

US-VERSION

# MANKAR®

BEST AVAILABLE TECHNOLOGY

## MANKAR® ULV Spraying Systems

Maximum efficiency for professional herbicide treatments

MADE IN  
GERMANY

- Patented technology
- Undiluted herbicide, pressureless application
- Extremely low herbicide dosage, minimal risk of drift – for low environmental impact
- High user-comfort
- Low noise
- Wide range of models and spray widths
- Battery-powered



Our products are specially designed for herbicide application. Suitable for use with glyphosate-based products such as ROUNDUP®.

Maximum efficiency for professional herbicide treatments

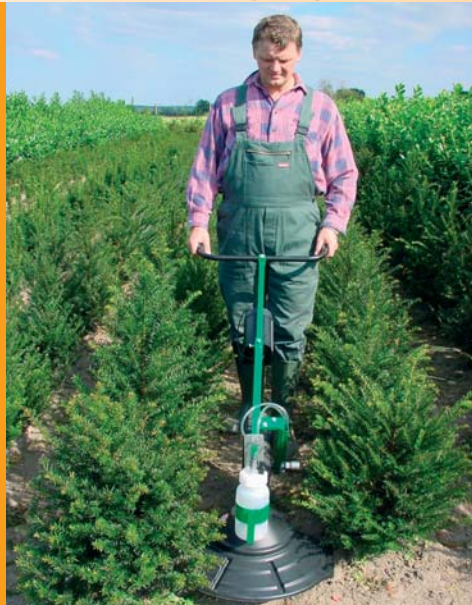
## Areas of application

### 1.) Nursery gardens, garden centres, tree nurseries,

e.g. Christmas tree and forestry cultivation, trees, shrubs, plants

### 2.) Agriculture, landscape gardening, viticulture, forestry,

e.g. potatoes, strawberries, control of Prunus padus (bird cherry)



## MANKAR® ULV Spraying Systems Main benefits

- **Patented technology**  
**MANKAR® spares resources.** Good for the environment, good for your finances. Only 0.1-0.2 gallon of herbicide needed pro acre, thanks to the special ULV (Ultra-Low Volume) technology and patented segment rotation nozzles. Conventional systems, e.g. knapsack sprayers, use many times more herbicide for the same area.
- **Undiluted\* herbicide application**  
**MANKAR® saves time.** No unnecessary work. You can start work straight away, without needing to add water, since in most cases herbicides can be used undiluted. Also eliminates or reduces time-consuming interruptions for re-filling.
- **Pressureless application.**  
**MANKAR® sprays precisely** where you want it to, nowhere else. Thanks to pressureless application at 90° to the ground and the completely closed spraying screen, drift or mist formation of herbicide is reduced to a minimum.
- **High user-comfort**  
**MANKAR® is easy to use.** Available as light-weight portable models weighing as little as 6.3 lbs the MANKAR® range makes light work of herbicide application. The ergonomic design reduces stress to the user's back and body. In comparison, a knapsack sprayer weighs a ponderous 44 lbs!
- **Low-noise operation**  
**MANKAR®, the quiet alternative.** Kind to the environment, and people's nerves, thanks to low-noise operation.
- **Wide range of models and spray widths**  
**MANKAR® for flexibility.** Our huge choice of models and spray widths ensures you'll find the ideal solution for your needs.
- **Battery-powered**  
**MANKAR® comes with rechargeable batteries.** No more tangled cables. All electric models have rechargeable batteries. Depending on the model, charged batteries provide 8 or 16 hours of working time.

\*To find out where to use this technology, ask your local Crop Protection Office.



### 3.) Local authorities

(depending on specifications),  
e.g. streets, cemeteries,  
sports facilities, parks

### 4.) Gardening and landscape gardening,

e.g. maintenance of green areas:  
roadsides, local authority facilities,  
business parks, sports grounds,  
private gardens, air- and seaports,  
hospitals, universities, exhibition  
centres

### 5.) Leisure,

e.g. camping sites, bungalow parks,  
golf courses, sports grounds, zoos,  
theme parks

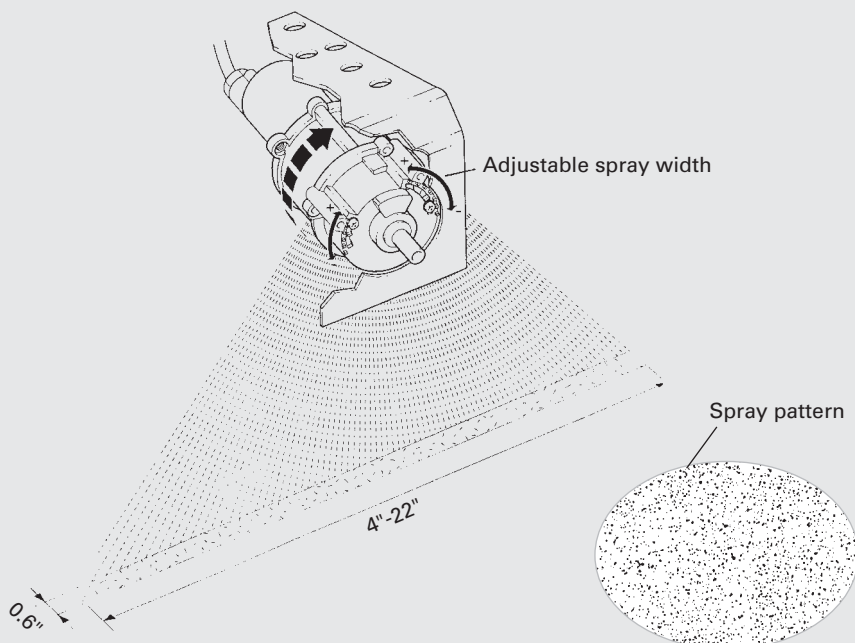


## The segment rotation nozzle – the patented Mantis system

Specially developed by Mantis, segment rotation nozzles make for easier, more effective spraying. All MANKAR® ULV Spraying Systems are equipped with this patented nozzle.



US-Pat. 5,788,156  
EU-Pat. EP 0 776 252 B1



**Segment rotation – how it works**  
Thanks to the highly uniform droplet size, small amounts of herbicide suffice for effective weed control. Droplets are dispensed downwards only. As a result, the spraying cover is relatively small, yet still effectively eliminates herbicide drift. The spraying width can be adjusted to any setting between 4" and 22", enabling you to take different plants and crops in your stride.



Model: MINI-MANTRA

**MICRO-MANTRA (MC 10)**

Spray width:	8"
No. of nozzles:	1
Tank capacity /	0.132 gallon /
Area covered:	c. 0.6–1.2 acres
Weight:	6.3 lbs
Working time*:	16 hrs

**MINI-MANTRA (MC 20)**

Spray width:	4"–12" (twist spray cover to set at any width within range)
No. of nozzles:	1
Tank capacity /	0.132 gallon /
Area covered:	c. 0.6–1.2 acres
Weight:	6.3 lbs
Working time*:	16 hrs

**MINI-MANTRA PLUS (MC 30)**

Spray width:	6"–18" (twist spray cover to set at any width within range)
No. of nozzles:	1
Tank capacity /	0.132 gallon /
Area covered:	c. 0.6–1.2 acres
Weight:	6.3 lbs
Working time*:	16 hrs

**MANTRA (MC 40)**

Spray width:	20", alternative 12"
No. of nozzles:	1
Tank capacity /	0.264 gallon /
Area covered:	c. 1.2–2.4 acres
Weight:	13.9 lbs
Working time*:	16 hrs

\*Per battery charge



Model: MANTRA





**MANKAR-P (MR 10)**

Spray width:	20", alternative 12"
No. of nozzles:	1
Tank capacity /	0.264 gallon /
Area covered:	c. 1.2–2.4 acres
Weight:	26.4 lbs
Working time*:	16 hrs



**MANKAR-L (MR 20L)**

Spray width:	20"–12"
No. of nozzles:	1
Tank capacity /	0.264 gallon /
Area covered:	c. 1.2–2.4 acres
Weight:	30.8 lbs
Working time*:	16 hrs



Model: MANKAR-L  
(spray cover left; optionally on right)



**MANKAR-110 P (MR 30)**

Spray width:	28"–44"
No. of nozzles:	2
Tank capacity /	0.264 gallon /
Area covered:	c. 1.2–2.4 acres
Weight:	35.2 lbs
Working time*:	8 hrs



Model: MANKAR-110P



**MANKAR 110 SELECT-EL (MR 40)**

Spray width:	28"–44"
No. of nozzles:	2
Tank capacity /	0.264 gallon /
Area covered:	c. 1.2–2.4 acres
Weight:	40.8 lbs
Working time*:	8 hrs

On/Off switch on handle bar for operation options



**MANKAR-110 GP (MR 50)**

Spray width:	28"–44"
No. of nozzles:	2
Tank capacity /	0.264 gallon /
Area covered:	c. 1.2–2.4 acres
Weight:	42.9 lbs
Working time*:	8 hrs

\*Per battery charge

## Rear-mounted models

(pump driven by wheel; road-speed independent)



Model: FLEXOMANT-2

### FLEXOMANT-1 (MDB 10)

Spray width:	1 x 16"
No. of nozzles:	1
Tank capacity /	1,584 gallon /
Area covered:	c. 7.4–14.8 acres
Weight:	110 lbs
Working time:	DC-DC transducer / ∞
Width, extended:	28"–72"

### FLEXOMANT-2 (MDB 20)

Spray width:	2 x 16"
No. of nozzles:	2
Tank capacity /	2 x 1,584 gallon /
Area covered:	c. 14.8–29.6 acres
Weight:	156 lbs
Working time:	DC-DC transducer / ∞
Width, extended:	56"–144"

### FLEXOMANT-3 (MDB 30)

Spray width:	2 x 16" + 1 x 20"
No. of nozzles:	3
Tank capacity /	2 x 1,584 gallon /
Area covered:	c. 14.8–29.6 acres
Weight:	167 lbs
Working time:	DC-DC transducer / ∞
Width, extended:	52"

### FLEXOMANT-4 (MDB 40)

Spray width:	2 x 16" + 1 x 28"–44"
No. of nozzles:	4
Tank capacity /	2 x 1,584 gallon /
Area covered:	c. 14.8–29.6 acres
Weight:	178 lbs
Working time:	DC-DC transducer / ∞
Width, extended:	60"–76"

### FLEXOMANT-4 PLUS (MDB 50)

Spray width:	2 x 20"–36"
No. of nozzles:	4
Tank capacity /	2 x 1,584 gallon /
Area covered:	c. 14.8–29.6 acres
Weight:	174 lbs
Working time:	DC-DC transducer / ∞
Width, extended:	40"–72"



Model: FLEXOMANT-4

## Trailer models



Model: TRAMUS

### TRAMA (MDB 60)

Spray width:	28"–44"
No. of nozzles:	2
Tank capacity /	1,584 gallon /
Area covered:	c. 7.4–14.8 acres
Weight:	57 lbs
Working time:	DC-DC transducer / ∞

### TRAMUS (MDB 70)

Spray width:	28"–44"
No. of nozzles:	2
Tank capacity /	1,584 gallon /
Area covered:	c. 7.4–14.8 acres
Weight:	55 lbs
Working time:	DC-DC transducer / ∞





## Front- and rear-mounted models

(pump driven by electric motor; road-speed related)



### VARIMANT-1 (MDFB 10)

Spray width*:	1 x 14.4" / 16"
No. of nozzles:	1
Tank capacity /	1.584 gallon /
Area covered:	c. 7.4–14.8 acres
Weight:	75 lbs
Working time:	DC-DC transducer / ∞
Width, extended**:	22"–32"



### VARIMANT-2 (MDFB 20)

Spray width*:	2 x 14.4" / 16"
No. of nozzles:	2
Tank capacity /	1.584 gallon /
Area covered:	c. 7.4–14.8 acres
Weight:	75 lbs
Working time:	DC-DC transducer / ∞
Width, extended**:	44"–64" / 44"–88"



Model: VARIMANT-2



Easy to operate /  
fold-up mechanism

### VARIMANT-4 PLUS (MDFB 40)

Spray width*:	2 x 20"–34"
No. of nozzles:	4
Tank capacity /	2 x 1.584 gallon /
Area covered:	c. 14.8–29.6 acres
Weight:	121 lbs
Working time:	DC-DC transducer / ∞
Width, extended**:	44"–64" / 44"–88"



Model: VARIMANT-2 with quad



\*14,4" synthetic spraying cover,  
16" steel spraying cover  
\*\*Other widths available on request

## Contact

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## What the professionals say:

### Statement of a customer from Germany:

"We used the MANKAR-P in 1994 on more than 100 acres of Christmas trees and 7.5 acres of asparagus, achieving excellent results with as little as 0.1 gallon ROUNDUP® per acre. The MANKAR-P is easy to handle and operates perfectly even on rough ground. In short: with this product, you'll have a solution that in my view enables effective weed control even during the growing season."

*Bernd Oelkers, Wenzendorf (Germany)*

### Statement of a customer from the Netherlands:

"Elburg's Parks and Gardens Department has been using MANKAR® ULV Spraying Systems for ten years. We are very pleased. Our first device, a MINI-MANTRA, was purchased in 1996. I had seen it at a trade fair and was immediately convinced. Incidentally, that machine still has the original battery and motor! Later, for larger areas, we also bought a MANKAR-110 P. The machines are used for weed control in cemeteries and on pathways, and also for areas that are difficult to access with heavy equipment. We use them not only in Elburg itself, but also in 't Harde, Doornspijk and Hoge Enk. Our staff like using the MANKAR® machines because they operate without water and are therefore easy to handle. They make the job really easy. With our two spraying machines we can manage everything with ease, and so are not planning to buy other equipment for the time being ..."

*F. v. d. Akker, Elburg (the Netherlands)*

### Statement of a customer from Italy:

"We are very satisfied with the innovative MINI-MANTRA PLUS and MANKAR-110 GP. We use them in our nursery and have found them to be very successful. The special spray system of the MANKAR® ULV guarantees a constant dose rate irrespective of forward speed. The MANKAR® system saves us a lot of money."

*Giuseppe Lucato, Nursery Lucato Giuseppe, Piombino Dese, Padua (Italy)*

## MANKAR® reference list available on request!



### Special products

MANKAR® ULV Spraying Systems are also available in customised versions, e.g. for mounting on specialist vehicles.

#### Other specialist fine spraying devices:

- **MAFEX for optimum harvest protection.** Can be used, for example, to inhibit rotting of fruit and potatoes in storage
- **ROFA for effective control of flying and creeping insects and air-borne germs**



Important: Chemicals should always be used according to the manufacturer's instructions on use, fields of application and safety. MANKAR® is no exception to this rule. Mantis ULV-Sprühgeräte GmbH cannot accept liability for any misuse of chemicals used in MANKAR® products.

Technical details and errors subject to change without notice.