width, and all of this is possible from the driver's seat, while the vehicle is in motion.



















100 MI CLASSIC - SINGLE DISC SPREADER

The ES 100 M1 Classic is ideal for spreading catch crops, grass seeds, nurse crops, slug pellets and similar granular products. Its working width can be adapted to any situation. The seeding density can also be adjusted using the metering slide valve.

TECHNICAL DATA

Working width	2 - 24 m
Dimensions	H 90 cm, W 52 cm, D 60 cm
Seed tank	Plastic tank with 105 I capacity
Net weight	29 kg
Power data	12 V / 25 A

STANDARD SCOPE OF DELIVERY

- Electric control box 2.1 (transition over the course of the year 2016 to control box 2.10 with identical functions) with steel bracket, mountable in the driver's cab
- Complete spreader with electrically driven spreader disc with adjustable throw blades
- Adaptor sleeves to extend the agitator for grasses
- 3 guide plates, upper linkage mounting mechanism and counter
- All required cables: 3 m cable to supply power from the battery to the control unit, 6 m cable from the control unit to the spreading unit

ACCESSORIES

- Truck bed mounting bracket
- Mounting kit tow-bar
- Mounting kit quad bracket
- Mounting kit quad bracket height adjustable
- Cable extension ES SS 5 m
- Precision dispersion plate 1-4 m working width
- Calibration box





BENEFITS VERSUS THE COMPETITION

- High quality control box (RPM control and measurement and control)
- Automatic starter for compacted scatter material
- Large refill opening, hopper discharge point
- Varied mounting options
- Large scope of delivery as standard. All necessary mounting parts

CONTROL BOX FUNCTIONS 2.1

- RPM control and measurement
- Monitoring of the spreader disc
- Automatic start-up control if material becomes compressed
- Easy regulation of the spreading width







100 M3 SPECIAL - SINGLE DISC SPREADER

Just like the ES 100 M1 Classic, the ES 100 M3 Special is suitable for the spreading of catch crops, grass seeds, nurse crops, slug pellets and similar granular products. With its incorporated point of impact adjustment and the special throw blades, you obtain an even better spread pattern.

TECHNICAL DATA

Working width	1-28 m
with variation (VK) <12% (tested by I	RSTEA with "Metarex" by De Sangosse)
Dimensions	H 90 cm, W 52 cm, D 60 cm
Seed tank	Plastic tank with 105 I capacity
Net weight	30 kg
Power data	12 V / 25 Å

STANDARD SCOPE OF DELIVERY

- Electric control box 3.5 with steel bracket, mountable in the driver's cab
- Complete spreader with electrically driven spreader disc with throw blades
- Adaptor sleeves to extend the agitator for grasses
- Upper linkage mounting mechanism and counter plate
- All required cables: 1,5 m cable to supply power from the 3-pin connector to the control unit, 6 m cable from the control unit to the spreading unit

SENSORS (optional)

- 7-pin signal cable (only linkage signal)
- Accessory kit tractor linkage upper bar sensor
- Accessory kit tractor linkage lower bar sensor
- Accessory kit tractor linkage pull switch sensor

ACCESSORIES

- Truck bed mounting bracket
- Mounting kit tow-bar
- Mounting kit quad bracket
- Mounting kit quad bracket height adjustable
- Cable extension SP MX 5 m
- Precision dispersion plate 1-4 m working width
- Set of adapter cables for cars 3 m
- Set of adapter cables for tractors 8 m

BENEFITS VERSUS THE COMPETITION

- 15° inclined spreader disc with 2 throw blades
- Point of impact adjustment to adapt the spread pattern
- Control box with electrical connection via 3-pin socket
- Front grasp in steel frame for easy transportation
- High quality control box (RPM control and measurement and control)
- Automatic starter for compacted scatter material
- Large refill opening, hopper discharge point
- Varied mounting options
- Large scope of delivery as standard. All necessary mounting parts included!
- Automatic slide-valve (different sensors are possible) Please order your desired sensor according to the list

CONTROL BOX FUNCTIONS 3.5

- RPM control and measurement
- Hectare and hour counter; operating voltage display
- Automatic start-up control if material becomes compressed
- Choice of different languages
- Automatic slide-valve sensor (optional)
- Discharge function
- Calibration-test function

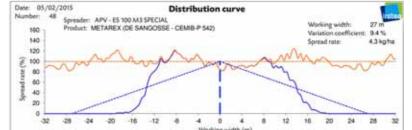
The spreader disc is driven by a 12 V electric

motor and can be operated via the control box in the driver's cab. The control box can be used to regulate and monitor the speed of the spreading disc. It allows you to easily adjust the spreading width, and all of this is possible from the driver's seat, while the vehicle is in motion.









Testing by an external certification institute:

QUALITY FOR PROFESSIONALS





ZS 200 M4 - TWIN DISC SPREADER

Thanks to its design and functionality, the ZS 200 M4 is a competitively-priced and exact alternative for cultivating catch crops (greening), grass reseeding, spreading slug pellets (up to 31 m), nurse crops and sowing on fallow land. This is because it can perform sowing and tilling operations in a single process.

TECHNICAL DATA

Working width	1 - 31 m (with Metarex slug pellets)
Dimensions (with safety bar)	H 85 cm, W 105 cm, D 70 cm
Seed tank	Plastic tank with 200 I capacity
Net weight	50 kg
Power data	12 V/40 A

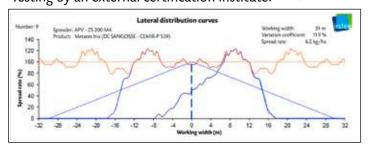
STANDARD SCOPE OF DELIVERY

- Electric control box 4.6 with steel bracket, mountable in the driver's cab
- Complete spreader with 2 electrically driven spreader discs, each with 2 throw blades
- 2 guide plates, upper linkage mounting mechanism and counter plate
- All required cables: 8 m cable to supply power from the battery to the control unit, 6 m resp. 15 m cable from the control unit to the spreading unit Specify the required cable length (7-15 m) and it will be cut and mounted.
- Calibration bag & seed scales
- Safety bar

ACCESSORIES

- Truck bed mounting bracket
- Power supply APP (8 m long) (power supply cable for additional tractor vehicle)

Testing by an external certification institute:



BENEFITS VERSUS THE COMPETITION

- Precise slider guide through linear slide
- Large cable cross-section and new aluminum housing for optimum power control
- Contact point adjustment for optimum scatter distribution
- 2 broad throw blades per spreader disc
- 15° inclined spreader disc
- Spreading width adjustment while driving
- Seed volume adjustment while driving
- External agitator: no grinding the seed into powder!
- Two hopper discharge points
- Fenceline spreading function
- Symmetrical scatter distribution

CONTROL BOX FUNCTIONS 4.6

- Electronically adjustable sowing rate
- RPM monitoring and control, which helps to keep the RPM constant
- Area calculation
- Soft start motor for compacted scatter material
- Operating-voltage meter and operating hour counter
- Choice of different languages
- Fenceline spreading function
- Discharge function
- Calibration-test function

FOR USE WITH

- Tractors, pick-up (single pass)
- Tillage implements
- Weeders, leveller, harrows

PRECISE SCATTER DISTRIBUTION

- Precise spreading with 2 spreading discs and 2 throw blades
- Point of impact adjustment
- Enlarged spreading opening and electrically adjustable valve
- Infinitely variable regulation of the working width

APV EXAMPLES OF USE

























(ACCESSORY KIT FOR **CONTROL BOX 3.2** PNEUMATIC SEEDERS)

SCOPE OF DELIVERY

- Control box 3.2
- Control box bracket/angle
- 1.5 m cable for the power supply from the 3-pin plug to the control box
- Operating instruction

CONTROL BOX FUNCTIONS

- Controlling the sowing shaft
- Electronic volume adjustment
- Electronic sowing monitoring
- Discharge function
- Calibration-test function
- Monitoring of the electric fan







CONTROL BOX 5.2

PNEUMATIC SEEDERS)

SCOPE OF DELIVERY

- Control box 5.2
- Control box bracket/angle
- 1.5 m cable for the power supply from the 3-pin plug to the control box
- Operating instruction



CONTROL BOX FUNCTIONS

- Regulation & controlling the sowing shaft via the electronics
- Electronic volume adjustment (during operation)
- Discharge function
- Automatic calibration-test function (only weighing!)
- Total hour counter and day's hour counter
- Total hectare counter and day's hectare counter
- Choice of different measurement units (metric, imperial)
- Calibration test & display in kg/ha and grains/m²
- Speed calibration
- Headland management (in combination with linkage sensor)

ADDITIONAL FUNCTIONS TO CONTROL BOX 5.2

- Option to create a seed library (saving of calibration tests)

- Usage with different speed sensors (optional)
- Possibility for machine sensors (pressure monitor, fill level sensor)
- Pre-dosaging function

- Aluminium housing

- Large colour display

- Option for calibration button

(ACCESSORY KIT FOR

- Choice of different languages

- Option for regulating the electrical fan

- Option to operate using a touch display

- Display of the operating voltage and current

(ACCESSORY KIT FOR **CONTROL BOX 6.2** PNEUMATIC SEEDERS)

SCOPE OF DELIVERY

- Control box 6.2
- 1.5 m cable for the power supply from the 3-pin plug to the control box
- RAM C ball
- RAM C holding arm
- Operating instruction

The following functions are being implemented:

- Saving of multiple speed calibrations for different vehicles
- Display of the speed for the hydraulic blower fan (with corresponding sensor)
- Software update via USB flash drive (no longer necessary to send the control box to the factory)
- Display of the theoretical residual quantity (distance that can still be travelled with the hopper fill level)
- Automatic pre-metering



Supply availability upon request!

PNEUMATIC SEEDERS PS 120 M1 / PS 200 M1 / PS 300 M1

Using the electrically regulated metering roller, the seed enters the air channel, where the electric/hydraulic fan or the PTO fan conveys it through plastic hoses to the dispersion plates, where it is evenly distributed near the ground. This enables precise seeding even when the wind is blowing!

TECHNICAL DATA

STANDARD SCOPE OF DELIVERY

- Complete seeder with hoses (25 m)
- Metering roller for fine seed, metering roller for coarse seed
- Agitator
- All required cables: 6 m of cable from the spreader to the control
- Calibration slide, counter plate, calibration bag
- 8 dispersion plates & 4 pcs. hexagonal bars (for the mounting of the dispersion plates)

ACCESSORIES

- Cable extension PS MX 5 m
- Mounting kit PS 120-500 3-point
- Set of adapter cables for tractors 8 m
- Conversion kit fill level sensor *
- Calibration button *
- Conversion kit pressure monitor *
- Sensors (optional, see page 18-19)*
- * Only with control box 5.2 & 6.2

BENEFITS VERSUS THE COMPETITION

- Different sowing shafts (fine seed and coarse seed)
- Accurate & wind independent seed dispersion
- Monitoring and controlling of the sowing shaft speed - Precise lateral distribution over the whole working width
- Discharge function
- Speed independent dispersion & headland management (with sensors (optional) s.p. 20-21; only with control box 5.2 & 6.2)
- Hectare counter, automatic calibration-test function
- (only with control box 5.2 € 6.2) - Terminal strip for easier retrofitting of sensors













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PS 500 M2

TECHNICAL DATA

Working width
1 - 7 m with hydraulic fan, 8 outlets
1 - 12 m with hydraulic fan, 16 outlets (optional)
(8 outlets with 8 Y-dividers (s. p. 18
or doubling pieces (s. p. 17) as accessories available
Dimensions
Seed tankPlastic tank with 500 I capacity
Net weight elektr. / hydr
Power data12 V / 25 A
If equipped with hydraulic fan
(coupling size 3) + 1 pressure-less return (coupling size 4
necessary; max. required pressure: 180 bar, max. required of
amount: 38 l/mir

STANDARD SCOPE OF DELIVERY

- Complete seeder with hoses (25 m)
- Metering roller for fine seed, metering roller for coarse seed (crop, grass)
- Agitator
- All required cables: 6 m of cable from the spreader to the control box
- Calibration slide, counter plate, calibration bag, scale for seed
- 8 dispersion plates & 4 pcs. hexagonal bars (for the mounting of the dispersion plates)
- Fill level sensor (works only with control box 5.2 ℃ 6.2)

ACCESSORIES

- Cable extension PS MX 5 m
- Mounting kit PS 120-500 3-point
- Set of adapter cables for tractors 8 m
- Calibration button *
- Conversion kit pressure monitor *
- Sensors (optional, see pages 20-21)*
- * only with control box 5.2 ℃ 6.2

BENEFITS VERSUS THE COMPETITION

- Different sowing shafts (fine seed and coarse seed)
- Accurate & wind independent seed dispersion
- Monitoring and controlling of the sowing shaft speed
- Precise lateral distribution over the whole working width
- Discharge function
- Speed independent dispersion & headland management (with sensors (optional) see p. 20-21; only with control box 5.2 & 6.2)
- Hectare counter, automatic calibration-test function (only with control box 5.2 ℃ 6.2)
- Long living and stable hopper support
- Terminal strip for easier retrofitting of sensors.

hydraulic fan





PS 800 M 1

The PS 800 M1 is the fully professional-grade implement for sowing catch crops and tilling the ground in a single process. The PS 800 M1 is used for seeding grass, all small seeds, but also forage rye and wheat.

TECHNICAL DATA

Working width 3 - 12 m with hydraulic fan, 16 outlets
3 - 12 m with hydraulic fan, 32 outlets (optional)
(16 outlets with 16 Y-dividers (s. p. 18)
or doubling pieces (s. p. 17) as accessories available)
Dimensions
Seed tank Steel tank with 800 I capacity
Net weight hydr
Power data
1 single acting valve (coupling size 3) + 1 pressure-less return
(coupling size 4) necessary; max. required pressure: 180 bar,

max. required oil amount: 38 l/min

STANDARD SCOPE OF DELIVERY

- Complete seeder with hoses (75 m)
- Metering roller for fine seed, metering roller for coarse seed (crop, grass)
- Agitator
- All required cables: 6 m of cable from the spreader to the control box
- Calibration slide, calibration bag, scale for seed
- 16 dispersion plates & 9 pcs. hexagonal bars (for the mounting of the dispersion plates)
- Fill level sensor ⊗ surveillance of fan (pressure monitor)
- Crane lashes for assembly

ACCESSORIES

- Cable extension PS MX 5 m
- Set of adapter cables for tractors 8 m
- Calibration button
- Refilling grid (2 pieces required for each PS)
- Sensors (optional, see pages 20-21)

BENEFITS VERSUS THE COMPETITION

- Different sowing shafts (fine seed and coarse seed)
- Accurate & wind independent seed dispersion
- Monitoring and controlling of the sowing shaft speed
- Precise lateral distribution over the whole working width
- Large opening for big bag filling
- Tank cover reversible
- Sealed opening for residual emptying
- Speed independent dispersion & headland management (with sensors (optional) see p. 20-21)
- Hectare counter, automatic calibration-test function
- Parking position for second sowing shaft
- Terminal strip for easier retrofitting of sensors













PS FERTILISER EDITION - 120 I, 200 I and 300 I

Our pneumatic seeders are also available in a special edition for distributing fertiliser. Due to the corrosion-resistant fabrication, you can benefit from the advantages and the easy handling of our pneumatic seeders when distributing fertiliser.

TECHNICAL DATA

STANDARD SCOPE OF DELIVERY

- Complete corrosion-resistant seeder with hoses (25 m)
- Metering roller for fine seed (fine seeds, micro-granules, etc.)
- Metering roller Flex20 for coarse seed (fertiliser, crop, etc.)
- Stainless steel agitator
- All required cables: 6 m of cable from the spreader to the control box
- Corrosion-resistant calibration slide, calibration bag
- Counter plate (galvanised)
- 8 stainless steel dispersion plates & 4 pcs. galvanised hexagonal bars (for the mounting of the dispersion plates)

ACCESSORIES

see "standard" PS-series (p. 11)

BENEFITS VERSUS THE STANDARD - PS-SERIES

- All powder-coated parts (except for hydraulic fan) with **cataphoretic painting** (automotive standard)
- Standardised parts (bolts, washers, nuts, etc.), mixer, sweeper adjustment are manufactured from stainless steel
- Sowing shaft cover with polyurethane (airtight and corrosion-resistant)
- Sealed outlets to the hoses
- Sealed bearing flange (cover plate for sowing shaft)
- Sowing shaft sealed on side of motor
- Terminal strip for easier retrofitting of sensors.
- Sealed container lid
- Coated aluminum sowing shaft
- Option for spreading fertiliser, micro-granules, pesticides and intercrops



DETAILS PS FERTILISER-EDITION



Sealed outlets



Sowing shaft cover with polyurethane



Agitator + Flex20















PS 120 M1 - PS 500 M2 (16 outlets)



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PS 800 M1 (32 outlets)

PS FERTILISER-EDITION - 500 I

TECHNICAL DATA

Working width....1 - 6 m with double electric fan, 8 outlets1 - 7 m with hydraulic fan, 8 outlets 1 - 12 m with hydraulic fan, 16 outlets (optional) (8 outlets with 8 Y-dividers (s. p. 18) or doubling pieces (s. p. 17) as accessories available) Dimensions and weight see PS 500 on page 12 If equipped with hydraulic fan. 1 single acting valve (coupling size 3) + 1 pressure-less return (coupling size 4) necessary; max. required pressure: 180 bar, max. required oil amount: 38 l/min

STANDARD SCOPE OF DELIVERY

- Complete corrosion-resistant seeder with hoses (25 m)
- Metering roller for fine seed (fine seeds, micro-granules, etc.)
- Metering roller Flex20 for coarse seed (fertiliser, crop, etc.)
- Stainless steel agitator
- All required cables: 6 m of cable from the spreader to the control box
- Corrosion-resistant calibration slide, calibration bag, scale for seed
- Counter plate (galvanised)
- 8 stainless steel dispersion plates & 4 pcs. galvanised hexagonal bars (for the mounting of the dispersion plates)
- Fill level sensor (works only with control box 5.2)

ACCESSORIES

see PS 500 (p. 12)

BENEFITS VERSUS THE STANDARD - PS-SERIE

- All powder-coated parts (except for hydraulic fan) with **cataphoretic painting** (automotive standard)
- Standardised parts (bolts, washers, nuts, etc.), mixer, sweeper adjustment are manufactured from stainless steel
- Sowing shaft cover with polyurethane (airtight and corrosion-resistant)
- Sealed outlets to the hoses
- Sealed bearing flange (cover plate for sowing shaft)
- Sowing shaft sealed on side of motor
- Terminal strip for easier retrofitting of sensors
- Sealed container lid
- Coated aluminum sowing shaft
- Option for spreading fertiliser, micro-granules, pesticides and intercrops

PS-series for special applications: 16 or 32 outlets

With the pneumatic seeders there is the possibility to double the hose outlets. This variant is ideal, if you want to work row-dependent, for example dosing micro-granulate-fertiliser directly in 16 sowing coulters.

This system increases the precision of the lateral dispersion of the seed when it comes to huge working widths, for example by planting clover nurse crops with a 12 m harrow. This can be done without Y-dividers.

The conversion kits for the doubling of the outlets can only be ordered when ordering a pneumatic seeder of the "standard" or the fertiliser series. Installation is carried out directly in the APV factory!

DOUBLING OF THE OUTLETS (16 OR 32 OUTLETS):

Ideal for:

- Row-dependent sowing with 16 outlets with PS 120-500
- Row-dependent sowing with 32 outlets with PS 800
- Ideal for PS 200-500 with hydr. fan with a working width of 7-12 m for grass seed, clover and other small seed varieties in small quantities (instead of Y-dividers)

Not suitable for:

- Large and heavy seeds (e.g. beans, peas, etc.)

Simply include it in your order! (Installation is carried out directly in the factory)

16 (PS 120-500) OR 32 (PS 800) OUTLETS:

- Conversion kit PS 120-500 16 outlets
- Conversion kit PS 120-500 fertiliser 16 outlets
- Conversion kit PS 800 32 outlets

STANDARD SCOPE OF DELIVERY (in addition to the scope of delivery of the pneumatic seeder you have selected)

- Adapters (1 to 2)
- Sowing shafts (fb-f and Flex20) (instead of standard sowing shafts)
- Sealing lips, clamping plate
- 8 pcs. (PS 120-500) or 16 pcs. (PS 800) dispersion plates
- 1 roll of hose (25 m) (PS 120-500) or 3 rolls of hose (75 m) (PS 800)

(see accessories for the pneumatic seeder you have selected)



Through this dosing system, an exact lateral dispersion is ensured even with 16 outlets.









Quick coupling for 8 outlets

ACCESSORIES FOR "STANDARD" PS-SERIES AND FERTILISER EDITION

Y-DIVIDERS

For doubling the number of outlets from 8 to 16 or from 16 to 32 outlets.

- Mounting kit P8 Y-dividers:
- 1 role hoses (25 m), 8 pcs. dispersion plates,
- 4 pcs. hexagonal bars (for the mounting of the dispersion plates), 8 pcs. Y-dividers
- Mounting kit P16 Y-dividers:
- 3 role hoses (75 m), 16 pcs. dispersion plates, 8 pcs. hexagonal bars (for the mounting of the dispersion plates), 16 pcs. Y-dividers



- Retrokit HG 300 for PS 120 M1 - PS 500 M2



MODIFICATION TO PTO FAN

- Modification kit PTO FAN
- PTO shaft BG2 610 mm, with freewheel

CONTROL BOX BRACKET

Control box bracket can be mounted on the Müller bracket (tube).

- Mounting kit universal control box bracket

CONVERSION KIT FOR OIL SEED RAPE

In order to achieve optimum results with small seeds (e.g. rape).

- Conversion kit for oil seed rape (sowing shaft fb-efv-efv-fb, PU brush, Sylodyn strips)



FAST COUPLER FOR 8 AND FOR 16 OUTLETS

In order to change attachment of the pneumatic seeder to several soil tilling machines. Separation is possible without tools.

- Accessory kit fast coupler for 8 outlets
- Additional module for fast coupler 8 outlets
- Accessory kit fast coupler for 16 outlets
- Additional module for fast coupler 16 outlets



CALIBRATION SLIDE WITH HOSE

Makes the calibration test easier at locations difficult to access.



SURE FILL ADAPTER

fill granulate safely and contact-free



The 8 m long cable is screwed right onto the battery terminals, and at the other end is a standard three-pin socket, which is permanently mounted in the tractor.

FILLING STEP KIT MODULAR

AIR SEPARATOR AIR GUARD The cyclone shape achieves optimal air

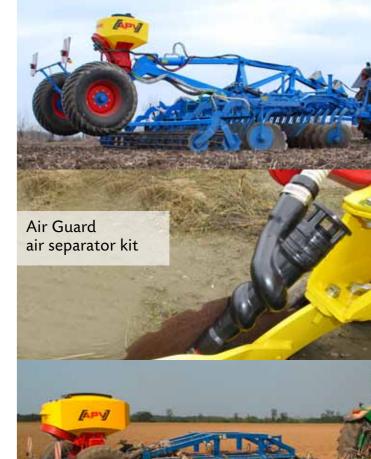
separation from the seed.

- Basic steps, filling step kit modular
- Expansion filling step kit, modular (prerequisite: basic steps present, any number of expansions possible)



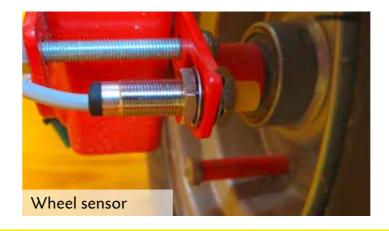














SENSORS FOR ALL PNEUMATIC SEEDERS WITH CONTROL BOX 5.2 @

These sensors can be used only with control box 5.2 & 6.2.

Sensor GPSa (Accessory kit)

The GPSa sensor transmits the current vehicle driving speed to the control box. The current speed is measured by the combination of a GPS unit and a 3D acceleration sensor. Attention: The sensor does not function if the GPS unit is in a blind spot.

Cable length: 5 m

This sensor is available as a set with the following lifting unit sensors:

- Tractor linkage upper bar sensor
- Tractor linkage lower bar sensor
- Tractor linkage pull switch sensor

Wheel sensor (Accessory kit)

The wheel sensor detects the driving speed. The sensor is fixed rigidly to the frame and can thus detect both the magnets provided and the screw heads, wheel bolts, etc. on the rim of the wheel. Example installation locations: spur wheel on sowing machines, deep guide wheels, tractor wheels. Cable length: 5 m

This sensor is available as a set with the following lifting unit sensors:

- Tractor linkage upper bar sensor
- Tractor linkage lower bar sensor
- Tractor linkage pull switch sensor

(Accessory kit)

For installation on the 3-point or moving parts in the headland.

Tractor linkage pull switch sensor

Method of operation: actuation by pulling by means of a spring. The sowing shaft of the PS is thus automatically released or stopped (invertible). Cable length: 5 m

7-pin signal cable

The driving speed of the tractor is transferred by the 7-pole signal cable and displayed on the control box. On our homepage you can find a list of all tractors that are equipped with this standard 7-pin socket.

(NOT for John Deere tractors) Cable length: 1,5 m

This sensor is available as a set with the following lifting unit sensors:

- Tractor linkage upper bar sensor
- Tractor linkage lower bar sensor
- Tractor linkage pull switch sensor

Calibration button

The calibration button significantly facilitates the calibration test and can be fastened with the integrated magnets virtually anywhere on the device. The emptying of residues from the device can also be carried out via the calibration button. Cable length: 1 m

Fill level sensor

The fill level sensor measures how much seed is still in the hopper and triggers an alarm in the control box if there is too little seed in the tank. Cable length: 2 m



Seed flow monitoring

For permanently monitoring the seed flow of each individual outflow/hose. Hose blockages are immediately detected and unsown strips are avoided when sowing. The unit can be fitted andoperated fully independent of all other control boxes.



The radar sensor supplies information to the control box on the speed of the vehicle. The control box then automatically regulates the RPM of the sowing shaft and the volume of seed. Cable length: 5 m

Not approved for sale in Great Britain!

Radar sensor MX 35 (Accessory kit)

This sensor is available as a set with the following lifting unit sensors:

- Tractor linkage upper bar sensor
- Tractor linkage lower bar sensor
- Tractor linkage pull switch sensor

Tractor linkage upper bar sensor (Accessory kit) for three point mounting mechanism

For installation in a second top link slot.

Method of operation: mechanical actuation of a spring rod. The sowing shaft of the PS is thus automatically released or stopped (invertible). Cable length: 3 m



Tractor linkage lower bar sensor (Accessory kit)

For installation on moving parts in the headland. Method of operation: contactless, through a magnet (reed switch). The sowing shaft of the PS is thus automatically released or stopped (invertible). Cable length: 5 m

Cable extension for sensors MX

Cable length: 5 m



Splitter cable

for combined use of speed sensor and linkage sensor necessary! Cable length: 1 m

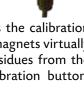
Control box 1.6 (Accessory kit)



- Distribution box 1-8 outputs (distribution box + device cable 10 m)
- Distribution box 1-24 outputs (distribution box + device cable 10 m)

plus the required number of

- Seed flow sensor kit 1" (sensor + connection cable 10 m + 2 hose clamps)
- Seed flow sensor kit 1 1/4" (sensor + connection cable 10 m + 2 hose clamps)





















MACHINE CARRIER MT2 M1

The machine carrier MT2 M1 ensures that our pneumatic seeders (PS) can be flexibly deployed as they do not have to be mounted directly on the trailed soil tilling implements. Only the hoses and the dispersion plates have to be mounted directly on the implement.

TECHNICAL DATA

Transport dimensions (without PS) H 1,35 x W 1,95 x D 1,45 m
Net weight
Attachment category tractor-side CAT 2 or 3
implement-side CAT 2 or 3
(only possible with lower linkage mounting)
Tractor power varies according to attached implement

STANDARD SCOPE OF DELIVERY

- Base frame with filling step
- Additional 3 hoses (each 25 m)

COMBINATION OPTIONS

- 1 pce. PS 120 M1 PS 800 M1 or
- 1 pce. PS 120 M1 PS 500 M2 of the fertiliser edition

ACCESSORIES

- Accessory kit ball hitch
- Accessory kit draw bar eye hitch
- Accessory kit drawbar hitch
- Accessory kit cable and hose extension
- Accessory kit hose extension for a 4th double acting control device
- Accessory kit hose extension for load sensing (LS)
- Accessory kit hose extension for return line*
- * for pressure-free return flow!



fast coupler for 16 outlets

BENEFITS VERSUS THE COMPETITION

- No direct installation of the pneumatic seeder on working implement required
- Axle loads weights are optimised!
- Traction increased by weight distribution on the tractor vehicle
- Working equipment can be driven individually very quickly
- Sowing combination with various attachments (cultivator, disc harrow, rollers, Striptill blades..





ROTARY HOE RS 450 M1 / RS 600 M1

The rotary hoe is perfectly suited to breaking up earth crusts, thus simplifying manual finishing. Due to its crumbling technique, it is ideal for combating weeds in mulched seed stocks. With its spring-loaded support arm, it is able to closely hug the ground. In combination with a pneumatic seeder (PS), the rotary hoe covers the seeds with fine soil and harrows them in thoroughly.

TECHNICAL DATA

Working width4,5 n	n (RS 450 M1) OR 6 m (RS 600 M1)	
Transport dimensions (folded)		
H 2	,3 x W 2,85 x D 2,05 m (RS 450 M1)	
H 3	,0 x W 2,85 x D 2,05 m (RS 600 M1)	
Net weight 1.570 kg (R	RS 450 M1) or 2.000 kg (RS 600 M1)	
Tractor performance	from 75 kW/100 HP (RS 450 M1)	
	. from 110 kW/150 HP (RS 600 M1)	
Ring spacing	9 cm	
Mounting category	CAT 2	
1 single acting	control device for folding necessary	

STANDARD SCOPE OF DELIVERY

- Complete machine with 52 pcs. cast rings (510 mm) with each 16 points (RS 450 M1)
- Complete machine with 68 pcs. cast rings (510 mm) with each 16 points (RS 600 M1)
- 26 Stk. (RS 450 M1) or 34 pcs. support arms (RS 600 M1)
- 2 pcs. support wheels (double tyred), dimension: 16.0/6,5-8"

ACCESSORIES

- Accessory kit 2nd pair support wheel
- Accessory kit harrow 1-row RS450
- Accessory kit harrow 2-row RS450
- Accessory kit harrow 1-row RS600Accessory kit harrow 2-row RS600
- Operating hour counter
- Mounting kit for PS120-500 on RS450-600
- Warning signs + lights for RS450-600
- Filling step for RS450-600
- Accessory kit for mounting of dispersion plates RS450
- Accessory kit for mounting of dispersion plates RS600
- Set of sensors radar + tractor linkage upper bar sensor
- Accessory kit toolbox
- Conversion kit quick-lift RS (in pairs)
- Pretension lever for quick-lift

Usable with pneumatic seeders with electrical/hydraulic/PTO fan PS 120 M1, PS 200 M1, PS 300 M1 and PS 500 M2: see page 11-12.

APPLICATION PURPOSES OF THE ROTARY HOE

Breaking up incrustation, soil cultivation, reducing incidental weeds, soil stimulation, clog-free weed control

BENEFITS VERSUS THE COMPETITION

- High working speeds up to 25 km/h possible
- Low tractive power requirements
- Alternative to rollers, hoes
- Ring spacing can be variably adjusted by pair
- Working elements can be removed
- High durability of the stars
- Maintenance-free
- Simultaneous tilling and sowing
- Each individual arm may be lifted (no processing) (conversion kit quick-lift)













FIELD AND GRASSLAND ROLLERS AW -SERIES

Cambridge rollers or toothed ring rollers from APV are the perfect machines for professional field and grassland operations, in order to selectively improve the ground contact and thus the seed germination. Both types of rollers are ideal for use in field and grassland operations and provide a good, crumbly seed bed structure as well as optimum recompacting.

Every APV field- and grassland roller is available with two different ring elements:

CAMBRIDGE RINGS

The smooth rings ensure very good rolling. The moving intermediate rings provide optimum ground tracking and cleaning of the rollers.

Your advantages with a Cambridge roller

- Proven to be impervious to stones
- Gentle blade treatment compared to other profiles when rolling in the spring
- No burying of seed during rerolling

TOOTHED RINGS

The toothed ring roller is ground tracking and self-cleaning due to the different ring diameters.

Your advantages with a toothed ring roller

- No soil deposits on the roller
- Provides a fine crumbed ground structure
- Interrupts the capillary action in the ground (improving the water supply)
- No muddying of the ground

AREAS OF APPLICATION

- Seed bed preparation
- Stimulation of the rootstock
- Eradication of unevenness
- Re-compacting of the ground
- Crust breaking
- Reduction of erosion
- Shortening of inter-cropping
- Combating slugs and snails

APV field- and grassland rollers are available with different working widths and mounting options:

APV ROLLERS 3-POINT LINKAGE

TECHNICAL DATA AW 300 3P

Working width	3 m
Coupling device	
Mounting category	CAT 2
Power requirement*	50 kW/70 HP
Weight with Cambridge roller or	
toothed ring roller (without accessories)	940 kg
Usable with electric pneumatic seeders PS 120) M1 -
PS 300 M1	

TECHNICAL DATA AW 300 F

Working width
Coupling device front
Mounting categoryKAT 2
Power requirement*
Weight with Cambridge roller or
toothed ring roller (without accessories)1.200 kg

Not usable with pneumatic seeders.

ACCESSORIES

- Warning signs + lights for AW 300 3P/AW 300 F
- Mounting kit PS 120-300 for AW 300 3P
- Filling step for AW 300 3P





*Power requirement is highly dependent on the lifting force of the tractor!

APV ROLLERS TRAILED

TECHNICAL DATA AW 630 G

Working width	6,3 m
Tyres	
Coupling device	
Power requirement	60 kW/80 HP
Weight with Cambridge roller or	
toothed ring roller (without accessories)	2.500 kg
Transport speed	25 km/h
1 double-acting control	device is necessary

Usable with electric pneumatic seeders PS 120 M1 - PS 300 M1

TECHNICAL DATA AW 920 G

TECHNICAL DAMA 720 0	
Working width	9,2 m
Tyres	.11,5/80-15,3 14 PR
Coupling device	. Draw bar eye hitch
Power requirement	90 kW/120 HP
Weight with Cambridge roller or	•
toothed ring roller (without accessories)	5.130 kg
Transport speed	
1 double-acting control	ol device is necessary

Not usable with pneumatic seeders.

- Warning signs + lights for AW 630 G/AW 920 G
- Mounting kit PS120-300 + filing step for AW 630 G
- Pressurised air braked axle for AW 920 G



Detailed information to our roller series please find on our website www.apv.at!

APV ROLLERS HEAVY, TRAILED

TECHNICAL DATA AW 630 SG

Working width
Tyres400/60-15,5 14 PF
Coupling device Draw bar eye hitch
Power requirement
Weight with Cambridge roller or
toothed ring roller (without accessories)4.200 kg
Transport speed
min. 2 double-acting control devices necessary

TECHNICAL DATA AW 830 SG	
Working width	
Tyres	19/45-17 14 PF
Coupling device Dra	
Leistungsbedarf	110 kW/150 HF
Weight with Cambridge roller or	•
toothed ring roller (without accessories)	5.190 kg
Transport speed	25 km/ĥ
min. 3 double-acting control devices necessary	ary (with switch
between leveling bar/weeder and p	arking support

STANDARD SCOPE OF DELIVERY

- Complete machine with lights, mudguard and hydraulic weight-loading

ACCESSORIES

- Pressurised air braked axle for AW 630 SG/AW 830 SG
- Harrow (hydraulically adjustable) AW 630 SG/AW 830 SG
- Leveling bar AW 630 SG/AW 830 SG
- Leveling bar with dual blade AW 630 SG/AW 830 SG
- K80 Drawbar eye AW 630 SG/AW 830 SG
- Mounting kit PS120-800 for AW 630/830 SG
- Filling step for AW 630/830 SG

Usable with pneumatic seeders PS 120 M1 - PS 800 M1 + radar sensor + 7-pin signal cable.

Leveling bar, harrow: 1 double-acting control device necessary









GRASSLAND AND TINED WEEDER

The APV tined weeder has proven itself over many years as an alternative to chemical weed control and mechanical crop cultivation for a whole multitude of plants.

The APV tined weeder is used for soil care purposes and applies on cereals, maize, turnips, rape, potatoes, vegetables, soy, potatoes, field beans, peas and grassland.

In order to prevent plant cultivations from qualitative and quantitative damage, the tined weeder aims at keeping the weeds down to a minimum. The application of the tined weeder does however not strive for a completely weed-free area, as there are also positive effects on plant cultivations and soil conditions, which are achieved through moderate presence of various types of weeds.

Other reasons to use an APV tined weeder are to encourage the rootstock, aerate the soil and to regulate the water supply by interrupting capillary action. This factors make an important contribution to producing a good crop of useful plants.

For optimum results, alongside the weeder settings such as depth setting and tine adjustment, driving speed, the properties of soil, and weather conditions at a point of use must also be taken into consideration.

In combination with the pneumatic seeders PS 120 M1 to PS 300 M1, the tined weeder is particularly appropriate to be used for distributing intercrops.

ROBUST CULTIVATION EQUIPMENT

The tined weeder is a soil care device which is essential in modern agriculture due to its robust construction and its versatile application.

As an alternative to chemical weed control, the weeder makes a valuable contribution to the tilling process.

APPLICATION PURPOSE

- Decimation of unwanted weeds
- Increasing the potential of the soil
- Soil cultivation
- Soil stimulation
- Meadow aeration

BENEFITS VERSUS THE COMPETITION

- Flexible weeder bed
- Weeder bed guided by the frame
- Simple tine adjustment
- Adjustable rubber support wheels

APPLICATION WITH

- Pneumatic seeders PS 120 M1 - PS 300 M1



TECHNICAL DATA

. Ed. ii (id. le D. tii) (
Beds	Support wheels	Tines	HP	kW	kg (approx.)	Mounting category		
1 x 1,5	2	48	8	6	140	Cat. 1		
1 x 2,0	2	66	20	15	160	Cat.1		
2 x 1,5	2	96	15	11	250	Cat. 2N		
3 x 1,5	2	144	20	15	380	Cat. 2N		
1 x 2 / 2 x 1,5	2	162	30	22	410	Cat. 2N		
4 x 1,5	2	192	40	29	500	Cat. 2		
4 x 1,5	4	192	50	37	700	Cat. 2		
5 x 1,5	4	240	50	37	650	Cat. 2		
6 x 1,5	4	288	60	44	880	Cat. 2		
6 x 1,5	4	288	65	48	1.050	Cat. 2		
8 x 1,5	4	384	70	51	1.260	Cat. 2		
10 x 1,5	4	480	80	59	1.500	Cat. 2		
	1 x 1,5 1 x 2,0 2 x 1,5 3 x 1,5 1 x 2 / 2 x 1,5 4 x 1,5 4 x 1,5 5 x 1,5 6 x 1,5 6 x 1,5 8 x 1,5	wheels 1 x 1,5 2 1 x 2,0 2 2 x 1,5 2 3 x 1,5 2 1 x 2 / 2 x 1,5 2 4 x 1,5 2 4 x 1,5 4 5 x 1,5 4 6 x 1,5 4 8 x 1,5 4	wheels 1 x 1,5 2 48 1 x 2,0 2 66 2 x 1,5 2 96 3 x 1,5 2 144 1 x 2 / 2 x 1,5 2 162 4 x 1,5 2 192 4 x 1,5 4 192 5 x 1,5 4 240 6 x 1,5 4 288 6 x 1,5 4 288 8 x 1,5 4 384	wheels 1 x 1,5 2 48 8 1 x 2,0 2 66 20 2 x 1,5 2 96 15 3 x 1,5 2 144 20 1 x 2 / 2 x 1,5 2 162 30 4 x 1,5 2 192 40 4 x 1,5 4 192 50 5 x 1,5 4 240 50 6 x 1,5 4 288 60 6 x 1,5 4 288 65 8 x 1,5 4 384 70	wheels 1 x 1,5 2 48 8 6 1 x 2,0 2 66 20 15 2 x 1,5 2 96 15 11 3 x 1,5 2 144 20 15 1 x 2 / 2 x 1,5 2 162 30 22 4 x 1,5 2 192 40 29 4 x 1,5 4 192 50 37 5 x 1,5 4 240 50 37 6 x 1,5 4 288 60 44 6 x 1,5 4 288 65 48 8 x 1,5 4 384 70 51	wheels (approx.) 1 x 1,5 2 48 8 6 140 1 x 2,0 2 66 20 15 160 2 x 1,5 2 96 15 11 250 3 x 1,5 2 144 20 15 380 1 x 2 / 2 x 1,5 2 162 30 22 410 4 x 1,5 2 192 40 29 500 4 x 1,5 4 192 50 37 700 5 x 1,5 4 240 50 37 650 6 x 1,5 4 288 60 44 880 6 x 1,5 4 288 65 48 1.050 8 x 1,5 4 384 70 51 1.260		

^{*} no rapid coupling bar - 2 middle stabilisers, (Dim. 18*8.50-8")

We recommend a 2nd pair of support wheels, if the 6 m weeder is in use with front levelling plates!

STANDARD SCOPE OF DELIVERY

- Complete machine with tines Ø 7 mm 450 mm long
- Line spacing 3,1 cm
- Parking legs with folding machines
- Requirement by weeders with scissor folding 2 double-acting control devices necessary
- Transport width 1,5 3 m
- Gauge of the track: 1,36 1,40 m
- Automatic pivoting in of the side beds by parallel guidance

ACCESSORIES

- Tines: 450 mm long, Ø 8 mm
- Hydraulic tine adjustment per field (not in connection with front levelling plate)
- Spring-borne levelling plates adjustable
- 2nd pair of support wheels with bracket
- Control valve, if there is only 1 double-acting control device on the tractor (for machines with scissor folding)
- Track gauge variation 1,36-1,8 m
- Swing limiter
- Warning signs + lights rear
- Warning signs + lights rear and front
- Mounting kit PS 120 M1 PS 300 M1
- Filling step
- Set of sensors wheel + tractor linkage upper bar sensor
- Pneumatic seeders PS 120 300 M1 (see page 11)