

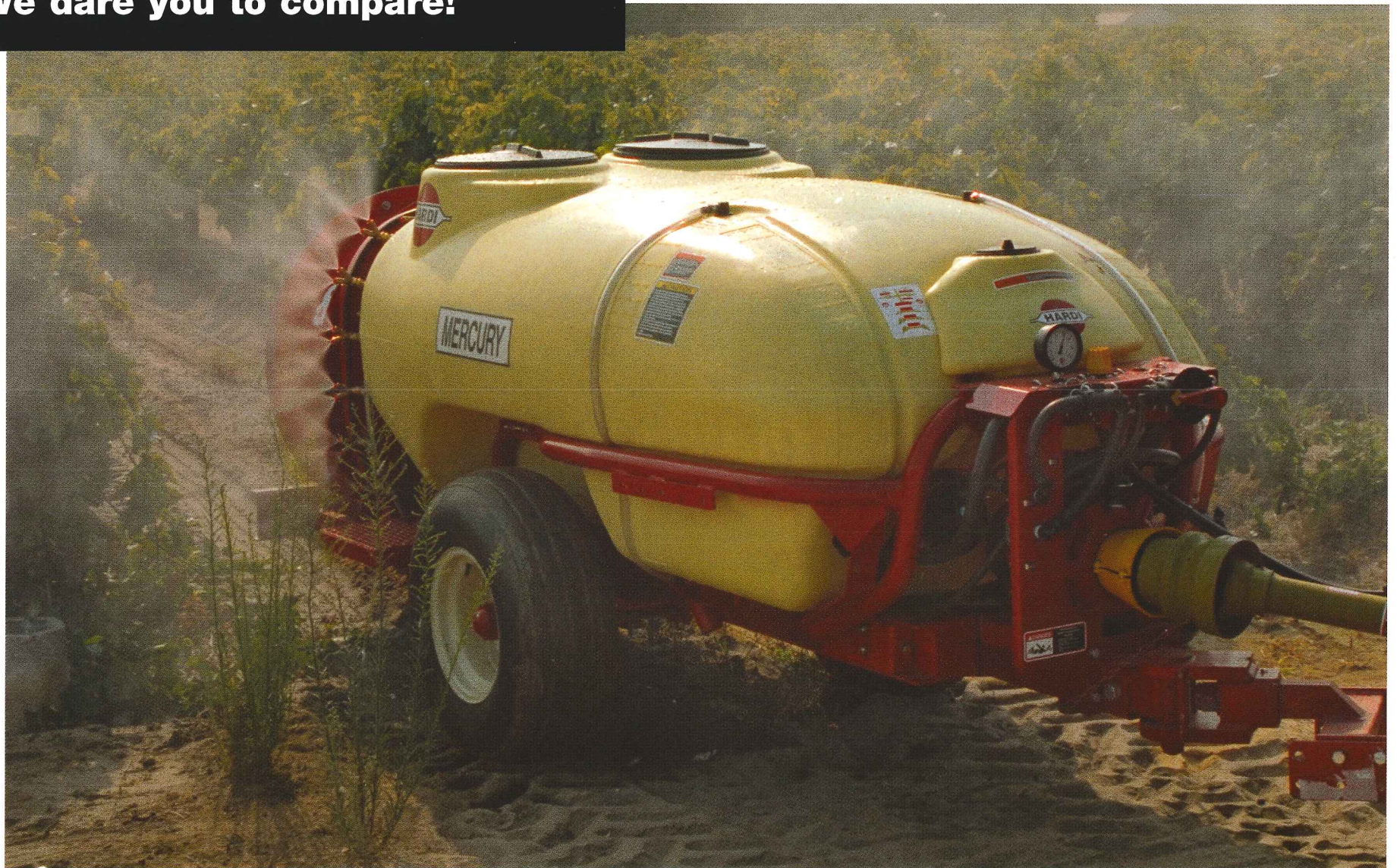


MERCURY



- **A New Generation of Vineyard and Orchard Sprayers**
-

**A new standard for value
and performance.
We dare you to compare!**





- A. Adjustable swivel or turnable hitch.
- B. HARDI® heavy duty diaphragm pump.
- C. 4 gallon clean water tank.
- D. Pressure regulator.
- E. Adjustable agitation and mixing.
- F. Large 4" glycerin filled gauge.
- G. Hydraulic spray controls.
- H. Easy access filters.
- I. Remote tank drain.
- J. Dual off center lids.
- K. Fold up step for easy access.
- L. Variable pitch axial fan.
- M. Double sided nozzle holders with ceramic nozzles and non-drip valves, located outside airstream.
- N. Adjustable air outlet.
- O. 2-speed gearbox.
- P. Adjustable axles.

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Fluid system

The HARDI® fluid system is designed for safe, simple and precise everyday use. The simple design has eliminated the need for any belts or chains, minimizing the risk for a mechanical breakdown.

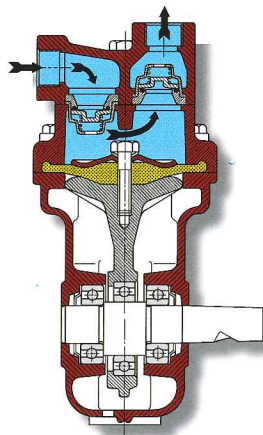
Pump



The HARDI® diaphragm pumps are designed for the application of crop protection products and liquid fertilizer. The Mercury is standard equipped with the HARDI® 363 HEAVY DUTY PUMP. The 363 HD is specially designed for the abrasive chemicals used in orchard and vineyards. HARDI® offers a 5 year prorated warranty on all pumps.

The HARDI® diaphragm pumps are:

- Self priming
- Able to run dry with out damage
- Easy to service
- Grease lubricated (dry crank case)
- Mounted with chemical resistant diaphragms and valves.
- Positive displacement feature provides a high level of accuracy.
- Drain hole allows chemical to drain out in case of diaphragm failure.



Pressure regulator.

The pressure regulator is centrally located for easy calibration and allows for simple change of application rates. Furthermore, it provides the operator with excellent droplet size control. The 4 " pressure gauge is easy to read from the ground or the tractor.



Remote hydraulic spray controls

The MERCURY is equipped with 2 hydraulic valves for left and right on/off. This allows the sprayer to be controlled using the tractors hydraulic outlet. This simple and reliable solution eliminates the need for cables, chemical filled hoses or wires in the cab.

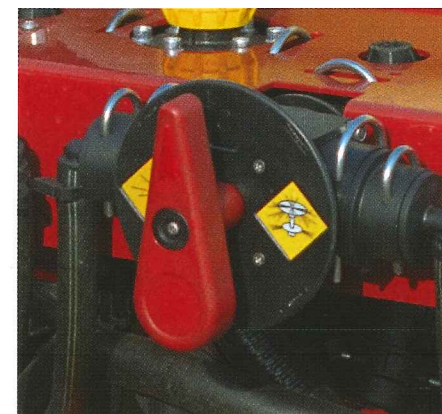


Agitation

The HARDI® engineered tank design combined with the unique dual stage agitation provides the operator with the most flexible and reliable tank mixing system on the market.

HARDI® dual stage agitation gives the operator the choice of slow moving agitation for foaming chemicals or aggressive fast moving agitation for hard to mix chemicals like most powders.

The large ball valve on the front of the sprayer controls the mixing of the chemical in the filter basket and the dual stage agitation.



The filtration system is a two-stage process.

The first filter is the oversized suction filter. The primary role of the suction filter is to protect the pump from damage. The suction filter has a built-in automatic shut off valve, allowing the operator to clean and service the filter with a full tank.

The second filter is the pressure filter. The pressure filters provide a clean flow of liquid to the nozzles.

Both filters can be serviced and cleaned without the use of any tools. The built-in clean water tank provides easy in-field maintenance of all filters.



Nozzles

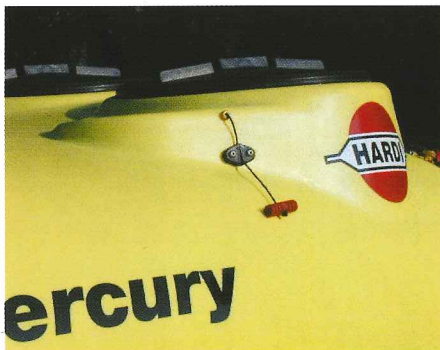
The nozzle is the most critical part of any sprayer. The MERCURY is therefore standard equipped with color coded ceramic hollow cone nozzles. This ensures easy calibration and accurate application rates. The nozzles are mounted on double nozzle holders with integrated non-drip valves. Within minutes the operator can change application rate when needed and the non-drip valves ensure that no spraying is done while turning at the end of the row.

The wide selection of ceramic nozzles gives the operator excellent control over application rates and droplet sizing, ensuring maximum coverage with a minimum of drift.

Superior tank design.



The remote operated tank drain valve ensures safe and easy tank emptying.



Large sump for complete emptying



HARDI® uses polyethylene for tank manufacturing. Polyethylene offers a number of key advantages compared with other tank materials. Polyethylene is extremely strong and flexible ensuring that the tanks can withstand any kind of vibration. The use of polyethylene gives HARDI® the capabilities to design tanks that are very compact, narrow, and molded in specific shapes to optimize overall design and performance. The tanks are designed to rest on the frame in their full length. They are held in place by the front sub-frame and fan assembly, eliminating the need for tank straps.

All HARDI® tanks are made of seamless UV protected polyethylene.

They are specifically designed to resist abrasive chemicals and liquid fertilizers used in agriculture all over the world.

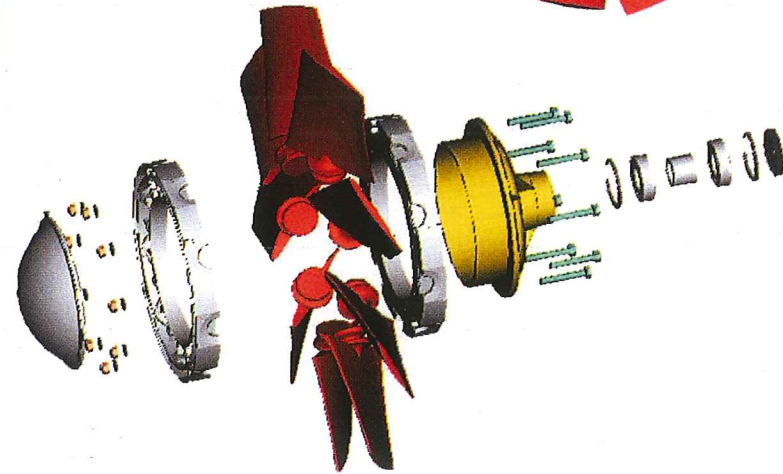
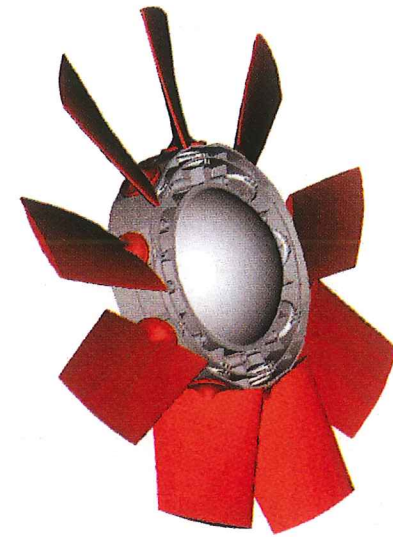
All tanks are puncture resistant, and designed with large deep sumps for optimal pump priming, cleaning, agitation, and complete emptying on slopes and side hills. **They carry a 10 year limited warranty!**

- Good stability - Striking tank design with excellent weight distribution.
- Compact – the compact tank design allows more liquid to be carried in the field.
- Minimal tree damage - Rounded front to minimize tree damage.
- Good agitation – The design optimizes agitation in order to keep a uniform mixture.
- Easy to empty – A large deep centrally positioned sump empties the tank completely, even on slopes up to 15° inclination.
- Clean water tank – An integrated 4 gallon clean water tank is located in front part of the tank.
- Self-supported – No strips or fittings used for attachment.
- Easy drain – 2” remote operated tank drain valve for quick and safe emptying of the tank solution.
- Easy fill – 2 off center lids for easy filling and mixing.

Super Flow Axial Fan

The HARDI® SUPER FLOW fans are designed in collaboration between HARDI® engineers and leading aerodynamic research specialists. HARDI® has used the latest high tech engineering tools and computer simulations to design and test this new generation of fans. Because of the extensive research HARDI® has developed the most efficient fan ever offered on a sprayer. The fan will move air with less power than any other fan on the market. The uniformity of the air distribution is equally important, and the fan is therefore designed with a smooth fiberglass fan housing with as few restrictions of the air flow as possible.

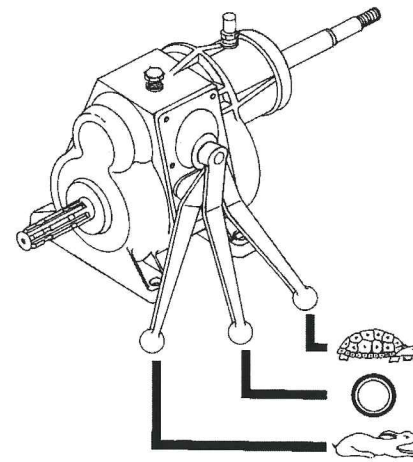
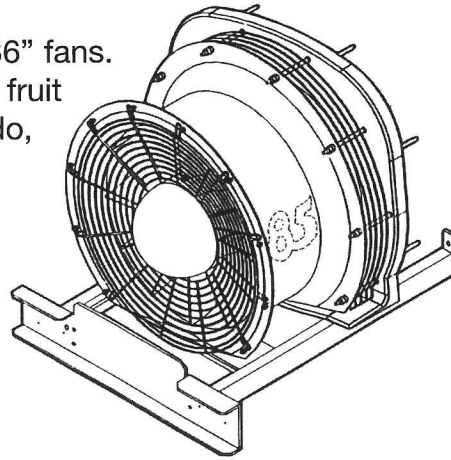
The fan blades and hub are made of aluminum making the fan lightweight, strong and durable. The pitch of the blades can be altered to match any crop or tractor size.



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SF - Match Air Kit

Available for both 32" and 36" fans.
Suitable for high and dense fruit trees such as citrus, avocado, cherries, walnuts and hops.
Air vanes in air inlet for optimum distribution.

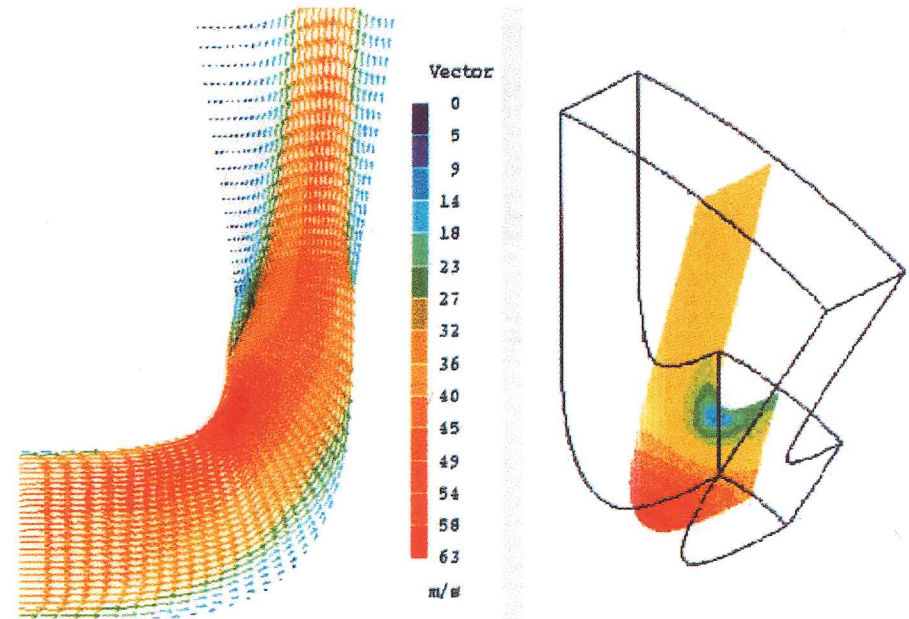


Gear Box

The Mercury is equipped with a heavy duty 2-speed gearbox as standard. The gearbox has remote oil filling for easy maintenance.

Fan housing design

The geometry of the fan housing, air inlet and air outlet, have been designed with the use of the latest computer simulation techniques in order to get maximum performance and even air distribution.



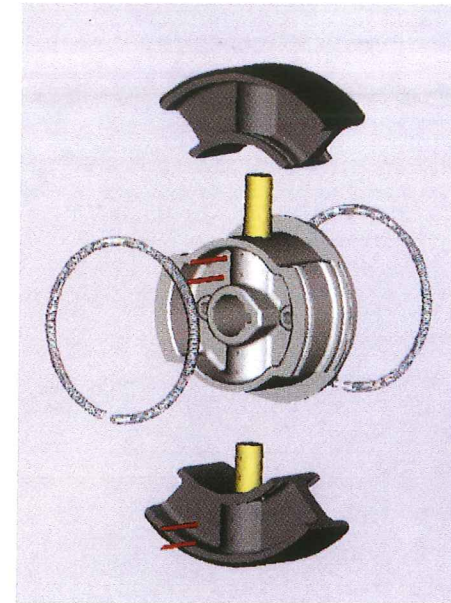
Nozzle accessibility



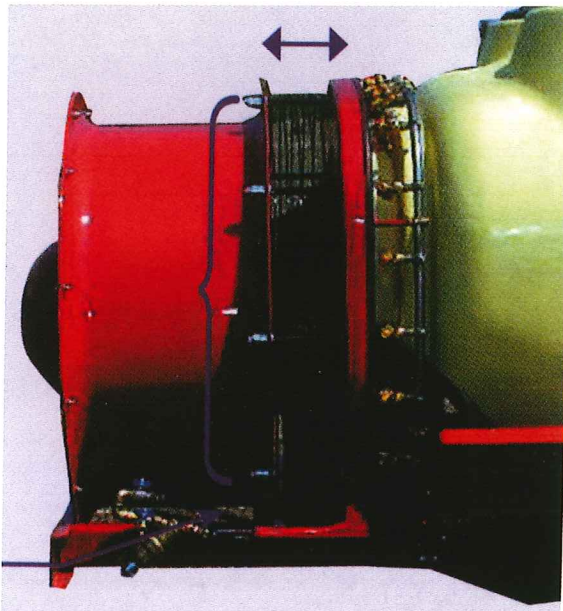
The durable nozzle holders are located outside the airstream to improve fan performance and to minimize air turbulence. It enables easy access for service and adjustments, and prevents material build-up on the nozzle holders.

Patented centrifugal fan clutch

The fans are engaged via an over-running centrifugal clutch in order to provide smooth fan acceleration. The clutch helps protect the tractor, the drive lines, the pump and gearbox from the extreme torque peaks created when the sprayer is engaged very abruptly.



Air flow setting



The HARDI® SUPER FLOW fan offers more flexibility than any other fan on the market.

There are three different ways to adjust the air flow:

- Change gear (hi/low)
- Open air slot. (hi/medium/low)
- Adjust the angle of the fan blades. (hi/medium/low)

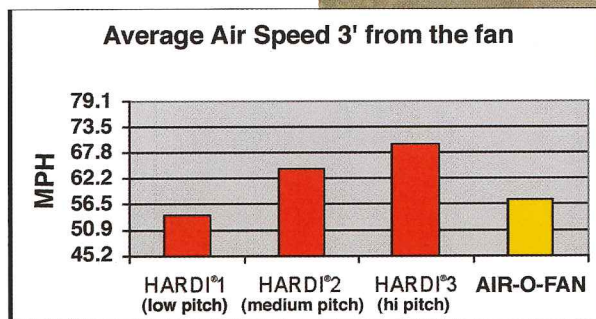
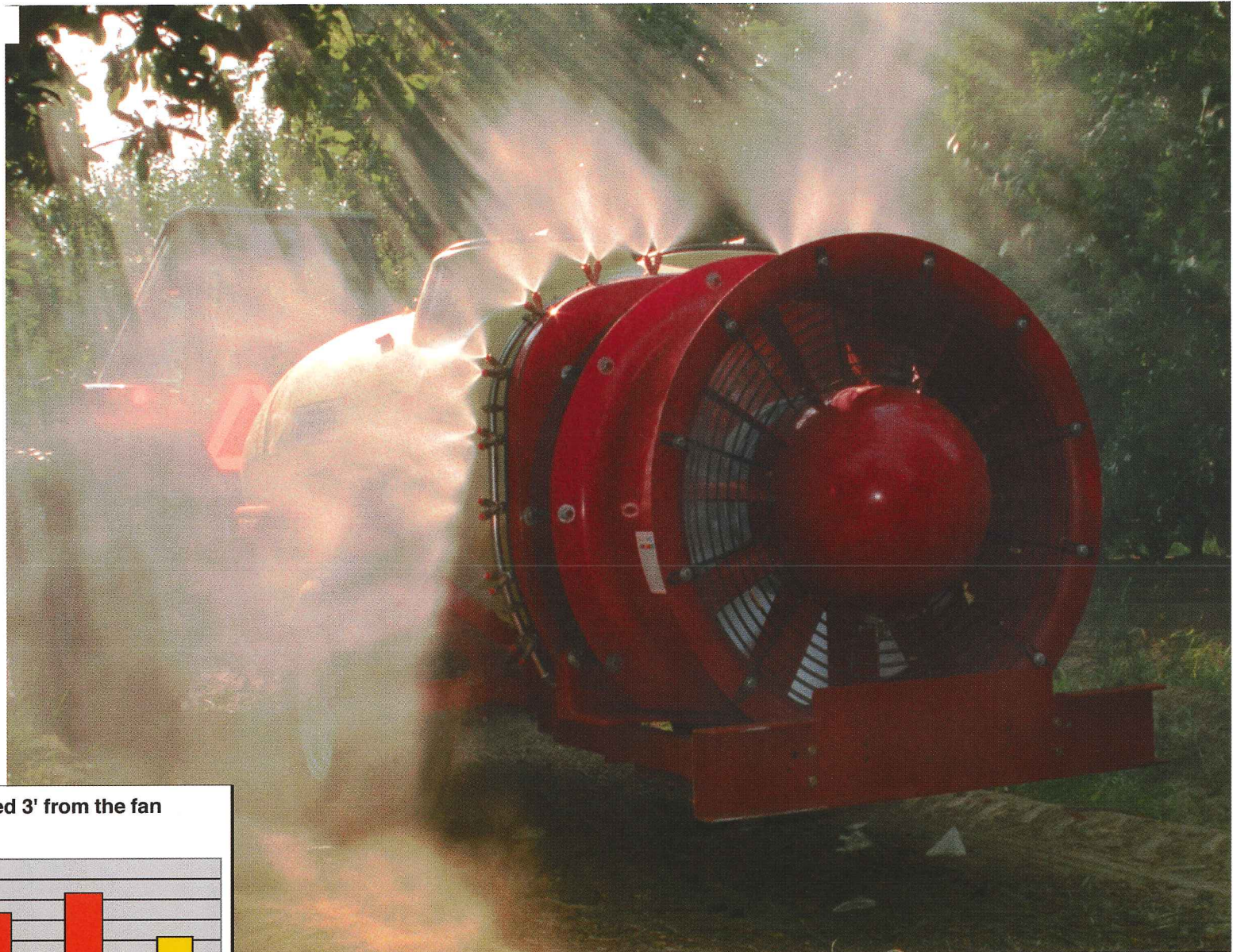
This provides the operator with 18 different fan settings, without switching the fan itself.



The many different settings ensure the sprayer can be matched to any crop and tractor size.

Fan performance

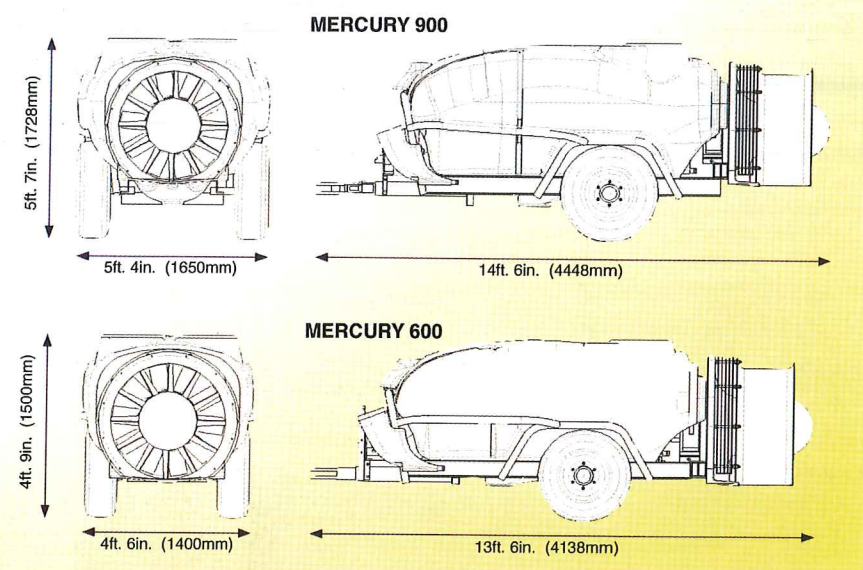
The SUPER FLOW fan has been tested against a leading competitor. UC Davis conducted an independent test comparing the HARDI® 36" SUPER FLOW fan against a 36" reverse AIR-O-FAN. The fans were tested for an average air speed 3' from the fan air outlet. The results clearly showed the HARDI® SUPER FLOW fan outperformed the 36" AIR-O-FAN regarding air speed and uniformity.



Source:

Orchard Sprayer Air Velocity Report (January, 2002)
Forward and rearward fan orientations for similar size sprayers
Dr. Daniel Downey and Prof. Ken Giles
Biological and Agricultural Engineering Department
University of California, Davis
Davis, CA 95616 USA

Dimensions

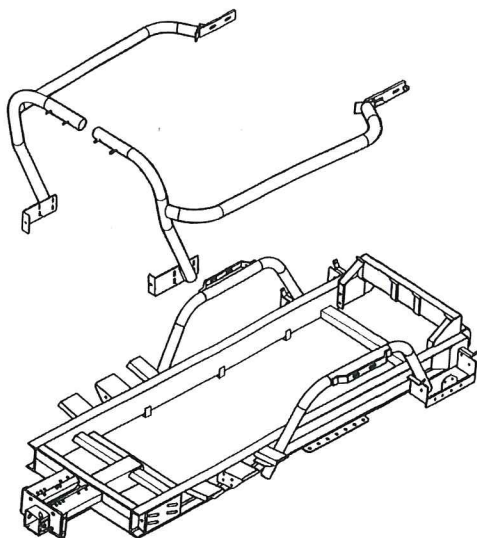


Weights

	Empty	Full
M600:	2827 lbs. (1282 kg)	8670 lbs. (3932 kg)
M900:	3200 lbs. (1452 kg)	11800 lbs. (5352 kg)

Chassis

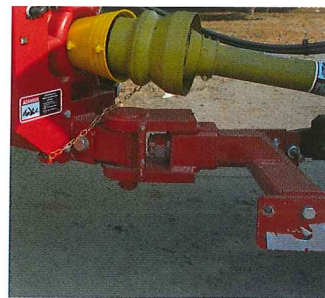
The chassis is a simple steel assembly with front pump support. The chassis is made of tensile steel channels providing robust durability, resistant to vibration and weather. The inner U-channel is used also for routing hoses and cables, etc.



Options

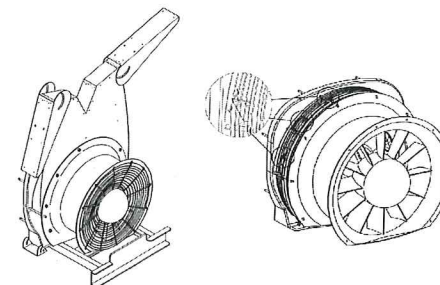
With a wide range of optional equipment the machine can be adapted for any specific need.

Turnable hitch



For a narrow turning radius.

Deflectors



Various deflectors are available for both orchards and vineyards.

Axle Suspension



The optional axle suspension ensures smooth operation under rough field conditions.

HM1500 Monitor



The Mercury is prepared for use with the HM1500 monitor. It monitors and displays information about application rate, flow rate and speed, etc. (English and Spanish)

MERCURY

HARDI® - A global specialist in crop protection

HARDI INTERNATIONAL A/S is an international group whose basic idea is to satisfy the user requirements for quality products ensuring efficient and responsible application of crop protection products.

With production and development at 5 locations throughout the world and a worldwide distribution and service network, we maintain our global dominance through continuous research and development and constant focus on quality and user needs.

MISSION

To promote efficient and responsible plant care in order to support quality plant growth and food production

HARDI® product development

Throughout the development of new HARDI® sprayers, all items are structurally analyzed utilizing state of the art engineering software. The 5 development centers throughout the world work closely together in order to meet local demands and profit globally from our local presence. All developments go through a thorough internal testing both on test tracks and actual in-field conditions.

HARDI® innovation

With our focus on research and development we have registered a large amount of significant patents. Being the trend-setter in the industry, we continue our dedicated research in application technology.

HARDI® quality

Investments in our state of the art production facilities are continuous, ensuring the ongoing optimization of production processes.



HARDI® produces 90% of all components in order to ensure quality and optimal performance.

HARDI® service and support

A key point in our distribution and sales support is a thorough and detailed training of dealer and service staff. We maintain a large number of training courses on our premises. We use the latest technology in the distribution of information like PC and Internet technologies. Because of our size and global presence with local distribution, spare parts and information can be provided anywhere in the world.

The North American distribution centers are large facilities with state of the art training rooms located in Davenport, IA, Fresno, CA and London, ON. All centers maintain an experienced staff, working together with our international network in order to support a vast network of first class company trained dealers.

HARDI®, INC.

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Davenport, Iowa



London, Ontario



Fresno, California



Høje Taastrup, Denmark



Nørre Alslev, Denmark

September 30, 2002



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