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GRASSLAND PRO HARROW GP

COMPLETE EFFICIENCY FOR RESEEDING

APV
www.apv.at ®

FROM USER TO ENTREPRENEUR



For Jürgen Schöls it was clear from the beginning that his heart beats for agriculture. He took over his parents' farm and he is still managing it today. As a farmer and DIYer, he developed his Single Disc Spreader further in 1997. He realised that his optimisation has potential and founded APV – Technische Produkte GmbH.

The young entrepreneur made the first APV machines manually himself. Today, he employs more than 100 people. The entire company works according to the motto: EVERYTHING IS POSSIBLE! Keep giving, and good things will come your way! The dynamic enterprise questions everything, does not take anything as a given, and optimises already existing good things.

"Every modern farmer uses APV technology on the farm".

Vision of the Managing Director

Imprint

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MORE INFO ONLINE

Our entire range of products is available at
www.apv.at/en.

Take advantage of an individual consultation
with our sales team.

GRASSLAND PRO HARROW GP

GRASSLAND REHABILITATION

Grassland maintenance and rehabilitation are the cornerstone of high quality feed. With the Grassland Pro Harrow you are equipped for both a smooth and a very intensive processing of your surfaces. The GP 300 M1 and GP 600 M1 are the perfect implements for grassland rehabilitation in the case of intensive cultivation.

The Grassland Pro Harrow is particularly attractive for large operations, but also for cross-farm operation (in the case of smaller farms). You may and will enjoy using it several times a year.



THIS IS HOW THE GRASSLAND PRO HARROW WORKS

With the Grassland Pro Harrow, you can handle all steps required for grassland maintenance in one crossing. It combines harrow and roller in one. The levelling plate levels molehills and distributes the soil equally. Due to this preliminary work, the tines are

able to work optimally. They comb out weeds and matting and aerate the sward. With the Pneumatic Seeder you are able to sow the desired seeds of forage grasses in the open soil and afterwards, the roller presses the seeds into the ground.

THE MOST EFFICIENT METHOD OF RESEEDING

The Grassland Pro Harrow is characterised by four rows of tines. Due to the 12 mm thick tines in the first two rows and the possibility to let the weight of the roller bear on the tines, it is possible to pull out overgrown grass or large quantities of weeds aggressively.

Use the multiple settings of the tines: from intensive to smooth. Due to the multiple adjustment possibilities of the GP, you are ready for any type of application during cross-farm operation. From smooth overseeding to intensive grassland rehabilitation, depending on existing crops and the customer's needs.

VERSATILE IN USE

MAKE USE OF THE MULTIPLE BENEFITS!

- The Grassland Pro Harrow is the most efficient method of reseeding in crop farming.
- Achieve a unique result. The APV Grassland Pro Harrow convinces with its unique combination of two 12 mm rows and two 8 mm rows of cranked spring tines.
 - Versatile use from smooth to aggressive processing and use in the field.
 - 100% product competence: The Grassland Pro Harrow has been developed in the headquarters in Dallein (Austria) and is also produced there.
 - All components are perfectly adjusted to each other
 - Make use of competent service from APV employees
 - Combine the processes of levelling, pulling out, seeding¹, harrowing and rolling
 - Also suitable for cross-farm operation

VERSATILE IN USE

Use the Grassland Pro Harrow for the following purposes:

- For the intensive aeration of the sward
- To stimulate tillering
- For overseeding and reseeding of the grassland
- For new seeding of the grassland
- Pulling out large quantities of overgrown grass and weeds
- Fertiliser distribution across the grassland
- Removing weeds
- Extraction of catch crops and other seeds in the cultivation of land



1 In combination with a Pneumatic Seeder PS from APV --> Full Edition

ROLLER COMPARISON IN THE GRASSLAND

Legend:

- **** very well suitable
- *** well suitable
- ** suitable
- * less suitable









		Cambridge 390 mm	Cambridge 530 mm	Toothed ring roller 410 mm
light soils	Weight	**	*	*
	Diameter → Pulling force requirement	**	***	**
	Erosion and sealing risk	***	***	****
	Reconsolidation	***	**	****
	Self-cleaning	****	****	****
	Crumbling and facilitation of tillering	***	***	****
medium soils	Weight	***	**	**
	Diameter → Pulling force requirement	***	****	***
	Erosion and sealing risk	***	***	****
	Reconsolidation	****	***	****
	Self-cleaning	***	***	****
	Crumbling and facilitation of tillering	***	***	****
heavy soils	Weight	****	***	****
	Diameter → Pulling force requirement	***	****	***
	Erosion and sealing risk	***	***	****
	Reconsolidation	***	**	****
	Self-cleaning	***	***	****
	Crumbling and facilitation of tillering	***	***	****

GP 300 M1

FULL EFFICIENCY FOR RESEEDING

The four tine rows are specific of the Grassland Pro Harrow. It is suitable for smooth soil tillage, aeration, and stimulating growth. The GP is unique due to the option to work at extreme intensity. The tine thickness of 12 mm and the high tine pressure that arises due to the transfer of the roller weight, turns it into the professional machine for reseeding, new seeding and meadow cultivation. In order to use the Grassland Pro Harrow efficiently, we recommend the combination with a Pneumatic Seeder PS from APV (see Full Edition).

TECHNICAL DATA

	Working width	3 m
	Weight (Cambridge roller 390 mm) (Full Edition) . .	1,355 kg
	Weight (Cambridge roller 530 mm) (Full Edition) . .	1,765 kg
	Weight (Toothed ring roller 410 mm) (Full Edition)	1,765 kg
	Mounting category.	KAT 2 (mast height KAT 3)
	Tractor performance	from 65 kW/ 90 PS

A double-acting control unit required for roller adjustment

ITEMS INCLUDED
BASIC EQUIPMENT

- The standard scope of delivery of the GP 300 M1 includes:
- Complete machine with 2 harrow sections and roller
 - Spring-mounted levelling plate
 - Harrow sections with cranked 12 mm tines (40), 8 mm tines (56)
 - Heavy grassland Cambridge roller (Ø 390 mm or Ø 530 mm) or toothed ring roller (Ø 410 mm)

ACCESSORIES

- Warning signs + lights
- Operating hours counter
- Sensor set: GPSa sensor + tractor linkage upper bar sensor
- Access platform for GP 300 M1
- Accessory kit toolbox
- Accessory kit mounting of dispersion plates GP 300 M1

YOUR BENEFITS

- Combine the processes: levelling, pulling out, seeding¹, harrowing and rolling.
- Both the roller and the harrow can be lifted separately in order to load the other tool with additional weight.
- Level molehills or asperities with the spring-mounted levelling plate.
- Multiple adjustment options: Obtain an optimal result for all requirements.
- Combine the APV Grassland Pro Harrow with a Pneumatic Seeder from APV.



- Can be used with Pneumatic Seeders with electric fan PS 120 M1, PS 200 M1, PS 300 M1 and PS 500 M2.
- Best lateral distribution throughout the working width
 - Precise spreading of seed - irrespective of wind



FULL EDITION

- The scope of delivery of the Full Edition includes:
- GP 300 M1 with Cambridge or toothed ring roller
 - Warning signs and lights
 - Access platform
 - Pneumatic Seeder PS 300 M1 with electric fan
 - Control Box 5.2
 - Sensor set: GPSa sensor + tractor linkage upper bar sensor



1 In combination with a Pneumatic Seeder PS from APV







GP 600 M1

ENDLESS POWER OF IMPACT

The Grassland Pro Harrow GP 600 M1 is very well suited for large surface meadow cultivation, for reseeding and the new seeding of grass. Due to the unique combination of 12 mm and 8 mm tines, the sward is optimally processed. The GP 600 M1 can also be employed in cross-farm operation.



TECHNICAL DATA

	Working width	6 m
	Weight (Cambridge roller 530 mm) (as on the image)	3,800 kg
	Weight (toothed ring roller 410 mm) (as on the image)	3,800 kg
	Tyres	2 (400/60-15.5")
	Mounting category.....	KAT 3N
	Tractor performance	from 100 kW/ 140 PS

Three double-function control boxes required for running gear, folding and roller adjustment.
A single-acting control unit with a pressureless return flow is required when using a Pneumatic Seeder.



ITEMS INCLUDED BASIC EQUIPMENT

The standard scope of delivery of the GP 600 M1 includes:

- Complete machine with 3 harrow sections and roller
- Spring-mounted levelling plate
- Harrow sections with cranked 12 mm tines (78), 8 mm tines (114)
- Heavy grassland Cambridge roller (Ø 530 mm) or toothed ring roller (Ø 410 mm)
- 25 km/h version



ACCESSORIES

- Pneumatic brake
- Warning signs + lights
 - Operating hours counter
 - Mounting kit for PS 200 M1 - PS 500 M2
 - Sensor set: GPSa sensor + tractor linkage lower bar sensor GP 600 M1
 - Access platform GP 600 M1
 - 40 km/h version with MOT
 - Accessory kit 500/50-17" tyres
 - Accessory kit toolbox



YOUR BENEFITS

- Combine the processes: levelling, pulling out, seeding¹, harrowing and rolling.
- Both the roller and the harrow can be lifted separately in order to load the other tool with additional weight.
- Level molehills or asperities with the spring-mounted levelling plate.
- Multiple adjustment options: Obtain an optimal result for all requirements.
- Combine the APV Grassland Pro Harrow with a Pneumatic Seeder from APV.
- Can also be used in agriculture, e.g., when cultivating field forage (clover, ...).
- Highest power of impact in own operation or in cross-farm operation.



Can be used ONLY with Pneumatic Seeders with HYDRAULIC fan PS 200 M1, PS 300 M1 and PS 500 M2.

- Best lateral distribution throughout the working width
- Precise spreading of seed - irrespective of wind



1 In combination with a Pneumatic Seeder PS from APV

TECHNICAL DETAILS



#01 LEVELLING PLATE



Plane grassland for optimal processing

- The height adjustment of the spring-mounted levelling plate is easily achieved via a hook and bolt fastening in a perforated strip.
- The levelling plate is used to level molehills or other unevennesses.



#02 SHAPE AND THICKNESS OF THE TINES



Freely adjustable harrow results

- The two front tine rows (cranked 12 mm spring tines) break up the sward and remove undesired grasses, matting and moss growth.
- The two back tine rows (cranked 8 mm spring tines) separate the soil from the pulled out material, work the seed into the soil and produce fine soil (soil closure for the seed).



#03 ADJUSTMENT OF THE TINES¹



Smooth or aggressive processing

- The aggressivity of the front tines is set via slotted adjustment through bolts. The configuration of the back tine row is adjusted via a perforated strip with bolts.

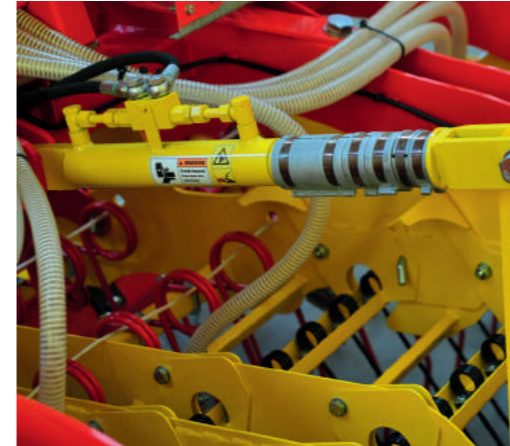
Our recommendation:

- To ensure aggressive processing on a hard subsoil, select a steep inclination of the tines. A flat inclination should be selected for light processing, this provides the tines more freedom of movement.

TECHNICAL DETAILS



#04 ROLLER ADJUSTMENT



Fine adjustment of the surface pressure

- The depth control wheel and the adjustment of the surface pressure of the tines is achieved via the tractor's lower linkage mounting and the trailing roller of the GP. It can be easily adjusted during operation via the hydraulic cylinder on the roller.



#05 POSSIBLE COMBINATIONS WITH PNEUMATIC SEEDERS



Combination with your seeder

- You can combine the APV Grassland Pro Harrow with the Pneumatic Seeders PS 120 M1 - PS 500 M2.

¹ In order to remove deep roots and large root balls, select a deep tine adjustment (= intensive harrowing)- In order to remove shallow root trees, select a lateral depth setting (=light harrowing).

ACCESSORIES



#01 MOUNTING KIT FOR PS¹



In one step

- GP 600 M1: The mounting kit available as accessory is necessary for mounting a Pneumatic Seeder PS 200 M1 - PS 500 M2 with hydraulic fan.
- GP 300 M1: The mounting option of the PS is already integrated in the implement's frame.



#02 ACCESS PLATFORM¹

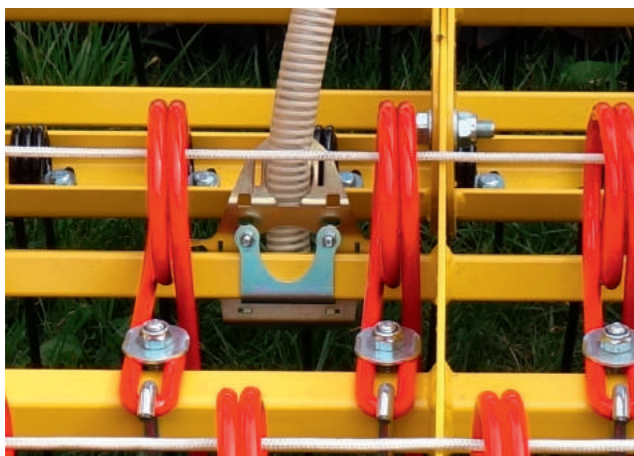


Safe work

- There is a suitable access platform as accessory that ensures the safe filling of the Pneumatic Seeder.



#03 DISPERSION PLATE ASSEMBLY¹



Multiple mounting options

- Fasten the dispersion plates to each other on a hollow profile (on the harrow or in front of the roller) at regular intervals.
- If you include a PS in your order, we mount the dispersion plates on the harrow sections for you.

¹ Included in GP 300 M1 Full Edition!

GRASSLAND PRO HARROW

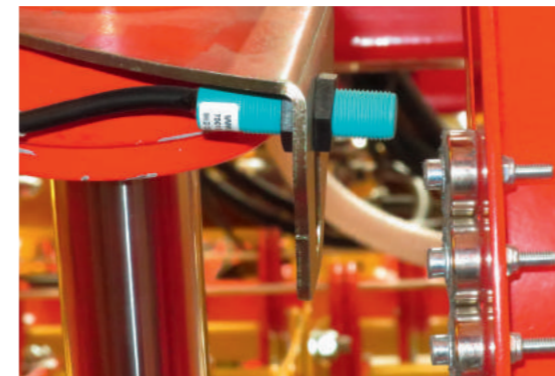


#04 SENSOR SET FOR SPEED AND HOISTING GEAR¹



GP 300 M1:

- For the automatic stopping and starting of the seeding shaft, we provide the tractor linkage upper bar sensor, which is mounted on one of the two top link holes of the GP.



GP 600 M1:

- For the automatic stopping and starting of the seeding shaft, we provide the tractor linkage lower bar sensor, which is, for example, mounted onto the hoisting gear cylinder.



GP 300 M1 & GP 600 M1:

- The GPSa sensor is used for the automatic adjustment of the seeding shaft speed to the actual driving speed.



#05 OPERATING HOURS COUNTER



The hours counter

- The operating hours counter records the machine vibrations and counts the hours. This provides a measurement and calculation unit, for example for cross-farm operation.

¹ Included in GP 300 M1 Full Edition!

ACCESSORIES



#06 WARNING SIGNS AND LIGHTS¹



Safety has priority

- Warning signs with lights are available as accessories to ensure a safe drive.



#07 40 KM/H VERSION WITH MOT



- This additional equipment allows the user to drive the GP 600 M1 at 40 km/h (MOT-tested). Differences from regular version: Wider tyres, stronger brake, parking brake, light support with lateral delimitation lights, lateral yellow reflectors, 2 chocks, cover for lateral harrow sections.



#08 ACCESSORY KIT 500/50-17" TYRES



- In the case of frequent and long road journeys with the GP 600 M1 we recommend the wider tyres (included in the 40 km/h version).
- The wider tyres are also less destructive for the soil, both in the grassland and in cultivation.

¹ Included in GP 300 M1 Full Edition!

GRASSLAND PRO HARROW



#09 ACCESSORY KIT TOOLBOX



Safely stored

- The toolbox can be locked and provides storage space in the machine.



#10 PNEUMATIC BRAKE



- In order to brake the machine itself, the pneumatic brake can be mounted on the GP 600 M1 (Attention: 2-conductor pneumatic brake system must be available on the tractor!).

Innovation for the Future

- since 1997 -



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