

# Professional weed control with efficient ULV technology



## **MANKAR**<sup>®</sup> advantages at a glance:

- ▶ "Ultra Low Volume" technology for minimal use of active agent
- ▶ Cost-effective and environmentally friendly with up to 50% product savings
- ▶ Optimal coverage and efficient utilisation of active ingredient
- ▶ Minimal risk of drift, optimal protection of cultivated plants
- ▶ Use of (undiluted) herbicides, mixtures, and bio-herbicides
- ▶ Time-saving and higher user-protection compared to traditional spraying
- ▶ Lightweight, reduced soil compaction, lower back strain
- ▶ Powered by rechargeable batteries or vehicle power supply
- ▶ Various models, optimally designed for a wide range of applications areas.





## MANKAR® ULV Spraying Systems

MANKAR® systems are professional spraying systems for effective, environmentally friendly, and cost-effective weed control using bio-herbicides, conventional herbicides, and herbicide mixtures.

All MANKAR spraying systems are based on the ULV technology ("Ultra Low Volume"). This method allows for working with much lower application rates in comparison to conventional spraying techniques. MANKAR atomisers can generate many small droplets of uniform size, which are tailored to the specific use case.

The range of MANKAR models offer a large choice of optimally adapted spraying systems for various application areas.



## MANKAR® CARRY

Handheld sprayers for maximum flexibility

**MANKAR-HQ** models are lightweight, ergonomic handheld sprayers, ideally suited for use in dense or irregularly planted cultivations, as an entry model or wherever the highest possible flexibility is require.

The application rate can be adjusted with a dosing valve and the nozzle is activated at the press of a button, ensuring application only where necessary. Spray widths are available from 12 to 45 cm and, on some models, can be adjusted by rotating the spray hood.



## MANKAR® ROLL

Wheelbarrow models for exact and distance-dependent spraying

**MANKAR-TWO** and **-ONE** models are pushed like a wheelbarrow, easy to move around and do not require a vehicle for operation. They are therefore ideal for smaller or remote and hard to reach areas.

A wheel-driven pump ensures precise, distance-dependent dosage independent of walking speed. Thanks to their low weight and robust wheel, uneven terrain, slopes, and gradients pose no problem. Spray widths vary from 25 to 110 cm, with or without extension arms.





## Application Areas

MANKAR® ULV spraying systems enable efficient, environmentally sound weed control in a variety of cultivations and other application areas, including but not limited to:

- ▶ Tree nurseries
- ▶ Forestry
- ▶ Ornamental plant cultivation
- ▶ Orchards and vineyards
- ▶ Vegetable cultivation
- ▶ Biomass plantations and solar installations
- ▶ Industrial facilities
- ▶ Lawn areas
- ▶ Combatting problem weeds and invasive species

## MANKAR® DRIVE

### Attachment sprayers for larger areas

The MANKAR-Drive systems can be mounted on or attached to a vehicle and are suitable for large-scale applications, such as in orchards and vineyards, as well as row crops. There are models for front and rear attachment and Drive-systems can be adapted to a wide range of vehicles for full-surface spraying or along and in between rows. The configuration of the spray hoods, spray- and working width can be adapted to the application area.

MANKAR-Drive models are divided into two series, mainly differing in the dosing method:



## MANKAR® DRIVE-E MODELS

Dosing in MANKAR-Drive-E models (Varimant or Unima-E) is done via an electric pump. This allows the spraying process to be selectively triggered over parts of the distance, for example when only certain sections of an area require treatment.

Drive-E models are suitable for both front and rear attachment and have a lower weight than Drive-P models. Standard systems come with working widths ranging from 50 cm to 3.5 m and manual width adjustment. Other working widths as well as electric or hydraulic width adjustments are also available.



## MANKAR® DRIVE-P MODELS

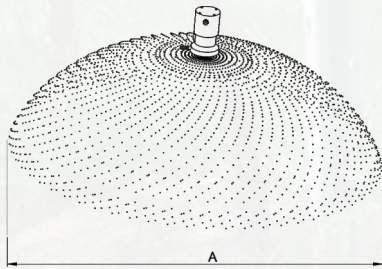
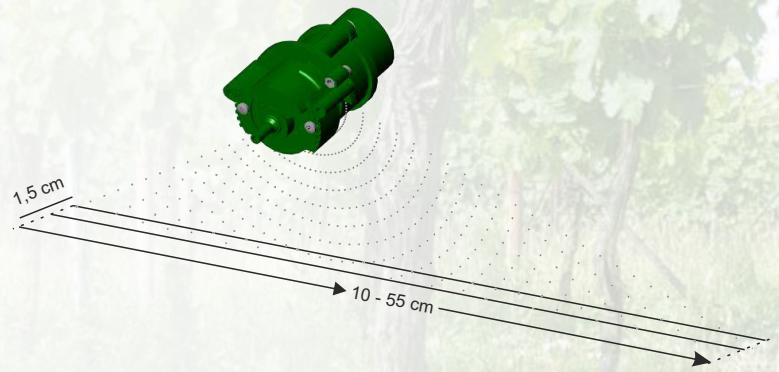
Instead of an electric pump, Drive-P models (Flexomant and Unima-P) have a pump that is driven by the rotation of the spraying system's wheel. It is thus dependent on the distance traveled. With each turning of the wheel, a defined amount of agent is applied. Thanks to this, the application rate per unit area (liters per hectare) can be kept constant.

The wheel with a coarse profile reduces slip on challenging terrains such as clayey soil, ensuring distance-dependent dosing even under very unfavourable conditions.



## ULV-Atomiser Technology

With MANKAR Technology, whether with a segment-rotation on rotation atomiser, undiluted herbicides, herbicide mixtures and bio-herbicides can be efficiently sprayed. The spray pattern generated by the atomiser consists of small, uniform droplets that are sprayed without pressure. The optimal droplet spectrum and uniform distribution result in even and optimal coverage with minimal product.



Depending on the application area, the spray width can be adjusted, and the spraying systems can be equipped with one or more atomisers to precisely match the desired working width.

Depending on the model, dosing is done via a dosing valve, an electric pump, or a special wheel-driven pump that allows distance-dependent dosing. All devices can be equipped with electronic atomiser and battery monitoring.

## Innovative flex spray hoods

Ideal for weed control within and along rows, MANKAR-Roll and Drive systems are equipped with specially designed flex spray hoods that fold back upon contact with crops or stationary objects. Flex spray hoods are available in various widths (25, 40, or 55 cm) and the spring strength of the folding mechanism is adjustable.

## Professional Spraying Technology by MANTIS ULV®

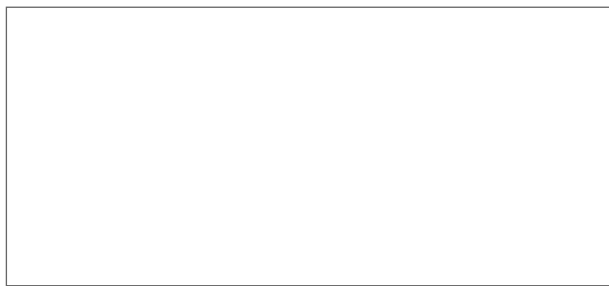
With over 40 years' experience in the development, production, and sales of professional spraying systems for a variety of application areas and industries, Mantis offers high quality sprayers for the most efficient and user-friendly application of liquid preparations.

In addition to devices for weed control, Mantis also offers MAFEX® ULV spraying systems for crop protection (e.g. for potatoes, fruit and silage), ROFA spraying devices for insect control and disinfection, as well as various MANTIS ULV® spraying systems and components for the health sector and other industries like pre-fab concrete or food processing.

As a specialist in professional weed control, Mantis provides spraying systems for herbicides, bio-herbicides, and hot water.



Please visit our website [www.mantis-ulv.com](http://www.mantis-ulv.com) for more information on the latest products and developments.



**We can help you find the right solution!**



June 2023 - Technical changes reserved.



# Weed control with hot water



## BioMant advantages at a glance:

- Chemical-free and allowed everywhere where the use of herbicides is not desired
- More effective and cost-efficient than other non-chemical methods
- Particularly quiet and environmentally friendly heating and propulsion technology with minimal air pollution
- Optimal working speed thanks to high water flow rate
- No risk of fire or mechanical damage to treated surfaces
- Various adaptation and expansion possibilities thanks to modularity
- Optimally designed accessories
- Multi-functional systems: weed control, treatment of moss and algae, disinfection, watering and high-pressure cleaning\* in one device (\*depending on model).





## Chemical-free weed control with hot water

Under the name BioMant = Bio + Mant(is), Mantis offers spraying systems for chemical-free weed control.

Wherever the use of herbicides is not permitted or not desired, thermal weed control with hot water offers an effective and economical solution for environmentally friendly weed management. Using highly efficient technology, BioMant machines destroy the cell structure of the plant with 99 °C hot water thus causing the upper part to wilt. After multiple treatments the plant grows so weak that it dies off completely.

The BioMant product range includes a variety of machines to provide you with the best possible solution for your weed management requirements.



## BioMant-Mini

The smallest and most affordable model, the BioMant-Mini, is ideally suited for use in small, difficult-to-access areas where water and electricity are available on-site.

It's small, agile and very light at only 98 kg but still has a water flow rate of 8L/min. This makes it particularly interesting for landscaping companies and caretakers who maintain small areas around residential and company buildings. The BioMant-Mini can be combined with a spray cart for increased working speeds.



## BioMant-Compact

Due to the compact design and innovative additional modules, the versatile BioMant-Compact machines can be optimally adapted for use in gardens and on small surfaces as well as for the treatment of larger areas. The high water-flow rate of 9L/min ensures a high working speed.

Two models are available:

- **BioMant-Compact EL** with an electric pump that requires a 230-volt power supply
- **BioMant-Compact BE** with an integrated petrol engine to drive the pump.

Both models are self-priming and can be used as a self-sufficient unit with or without a tank module specially adapted for the BioMant-Compact.

A 3-point hitch for easy front or rear attachment to a vehicle as well as a stable, easily steerable wheeled chassi for mobile use are available as optional modules. The BioMant-Compact machines can also be equipped with a SKID for easy transport and installation on trailers and vehicle loading platforms.





## Areas of application

BioMant is the most effective method of weed control wherever the use of herbicides is not permitted or desired. It enables chemical-free weed management in areas such as:

- Municipal areas
- Industrial plants
- Gardening and landscaping
- Playgrounds and schoolyards
- Sports facilities and tracks
- Cemeteries
- Residential or commercial properties
- Traffic and retail areas
- Container cultures
- Organic cultivations in horticulture
- Row crops
- Combating invasive exotics
- Oak processionary moth control
- as well as many other areas
- BioMant devices can also be used for other applications such as disinfection, cleaning, watering and treating moss and algae.

### BioMant-Flex



### BioMant-ONE



The BioMant-Flex and the BioMant-ONE-LPG models are ideal for use on large surfaces. They are designed as a location-independent system with self-sufficient water supply and, thanks to their optimised modular design, offer a wide range of installation options on tool carriers, electric vehicles, tractors, trailers, pick-up and other vehicles. All models are available with different attachment spray hoods (fixed or flex spray hoods) and extension arms.

The Flex and the ONE score with an integrated battery pack for significantly less noise pollution but can also be powered via the vehicle hydraulics or via a separate hydraulic or fuel-powered power unit.

The high water-flow rate (15L/min) enables an optimal working speed. Instead of a diesel burner, an environmentally friendly gas burner is also available for these models for up to 70% less CO<sub>2</sub> and almost no soot emission.





### BioMant Accessories

A wide variety of accessories and specially adapted add-on modules are available for the BioMant machines. The range includes various lances for weed control and high-pressure cleaning, as well as spray trolleys, dirt busters and surface cleaners, hose reels, spray bars (incl. hydraulic or with flex spray hoods), wheels, electric trolley and various tank modules and much more.



Please check our website for more information.



### Professional spraying technology from MANTIS ULV®

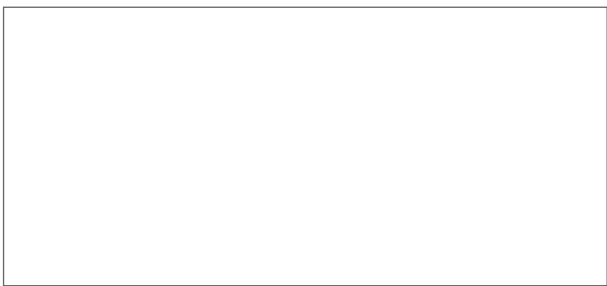
With over 40 years' experience in the development, production and sales of professional spraying systems for a variety of application areas and industries, Mantis offers high quality sprayers for the most efficient and user-friendly application of liquid preparations.

Beyond weed control, Mantis also offers MAFEX® spraying systems for crop protection (e. g. potatoes, fruit and silage), ROFA sprayers for insect control and disinfection, as well as a variety of BEMA® and MANTIS ULV® spraying systems and components for the health sector and other industries like pre-fab concrete or food processing.

As the specialist in professional weed control, Mantis offers spraying solutions for herbicides, bio-herbicides and hot water.



Please visit our website [www.mantis-ulv.com](http://www.mantis-ulv.com) for more information on the latest products and developments.



We can help you find the right solution!



January 2023 · Technical changes reserved.