NEW

EVEN FLAT FAN NOZZLE ARE 30

AGRICULTURE

- Extremely low-drift flat spray nozzle with pre-atomizer

Advantages
- Non-venturi nozzle
- Extremely high drift reduction potential
  – Rectangular distribution
- Narrow spray angle of 30°
  – Band widths from 5–30 cm
  – Compact design
- Robust housing: nozzle tip protected against damage
- Pre-atomizer can be removed without tools
- Suitable for PWM

Series ARE 30

Ø 15
2
5.2
23.7
Ø 11.6
Ø 12.5

ARE
Antidrift Row Evenspray

MENTION 2024
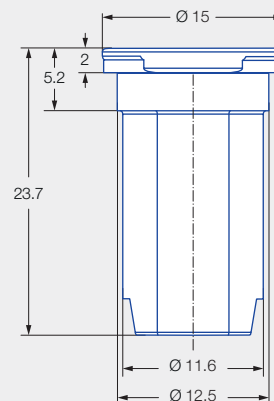
Application:

Band spraying

Knapsack sprayer

Technical data:

Nozzle sizes 0067–03	**Spray angle** 30°	**Materials** POM	**Pressure ranges** 1.5–6 bar
Recommended strainers • 80 M 0067–01 • 60 M 02–03	**Droplet sizes** Medium-extremely coarse	**Width across flats** 10 mm	**Spray pattern** Flat spray with even distribution

FLOW RATE AND CALCULATION EXAMPLE

Selecting the right nozzle size
for band spraying

		Pressure (bar)	Flow rate [l/min]
ARE 30-0067 (80 M)	80 M	1.5	0.19
		2	0.22
		3	0.27
		4	0.31
		5	0.35
		6	0.38
ARE 30-01 (80 M)	80 M	1.5	0.28
		2	0.32
		3	0.39
		4	0.45
		5	0.51
		6	0.55
ARE 30-015 (60 M)	60 M	1.5	0.42
		2	0.48
		3	0.59
		4	0.68
		5	0.76
		6	0.83
ARE 30-02 (60 M)	60 M	1.5	0.56
		2	0.65
		3	0.80
		4	0.92
		5	1.03
		6	1.13
ARE 30-025 (60 M)	60 M	1.5	0.70
		2	0.81
		3	0.99
		4	1.15
		5	1.28
		6	1.40
ARE 30-03 (60 M)	60 M	1.5	0.84
		2	0.97
		3	1.19
		4	1.37
		5	1.53
		6	1.68

Band width [B] at spray height [H]

Band width B [cm]	Spray height H [cm]
5	10
10	20
15	28
20	38
25	47
30	55

Application parameters for band spraying and nozzle size determination
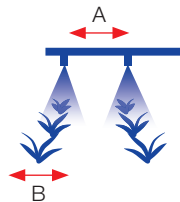
Band width B [m]
**Lateral nozzle spacing
or row spacing A** [m]
Sprayer speed v_F [km/h]

Sugar beet, row spacing 45 cm
Sprayer speed 8 km/h
Total area requirement 200 l/ha
Band width 15 cm

$$\frac{B}{A} \times 100 =$$ treated (sprayed) area as a percentage share of total gross covered area

Percentage of the treated area per hectare:

$$= \frac{0.15}{0.45} \times 100 = 33\,\%$$

> 33 % von 200 l/ha = 66 l/ha

Flow rate/nozzle $\dot{V}$ [l/min]

$$\dot{V} = \frac{1}{600} \times M \times A \times v_F$$

$$\dot{V} = \frac{1}{600} \times 66 \times 0.45 \times 8$$

$$\dot{V} = 0.39 \text{ l/min}$$

> ARE 30-01 at 3 bar