



## TREE NURSERY EQUIPMENT

1.11

### SPRAYER FOR TREE NURSERIES OS-1

#### OS-1 Sprayer



CDA sprayers' elements have been applied in the **OS-1 sprayer** (spinning disc atomisers) – well known to Polish foresters thanks to Herbaflex devices – “chemical scythes” used for many years in Poland, as well as thanks to aviation atomisers used to fight down black arches.

**OS-1 sprayer** (working in CDA technology – controlled droplet application) designed to work in arboretums is a tractor mounted sprayer based on Micron Electafan heads. The device is equipped in six spraying units mounted on a self-leveling bar which enables simultaneous spraying of 3 lines in a nursery. The main bar can be set on various heights depending on the requirements. Working direction and angle of the sprayers are fully adjustable. A liquid is dosed from a 300 or 100 litre container. Each of the spraying modules is connected to a separate on/off switch and a valve supplying the liquid. The main flow valve enables liquid mixing and adjusting the amount supplied to the spraying units.



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#### TECHNICAL PARAMETERS

Parameter	Value
Type	Mounted a on tractor's three-point hitch
Transport width	2200 mm
Working width	5500 mm
Height	2200 mm
Spraying modules number	6 pcs
Own weight	350 kg
Weight with working liquid	550 kg
Minimum required tractor power	50 HP
Container capacity	200 l
Container for hand-washing liquid	7 l
Recommended working speed	from 3 to 5 km/h
Handling staff	1 – tractor operator



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Controlling the work of individual units (as well as folding and unfolding the arms) is performed from tractor's cabin without leaving the cabin.

#### CAUTION

1. When aggregating with a tractor particular attention should be paid to a proper attachment of hydraulic cables, especially of the quick couplers. Blocking any of the quick couplers will result in damaging the hydraulic motor powering the alternator of the power supply.
2. The sprayer is assembled in two production versions:
  - with an electric power supply (OS-1/a) powered by tractor's hydraulic system. Hydraulic oil flow of 25-30 l/min is enough to power the alternator at a pressure of 20-30 bars (0,2-0,3 MPa).
  - Without electric power supply (OS-1 simplified version) where electric power is taken from the tractor's electric system. It is required to assemble an additional socket providing electric current of up to 80A 12V.

Spraying system:		
- heads with atomisers	pcs	6
- head rpm	rpm	8000
- voltage	V	12 V DC
- head engine power	W	120
- average liquid flow from head	ml/min	ok. 170
- vertical adjustment range	°	without limits (usable 180°)
- horizontal adjustment range	°	180° (usable 90° - towards the rear end from the vertical axis)
Working speed range	km/h	3÷10
Transport speed	km/h	up to 15
Operating staff required	people	1 person
Hydraulic system:		
- recommended pressure	MPa	
- recommended flow	dm <sup>3</sup> /min	
Required tractor's class	kN	min. 0,6