

DAMMANN[®]



Pflanzenschutztechnik
Fahrzeugtechnik
Airporttechnik

HERBERT DAMMANN GmbH

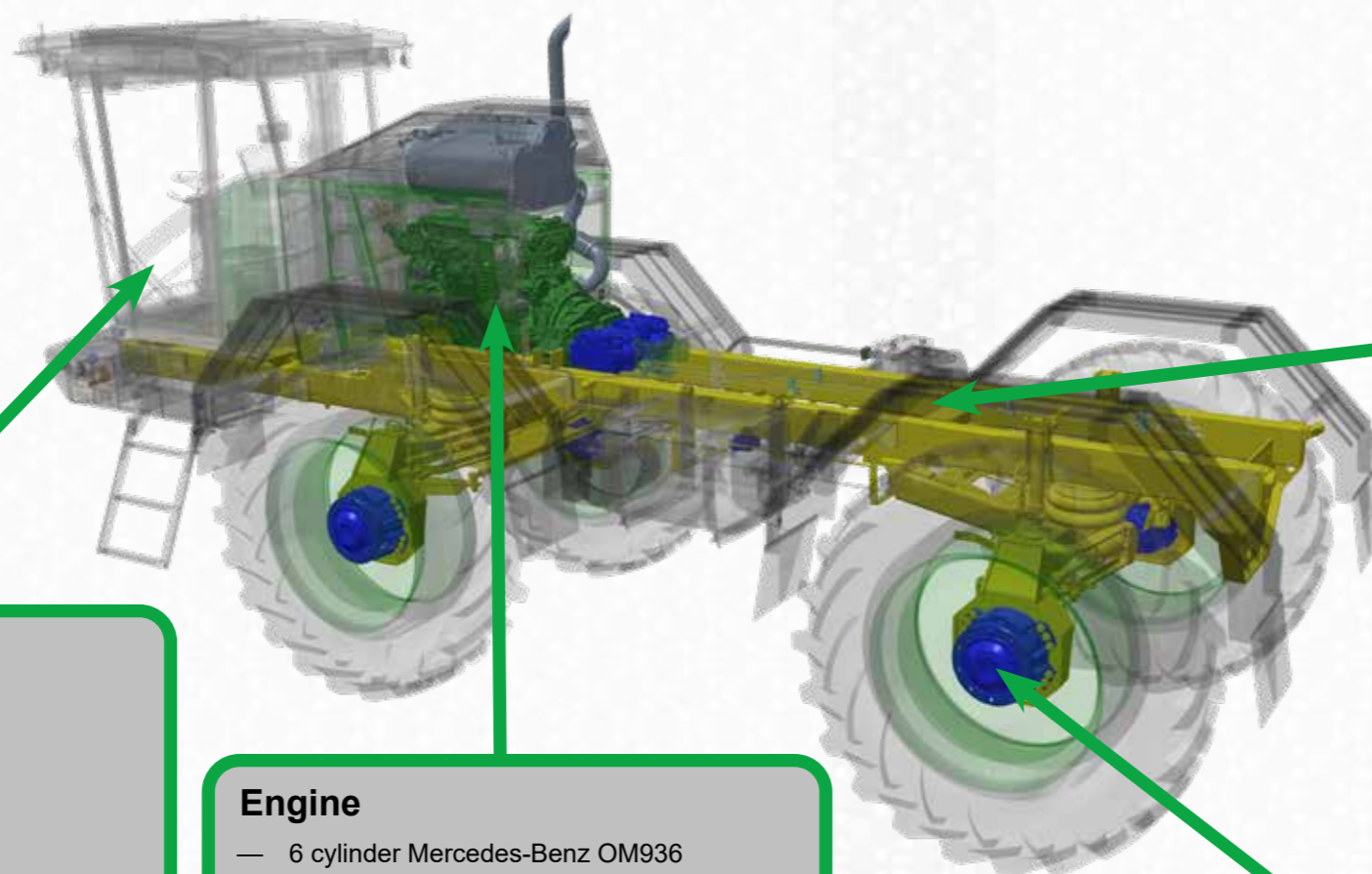
Plant Protection





The **DAMMANN-trac** Carrier vehicle for gentle inventory maintenance

Low operating costs through coordinated interaction of efficient and low-maintenance components.



Ride comfort

- Mode selection
 - Accelerator pedal
 - Joystick
- Cruise control for:
 - Road
 - Tramline
 - Headland
- Maximum speed 40 km/h (optional 50 km/h)
- Final speed on the road already at 1200 rpm (1450 rpm at 50 km/h)
- Has a positive effect on the fuel consumption

Engine

- 6 cylinder Mercedes-Benz OM936
- 7,7 l cubic capacity
- Power 285 (DT 2800H + DT 2400H) + 313 PS (DT 3500H)
- Maintenance intervals 750 h
- Latest exhaust technology
 - Catalyst and particulate filter
- Load-dependent motor control

Frame and Chassis

- Carrier vehicle for swap body
 - Crop protection sprayer
 - Fertilizer spreader
- Axles
 - Optimum crop protection due to high ground clearance
 - Clearance within the track
- Tyres
 - Variety of tyre and track width combinations
- All-wheel steering
 - Series for DT 3500H and DT 2400H
 - Optional for DT 2800H
- Track adjustment
 - Optimal adaptation to the cultures
 - Series on the DT 2400H
 - Optional for DT 2800H

Traction Drive

The latest generation brings power to the ground

- Hydraulic wheel motors
 - High gradeability
 - High starting torque
 - Maintenance-free multiple disk brakes
 - Good braking effect
Vehicle comes to a standstill safely
- Intelligent travel drive control EcoDrive™
 - Optimum traction
 - Diesel engine always at the ideal operating point

Self-propelled sprayer

DAMMANN-trac DT 2800H S5 EcoDrive™

Standard equipment at the highest level

- Engine power 210 kW (285 PS)
- Drive with 4 hydraulic wheel motors
- Front axle steering
- Air-suspended chassis (load suspension regulated)

Options:

- Electronically controlled all-wheel steering with trim function of the rear axle
- Fixed axle at 3.00 - 3.30 m
- 2-stage hydraulic track adjustment
- 1.80 - 2.25 m or 2.25 - 3.00 m
- Tire pressure control system
- Central lubrication system
- DAS

Profi-Class Mounted Sprayer

- Tank volume 5000 - 7000 l
- Fresh water tank 500 l
- Working width 24 - 42 m
- Piston diaphragm pump 320 l/min - 500 l/min

Now with 3,00 or 3,30 m
track available!

	DT 2800H S5
Engine power	210 kW (285 PS)
Engine type	Mercedes Benz OM 936
Drives	4 hydraulic wheel motors
Emmission	EU stage V
Speed	40 km/h (option 50 km/h)
Fuel tank	250 l
Ad Blue tank	25 l
Hydraulic system	LS Hydraulic system with 180 l/min Pump capacity at max. 210 bar
Ground clearance	1100 mm
Length *	8250 - 10600 mm
Width *	2550 - 3000 mm
Height *	3700 - 4000 mm
Permissible total weight	18 t
Tank volume	5000 - 7000 l
Working widths from - to	24 - 42 m
Standard tyres	VF 380/90 R50

* Depending on mounted unit





DAMMANN-trac DT 3500H S5 EcoDrive™

Standard equipment at the highest level

- Engine power 230 kW (313 PS)
- Drive with 6 hydraulischen Radmotoren
- Hydraulic suspension
- 1st and 3rd axle steered

Options:

- Tyre pressure control system
- Centralized lubrication
- DAS

Profi-Class Mounted Sprayer

- Tank volume 8000 - 12000 l
- Fresh water tank 500 l
- Working width 30 - 42 m
- Piston diaphragm pump 500 l/min

	DT 3500H S5
Engine power	230 kW (313 PS)
Engine type	Mercedes Benz OM 936
Drives	6 hydraulic wheel motors
Emmision	EU stage V
Speed	40 km/h (option 50 km/h)
Fuel tank	380 l
Ad Blue tank	40 l
Hydraulic system	LS Hydraulic system with 205 l/min Pump capacity at max. 210 bar
Ground clearance	1050 mm
Length *	9900 - 11500 mm
Width *	2550 - 3000 mm
Height *	3700 - 4000 mm
Permissible total weight	25 t
Tank volume	8000 - 12000 l
Working widths from - to	30 - 42 m
Standard tyres	520/85 R42

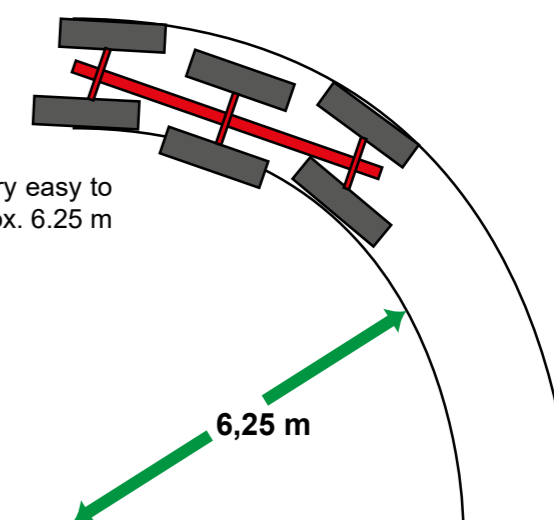
* Depending on mounted unit



Manoevrability with three Axes

With its three axes, the **DAMMANN-trac** DT 3500H is very easy to operate and has a turning circle with an inner radius of approx. 6.25 m at a track width of 2.25 m.

1st and 3rd axle track in track.



DAMMANN-trac DT 2400H S5 Highlander EcoDrive™

Standard equipment at the highest level

- Engine power 210 kW (285 PS)
- Drive with 4 hydraulic wheel motors
- 2-stage hydraulic track adjustment 2.25 - 3.05 m
- Hydraulic height adjustment 1000 mm - 1800 mm
- Electronically controlled all-wheel steering

Options:

- Straw deflector
- Hill-Control
- DAS

Profi-Class Mounted Sprayer

- Tank volume 4400 - 5000 l
- Fresh water tank 500 l
- Working width 24 - 36 m
- Piston diaphragm pump 400 l/min

	DT 2400H S5 Highlander
Engine power	210 kW (285 PS)
Engine type	Mercedes Benz OM 936
Drives	4 hydraulic wheel motors
Emmision	EU stage V
Speed	40 km/h (Option 50 km/h)
Fuel tank	250 l
Ad Blue tank	25 l
Hydraulic system	LS Hydraulic system with 180 l/min pump capacity at max. 210 bar
Ground clearance	1150 - 1900 mm
Length *	8100 - 9850 mm
Width *	2700 - 3000 mm
Height *	3750 - 4000 mm
Permissible total weight	18 t
Tank volume	4400 - 5000 l
Working widths from - to	24 - 36 m
Standard tyres	380/90 R46

* Depending on mounted unit



Straw Deflector

(option for DT 2400H Highlander)

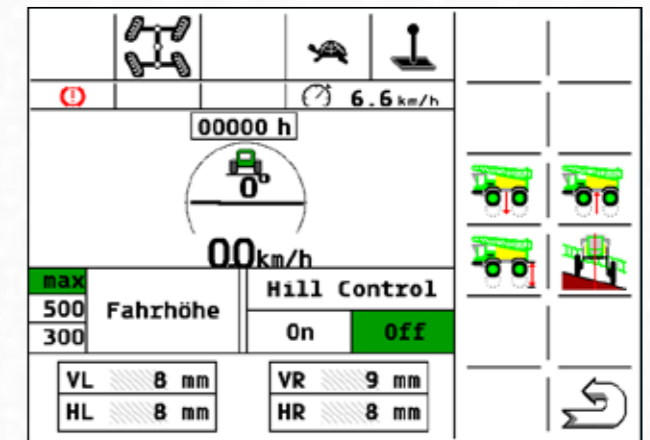
- Crop is kept away from the wheels



Hill-Control

(option for DT 2400H Highlander)

- Control for driving on slopes
- Vehicle is held in horizontal position
- Centre of gravity always in the middle of the axles
- Wheels are always vertical
- Each leg is individually controlled
- The crop aspiring to the sun will become more spared



Profi-Class Mounted Sprayer

- Sturdy base frame with directly supported tank for a low centre of gravity. For the DT 3500H on a three-point pendulum frame
- Frame with ball socket holder for changing devices
- GFK safety tank from 4400 to 12000 l with additional safety volume and surge walls for a safe transport, 2 filling openings with ventilation compensation, integrated fresh water tank, hydraulic agitators and cleaning nozzles
- Digital level indicator **EasyControl**
- DAMMANN professional boom:
 - Hydraulic folding and height control
 - Spring-loaded boom suspension
 - Integrated link chain in the lifting mast for gentle cable routing
 - Sturdy sprayer boom with protected nozzle carriers
 - Integrated collision protection
 - 50% aluminium for greater stability and weight reduction
 - Horizontal and vertical damping of the boom
 - Electropneumatic slope compensation via double cylinder
- 1/2" stainless steel nozzle pipe with 50 cm nozzle carrier spacing and pressure circulation flushing with automatic switchover
- Tandem nozzle carrier with electropneumatic nozzle switch-off, including one set of injector nozzles POM
- Robust and durable piston diaphragm pump
- Electric 4-way suction valve
- Electric 4-way program valve in pressure range
- Large suction and pressure filter with automatic, pneumatic switch-off of the pressure filter flushing
- Electropneumatic equal pressure control
- ISOBUS control via BASIC terminal, joystick III and ECU III Maxi
- 15 l hand washing container
- Injector for increasing the suction power during filling
- Remote-controlled 60 l swivel and illuminated flush centre with ring flush, push nozzles, Canister cleaning nozzle
- Electro-pneumatic pressure line emptying
- Comfort package (protective gloves, soap dispenser and air pistol)



DAMMANN-trac Mounted Sprayer - Overview

Mounted Sprayer for:	DT 2800H	DT 3500H	DT 2400H	
Tank volume	-	-	4400 l	
	5000 l	-	5000 l	
	6000 l	-		
	7000 l	-		
	-	8000 l		
	-	10000 l		
Fresh water tank		500 l		
Boom width	24 m	-	24 m	
	27 m	-	27 m	
	28 m	-	28 m	
		30 m		
		33 m		
		36 m		
		39 m*	39 m	
		42 m*	42 m	
	Pump performance	320 l/min - 500 l/min	500 l/min	400 l/min
	DAS	√	√	√

Nozzles and Nozzle Switches

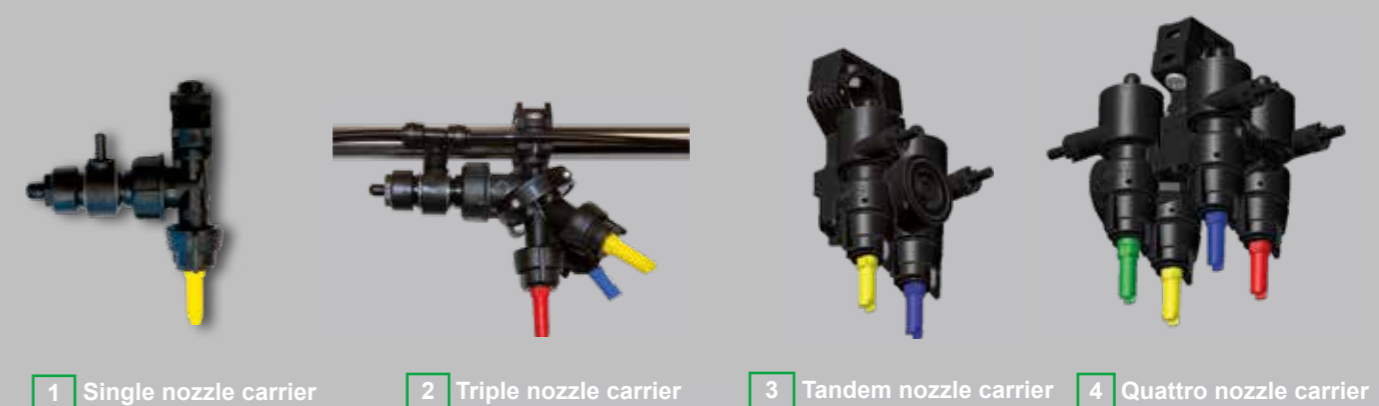
Nozzle Carrier and Nozzle Tube

The sprayers are equipped as standard with a single (Classic), a tandem (Profi-Class) or a triple (Land-Cruiser) nozzle carrier with electro-pneumatic nozzle shut-off and a 1/2" V2A nozzle tube.

A pressure recirculation flushing system, also included in the basic equipment, brings the spray liquid directly in front of the nozzle carrier: If the boom sections are opened, the spray liquid is immediately at the nozzle. This technique prevents irregular application and avoids the so-called butterfly effect.

The division of the part width sections is individually adapted according to the customer's wishes. The customer can choose between five and fourteen part widths. Depending on the boom width, the selected variant is included in the basic price.

Optionally also available with tandem, triple or quattro nozzle carriers.



1 Single nozzle carrier 2 Triple nozzle carrier 3 Tandem nozzle carrier 4 Quattro nozzle carrier

Trailed Sprayer



Land-Cruiser

- stable entry-level model
- 3000 - 4000 l tank capacity
- integrated fresh water tank
- 15 - 28 m boom
- 5 - 9 sections
- 25 km/h, on request 40 km/h
- SPRAYDOS spray-control board computer
- boom series with electric slope compensation
- low tractive force required
- triple nozzle carrier



Spray-control board computer SPRAYDOS

- clearly structured control panel
- application rates are precisely calculated and monitored
- application rate adjusts to speed
- precise control via equal pressure fitting



Drawbar

- stable version
- top suspension
- easy maintenance of the piston diaphragm pump due to central seat on drawbar



	Land Cruiser	Tyres
Capacity	3000 l	270/95 R48
	4000 l	460/85 R38
Fresh water tank	300 - 400 l	
Boom width	15 m	
	27 m	
	28 m	
Pump capacity	250 - 320 l/min	
Track width	2,00 - 2,25 m	
Speed	40 km/h	
DAS	√	



Classic

- 4400 - 5800 l capacity
- 500 l internal fresh water tank
- 18 - 39 m boom
- 5 - 12 sections
- Large suction and pressure filter - permanent pressure filter flushing controlled via control valve
- ISOBUS control via terminal BASIC, joystick III and ECU III MAXI
- Injector for increasing the suction power during filling
- Piston diaphragm pump 250 l/min or 320 l/min, driven by the power hydraulics of the tractor.
- Single nozzle carrier

Options:

- Tyre pressure control system
- 14 sections
- Centralized lubrication

	Classic	Tyres
Capacity	4400 l	20.8 x 38
	5000 l	520/85 R38
	5800 l	520/85 R42
Fresh water tank	500 l	
Boom width	18 m	
	20 m	
	21 m	
	24 m	
	27 m	
	28 m	
	30 m	
	33 m	
	36 m	
	39 m	
Pump capacity	250 l/min - 320 l/min	
Track width	1,80 - 2,25 m	
Speed	40 km/h	
DAS	√	



Profi-Class

- 5000 - 7000 l capacity
- 500 l internal fresh water tank
- 24 - 39 m boom
- 7 - 12 sections
- Large suction and pressure filter, with regulated permanent pressure filter flushing, can be pneumatically switched off
- ISOBUS control via terminal BASIC, joystick III and ECU III MAXI
- Injector to increase the suction power at the fill
- Piston diaphragm pump 320 l/min or 500 l/min, driven by the tractor's power hydraulics
- Tandem nozzle carrier

Options:

- Tyre pressure control system
- 14 sections
- Quattro nozzle carrier
- Central lubrication

Profi-Class Tandem

- 8000 - 14000 l capacity
- 500 l internal fresh water tank
- 30 - 42 m boom
- 7 - 12 sections
- Large suction and pressure filter, with regulated permanent pressure filter flushing, can be pneumatically switched off
- ISOBUS control via terminal BASIC, joystick III and ECU III MAXI
- Injector to increase the suction power at the fill
- Piston diaphragm pump 500 l/min, driven by the tractor's power hydraulics
- Tandem nozzle carrier

Options:

- Tyre pressure control system
- 14 sections
- Quattro nozzle carrier
- Central lubrication

	Profi-Class	Profi-Class Tandem	Tyres
Capacity	5000 l	-	520/85 R38 155 A8
	6000 l	-	520/85 R42 162 A8
	7000 l	-	520/85 R46 173 A8
	-	8000 l	520/85 R38
	-	10000 l	520/85 R38
	-	12000 l	520/85 R38 164 B
	-	14000 l	520/85 R38 166 B
Fresh water tank	500 l		
Boom width	24 m	-	
	27 m	-	
	28 m	-	
		30 m	
		33 m	
		36 m	
		39 m	
	-	42 m	
Pump capacity	320 l/min - 500 l/min	500 l/min	
Track width	2,00 - 2,25 m	2,00 - 2,25 m	
Speed	40 km/h	50 km/h	
DAS	√	√	





Advantages:

- rapid deployment
- up to 80 km/h on roads
- long distances

Mounted Sprayer for JCB and Unimog

ISOBUS-Terminal

The mounted sprayer is equipped with an ISOBUS job computer as standard. Operation via a universal ISOBUS terminal and a joystick is clear and simple.

The system can be expanded with additional apps. It offers possibilities such as SECTION-Control, VARIO-Select and much more.

Other terminals are optionally available:

- MC1
- **HD 8 pad**
- **HD 12 pad**



EasyControl

The digital level indicator integrated in the ISOBUS with switching functions such as RRW, CID, filter flushing and other functions for control on the control unit.



Mounted Sprayer for	JCB	Unimog	Pump
Capacity	2200 l + 1500 l Front	2000/2200 l	250 l/min
		2900 l	250 l/min
		4000 l	320 l/min
Fresh water tank	integrated		
Boom width	18 - 30 m	18 - 36 m	
Pump capacity	250 l/min	250 - 320 l/min	
Wheelbase		2,8 - 3,9 m	
DAS	√	√	

Standard equipment for all sprayers

ISOBUS-System

- Individual adaptation options for almost every function of the crop protection sprayer
- Volume measurement via flow meter and pressure sensor
- Pressure control of the constant-pressure diaphragm body
- Control of hydraulic functions
- Level measurement (**EasyControl**)
- Circulation control
- Integrated counter
- Operation via:
 - Joystick
 - S-Box
- ISOBUS terminal
- Automatic boom control (option)



Overviel Terminals

	BASIC Terminal	MC 1	HD 8 pad	HD 12 pad
	1	2	3	4
Standard as of classic	standard	option	option	option
Screen	5,7"	10,4"	8"	12,1"
Operation by	button	button	touch	touch
GSM Modem*	-	option	option	option
Connector of cameras	-	option	yes	yes
USB connector	yes	yes	yes	yes
Update with APPS	yes	yes	yes	yes

* SIM card not included

The DAMMANN terminals comply with the ISO 11783 standard and are AEF-certified. Please refer to the AEF database for the current status of certified functionalities.

ISOBUS-TC — TASK-Controller for ISOBUS Processing







(option for BASIC terminal and **HD 8 pad**)

- Convenient documentation
- Simple planning of applications
- Data exchange to the Farm Management Information System
 - About ISO-XML
 - Shape format
- Imports and exports finished documentation for the Farm Management Information System (FMIS)



Nozzle Control

(option)

	Vario-Select Automatic multifunction circuit
	MultiSelect Management of two nozzle sets in one nozzle line
	EDS (TB-EDS-pro) Single nozzle control
	T-S-D Partial surface-specific nozzle switching for surface treatment according to application chart with different spray rates within one working width
	S-D-S Sensor nozzle control
	C ~ C ~ A® Curves ~ Control ~ Application



1



2



3



4



5

1 BASIC -Terminal

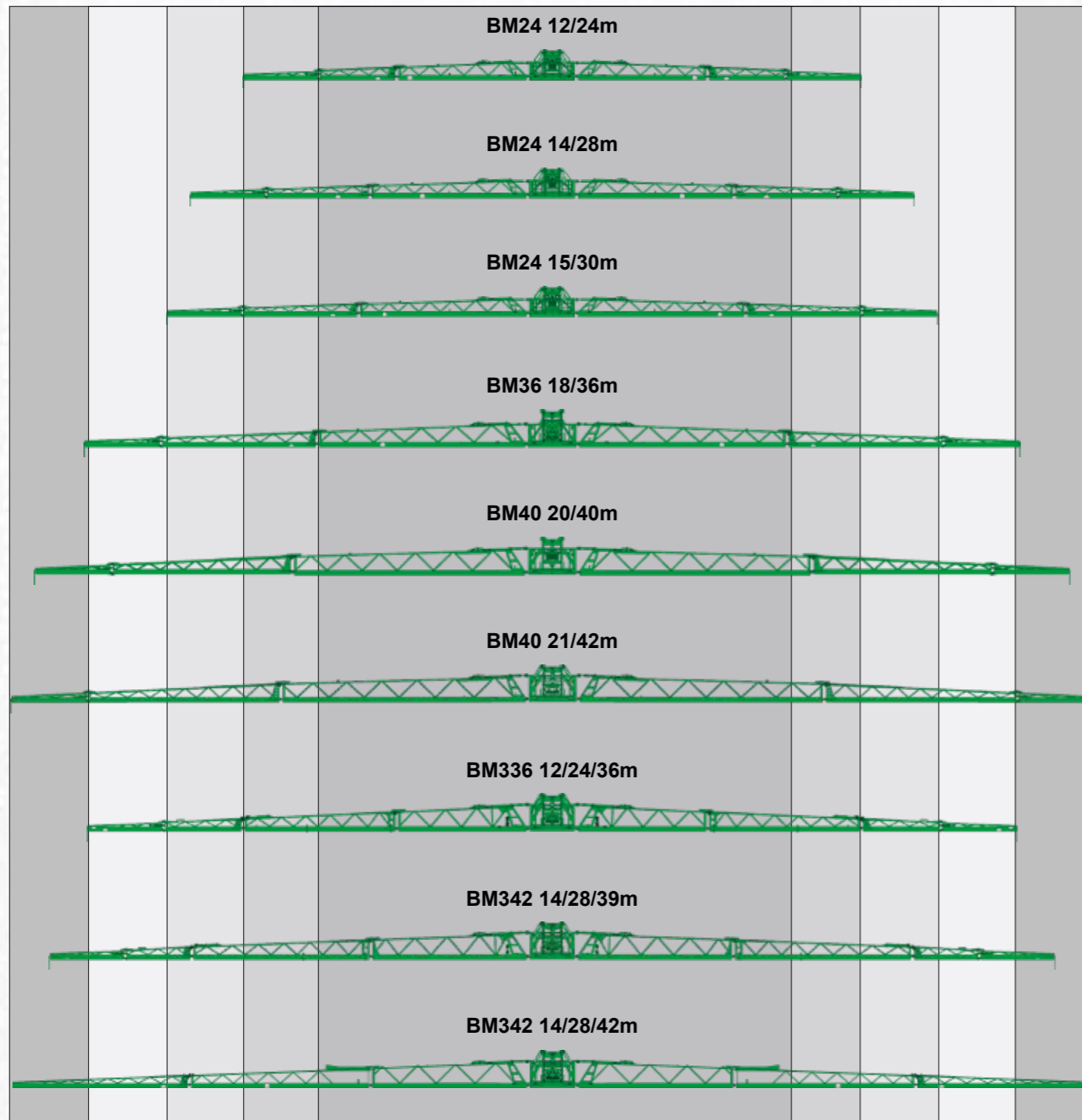
2 MC 1-Terminal

3 HD 8 pad

4 HD 12 pad

5 Joystick

Booms



Booms can be shortened in the outer part

G-Booms

- Sturdy sprayer boom with hydraulic folding and special G-shape for protection of the nozzles
- Standard slope control for work on hilly terrain
- Electropneumatic slope compensation via double cylinder
- Outer aluminium booms for weight reduction with collision protection
- Spring-loaded, horizontally and vertically damped boom suspension
- Sturdy lift mast with stepless height adjustment without weight shifting
- Stable pendulum suspension for quiet boom guidance, even in hilly terrain



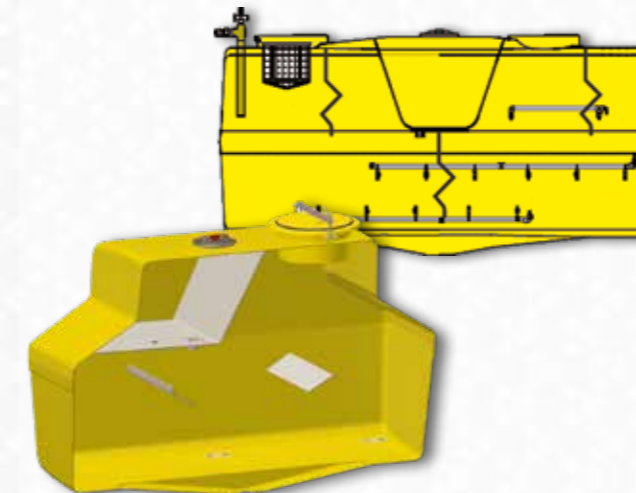
Lift mast

The sturdy lift mast, thanks to its position behind the barrel and axle, ensures stepless height adjustment, without the need for weight shifting. Cables and hoses are integrated as a link chain for gentle cable routing in the lift mast.

A spring-loaded linkage suspension absorbs vertical and horizontal shocks: Due to this technology, there is optimal boom guidance over the stand even in uneven terrain.

Gel-coated GFRP (Glass fibre reinforced plastic) -tank

The DAMMANN safety barrel in the tried and tested case shape: Special gel-coated surfaces and built-in cleaning nozzles make the smooth inner walls of the DAMMANN barrel easy to clean. The well-placed baffles provide additional safety when braking and prevent unintentional weight shifts of the contents. The integrated fresh water tank has sufficient volume to clean the appliance completely.



Interaction of pump, injector and induction centre

Pump, injector and a swivelling 30-litre induction centre create a system suction capacity of up to 800/900 l/min. This fills a barrel with a volume of 2000/2200 litres in about two and a half minutes. Due to the vacuum suction principle of the injector, solids are also sucked in from the induction centre - at a speed of approx. 300 l/min. The rinsing and dilution is done by the ring rinsing system: It generates a rotating stream of liquid; plant protection products are flushed in without clumping. Stronger clumps can be loosened with the shock nozzle. While the barrel is being filled, the induction centre can be supplied with fresh water.

The induction centre is raised and lowered pneumatically. This ensures user-friendly operation and offers an ergonomic working height.



Optional equipment for all sprayers

Boom Angling and Negativ Angling

(option)

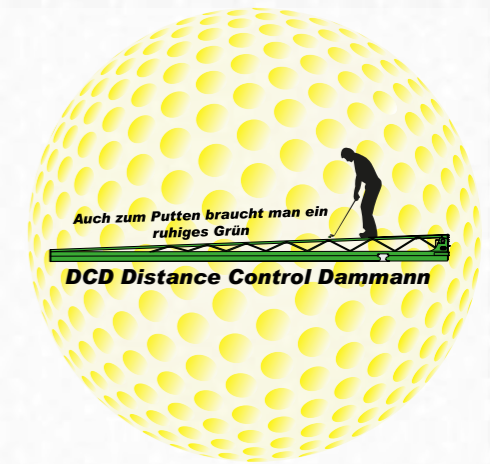
- Perfect extension for boom control
- Angle of advantage in cropped terrain
- Keeps constant distance through sensors to the inventory



DCD Distance Control DAMMANN

(option)

- Combines the advantages of hydraulics (speed) and pneumatics (gentle repositioning) in one boom control system
- Monitoring of the optimum boom position by ultrasonic sensors
- Detection and anticipation of gravitational forces in curves
- Quick and easy operation
- Precise boom working height above the crop in the terminal adjustable
- Calibration of the boom control takes place via the terminal
- Possible types of control depending on the equipment of the DCD's
 - Raising/lowering the boom
 - Tilting the boom
 - Angling (optional negativ angling) of the boom
 - Lifting/lowering + tilting the boom
 - Raising/lowering + angling (optional negativ angling) of the boom
- Switching off the height control
 - Manually by the operator
 - Automatically with the maximum permissible excavation height



Flexible Working Width

(option)

- On different strokes through:
 - Flange plates
 - Folding hinges
- Hydraulic folding hinges
- Special folding at the pivot point
- Controllable via the ISOBUS terminal



Technical Innovations

GreenView

(option)

GreenView is a camera-assisted system for plant identification. Several cameras cover the entire working width. The system enables the precise treatment of individual plants.



System

The system works in such detail that individual green stalks are detected on brown soil („Green on Brown“) and reacts accordingly: everything

Self-learning cameras

During the pass, the area to be treated is scanned in real time. The self-learning cameras recognise and distinguish between „green“ weeds on „brown“ soil. For this purpose, the cameras' field of vision is divided into smaller sub-areas. Each camera controls several nozzles.

„green“ is treated. Individual algorithms for „Green on Green“ are already being tested: weeds are detected in wheat, for example.



Advantages

- Herbicide consumption is reduced by up to 80 percent
- The targeted application is environmentally friendly.
- Costs are reduced due to the saved pesticide.
- Weed resistance can be better controlled.

- The system works quickly and efficiently.
- Weed mapping on the field mapping system is possible.
- The system works up to 42 metres boom width.
- Simple operation through integration in the ISOBUS operation of the sprayer

RSD - Row-Specific Nozzle Positioning

(option)

With the RSD, the nozzle is guided precisely over the row by active control. The pesticide is only applied to part of the area, the amount of drift is automatically reduced - and legal requirements are complied with due to the pinpoint application.

During application, a flexibly movable boom and sensors take over positioning in the rows and ensure precise distribution of the crop protection agent.



Advantages

- Environmentally friendly and economical use of plant protection products
- Suitable for row crops
- Can also be used with a GPS device via ISOBUS
- Large working widths possible
- Ideal complement to mechanical weed control in the rows

MFS - Multi-Fluid-System

(option)

is used for the application of two crop protection implements during one pass. This allows a particularly flexible and precise application of pesticides, protects the field soil and at the same time saves time as well as costs.

Application of different agents in different and independently adjustable application rates.

Individual and targeted weed treatment of several crops or separate areas in only one pass

Advantages

- Time-, effort- and cost-saving
- Reduced number of passes
- The soil in the field is protected
- Central, clear and user-friendly operation
- Control via a terminal
- Barrel consists of 2 chambers
- Combination with direct feeding possible





D-A-S Dual-Air-System

The intelligent solution for the environmentally conscious economist

- Reduced drift, even with low stand heights and on bare soils
- Greater independence from weather influences - treatment time windows are increased
- Higher travel speeds, resulting in increased area performance
- More even active ingredient accumulation in the stock
- Stronger crop penetration, especially for special crops such as vegetables, salads or potatoes
- The powerful air jet turns the active ingredient into the target area even in high populations (e.g. maize)
- Better active ingredient accumulation in the stock leads to less evaporation losses at high temperatures
- Reduction of medium and water application rates
- Devices are entered in the JKI's list of „loss-reducing devices“



without D-A-S



with D-A-S