

MasterSpray

Field sprayer overview



**Perfect
start!
Fully
equipped!**

- Delivery from specialist dealers -

VOGEL  NOOT
SOIL SOLUTIONS

Modern crop protection with Vogel&Noot



IN 280 with FH 918 piping



Crop protection today

Modern crop protection is a basic requirement for professional agriculture, as it ensures sustainable production and at the same time accommodates the interests of consumers and ensures environmental protection.

The aim of crop protection is to protect plants and crops from harmful organisms. Crop protection must however only be performed in a suitable way. The implements must

therefore meet modern requirements. Furthermore, without crop protection, it is not possible to obtain good yields. Cost-effectiveness therefore plays a crucial role at

Vogel & Noot. VN field sprayers set new standards in productivity, spray quality and efficiency. See for yourself!

The right technology is crucial








Advanced crop protection

Vogel & Noot focuses on proven and innovative technology with its new field spraying program **Master Spray**. The field sprayers meet the high requirements for sustainable crop protection. The highest production quality, most modern technology and simplest operation ensure maximum efficiency and cost-effectiveness.

The VN field sprayers impress with their perfect technology. As mounted sprayers or as a towed version, working widths of 12 – 30 m are possible. Innovative equipment details ensure secure handling and maximum convenience. Tank volume of up to 4600 l.

Advantages

-  Clear arrangement of all operating elements
-  Innovative integrated implement system
-  High efficiency and operational reliability
-  Precise application with electronic control
-  Filling and disposal centre for the greatest possible protection of users and the environment

The range



Field sprayers		IS 63	IS 83	IS 800	IS 1000	IS1200	IS ^{pro} 1600	IN 280	IN 360	IN 460
Design		Mounted attachment						Trailer		
Actual tank content	l	660	880	880	1100	1350	1680	2800	3600	4600
Working widths	m	12 - 27						15 - 30		
Pump capacity	l	117 - 256						256 - 400		

Technique for Professional



Our machines stand out thanks to their robust and long living construction, their practical functionality and their ability to consistently meet future requirements thanks to innovative developments. We see ourselves as a partner to our customers, ready to provide comprehensive advice- and service concept. Agricultural technology from Vogel & Noot directly contributes to our customers' personal success and professional enjoyment.



Tractor linkage technology for excellent efficiency



VN MasterSpray covers a huge surface area thanks to a working width of 12 – 30 metres. There is a spray linkage type for the operational

requirements of every spray. The variable nozzle equipment allows for optimal adaptation to a specific crop and local climate conditions.

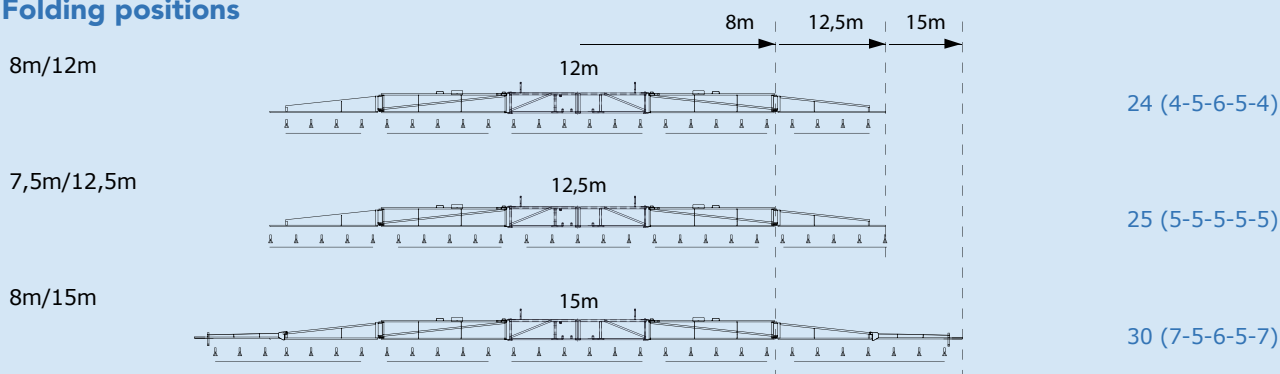
FH 400 – The compact version



Very stable composite grid construction from square bar steel. The swivel arms of the boom lock into place independently when folded out and the extension arms yield to obstacles in either direction of travel. The pendulum suspension features continuously adjustable damping and absorbs impacts from uneven parts of the ground, which keeps the tractor linkage parallel to the ground even on slight lateral slopes. In this way both the nozzle guidance and the distribution of the agent are optimised.

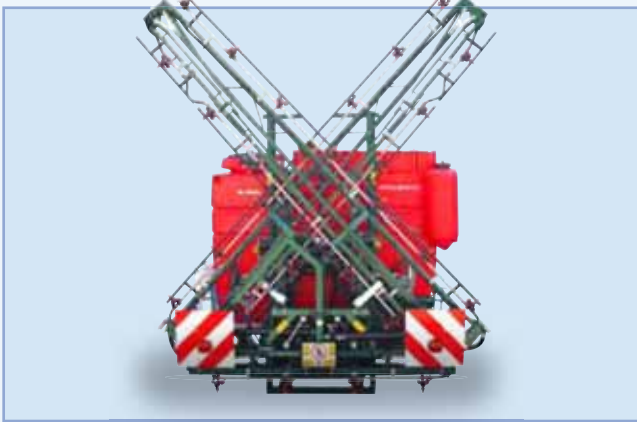
- For implements IS 63, IS 83
- Working widths 12, 12.5, and 15 m.
- Transport width 2.75 m

Folding positions





XFH 600 – The X-folder

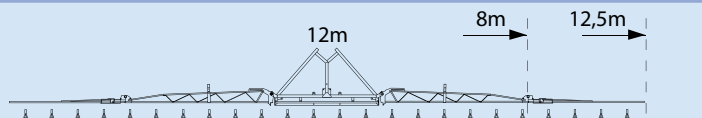


The special feature is the one-sided asymmetrical folding option, which can be deployed on either side. Comes as standard with hydraulic slope compensation and height adjustment. All pipings are made from Nirosta and are well protected with the nozzle holders and nozzles. With appropriate electronic equipment, all folding functions on the boom valve can be preselected. For the beam operation, only a double-acting control unit (folding) and a single-acting control unit (height adjustment) are then required. A 3-way nozzle holder is included in the basic equipment.

- For implements IS and IS^{pro} 1600
- Working widths 12, 12.5, and 15 m.
- Transport width 2.50 m

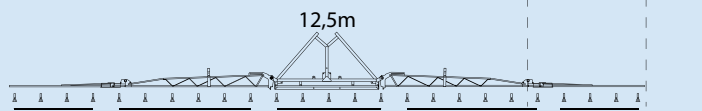
Folding positions

2m/8m/12m
5m/7m/10m asym.



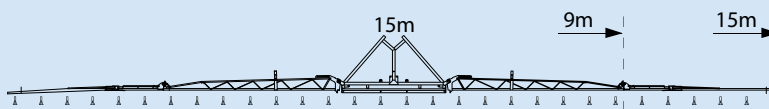
24(4-6-4-6-4)

2,5m/8,5m/12,5m
5,5m/7,5m/10,5m asym.



25(4-6-5-6-4)

2m/9m/15m
5,5m/8,5m/12m asym.



30(6-7-4-7-6)

FH 800 – The stable version

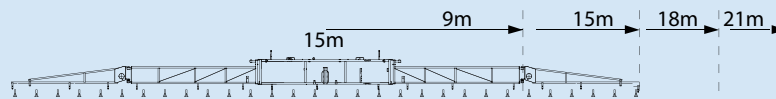


Composite grid construction designed for use over large surface areas and for withstanding extremely high loads. Your tractor requires just one single-acting and one double-acting connection for the hydraulic folding system. The 18 and 21 m piping can only be folded asymmetrically on one side. The extension arms are equipped with breakaway protection, nozzle protection plates and impact bars in order to protect the nozzles.

- For implements IS 800, IS 1000, IS 1200, IS^{pro} 1600, IN 280
- Working widths 15, 18, and 21 m.
- Transport width 2.98 m

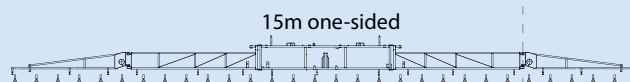
Folding positions

3m/9m*/15m



30 (6-6-6-6-6)

3m/9m*/15m
9m/12m* asym.



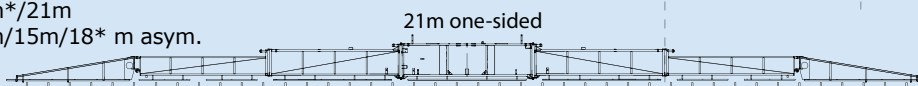
30 (6-6-6-6-6)

3m/9m/15m*/18m
6m/10,5m/13,5m/16,5m* asym.



36 (9-6-6-6-9)

3m/9m/15m*/21m
6m/9m/12m/15m/18* m asym.



42 (6-6-6-6-6-6)

* by hand

Tractor linkage technology for excellent efficiency

FH 900 – The efficient version



Due to its small, compact design, this is the ideal piping for inexperienced users. The central section provides stability whilst absorbing the horizontal and vertical variations in the ground. This absorption keeps the distance between the nozzles and the ground even. Breakaway protection shields the nozzles from damage over the entire working width. The booms are folded lengthwise to the side of the tank for travel on roads. An additional plus for safety: no projecting boom sections. Nozzle pipe made from stainless steel.

- For implements IN 280
- Working widths 21, 24, and 27 m.
- Transport width 2.60 m

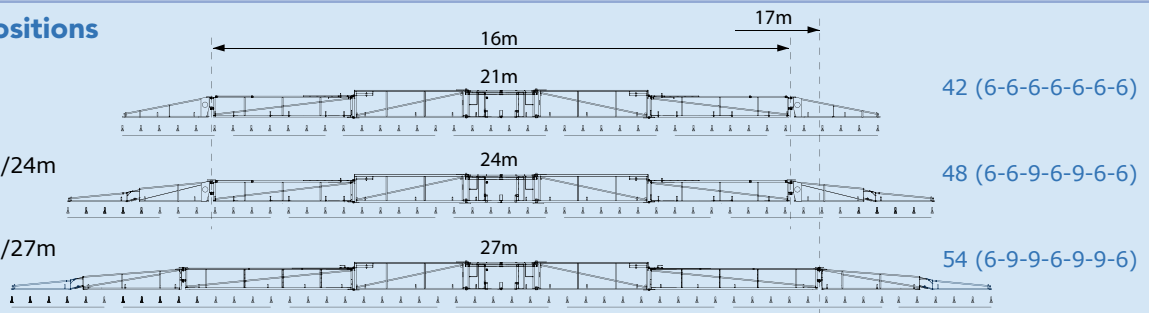
Folding positions

16m*/21m

16m optional/24m

17m optional/27m

* by hand



VFH 1200 – The vertical version

NEW

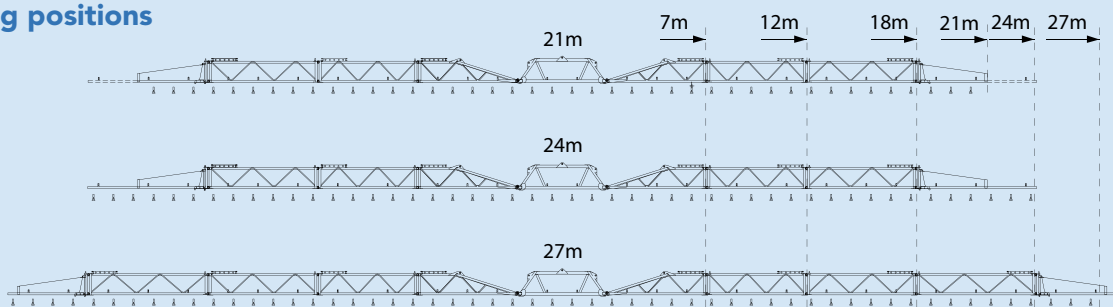


The vertically folded piping for the professional sector. In the transport position, the piping is located compactly behind the implement. The stable piping can be folded on one side and additional angling is possible. Comes as standard with stainless steel pipes and hydraulic unit.

- For implements IS 1200, IS^{pro} 1600
- Working widths 21, 24 m and 27 m (only for IS^{pro} 160)
- Transport width 2.50 m

Nozzle divisions and folding positions on request.

Folding positions





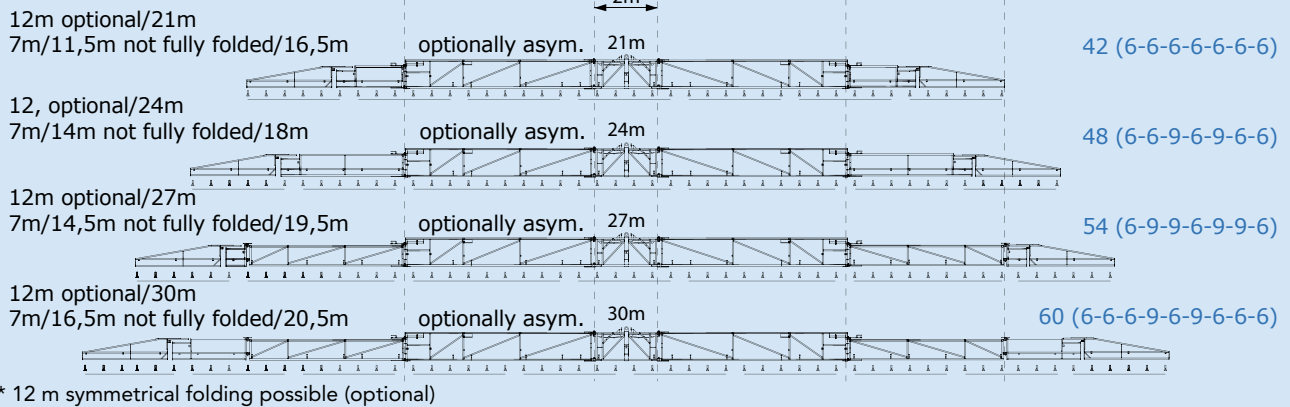
FH 903 – The versatile version



With absorption pendulum suspension for the best dynamic spray pattern and with **12 m symmetrical working width reduction** as well as one-sided asymmetrical folding (optional). The central section provides stability whilst absorbing the horizontal and vertical variations in the ground. This absorption keeps the distance between the nozzles and the ground even. Breakaway protection shields the nozzles from damage over the entire working width. The booms are folded lengthwise to the side of the tank for travel on roads. Nozzle pipe made from stainless steel.

- For implements **IN 360** and **IN 460**
- Working widths **21, 24, 27 and 30 m**
- Transport width **2.70 m**

Folding positions



One-sided folding

(optional)



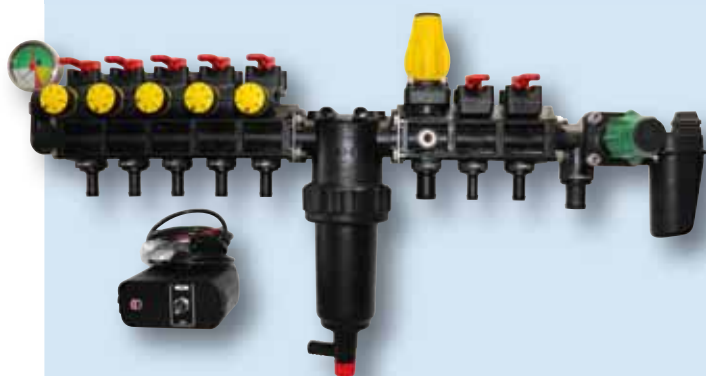
Symmetrical 12 m folding

(optional)



Metering technology – precise and upgradeable

The metering boom valves are extremely resistant to aggressive substances, thanks to the use of high quality materials such as VA or viton. Simple and logically designed, the operator interface is user-friendly. A suitable metering technique is available for every area of use.



Dositrol® 203/205 Eco

Hand-switched boom valve with 3 or 5 boom sections

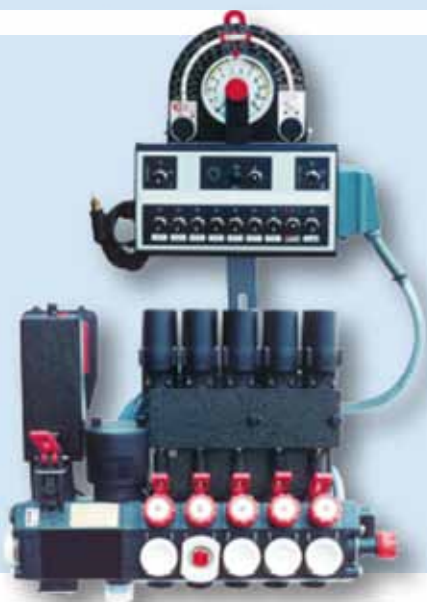
With the Eco boom valve, the central circuit board (back suction) is electrically switched on and off remotely from the tractor. The part widths can be switched on and off manually.



Dositrol® 205 Pro

Electric remote control boom valve with 5 part widths

- Operating panel with integrated manometer
- Two additional shutoff valves for internal cleaning and second load, e.g. external cleaning, etc.
- Large filter

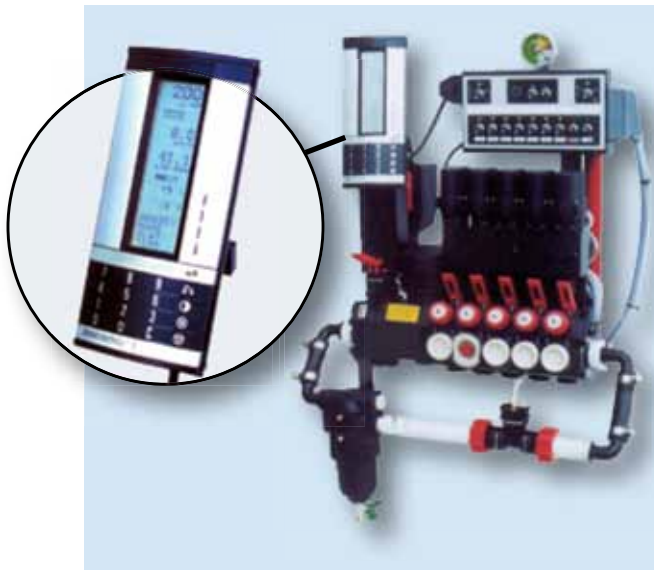


Dositrol® Basic

Remotely operated with electric motor

The convenient solution with

- Reliable drive motors on central circuit board and all boom sections
- Large operating panel with metering compass and DK 110 manometer
- Clear operation and handling with convenient display and controls
- Can be updated to an electronic version



Dosicontrol® E 5

Remote electric operation makes this a fully electronic sprayer computer. Basic boom valves operated by an electric motor, operating panel with manometer and interfaces for DOSICONTROL® E 5 and flow rate measuring device. Simple, logically designed operation

- Large, backlit, graphics-capable screen
- Impact data storage for up to 35 tracts of land
- Electronic tank display available (optional)
- Path measurement with auto-start function
- Adjustment of application rates in realistic percentage increments
- Manual operation possible at any time if required
- Lots of other functions



Dosicontrol® E 854

The fully electronic sprayer computer. Simple, logically designed operation

- Backlit, graphics-capable screen
- Impact data storage, electronic tank display available (optional)
- Path measurement with auto-start function
- Adjustment of application rates in realistic percentage increments
- Manual operation possible at any time if required
- Lots of other functions, circulating oil regulation (optional)
- Potentiometer control with determination of centre for slope compensation (optional)
- Hydraulic switch for Exact Trac with integrated folding functions (optional)
- Integrated switching mechanism for boom sections (up to 9 sections), no additional control box required



Matrix BoomPilot – automatic boom section switching by GPS

To reduce overlapping and avoid missing rows. This optional additional equipment requires the E 854 sprayer computer. The assembly set is available with or without camera (e.g. for nozzle function monitoring behind the tank, etc.).

The Matrix is a robust implement for controlling a range of modules which can be connected to the Matrix base unit.

Easy to extend (optional)

- FieldPilot – automatic steering
- Data collection
- GPS mapping

Pumps – pumped full of spray technology

As well as metering technology, pumps also have a decisive impact on the performance and work quality of field spraying. For every MasterSpray system, VN supplies pumps with required specific outputs from 117 l/min. to 400 l/min. Every pump is suitable for liquid fertiliser and has a drive in a full oil bath.

As standard!
All pumps suitable
for liquid fertiliser



IS series

MA 120

117 l/min, 0–20 bar, robust three-cylinder piston membrane pump.

Drive in full oil bath.



IN series

MA 260

256 l/min, 0–20 bar, robust six-cylinder piston membrane pump.

Drive in full oil bath with through drive.

Optionally also for IS implements

Standard for ISpro 1600



MA 170

170 l/min, 0–20 bar, robust four-cylinder piston membrane pump.

Drive in full oil bath.



MA 320

329 l/min, 0–20 bar, low-maintenance, robust six-cylinder piston membrane pump.

Drive in full oil bath with through drive.



MA 200

198 l/min, 0–20 bar, robust six-cylinder piston membrane pump.

Drive in full oil bath.



MA 400

400 l/min, 0–20 bar, low-maintenance, robust six-cylinder piston membrane pump.

Drive in full oil bath with through drive.



Agitator – when the focus is on top performance

Efficiency with the whirlpool effect

The injector agitator, which can be continuously adjusted for flows of up to 500 l/min. and switched off, adapts the intensity of the agitation – regardless of speed – to your specific requirements.

Agitating nozzle tubes across the entire tank bottom ensure complete agitation and an even concentration of spraying agent. A 'whirlpool effect' that also works reliably for high concentrations and fast sedimenting agents.

Acting as an anti-sloshing baffle, the rinse tank is set very deep into the solution tank at an angle for a neutral centre of gravity. This gives stability and safety in every filling situation.

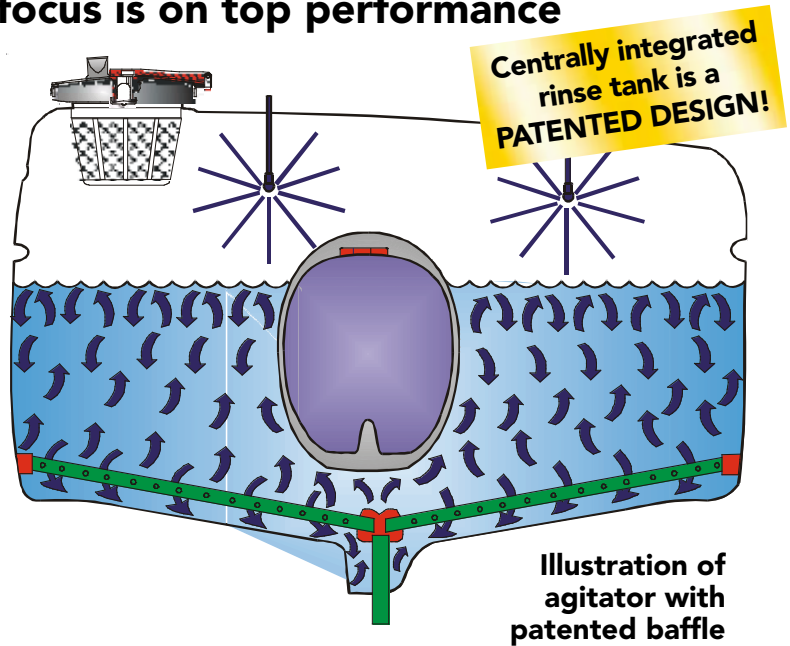
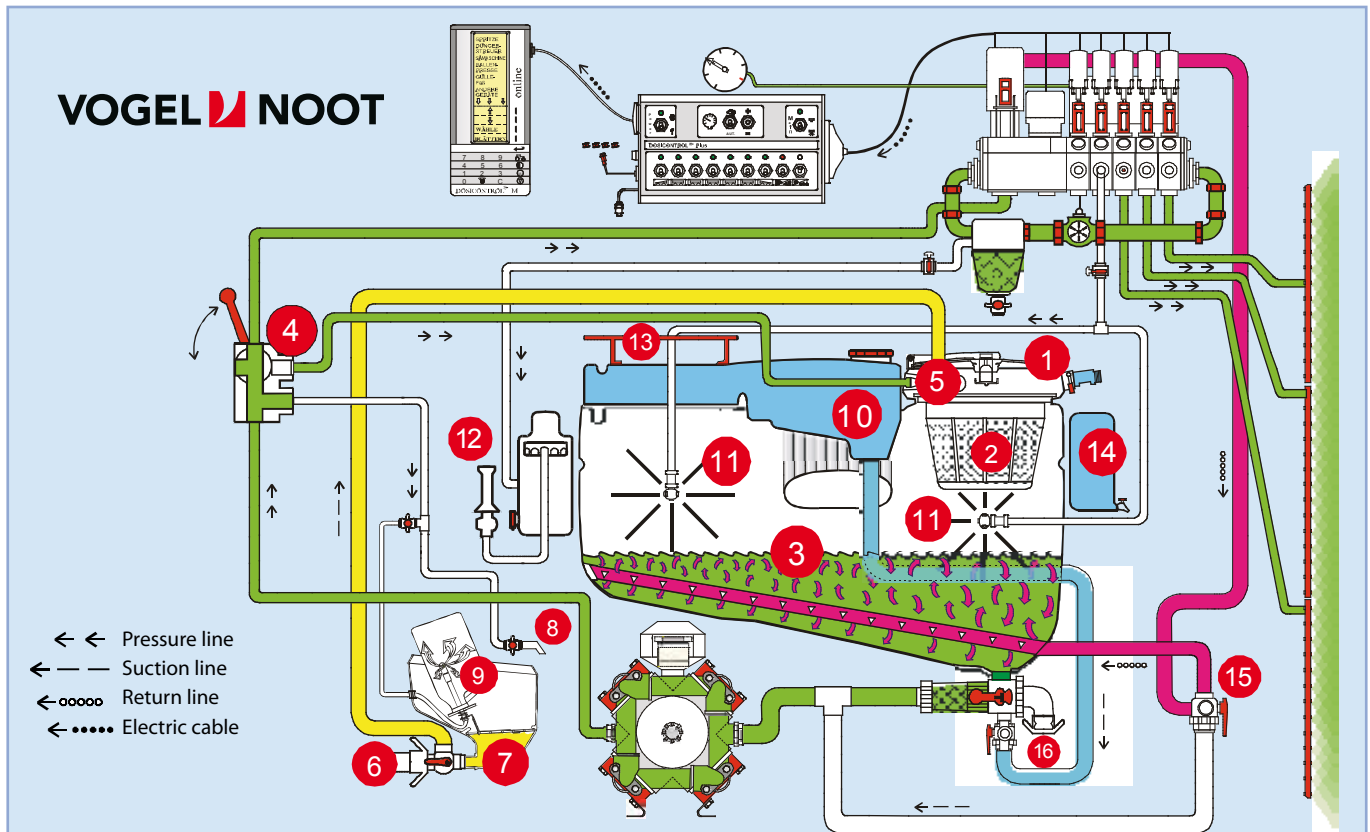


Illustration of agitator with patented baffle



Integrated efficiency down to the last detail

- | | | | |
|---|---|---|--|
| <p>1 Water line connection for filling area with safety flow regulator segment, injector outlet between lid and strainer, which forces the liquid to be filtered</p> <p>2 Large volume strainer, Ø 400 mm – 27 l</p> <p>3 Tapered tank ensures minimal technical residue</p> <p>4 Quick pressure regulation. One turn of the hand directs</p> | <p>the flow of the pump to the boom valves, the injector or the rinse valve/packaging rinser</p> <p>5 Injector produces low pressure for filling funnel (7) and (6) FU4 filling hose</p> <p>6 External suction with FU4 camlock</p> <p>7 Filling funnel for any spraying agent formulas</p> | <p>8 Rinse valve for cleaning and for moistening powdered spraying agents</p> <p>9 Packaging rinser</p> <p>10 Rinse tank for complete cleaning of the system, even if tanks are partially filled</p> <p>11 Internal cleaning of tank: Two rotating cleaning nozzles clean the tank right in the field</p> | <p>12 Outer cleaning of equipment: Hose drum for cleaning the entire unit whilst at the fields</p> <p>13 Central support for sprayer</p> <p>14 Separate hand wash tank, 20 litre content. Hygienic protection for users</p> <p>15 Agitator shutoff</p> <p>16 External suction for filling via pump</p> |
|---|---|---|--|

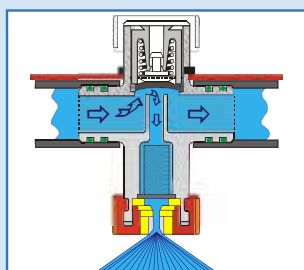
Technical specifications – IS mounted sprayers

Type/model	IS 63	IS 83	IS 800	IS 1000	IS 1200	ISpro 1600
Actual capacity (litres)	660	880	880	1100	1350	1680
Nominal capacity (litres)	600	800	800	1000	1200	1600
Working width (metres)						
with linkage FH 400	12 - 15	12 - 15	-	-	-	-
with linkage XFH 600	12 - 15	12 - 15	12 - 15	12 - 15	12 - 15	12 - 15
with linkage FH 800	-	15	15 - 21	15 - 21	15 - 21	15 - 21
with linkage VFH 1200	-	-	-	-	21 - 24	21 - 27
Rinse tank/hand wash tank	88 l / 15 l	124 l / 15 l	124 l / 15 l	124 l / 15 l	124 l / 15 l	160 l / 29 l
Pumps						
MA 120, 117 l/min	Series	-	-	-	-	-
MA 170, 170 l/min	-	Series	Series	Series	-	-
MA 200, 198 l/min	-	-	-	-	Series	-
MA 260, 256 l/min	-	-	-	-	-	Series
Height (cm)						
with linkage FH 400	244	244	-	-	-	-
with linkage XFH 600	280 - 310	280 - 310	280 - 310	280 - 310	280 - 310	280 - 310
with linkage FH 800	-	230	230	230	230	230
with linkage VFH 1200	-	-	-	-	320	320
Weight (kg)						
with linkage FH 400	386 - 416	415 - 445	-	-	-	-
with linkage XFH 600	450 - 475	495 - 530	495 - 530	515 - 540	562 - 597	1.030 - 1.065
with linkage FH 800	-	686	686 - 960	695 - 970	760 - 1.035	1.235 - 1.497
with linkage VFH 1200	-	-	-	-	960 - 990	1.428 - 1.576
Transport width (cm)						
with linkage FH 400	275	275	-	-	-	-
with linkage XFH 600	250	250	250	250	250	250
with linkage FH 800	-	298	298	298	298	298
with linkage VFH 1200	-	-	-	-	250	250
Transport length (cm)						
with linkage FH 400	146	146	-	-	-	-
with linkage XFH 600	135	135	135	135	135	155
with linkage FH 800	-	158 - 180	158 - 180	158 - 180	158 - 180	180 - 200
with linkage VFH 1200	-	-	-	-	180	200 - 220

All specifications are approximate!

Nozzles for every application

VN supplies an extensive range of high quality nozzles for its masterspray field sprayers for every application. Depending on the equipment, the dispersion amount, spray pattern and spray direction of the field sprayers can be adapted for particular crop and application conditions.



Closed cap
No mix is sprayed if a membrane is damaged. Membrane easily accessible.

Flushing funnel

Flushing funnel for fast and safe filling of all kinds of spraying agent, including urea. Filling with powerful injector. Can easily be pulled out like a drawer for filling. A seal prevents ingress of dirt. Canister cleaning by rotating nozzle and freely movable rinse valve. Rinsing of

funnel by stainless steel ring line.











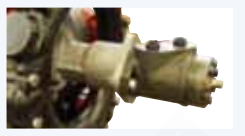



Technical specifications – IN trailed sprayers

Type/model	IN 280	IN 360	IN 460
Actual/nominal capacity (litres)	2.800 l / 2.500 l	3.600 l / 3.200 l	4.600 l / 4.200 l
Working width (metres)			
with linkage FH 800	15 - 21	-	-
with linkage FH 900	18 - 27	-	-
with linkage FH 903	-	21 - 30	21 - 30
Rinse tank/hand wash tank	290 l / 15 l	460 l / 42 l	460 l / 42 l
Pumps			
MA 260, 256 l/min	Series	-	-
MA 320, 329 l/min	optional	Series	Series
MA 400, 400 l/min	-	optional	optional
Length (cm)			
without linkage	402 - 441	528 - 567	567
with linkage FH 800	477 - 530	-	-
with linkage FH 900	536 - 616	-	-
with linkage FH 903	-	730 - 781	730 - 781
Width (cm)			
with linkage FH 800	298	-	-
with linkage FH 900	265	-	-
with linkage FH 903	-	270	270
Height (cm)			
without linkage	265 - 277	271 - 283	308 - 320
with linkage FH 800	278 - 290	-	-
with linkage FH 900	346 - 358	-	-
with linkage FH 903	-	346 - 358	346 - 358
Weight (kg)			
without linkage	1.850 - 2.005	1.995 - 2.390	2.055 - 2.450
with linkage FH 800	2.270 - 2.702	-	-
with linkage FH 900	2.691 - 2.955	-	-
with linkage FH 903	-	2.836 - 3.730	2.836 - 3.790
Tyres¹			
270/95R54	optional	-	-
12.4-46 (300/95R46-AS profile)	Series	Series	-
16.9-38 (420/85R38-AS profile)	optional	optional	-
18.4-38 (460/95R38-AS profile)	optional	optional	Series
20.8-38 (520/85R38-AS profile)	on request	optional	optional
580/70R38	-	-	optional
620/70R38	-	-	optional
Track width²	1.500 - 2.000 mm	1.500 - 2.000 mm	1.700 - 2.000 mm
Ground clearance	71 cm	65 - 85 cm	65 - 85 cm
Axle spring system	-	optional	optional
Transport speed	25 km/h	25 km/h	40 km/h

¹ Note permitted total weight ² Larger track widths available on request, track width of 1,500 mm possible with 12.4R46 eT-130 tyres
All specifications are approximate!



Accessories for Master Spray IS and IN

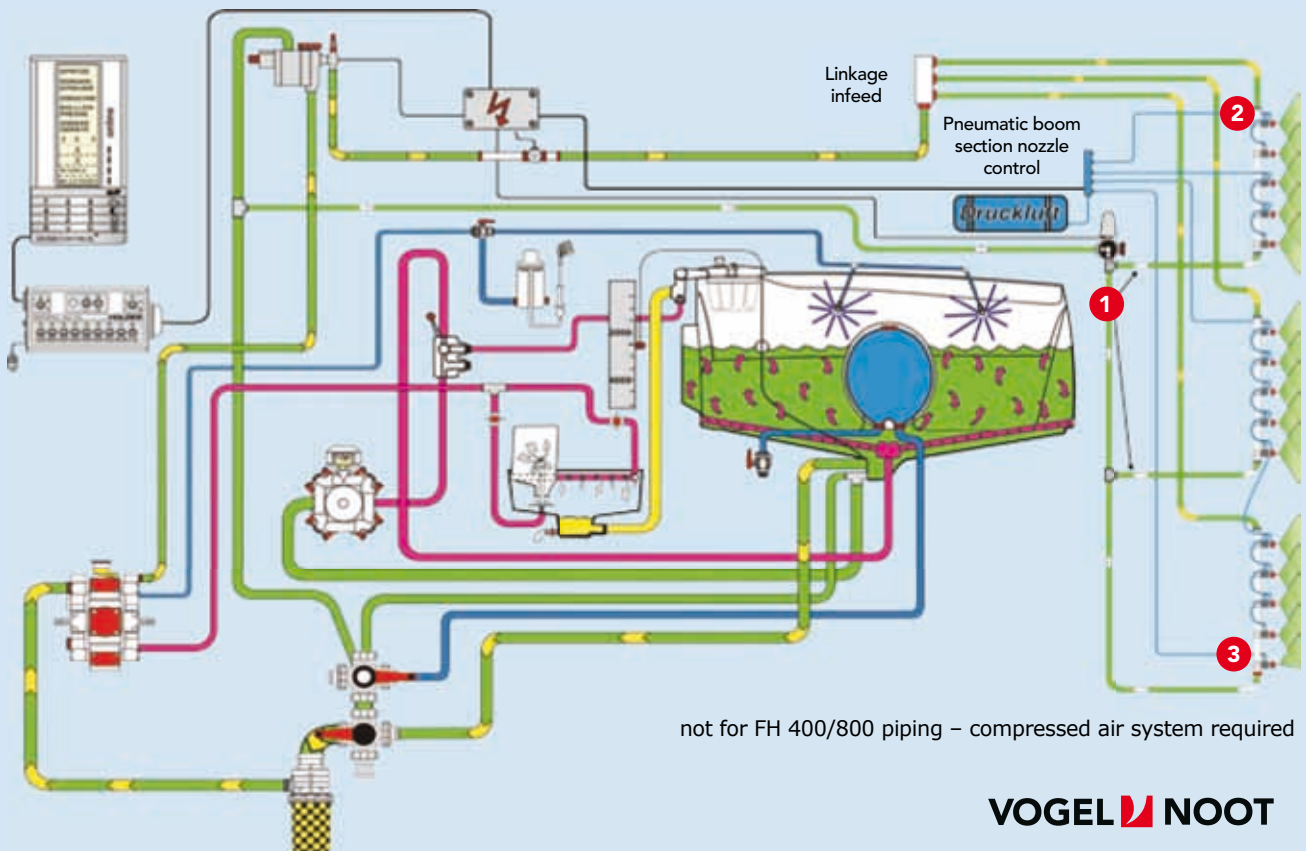
		to fit		Item no.:
		IS	IN	
Filling hose 7 m long with camlock connection and suction filter		x	x	SY101229
C-pipe filling (hydrant connection) Left side 2" C-connection with flow regulator segment for fast and safe filling.			x	SY138050
EcoFill connection On the implement, only for Is ^{PRO} 1600 and IN implements		x	x	SY200884
Matrix G570 with BoomPilot GPS boom section switching Basic module with GPS/monitor kit, Power/Can/data Cable, SDM module and connection cable Only possible in combination with Dosicontrol E 854		x	x	SY050218
Infrared camera for Matrix G570 BoomPilot incl. mount and cable, max. 3 cameras can be connected, extension cables will be calculated based on positioning and requirements		x	x	SY050228
Adaptor cable for tractor deceleration To fit Dosicontrol E 5 To fit Dosicontrol E 854 Wheel sensor on implement no longer included		x x	x x	SY200472 SY200896
2. Tank filling status display required in Austria for IS 600 for IS 800/1000 for IS 1200 for IN implements		x x x -	- - - x	SY200055 SY200056 SY200524
Electronic filling status display for display of tank contents that is accurate to the litre, the measurement electronics do not come into contact with the spray liquid To fit Dosicontrol E 5 To fit Dosicontrol E 854		x x	x x	SY143548 SY200240
Hydraulic pump drive Circulating oil required, standard drive shaft no longer used			x	
Additional price for MA 260: Pump MA 320 (329 l/min.), PTO shaft drive only for IN 280			x	
Additional price for MA 260: Pump MA 400 (400 l/min.), PTO shaft drive for IN 360 / 460			x	
Symmetrical 12-metre folding system Only for 903 piping, double-acting hydraulic cylinder instead of linkage traction rods, control direct or via oil circulation block. More flexible adaptation of working width, e.g. for slurry tanker (note hydraulic functions)			x	SY147188

Accessories for Master Spray IS and IN

		to fit		Item no.:
		IS	IN	
One-sided folding system for 903 piping 1. Extension arm cannot be fully swung in, only in conjunction with symmetrical 12 m folding system (note hydraulic functions)			x	SY146533
Hydraulic extension arm folding system for 818, 821, 900 and 903 piping (note hydraulic functions)		x	x	SY143763
Foam marking system SM 07600-0 For all field spray piping up to 21 metres. 12V DC compressor, right/left switching, storage hopper with mount, hose and 2 nozzles for producing the foam cone		x	x	SY135965
Rear trailer coupling Only for 2-axle trailers, cannot support any static vertical load, maximum total weight of trailer 8000 kg Only for IN 360/460 PLEASE NOTE: The road traffic act must be observed!!			x	SY200883
Axle mount for track width 2.25 m (not for air suspension)			x	SY200886
4-way swivel nozzle D 40-1 without nozzles, for all package-folded piping Price per item		x	x	SY116903
4-way swivel nozzle DF 40-0 without nozzles, for all lengthwise-folded piping Price per item			x	SY144124
Adaptor for upper hitch Only in conjunction with hydraulic pump drive			x	SY200584
Rigid towing eye, 40 mm diameter for lower hitch			x	SY200840
Ball head K 80 for lower hitch			x	SY200841
Swivelling towing eye, 50 mm diameter for lower hitch (only for export)			x	SY200842

Equipment – IN trailed sprayers

Pressure circulation piping with pneumatic nozzle switching mechanism



not for FH 400/800 piping – compressed air system required

VOGEL NOOT

Pressure circulation with automatic valve regulation

- 1 Even when driving to the fields, the entire liquid system is put under spray pressure, which ensures:
 - Precise, immediate start of spraying with the correct spray pressure over the entire working width.
 - No triangular shapes of damage or disease, or missing metering due to pressure build-up when switching on or switching boom sections.
 - Very high circulation volume, no accumulation, continuous homogenous spray liquid.
 - Rinsing with clear water – without spraying, reduces the technical residue – simplifies the cleaning process.
 - Pressure circulation, even on headland.
 - Safe and convenient thanks to automatic valve regulation.
 - For all field spray piping with VA piping system.
 - Can be combined with all Dosicontrol® electronic variants.

Variable nozzle switching mechanism and boom section arrangement

- The advantages of the new pneumatically regulated nozzle switching mechanism are easily visible:
- very short reaction/switch times
 - variable, individually configurable nozzle and boom section allocation

- 2 **Distance switching mechanism**

Simple adaptation to all conditions, even in different regions, convenient and safe control directly from the tractor cabin.

- 3 **Edge nozzle switching mechanism**

Sharply confined and exact down to the last centimetre with the IS edge nozzle, individually switchable in order to protect land at water's edge, the edge of fields or sensitive neighbouring crops. Robust design of pneumatic valves using very high quality materials (VA, Viton, etc.).



FH 903 piping (linkage) with asymmetric folding system

Drawbar variants for trailed field sprayers

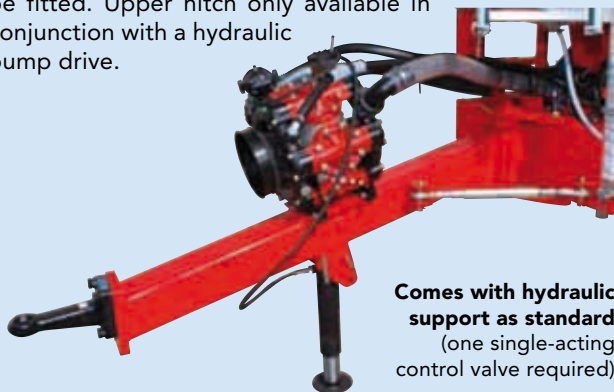
V-drawbar

The fixed yoke attachment provides safety and stability when travelling quickly on roads. An optimal attachment for long drives for up to 40 km/h.



Lower hitch

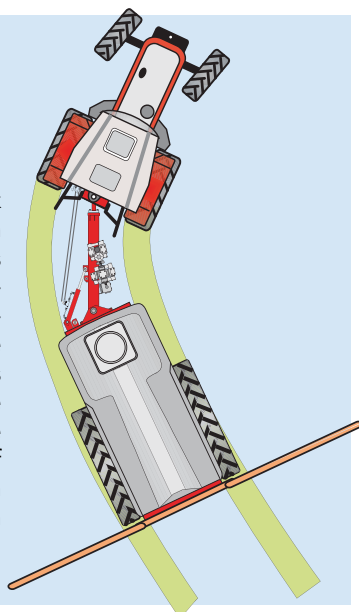
In future, we will fit our IN 280/360/460 trailed sprayers with the new drawbar for the lower hitch. Towing eyes with diameter of 40 mm or the modern K 80 tow ball coupling and, for export, a swivelling towing eye can also be fitted. Upper hitch only available in conjunction with a hydraulic pump drive.



Comes with hydraulic support as standard
(one single-acting control valve required)

Highly accurate tracking – for even the smallest turning circle

The genuine even track drawbar "Exact Trac" from Vogel & Noot provides complete tracking accuracy with the smallest possible turning circles. The example here clearly shows the benefit: Quality of use and time-effectiveness are increased without loss of tracking, not to mention that optimal soil protection is also made possible.



Nozzle test stand

At Vogel & Noot, implements are checked thoroughly before delivery. The state of the art electronic field sprayer test stand is used to determine the transverse distribution and total output of the nozzles on the field spraying equipment. In addition, the pump performance and manometer are tested by qualified specialists.



Competence – Advice – Service – Worldwide



Further information also
in our main folders.

VN – The product range from the soil specialists



Ploughs



Disc harrows



Rotary harrows



Cultivators



Seed drills



Mulchers/shredders

Your VN dealer:

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