ENGINEERING
YOUR SPRAY SOLUTION

NEW

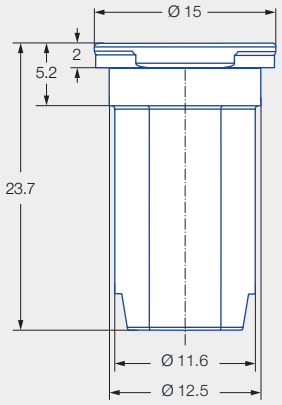
EVEN FLAT FAN NOZZLE ARE 30

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

ARE
Antidrift Row Evenspray

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 015–03

Droplet sizes
Medium-extremely coarse

Width across flats
10 mm

Spray pattern
Flat spray with even distribution

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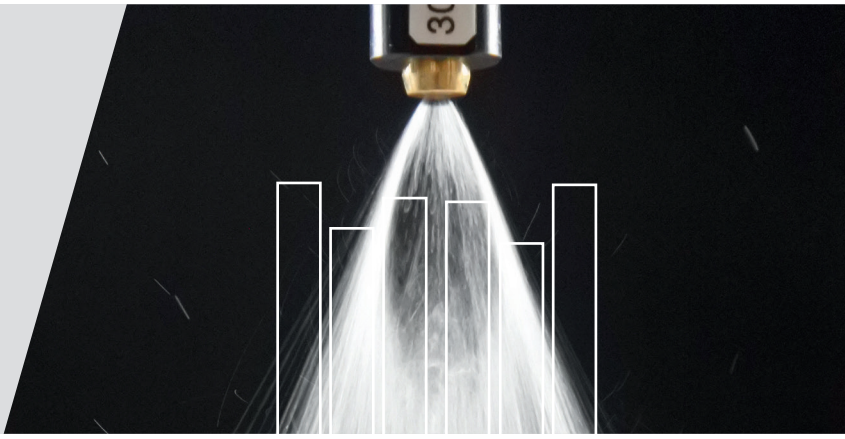
FLOW RATE AND CALCULATION EXAMPLE

Selecting the right nozzle size
for band spraying

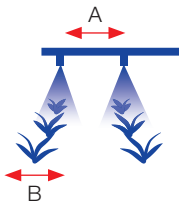


		Pressure (bar)	Flow rate [l/min]
ARE 30-0067 (80 M)	80 M	1.5	0.19
		2	0.22
		3	0.27
		4	0.31
		5	0.35
		6	0.38
ARE 30-01 (80 M)	80 M	1.5	0.28
		2	0.32
		3	0.39
		4	0.45
		5	0.51
		6	0.55
ARE 30-015 (60 M)	60 M	1.5	0.42
		2	0.48
		3	0.59
		4	0.68
		5	0.76
		6	0.83
ARE 30-02 (60 M)	60 M	1.5	0.56
		2	0.65
		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

$\frac{B}{A}$ **x 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 V [l/min]

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

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

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

> ARE 30-01 at 3 bar

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