APV PRECISION HOE

HOE MECHANICAL HM / HOE STEERED HS

PROFESSIONAL IN ROW CROPS

Version: 3.1 EN / Item No.: 00230-3-347

AMBITION. PASSION. VISION.

HOW IT WORKS

FUNCTIONAL PRINCIPLE

The hoe's simple and compact design allows it to be adapted to the farmer's individual needs. The specially designed chopping coulters enable very shallow, water-saving cultivation between the rows, while reliably cutting weeds and protecting the crop.

A special feature of the Hoe Steered HS is the Claas camera control system. Combined with the extremely compact linear frame, it makes chopping precise, fast and comfortable.

WORKING TOOLS

The chopping parallelograms are ball bearing and the chopping elements are made of Strenx 700 steel. The chopping units are fitted with an innovative chopping coulter set consisting of angle coulters and special goose-foot coulters made from Hardox to ensure the flattest possible work. The use of angle coulters alongside the crop row means there is no need for crop protection discs or plates. The innovative in-row chopping element, consisting of steel fan wheels, is attached to the chopping element via a parallelogram.

COMBINATION OPTIONS

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

A Precision Hoe is a very versatile device with many possible equipment variants. For a precise configuration or further information, please contact our sales partner or sales representative!

ADVANTAGES

EXACT
- Optimised chopping coulters ensure very flat and water saving operation
- Very good intake due to chopping coulters under the parallelogram
- HS: Claas camera control/row guidance
- HS: Section Control (optional)
- Camera control enables optimum utilisation in combination with maximum accuracy ➞ No chopping damage due to human eye

VERSATILE
- Additional spring pressure on the chopping elements possible
- Innovative in-row chopping unit with multiple adjustment options
- Left and right side fold independently
- Can be used in many row crops
- Row widths of 37.5 - 150 cm can be realised

COMFORTABLE
- Lightweight and compact due to high quality materials
- Backlash-free chopping elements increase the quality of work and the service life of the machine
- Compact folding for safe road travel
- Centre of gravity close to tractor
- Chopping element pressure easily adjustable via springs
- Low-wear Hardox steel shares reduce maintenance costs

PRECISION HOE

The Precision Hoe is supplied as a basic unit with 3, 4, 6, 8 or 12 rows without automatic steering (HM Hoe Mechanical). On request, each unit can be equipped with a precision steering frame and additional Culticam Professional control (HS Hoe Steered).

COMPACT

The space-saving arrangement of the chopping elements shifts the centre of gravity as far forward as possible. Each parallelogram-guided chopping element is firmly bolted to the frame via a flange, ensuring stability even after many years of use. Another benefit of the compact design is the ability to work precisely on slopes and uneven ground.

THE BEST FOR SOIL AND PLANT

The combination of the specially designed goosefoot share and the rounded, angled shares guarantees maintenance that is gentle on the soil and plants. The optional quick adjustment keeps the hoeing belt is kept as narrow as possible without the need for tools. The offset suspension of the in-row elements and the variable tilt adjustment allow row widths from 45 to 150 cm to be cultivated with the same steel fan wheel. The in-row elements can be completely lifted using a crank system.

LIGHT, SOLID AND PRACTICAL

Despite its solid construction, the Pecision Hoe is 25 % lighter than competitor machines with the same equipment. This is thanks to the use of ‘Strenx 700’ steel, which is actually derived from crane construction. Half-side folding is standard.

CHOPPING TIPS AND TRICKS

In row crops, the Precision Hoe enables effective weed control in and between the rows. Various working tools (chopping share, in-row element) and a camera control system ensure precise and gentle cultivation. Each hoeing pass aerates the soil and stimulates the crop growth.

TIP

The working width of the chopping unit should always be the same as the working width of the sowing technology or the working width of the sowing technology should be a multiple of the working width of the chopping unit. This ensures that the rows are not hoed out during subsequent passes. In addition, before each hoeing season, the row width of the sowing technology should be precisely matched to the row width of the chopping unit using a tape measure. Reconsolidating the seedbed makes it easier to adjust the equipment of the Precision Hoe and improves the work result.

CHOPPING TIPS FOR MAIZE

In principle, the maize should be harrowed blind to give it a head start against weeds. Later, alternating harrowing and chopping is very effective against weeds.
As soon as the rows are clearly visible, the first hoeing pass can be made. It is important to remember that the plants are still very sensitive and must be handled with care. From the 2-leaf stage onwards, the steel fan wheel is used to control weeds in the row. The implement is set so that the steel fan wheels work well in the row and the maize is lightly mounded in the advanced growth stage (maize 6-8 leaf stage) to minimise weed infestation. The maize is usually chopped up to three times.

Full-surface work in and between the row.

Result in the 3-leaf stage

Before and after / 4-leaf stage

CHOPPING

CHOPPING TIPS SOYA BEAN

Blind harrowing is essential before chopping and the soya bean can easily be spilled after emergence. From the 3-4 leaf stage until just before flowering, weed control can be carried out with the Precision Hoe. The chopping shares reliably cut off unwanted weeds. The aim is also to bring soil into the row during the last hoeing pass to minimise weed pressure. Coulters with a very flat setting are advantageous for water-saving chopping.

Soya bean can easily spill after emergence

Pure soya after chopping

Chopped on the right side ➔ soil aeration ➔ promotes plant growth

CHOPPING TIPS FOR SUGAR BEET

The first hoeing pass can be made at the cotyledon stage. Care should be taken to work as close to the row as possible to control as many weeds as possible, as sugar beet is initially characterised by weak competition. The special design of the angled coulters prevents the plant belt from spilling over. The working speed should be low at this stage. At this stage, the steel fan wheels should not be used at all or, if its used then only very gently. From the 2-leaf stage onwards, weed control can also be carried out gently between the sugar beet using the steel fan wheel. To minimise beet losses, the in-row elements must be set precisely. If the weed pressure in the row is very high, from the 4-leaf stage an additional harrow pass can be used to minimise the weeds. During the last hoeing pass (before row closure) the rows are lightly mounded to minimise late weed infestation in the row.

Steel fan wheel

Camera exactly above the row
3-row detection

Before and after

BASIC TIPS FOR CHOPPING

PREPARATORY WORK

- **Homogeneous incorporation and crushing of harvest residues:** ensures a uniform soil structure.
- **Targeted control of weeds and volunteer grain:** reduces competition for the main crop.
- **Precise seed placement:** ensures uniform growth.
- **Even and reconsolidated seedbed:** promotes uniform germination.

PRECISION AND ERROR AVOIDANCE

- **Tolerance-free compliance with the row width:** The sowing width must correspond to the chopping width.
- **Track width and mechanical play:** Tractor track width must be correct, mechanical play must be minimised.
- **Locking the lower links:** prevents unwanted movement.

TOOLS AND SETTINGS

- **The right tool:** chopping elements tailored to the crop
- **Machine settings:** Adjust the working depth, inclination of the hoe and distance of the chopping knives to the crop row.

WEATHER CONDITIONS

- **Dry soil conditions:** Use dry conditions in the morning, best success in the afternoon.

TIMING AND CONTROL

- **Punctuality:** Over-established weeds and unwanted weeds are difficult to remove, so use the Precision Hoe in good time.
- **Keep an eye on the crop:** Check row spacing and ensure that the crop plants are sufficiently rooted.
- **Control:** Keep an eye on emergence and double sowing, adjust row guidance systems to suit crop conditions.

TECHNICAL DATA

	HM 3004 / HS 3004 HM 3006 / HS 3006	HM 4503 / HS 4503 HM 4506 / HS 4506 HM 4508 / HS 4508	HM 6008 / HS 6008 HM 6012 / HS 6012
Frame width	3.13 m	4.65 m	6.25 m
Row spacing	60–80 cm 40–55 cm	135–150 cm 60–80 cm 40–55 cm	60–80 cm 40–55 cm
Number of rows	4 | 6	3 | 6 | 8	8 | 12
Dimensions unfolded in m (W)	3.25 | 3.15	4.65 | 4.65 | 4.75	6.25
Transport dimensions in m (HxWxD) for HM	1.35 x 3.25 x 2.00 1.35 x 3.15 x 2.00	2.70 x 2.50 x 2.00	3.30 x 2.50 x 2.00
Transport dimensions in m (HxWxD) for HS	2.00 x 3.25 x 2.25 2.00 x 3.15 x 2.25	2.70 x 2.50 x 2.25	3.30 x 2.50 x 2.25
Net weight HM	720 kg | 870 kg	965 kg | 1,080 kg | 1,250 kg	1,310 kg | 1,610 kg
Net weight HS	820 kg | 970 kg	1,175 kg | 1,300 kg | 1,460 kg	1,520 kg | 1,820 kg
Mounting category	CAT 2		
Number of chopping shares / chopping element	5 pcs. or 3 pcs.		
Number of flanged wheels (300 x 100)	2 pcs.		
Track gauge flanged wheels HM | HS	130–195 cm | 130–240 cm		
Ideal driving speed HM | HS	4–8 km/h | 4–12 km/h		
Min. tractor performance	36 kW / 50 HP	52 kW / 70 HP	66 kW / 90 HP
Number of required control units HM	-	2 double-acting	
Number of required control units HS	1 double acting with flow control	2 double-acting and 1 double acting with flow control	
Folding	rigid	3-part	
Camera control HS	Claas Culticam 3D Professional		
Linear sliding frame side shift HS	40 cm		

LEARN MORE!

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