



MASTER *plus*



■ **Proven technology with large capacity**

Simple, robust and easy to use

All key functions on the MASTER plus are unsurpassed. The integrated Quick Hitch, the well arranged MANIFOLD fluid system and the versatile boom range are some of the key features making handling a pleasure and spraying efficient.

- Tank size: 800, 1000, 1200, 1500 and 1800 l
- High tensile steel chassis
- Integrated Quick Hitch
- MANIFOLD fluid system
- TurboFiller - high capacity chemical filling
- Controller HC 2500 and HC 5500
- 3 boom alternatives from 12 to 24 m
- Available with TWIN STREAM



TurboFiller

TurboFiller is a high capacity induction hopper which makes the filling of chemicals fast and easy. The unique TurboDeflector creates a powerful liquid circulation in the hopper and mixes all types of chemicals quickly and safely. The cleaning of containers and the TurboFiller itself is managed by a rotating nozzle. A multifunctional 3-valve operating unit and a cleaning pipe make the chemical filling easy and efficient.



Quick Hitch

The Quick Hitch (cat.II) is an integrated part of the chassis and ensures easy and safe attachment to the tractor. To secure the sprayer attachment, the Quick Hitch is locked by safety hooks at the lower attachment points.



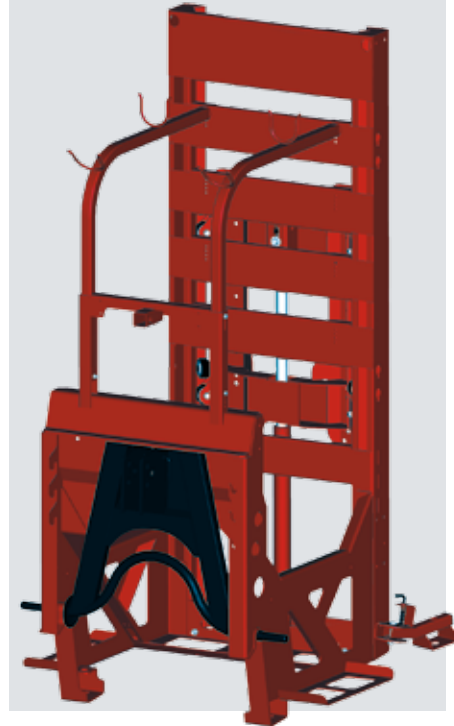
Tank

The high-impact polyethylene tank has a deep sump that ensures complete emptying of the tank also on slopes. The design ensures easy and efficient tank cleaning with the use of a tank flushing nozzle.



Chassis

The MASTER chassis is made in high tensile steel; the basis of a long lasting sprayer. The design makes sure that the weight is close to the tractor, and the centre of gravity is low. Integrated support legs stabilise the sprayer safely on the ground when not in use. The pump is mounted on the rear frame of the chassis, providing easy service access, and the PTO is not widely angled when the sprayer is lifted up.





MANIFOLD SYSTEM

- easy to operate

All the primary functions of operation are built into a centrally located manifold system. The colour-coded valves and icons are easy to understand. The MANIFOLD valves operate all the fluid system functions on the sprayer; easily reached and logically incorporated into the MASTER design.

- ① Pressure manifold valve
tank rinsing / extra agitation
- ② Pressure manifold valve
spraying / chemical filling
- ③ Return manifold valve
- ④ Suction manifold valve
main tank / rinse tank
- ⑤ Filling device
- ⑥ 15 l Clean water tank
- ⑦ TurboFiller
- ⑧ Dry level indicator
- ⑨ EVC operating unit with pressure
relief and constant pressure
- ⑩ Self-Cleaning Filter
- ⑪ Rinse tank
- ⑫ Quick Hitch
- ⑬ Safety locker

Proven and reliable HARDI components

HARDI diaphragm pumps – the heart of the sprayer

The MASTER liquid system is driven by the robust grease-lubricated HARDI diaphragm pump.

The diaphragms separate the liquid from the vital parts of the pump such as its bearings and crankshaft, ensuring reliable and durable operation.

HARDI diaphragm pump features:

- Self-priming
- Able to run dry without damage
- Easy to service without special tools
- Grease-lubricated crankcase
- Chemical-resistant diaphragms and valves



RinseTanks

Optional 80 l RinseTanks (one or two) are integrated into the sprayer's design to allow safe and efficient cleaning in the field; a very important component of good agricultural practice.

Filter system

The Self-Cleaning Filter (optional for BK control unit) is a very important safety feature, which minimises annoying downtime due to nozzle blockage and filter rinsing. A large and colour-coded suction filter is mounted on the main tank upper surface to allow inspection without spillage of spray liquid - even when the tank is full.

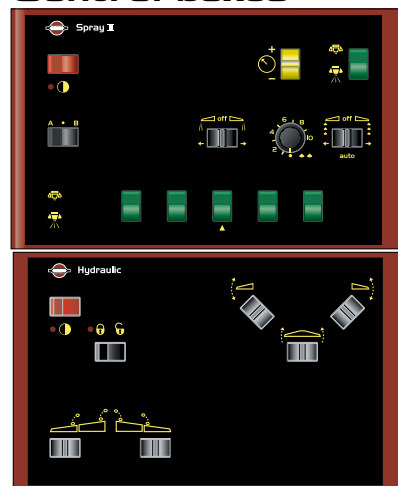
EVC operating unit

The EVC electric controls feature remote-controlled section valves and pressure regulator. The section valves are fitted with a constant pressure device and a pressure drop line. These are features which allow the operator to shut

off individual sections and maintain accurate application rates. All vital parts of the EVC control unit are completely sealed off from the liquid



Control boxes



Less strain to the operator is the philosophy around the design of the HARDI control boxes.

They are compact and ergonomic with large, colour coded switches.

With the operator's palm resting on the right hand side, the logical switch layout puts all frequently used functions at the operator's finger tip.

Proven HARDI controllers

The HARDI Controller 2500 is very simple to use. The volume rate is automatically controlled. Pressing the "up" arrow increases the volume rate ... it is easy, quick and simple. The Controller 2500 can only be used in combination with the EVC operating unit.

More power yet easy to use...

The HARDI Controller 5500 is a powerful computer that will make the liquid system smarter, the features easier and safer to use.

The LogicMenu makes it easy to get vital information very quick; when pressing pre-set keys, the information appears in the large-format area of the screen.

The volume rate can be changed on the go as a percentage or as a volume value.

The HC 5500 is advanced farming, ready with up to 98 registers and connection possibility to a site-specific application map or a remote sensor.



PRO booms - the master of performance

The PRO boom is designed and manufactured utilising our knowledge and experience as the world's leading sprayer specialist. The boom offers every conceivable facility to meet different spraying requirements.

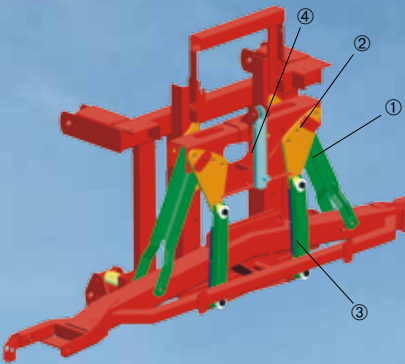


The lattice boom structure ensures a strong and rigid boom; the basis for exact and uniform spray distribution. The nozzles, spray lines and hoses are all well protected within the boom design.



The slim tank design and the compact folded PRO boom ensure optimal weight distribution and tractor stability while spraying and during road transport.





The adjustable trapeze is one of the secrets behind the superb boom performance. The trapeze can be adjusted for field condition and spraying speeds to achieve the best ride for the boom.

- 1. Trapeze arm
- 2. Trapeze arm adjustment
- 3. AntiYaw
- 4. Trapeze lock cylinder



The PRO boom is durable, and reinforced boom hinges ensure a steady boom in spraying position. A spring-loaded breakaway section secures the tip of the boom.



The PRO VP booms 20, 21 and 24 m have integrated AntiYaw damper on the boom wings.



The PRO booms are available in two hydraulic versions:

Y version: Operated by tractor hydraulic outlets – one single-acting and one double-acting outlet are required.

Z version: Operated by direct hydraulics (DH) – one double-acting outlet is required for 6 different operations, and 1 single-acting outlet for lifting the boom.



The Z version offers several facilities such as reduced folding, single-side folding and individual boom tilt.

TWIN STREAM - unsurpassed application technique

The HARDI TWIN is the most proven spraying system in the world and has shown its reliability. Its unique form of air assistance provides magnificent drift control, the highest fieldwork rate with benefits of notable chemical savings.



Forward angling



No angling



Backward angling



MB boom



The well-proven and very robust MB boom is available in a boom width of 12 m. The boom is manually folded with hydraulic boom height adjustment that requires one single-acting tractor outlet. The MB trapeze suspension for self-stabilisation of the boom is an important feature for optimising and improving spray distribution.

Boom lock between intermediate and outer boom sections ensures optimal boom stability. An adjustable spring-loaded breakaway protects the boom from accidental collisions. Single SNAP-FIT nozzle holders with diaphragm check valves are standard on the MB booms.



The MASTER TWIN STREAM is the solution when unsurpassed effectiveness, efficiency and safety are a demand.

The TWIN STREAM is available in 12 and 15 m spray widths. The coil-sprung trapeze suspension ensures superb boom stability and isolates the boom from tractor movements.



The angling of the air curtain and nozzles – as well as adjustment of the air speed – are important features for minimising drift and optimising coverage.

Angling of the spray ranges from +/-18°, and the fan blower provides 1500 m³/h/m boom width at speeds up to 27m/s.



All hydraulic functions, including the blower, are driven by the tractor's hydraulic system. Hydraulic boom slanting is optional, requiring one extra double-acting tractor outlet.

HARDI TWIN – advanced technology from a sprayer specialist

TWIN advantages:

- Application at higher spraying speeds
- More »right time« spraying hours
- Lower application volume rates
- Remarkable drift reduction
- Chemical savings



HARDI TWIN user survey results

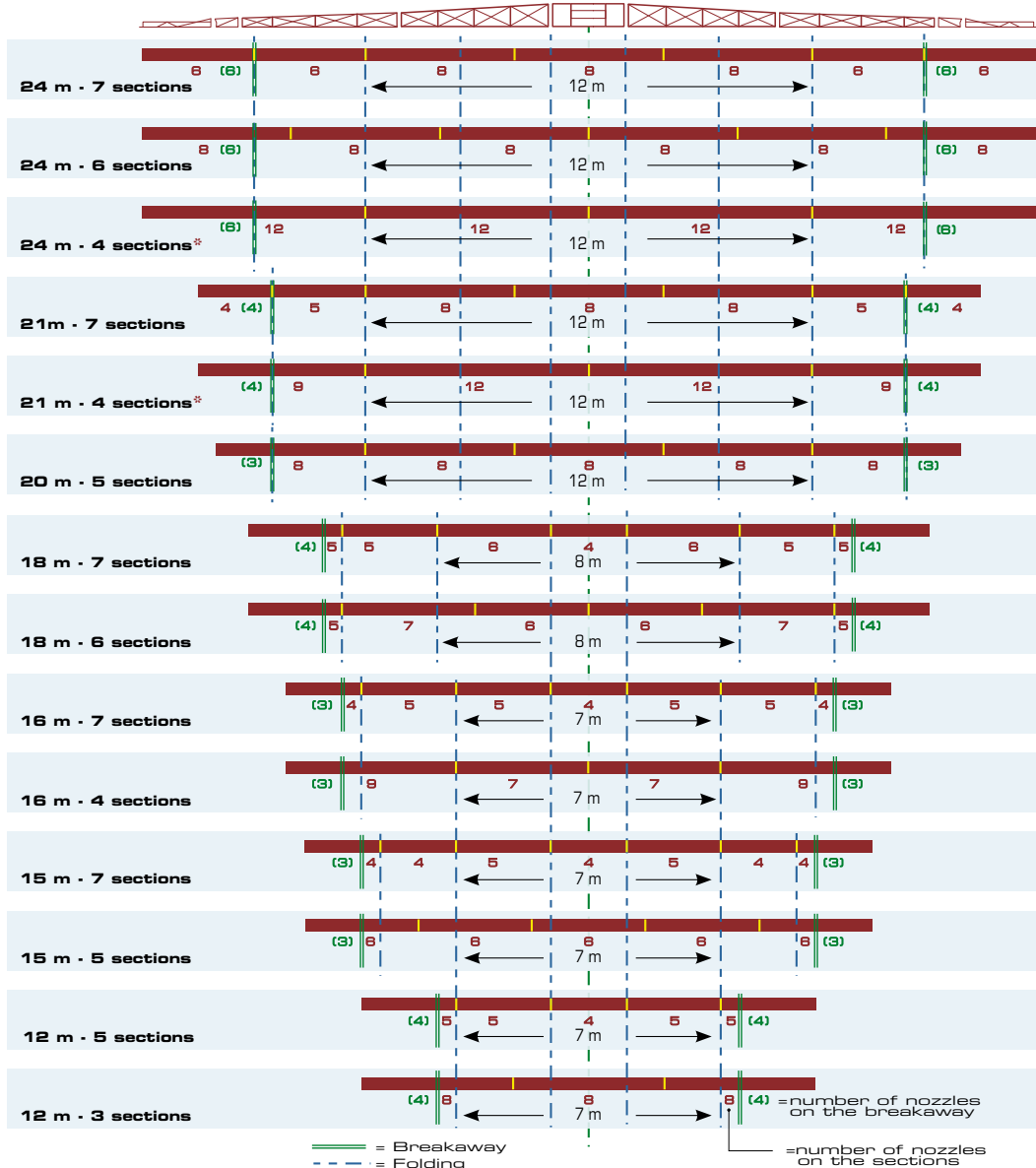
The work rate of one TWIN sprayer is equivalent to two conventional sprayers. An average of 16 % pesticide reduction compared to conventional spraying techniques.

www.hardi-twin.com



Boom sections PRO boom

The vertically folded PRO boom has 2, 3 or 4 segments on each boom wing. The drawing illustrates how many nozzles each boom section has, and where the boom is folded.



*This version does not fulfil the EN 12761 standard and will not be sold in EU.

Optional extras



Safety locker
15 l box for safety equipment.



Rinse tank/Flushing nozzle
80 l rinsing tanks (one or two) allow safe and efficient cleaning in the field.



Filling device
5 m hose with coupling – the sprayer can be filled with pump capacity.



External cleaning
Hose reel with 20 m hose and spray guns. The sprayer can be cleaned in the field.



In-Line filters
Extra filters built in the feed hoses.



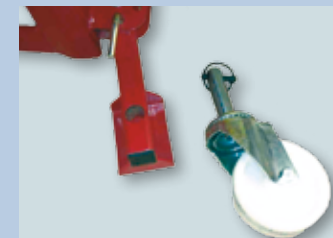
Hydraulic boom slant
Extra double-acting hydraulic cylinder to correct boom position on slopes.



Folding kit
from 16 to 12 m for 16 m boom.



Calibration kit



Maneuvering wheel kit

Specifications



Traffic lights

Tank size (net/gross)	800 (880)	1000 (1100)	1200 (1320)	1500 (1600)	1800 (1895)
Pump 1303 (114 l/min)	○	○			
Pump 363 (194 l/min)	○	○	○	○	○
Weight, kg					
PRO 12 m - 12.5 m	913	922	955	1077	1089
PRO 15 m - 16 m	970	979	1012	1134	1146
PRO 18 m	1028	1037	1070	1192	1204
RRO 20 m		1102	1135	1257	1269
RRO 21 m		1107	1140	1262	1274
RRO 24 m		1127	1160	1280	1292
TWIN STREAM 12 m	924	933	966		
TWIN STREAM 15 m	1013	1022	1055		
MB 12 m	661	670	733		



TurboFiller
including TurboDeflector,
container rinse nozzle and
cleaning pipe.

Measurements, cm	D	A x B x C	A x B x C	A x B x C	A x B x C	A x B x C
PRO 12 m - 12.5 m	225	153 x 253 x 271	153 x 253 x 271	166 x 253 x 271	183 x 253 x 271	183 x 253 x 271
PRO 15 m - 16 m	225	153 x 253 x 271	153 x 253 x 271	166 x 253 x 271	183 x 253 x 271	183 x 253 x 271
PRO 18 m	225	153 x 253 x 296	153 x 253 x 296	166 x 253 x 296	183 x 253 x 298	183 x 253 x 298
PRO 20 m	220		174 x 253 x 275	187 x 253 x 275	204 x 253 x 275	204 x 253 x 275
PRO 21 m	220		174 x 253 x 275	187 x 253 x 275	204 x 253 x 275	204 x 253 x 275
PRO 24 m	220		174 x 253 x 325	187 x 253 x 325	204 x 253 x 325	204 x 253 x 325
TWIN STREAM 12 m	260	190 x 260 x 271	190 x 260 x 271	203 x 260 x 271		
TWIN STREAM 15	260	190 x 260 x 348	190 x 260 x 348	203 x 260 x 348		
MB 12 m	240	132 x 240 x 250	132 x 240 x 250	148 x 250 x 250		

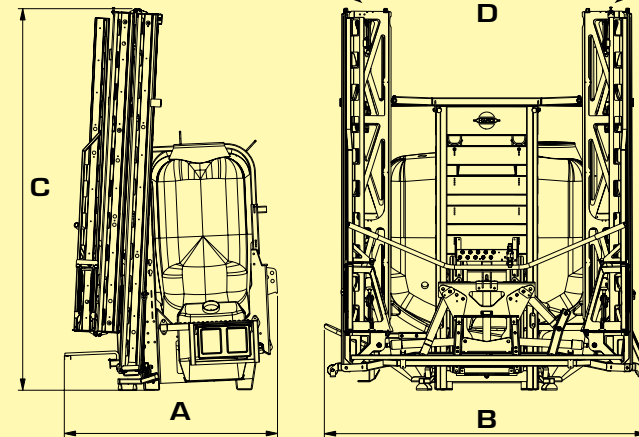


HC 2500



HC 5500

A = Total length in cm
B = Maximum transport width in cm
C = Total height in cm
D = Transport width boom in cm



MASTER
plus



Superb surface treatment

The high technology surface treatment contains 13 treatments, including a zinc-phosphate pre-treatment and powder coat painting of all major components. Together with the Delta/Magni treatment of nuts, bolts and other items, we supply high corrosion protection of our products.

The chassis and boom as well as all other steel components have been pretreated with zinc phosphate before a high quality coating of powder paint.

Testing procedures

Sprayers leaving HARDI INTERNATIONAL A/S are tested according to the strictest quality standards. The staff of the assembly line is accredited to match the demands from both NSTS (National Sprayer Testing Scheme), UK and JKI (Julius Kühn Institut), Germany. This ensures that the highest quality sprayers are delivered to farmers.



**HARDI
Your Sprayer Specialist**

HARDI INTERNATIONAL A/S

is an international group, whose basic idea is to satisfy the user's requirements for quality products ensuring efficient, punctual and precise application of crop protection products.

Our worldwide distribution and sales network comprise more than 100 countries where we are represented by importers, agents and sales subsidiaries. Our sales subsidiaries are situated in Sweden, Norway, Denmark, the UK, France, Spain, North America, Germany and Australia.

More than 50 years of spraying

HARDI was founded in 1957. In 2007 the company joined EXEL Industries, which has a group turnover of approx R450 million and employs 2800 people. EXEL Industries is world leader in spraying technology.

EXEL Industries is represented in three major spraying areas: Industry (spray guns and paint application equipment), General Public (hand-operated sprayers for gardening) and Agriculture (field, orchard and vineyard sprayers)



HARDI INTERNATIONAL A/S

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HIA MARKETING
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HARDI reserves the right to change the specifications without notice. Illustrations shown may include optional extras and accessories.



Høje Taastrup, Denmark



Nørre Alslev, Denmark



Spain



France



USA



Australia