

APV GRASSLAND HARROW GS

THE HARROW NO. 1 FOR GRASSLAND MAINTENANCE



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 basis.



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



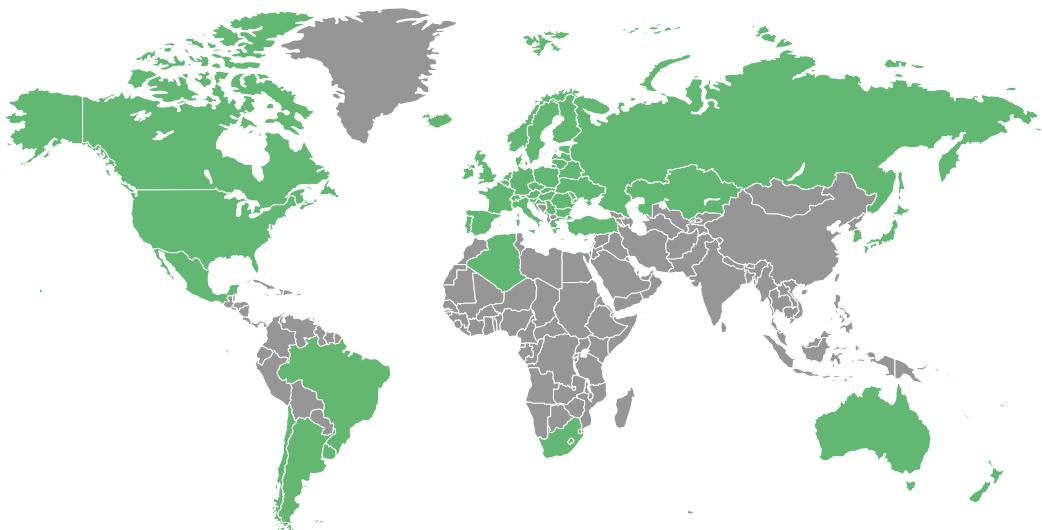
AND THE GOAL.



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, 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.



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.



APV Grassland Harrows impress with the combination of two rows of strong and two rows of weak, cranked spring tines - a unique feature in agricultural technology.

THE MAINTENANCE HARROW FOR GRASSLAND CULTIVATION

High-quality forage is an important source of energy in livestock farming. The APV Grassland Harrow pulls out unwanted grasses, creates space for high-quality seed and aerates the soil. Thus, the harrow stimulates the natural formation and germination of a diverse plant population. In combination with a Pneumatic Seeder, you can harrow your meadows and sow grasses and legumes in one operation. This way you control the ratio between grasses, legumes and herbs. Improve your grassland and increase your yields with the APV Grassland Harrow.

THE KEY ASPECT: THE TINES

Whether the harrow works aggressively or finely, at what speed the tines achieve optimum results and how broad the harrow's area of application is, all these factors depend on the nature of the tines and their setting. The tines of the Grassland Harrow from APV are specially developed for the diverse requirements of grassland maintenance. The harrow combines cranked spring tines in two different thicknesses. The four rows of tines create a unique harrow pattern. For more information on the tines, see pages 12 and 13.

USE THE FULL POTENTIAL

With the appropriate accessories, you can carry out the following operations in addition to harrowing:

- **Leveling:** Use the spring-mounted leveling plate to level out molehills and unevenness.
- **Harrowing:** The basic equipment of the Grassland Harrow includes four rows of tines for harrowing. The front two rows are the actual working area. The 10 mm and 12 mm tines tear up the turf and free the grassland from weeds and tangles. The rear two rows with 8 mm tines separate the soil from the torn out weeds and produce a fine soil fraction. This is unique in agricultural technology.
- **Aerate:** By harrowing the surface of the soil, it is also aerated and has a positive effect on the growth of the desired grassland plants.
- **Seeding:** You can combine the Grassland Harrow with different APV seeders - such as the Pneumatic Seeder PS 120 M1, PS 200 M1 or PS 300 M1. APV offers you a wide range of hopper sizes: As versatile as your requirements.



UNIQUE IN USE

GS 300 M1 - THE COMPACT CULTIVATION MACHINE

The GS 300 M1 has a working width of 3 meters. It can already be used by small tractors from 27 HP.

Perform up to four operations with the GS 300 M1. Also reduce soil compaction and your fuel consumption with combined operations.

Fully equipped, the scope of delivery of the GS 300 M1 includes:

- Front two rows of tines: cranked tines in the thickness of 10 mm
- Rear two rows of tines: cranked tines in the thickness of 8 mm
- PS 200 M1 with electric fan
- Control Box 5.2
- Sensor set: wheel sensor + linkage sensor top link
- Mounting kit for Pneumatic Seeder
- Platformkit
- Parking stand
- Spring-mounted leveling plate
- Warning signs and LED lighting



GS 600 M1 - DER STATTLICHE ALLROUNDER

The GS 600 M1 is suitable for efficient grassland maintenance due to its larger working width of 6 meters. It impresses with its high tilt adjustment and can also be used in difficult terrain. You can combine up to four operations with the GS 600 M1.

Fully equipped, the scope of delivery of the GS 600 M1 includes:

- Front two rows of tines: cranked tines in the thickness of 10 mm
- Rear two rows of tines: cranked tines in the thickness of 8 mm
- PS 300 M1 with electric fan
- Control Box 5.2
- Sensor set: wheel sensor + linkage sensor top link
- Mounting kit for Pneumatic Seeder
- Platformkit
- Parking stands
- Spring-mounted leveling plate
- Warning signs and LED lighting





	GS 300 M1	GS 600 M1
Working width	3 m	6 m
Tines	40 pcs. (10 mm or 12 mm), 60 pcs. (8 mm)	80 pcs. (10 mm or 12 mm), 120 pcs. (8mm)
Weight (Full Edition)	530 kg	1,050 kg
Feeler wheels (16.0/6.5-8" tires)	2	4
Mounting category	CAT 2 / CAT 2N	CAT 2
Tractor power	20 kW / 27 HP and higher	50 kW / 70 HP and higher
Front two rows of tines: cranked tines in the thickness of 10 or 12 mm	x	x
Rear two rows of tines: cranked tines in the thickness of 8 mm	x	x
Parking stands	1	3
Optional		
Spring-mounted leveling plate	x	x
Warning signs + LED lighting GS	x	x
Mounting kit for PS 120 - 300 M1 on GS 300 M1	x	
Sensor set: wheel sensor + linkage sensor top link GS	x	x
Platform kit for GS	x	x
Adjustment spindle for levelling plate	x	x
Front attachment GS 600 ¹		x
Hose routing and dispersion plate assembly	x	x
Attachment kit for multidosing unit MDP	x	

¹ Any impairment of the field of vision must be remedied by suitable measures! Front axle loads may be exceeded!





THE TINES

APV Grassland Harrow impresses with the combination of two rows of strong and two rows of weak cranked spring tines. A unique feature in agricultural technology.

Due to the shape of the tines and the numerous adjustment options, you achieve the optimum harrow pattern for all requirements.

SHAPE OF THE TINES

Desired harrow results

Long tines create a high passage and allow faster driving with little clogging.

THICKNESS OF THE TINES

Perfect interaction

The harrow consists of four tine rows:

- The front two rows of tines are equipped with cranked 10 mm (12 mm on request) spring tines. These tear up the turf and remove unwanted grasses, matted areas and moss.
- The rear two rows of tines are equipped with cranked 8 mm spring tines. These separate the soil from the harrowed material, work seed into the soil and produce a fine soil content (soil closure for the seed).



INCLINE ADJUSTMENT

- Easy adjustment of the aggressiveness of the strong front tines via the feeler wheels.
- The inclination of the 8 mm tines is adjustable in the third and fourth tine row via the bracket with hole grid (4-step adjustment range of 33° in 11° steps).



Our recommendation:

- For hard and dry surfaces, choose a steep inclination of the tine (= aggressive harrowing - small movement of the tine).
- For light and soft ground select a flat choose a flat inclination of the tine (= gentle harrowing - large movement of the tine).



DETAILS MAKE PERFECTION

With the Grassland Harrow from APV you get the most out of your grassland and improve your meadow stands. The Grassland Harrow removes unwanted grasses, aerates the soil and stimulates the natural formation of a diverse plant population. This is how you exploit the potential of your meadows.

SWIVELING AND LOCKABLE FRONT FEELER WHEELS

Slope capability at the highest level

- The swiveling and lockable front seed wheels make the Grassland Harrow suitable for slopes. Thus, the GS is protected from the machine pulling downhill.

COMBINATION POSSIBILITIES WITH PNEUMATIC SEEDERS

Combination with your seeder

- You can combine the APV grassland harrow with the pneumatic seeders PS 120 M1 - PS 300 M1.

ROBUST AND DURABLE

- Harrow 1,000 hectares of grassland with the GS 600 M1 without changing a tine.*



* APV harrow tines are made of special spring steel. We would like to point out that the life of the tines is influenced by the soil structure.

APV ACCESSORIES

LEVELING PLATE¹

The height-adjustable, spring-mounted leveling plate removes rough unevenness, such as molehills, in grassland. The height is adjusted by two bolts on the perforated strip. The leveling plate is guided by the feeler wheels. This ensures a smooth and uniform harrow quality.



ADJUSTMENT SPINDLE FOR LEVELING PLATE

- **GS 300 M1:** The height of the leveling plate can be adjusted with the help of the adjustment spindle.
- **GS 600 M1:** The center leveling plate can be adjusted with the help of the adjustment spindle. The height of the outer leveling plates is adjusted manually through the hole grid by means of bolts.



WARNING SIGNS AND LIGHTING¹

For a safe ride on the road, warning signs and lighting are included in the Full Edition



MOUNTING KIT FOR PS¹

For the mounting of a Pneumatic Seeder PS 120 M1 - PS 300 M1 with electric fan, the mounting kit available as an accessory (GS 300 M1) is required. The PS is placed on this attachment and fixed together with the counter plate.

This is included as standard on the GS 600 M1.





PLATFORM KIT¹

For convenient access to the seeder, there is a matching platform kit available as an accessory.



SENSOR SET¹

Linkage sensor top link

For the automatic stop and release of the seeding shaft, we offer the linkage sensor top link, which is mounted on one of the two top link holes of the GS.



Wheel sensor

The wheel sensor available in the set is used for automatic adjustment of the seeding shaft speed to the actual driving speed.



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APV



**GENERAL
IMPLEMENT
DISTRIBUTORS**



GRASSLAND HARROW GS

GS 300 M1 / GS 600 M1

ADVANTAGES

- 1 machine - 4 operations: levelling, harrowing, aeration and seeding
- Harrowing of matted plants and weeds in grassland with simultaneous grass reseeding
- Aeration of the grassland to improve plant growth and increase yield
- Spring-mounted levelling plate for levelling out molehills or slight unevenness in the ground
- Tine combination is unique in agricultural engineering
- Each tine section adapts perfectly to the ground
- Can also be used in arable farming for reseeding or forage cultivation

TECHNICAL DATA

	GS 300 M1	GS 600 M1
Working width	10 ft (3m)	20 ft (6m)
Transport dimensions (with seeder) in ft (HxWxD)	6.8 x 10 x 5.9 (2.06x3.00x1.80m)	-
Transport dimensions (without seeder) in ft (HxWxD)	4.2 x 10 x 5.9 (1.27x3.00x1.80m)	-
Transport dimensions (folded) in ft (HxWxD)	-	9.8 x 10 x 6.5 (2.98x3.00x1.98m)
Line spacing	2.95 in (75mm) (0.40 in (10mm) tines) 1.96 in (50mm) (0.32 in (8mm) tines)	
Number of tines	40 pcs. (0.40 in (10mm) tines) 60 pcs. (0.32 in (8mm) tines)	80 pcs. (0.40 in (10mm) tines) 120 pcs. (0.32 in (8mm) tines)
Weight of Full Edition	1,168 lbs (530kg)	2,315 lbs (1,050kg)
Feeler wheels (16.0/6.5-8" tyres)	2 pcs.	4 pcs.
Mounting category	CAT 2 / CAT 2N	CAT 2
Tractor performance	above 20 kW / 27 HP	above 50 kW / 70 HP

⚠ GS 600 M1: A single-acting or, at extra cost, a double-acting control unit is required for folding

STANDARD SCOPE OF DELIVERY

- Complete implement with 2 rows of cranked 0.40 in (10mm) tines at the front, single-acting folding
- 2 rows of cranked 0.32 in (8mm) tines at the rear
- 3 parking supports (GS 600 M1)

FULL EDITION SCOPE OF DELIVERY

With the Full Edition, you receive the following in addition to the standard scope of delivery:
LED lighting, spring-mounted levelling plate, platform kit, mounting kit and Pneumatic Seeder PS 200 M1 (GS 300 M1) or PS 300 M1 (GS 600 M1) with electric fan incl. Control Box 5.2 and sensor set (wheel sensor + linkage sensor top link)



ITEM NO.	GRASSLAND HARROW	
07001-6-024	GS 300 M1	\$ 7,242.00
07002-6-049	GS 600 M1 (single-acting)	\$ 15,990.00
07002-6-179	GS 600 M1 (double-acting) Full Edition + PS 300 M1	\$ 30,388.00

Full Edition equipment, see Full Edition scope of delivery

ITEM NO.	GS 300 M1 ACCESSORIES	
07001-2-022	Spring-mounted levelling plate	\$ 2,320.00
07013-2-222	Warning signs + LED lighting GS	\$ 1,084.00
07000-2-008	Mounting kit for PS 120–300 M1 on GS 300 M1	\$ 765.00
07000-2-030	Sensor set: wheel sensor + linkage sensor top link for the GS	\$ 790.00
07000-2-019	Platform kit for Grassland Harrow	\$ 860.00
07001-2-023	Accessories kit for the adjustment spindle	\$ 342.00

ITEM NO.	GS 600 M1 ACCESSORIES	
07002-2-036	Spring-mounted levelling plate	\$ 4,088.00
07013-2-222	Warning signs + LED lighting GS	\$ 1,084.00
07000-2-030	Sensor set: wheel sensor + linkage sensor top link for the GS	\$ 790.00
07000-2-019	Platform kit for Grassland Harrow	\$ 860.00
07000-2-041	Accessories kit for the adjustment spindle	\$ 465.00
07002-2-107	Accessories kit for double-acting hydraulic cylinder	\$ 376.00

COMBINATION OPTIONS

Can be used with Pneumatic Seeders with electric fan, electric fan PLUS or hydraulic fan PS 120 M1, PS 200 M1 and PS 300 M1:

GS 300 M1: Additional combination option with Multi-Metering System MDP 100 M1:



