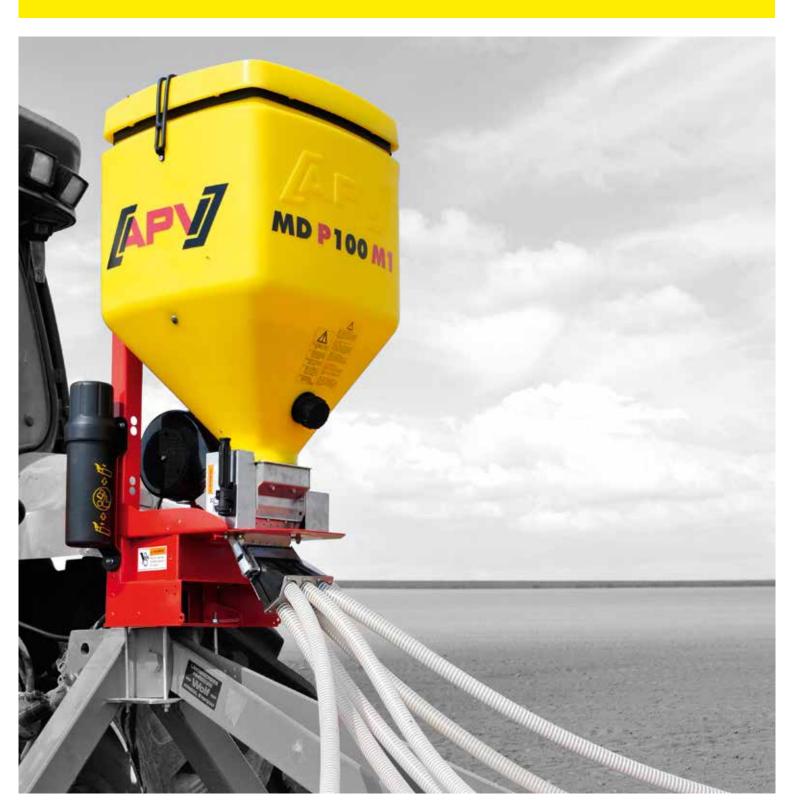
# **MULTI-METERING SYSTEM MD**

### THE "TRANSFORMER" AMONG SEEDERS





## FROM USER TO ENTREPRENEUR



It has been clear to Jürgen Schöls (CEO) right from the start that he loves agriculture. This is why he took over the family farm and is still running it today. As a farmer and handyman, he continued developing his Single Disc Spreader in 1997. He recognised that his optimisation had potential and founded APV - Technische Produkte GmbH.

The first APV implements were handmade by the young entrepreneur himself and today he has 150 employees. The entire company works under the motto: EVERYTHING IS POSSIBLE! Giving and then giving some more and good things will come back! The dynamic company questions everything, takes nothing for granted and optimises good existing concepts.

"Every modern farmer uses APV technology on his farm." The Managing Director's vision, CEO

#### **Company details**

APV - Technische Produkte GmbH Managing Directors: Ing. Jürgen Schöls (CEO), Markus Alschner (CFO) ZENTRALE, Dallein 15, 3753 Hötzelsdorf, Austria marketing@apv.at, www.apv.at, VAT: ATU 5067 1107

Photos: Company photos (© APV) Concept & text: Liane Wöchtl, M.A. (Mash Marketing Sharing eU), Ing. Christian Karrer Graphics: Jürgen Undeutsch, M.A. (Undeutsch Media eU), Sonja Exl



### MORE INFO ONLINE

Our entire product range can also be found online at **www.apv.at.** 

Your APV sales consultant is happy to advise you and is available, if you should have any questions about our products!

## **MULTI-METERING SYSTEM MD**

#### **MULTI-METERING SYSTEM - THE PRODUCT INNOVATION**

The Multi-Metering System (MD) series arose from the idea of combining the best features of our most popular products. We use the metering unit from our Pneumatic Seeders and combine it with different spreading methods.

For us, the "two in one" principle means putting together excellent product features to make one exceptional seeder or spreader. This results in different types of Multi-Metering Systems - versatile products for diverse farming applications!



As standard, the Multi-Metering Systems are available in four versions. As an option, these versions can be variably upgraded and converted. For example, you can turn your Multi-Metering System with spreading disc into a pneumatic spreading device in just a few quick steps!

**Multi-Metering System MDD**: The "D" stands for "disc". The seed is precisely metered by a seeding shaft and is then spread by a spreading disc and is particularly suitable for large working widths, e.g. up to 28 m for slug pellets.

**Multi-Metering System MDP**: The "P" stands for "pneumatic". Its function and use are similar to those of a classic Pneumatic Seeder, the Multi-Metering System offers 6 outlets for a working width of up to 4.5 m.

**Multi-Metering System MDG:** The "G" stands for "gravitation". Its function and use are also similar to

#### **MODULAR IMPLEMENT EXTENSIONS**

Our Multi-Metering Systems have justifiably earned their name. We developed a concept for them that combines the best features of APV spreaders and seeders. And you can expand this concept yourself. The requirements made of today's agricultural technology and the versatile range of use of products in modern agriculture are an important factor. We support you and for each Multi-Metering System, we offer the conversion kits for the other Multi-Metering Systems as an accessory.

those of a Pneumatic Seeder, however, the metered material is only metered and then spread without air (without a fan, only through gravitation). This spreader is particularly suitable for pellets which are metered into an existing air current or can be spread based on gravity (e.g. mouse bait, silage additives, slug pellets, ...).

**Multi-Metering System MDC:** The "C" stands for "chemicals". This product is a special form of the MDG spreader, which has been developed for spreading chemical crop protection pellets. Due to the special seal and the Surefill adapter, the spreader is suitable for spreading pellets that may only be spread in two rows for each metering unit and without air support (e.g. Vydate, Belem, Goldor Bait, Attracap, Mocap, ...)

## MDD 40 M1 & MDD 100 M1

with spreading disc

The Multi-Metering System MDD combines the benefits of a Pneumatic Seeder and a Disc Spreader: Precise metering is performed by a seeding shaft, the seeds are distributed via a spreading disc - ideal for slug pellets on large working widths. Also suitable for spreading a great variety of catch crops. Due to the varied mounting options and the simple and fast installation and adjustment for various soil tillage implements, the MDD can be used several times in the course of a year for a variety of applications.

## TECHNICAL DATA

<u>د</u> م	Working width	up to 28 m (with slug pellets "Metarex") <sup>1</sup>
≔	Max. metering quantity	up to 5 kg/min (depending on seeds)
		H 83 cm, W 55 cm, D 60 cm (MDD 40 M1) H 105 cm, W 55 cm, D 55 cm (MDD 100 M1)
	Seed hopper	
<u> </u>	Net weight	28 kg (MDD 40 M1) / 30 kg (MDD 100 M1)
Ŧ	Power data	12 V / 25 A

1 In order to reach a uniform distribution for a working width below 4 m, we recommend using a precision dispersion plate (see accessories) or the modular implement extension to MDP

### ITEMS INCLUDED

- Complete spreader<sup>2</sup> with hopper, metering unit, frame and spreading disc
- Point of impact adjustment
- Top link mounting and counter plate
- Calibration bag
- Seed wheel set for 2 seeding shafts (Flex, fine and fine-blind seed wheels)
- 6 m cable from spreader to Control Box



## YOUR BENEFITS

- Best lateral distribution for slug pellets among Single Disc Spreaders available on the market
- Adjusting the working width AND the spread rate from the driver's seat
- Precise speed and rate adaptation (using the seeding shaft)
- Speed-adjusted seed rate spreading & headland management <sup>4</sup> (with sensors)
- Smallest to large quantities can be metered with absolute precision (various seed wheel shapes and amounts possible)
- Simple calibration test (with standing and folded disc)
- Possibility of installing a fill level sensor<sup>3</sup> (optional) and a calibration button <sup>4</sup> (optional)
- Seeding shafts suitable for common applications are included in the items included
- Can be converted to MDP or MDG
- A The maximum spread rate is around 5 kg / min for slug pellets. This depends on the seed shape and density. The spreader is not suitable for corrosive (fertilising) agents.



- Precision dispersion plate 1 4 m working width
- Accessory kit fill level sensor <sup>3</sup>
- Calibration button <sup>4</sup>
- Extension cable PS MX 2 m
- Extension cable PS MX 5 m
- Accessory kit switch MDD MDP
- Power cable for tractors 8 m
- Implement linkage triangle bracket
- Mounting kit quad (ATV) bracket
   height-adjustable
- Mounting kit quad (ATV) bracket
- Pick-up mounting bracket

2 You require a suitable Control Box (pages 12 - 13)3 For use with Control Box 1.2 & 5.2







## MDP 40 M1 & MDP 100 M1

with fan

The Multi-Metering Systems of the MDP series are similar in use and function to the Pneumatic Seeders of the PS series. Due to its compact construction and the varied mounting options, this type covers a wide range of applications. The MDP is very well suited for spreading all the common small seeds, seed mixtures and slug pellets, as well as for reseeding the grassland. Due to the simple installation and adjustment for various soil tillage implements, the MDP can be used several times in the course of a year for a variety of applications.

## TECHNICAL DATA

¥7	Working width	up to 4.5 m (6 outlets)
<b>ж</b> К	Dimensions	H 83 cm, W 47 cm, D 60 cm (MDP 40 M1)
		H 105 cm, W 55 cm, D 55 cm (MDP 100 M1)
ø	Seed hopper	40 l or 105 l plastic hopper
<u> </u>	Net weight	28 kg (MDP 40 M1) / 30 kg (MDP 100 M1)
•	Power data	12 V / 25 Δ

Power data ..... 12 V / 25 A

## **YOUR BENEFITS**

- Precise lateral distribution due to individual seeding shafts for each outlet
- Compact and simple construction of the seeder
- Quantity adjustment while driving
- Speed-adjusted seed rate spreading & headland management<sup>3</sup> (with sensors)
- Possibility of installing a fill level sensor <sup>2</sup> (optional) and a calibration button <sup>3</sup> (optional)
- Control Box with power connection using 3-pin socket
- Wind-independent and precise spreading of seeds
- Opening for residual emptying
- Metering unit made of stainless steel
- Simple calibration test
- Can be converted to MDD or MDG

▲ This seeder (MDP in standard version with 6 outlets) is not suitable for large seeds, such as horse bean, spelt ... The spreader is not suitable for corrosive fertilisers and other substances.

### ITEMS INCLUDED

- Complete seeder<sup>1</sup> with hopper, metering unit, frame and fan
- Top link mounting and counter plate
- Calibration bag for easy execution of a calibration test
- 6 dispersion plates, 3 hexagonal bars of 1.2 m & 25 m hose
- Seed wheel set for 2 seeding shafts (Flex, fine and fine-blind seed wheels)
- 6 m cable from spreader to Control Box



## ACCESSORIES

- Accessory kit fill level sensor<sup>2</sup>
- Calibration button <sup>3</sup>
- Extension cable PS MX 2 m
- Extension cable PS MX 5 m
- Accessory kit switch MDD MDP
- Power cable for tractors 8 m

1 You require a suitable Control Box (pages 12 - 13) 2 For use with Control Box 1.2 & 5.2

 $\checkmark$ 







## MDG 40 M1 & MDG 100 M1

### airless, without fan

The Multi-Metering System MDG offers through its compact construction and the precise metering ideal conditions for the airless spreading of seeds and granules. The MDG series is thus especially well suited as additional metering unit on an existing seeder or for the placement of granules, mouse bait or slug pellets simultaneously with the soil tillage. Silage additives can be dosed during grass harvesting.

## TECHNICAL DATA

≣	Max. metering quantity	7,5 kg/min (depending on seed / granules), 2 outlets
<b>ж</b>	Dimensions	H 83 cm, W 47 cm, D 60 cm (MDG 40 M1)
		H 105 cm, W 55 cm, D 55 cm (MDG 100 M1)
Ø	Seed hopper	40 l or 105 l plastic hopper
<u> </u>	Net weight	22 kg (MDG 40 M1) / 24 kg (MDG 100 M1)
Ŧ	Power data	12 V / 10 A

## ITEMS INCLUDED

- Complete spreader<sup>1</sup> with hopper, metering unit and frame
- Top link mounting and counter plate
- Calibration bag for easy execution of a calibration test
- 2 dispersion plates, 1 hexagonal bar of 1.2 m & 8 m hose
- Seed wheel set for 2 seeding shafts (Flex, fine and fine-blind seed wheels)
- 6 m cable from spreader to Control Box



## YOUR BENEFITS

- Precise lateral distribution due to individual seeding shafts for each outlet
- Compact and versatile spreader
- Quantity adjustment while driving
- Speed-adjusted seed rate spreading & headland management<sup>3</sup> (with sensors)
- Possibility of installing a fill level sensor <sup>2</sup> and calibration buttons <sup>3</sup> (optional)
- Control Box with power connection using 3-pin socket
- Seeding shafts suitable for common applications are included in the items included
- Opening for residual emptying
- Metering unit made of stainless steel
- Large filling opening
- Simple calibration test
- Can be converted to MDD or MDP

A The spreader is NOT ALLOWED for dosing pesticides like Belem, Goldor Bait, etc. The spreader is not suitable for corrosive fertilisers and other substances.

## ACCESSORIES

- Accessory kit fill level sensor <sup>2</sup>
- Calibration button <sup>3</sup>
- Extension cable PS MX 2 m
- Extension cable PS MX 5 m
- Power cable for tractors 8 m

You require a suitable Control Box (pages 12 - 13)
 For use with Control Box 1.2 & 5.2

 $\checkmark$ 







## **MDC 40 M1**

#### airless, for chemicals

The Multi-Metering System MDC 40 M1 is a special version of the MDG 40 M1. It is especially sealed and its concept is perfectly well suited for granules (e.g.: Vydate, Belem, Goldor Bait, Attracap, Mocap, ...) that can only be spread in **2 rows without air support**. Due to the pre-installed **sure-fill adapter**, you do not get in contact with the substances during filling. The granules are reliably metered via our tried and tested seeding shaft. Via two hoses, the substance reaches the **fishtail units** directly, which then safely place the granules in row with great precision.

## TECHNICAL DATA

≔	Max. metering quantity	7.5 kg/min (depending on seed / granules), 2 outlets
<b>*</b>	Dimensions	H 83 cm, W 47 cm, D 60 cm (MDC 40 M1)
Ø	Seed hopper	40 l plastic hopperr
ے <u>آ</u> ے	Net weight	22 kg
Ŧ	Power data	12 V / 10 A

## ITEMS INCLUDED

- Complete spreader<sup>1</sup> with hopper, metering unit and frame
- Sure-fill adapter mounted on the hopper cover
- Top link mounting and counter plate
- Calibration bag for easy execution of a calibration test
- 2 fishtail units incl. 2 hinge bolt clamps and 5 m hose
- Seed wheel set for 2 seeding shafts (Flex, fine and fine-blind seed wheels)
- 6 m cable from spreader to Control Box



Install 2x MDC 40 M1 to equip a 4-row planter. The two Multi-Metering Systems are operated using just one controller (Control Box 5.7 + adapter cable), with full functionality and setting options on both spreaders!

## YOUR BENEFITS

- Sealed spreader for safe spreading of your granulated crop protection products
- Precise lateral distribution due to individual seeding shafts for each outlet
- Compact and versatile metering unit
- Quantity adjustment while driving
- Speed-adjusted seed rate spreading & headland management <sup>3</sup> (with sensors)
- Possibility of installing a fill level sensor<sup>2</sup> (optional) and a calibration button<sup>3</sup> (optional)
- Control Box with power connection using 3-pin socket
- Seeding shafts suitable for common applications are included in the items included
- Stainless steel metering unit
- Large filling opening
- Can be converted to MDD or MDP

## A The spreader is not suitable for corrosive fertilisers and other substances.

### ACCESSORIES

- Accessory kit fill level sensor<sup>2</sup>
- Calibration button <sup>3</sup>
- Extension cable PS MX 2 m
- Extension cable PS MX 5 m
- Power cable for tractors 8 m<sup>4</sup>
- Power supply AP (8 m long)<sup>5</sup>

## YOUR ADDITIONAL BENEFIT

You can upgrade and convert your Multi-Metering System at any time - From a spreader without air support to a pneumatic catch crop seeder or a slug pellet spreader with spreading disc. We ensure the usefulness of your investment and enable a wide range of applications with low conversion effort!

1 You require a suitable Control Box (pages 12 - 13)

3 For use with Control Box 5.2 & 5.7

# Listed by the Julius Kühn Institute





4-row use, e.g. for planting potatoes



4 For use with Control Box 1.2 & 5.2 5 For 4-row application you require 2x MDC, a Control Box 5.7 and an adapter cable

<sup>2</sup> For use with Control Box 1.2 & 5.2 & 5.7

## **CONTROL BOX 5.2**

The Control Box 5.2 is the most popular version of the APV Control Boxes and includes extensive functions. Such functions as adjusting the spread rate to the travel speed, the automatic switch-off on headland, the ability to precisely regulate the electric fan or the automatic execution of the calibration test simplify work enormously.



#### **FUNCTIONS**

- · Electronic control and monitoring of the seeding shaft
- Electronic adjustment of the spread rate during operation
- Emptying
- Automatic calibration test (only weighing!)
- · Calibration test: Display possible in kg/ha, grains/m<sup>2</sup> and g/m<sup>2</sup>
- Speed calibration
- Headland management (in combination with
   Total hours and daily hours counter tractor linkage sensor
- Automatic adjustment of spread rate to travel
   Selection of different languages speed (in combination with the speed sensor) •
- Pre-metering

- Implement monitoring (in combination with implement sensors. Examples: fan monitoring and fill level sensor)
- · Calibration test right at the implement (in conjunction with the calibration button)
- Regulation of the electric fan (on the MDP) or the spreading disc (on the MDD)
- Display of the operating voltage and the amperage
- Total hectares and daily hectares counter
- Choice between different measuring units (metric, imperial)

### **ITEMS INCLUDED WITH ACCESSORIES KIT**

- Control Box 5.2
- 1.5 m cable for the power supply from the 3-pin plug to the Control Box
- Control Box bracket
- Operating instruction

Control Box 5.2 is optimised for use with the following implements:

- MDD 40 M1
- MDD 100 M1
- MDG 40 M1 MDG 100 M1
- MDC 40 M1
- MDP 40 M1 • MDP 100 M1



The Control Box 1.2 is the ideal starter module and is characterised by its compactness. It controls the fundamental seeding functions and is compatible with selected machine sensors. Adjustment of the speed of the seeding shaft and fan is easy, quick and straightforward.

## **FUNCTIONS**

- Electronic control and monitoring of the seeding shaft
- Electronic control and monitoring of electric fan (for MDP) and the spreading disc (for MDD)
- Electronic adjustment of the spread rate during operation

Control Box 1.2 is optimised for use with the following implements:

- MDD 40 M1
- MDD 100 M1
- MDP 40 M1
- MDG 100 M1

MDG 40 M1

- MDC 40 M1
- MDP 100 M1

The Control Box 5.7 enables separate control of two Multi-Metering Systems in conjunction with an adapter cable. The full functionality and all setting options for each unit are maintained.



### **FUNCTIONS**

- All functions of the Control Box 5.2 in addition:
- Independent control of two Multi-Metering Systems

Control Box 5.7 is optimised for use with the following implements:

2x MDC 40 M1

## **CONTROL BOX 1.2**

- Calibration test & Emptying
- Acoustic and visual error warning
- Implement monitoring (in combination with implement sensors. Example: fan monitor)
- Possibility of fill level alert (in combination with implement sensors. Example: fill level sensor)



# **CONTROL BOX 5.7**

 No limitation on the use of additional implement sensors



## **SENSORS**



SENSOR GPSa <sup>1</sup> (ACCESSORY KIT)





WHEEL SENSOR <sup>1</sup> (ACCESSORY KIT)

















RADAR SENSOR MX 35<sup>1</sup>

7-PIN SIGNAL CABLE <sup>1</sup>

LINKAGE SENSOR CHASSIS

LINKAGE SENSOR HYDRAULIC

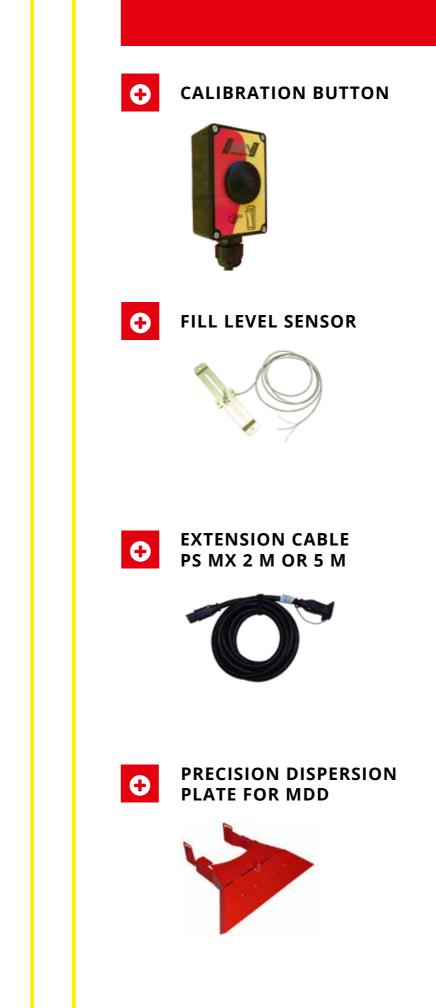
(ACCESSORY KIT)

(ACCESSORY KIT)

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1 This sensor is also available as a set with the APV linkage sensors (top link, chassis, pull switch and inductive).

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## ACCESSORIES



MOUNTING KITS FOR QUAD (ATV), TRAILER COUPLING AND PICK-UP





MOUNTING AND PLATFORM KIT UNIVERSAL





### PLATFORM KIT MODULAR





### MODULAR IMPLEMENT EXTENSIONS



# Innovations for the Future

- since 1997 -



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