

The Spraying Evolution[®] OPTIMUS



CLICK & SPRAY



The Spraying Evolution The Diffusers



VARIABLE SPRAY ANGLE

Narrow angle spraying: to increase speed and distance of reach.

Wide angle spraying: to increase the air flow volume.

ENHANCED FLOW

Internal anti-turbulence blades for a uniform distribution of air inside the diffuser.

ADJUSTABLE DIRECTION

The diffusers are adjustable 15° up/down for an efficient airflow direction.

DUAL SPRAY TECHNIQUE

Hydropneumatic (nozzles) or Pneumatic (air lips) (Page 5).



Diffuser S 1 Nozzle



DIFFUSE MULTISPEED FLOW

Teethed flaps and outer perimeter to create turbulence and avoid caked leaves.

EASY CLEANING

Fully detachable to access all corners for cleaning.

SECTORISING

Internal rotating valve that enables to partially or totally close the airflow.



Diffuser M 1 Nozzle

The Spraying Evolution

The Diffusers



Air outlet, behind the nozzle, compensates forwards speed.



The air is the transport media that carries the droplets to the target's centre.



The airflow enters the outlet balanced and with no turbulence due to the anti-turbulence blades.



Firmly fitted into the polyethylene dropleg.



HYDROPNEUMATIC & PNEUMATIC DIFFUSORS



Easy adjustment of the air outlet. When there is a need to close the air stream. Loosen the bolt, and slide to the left.



Angling of the air stream. Pull gently the read cassette walls out, and with a finder adjust the angle up or down, accordingly to the job.

Provides a perfect shape adjustment; even for the most difficult shaped bush, vine, blackberry or raspberry tree, amongst others.

The OP35 dropleg allows multiple shape adjustments, thanks to its dented joints that allow several positions.



The Spraying Evolution

One Spray device for all

OP15 / OP35 / OP55

The OP15 as well as OP35 and OP 55 are same application technology in the entire Optimus application family.

It is based on same spraying device in hydro pneumatic as well as in pneumatic applications. The main difference between OP15, OP35 and OP55 is the air supply dropleg that drives the droplet to targeted plant.

OP15 1 air stream, straight dropleg, bumper for outlet protection.

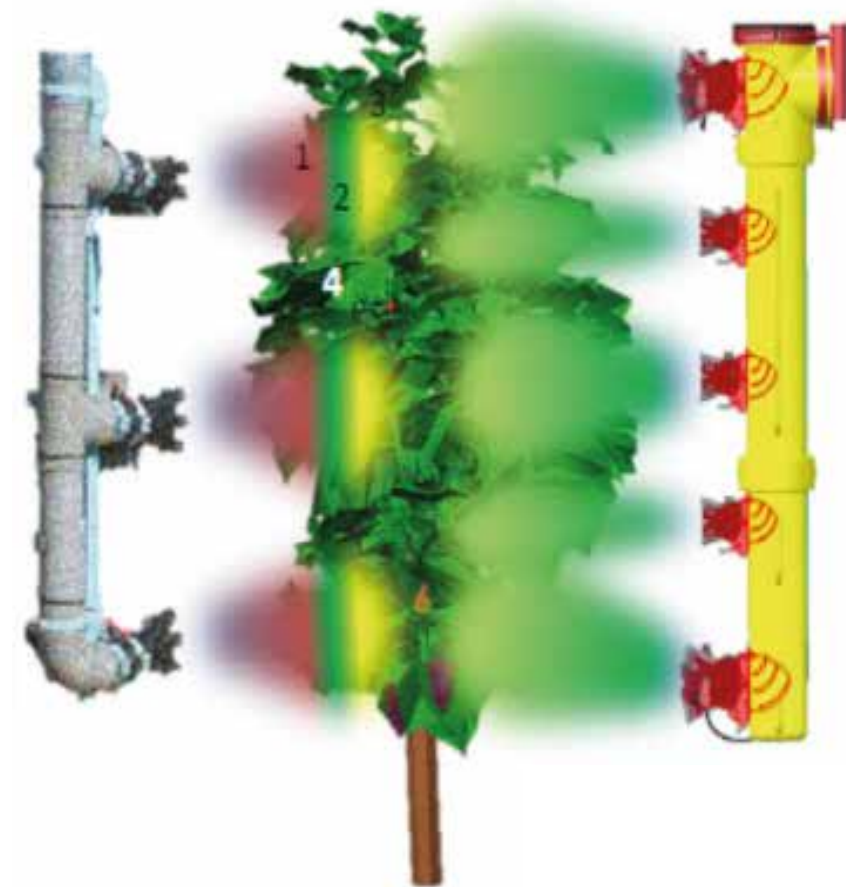
OP35 3 air streams, adjustable dropleg, outlet integrated on dropleg' shape.

OP55 5 air streams, with drift recovery system.



OPTIMUS 15 (SAVE 15%)

- Larger diameters
- More diffusers
- High flow
- Diffuse air flow
- Adjustable angle



1. Areas with overdose (50% more than the average)
2. Ideal deposition and penetration zone
3. Insufficient dose zone (50% lower than the average)
4. Zone without dose. Untreated streaks on vegetation

The Spraying Evolution **Fixed DROPLEGS**

OP 15 ON BOXER BOOM





OP 15 ON ATLAS BOOM



The Spraying Evolution

Modular DROPLEGS

OP 35

The system OP35 on a modular dropleg, with spraying device well protected behind the knock proof polyethylene wall.





Optimus 35 on Atlas boom.



Boxer boom



Atlas boom

- 1. PROJECTION diffusers outer face
- 2. Counter-Row diffusers (6 faces)
- 3. BOXER telescopic booms. Hydraulic adjustable for multi-row distance
- 4. ATLAS boom (side folded) designed for quick fold/unfold



Optimus 35 on Cronos rider boom.







OPTIMUS 35

- Projection Spray
- Boom ATLAS
- Transport position

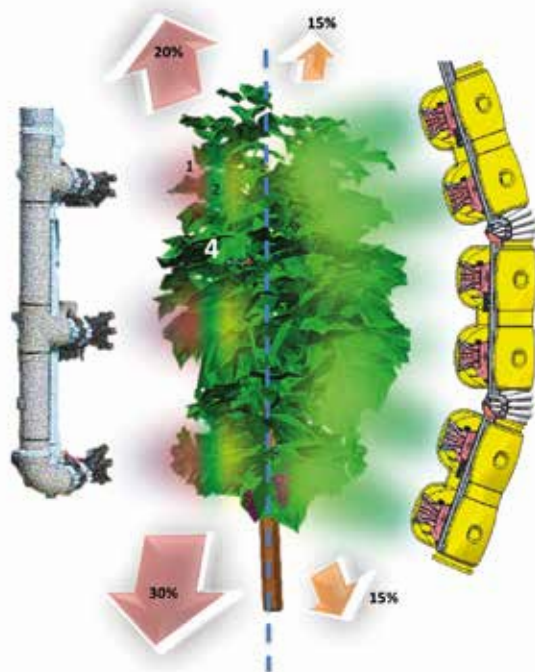




AIR DIFFUSERS



**OPTIMUS 35,
Night spraying**



OPTIMUS 35 (SAVE UP TO 35%)

- Recover up to 15% of drift towards the ground.
- Recover up to 5% of drift from the back reflux.
- Reduce the dose by 10% thanks to a better deposition on sensitive areas (centre of the plant, vegetation, clusters...).
- Adapt the geometry to the shape of the vegetation.

The Spraying Evolution The DROPLEGS

OP55 PANNELS · CRONOS DOUBLE VARIA BOOM

AIR FLOWS

- LEAVES' AGITATION
- SPRAYING
- RECOVERY OF SPRAY DRIFT

OPTIMUS 3 5 5 ADVANTAGES / 5 PROPERTIES

- AIR FLOW: Air hoses and connections with larger diameters
- PRECISION: More quantity of diffusers at droplegs
- MATERIALS: Polyethylene droplegs, polyurethane diffusers, fluid system with Push-In, no metal parts that can be oxidized
- ROBUST BOOMS
- OPTIMUS DIFFUSERS: Angle and depth adjustment by configurable flaps for optimal treatment, DIFFUSED FLOW, easy disassembly and repair, easy cleaning of interior parts, Independent FLUID and AIR locking for each diffuser.

35% OF POSSIBLE SAVINGS OF CHEMICAL PRODUCT

- Versus any machine from other manufacturers
- Versus any of our previous solutions

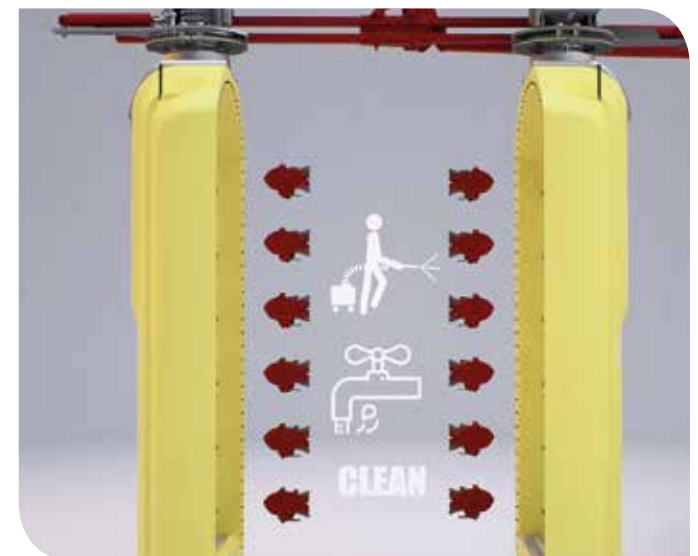




The recovering panels OP55 adjustable $\pm 15^\circ$.



The tunnels protect in windy conditions.



The modern design, with the daily use in mind. Easy to hose out.



Joan Esteve
Viticulture specialist, Master of Science,
Raimat Vinery, Codorníu Group, Spain.

This year we started to work with Optimus, It has been a very positive experience. The main reason is that we are able to recover 50 % of the product in the beginning of the season, then less and less accordingly to growth in vegetation, probably 20% in total of the season. The application is by far better than with a typical standard machine, best of all, we are able to treat in windy conditions that normally are after the rain, and the mildew pressure is much higher. The efficacy of the machine is much higher, and the coverage is much better, than with any other machine. It has been a very positive experience for us.

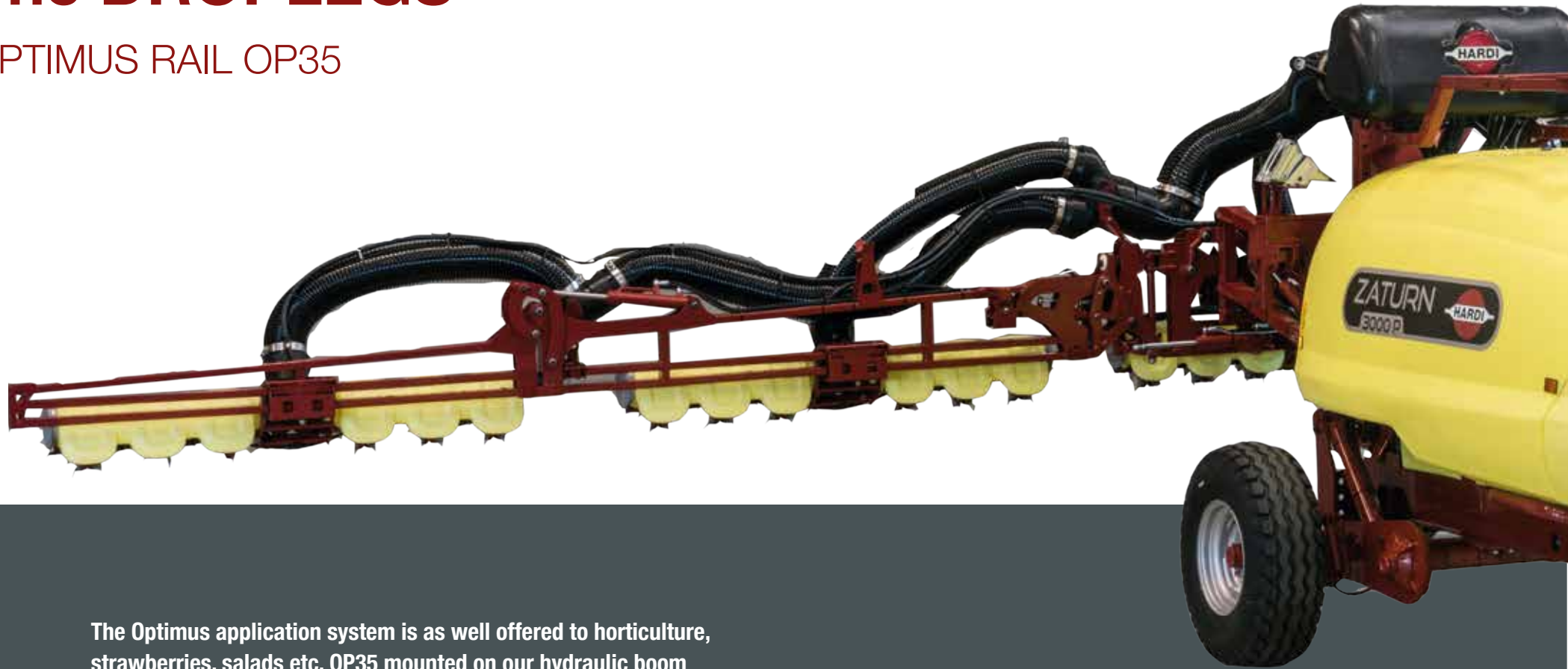




OPTIMUS

The Spraying Evolution
The DROPLEGS

OPTIMUS RAIL OP35



The Optimus application system is as well offered to horticulture, strawberries, salads etc. OP35 mounted on our hydraulic boom Cronos Rail is offered from 6m to 12m with several configuration options.



The OP35 spray spouts are adjustable in angling to the target, as well as vertically adjustable.





Nørre Alslev, Denmark



Lleida, Spain



Savigny, France



Noyers St Martin, France



Beaurainville, France



Davenport, USA



Adelaide, Australia

HARDI

The Sprayer

HARDI INTERNATIONAL A/S

is an international group whose basic idea is to satisfy the user's requirements for quality products which ensure efficient, punctual and precise application of crop protection products. Our world-wide distribution and sales network comprise of more than 100 countries where we are represented by importers, agents and sales subsidiaries. These are situated in Sweden, Norway, Denmark, the UK, France, Spain, North America, Germany, Australia, China and EMC – Russia & CIS countries.

Since 1957 HARDI has committed to the ever-increasing demands for efficient and precise plant protection. HARDI is the trendsetter within application of crop protection products. To achieve this position continued developments and innovation are essential. HARDI is committed to the long term future of plant protection.

Testing procedures

Sprayers leaving HARDI INTERNATIONAL A/S are tested according to the strictest quality standards.

Our staff responsible for final testing are accredited to test and document national approvals and standards from: Germany (BBA/JKI), UK (NSTS), China (CCC) and Denmark, where HARDI is approved to inspect sprayers.

This ensures that the highest quality sprayers are delivered to farmers.



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



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#HARDIsprayers

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