ENGINEERING
YOUR SPRAY SOLUTION

Agricultural Spray Nozzles and Accessories

Catalogue L 2020









Agriculture

LECHLER AGRICULTURAL SPRAY NOZZLES – GOOD FOR YOUR CROP, GOOD FOR THE ENVIRONMENT

Lechler is a world leader in nozzle technology. For over 140 years, we have pioneered numerous groundbreaking developments in the field of nozzle technology. Comprehensive nozzle engineering know-how is combined with a deep understanding of application-specific requirements to create products that offer outstanding precision, reliability and durability.

Modern plant protection involves more than just the use of environmentally friendly chemicals. It is above all a question of precision. In order to achieve uniform coverage, the droplets must reach the target as exactly as possible. Losses due to drift, run-off or evaporation should be avoided – in favour of the environmental protection.

The application technology and here particularly the plant protection nozzles must therefore meet very high requirements. Today, nozzles must offer a degree of precision that would have been considered impossible just a few years ago.

As a globally leading manufacturer of precision nozzles, Lechler is ideally prepared to meet this challenge. For decades now, our products have set the technological standards in the fields of crop protection and liquid fertilizer application. Through regular and extensive investment in research and development, we ensure that this will also remain the case in the future. The functions and characteristics of our precision nozzles are defined exactly and objectively right from the start. This process is based on sophisticated measuring techniques and our proven documentation system.

State-of-the-art design and simulation techniques guarantee practically-oriented products with a high practical value.

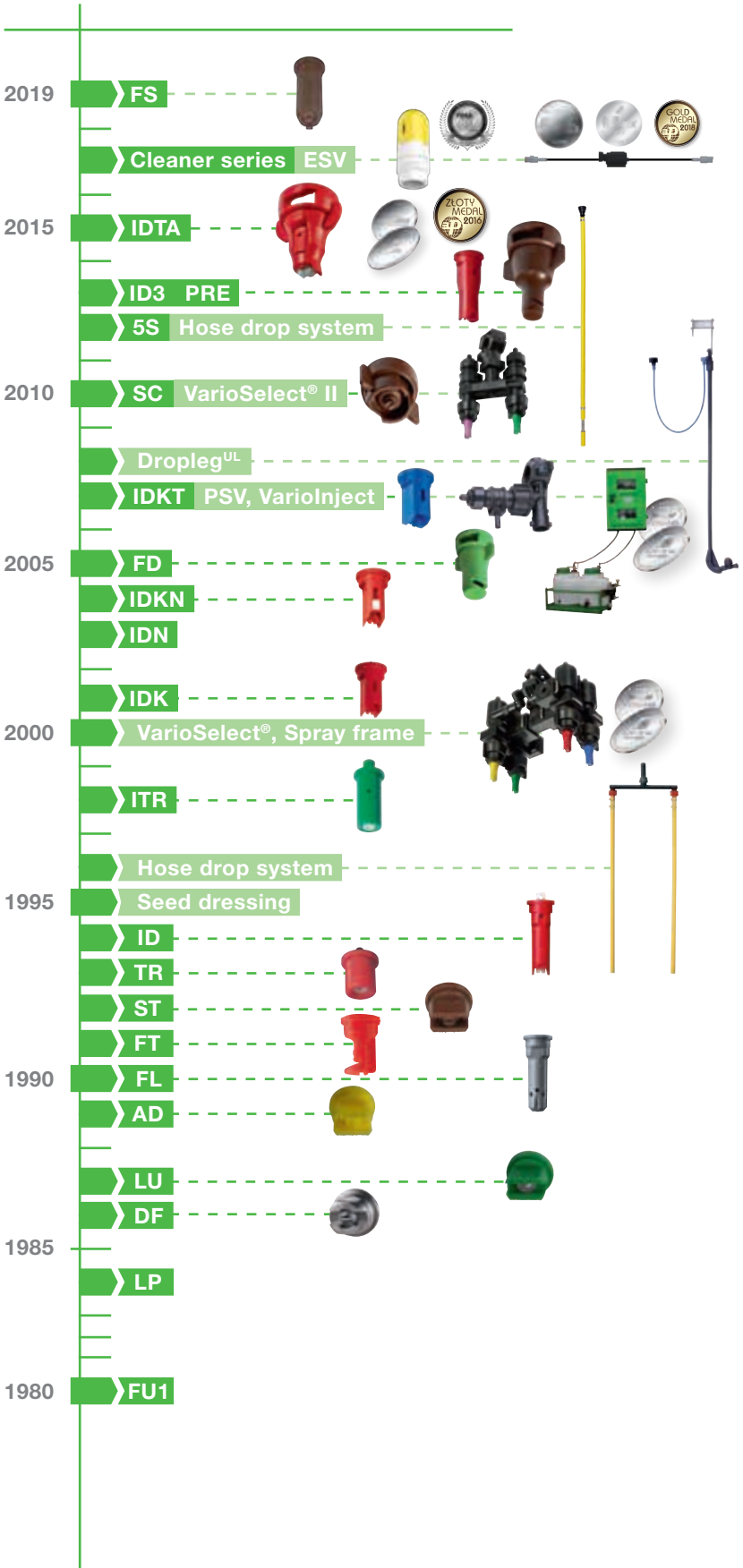
With Lechler nozzles, one spray jet is the same as the next. This demands a high level of precision and care in production. Our processes are therefore subject to permanent quality control measures, from the incoming goods department, through development and production right up to dispatch. Our quality management system is based primarily on the requirements of our customers and is certified in accordance with ISO 9001:2015. Lechler nozzles comply with the requirements of the Julius Kühn Institute, the German Plant Protection Act as well as European EN and international ISO standards.

Thanks to close cooperation and active exchange of information with official test institutes, the chemicals and liquid fertilizer industry, the equipment manufacturers and last but not least agricultural consultants, we also ensure that we are fully up-to-date on current practical requirements. After all, one thing is certain: solutions for practical applications can only be developed from practical knowledge.

This catalog contains our comprehensive Lechler agricultural spray nozzle and accessory range so see for yourself our product range.

PROGRESS MEANS FURTHER DEVELOPMENT

Therefore success is not a final state for us, but simply a further step on the way to even greater perfection.



THE RIGHT NOZZLE FOR EVERY APPLICATION

Crop production

Ground care

Container and tank cleaning

Product information

Accessories

Field crops
– Plant protection
– Liquid fertilizer

Wine and orchard
– Plant protection

Horticulture
– Plant protection
– Liquid fertilizer
– Irrigation

Golf courses/ sports grounds
– Plant protection
– Liquid fertilizer
– Irrigation

Traffic areas/ airports
– De-icing
– Dust suppression

Riding arena floors
– Sprinkling

Cleaning

Mixing

Rinsing

The right nozzle for every application – quick and easy.

The optimal accessory for greater efficiency in agriculture.

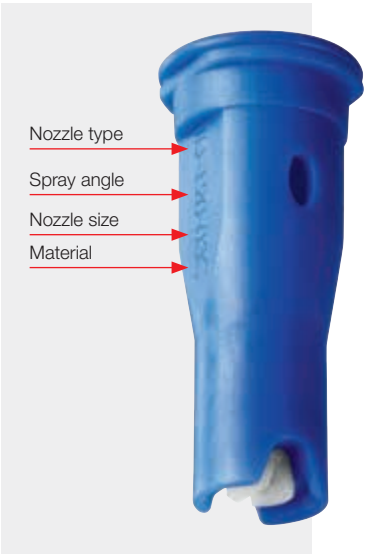
SPRAY NOZZLE TECHNOLOGY

① Identification of Lechler nozzles and filters

The performance data of Lechler nozzles is specified in accordance with international standards and contains the following information:

- Nozzle type
- Spray angle
- Nozzle size
- Material

Lechler nozzles are color-coded in accordance with ISO 10625. Each nozzle corresponds to a defined volume flow. This information is also contained in the nozzle size, e.g. -03 stands for a volume flow of 0.3 US gallons at 40 PSI. The nozzle material is coded with the letters S (stainless steel) or C (Ceramic).



Color code for filters and strainers according to ISO standard 19732 since 2011

		ISO 19732	
Old color code Lechler	Old color code ARAG	New color code	Mesh
yellow		red	25
	white	red	32
	blue	blue	50
red		blue	60
	grey	yellow	80

Conversion table of old and new ISO color code.

② Flow rate

The flow rate of a nozzle changes as a function of the spray pressure. Expressed in simplified terms, the flow rate (l/min) is doubled if the spray pressure (bar) is quadrupled.

The following formula applies:

$$\dot{V}_2 = \sqrt{\frac{p_2}{p_1}} \times \dot{V}_1 \text{ (l/min)}$$

③ Density

All table values for flow rate are based on water (density 1.0 kg/l). In the case of liquids with a different density, the correction factors stated in the table must be taken into account.

④ Conversion factors for different densities

Density of sprayed liquid	0.84	0.96	1.00 Water	1.11 Urea	1.24 ASL	1.28 UAN (28) UAN +S	1.32 UAN (30)	1.38 NP-solu-tion	1.44	1.50
Conversion factor	1.09	1.02	1.00	0.95	0.90	0.88	0.87	0.85	0.83	0.81

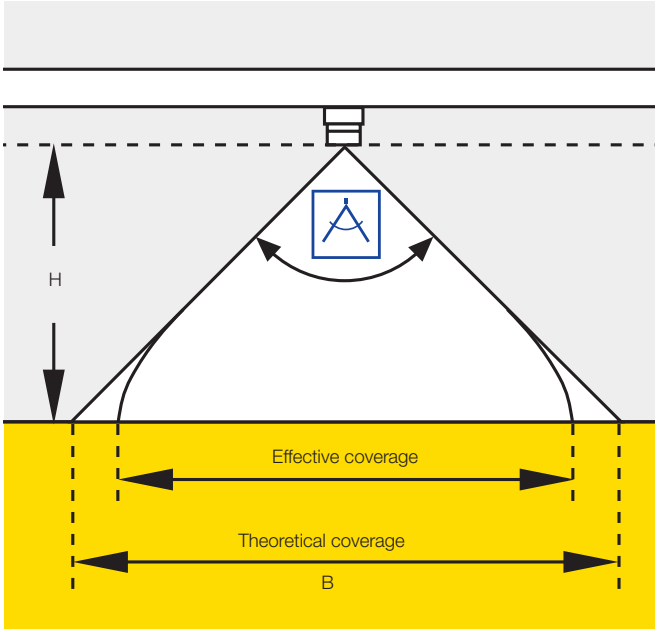
Converts as follows:

Flow rate of water (see table)	x	Conversion factor	=	Actual flow rate of medium

⑤ Coverage

The theoretical coverage (B) of a nozzle is essentially determined by the spray angle and spray height (H) above the target.

Depending on nozzle type and nozzle size, the spray pressure can also influence the spray angle and distribution accuracy. Prerequisites for uniform liquid distribution in the spraying system are in compliance with the recommended spray pressure at the nozzle as well with the minimum spray height for a given nozzle spacing.



Due to the physically caused collapse of the jet, the effective coverage is less than the theoretical coverage stated below particularly with low pressures and large spray heights.

Spray angle 	Theoretical coverage B for different spray heights H [cm]											
	10	15	20	25	30	40	50	60	70	80	100	120
20°	3.5	5.3	7.1	8.8	10.6	14.1	17.6	21.2	24.7	28.2	35.3	42.0
30°	5.4	8.0	10.7	13.4	16.1	21.4	26.8	32.2	37.5	42.9	53.6	64.0
45°	8.3	12.4	16.6	20.7	24.9	33.1	41.4	49.7	58.0	66.3	82.8	99.0
60°	11.6	17.3	23.1	28.9	34.6	46.2	57.7	69.3	80.8	92.4	115.0	(138.0*)
90°	20.0	30.0	40.0	50.0	60.0	80.0	100.0	120.0	140.0	160.0	200.0	(240.0*)
120°	34.6	52.0	69.3	86.6	104.0	139.0	173.0	208.0	242.0	277.0	(346.0*)	(416.0*)
140°	55.0	82.4	110.0	137.0	165.0	220.0	275.0	(330.0*)	(385.0*)	(440*)	(550.0*)	(660.0*)

* Parentherized data: mayor difference between effective and theoretical coverage.

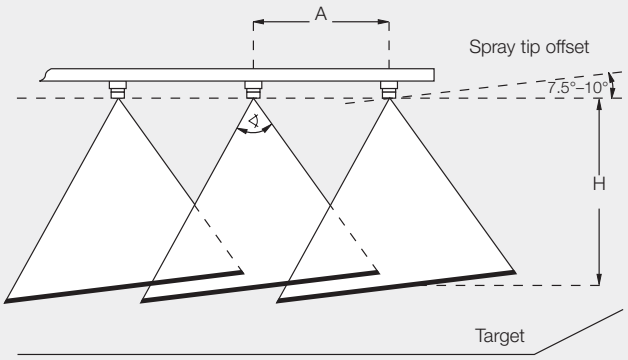
SPRAY NOZZLE TECHNOLOGY

⑥ Nozzle arrangement in the system

Flat spray nozzles

In order to avoid mutual spray jet interference, the jet plane of flat spray nozzles is rotated by around 7.5°–10° with respect to the pipe axis. This takes place automatically with Lechler diaphragm valves and Lechler eyelet connectors with TWISTLOC/MULTIJET bayonet cap. The Lechler nozzle adjusting gauge (Ordering no. 065.231.02) is available for systems with screw/union nut fastening.

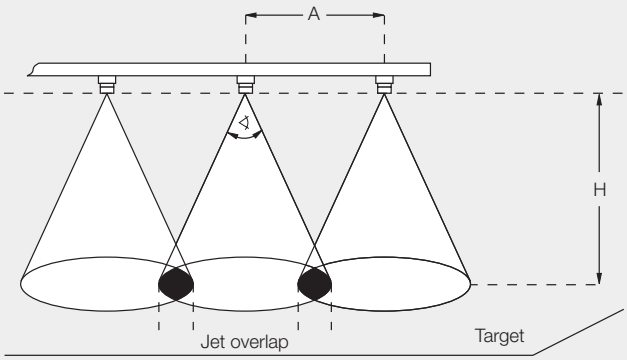
Arrangement of flat spray nozzles



Hollow cone nozzles

Hollow cone nozzles must be arranged so that the jet cones just overlap immediately before the target surface.

Arrangement of hollow cone nozzles



Spray height H: min. – **optimal** – max. [cm] for different nozzle spacings A [m]

	cm													
	Flatfan											Hollow cone	Stream jet	
Type of jet Spray angle	IDTA/ID3/IDKT AD/DF 120°	PRE 130°	IDK/IDKN 120°	ID/IDK/ AD/LU 90°	LU 120°	ST 110°	QS 80°	ST 80°	FD 130°	FT 90°	FT 140°	TR/ITR 80°	FL 160°	FS 100°
A = 1.0 m	-	-	-	-	-	-	-	-	-	-	75*	-	-	-
A = 0.5 m	40-**50**-60	40-**50**-60	40-**50**-60**/90	60-**75**-90	40-**50**-60	40-**50**-60	60-**75**-90	60-**75**-90	50-70	60-75-90*	40*	-	100	80-**90**-100
A = 0.25 m	20-35	-	20-45	30-45	20-35	20-35	30-45	30-45	-	30-45*	-	50-**65**-80	-	-

* The spray height of flood nozzles is also influenced by the alignment. Simple spraying width overlapping is at least required for uniform lateral distribution. Rule of thumb: With nozzle spacings other than those mentioned (A), the ratio of nozzle spacing to optimum spray height for flat spray nozzles with 110°/120° jet angle is 1 : 1; for nozzles with 80°/90° jet angle the ratio is 1 : 1.5.

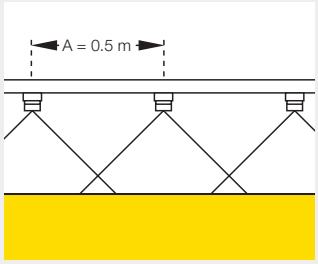
** IDK 120-06.

⑦ Calculation formula for field spraying

Application parameters

The table values in the technical part of the catalog apply for field spraying booms with a lateral nozzle spacing of A = 0.5 m. The adjacent formula apply for other lateral nozzle spacings.

As a general rule:
of the four parameters driving speed (km/h), application rate (l/ha), flow rate (l/min) and nozzle spacing (m), three are normally known. The frequently unknown variables (l/ha; l/min) are also calculated using the adjacent formulae.



Liter per hectare rate, M (l/ha)

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

Flow rate/nozzle $\dot{V}$ (l/min)

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

Lateral nozzle spacing A (m)

Sprayer speed v_F (km/h)

Sample for calculation of flow rate per nozzle:

A = 1 m, v_F = 6 km/h,

M = 400 l/ha

$$\dot{V} = \frac{400 \times 1 \times 6}{600} = 4 \text{ l/min}$$

Band width B [m]
Lateral nozzle spacing
or row spacing A [m]

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

Example:

$\frac{0.2}{0.5} \times 100 = 40\ \%$

Calculation of the actual application rate for banding or row spraying is based on the ratio of the treated area to the area to be driven over.

The application rate in l/ha corresponds to the percentage (e.g. 40 %) of the application rate for broadcast spraying.

⑧ Calculation formula for applications for wine and orchards

Use of nozzles with identical nozzle sizes

The total nozzle output of the crop protection equipment is calculated in accordance with the following formula:

$$\dot{V} = \frac{M \times V_F \times B}{600}$$

$\dot{V}$ = Total nozzle output, l/min

M = Liter-per-hectare-rate, l/ha

v_F = Sprayer speed, km/h

B = Working width, m

The flow rate of the individual nozzles is calculated by dividing the total nozzle output by the number of working nozzles.

The nozzle size and pressure are determined from the flow rate on the basis of the tables (see pages 61–69).

The working width corresponds to the distance between the driving lanes, i.e. the row spacing if every driving lane is used. If only every second driving lane is used, the working width corresponds to double the row spacing.

Use of nozzles with different nozzle sizes

If nozzles with different sizes are used simultaneously in one sprayer, the nozzle size is first determined that would be obtained in the case of equipment with nozzles offering identical performance.

The number of nozzles of the next-smaller nozzle size is taken into account corresponding to the total number of nozzles.

In order to achieve the given liquid application rate (required value), the pressure must be increased in accordance with the adjacent formula.

$$\text{Pressure setpoint} = \text{Pressure actual value} \times \left[\frac{\text{Total nozzle output setpoint}}{\text{Total nozzle output actual value}}\right]^2$$

Example
At a sprayer speed of 6.5 km/h, 600 l/ha should be applied. The working width is 2.0 m. The total nozzle output is then:

$$\frac{600 \times 6.5 \times 2.0}{600} = 13.0 \text{ l/min}$$

If 10 nozzles of the same size are used, the flow rate of each nozzle is
13.0 : 10 = 1.3 l/min.
➔ Select nozzle/pressure according to spray table:

ID 90-02/yellow at 8 bar

Instead of nozzle ID 90-02, the lower and two upper nozzles with the next smaller size **6 x ID 90-015/green** should be fitted on both sides of the sprayer. The total nozzle output (actual value) is as follows at 8 bar (actual value):

(6 x 0.96 + 4 x 1.30) l/min
= 10.96 l/min

The pressure setpoint to be set for 600 l/ha (setpoint) is then:

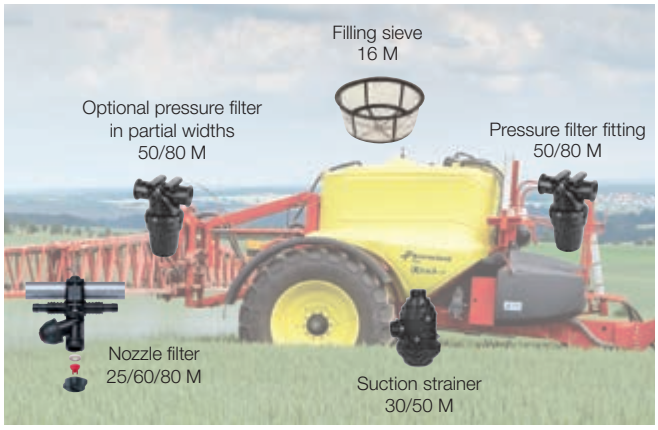
$$8 \times \left[\frac{13.0}{11.0}\right]^2 = 11.2 \text{ bar}$$

SPRAY NOZZLE TECHNOLOGY

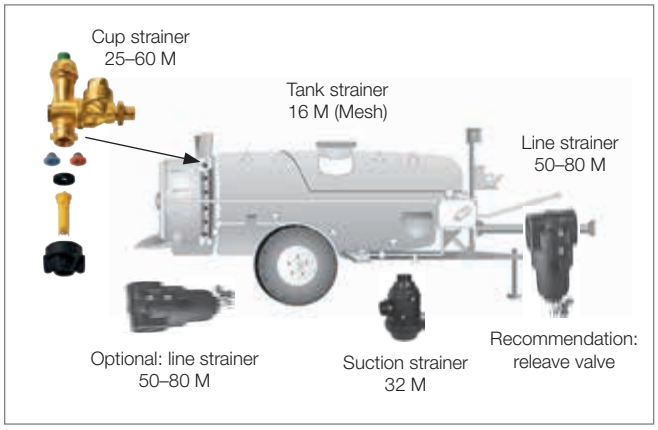
⑨ Recommendations

Correct “filtering”

Malfunctions during operation caused by coarse particles can be prevented by use of the correct filter system. In order to protect the nozzle filter, we recommend selecting a mesh filter in the pressure filter which is one category finer. The recommendations for the mesh size (M) of the nozzle filter/cup strainer are provided in the spray tables according to nozzle size.



Scheme of selecting the mesh size using the example of a field sprayer



Scheme for selecting the mesh of the filter using the example of a sprayer for wine and orchard

Avoiding nozzle blockages

Properly functioning equipment is a prerequisite for successful crop protection. Clogged nozzles are annoying because cleaning takes up valuable time. And this also does not take into account the possible consequences of incorrect spray application.

Such problems can be easily avoided by suitable measures as well as knowledge of the products and water quality.

Appropriate measures:

- Observe the specified order when producing the spray mixture
- Always add only one product at a time
- Allow sufficient time to dissolve
- The mixer must guarantee good and homogeneous mixing of the plant protection product
- Match the filter in the equipment to the nozzle size
- Clean after use, e.g. with continuous internal cleaning
- Pay attention to water quality in relation to solubility of plant protection products

Measuring the driving speed

60 sec. = 6.0 km/h
45 sec. = 8.0 km/h
36 sec. = 10.0 km/h

Example

$$\frac{100\ \text{m} \times 3.6}{45\ \text{sec.}} = 8.0\ \text{km/h}$$

Nozzles troubleshooting

Nozzle clogging	cleaning
Damaged nozzle	changing
Nozzle worn out	changing
Wrong nozzle (Type/size)	changing
Filter clogging	cleaning
Diaphragm valve defective	changing

A sprayer will deliver the desired product quantity per hectare only if it is correctly adjusted

The easiest method for checking this yourself is measurement of the individual nozzle output. A nozzle is considered to be worn if the individual nozzle output is 15 % above the table value of nozzles of same size. The pressure range and pressure drop must be taken into account.

Even with flow-controlled devices, a water capacity test is necessary. Source: Bildungswerkstatt Mold, Pichler Herbert

⑩ Nozzle wear

- Nozzles become worn even if used properly and thus have a limited service life.
- Wear is determined by factors such as spray pressure, abrasiveness of the spray fluid and the nozzle material.
- Damage to the nozzle tip due to incorrect cleaning or handling must be avoided under all circumstances.
- A simple way of determining the wear of nozzle tips is to gauge the flow rate using a measuring jug, stop watch and pressure gauge on the nozzle line. The flow rates of used nozzles are compared with the flow rates of new nozzles of the same size.
- The nozzles must be replaced if the flow rates of nozzle that are in use exceed the value of spray table by more than 15 %.

All table values in this catalog specify the flow rates of new nozzles. In addition, equipment testing on a nozzle test bench also provides information about the nozzle condition in relation to cross distribution, whereby the quality of cross distribution and the change in volume flow may be interdependent with respect to the calculated coefficient of variation.

The wear resistance of the nozzle material increases in the following order:

- Brass
- Stainless steel
- Plastic
- Ceramic

SPRAY NOZZLE TECHNOLOGY

⑪ Thread table and pipe diameters

Compatibility of pipe threads			Female thread			
			DIN EN 10226		ISO 228	NPT
			Rc	Rp	G	
Male thread	DIN EN 10226	R	x	x	x*	-
	ISO 228	G	-	-	x	-
	NPT		-	-	-	x

* Leckage possible!
Flat seal recommended.
x = compatible
- = not compatible

Taper thread: R, Rc, NPT
Parallel thread: Rp, G

Code for pipe diameters:

20 mm	20 mm
1/2"	21 mm
25 mm	25 mm
3/4"	27 mm
1"	34 mm

⑫ Quality means being measured by results

Approved Lechler nozzles for field spraying as well as for bush, tree and specialty crop applications always reliably meet the requirements of the Julius-Kühn-Institute JKI and other international standards. All prerequisites in the sense of the German Plant Protection Act and European legislation as well as ISO 16119 (Environmental requirements for sprayers) and ISO 16122 (Inspection of sprayers in use) are therefore met.

⑬ Droplet sizes

The droplet sizes for nozzles used for the application of pesticides are usually characterized by the MVD. The MVD denotes the mean volumetric diameter and is given in micrometers (µm). An MVD of 400 µm means that 50 % of the liquid is sprayed in the form of droplets larger than 400 µm and 50 % in the form of droplets smaller than 400 µm.

When classifying the droplet spectrum of a nozzle into the classes “fine”, “medium”, “coarse” … Lechler worked according to the specifications of BCPC (British Crop Production Council) until 2019. From catalogue 2020, the spray pattern will be evaluated according to the specifications of the new ISO standard 25358. This standard defines a procedure for dividing the droplet spectrum of a nozzle into droplet size classes on the basis of a reference system. This makes it easier to compare measurements, even if the measurement technology and thus possibly also the absolute measured values differ (µm). The reference nozzles, the pressures and the uniform colour coding of the droplet size classes have been redefined. The droplet size class “Ultra coarse” has been added.

What does this change for the farmer?

The nozzles and also the droplets and wetting remain the same. It is simply referenced differently, which changes the classification of the droplet size classes for the injector nozzles. The ranges of the droplet size classes change and sometimes become considerably smaller. With the injector nozzles this leads to a shift of 1 to 2 droplet size classes in the direction of coarser (e.g. previously “Medium” and now “Coarse” or “Very coarse”). The additional droplet size class “Ultra coarse” divides the old droplet size class “Extremely coarse” into two classes.

Good biological effect with “Coarse”, “Very coarse” or even “Extremely coarse”?

The new classification has the great advantage of better comparability of the measurement results.

With an injector nozzle and a water quantity of e.g. 200 l/ha with an MVD of 400 µm (0.4 mm), this spray pattern was classified as “Coarse” according to the BCPC classification, from 2020 this is “Very coarse" according to ISO 25358.

Half of the water quantity (100 l/ha) in the form of coarse, medium and fine droplets below the mean value of 400 µm ensures coverage. Very coarse and extremely coarse droplets transport more active ingredient to the target.

As a result, both a good biological effect and a good drift reduction are achieved.

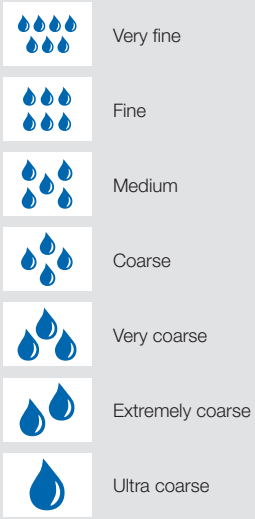
Even if the classification “Very coarse" is always compared with raindrops, these are with a droplet size of 2,000–3,000 µm (2–3 mm) around a multiple larger.

The table/graphic below compares the two measuring methods and therefore enables a direct comparison between the previous method (BCPC) and the new method (ISO 25358).

Droplet size classification

Droplet size classes according to the “old” and the “new” measuring system, measured with Visisizer.

BCPC (till 2019)	ISO 25358 (since 2020)	
VF	VF	Very fine
F	F	Fine
	M	Medium
M	C	Coarse
C	VC	Very coarse
VC		
EC	XC	Extremely coarse
	UC	Ultra coarse



ENGINEERING
YOUR SPRAY SOLUTION

Crop production

LECHLER NOZZLES FOR THE CROP PRODUCTION

As part of efficient crop production, it is nowadays necessary to observe a large number of different requirements and reconcile these with each other.

National and international regulations have to be taken into account as well as biological and ecological aspects. And as the bottom line, economical delivery of all plant protection products must also be guaranteed. At Lechler, we focus all our attention on combining these requirements in the optimum nozzle for your particular application.

Technical requirements

Compliance with the requirements of JKI, ENTAM as well as the international EN/ISO standards with respect to flow rate tolerance and distribution uniformity is an essential part of ensuring optimum use of plant protection products.

In the case of JKI-approved Lechler nozzles, the flow rate of new nozzles may deviate from the table value by a maximum of +/–5 %. This applies for spraying both field crops as well as bush and tree crops.

In combination, new JKI-approved nozzles must guarantee the most uniform cross distribution possible.

Coefficient of variation over the entire width of the spray boom must not exceed 7 % in the specified pressure range and with the corresponding spray heights.

Biological requirements

In order to achieve the optimum effect, application of plant protection products must be as precise as possible. Lechler precision nozzles achieve exact dosage and uniform distribution. Independently of this, the recommendations of the plant protection product manufacturers with respect to application rates must always be observed.

Determination of the target area before use is of decisive importance for optimum deposition of the plant protection product.

Flat spray and twin flat spray nozzles are available. Flat spray nozzles generally achieve good crop penetration (e.g. mildew control in cereal crops). In contrast, twin flat spray nozzles are recommended for optimum deposition on vertical target surfaces (e.g. grass control, ear treatment) and to reduce spray shadow (e.g. direct seed, cloddy soil).

Environmentally-relevant requirements

Drift
Spray drift refers to droplets containing crop protection chemicals which are not deposited on the target area due to wind or thermal current. These droplets can pollute or damage adjacent crops, contaminate nearby waters and pose a risk to both humans and animals.

In addition, drift frequently leads to incorrect dosages for the crop being treated.

The reasons of drift depend on equipment-specific and meteorological factors such as

- droplet size
- sprayer velocity
- spray height
- wind speed
- air temperature
- air humidity

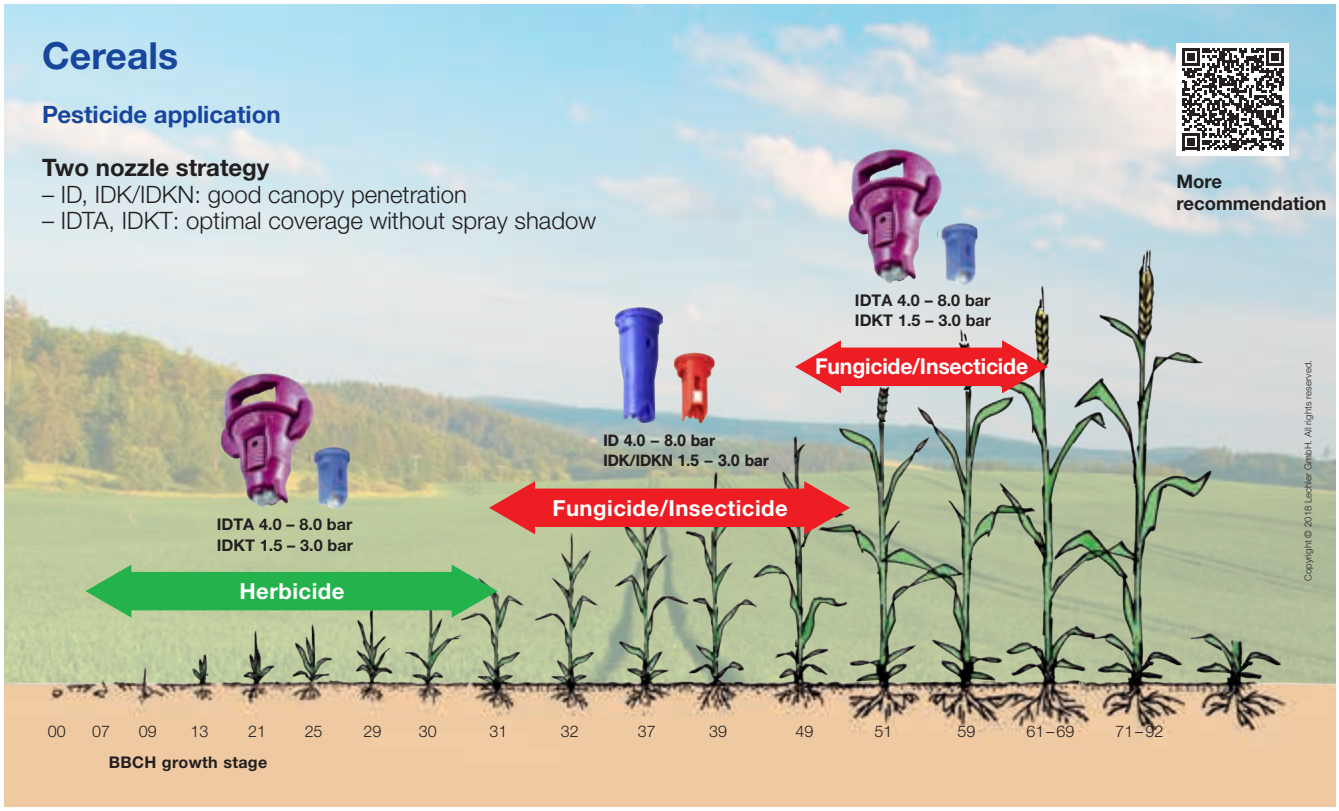
Drift-reducing technology

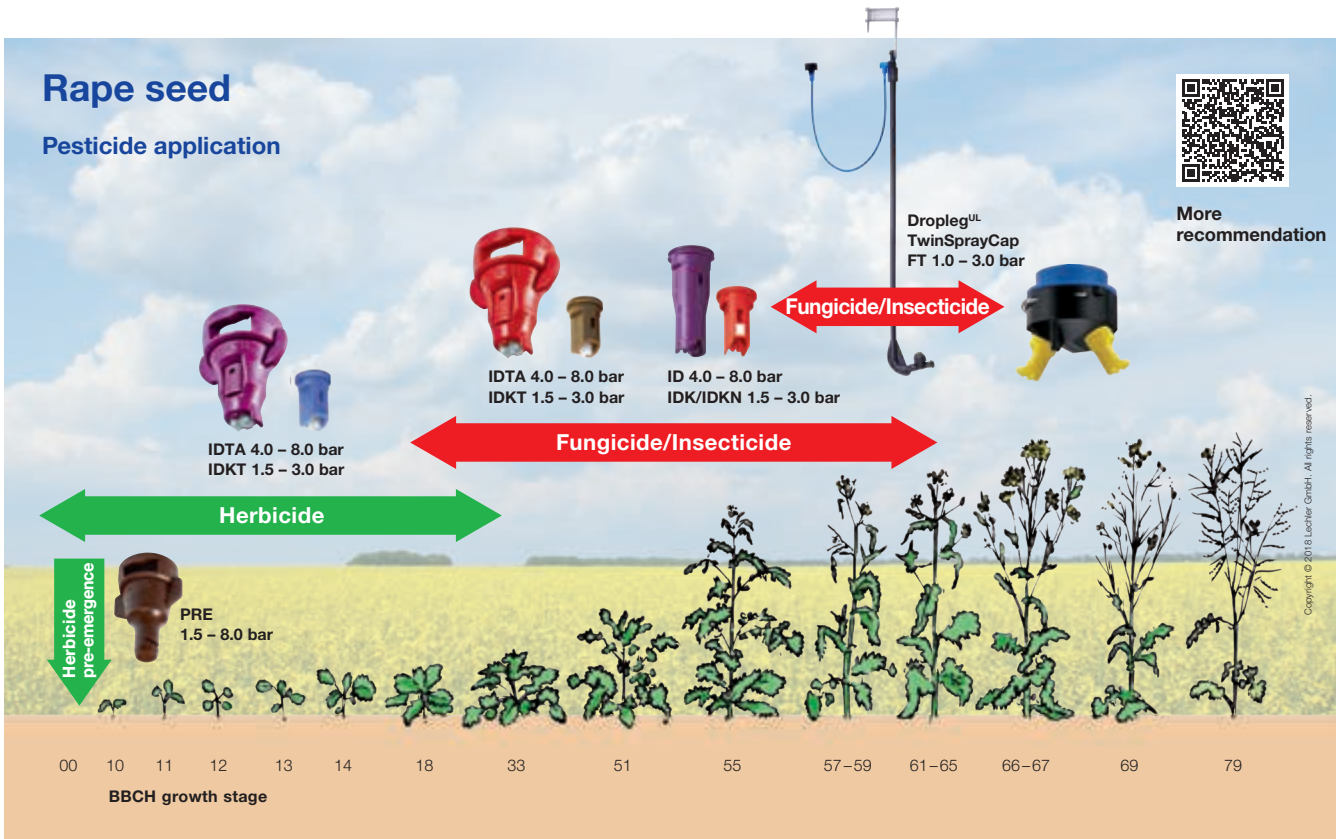
Application regulations for plant protection products, e.g. distance restrictions to water and field boundary structures, have been defined in order to protect non-target organisms. Depending on the toxicity of the plant protection product, the distances from water and field boundaries can be reduced with loss-reducing equipment, e.g. with air-injector nozzles.

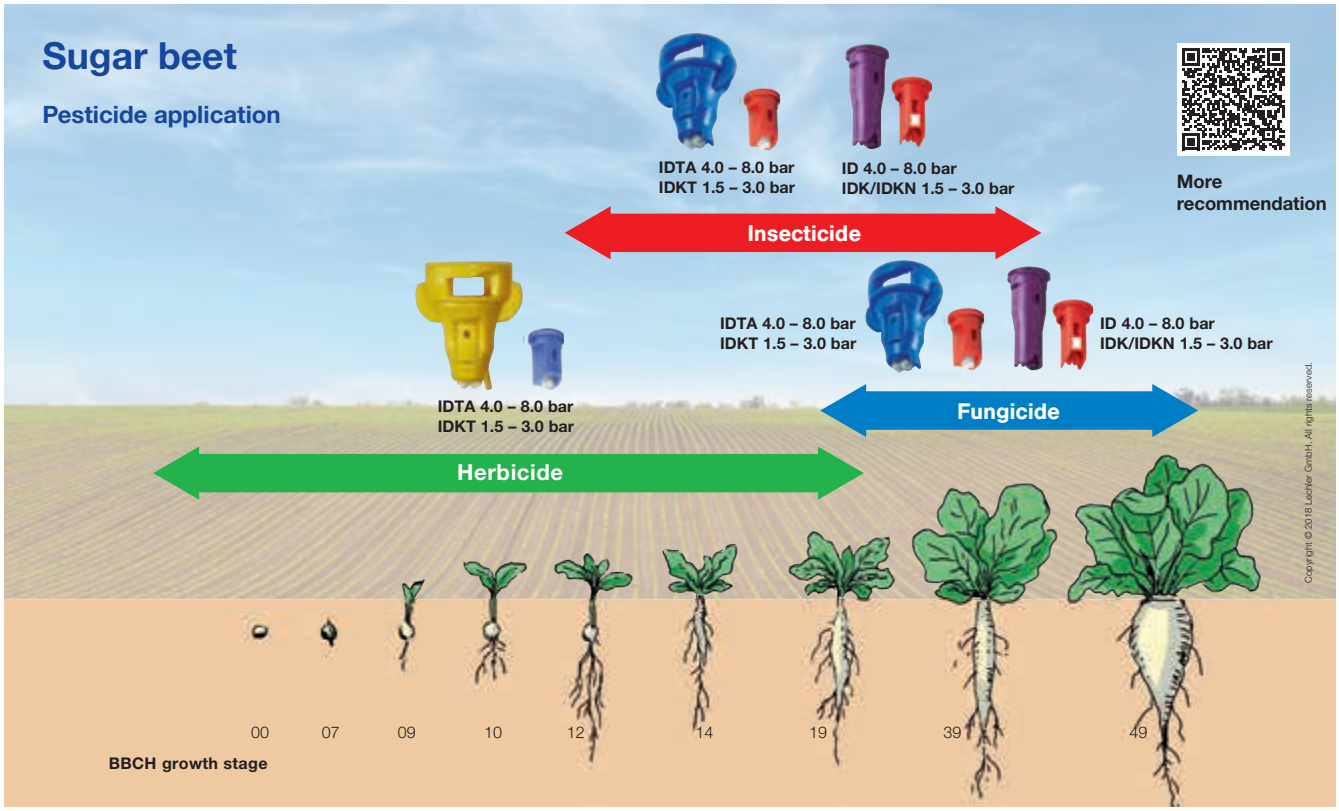
Lechler nozzles are officially approved in Germany, Austria, England, Finland, France, the Netherlands, Belgium and Sweden as drift-reducing devices in the drift reduction classes 99/95/90/75/66/50 and 25 %. The criteria on which the distance regulations are based in the individual countries comprise, among other things, the nozzle technology, water type, bank vegetation, width of the field boundary, mixture concentration, process technology (e.g. pressure) as well as external influences such as wind direction, wind speed and temperature.

Drift-reducing Lechler nozzles allow areas to be used more efficiently while at the same time protecting field boundaries and water.

NOZZLE RECOMMENDATION FOR PESTICIDE APPLICATION






Sugar beet
Pesticide application
IDTA 4.0 – 8.0 bar
IDKT 1.5 – 3.0 bar
ID 4.0 – 8.0 bar
IDK/IDKN 1.5 – 3.0 bar
More recommendation
Insecticide
IDTA 4.0 – 8.0 bar
IDKT 1.5 – 3.0 bar
ID 4.0 – 8.0 bar
IDK/IDKN 1.5 – 3.0 bar
IDTA 4.0 – 8.0 bar
IDKT 1.5 – 3.0 bar
Fungicide
Herbicide
00 07 09 10 12 14 19 39 49
BBCH growth stage
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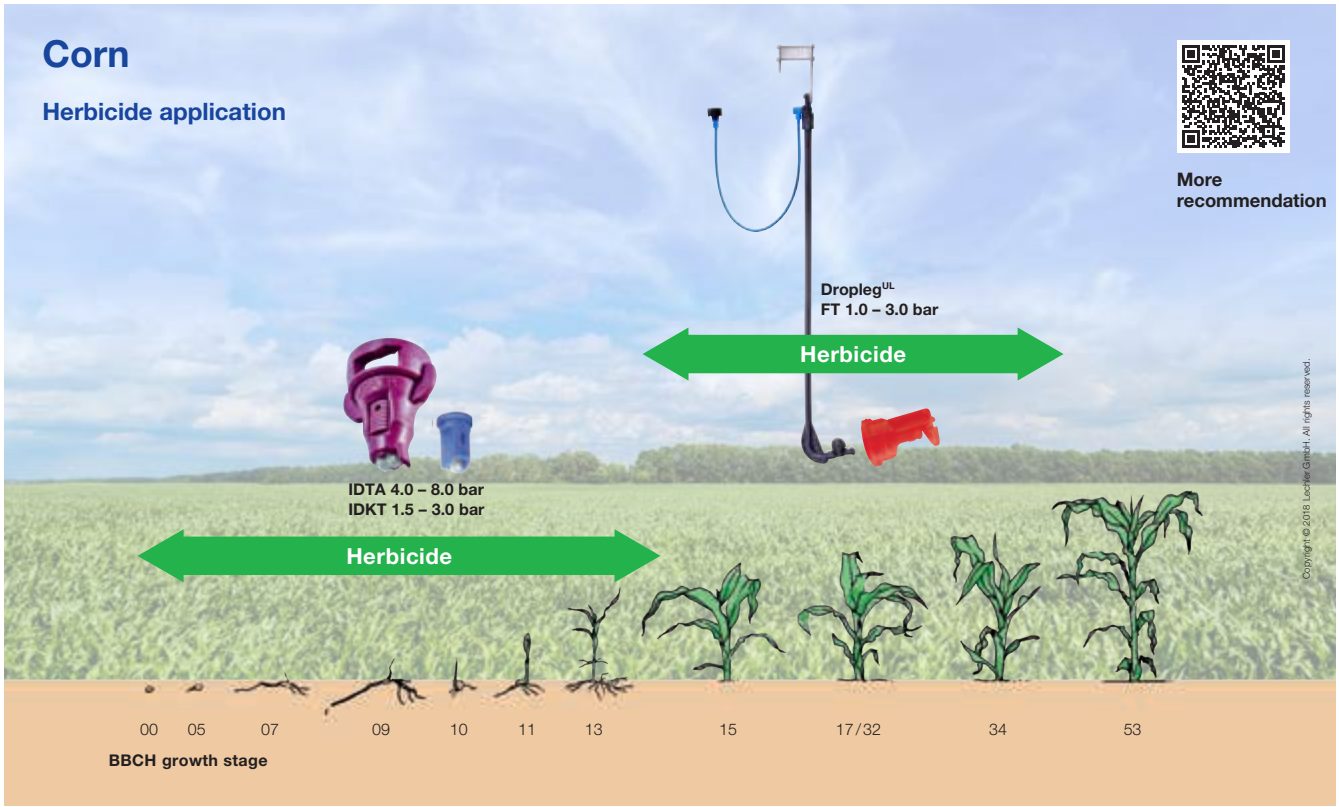
Corn
Herbicide application
More recommendation
Dropleg UL
FT 1.0 – 3.0 bar
Herbicide
IDTA 4.0 – 8.0 bar
IDKT 1.5 – 3.0 bar
Herbicide
00 05 07 09 10 11 13 15 17/32 34 53
BBCH growth stage
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LECHLER NOZZLES FOR THE CROP PRODUCTION

	ID3	IDK/ IDKN	IDTA	IDKT	PRE	AD	QS 80	LU	ST/SC	DF
										
Spray geometry										
Drift reduction	+ +	+	+ +	+	+ + +	o	o / –	o / –	–	– –
Page	36	38	50	52	40	42	46	44	48	54

Broadcast spraying

Recommended pressure range (bar)		2/3*-**4-8**	1**-/**1.5-3**-6	1-**4-8**	1***-/**1.5-3**-6	**1.5-8**	**1.5-3**-6	**1.5-5**	**1.5-2.5**-5	**2-3**-5	**2-3**-5
Herbicides	Soil incorporated	●●	●●	●●	●●	●●	●●	●●	●●	●	-
	Pre-emerge	●●	●●	●●	●●	●●	●●	●●	●●	●	-
	Post-emerge (systemic)	●●	●●	●●	●●	-	●●	●●	●●	●	○
	Post-emerge (contact)	●	●	●●	●●	-	●	●●	●●	●	●●
Fungicides	Contact	●	●	●●	●●	-	●	●●	●●	●	●●
	Systemic	●●	●●	●●	●●	-	●●	●●	●●	●	●
Insecticides	Contact	●	●	●●	●●	-	●	●●	●●	●	●●
	Systemic	●●	●●	●●	●●	-	●●	●●	●●	●	●
Liquid fertilizer		●● (2-4)	●● (1**/1.5-2.5)	○ (1-4)	○ (1***/1.5-2.5)	●● (1.5-4)	● (1.5-2.5)	○ (1.5-2)	○ (1.5-2)	○ (2)	-
Growth regulators		●●	●●	○	○	-	●●	●	●	●	○
Irrigation (via boom)		●●	●●	●●	●●	●●	●●	●	●	●	-

Banding/row spraying – arable crops and speciality crops

Recommended pressure range (bar)		-	-	-	-	-	-	-	-	-	-
Herbicides	Soil incorporated	-	-	-	-	-	-	-	-	-	-
	Pre-emerge	-	-	-	-	-	-	-	-	-	-
	Post-emerge (systemic)	-	-	-	-	-	-	-	-	-	-
	Post-emerge (contact)	-	-	-	-	-	-	-	-	-	-
Fungicides	Contact	-	-	-	-	-	-	-	-	-	-
	Systemic	-	-	-	-	-	-	-	-	-	-
Insecticides	Contact	-	-	-	-	-	-	-	-	-	-
	Systemic	-	-	-	-	-	-	-	-	-	-
Liquid fertilizer		-	-	-	-	-	-	-	-	-	-
Growth regulators		-	-	-	-	-	-	-	-	-	-
Irrigation (via boom)		-	-	-	-	-	-	-	-	-	-

Orchards, vineyards and speciality crops

Recommended pressure range (bar)		-	-	-	-	-	-	-	-	5-**10-30**	-
Fungicides	Contact	-	-	-	-	-	-	-	-	●●	-
	Systemic	-	-	-	-	-	-	-	-	●●	-
Insecticides	Contact	-	-	-	-	-	-	-	-	●●	-
	Systemic	-	-	-	-	-	-	-	-	●●	-
Growth regulators		-	-	-	-	-	-	-	-	●●	-

Heed label of chemical company.

FT 90 (FT 140)	TR 80	ITR 80	FD	FL	FS	IS 80	IDKS 80	BN	OC	E	ID 90	IDK 90	AD 90
													
													
+ (–)	– –	+ +	+ + +	+ + +	+ + +	+ +	+	–	–	–	+ +	+	o
58	66	68	70	72	74	78	80	82	84	88	60	62	64

1-3-6 (1-2-3)	3-8	3-5-10	1.5-4	1-5	1-3****/4	2-4-8	1*****/1.5-3-6	-	1.5-2.5-5	-	3-8	1.5-8	1.5-3-6
●●	○	●●	-	-	-	●●	●●	-	●●	-	●●	●●	●●
●●	○	○	-	-	-	●●	●●	-	●●	-	●●	●●	●●
●	○	○	-	-	-	●●	●●	-	●●	-	●●	●●	●●
●	●●	-	-	-	-	●	●	-	●●	-	●	●	●
●	●●	○	-	-	-	●	●	-	●●	-	●	●	●
●	●	●	-	-	-	●●	●●	-	●●	-	●●	●●	●●
●	●●	○	-	-	-	●	●	-	●●	-	●	●	●
●	●	●	-	-	-	●●	●●	-	●●	-	●●	●●	●●
● (1-2)	-	●● (3-5)	●●	●●	●●	●● (2-4)	●● (1****/1.5-2.5)	-	● (1.5-2)	-	●● (2-4)	●● (1.5-2.5)	● (1.5-2.5)
●	○	○	-	-	-	●●	●●	-	●	-	●●	●●	●●
-	-	●	●●	●	●	●●	●●	-	●	-	●●	●●	●●

-	3-8	-	-	-	-	2-4-8	1*****/1.5-3-6	1-2-4-6	1.5-2.5-5	1-3-4	-	-	-
-	○	-	-	-	-	●●	●●	●●	●●	●●	-	-	-
-	○	-	-	-	-	●●	●●	●●	●●	●●	-	-	-
-	○	-	-	-	-	●●	●●	●●	●●	●●	-	-	-
-	●●	-	-	-	-	●	●	●●	●●	●●	-	-	-
-	●●	-	-	-	-	●	●	●●	●●	●●	-	-	-
-	●	-	-	-	-	●●	●●	●●	●●	●●	-	-	-
-	●●	-	-	-	-	●	●	●●	●●	●●	-	-	-
-	●	-	-	-	-	●●	●●	●●	●●	●●	-	-	-
-	-	-	-	-	-	●● (2-4)	●● (1****/1.5-2.5)	● (1-2)	● (1.5-2)	● (1-2)	-	-	-
-	○	-	-	-	-	●●	●●	●●	●●	●	-	-	-
-	-	-	-	-	-	●●	●●	●●	●	●	-	-	-

-	3-8-20	10-30	-	-	-	2-8-15	1*****-/1.5-8-15	-	-	-	3-8-15-20	2-8-15-20	2-8-15-20
-	●●	●	-	-	-	●●	●●	-	-	-	●●	●●	●●
-	●●	●●	-	-	-	●●	●●	-	-	-	●●	●●	●●
-	●●	●	-	-	-	●●	●●	-	-	-	●●	●●	●●
-	●●	●●	-	-	-	●●	●●	-	-	-	●●	●●	●●
-	●●	●	-	-	-	●●	●●	-	-	-	●●	●●	●●

Nozzle size: * ID3-01/-015 ** IDK-04/-05/-06/-08/-10 *** IDKT-03/-04/-05/-06 **** FS-10/-15 ***** IDKS-03/-04/-05/-06 IDKN-03/-04

– – = not drift reducing – = less drift reducing o = drift reducing + = very drift reducing + + = extremely drift reducing + + + = most drift reducing

●● = very well-suited ● = well-suited ○ = less well-suited - unsuitable

ENGINEERING
YOUR SPRAY SOLUTION

Ground care

LECHLER NOZZLES FOR GROUND CARE

Ground care includes all municipal green areas (e.g. parks), traffic areas (e.g. railroad tracks, airports, roads), golf courses, sports grounds and riding arenas. The applications are therefore very different and varied.

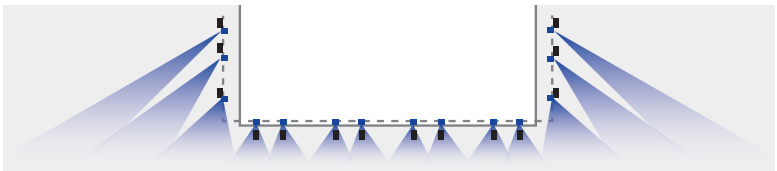
They extend from weed and pest control through to dust suppression and surface de-icing. The equipment used covers a wide range from simple knapsack sprayer through to high-tech systems for airport de-icing.

In view of the large spray quantities in some cases, the factors of efficiency, durability and cost control are extremely important particularly for ground care applications.

With our wide, solution-oriented product range, we ensure that the best-suited nozzle is available for every task.

Example applications

Low-drift application on golf courses with air-injector flat spray nozzles ID, IDK, IDTA and IDKT



Spray train for weed control on railroad tracks equipped with low-drift ID nozzles in the middle section and narrow-jet flood or off center nozzles at the sides

Low-drift nozzles such as IDK nozzles provide optimum protection for users when carrying out pest control measures on trees and bushes

Dust binding on traffic areas with ID and FD nozzles
Source: RAW Handel und Beratungs GmbH

De-icing of traffic areas (e.g. airports, roads) with saline solution is an effective and economical process. Here, low-drift ID nozzles are used in combination with VarioSelect® for variable nozzle control in order to maintain a constant application quantity at changing driving speeds.

Riding arena watering. A total of 3 nozzle rows equipped with the ID air-injector nozzle ensure an optimally watered arena floor in combination with a rake, tilling roller and smoothing attachment.

LECHLER NOZZLES FOR GROUND CARE

	ID3	IDK/ IDKN	IDTA	IDKT	PRE	AD	QS 80	LU	ST/SC
									
Spray geometry									
Drift reduction	+ +	+	+ +	+	+ + +	o	o / –	o / –	–
Page	36	38	50	52	40	42	46	44	48

Recommended pressure range (bar)		2/3*-**4-8**	1**-/**1.5-3**-6	1-**4-8**	1***-/**1.5-3**-6	**1.5-8**	**1.5-3**-6	**1.5-5**	**1.5-2.5**-5	**2-3**-5
Herbicides	Soil incorporated	●●	●●	●●	●●	●●	●●	●●	●●	●
	Pre-emerge	●●	●●	●●	●●	●●	●●	●●	●●	●
	Post-emerge (systemic)	●●	●●	●●	●●	-	●●	●●	●●	●
	Post-emerge (contact)	●	●	●●	●●	-	●	●●	●●	●
Fungicides	Contact	●	●	●●	●●	-	●	●●	●●	●
	Systemic	●●	●●	●●	●●	-	●●	●●	●●	●
Insecticides	Contact	●	●	●●	●●	-	●	●●	●●	●
	Systemic	●●	●●	●●	●●	-	●●	●●	●●	●
Liquid fertilizer		●● (2-4)	●● (1**/1.5-2.5)	○ (1-4)	○ (1***/1.5-2.5)	●● (1.5-4)	● (1.5-2.5)	○ (1.5-2)	○ (1.5-2)	○ (2)
Growth regulators		●●	●●	●	○	-	●●	●	●	●
Irrigation (via boom)		●●	●●	●●	●●	●●	●●	●	●	●

Heed label of chemical company.

DF	FT 90 (FT 140)	TR 80	ITR 80	FD	FL	FS	IS 80	IDKS 80	BN	OC	E	OC
												
												
– –	+ (–)	– –	+ +	+ + +	+ + +	+++	+ +	+	–	–	–	–
54	**58**	**66**	**68**	**70**	**72**	**74**	**78**	**80**	**82**	**84**	**88**	**86**
2-3-5	**1-3**-6 (**1-2**-3)	**3-8**	3-**5-10**	**1.5-4**	**1-5**	**1-3******/**4**	2-**4-8**	1*****/**1.5-3**-6	1-2-**4-6**	**1.5-2.5**-5	**1-3**-4	**2-5**
-	●●	○	●●	-	-	-	●●	●●	●●	●●	●●	●
-	●●	○	○	-	-	-	●●	●●	●●	●●	●●	●
○	●	○	○	-	-	-	●●	●●	●●	●●	●●	●
●●	●	●●	-	-	-	-	●	●	●●	●●	●●	●
●●	●	●●	○	-	-	-	●	●	●●	●●	●●	●
●	●	●	●	-	-	-	●●	●●	●●	●●	●●	●
●●	●	●●	○	-	-	-	●	●	●●	●●	●●	●
●	●	●	●	-	-	-	●●	●●	●●	●●	●●	●
-	● (1-2)	-	●● (3-5)	●●	●● (1-5)	●● (1–5)	●● (2-4)	●● (1****/1.5-2.5)	○ (1-2)	○ (1.5-2)	○ (1-2)	○ (2)
○	●	●	○	-	-	-	●●	●●	●●	●●	●	●
-	-	-	●	●●	●	●	●●	●●	●●	●	●	●●

Nozzle size: * ID3-01/-015 ** IDK-04/-05/-06/-08/-10 IDKN-03/-04 *** IDKT-03/-04/-05/-06 **** FS-10/-15 ***** IDKS-03/-04/-05/06

– – = not drift reducing – = less drift reducing o = drift reducing + = very drift reducing + + = extremely drift reducing + + + = most drift reducing

●● = very well-suited ● = well-suited ○ = less well-suited - unsuitable

ENGINEERING
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Container and tank cleaning

LECHLER NOZZLES FOR CONTAINER AND TANK CLEANING

When it comes to tank and container cleaning, efficiency has the highest priority. Cleaning has to take place quickly and thoroughly to ensure that no residues are left.

The Lechler nozzle range offers innovative nozzle technologies as well as a large selection of sizes and materials for cleaning and flushing containers, tanks and induction hoppers as well as for homogenization of tank contents.

The scope of our portfolio is unique on the market and offers the perfect solution for every application. Application fields include plant protection, animal husbandry (feeding, milk industry) and wineries.

Nozzle selection

The choice of the right Lechler rotating cleaning nozzle or a suitable static spray ball is determined primarily by the type of dirt to be cleaned and the tank diameter.

Rinsing is often sufficient in the case of non-adhering substances. Static spray balls meet these requirements. However, the higher the level of soiling and the more stubborn the dirt, the more important the jet force of the nozzle. In such cases, cleaning with rotating cleaning nozzles is recommended. It must be ensured that the diameter of the tank to be cleaned is smaller than the maximum possible tank diameter specified for the nozzle.

	Injector agitator nozzles	WallCleaner	Static spray ball 540/541	MicroWhirly 500 and 566	ContiCleaner	MiniWhirly 500.186	CanCleaner	MiniSpinner 5MI
								
Spray geometry								
Page	**90**	**91**	**96**	**97**	**97**	**98**	**98**	**99**
Rinsing of container and tank	●●	-	●●	●●	●●	●	-	●●
Rinsing inside of induction hopper	-	●●	●	●●	○	●	●	-
Rinsing of canister	-	-	●	●	-	●	●●	-
Continuous internal cleaning	-	-	-	●	●●	●	-	-
Function and max. rinsable diameter	Mixing of liquids	Rinsing of products and side walls cleaning	Rinse up to max. 6 m	Rinse up to max. 1,6 m	Rinse up to max. 1,6 m	Rinse up to max. 1,3 m	Rinse up to max. 1,3 m	Rinse up to max. 2,6 m
Features	Efficient mixing	Rinsing up to under the edge	High operating reliability	Easy start-up thanks to slide bearing	Reliable start-up at low pressure	Ball bearing-mounted	Increased flow rate towards canister bottom	Efficient rinsing of big tanks

●● = very well-suited ● = well-suited ○ = less well-suited - unsuitable

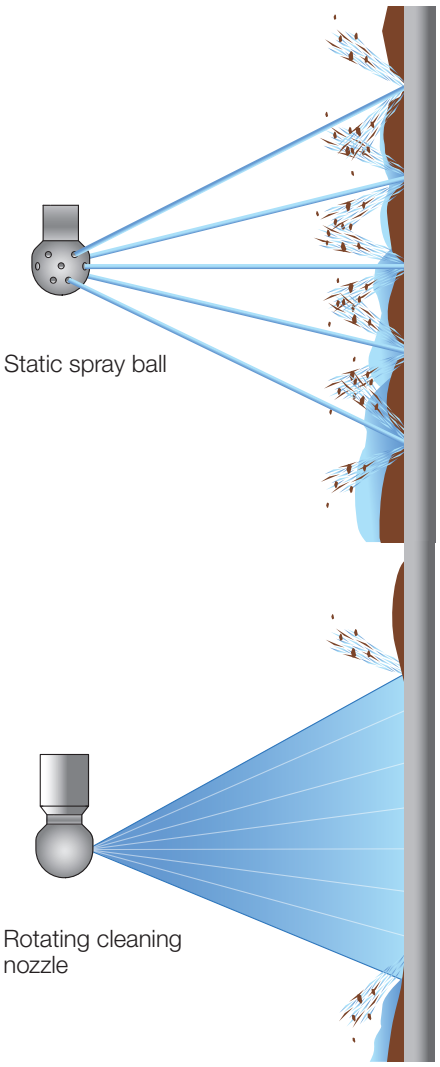
Nozzles for cleaning and rinsing

Static

Static spray balls do not rotate and therefore require considerably higher liquid quantities. They are used primarily for rinsing tanks. They are inexpensive to purchase and are very robust (trouble-free).

Free-spinning

The cleaning fluid drives the spray head by means of specially aligned nozzles. The rapidly repeated impacts detach the dirt and rinse it from the tank surface. This results in optimum cleaning efficiency at low pressures in small to medium-sized tanks.



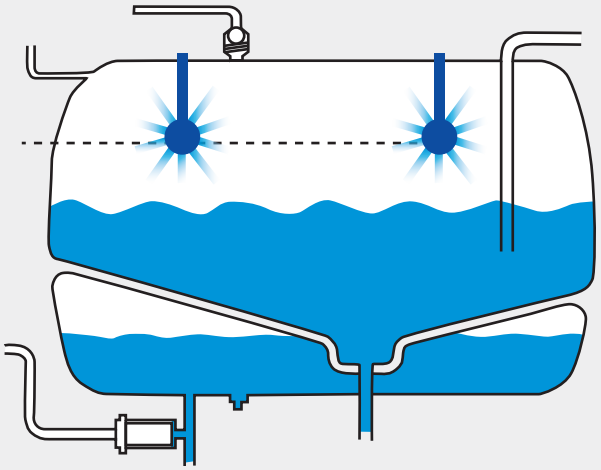
Static spray ball

Rotating cleaning nozzle

Nozzle positioning

The nozzles must be positioned in the upper part of the tank where possible. It must be ensured that sufficient cleaning fluid reaches the tank ceiling.

When cleaning large tanks, it is essential to install several nozzles. The nozzles should then be positioned so that their spray jets overlap. The spray jet can then reach almost every surface to be cleaned.

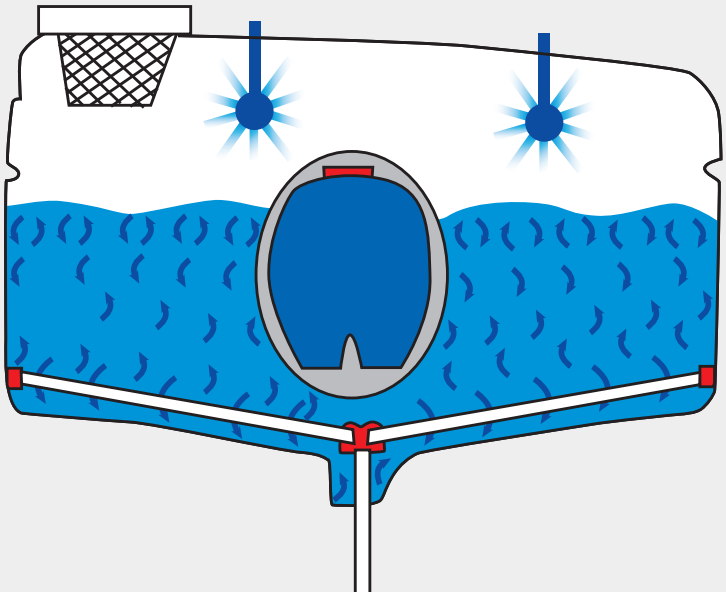


LECHLER NOZZLES FOR CONTAINER AND TANK CLEANING

Avoidance of spray shadows

Baffles, agitators or lines prevent the spots behind them from being impacted directly by the spray jet of the tank cleaning nozzle. Cleaning by direct impact is not possible in these spots.

For this reason, several nozzles must be used in tanks and containers with built-in equipment. The number of nozzles should be chosen so that the spray shadows of the individual nozzles are eliminated.



Nozzles for continuous internal cleaning

In the case of continuous internal cleaning, the nozzles are selected according to the working width of the field spray boom (number of nozzles). For an efficient cleaning, the volume flow of the cleaning nozzles should be max. 90 % of the total nozzle output (all nozzles – full working width).
A boom sprayer with 15 m working width and 30 nozzles IDKN 120-03 has a total nozzle output of 29.1 l/min at 2 bar cleaning pressure. The nozzles for the continuous internal cleaning need an output of max. 26.2 l/min. This ensures that there remain no spray residues in the tank. The last remaining spray mixture is applied in the field via the nozzles.
The number of cleaning nozzles needed, depends on the shape of the tank and on fittings such as, for example, baffles in the tank. It is important that all corners are cleaned and that there are no dead angles. The "ContiCleaner" has been designed especially for this application. It runs easily with reduced volume flow even at low pressure.

Nozzles for agitation and homogenization

After the plant protection product is flushed into the tank of the sprayer, Lechler injector agitator nozzles ensure fast and homogeneous mixing of the spray mixture. The injector effect of the nozzle reinforces the turbulence of the solid jet. As a result, a large volume in the tank can be circulated in a short time with a low flow rate.

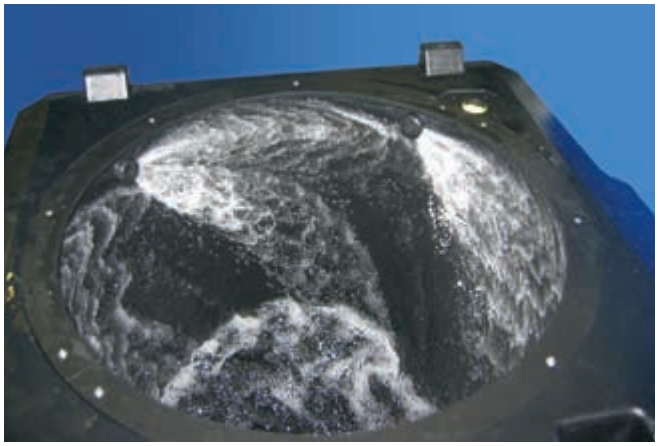
Several injector agitator nozzles with a lower volume flow produce a more intensive agitation effect than a single, large agitator nozzle. In particular, corners and suction sumps are reached more effectively.
Dead zones are avoided.

The agitator is located centrally in the fluid tank

Nozzles for induction hoppers

Lechler offers special, user-friendly nozzle technology for induction hoppers. This leads to improved user protection and effectively prevents residues. The induction hopper nozzles clean the wall surfaces of the induction hopper completely up to under the edge.

As a result of the rotating liquid flow, premixing already takes place during induction and therefore ensures lump-free induction of powder plant protection products by the rotating liquid flow.



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Product information

Air-Injector flat spray nozzles ID3

Drift reduction: 90/75/50 %

Current list under **www.lechler-agri.com/drift-reduction**

JKI-approval for mixed nozzle equipping

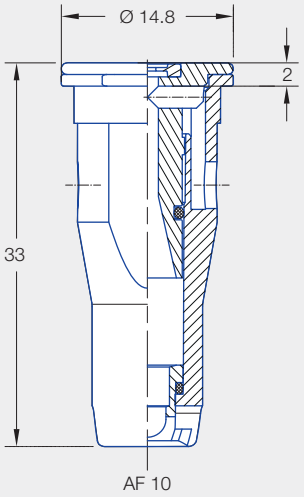
Extremely low-drift, air-injector flat spray nozzle for professional use.

Advantages

- Up to 90 % drift reduction depending on nozzle size, pressure and country
- Long injector design ensures high drift stability over a wide pressure range
- Timely application even under adverse weather conditions
- Increased workrate due to flexible use over a wide pressure range
  - Adaptation by changing the driving speed and l/ha rate without nozzle changes
- Very good deposition structure and crop penetration

G 1965
G 1966
G 1968
G 1969
G 1970
G 1971
G 1972
G 1973
G 1974
G 2088

ID3 ID3-C



Dimensions in mm.

Crop production | Ground care

Nozzle size
01 – 10

Spray angle
120°

Material
POM, ceramic

Pressure range
– ID-01 to -015:
3 – **4 – 8** bar
– ID-02 to -10:
2 – **4 – 8** bar
– UAN: 2 – 4 bar

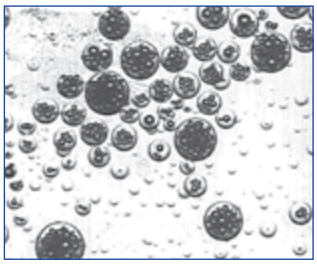
Recommended filters
80 M 01
60 M 02 – 04
25 M 05 – 10

Droplet size
Ultra coarse – medium

Width across flats
10 mm

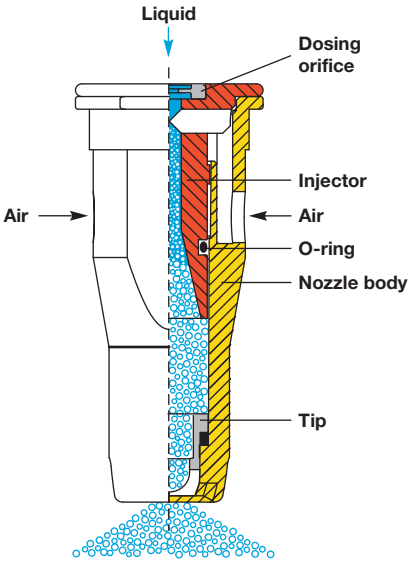
Application areas

- Plant protection products and growth regulators
- Liquid fertilizer
- Border application can be combined with border nozzle IS 80
- Golf course



Aeration effect

Toolless removable injector



Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	= ordering no.
ID3	120°	025	(POM)	= ID-120-025
ID3	120°	025	C (ceramic)	= ID-120-025 C

Spray table for air-injector flat spray nozzles ID3

	ISO 25358		l/min	l/ha (0.5 m) 5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
ID-120-01 (80 M)	XC	3.0	0.39	94	78	67	59	47	39	33	29	26
	VC	4.0	0.45	108	90	77	68	54	45	39	34	30
	VC	5.0	0.51	122	102	87	77	61	51	44	38	34
	VC	6.0	0.55	132	110	94	83	66	55	47	41	37
	C	7.0	0.60	144	120	103	90	72	60	51	45	40
	C	8.0	0.64	154	128	110	96	77	64	55	48	43
ID-120-015 (60 M)	VC	3.0	0.59	142	118	101	89	71	59	51	44	39
	VC	4.0	0.68	163	136	117	102	82	68	58	51	45
	VC	5.0	0.76	182	152	130	114	91	76	65	57	51
	C	6.0	0.83	199	166	142	125	100	83	71	62	55
	C	7.0	0.90	216	180	154	135	108	90	77	68	60
	C	8.0	0.96	230	192	165	144	115	96	82	72	64
ID-120-02 (60 M)	XC	2.0	0.65	156	130	111	98	78	65	56	49	43
	VC	3.0	0.80	192	160	137	120	96	80	69	60	53
	VC	4.0	0.92	221	184	158	138	110	92	79	69	61
	VC	5.0	1.03	247	206	177	155	124	103	88	77	69
	C	6.0	1.13	271	226	194	170	136	113	97	85	75
	C	7.0	1.22	293	244	209	183	146	122	105	92	81
	M	8.0	1.30	312	260	223	195	156	130	111	98	87
ID-120-025 (60 M)	UC	2.0	0.81	194	162	139	122	97	81	69	61	54
	XC	3.0	0.99	238	198	170	149	119	99	85	74	66
	VC	4.0	1.15	276	230	197	173	138	115	99	86	77
	VC	5.0	1.28	307	256	219	192	154	128	110	96	85
	VC	6.0	1.40	336	280	240	210	168	140	120	105	93
	VC	7.0	1.52	365	304	261	228	182	152	130	114	101
	VC	8.0	1.62	389	324	278	243	194	162	139	122	108
ID-120-03 (60 M)	UC	2.0	0.97	233	194	166	146	116	97	83	73	65
	XC	3.0	1.19	286	238	204	179	143	119	102	89	79
	VC	4.0	1.37	329	274	235	206	164	137	117	103	91
	VC	5.0	1.53	367	306	262	230	184	153	131	115	102
	VC	6.0	1.68	403	336	288	252	202	168	144	126	112
	VC	7.0	1.81	434	362	310	272	217	181	155	136	121
	VC	8.0	1.94	466	388	333	291	233	194	166	146	129
ID-120-04 (60 M)	XC	2.0	1.29	310	258	221	194	155	129	111	97	86
	XC	3.0	1.58	379	316	271	237	190	158	135	119	105
	VC	4.0	1.82	437	364	312	273	218	182	156	137	121
	VC	5.0	2.04	490	408	350	306	245	204	175	153	136
	VC	6.0	2.23	535	446	382	335	268	223	191	167	149
	VC	7.0	2.41	578	482	413	362	289	241	207	181	161
	VC	8.0	2.58	619	516	442	387	310	258	221	194	172
ID-120-05 (25 M)	UC	2.0	1.61	386	322	276	242	193	161	138	121	107
	XC	3.0	1.97	473	394	338	296	236	197	169	148	131
	VC	4.0	2.28	547	456	391	342	274	228	195	171	152
	VC	5.0	2.55	612	510	437	383	306	255	219	191	170
	VC	6.0	2.79	670	558	478	419	335	279	239	209	186
	VC	7.0	3.01	722	602	516	452	361	301	258	226	201
	VC	8.0	3.22	773	644	552	483	386	322	276	242	215
ID-120-06 (25 M)	XC	2.0	1.93	463	386	331	290	232	193	165	145	129
	XC	3.0	2.36	566	472	405	354	283	236	202	177	157
	VC	4.0	2.73	655	546	468	410	328	273	234	205	182
	VC	5.0	3.05	732	610	523	458	366	305	261	229	203
	VC	6.0	3.34	802	668	573	501	401	334	286	251	223
	VC	7.0	3.61	866	722	619	542	433	361	309	271	241
	VC	8.0	3.86	926	772	662	579	463	386	331	290	257
ID-120-08 (25 M)	XC	2.0	2.58	619	516	442	387	310	258	221	194	172
	XC	3.0	3.16	758	632	542	474	379	316	271	237	211
	VC	4.0	3.65	876	730	626	548	438	365	313	274	243
	VC	5.0	4.08	979	816	699	612	490	408	350	306	272
	VC	6.0	4.47	1073	894	766	671	536	447	383	335	298
	VC	7.0	4.83	1159	966	828	725	580	483	414	362	322
	VC	8.0	5.16	1238	1032	885	774	619	516	442	387	344
ID-120-10 (25 M)	UC	2.0	3.22	773	644	552	483	386	322	276	242	215
	XC	3.0	3.94	946	788	675	591	473	394	338	296	263
	XC	4.0	4.55	1092	910	780	683	546	455	390	341	303
	VC	5.0	5.09	1222	1018	873	764	611	509	436	382	339
	VC	6.0	5.57	1337	1114	955	836	668	557	477	418	371
	VC	7.0	6.02	1445	1204	1032	903	722	602	516	452	401
	VC	8.0	6.43	1543	1286	1102	965	772	643	551	482	429

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

Apple

Android

Air-injector flat spray compact nozzles IDK/IDKN

Drift reduction: 90/75/50 %

Current list under **www.lechler-agri.com/drift-reduction**

JKI-approval for mixed nozzle equipping

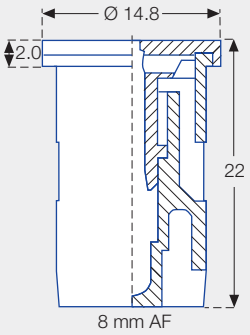
Very low-drift, compact air-injector flat spray nozzle with wide droplet spectrum (from ultra coarse to medium).

Advantages

- Up to 90 % drift reduction depending on nozzle size, pressure and country
- Very low drift and loss-reducing in the pressure range up to 3.0 bar (depending on size)
- Inexpensive alternative to conventional standard nozzles
- Very good deposition structure and crop penetration

G 1661
G 1662
G 1663
G 1683
G 1718
G 1799
G 1800
G 1801
G 1802
G 1936

IDK IDK-C IDKN*



* IDKN-characteristic: body with white stripe

Crop production | Ground care

Dimensions in mm.

Nozzle size
01 – 10

Spray angle
90°, 120°

Material
POM, ceramic

Pressure range
- IDK-01 to -03: **1.5 – 3** – 6 bar
- IDK-04 to -10: 1 – **1.5 – 3** – 6 bar
- UAN
  IDK -01 to -03:
  1.5 – 2.5 bar
  IDK -04 to -10:
  1 – 2.5 bar
  IDKN: 1 – 2.5 bar

Recommended filters
80 M 01
60 M 015 – 04
25 M 05 – 10

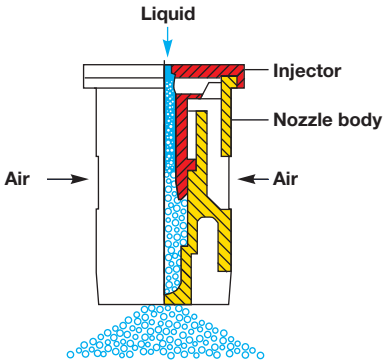
Droplet size
Ultra coarse – medium

Width across flats
8 mm

Application areas

- Plant protection products and growth regulators
- Liquid fertilizer
- Spray frame
- Border application can be combined with border nozzle IDKS 80
- Golf course
- Knapsack sprayer
- Greenhouse

Toolless removable injector



Example of ordering

Typ	+	spray angle	+	int'l nozzle size	+	material	=	ordering no.
IDK		120°		01		(POM)	=	IDK 120-01
IDK		120°		01		C (ceramic)	=	IDK 120-01 C
MultiCap IDK		120°		01		(POM)	=	MultiCap IDK 120-01

Spray table for air-injector flat spray compact nozzles IDK/IDKN

	ISO 25358			l/min	l/ha (0.5m)								
	IDKN	IDK			5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
IDK 120-01 90-01 (80 M)			1.0	0.23	55	46	39	35	28	23	20	17	15
		VC	1.5	0.28	67	56	48	42	34	28	24	21	19
		VC	2.0	0.32	77	64	55	48	38	32	27	24	21
		VC	2.5	0.36	86	72	62	54	43	36	31	27	24
		VC	3.0	0.39	94	78	67	59	47	39	33	29	26
		C	4.0	0.45	108	90	77	68	54	45	39	34	30
		M	5.0	0.51	122	102	87	77	61	51	44	38	34
		M	6.0	0.55	132	110	94	83	66	55	47	41	37
IDK 120-015 90-015 (60 M)			1.0	0.34	82	68	58	51	41	34	29	26	23
		VC	1.5	0.42	101	84	72	63	50	42	36	32	28
		VC	2.0	0.48	115	96	82	72	58	48	41	36	32
		VC	2.5	0.54	130	108	93	81	65	54	46	41	36
		C	3.0	0.59	142	118	101	89	71	59	51	44	39
		C	4.0	0.68	163	136	117	102	82	68	58	51	45
		M	5.0	0.76	182	152	130	114	91	76	65	57	51
		M	6.0	0.83	199	166	142	125	100	83	71	62	55
IDK 120-02 90-02 (60 M)			1.0	0.46	110	92	79	69	55	46	39	35	31
		VC	1.5	0.56	134	112	96	84	67	56	48	42	37
		VC	2.0	0.65	156	130	111	98	78	65	56	49	43
		VC	2.5	0.73	175	146	125	110	88	73	63	55	49
		VC	3.0	0.80	192	160	137	120	96	80	69	60	53
		C	4.0	0.92	221	184	158	138	110	92	79	69	61
		C	5.0	1.03	247	206	177	155	124	103	88	77	69
		M	6.0	1.13	271	226	194	170	136	113	97	85	75
IDK 120-025 90-025		XC	1.0	0.57	137	114	98	86	68	57	49	43	38
		VC	1.5	0.70	168	140	120	105	84	70	60	53	47
		VC	2.0	0.81	194	162	139	122	97	81	69	61	54
		VC	2.5	0.91	218	182	156	137	109	91	78	68	61
		C	3.0	0.99	238	198	170	149	119	99	85	74	66
		C	4.0	1.15	276	230	197	173	138	115	99	86	77
		M	5.0	1.28	307	256	219	192	154	128	110	96	85
		M	6.0	1.40	336	280	240	210	168	140	120	105	93
IDK 120-03 90-03 IDKN 120-03 (60 M)	UC	XC	1.0	0.69	166	138	118	104	83	69	59	52	46
	XC	VC	1.5	0.84	202	168	144	126	101	84	72	63	56
	XC	VC	2.0	0.97	233	194	166	146	116	97	83	73	65
	VC	VC	2.5	1.08	259	216	185	162	130	108	93	81	72
	VC	VC	3.0	1.19	286	238	204	179	143	119	102	89	79
	VC	C	4.0	1.37	329	274	235	206	164	137	117	103	91
	C	C	5.0	1.53	367	306	262	230	184	153	131	115	102
	C	M	6.0	1.68	403	336	288	252	202	168	144	126	112
IDK IDKN 120-04 (60 M)	UC	UC	1.0	0.91	218	182	156	137	109	91	78	68	61
	XC	XC	1.5	1.12	269	224	192	168	134	112	96	84	75
	XC	XC	2.0	1.29	310	258	221	194	155	129	111	97	86
	VC	VC	2.5	1.44	346	288	247	216	173	144	123	108	96
	VC	VC	3.0	1.58	379	316	271	237	190	158	135	119	105
	VC	C	4.0	1.82	437	364	312	273	218	182	156	137	121
	C	C	5.0	2.04	490	408	350	306	245	204	175	153	136
	C	C	6.0	2.23	535	446	382	335	268	223	191	167	149
IDK 120-05 (25 M)		XC	1.0	1.14	274	228	195	171	137	114	98	86	76
		XC	1.5	1.39	334	278	238	209	167	139	119	104	93
		VC	2.0	1.61	386	322	276	242	193	161	138	121	107
		VC	2.5	1.80	432	360	309	270	216	180	154	135	120
		VC	3.0	1.97	473	394	338	296	236	197	169	148	131
		VC	4.0	2.28	547	456	391	342	274	228	195	171	152
		C	5.0	2.55	612	510	437	383	306	255	219	191	170
		C	6.0	2.79	670	558	478	419	335	279	239	209	186
IDK 120-06 (25 M)		XC	1.0	1.36	326	272	233	204	163	136	117	102	91
		VC	1.5	1.67	401	334	286	251	200	167	143	125	111
		VC	2.0	1.93	463	386	331	290	232	193	165	145	129
		VC	2.5	2.15	516	430	369	323	258	215	184	161	143
		VC	3.0	2.36	566	472	405	354	283	236	202	177	157
		C	4.0	2.73	655	546	468	410	328	273	234	205	182
		C	5.0	3.05	732	610	523	458	366	305	261	229	203
		C	6.0	3.34	802	668	573	501	401	334	286	251	223
IDK 120-08 (25 M)	l/ha = -04 x 2												
IDK 120-10 (25 M)	l/ha = -05 x 2												

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

Apple Android

Best Protection of IDK/IDKN/IDKS/ IDKT nozzles through long side walls of MultiCap (see page 108).

Available assembled with IDK-, IDKT- and IDKN nozzle

Pre-emergence flat spray nozzle PRE

Drift reduction: 95/90/75 %

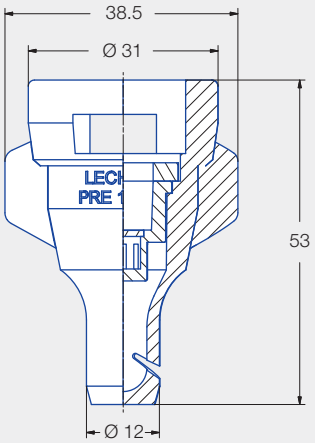
Current list under **www.lechler-agri.com/drift-reduction**

Extremely low-drift flat spray nozzle for timely application of pre-emergence herbicides.

Advantages

- Up to 95 % drift reduction depending on pressure and country
- Flexible adaption to buffer zones
- Wide pressure range from 1.5 – 8 bar
- High workrate through simple adaptation of l/ha rate and driving speed
- Timely application even under adverse weather conditions
- Nozzle in cap with MULTIJET bayonet system (incl. gasket)

G 1981



Crop production | Ground care

Dimensions in mm.

Nozzle size
05

Spray angle
130°

Material
POM

Pressure range
1.5 – 8 bar
– UAN: 1.5 – 4 bar

Recommended filters
25 M

Droplet size
Ultra coarse

Application areas

Herbicides pre-emerge

Liquid fertilizer

Golf course

Spray table for pre-emergence flat spray nozzle PRE

	ISO 25358		l/min	l/ha (0.5 m)								
				5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
PRE 130-05 (25 M)	UC	1.5	1.55	372	310	266	233	186	155	133	116	103
	UC	2.0	1.73	415	346	297	260	208	173	148	130	115
	UC	3.0	2.00	480	400	343	300	240	200	171	150	133
	UC	4.0	2.24	538	448	384	336	269	224	192	168	149
	UC	5.0	2.45	588	490	420	368	294	245	210	184	163
	UC	6.0	2.64	634	528	453	396	317	264	226	198	176
	UC	7.0	2.82	677	564	483	423	338	282	242	212	188
	UC	8.0	2.99	718	598	513	449	359	299	256	224	199

Example of ordering

Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering number
PRE		130°		05		(POM)	=	PRE 130-05

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Anti-drift flat spray nozzles AD

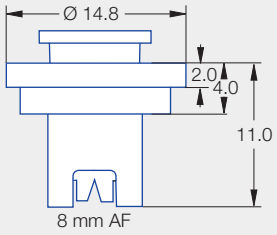
Low-drift flat spray nozzle.

Advantages
- Application with medium to coarse droplet even with low l/ha rates
- Integrated pre-chamber ensures optimized atomization and reduced fine droplet share
- Preatomizer can be removed for cleaning

G 1666
G 1667
G 1668
G 2041
G 2042

AD

AD-C



Crop production | Ground care

Dimensions in mm.

Nozzle size
015 – 04

Spray angle
90°, 120°

Material
POM, ceramic

Pressure range
1.5 – 3 – 6 bar

Recommended filters
80 M 01 – 015
60 M 02 – 04

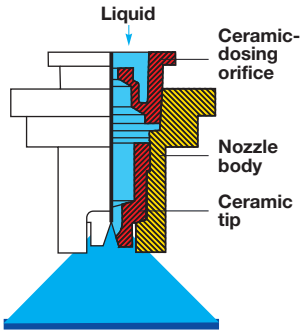
Droplet size
Coarse – fine

Width across flats
8 mm

Application areas

Plant protection products and growth regulators

Removable preatomizer



Spray table for anti-drift flat spray nozzles AD

	ISO 25358		l/min	l/ha (0.5 m)								
				5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
AD 120-015 90-015 (80 M)	M	1.5	0.42	101	84	72	63	50	42	36	32	28
	M	2.0	0.48	115	96	82	72	58	48	41	36	32
	M	2.5	0.54	130	108	93	81	65	54	45	41	36
	M	3.0	0.59	142	118	101	89	71	59	51	44	39
	F	3.5	0.63	151	126	108	95	76	63	54	47	42
	F	4.0	0.68	163	136	117	102	82	68	58	51	45
	F	4.5	0.72	173	144	123	108	86	72	62	54	48
	F	5.0	0.76	182	152	130	114	91	76	65	57	51
	F	6.0	0.83	199	166	142	125	100	83	72	62	55
AD 120-02 90-02 (60 M)	M	1.5	0.56	134	112	96	84	67	56	47	42	37
	M	2.0	0.65	156	130	111	98	78	65	54	49	43
	M	2.5	0.73	175	146	125	110	88	73	61	55	49
	M	3.0	0.80	192	160	137	120	96	80	67	60	53
	F	3.5	0.86	206	172	147	129	103	86	73	65	57
	F	4.0	0.92	221	184	158	138	110	92	77	69	61
	F	4.5	0.98	235	196	168	147	118	98	82	74	65
	F	5.0	1.03	247	206	177	155	124	103	87	77	69
	F	6.0	1.13	271	226	194	170	136	113	95	85	75
AD 120-03 90-03 (60 M)	M	1.5	0.84	202	168	144	126	101	84	70	63	56
	M	2.0	0.97	233	194	166	146	116	97	81	73	65
	M	2.5	1.08	259	216	185	162	130	108	91	81	72
	M	3.0	1.19	286	238	204	179	143	119	100	89	79
	M	3.5	1.28	307	256	219	192	154	128	108	96	85
	F	4.0	1.37	329	274	235	206	164	137	116	103	91
	F	4.5	1.46	350	292	250	219	175	146	123	110	97
	F	5.0	1.53	367	306	262	230	184	153	130	115	102
	F	6.0	1.68	403	336	288	252	202	168	141	126	112
AD 120-04 90-03 (60 M)	C	1.5	1.12	269	224	192	168	134	112	93	84	75
	C	2.0	1.29	310	258	221	194	155	129	108	97	86
	M	2.5	1.44	346	288	247	216	173	144	122	108	96
	M	3.0	1.58	379	316	271	237	190	158	133	119	105
	M	3.5	1.71	410	342	293	257	205	171	144	128	114
	M	4.0	1.82	437	364	312	273	218	182	154	137	121
	M	4.5	1.94	466	388	333	291	233	194	164	146	129
	M	5.0	2.04	490	408	350	306	245	204	173	153	136
	M	6.0	2.23	535	446	382	335	268	223	189	167	149

Example of ordering

Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering no.
AD		120°		02		(POM)	=	AD 120-02
AD		120°		02		C (ceramic)	=	AD 120-02 C

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

Apple

Android

Multirange flat spray nozzles LU

Universal flat spray nozzle with finer droplet spectrum.

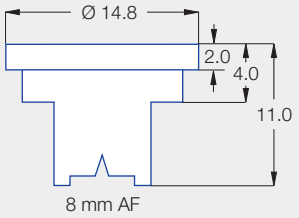
Advantages
- Extended pressure range
- Low drift in the pressure range up to 2.5 bar
- Fine-droplet application
- High manufacturing quality

G 1240
G 1242
G 1524
G 1596

LU

LU-C

LU-S



Dimensions in mm.

Crop production | Ground care

Nozzle size
01 – 08

Spray angle
90°, 120°

Material
POM, stainless steel, ceramic

Pressure range
1.5 – 2.5 – 5 bar

Recommended filters
80 M 01 – 015
60 M 02 – 04
25 M 05 – 08

Droplet size
Coarse – very fine

Width across flats
8 mm

Application areas

Plant protection products and growth regulators

Border application can be combined with border nozzle OC

Knapsack sprayer

Greenhouse

Spray table for multirange flat spray nozzles LU

	ISO 25358		l/min	l/ha (0.5 m)								
				5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
LU 120-01 90-01 (80 M)	F	1.5	0.28	67	56	48	42	34	28	24	21	19
	F	2.0	0.32	77	64	55	48	38	32	27	24	21
	F	3.0	0.39	94	78	67	59	47	39	33	29	26
	F	4.0	0.45	108	90	77	68	54	45	39	34	30
	VF	5.0	0.51	122	102	87	77	61	51	44	38	34
LU 120-015 90-015 (80 M)	F	1.5	0.42	101	84	72	63	50	42	36	32	28
	F	2.0	0.48	115	96	82	72	58	48	41	36	32
	F	3.0	0.59	142	118	101	89	71	59	51	44	39
	F	4.0	0.68	163	136	117	102	82	68	58	51	45
	VF	5.0	0.76	182	152	130	114	91	76	65	57	51
LU 120-02 90-02 (60 M)	M	1.5	0.56	134	112	96	84	67	56	48	42	37
	F	2.0	0.65	156	130	111	98	78	65	56	49	43
	F	3.0	0.80	192	160	137	120	96	80	69	60	53
	F	4.0	0.92	221	184	158	138	110	92	79	69	61
	F	5.0	1.03	247	206	177	155	124	103	88	77	69
LU 120-025 (60 M)	M	1.5	0.70	168	140	120	105	84	70	60	53	47
	F	2.0	0.81	194	162	139	122	97	81	69	61	54
	F	3.0	0.99	238	198	170	149	119	99	85	74	66
	F	4.0	1.15	276	230	197	173	138	115	99	86	77
	F	5.0	1.28	307	256	219	192	154	128	110	96	85
LU 120-03 90-03 (60 M)	M	1.5	0.84	202	168	144	126	101	84	72	63	56
	F	2.0	0.97	233	194	166	146	116	97	83	73	65
	F	3.0	1.19	286	238	204	179	143	119	102	89	79
	F	4.0	1.37	329	274	235	206	164	137	117	103	91
	F	5.0	1.53	367	306	262	230	184	153	131	115	102
LU 120-04 90-04 (60 M)	M	1.5	1.12	269	224	192	168	134	112	96	84	75
	M	2.0	1.29	310	258	221	194	155	129	111	97	86
	F	3.0	1.58	379	316	271	237	190	158	135	119	105
	F	4.0	1.82	437	364	312	273	218	182	156	137	121
	F	5.0	2.04	490	408	350	306	245	204	175	153	136
LU 120-05 90-05 (25 M)	M	1.5	1.39	334	278	238	209	167	139	119	104	93
	M	2.0	1.61	386	322	276	242	193	161	138	121	107
	F	3.0	1.97	473	394	338	296	236	197	169	148	131
	F	4.0	2.28	547	456	391	342	274	228	195	171	152
	F	5.0	2.55	612	510	437	383	306	255	219	191	170
LU 120-06 90-06 (25 M)	M	1.5	1.67	401	334	286	251	200	167	143	125	111
	M	2.0	1.93	463	386	331	290	232	193	165	145	129
	F	3.0	2.36	566	472	405	354	283	236	202	177	157
	F	4.0	2.73	655	546	468	410	328	273	234	205	182
	F	5.0	3.05	732	610	523	458	366	305	261	229	203
LU 120-08 90-08 (25 M)	C	1.5	2.23	535	446	382	335	268	223	191	167	149
	M	2.0	2.58	619	516	442	387	310	258	221	194	172
	M	3.0	3.16	758	632	542	474	379	316	271	237	211
	M	4.0	3.65	876	730	626	548	438	365	313	274	243
	M	5.0	4.08	979	816	699	612	490	408	350	306	272

Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	= ordering no.
LU	120°	02	(POM)	= LU 120-02
LU	120°	015	C (ceramic)	= LU 120-015 C
LU	120°	03	S (stainless steel)	= LU 120-03 S

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

Apple

Android

Quality
flat spray nozzles QS 80

Ceramic universal flat spray nozzles with a finer droplet spectrum, for low l/ha rates and higher workrates.

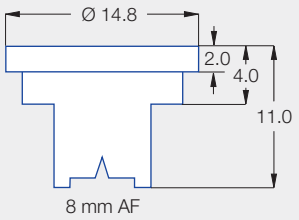
Advantages

- 80° flat spray reduces drift in comparison with 110°/120° flat spray
- Higher droplet density thanks to optimized droplet spectrum
- Lower volume flow tolerance of +1 / –3 % due to high manufacturing quality.
- Optimum cross distribution for boom heights of 0.6 – 0.9 m
- Ceramic tip ensures high wear resistance

QS 80-015 C

QS 80-02 C

QS 80-025 C



Dimensions in mm.

Crop production | Ground care

Nozzle size
015 – 025

Spray angle
80°

Material
Ceramic

Pressure range
1.5 – 5 bar

Recommended filters
80 M 015
60 M 02 – 025

Droplet size
Medium – fine

Width across flats
8 mm

Boom height
60 – 90 cm

Application areas

Plant protection products and growth regulators

Border application can be combined with border nozzle OC

Spray table for quality flat spray nozzles QS 80

	ISO 25358	bar	l/min	l/ha										
				5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	9.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h	20.0 km/h
QS 80-015 (80 M)	F	1.5	0.42	101	84	72	63	56	50	42	36	32	28	25
	F	2.0	0.48	115	96	82	72	64	58	48	41	36	32	29
	F	2.5	0.54	130	108	93	81	72	65	54	46	41	36	32
	F	3.0	0.59	142	118	101	89	79	71	59	51	44	39	35
	F	3.5	0.63	151	126	108	95	84	76	63	54	47	42	38
	F	4.0	0.68	163	136	117	102	91	82	68	58	51	45	41
	F	5.0	0.76	182	152	130	114	101	91	76	650	57	51	46
QS 80-02 (60 M)	M	1.5	0.56	134	112	96	84	75	67	56	48	42	37	34
	F	2.0	0.65	156	130	111	98	87	78	65	56	49	43	39
	F	2.5	0.73	175	146	125	110	97	88	73	63	55	49	44
	F	3.0	0.80	192	160	137	120	107	96	80	69	60	53	48
	F	3.5	0.86	206	172	147	129	115	103	86	74	65	57	52
	F	4.0	0.92	221	184	158	138	123	110	92	79	69	61	55
	F	5.0	1.03	247	206	177	155	137	124	103	97	77	69	62
QS 80-025 (60 M)	M	1.5	0.70	168	140	120	105	93	84	70	60	53	47	42
	F	2.0	0.81	194	162	139	122	108	97	81	69	61	54	49
	F	2.5	0.91	218	182	156	137	121	109	91	78	68	61	55
	F	3.0	0.99	238	198	170	149	132	119	99	85	74	66	59
	F	3.5	1.07	257	214	183	161	143	129	107	92	80	71	64
	F	4.0	1.15	276	230	197	173	153	138	115	99	86	77	69
	F	5.0	1.28	307	256	219	192	171	154	128	110	96	85	77

Example of ordering

Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering number
QS		80°		015		C (ceramic)	=	QS 80-015 C

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Standard
flat spray nozzles ST/SC

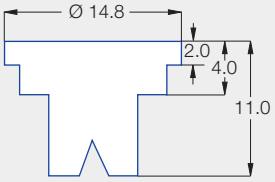
Standard flat spray nozzle (ST) or nozzle in cap system MULTIJET (SC).

Advantages
- Color coding in accordance with ISO Standard 10625
- Inexpensive flat spray nozzle
- SC: Nozzle in cap with MULTIJET bayonet system (incl. gasket)
- Nozzle in cap offers
  - lower assembly and storage costs
  - simple and fast assembly

ST

ST-C

SC



8 mm AF

Crop production | Ground care

Dimensions in mm.

Nozzle size
01 – 08

Spray angle
80°, 110°

Material
POM, ceramic, brass on request

Pressure range
– SC 025 – 05:
2 – 3 – 5 bar
– ST 01 – 08:
2 – 3 – 5 bar

Recommended filters
80 M 01 – 015
60 M 02 – 04
25 M 05 – 08

Droplet size
Coarse – very fine

Width across flats
8 mm

Boom height
– ST 80°:
60 – **75** – 90 cm
– ST 110°:
40 – **50** – 60 cm

Application areas

Plant protection products and growth regulators

Border application can be combined with border nozzle OC

Knapsack sprayer (only ST)

Spray table for standard flat spray nozzles ST/SC

	bar	l/min	l/ha (0.5 m)								
			5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
ST 110-01 80-01 (80 M)	2.0	0.32	77	64	55	48	38	32	27	24	21
	2.5	0.36	86	72	62	54	43	36	31	27	24
	3.0	0.39	94	78	67	59	47	39	33	29	26
	4.0	0.45	108	90	77	68	54	45	39	34	30
	5.0	0.51	122	102	87	77	61	51	44	38	34
ST 110-015 80-015 (80 M)	2.0	0.48	115	96	82	72	58	48	41	36	32
	2.5	0.54	130	108	93	81	65	54	46	41	36
	3.0	0.59	142	118	101	89	71	59	51	44	39
	4.0	0.68	163	136	117	102	82	68	58	51	45
	5.0	0.76	182	152	130	114	91	76	65	57	51
ST 110-02 80-02 (60 M)	2.0	0.65	156	130	111	98	78	65	56	49	43
	2.5	0.73	175	146	125	110	88	73	63	55	49
	3.0	0.80	192	160	137	120	96	80	69	60	53
	4.0	0.92	221	184	158	138	110	92	79	69	61
	5.0	1.03	247	206	177	155	124	103	88	77	69
SC/ST 110-025 (60 M)	2.0	0.81	194	162	139	122	97	81	69	61	54
	2.5	0.91	218	182	156	137	109	91	78	68	61
	3.0	0.99	238	198	170	149	119	99	85	74	66
	4.0	1.15	276	230	197	173	138	115	99	86	77
	5.0	1.28	307	256	219	192	154	128	110	96	85
SC/ST 110-03 80-03 (60 M)	2.0	0.97	233	194	166	146	116	97	83	73	65
	2.5	1.08	259	216	185	162	130	108	93	81	72
	3.0	1.19	286	238	204	179	143	119	102	89	79
	4.0	1.37	329	274	235	206	164	137	117	103	91
	5.0	1.53	367	306	262	230	184	153	131	115	102
SC/ST 110-04 80-04 (60 M)	2.0	1.29	310	258	221	194	155	129	111	97	86
	2.5	1.44	346	288	247	216	173	144	123	108	96
	3.0	1.58	379	316	271	237	190	158	135	119	105
	4.0	1.82	437	364	312	273	218	182	156	137	121
	5.0	2.04	490	408	350	306	245	204	175	153	136
SC/ST 110-05 80-05 (25 M)	2.0	1.61	386	322	276	242	193	161	138	121	107
	2.5	1.80	432	360	309	270	216	180	154	135	120
	3.0	1.97	473	394	338	296	236	197	169	148	131
	4.0	2.28	547	456	391	342	274	228	195	171	152
	5.0	2.55	612	510	437	383	306	255	219	191	170
ST 110-06 80-06 (25 M)	2.0	1.93	463	386	331	290	232	193	165	145	129
	2.5	2.16	518	432	370	324	259	216	185	162	144
	3.0	2.36	566	472	405	354	283	236	202	177	157
	4.0	2.73	655	546	468	410	328	273	234	205	182
	5.0	3.05	732	610	523	458	366	305	261	229	203
ST 110-08 80-08 (25 M)	2.0	2.58	619	516	442	387	310	258	221	194	172
	2.5	2.88	691	576	494	432	346	288	247	216	192
	3.0	3.16	758	632	542	474	379	316	271	237	211
	4.0	3.65	876	730	626	548	438	365	313	274	243
	5.0	4.08	979	816	699	612	490	408	350	306	272

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	= ordering no.
SC	110°	03	(POM)	= SC 110-03
ST	110°	06	(POM)	= ST 110-06
ST	110°	06	C (ceramic)	= ST 110-06 C

Asymmetrical twin flat spray air-injector nozzles IDTA

IDTA
Twin Asymmetric Full Coverage

PATENTED

Extremely low-drift, air-aspirating air injector twin flat spray nozzle for optimized deposition and reduced spray shadow at higher driving speeds.

G 2015
G 2016
G 2017
G 2018
G 2019
G 2020
G 2021
G 2022
G 2043

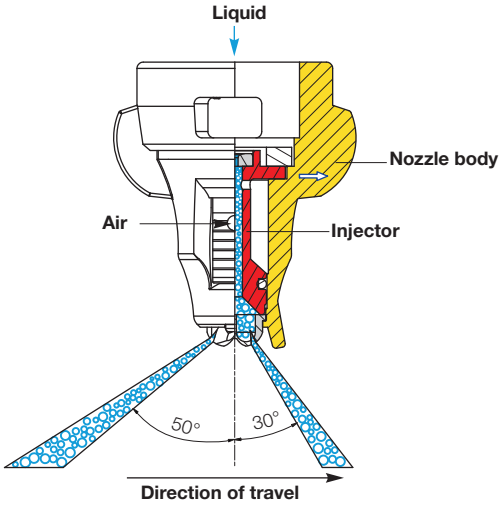
Dimensions in mm.

Crop production | Ground care

Advantages

- High drift reduction over entire pressure range
- Nozzle in cap with MULTIJET bayonet system (incl. gasket)
- Twin flat spray jet 30°/50° with asymmetrical spray angles and flow rates
  - 90°/120° gives on the target area the same spray width
  - Finer droplet spectrum to the front in driving direction for optimum wetting
  - Coarser, more drift-resistant droplet spectrum to the rear
- Optimum user protection thanks to removal/installation of the injector with protective gloves without tools (Patent)
- JKI approval for mixed equipment with ID3 nozzles with the same nozzle size in the boom center section

Toolless removable injector



Nozzle size
02 – 08

Spray angle
front 120°/
back 90°

Material
Ceramic

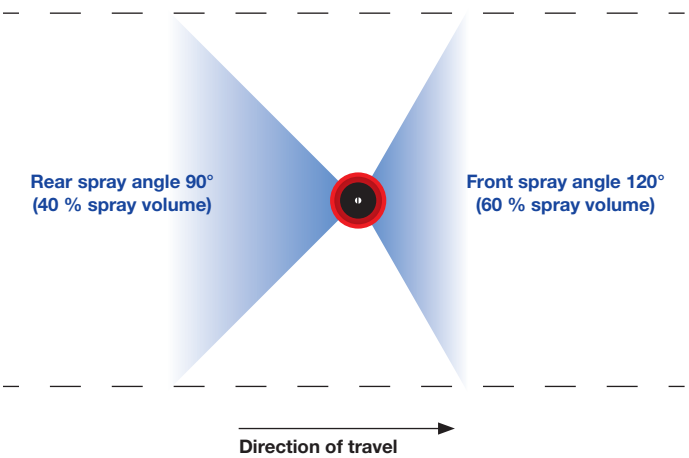
Pressure range
1 – **4 – 8** bar

Recommended filters
80 M 02
60 M 025 – 08

Droplet size
Ultra coarse – coarse

Application areas

- Plant protection products and growth regulators
- Border application can be combined with border nozzle IS 80
- Golf course



Spray table for asymmetrical twin flat spray air-injector nozzles IDTA

	ISO 25358		l/min	l/ha (0.5 m)								
				5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
IDTA 120-02 (80 M)	UC	1.0	0.46	110	92	79	69	55	46	39	35	31
	UC	1.5	0.56	134	112	96	84	67	56	48	42	37
	UC	2.0	0.65	156	130	111	98	78	65	56	49	43
	VC	3.0	0.80	192	160	137	120	96	80	69	60	53
	VC	4.0	0.92	221	184	158	138	110	92	79	69	61
	VC	5.0	1.03	247	206	177	155	124	103	88	77	69
	VC	6.0	1.13	271	226	194	170	136	113	97	85	75
	VC	7.0	1.22	293	244	209	183	146	122	105	92	81
	VC	8.0	1.30	312	260	223	195	156	130	111	98	87
IDTA 120-025 (60 M)	UC	1.0	0.57	137	114	98	86	68	57	49	43	38
	UC	1.5	0.70	168	140	120	105	84	70	60	53	47
	UC	2.0	0.81	194	162	139	122	97	81	69	61	54
	XC	3.0	0.99	238	198	170	149	119	99	85	74	66
	VC	4.0	1.15	276	230	197	173	138	115	99	86	77
	VC	5.0	1.28	307	256	219	192	154	128	110	96	85
	VC	6.0	1.40	336	280	240	210	168	140	120	105	93
	VC	7.0	1.52	365	304	261	228	182	152	130	114	101
	VC	8.0	1.62	389	324	278	243	194	162	139	122	108
IDTA 120-03 (60 M)	UC	1.0	0.69	166	138	118	104	83	69	59	52	46
	UC	1.5	0.84	202	168	144	126	101	84	72	63	56
	XC	2.0	0.97	233	194	166	146	116	97	83	73	65
	VC	3.0	1.19	286	238	204	179	143	119	102	89	79
	VC	4.0	1.37	329	274	235	206	164	137	117	103	91
	VC	5.0	1.53	367	306	262	230	184	153	131	115	102
	VC	6.0	1.68	403	336	288	252	202	168	144	126	112
	VC	7.0	1.81	434	362	310	272	217	181	155	136	121
	VC	8.0	1.94	466	388	333	291	233	194	166	146	129
IDTA 120-04 (60 M)	UC	1.0	0.91	218	182	156	137	109	91	78	68	61
	UC	1.5	1.12	269	224	192	168	134	112	96	84	75
	XC	2.0	1.29	310	258	221	194	155	129	111	97	86
	VC	3.0	1.58	379	316	271	237	190	158	135	119	105
	VC	4.0	1.82	437	364	312	273	218	182	156	137	121
	VC	5.0	2.04	490	408	350	306	245	204	175	153	136
	VC	6.0	2.23	535	446	382	335	268	223	191	167	149
	VC	7.0	2.41	578	482	413	362	289	241	207	181	161
	C	8.0	2.58	619	516	442	387	310	258	221	194	172
IDTA 120-05 (60 M)	UC	1.0	1.14	274	228	195	171	137	114	98	86	76
	UC	1.5	1.39	334	278	238	209	167	139	119	104	93
	XC	2.0	1.61	386	322	276	242	193	161	138	121	107
	VC	3.0	1.97	473	394	338	296	236	197	169	148	131
	VC	4.0	2.28	547	456	391	342	274	228	195	171	152
	VC	5.0	2.55	612	510	437	383	306	255	219	191	170
	VC	6.0	2.79	670	558	478	419	335	279	239	209	186
	C	7.0	3.01	722	602	516	452	361	301	258	226	201
	C	8.0	3.22	773	644	552	483	386	322	276	242	215
IDTA 120-06 (60 M)	UC	1.0	1.36	326	272	233	204	163	136	117	102	91
	UC	1.5	1.67	401	334	286	251	200	167	143	125	111
	XC	2.0	1.93	463	386	331	290	232	193	165	145	129
	VC	3.0	2.36	566	472	405	354	283	236	202	177	157
	VC	4.0	2.73	655	546	468	410	328	273	234	205	182
	VC	5.0	3.05	732	610	523	458	366	305	261	229	203
	VC	6.0	3.34	802	668	573	501	401	334	286	251	223
	C	7.0	3.61	866	722	619	542	433	361	309	271	241
	C	8.0	3.86	926	772	662	579	463	386	331	290	257
IDTA 120-08 (60 M)	UC	1.0	1.82	437	364	312	273	218	182	156	137	121
	UC	1.5	2.23	535	446	382	335	268	223	191	167	149
	XC	2.0	2.58	619	516	442	387	310	258	221	194	172
	VC	3.0	3.16	758	632	542	474	379	316	271	237	211
	VC	4.0	3.65	876	730	626	548	438	365	313	274	243
	VC	5.0	4.08	979	816	699	612	490	408	350	306	272
	VC	6.0	4.47	1073	894	766	671	536	447	383	335	298
	C	7.0	4.83	1159	966	828	725	580	483	414	362	322
	C	8.0	5.16	1238	1032	885	774	619	516	442	387	344

Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	= ordering no.
IDTA	120°	025	C (ceramic)	= IDTA 120-025 C

JKI approval for mixed nozzle equipping

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

Apple

Android

For further intermediate adapter for other bayonet systems please see page 109

Symmetrical TWIN flat spray air-injector compact nozzles IDKT

Drift reduction: 90/75/50 %

Current list under **www.lechler-agri.com/drift-reduction**

Each also in association with IDKS-border nozzles identical size.

JKI-approval for mixed nozzle equipping

Very low-drift, air-injector twin flat spray nozzle for optimized deposition and reduced spray shadow.

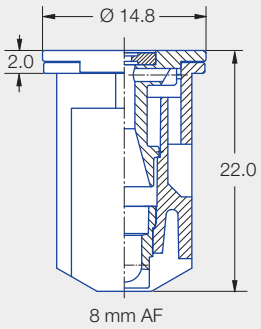
Advantages

- Up to 90 % drift reduction depending on nozzle size, pressure and country
- Compact design
- Optimum deposition on foliage and vertical target surfaces thanks to symmetrical twin flat spray jet 30°/30°
- Reduced spray shadow
- Drift reducing up to 3 bar (depending on nozzle size)
- JKI approval for mixed equipment with IDK/IDKN nozzles with the same nozzle sized in the boom center section

G 1836
G 1837
G 1865
G 1882
G 1883
G 1884
G 1911
G 1912
G 1932
G 1933
G 1934
G 1935
G 1937

IDKT-C

IDKT



Dimensions in mm.

Crop production | Ground care

Nozzle size
015 – 06

Spray angle
120°

Material
POM, ceramic

Pressure range
– IDKT 015 to 025: **1.5 – 3** – 6 bar
– IDKT 03 to 06: 1 – **1.5 – 3** – 6 bar

Recommended filters
80 M 015 – 02
60 M 025 – 06

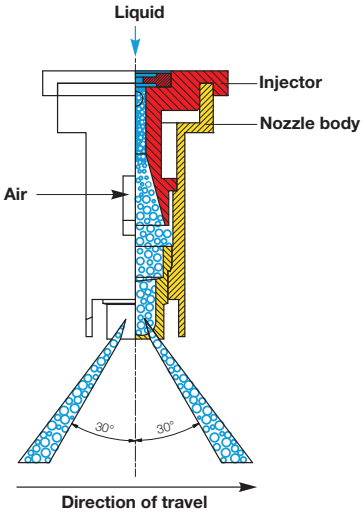
Droplet size
Ultra coarse – medium

Width across flats
8 mm

Application areas

- Plant protection products
- Spray frame
- Border application can be combined with border nozzle IDKS 80
- Golf course
- Greenhouse

Toolless removable injector



Spray table for symmetrical TWIN flat spray air-injector compact nozzles IDKT

	ISO 25358	bar	l/min	l/ha (0.5 m) 5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
IDKT 120-015 (80 M)	UC	1.5	0.42	101	84	72	63	50	42	36	32	28
	XC	2.0	0.48	115	96	82	72	58	48	41	36	32
	XC	2.5	0.54	130	108	93	81	65	54	46	41	36
	VC	3.0	0.59	142	118	101	89	71	59	51	44	39
	VC	3.5	0.64	154	128	110	96	77	64	55	48	43
	VC	4.0	0.68	163	136	117	102	82	68	58	51	45
	VC	5.0	0.76	182	152	130	114	91	76	65	57	51
	VC	6.0	0.83	199	166	142	125	100	83	71	62	55
IDKT 120-02 (80 M)	XC	1.5	0.56	134	112	96	84	67	56	48	42	37
	XC	2.0	0.65	156	130	111	98	78	65	56	49	43
	VC	2.5	0.73	175	146	125	110	88	73	63	55	49
	VC	3.0	0.80	192	160	137	120	96	80	69	60	53
	VC	3.5	0.86	206	172	147	129	103	86	74	65	57
	VC	4.0	0.92	221	184	158	138	110	92	79	69	61
	C	5.0	1.03	247	206	177	155	124	103	88	77	69
	C	6.0	1.13	271	226	194	170	136	113	97	85	75
IDKT 120-025 (60 M)	XC	1.5	0.70	168	140	120	105	84	70	60	53	47
	VC	2.0	0.81	194	162	139	122	97	81	69	61	54
	VC	2.5	0.91	218	182	156	137	109	91	78	68	61
	VC	3.0	0.99	238	198	170	149	119	99	85	74	66
	VC	3.5	1.07	257	214	183	161	128	107	92	80	71
	VC	4.0	1.15	276	230	197	173	138	115	99	86	77
	C	5.0	1.28	307	256	219	192	154	128	110	96	85
	M	6.0	1.40	336	280	240	210	168	140	120	105	93
IDKT 120-03 (60 M)	UG	1.0	0.69	166	138	118	104	83	69	59	61	54
	XC	1.5	0.84	202	168	144	126	101	84	72	63	56
	XC	2.0	0.97	233	194	166	146	116	97	83	73	65
	VC	2.5	1.08	259	216	185	162	130	108	93	81	72
	VC	3.0	1.19	286	238	204	179	143	119	102	89	79
	VC	3.5	1.28	307	256	219	192	154	128	110	96	85
	VC	4.0	1.37	329	274	235	206	164	137	117	103	91
	VC	5.0	1.53	367	306	262	230	184	153	131	115	102
	C	6.0	1.68	403	336	288	252	202	168	144	126	112
IDKT 120-04 (60 M)	XC	1.0	0.91	218	182	156	137	109	91	78	68	61
	XC	1.5	1.12	269	224	192	168	134	112	96	84	75
	VC	2.0	1.29	310	258	221	194	155	129	111	97	86
	VC	2.5	1.44	346	288	247	216	173	144	123	108	96
	VC	3.0	1.58	379	316	271	237	190	158	135	119	105
	VC	3.5	1.71	410	342	293	257	205	171	147	128	114
	VC	4.0	1.82	437	364	312	273	218	182	156	137	121
	C	5.0	2.04	490	408	350	306	245	204	175	153	136
	C	6.0	2.23	535	446	382	335	268	223	191	167	149
IDKT 120-05 (60 M)	UC	1.0	1.14	274	228	195	171	137	114	98	86	76
	XC	1.5	1.39	334	278	238	209	167	139	119	104	93
	VC	2.0	1.61	386	322	276	242	193	161	138	121	107
	VC	2.5	1.80	432	360	309	270	216	180	154	135	120
	VC	3.0	1.97	473	394	338	296	236	197	169	148	131
	VC	3.5	2.13	511	426	365	320	256	213	183	160	142
	VC	4.0	2.28	547	456	391	342	274	228	195	171	152
	C	5.0	2.55	612	510	437	383	306	255	219	191	170
	C	6.0	2.79	670	558	478	419	335	279	239	209	186
IDKT 120-06 (60 M)	UC	1.0	1.36	326	272	233	204	163	136	117	102	91
	XC	1.5	1.67	401	334	286	251	200	167	143	125	111
	VC	2.0	1.93	463	386	331	290	232	193	165	145	129
	VC	2.5	2.15	516	430	369	323	258	215	184	161	143
	VC	3.0	2.36	566	472	405	354	283	236	202	177	157
	VC	3.5	2.55	612	510	437	383	306	255	219	191	170
	VC	4.0	2.73	655	546	468	410	328	273	234	205	182
	C	5.0	3.05	732	610	523	458	366	305	261	229	203
	C	6.0	3.34	802	668	573	501	401	334	286	251	223

Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	=	ordering no.
IDKT	120°	04	(POM)	=	IDKT 120-04
IDKT	120°	04	C (ceramic)	=	IDKT 120-04 C
MultiCap IDKT	120°	04	(POM)	=	MultiCap IDKT 120-04

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

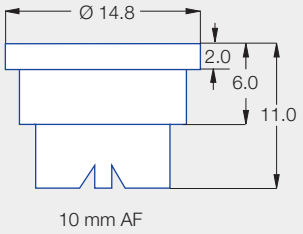
Apple Android

Recommendation: Best protection of IDKT nozzles through long side walls of MultiCap (see page 108).

Twin flat spray nozzles DF

Standard twin flat spray nozzle.

Advantages
- Twin flat spray nozzle for fine-droplet application
- Symmetrical double flat spray jet 30°/30°
- Good wetting even on vertical target surfaces
- Low risk of clogging due to central supply flow cross-section



Crop production | Ground care

Dimensions in mm.

Nozzle size
02 – 06

Spray angle
120°

Material
Stainless steel

Pressure range
2 – 3 – 5 bar

Recommended filters
80 M 02 – 03
60 M 04 – 06

Droplet size
Medium – very fine

Width across flats
10 mm

Application areas

Plant protection products and growth regulators

Border application can be combined with border nozzle OC

Spray table for twin flat spray nozzles DF

	bar	l/min	l/ha 0.5m									
			4.0 km/h	5.0 km/h	5.5 km/h	6.0 km/h	6.5 km/h	7.0 km/h	7.5 km/h	8.0 km/h	10.0 km/h	12.0 km/h
DF 120-02 (80 M)	2.0	0.65	195	156	142	130	120	111	104	98	78	65
	2.5	0.73	219	175	159	146	135	125	117	110	88	73
	3.0	0.80	240	192	175	160	148	137	128	120	96	80
	3.5	0.86	258	206	188	172	159	147	138	129	103	86
	4.0	0.92	276	221	201	184	170	158	147	138	110	92
	4.5	0.98	294	235	214	196	181	168	157	147	118	98
	5.0	1.03	309	247	225	206	190	177	165	155	124	103
DF 120-03 (80 M)	2.0	0.97	291	233	212	194	179	166	155	146	116	97
	2.5	1.08	324	259	236	216	199	185	173	162	130	108
	3.0	1.19	357	286	260	238	220	204	190	179	143	119
	3.5	1.28	384	307	279	256	236	219	205	192	154	128
	4.0	1.37	411	329	299	274	253	235	219	206	164	137
	4.5	1.46	438	350	319	292	270	250	234	219	175	146
	5.0	1.53	459	367	334	306	282	262	245	230	184	153
DF 120-04 (60 M)	2.0	1.29	387	310	281	258	238	221	206	194	155	129
	2.5	1.44	432	346	314	288	266	247	230	216	173	144
	3.0	1.58	474	379	345	316	292	271	253	237	190	158
	3.5	1.71	513	410	373	342	316	293	274	257	205	171
	4.0	1.82	546	437	397	364	336	312	291	273	218	182
	4.5	1.94	582	466	423	388	358	333	310	291	233	194
	5.0	2.04	612	490	445	408	377	350	326	306	245	204
DF 120-05 (60 M)	2.0	1.61	483	386	351	322	297	276	258	242	193	161
	2.5	1.80	540	432	393	360	332	309	288	270	216	180
	3.0	1.97	591	473	430	394	364	338	315	296	236	197
	3.5	2.13	639	511	465	426	393	365	341	320	256	213
	4.0	2.28	684	547	497	456	421	391	365	342	274	228
	4.5	2.42	726	581	528	484	447	415	387	363	290	242
	5.0	2.55	765	612	556	510	471	437	408	383	306	255
DF 120-06 (60 M)	2.0	1.93	579	463	421	386	356	331	309	290	232	193
	2.5	2.16	648	518	471	432	399	370	346	324	259	216
	3.0	2.36	708	566	515	472	436	405	378	354	283	236
	3.5	2.55	765	612	556	510	471	437	408	383	306	255
	4.0	2.73	819	655	596	546	504	468	437	410	328	273
	4.5	2.90	870	696	633	580	535	497	464	435	348	290
	5.0	3.05	915	732	665	610	563	523	488	458	366	305

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	= ordering no.
DF	120°	02	S (stainless steel)	= DF 120-02 S

TwinSprayCap
Bayonet combi-cap for air-injector nozzles and flat spray nozzles

Bayonet combi-cap (incl. gasket) with symmetrical twin flat spray jet 30°/30° for flexible nozzle equipment.

Advantages

- Variable nozzle selection also of different nozzle types and sizes
- Enhanced deposition through combination of low-drift injector nozzles and standard flat spray nozzles
- Suitable for flat spray nozzles AF 8 and 10
- Nozzle assembly without tools through plug-in clip system
- Assembly via MULTIJET and Hardi bayonet system or intermediate and extension adapters (see page 109)

Crop production | Ground care

Width across flats
8 and 10 mm and round hole

Application areas

Spray frame

Dropleg[UL]

MULTIJET with round hole bore, e.g. for use on Dropleg[UL] (see page 107)
Ordering no.: 092.163.56.10

MULTIJET
Ordering no.: 092.163.56.00

Hardi
Ordering no.: 092.163.56.01

Recommendation for installations

Wet gasket with water before assembling on nozzle holder.

Note

Select the nozzle size using the l/ha spraying tables – the correct rating corresponds to the determined nozzle size divided by two, e.g.
two times -02 corresponds to the application rate of -04 or alternatively one time -015 and one time -025 corresponds as well to -04.

Example of ordering	
Type	
TwinSprayCap (incl. Gasket no. 095.015.6C.10.13.0) System MULTIJET	**= 092.163.56.00**
TwinSprayCap (incl. Gasket no. 095.015.6C.10.13.0) System MULTIJET with round hole bore	**= 092.163.56.10**
TwinSprayCap (incl. Gasket no. 095.015.73.01.60.0) System Hardi	**= 092.163.56.01**

Flood nozzles FT

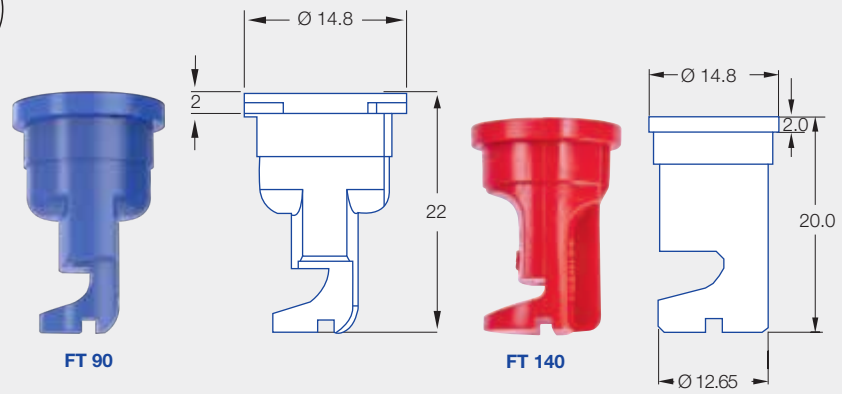
Drift reduction: 90/75/50 %

Current list under
www.lechler-agri.com/drift-reduction

Clog-resistant flat spray nozzle.

Advantages
- Compact design
- Large, round flow cross-sections
- Self cleaning of jet forming area
- Jet build-up already from 1 bar
- FT 90 high drift reduction thanks to integrated pre-chamber

G 2086



Crop production | Ground care

Dimensions in mm.

Nozzle size
01 – 20

Spray angle
90°, 140°

Material
POM, stainless steel

Pressure range
FT 90: **1 – 3** – 6 bar
FT 140: **1 – 2** – 3 bar

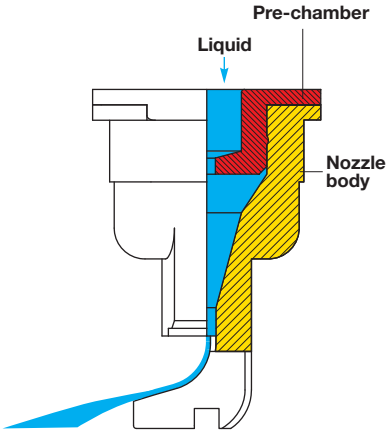
Recommended filters
80 M 01
60 M 015 – 04
25 M 05 – 20

Droplet size
FT 90: Extreme coarse – fine
FT 140: Very coarse – very fine

Threaded cap
Ø 12.65 mm

Boom height
– FT 90:
60 – **75** – 90 cm
– FT 140: 40 cm

Application areas
- Plant protection products and growth regulators
- Knapsack sprayer
- Dropleg[UL]
- Greenhouse
- Band spraying FT 90



Spray table for flood nozzles FT

	ISO 25358			l/min	l/ha 0.5 m						l/ha 0.75 m					
	FT 90	FT 140			6.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	6.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h
FT 90-01 140-01 (80 M)	XC		1	0.23	46	35	28	23	20	17	31	23	18	15	13	12
	C	VC	2	0.32	64	48	38	32	27	24	43	32	26	21	18	16
	M	C	3	0.39	78	59	47	39	33	29	52	39	31	26	22	20
	M		4	0.45	90	68	54	45	39	34	60	45	36	30	26	23
	F		6	0.55	110	83	66	55	47	41	73	55	44	37	31	28
FT 90-015 140-015 (60 M)	XC	VC	1	0.34	68	51	41	34	29	26	45	34	27	23	19	17
	M	M	2	0.48	96	72	58	48	41	36	64	48	38	32	27	24
	M	F	3	0.59	118	89	71	59	51	44	79	59	47	39	34	30
	M		4	0.68	136	102	82	68	58	51	91	68	54	45	39	34
	F		6	0.83	166	125	100	83	71	62	111	83	66	55	47	42
FT 90-02 140-02 (60 M)	VC	VC	1	0.46	92	69	55	46	39	35	61	46	37	31	26	23
	M	F	2	0.65	130	98	78	65	56	49	87	65	52	43	37	33
	M	F	3	0.80	160	120	96	80	69	60	107	80	64	53	46	40
	M		4	0.92	184	138	110	92	79	69	123	92	74	61	53	46
	F		6	1.13	226	170	136	113	97	85	151	113	90	75	65	57
FT 90-03 140-03 (60 M)	VC	C	1	0.69	138	104	83	69	59	52	92	69	55	46	39	35
	M	F	2	0.97	194	146	116	97	83	73	129	97	78	65	55	49
	M	F	3	1.19	238	179	143	119	102	89	159	119	95	79	68	60
	M		4	1.37	274	206	164	137	117	103	183	137	110	91	78	69
	M		6	1.68	336	252	202	168	144	126	224	168	134	112	96	84
FT 90-04 140-04 (60 M)	VC	M	1	0.91	182	137	109	91	78	68	121	91	73	61	52	46
	C	F	2	1.29	258	194	155	129	111	97	172	129	103	86	74	65
	M	M	3	1.58	316	237	190	158	135	119	211	158	126	105	90	79
	M		4	1.82	364	273	218	182	156	137	243	182	146	121	104	91
	M		6	2.23	446	335	268	223	191	167	297	223	178	149	127	112
FT 90-05 140-05 (25 M)	VC	M	1	1.14	228	171	137	114	98	86	152	114	91	76	65	57
	C	F	2	1.61	322	242	193	161	138	121	215	161	129	107	92	81
	C	M	3	1.97	394	296	236	197	169	148	263	197	158	131	113	99
	M		4	2.27	454	341	272	227	195	170	303	227	182	151	130	114
	M		6	2.79	558	419	335	279	239	209	372	279	223	186	159	140
FT 140-06 (25 M)		M	1	1.36	272	204	163	136	117	102	181	136	109	91	78	68
		M	2	1.93	386	290	232	193	165	145	257	193	154	129	110	97
		M	3	2.36	472	354	283	236	202	177	315	236	189	157	135	118
FT 140-08 (25 M)		M	1	1.82	364	273	218	182	156	137	243	182	146	121	104	91
		M	2	2.58	516	387	310	258	221	194	344	258	206	172	147	129
		M	3	3.16	632	474	379	316	271	237	421	316	253	211	181	158
FT 140-10 (25 M)		M	1	2.27	454	341	272	227	195	170	303	227	182	151	130	114
		M	2	3.22	644	483	386	322	276	242	429	322	258	215	184	161
		M	3	3.94	788	591	473	394	338	296	525	394	315	263	225	197
FT 140-15 (25 M)		C	1	3.41	682	512	409	341	292	256	455	341	273	227	195	171
		C	2	4.83	966	725	580	483	414	362	644	483	386	322	276	242
		C	3	5.91	1182	887	709	591	507	443	788	591	473	394	338	296
FT 140-20 (25 M)		C	1	4.55	910	683	546	455	390	341	607	455	364	303	260	228
		C	2	6.43	1286	965	772	643	551	482	857	643	514	429	367	322
		C	3	7.88	1576	1182	946	788	675	591	1051	788	630	525	450	394

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Example of ordering

Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering no.
FT 90		90°		03		(POM)	=	FT 90-03 POM
FT 140		140°		04		(POM)	=	FT 140-04 POM

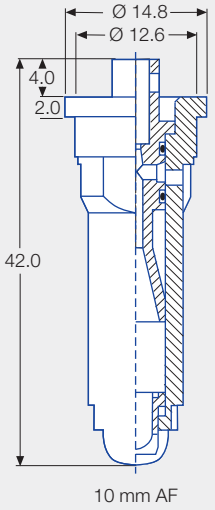
Air-injector flat spray nozzles ID 90

Drift reduction: 99/95/75/50 %

Current list under
www.lechler-agri.com/drift-reduction

Extremely low-drift, air-injector flat spray nozzle in entire pressure range.

Advantages
- 99/95/90/75/50 % drift reduction depending on nozzle size, pressure and country
- Exceptionally low-drift also in the high-pressure range up to 20 bar
- Extremely wear resistant full ceramic injector
- Large clog-resistant flow cross-sections
- Significantly improved crop penetration



Dimensions in mm.

Crop production

Nozzle size
01 – 06

Spray angle
90°

Material
Ceramic

Pressure range
3 – **8 – 15** – 20 bar

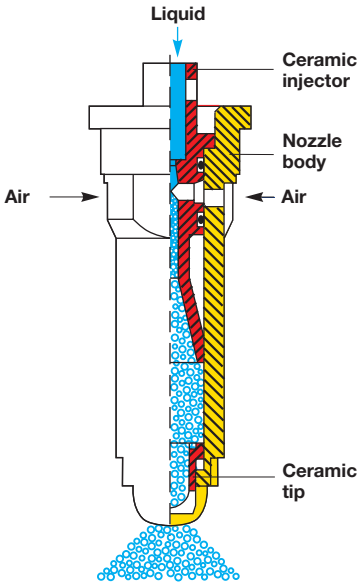
Recommended filters
60 M 01 – 04
25 M 05 – 06

Droplet size
Ultra coarse – medium

Width across flats
10 mm

Application areas
- Plant protection products and growth regulators
- Plant protection in viticulture, orchard and speciality crops
- Sensor technique
- Vertical linkage
- Spray frame

Toolless removable injector



Spray table for air-injector flat spray nozzles ID 90

		l/min																
		3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	19.0	20.0
ID 90-01	60 M	0.39	0.45	0.51	0.55	0.60	0.64	0.68	0.72	0.75	0.78	0.82	0.85	0.88	0.91	0.93	0.99	1.01
ID 90-015	60 M	0.59	0.68	0.76	0.83	0.90	0.96	1.02	1.07	1.13	1.18	1.22	1.27	1.31	1.36	1.40	1.48	1.52
ID 90-02	60 M	0.80	0.92	1.03	1.13	1.22	1.30	1.38	1.45	1.53	1.60	1.67	1.73	1.79	1.85	1.90	2.01	2.07
ID 90-025	60 M	0.99	1.15	1.28	1.40	1.52	1.62	1.71	1.81	1.90	1.98	2.06	2.14	2.21	2.29	2.36	2.49	2.56
ID 90-03	60 M	1.19	1.37	1.53	1.68	1.81	1.94	2.06	2.17	2.28	2.38	2.48	2.57	2.66	2.75	2.83	2.99	3.07
ID 90-04	60 M	1.58	1.82	2.04	2.23	2.41	2.58	2.74	2.88	3.03	3.16	3.29	3.41	3.53	3.65	3.76	3.98	4.08
ID 90-05	25 M	1.97	2.28	2.55	2.79	3.01	3.22	3.42	3.60	3.77	3.94	4.10	4.26	4.41	4.55	4.69	4.96	5.09
ID 90-06	25 M	2.36	2.73	3.05	3.34	3.61	3.86	4.09	4.32	4.52	4.72	4.91	5.10	5.28	5.45	5.62	5.94	6.09

- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Spray pressure at the nozzle tip (gauged with a diaphragm valve)

Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	= ordering no.
ID	90°	02	C (ceramic)	= ID 90-02 C

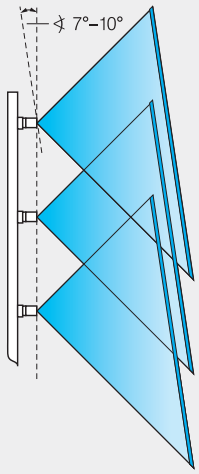
Online nozzle calculator

Apple

Android

Installation instructions

Adjust the nozzles to a spray-plane offset of 7° to 10°. Use a 10-mm fork wrench to make the adjustments.



For optimal assembly and fitting of nozzles use:
- with cup-strainer, gasket 3.0 mm (ordering no. 065.240.73.01)
- without cup-strainer, gasket 5.0 mm (ordering no. 095.015.6C.07.10)

More detailed information is available in Lechler brochure for viticulture, orchard and speciality crops as well as www.lechler-agri.com

Air-injector flat spray compact nozzles IDK 90

Drift reduction: 99/95/90/75/50 %

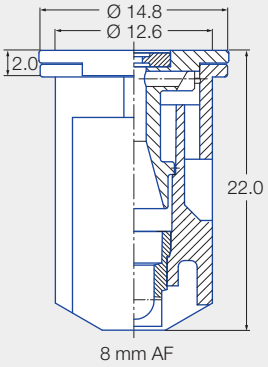
Current list under **www.lechler-agri.com/drift-reduction**

Very low-drift, compact air-injector flat spray nozzle.

Advantages

- 99/95/90/75/50 % drift reduction depending on nozzle size, pressure and country
- Most compact low-drift air injector flat spray nozzle
- Only 7 mm longer than TR hollow cone nozzle
- Large clog-resistant cross-sections
- Soiling on dosing orifice can be simply wiped off
- Breakage-resistant nozzle housing with beveled edges and reinforced walls

G 1834
G 1835
G 1886
G 1941
G 2052
G 2053



IDK 90-01 C
75 % drift reduction according to MABO dosage modell

Crop production

Dimensions in mm.

Nozzle size
0067 – 03

Spray angle
90°

Material
Ceramic

Pressure range
2 – **8 – 15** – 20 bar

Recommended filters
60 M 0067 – 03

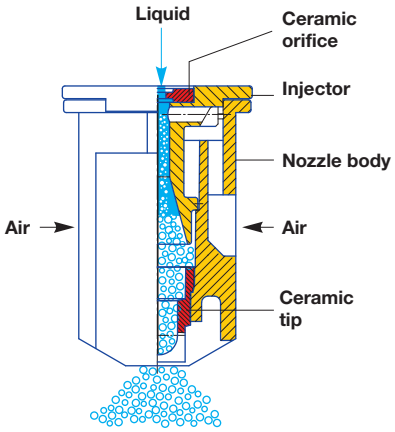
Droplet size
Extremely coarse – fine

Width across flats
8 mm

Application areas

- Plant protection products and growth regulators
- Plant protection in viticulture, orchard and speciality crops
- Sensor technique
- Vertical linkage
- Spray frame

Removable injector



Spray table for air-injector flat spray compact nozzles IDK 90

		l/min																	
		2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	19.0	20.0
IDK 90-0067	60 M	0.22	0.27	0.31	0.35	0.38	0.41	0.44	0.47	0.49	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.68	0.70
IDK 90-01	60 M	0.32	0.39	0.45	0.51	0.55	0.60	0.64	0.68	0.72	0.75	0.78	0.82	0.85	0.88	0.91	0.93	0.99	1.01
IDK 90-015	60 M	0.48	0.59	0.68	0.76	0.83	0.90	0.96	1.02	1.07	1.13	1.18	1.22	1.27	1.31	1.36	1.40	1.48	1.52
IDK 90-02	60 M	0.65	0.80	0.92	1.03	1.13	1.22	1.30	1.38	1.45	1.53	1.60	1.67	1.73	1.79	1.85	1.90	2.01	2.07
IDK 90-025	60 M	0.81	0.99	1.15	1.28	1.40	1.52	1.62	1.71	1.81	1.90	1.98	2.06	2.14	2.21	2.29	2.36	2.49	2.56
IDK 90-03	60 M	0.97	1.19	1.37	1.53	1.68	1.81	1.94	2.06	2.17	2.28	2.38	2.48	2.57	2.66	2.75	2.83	2.99	3.07

- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Spray pressure at the nozzle tip (gauged with a diaphragm valve)

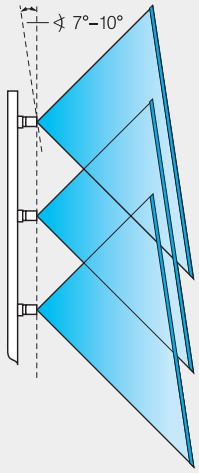
Example of ordering

Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering number
IDK		90°		02		C (Ceramic)	=	IDK 90-02 C

Installation instructions

Adjust the nozzles to a spray-plane offset of 7° to 10°. Use a 8-mm fork wrench to make the adjustments.

For optimal assembly and fitting of nozzles use:
- with cup-strainer, gasket 3.0 mm (ordering no. 065.240.73.01)
- without cup-strainer, gasket 5.0 mm (ordering no. 095.015.6C.07.10)



Online nozzle calculator

Apple

Android

More detailed information is available in Lechler brochure for viticulture, orchard and speciality crops as well as www.lechler-agri.com

Anti-drift flat spray nozzles AD 90

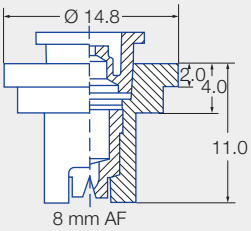
Drift reduction: 99/95/90/75/50 %

Current list under **www.lechler-agri.com/drift-reduction**

Low-drift flat spray nozzle.

Advantages
- 99/95/90/75/50 % drift reduction depending on nozzle size, pressure and country
- Fine droplets at higher pressure
- Pre-atomizer can be removed without tools for cleaning purposes
- Ideal for cramped installation conditions thanks to compact design (4 mm shorter than TR hollow cone nozzle)
- Particularly suitable for sensor control thanks to very fast jet build-up and reduction

G 1666
G 1667
G 1668
G 2041
G 2042



Dimensions in mm.

Crop production

Nozzle size
0067 – 04

Spray angle
90°

Material
Ceramic

Pressure range
2 – **8 – 15** – 20 bar

Recommended filters
60 M 0067 – 04

Droplet size
Coarse – very fine

Width across flats
8 mm

Application areas

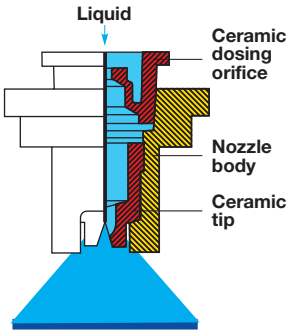
Plant protection products and growth regulators

Plant protection in viticulture, orchard and speciality crops

Sensor technique

Vertical linkage

Removable preatomizer



Spray table for anti-drift flat spray nozzles AD 90

		l/min																	
		2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	19.0	20.0
AD 90-0067	60 M	0.22	0.27	0.31	0.35	0.38	0.41	0.44	0.47	0.49	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.68	0.70
AD 90-01	60 M	0.32	0.39	0.45	0.51	0.55	0.60	0.64	0.68	0.72	0.75	0.78	0.82	0.85	0.88	0.91	0.93	0.99	1.01
AD 90-015	60 M	0.48	0.59	0.68	0.76	0.83	0.90	0.96	1.02	1.07	1.13	1.18	1.22	1.27	1.31	1.36	1.40	1.48	1.52
AD 90-02	60 M	0.65	0.80	0.92	1.03	1.13	1.22	1.30	1.38	1.45	1.53	1.60	1.67	1.73	1.79	1.85	1.90	2.01	2.07
AD 90-03	60 M	0.97	1.19	1.37	1.53	1.68	1.81	1.94	2.06	2.17	2.28	2.38	2.48	2.57	2.66	2.75	2.83	2.99	3.07
AD 90-04	60 M	1.29	1.58	1.82	2.04	2.23	2.41	2.58	2.74	2.88	3.03	3.16	3.29	3.41	3.53	3.65	3.76	3.98	4.08

- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Spray pressure at the nozzle tip (gauged with a diaphragm valve)

Example of ordering

Type	+ spray angle	+ int'l nozzle size	+ material	= ordering no.
AD	90°	03	C (ceramic)	= AD 90-03 C

Online nozzle calculator

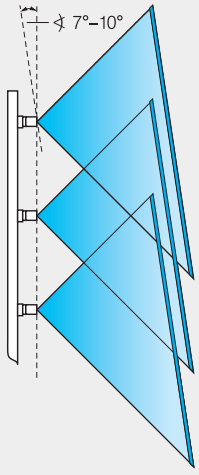
Apple

Android

Installation instructions

Adjust the nozzles to a spray-plane offset of 7° to 10°. Use a 8-mm fork wrench to make the adjustments.

For optimal assembly and fitting of nozzles use:
- with cup-strainer, gasket 3.0 mm (ordering no. 065.240.73.01)
- without cup-strainer, gasket 5.0 mm (ordering no. 095.015.6C.07.10)



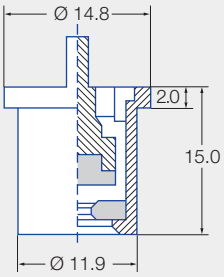
More detailed information is available in Lechler brochure for viticulture, orchard and speciality crops as well as www.lechler-agri.com

Hollow cone nozzles TR

Fine-droplet hollow cone nozzle.

Advantages
- Optimized narrow droplet spectrum
- Fine droplets ensure high coverage
- Nozzle insert secured to prevent it falling out by means of snap closure
- Resistant to clogging due to round bore
- ISO color-coded

G 1496
G 1497
G 1498



Crop production | Ground care

Dimensions in mm.

Nozzle size
005 – 05

Spray angle
80°

Material
Ceramic

Pressure range
3 – **8 – 20** bar

Recommended filters
60 M 005 – 04
25 M 05

Droplet size
Fine – very fine

Threaded cap
Ø 11.9 mm

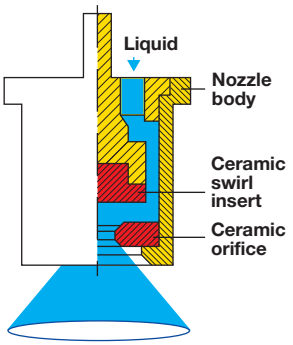
Application areas

Plant protection products and growth regulators

Plant protection in viticulture, orchard and speciality crops

Knapsack sprayer

Greenhouse



Spray table for hollow cone nozzles TR

		l/min																
		3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	19.0	20.0
TR 80-005	60 M	0.20	0.23	0.25	0.28	0.30	0.32	0.34	0.36	0.38	0.39	0.41	0.42	0.44	0.45	0.47	0.49	0.51
TR 80-0067	60 M	0.27	0.31	0.35	0.38	0.41	0.44	0.47	0.49	0.52	0.54	0.56	0.58	0.60	0.62	0.64	0.68	0.70
TR 80-01	60 M	0.39	0.45	0.51	0.55	0.60	0.64	0.68	0.72	0.75	0.78	0.82	0.85	0.88	0.91	0.93	0.99	1.01
TR 80-015	60 M	0.59	0.68	0.76	0.83	0.90	0.96	1.02	1.07	1.13	1.18	1.22	1.27	1.31	1.36	1.40	1.48	1.52
TR 80-02	60 M	0.80	0.92	1.03	1.13	1.22	1.30	1.38	1.45	1.53	1.60	1.67	1.73	1.79	1.85	1.90	2.01	2.07
TR 80-03	60 M	1.19	1.37	1.53	1.68	1.81	1.94	2.06	2.17	2.28	2.38	2.48	2.57	2.66	2.75	2.83	2.99	3.07
TR 80-04	60 M	1.58	1.82	2.04	2.23	2.41	2.58	2.74	2.88	3.03	3.16	3.29	3.41	3.53	3.65	3.76	3.98	4.08
TR 80-05	25 M	1.97	2.28	2.55	2.79	3.01	3.22	3.42	3.60	3.77	3.94	4.10	4.26	4.41	4.55	4.69	4.96	5.09

Example of ordering

Type +	spray angle +	int'l nozzle size +	material	=	ordering no.
TR	80°	02	C (ceramic)	=	TR 80-02 C

- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Spray pressure at the nozzle tip (gauged with a diaphragm valve)

Online nozzle calculator

Apple

Android

More detailed information is available in Lechler brochure for viticulture, orchard and speciality crops as well as www.lechler-agri.com

Air-injector hollow cone nozzles ITR

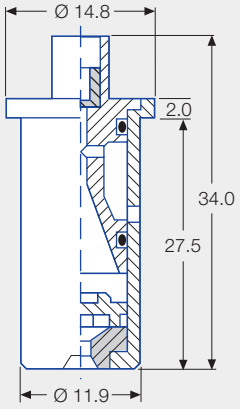
Drift reduction: 95/90/75/50 %

Current list under **www.lechler-agri.com/drift-reduction**

Extremely low-drift, air-injector hollow cone nozzle.

Advantages
- 95/90/75/50 % drift reduction depending on nozzle size, pressure and country
- Resistant to clogging due to round bore
- ISO color-coded

G 2023



Dimensions in mm.

Crop production | Ground care

Nozzle size
01 – 02

Spray angle
80°

Material
Ceramic

Pressure range
3 – **10 – 30** bar

Recommended filters
60 M 01 – 02

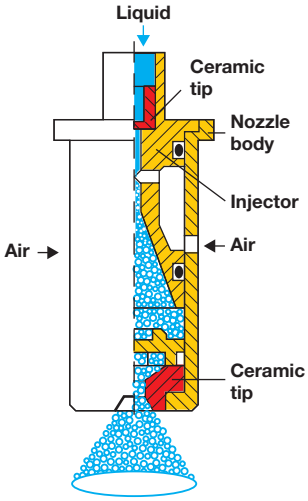
Droplet size
Extremely coarse – medium

Threaded cap
Ø 11.9 mm

Application areas

Plant protection products and growth regulators

Plant protection in viticulture, orchard and speciality crops



Spray table for air-injector hollow cone nozzles ITR

		l/min																
		3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	19.0	20.0
ITR 80-01	60 M	0.39	0.45	0.51	0.55	0.60	0.64	0.68	0.72	0.75	0.78	0.82	0.85	0.88	0.91	0.93	0.99	1.01
ITR 80-015	60 M	0.59	0.68	0.76	0.83	0.90	0.96	1.02	1.07	1.13	1.18	1.22	1.27	1.31	1.36	1.40	1.48	1.52
ITR 80-02	60 M	0.80	0.92	1.03	1.13	1.22	1.30	1.38	1.45	1.53	1.60	1.67	1.73	1.79	1.85	1.90	2.01	2.07

- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Spray pressure at the nozzle tip (gauged with a diaphragm valve)

Example of ordering

Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering no.
ITR		80°		02		C (ceramic)	=	ITR 80-02 C

Online nozzle calculator

Apple

Android

More detailed information is available in Lechler brochure for viticulture, orchard and speciality crops as well as www.lechler-agri.com

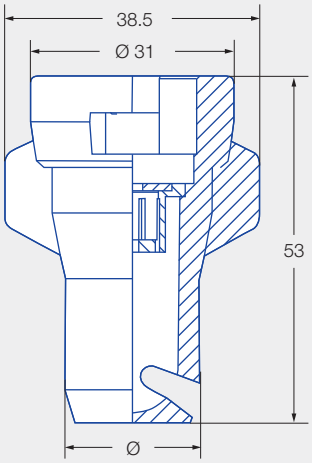
Liquid fertilizer nozzles FD

PATENTED

Flat spray nozzle with horizontal spray pattern for uniform cross-distribution.

Advantages

- Gentle liquid fertilizer application thanks to extremely low spray impact
- Minimum risk of crop scorching due to extremely coarse-droplet application
- No streaking due to optimum cross-distribution
- Nozzle in cap for standard bayonet connection system MULTIJET (incl. gasket)
- Nozzle sizes ISO color-coded



FD 08 – 20 = Ø 20.5
FD 03 – 06 = Ø 12

Dimensions in mm.

Crop production | Ground care

Nozzle size
02 – 20

Spray angle
130°

Material
POM

Pressure range
1.5 – 4 bar

Recommended filters
60 M FD 02 – 04
25 M FD 05 – 20

Droplet size
Ultra coarse

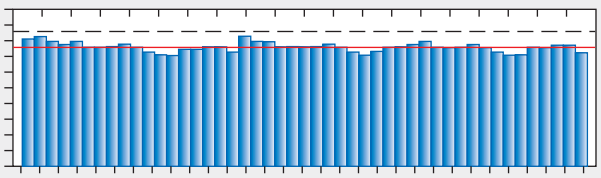
Boom height
50 – 70 cm

Application areas

- Liquid fertilizer
- Greenhouse
- Golf course

Toolless removable dosing orifice

FD-04 Cross distribution on patternator (with water)
Spray pressure: 2 bar – spray height: 600 mm – CV: 3.4 %



Spray table for liquid fertilizer nozzles FD

		l/min		UAN l/ha 0.5m								
		Water	UAN	5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
FD 02 (60 M)	1.5	0.57	0.50	121	101	86	76	60	50	43	38	34
	2.0	0.65	0.57	138	115	98	86	69	57	49	43	38
	3.0	0.80	0.71	170	141	121	106	85	71	61	53	47
	4.0	0.92	0.81	195	163	139	122	98	81	70	61	54
FD 03 (60 M)	1.5	0.85	0.75	180	150	129	113	90	75	64	56	50
	2.0	0.98	0.87	208	173	148	130	104	87	74	65	58
	3.0	1.20	1.06	255	212	182	159	127	106	91	80	71
	4.0	1.39	1.23	295	246	211	184	147	123	105	92	82
FD 04 (60 M)	1.5	1.13	1.00	240	200	171	150	120	100	86	75	67
	2.0	1.31	1.16	278	232	198	174	139	116	99	87	77
	3.0	1.60	1.41	339	283	242	212	170	141	121	106	94
	4.0	1.85	1.64	392	327	280	245	196	164	140	123	109
FD 05 (25 M)	1.5	1.41	1.25	299	249	214	187	149	125	107	93	83
	2.0	1.63	1.44	346	288	247	216	173	144	123	108	96
	3.0	2.00	1.77	424	354	303	265	212	177	152	133	118
	4.0	2.31	2.04	490	408	350	306	245	204	175	153	136
FD 06 (25 M)	1.5	1.70	1.50	361	301	258	225	180	150	129	113	100
	2.0	1.96	1.73	416	346	297	260	208	173	148	130	115
	3.0	2.40	2.12	509	424	364	318	255	212	182	159	141
	4.0	2.77	2.45	588	490	420	367	294	245	210	184	163
FD 08 (25 M)	1.5	2.26	2.00	479	400	342	300	240	200	171	150	133
	2.0	2.61	2.31	554	461	395	346	277	231	198	173	154
	3.0	3.20	2.83	679	566	485	424	339	283	242	212	189
	4.0	3.70	3.27	785	654	561	491	392	327	280	245	218
FD 10 (25 M)	1.5	2.83	2.50	600	500	429	375	300	250	214	188	167
	2.0	3.27	2.89	694	578	495	434	347	289	248	217	193
	3.0	4.00	3.54	849	707	606	530	424	354	303	265	236
	4.0	4.62	4.08	980	817	700	613	490	408	350	306	272
FD 15 (25 M)	1.5	4.24	3.75	899	750	642	562	450	375	321	281	250
	2.0	4.90	4.33	1039	866	742	650	520	433	371	325	289
	3.0	6.00	5.30	1273	1061	909	795	636	530	455	398	354
	4.0	6.93	6.13	1470	1225	1050	919	735	613	525	459	408
FD 20 (25 M)	1.5	5.66	5.00	1201	1001	858	750	600	500	429	375	334
	2.0	6.53	5.77	1385	1154	989	866	693	577	495	433	385
	3.0	8.00	7.07	1697	1414	1212	1061	849	707	606	530	471
	4.0	9.24	8.17	1960	1633	1400	1225	980	817	700	613	544

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to UAN (28/1.28 kg/l)
- Nozzle spacing 0.5 m
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

Apple

Android

Example of ordering

Type	+	int'l nozzle size	+	material	=	ordering no.
FD		06		(POM)	=	FD 06

More detailed information is available in Lechler brochure for application of liquid fertilizer as well as www.lechler-agri.com

Intermediate and extension adaptor

Intermediate adaptor* Sys. Lechler TWISTLOC (092.163.56.00.22.1)
Extension: 22 mm

Intermediate adaptor* Sys. Rau (092.163.56.00.21.0)
Extension: 20 mm

Intermediate adaptor* Sys. Hardi (092.163.56.00.20.1)
Extension: 17 mm

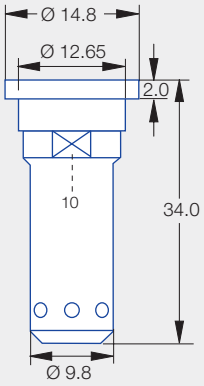
Extension adaptor* System Multijet (092.163.56.00.23.1)
Extension: 32 mm

*incl. gasket

5-orifice nozzles FL (for liquid fertilizers)

Five-orifice nozzle with horizontal spray formation.

Advantages
- Black and gray nozzle sizes can be combined with dosing orifices
- Change in delivery rate by replacing the dosing orifice
- No leaf damage due to extremely coarse droplets



Crop production | Ground care

Dimensions in mm.

Bore diameter
0.8 – 1.8 mm

Spray angle
160°

Material
– Nozzle body: POM, stainless steel
– Dosing orifice: stainless steel

Pressure range
– Dosing orifice 0.8 – 1.0: **1 – 5** bar
– Dosing orifice 1.2: **1 – 4** bar
– Dosing orifice 1.5 – 1.8: **1 – 3** bar

Recommended filters
25 M

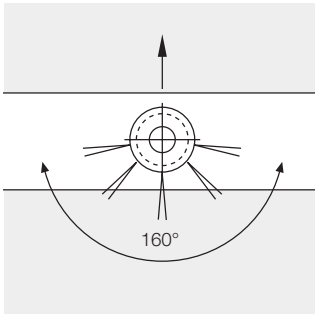
Droplet size
Ultra coarse

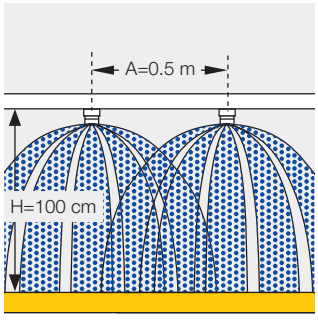
Width across flats
10 mm

Boom height
100 cm

Application area

AHL UAN Liquid fertilizer





Spray table for 5-orifice nozzles FL (for liquid fertilizers)

Ø mm	bar	l/min		UAN l/ha (0,5 m)										
		Water	UAN	5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	9.0 km/h	10.0 km/h	11.0 km/h	12.0 km/h	14.0 km/h	16.0 km/h	18.0 km/h
0.8/32	1.0	0.31	0.27	66	55	47	41	37	33	30	27	23	20	18
	2.0	0.43	0.38	91	76	65	57	51	46	41	38	33	29	25
	3.0	0.53	0.47	112	94	80	70	62	56	51	47	40	35	31
	4.0	0.61	0.54	129	108	92	81	72	65	59	54	46	40	36
	5.0	0.68	0.60	144	120	103	90	80	72	66	60	52	45	40
1.0/39	1.0	0.46	0.41	98	81	70	61	54	49	44	41	35	30	27
	2.0	0.65	0.57	138	115	98	86	77	69	63	57	49	43	38
	3.0	0.80	0.71	170	141	121	106	94	85	77	71	61	53	47
	4.0	0.92	0.81	195	163	139	122	108	98	89	81	70	61	54
	5.0	1.03	0.91	218	182	156	137	121	109	99	91	78	68	61
1.2/48	1.0	0.67	0.59	142	118	102	89	79	71	65	59	51	44	39
	2.0	0.95	0.84	202	168	144	126	112	101	92	84	72	63	56
	3.0	1.16	1.03	246	205	176	154	137	123	112	103	88	77	68
	4.0	1.34	1.18	284	237	203	178	158	142	129	118	102	89	79
1.5/59	1.0	0.98	0.87	208	173	148	130	115	104	94	87	74	65	58
	2.0	1.38	1.22	293	244	209	183	163	146	133	122	105	91	81
	3.0	1.69	1.49	359	299	256	224	199	179	163	149	128	112	100
1.8/72	1.0	1.39	1.23	295	246	211	184	164	147	134	123	105	92	82
	2.0	1.96	1.73	416	346	297	260	231	208	189	173	148	130	115
	3.0	2.40	2.12	509	424	364	318	283	255	231	212	182	159	141

- Spray pressure at the nozzle tip (gauged with a diaphragm valve).
- Lateral spacing 0.5 m
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings
- The stated liter-per-hectare rates apply to UAN (28/1.28 kg/l)

Online nozzle calculator

Apple Android

Ordering
When ordering, please include both ordering numbers, that of the nozzle and that of the dosing orifice.

Recommendation
Please use grey 5-orifice nozzles (ordering no. 500.179.56.01) for combination with large dosing orifices (1.2, 1.5 and 1.8 mm)

Description	Ordering no.
5-orifice nozzles FL (excl. dosing orifice)	
Stainless steel	500.179.16
POM (■ black) for dosing orifices 0.8/1.0/1.2 mm Ø	500.179.56.00
POM (■ grey) for dosing orifices 1.2/1.5/1.8 mm Ø	500.179.56.01
Dosing orifices	
0.8 mm/32 Stainless steel	050.030.1C.00.00
1.0 mm/39 Stainless steel	050.030.1C.01.00
1.2 mm/48 Stainless steel	050.030.1C.03.00
1.5 mm/59 Stainless steell	050.030.1C.02.00
1.8 mm/72 Stainless steel	050.030.1C.04.00

Assembly instruction
Inscription on dosing orifice must face upwards when inserted in the bayonet cap!

More detailed information is available in Lechler brochure for application of liquid fertilizer as well as www.lechler-agri.com

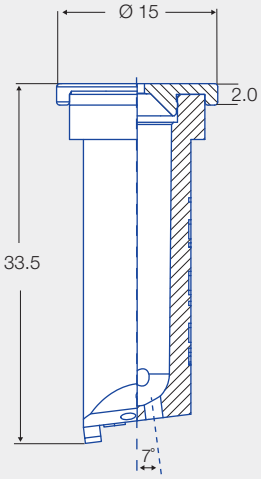
Liquid fertilizer nozzles FS

PATENT PENDING

NEW

Orifice nozzle with vertical spray pattern for application with all boom types.

Advantages
- Reduced jet force and gentle application due to 7° backward inclination of spray pattern
- Patent pending on allocation of bores for better cross distribution compared to common orifice nozzles
- Nozzle sizes FS 06 – FS 15 with oval bores for gentle fertilizer jets – gentle application of big amounts
- Toolless removable dosing orifice
- Nozzle sizes ISO colour-coded



Crop production | Ground care

Dimensions in mm.

Nozzle size
015 – 15

Spray angle
100°

Material
POM

Pressure range
– FS 015 to 08: 1 – 4 bar
– FS 10 and 15: 1 – 3 bar

Recommended filters
25 M

Droplet size
Ultra coarse

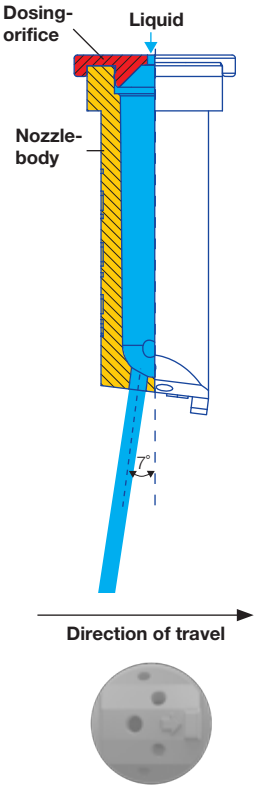
Width across flats
10 mm

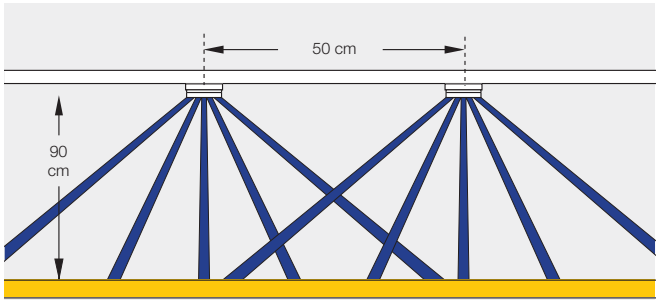
Boom height
80 – **90** – 100 cm

Application area

Liquid fertilizer

Toolless removable dosing orifice





Spray table for liquid fertilizer nozzles FS

		l/min		UAN l/ha (0.5 m)							
	bar	Water	UAN	5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	14.0 km/h	18.0 km/h
FS 015 (25 M)	1.0	0.34	0.30	72	60	51	45	36	30	26	20
	1.5	0.42	0.37	89	74	63	55	44	37	32	25
	2.0	0.48	0.42	101	84	72	63	51	42	36	28
	2.5	0.54	0.48	114	95	81	71	57	48	41	32
	3.0	0.59	0.52	125	104	89	78	62	52	45	35
	4.0	0.68	0.60	144	120	103	90	72	60	51	40
FS 02 (25 M)	1.0	0.46	0.40	97	81	69	61	49	40	35	27
	1.5	0.57	0.50	120	100	86	75	60	50	43	33
	2.0	0.65	0.57	137	114	98	86	69	57	49	38
	2.5	0.73	0.64	154	128	110	96	77	64	55	43
	3.0	0.80	0.70	169	141	121	106	84	70	60	47
	4.0	0.92	0.81	194	162	139	121	97	81	69	54
FS 03 (25 M)	1.0	0.69	0.61	146	121	104	91	73	61	52	40
	1.5	0.84	0.74	177	148	127	111	89	74	63	49
	2.0	0.97	0.85	205	171	146	128	102	85	73	57
	2.5	1.09	0.96	230	192	164	144	115	96	82	64
	3.0	1.19	1.05	251	209	180	157	126	105	90	70
	4.0	1.37	1.21	289	241	207	181	145	121	103	80
FS 04 (25 M)	1.0	0.91	0.80	192	160	137	120	96	80	69	53
	1.5	1.12	0.99	237	197	169	148	118	99	84	66
	2.0	1.29	1.14	272	227	195	170	136	114	97	76
	2.5	1.44	1.27	304	253	217	190	152	127	109	84
	3.0	1.58	1.39	334	278	238	209	167	139	119	93
	4.0	1.82	1.60	384	320	275	240	192	160	137	107
FS* 05 (25 M)	1.0	1.14	1.00	241	201	172	150	120	100	86	67
	1.5	1.39	1.22	294	245	210	183	147	122	105	82
	2.0	1.61	1.42	340	283	243	213	170	142	121	94
	2.5	1.80	1.58	380	317	272	238	190	158	136	106
	3.0	1.97	1.73	416	347	297	260	208	173	149	116
	4.0	2.27	2.00	479	400	342	300	240	200	171	133
FS 06 (25 M)	1.0	1.36	1.20	287	239	205	180	144	120	103	80
	1.5	1.67	1.47	353	294	252	220	176	147	126	98
	2.0	1.93	1.70	408	340	291	255	204	170	146	113
	2.5	2.15	1.89	454	378	324	284	227	189	162	126
	3.0	2.36	2.08	498	415	356	312	249	208	178	138
	4.0	2.73	2.40	577	480	412	360	288	240	206	160
FS 08 (25 M)	1.0	1.82	1.60	384	320	275	240	192	160	137	107
	1.5	2.23	1.96	471	392	336	294	235	196	168	131
	2.0	2.58	2.27	545	454	389	341	272	227	195	151
	2.5	2.88	2.53	608	507	434	380	304	253	217	169
	3.0	3.16	2.78	667	556	477	417	334	278	238	185
	4.0	3.65	3.21	771	642	551	482	385	321	275	214
FS 10 (25 M)	1.0	2.27	2.00	479	400	342	300	240	200	171	133
	1.5	2.79	2.46	589	491	421	368	295	246	210	164
	2.0	3.22	2.83	680	567	486	425	340	283	243	189
	2.5	3.60	3.17	760	634	543	475	380	317	272	211
	3.0	3.94	3.47	832	693	594	520	416	347	297	231
FS 15 (25 M)	1.0	3.41	3.00	720	600	514	450	360	300	257	200
	1.5	4.18	3.68	883	736	631	552	441	368	315	245
	2.0	4.83	4.25	1020	850	729	638	510	425	364	283
	2.5	5.40	4.75	1140	950	815	713	570	475	407	317
	3.0	5.91	5.20	1248	1040	892	780	624	520	446	347

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated litres per hectare rates apply to UAN (28/1.28 kg/l)
- Nozzle spacing 0.5 m
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

Apple

Android

Example of ordering

Type	+	int'l nozzle size	+	material	=	ordering no.
FS		04		(POM)	=	FS 04

Hose drop system 5S and 5SL

Flexible hose drop system with weight loaded 5-orifice tip for late liquid fertilizer application.

Advantages

- No scorching, because weight-loaded 5-orifice tip is submerged in crop
- 5-orifice tip distributes the liquid fertilizer uniformly in the crop with 0.5 m hose spacing
- In comparison with 0.25 m hose drop system, lower boom loading when pulling through the crop
- Compliance with transport width by ideal adaption of the hose when boom is folded
- Extension as spacer with hose attachment prevents paint damage to the sprayer when folded in
- Including bayonet cap system MULTIJET (incl. gasket) as standard
- Selection of l/ha rate by nozzle plates

Tube spacing
0.5 m
(depending on boom)

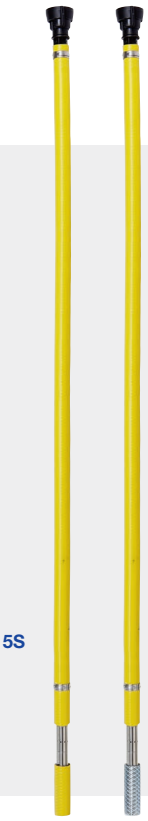
ISO dosing orifice
– 5S:
02 and 03 mm
– 5SL:
04, 05 and 06 mm

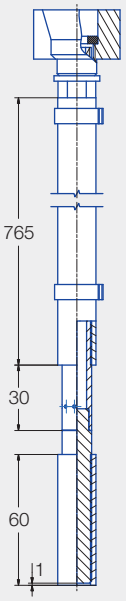
Spray angle
160°

Pressure range
1 – 5 bar

Application area

Liquid fertilizer
– 5S:
50 – 300 l/ha UAN
– 5SL:
180 – 550 l/ha UAN

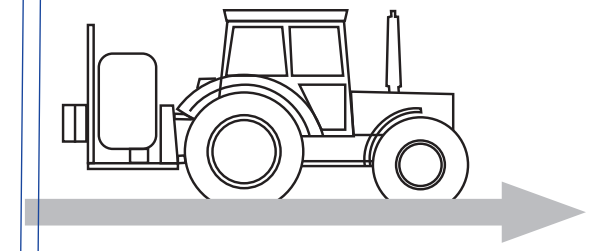




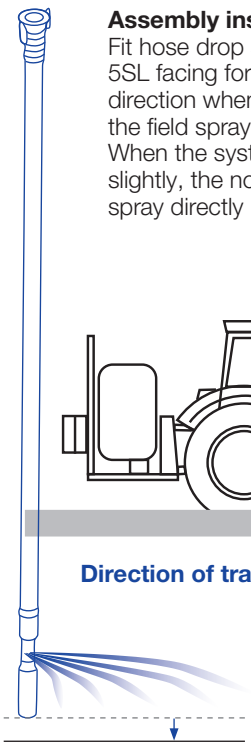
Dimensions in mm.

Crop production

Assembly instruction
Fit hose drop system 5S and 5SL facing forwards in driving direction when assembling on the field spray boom.
When the system floats up slightly, the nozzle will then spray directly into the crop.



Direction of travel = spraying direction



Lead hose drop 5S and 5SL 5–10 cm above the soil.

Spray table for hose drop system 5S and 5SL

	Ø mm	bar	l/min		UAN l/ha 0.5 m					UAN l/ha 0.75 m				
			Water	UAN	5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h	5.0 km/h	6.0 km/h	7.0 km/h	8.0 km/h	10.0 km/h
5S	02	1	0.46	0.41	98	81	70	61	49	65	54	46	41	33
		2	0.65	0.57	138	115	98	86	69	92	77	66	57	46
		3	0.80	0.71	170	141	121	106	85	113	94	81	71	57
		4	0.92	0.81	195	163	139	122	98	130	108	93	81	65
		5	1.03	0.91	218	182	156	137	109	146	121	104	91	73
	03	1	0.69	0.61	146	122	105	91	73	98	81	70	61	49
		2	0.97	0.86	206	171	147	129	103	137	114	98	86	69
		3	1.19	1.05	252	210	180	158	126	168	140	120	105	84
		4	1.37	1.21	291	242	208	182	145	194	161	138	121	97
		5	1.54	1.36	327	272	233	204	163	218	181	156	136	109
5SL	04	1	0.91	0.80	193	161	138	121	97	129	107	92	80	64
		2	1.29	1.14	274	228	195	171	137	182	152	130	114	91
		3	1.58	1.40	335	279	239	209	168	223	186	160	140	112
		4	1.82	1.61	386	322	276	241	193	257	214	184	161	129
		5	2.04	1.80	433	361	309	270	216	288	240	206	180	144
	05	1	1.14	1.01	242	202	173	151	121	161	134	115	101	81
		2	1.61	1.42	342	285	244	213	171	228	190	163	142	114
		3	1.97	1.74	418	348	299	261	209	279	232	199	174	139
		4	2.27	2.01	482	401	344	301	241	321	268	229	201	161
		5	2.54	2.25	539	449	385	337	269	359	299	257	225	180
	06	1	1.36	1.20	288	240	206	180	144	192	160	137	120	96
		2	1.93	1.71	409	341	292	256	205	273	227	195	171	136
		3	2.36	2.09	501	417	358	313	250	334	278	238	209	167
		4	2.73	2.41	579	483	414	362	290	386	322	276	241	193
		5	3.05	2.70	647	539	462	404	324	431	359	308	270	216

Description	Photo	Ordering no.
Hose drop system 5S		092.173.00
Dosing orifices ISO 02 (formerly: 1,0/39)* ISO 03 (formerly: 1,2/48)*		 600.500.56.02.40.0 600.500.56.03.40.0
Hose drop system 5SL		092.173.00.01.00
Dosing orifices ISO 04 (formerly: 1,5/59)* ISO 05 ISO 06 (formerly: 1,8/72)*		 600.500.56.04.40.0 600.500.56.05.40.0 600.500.56.06.40.0

* Until 2019 stainless steel dosage orifices. Liter per hectar rates see FL nozzle page 73.

Accessories

Securing clip		092.164.56.00.10.06
Special 4 mm gasket		095.015.6C.02.85.0
Adaptor for system Lechler TWISTLOC		092.163.56.00.22.1
Adaptor for system Rau		092.163.56.00.21.0
Adapter for system Hardi		092.163.56.00.20.1

Online nozzle calculator

Apple

Android

- Prior to each spraying season verify the table data by gauging the flow rates
- Make sure that in all hoses the same dosing orifice are fitted
- Lateral hose spacing 0.5 m
- Spray pressure at dosing orifice (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to UAN (28/1.29 kg/l)

Relocation kit nozzle holder for variable row width adaption.
More information see page 113.
Ordering no. 092.174.00.00.00.0

More detailed information is available in Lechler brochure for application of liquid fertilizer as well as www.lechler-agri.com

Air-injector off center nozzles IS 80

Drift reduction: 90/75/50 %

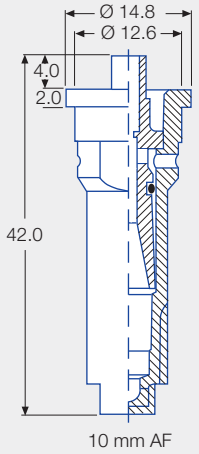
Current list under **www.lechler-agri.com/drift-reduction**

Extremely low-drift, air-injector off center nozzle for border application and banding.

Advantages

- Same JKI drift reduction class in combination with ID3 nozzles in the field spray boom
- Volume flow adapted for optimum cross distribution in combination with ID3-/IDTA-nozzles of the same size
- Asymmetrical spray pattern (20°/60° to vertical axis)
- Precise edge application along water courses and field boundaries
- Optimum protection of neighboring crops (field edge application or row/special cultures (herbicide banding/ underleaf spraying)

G 1682
G 1753
G 1754
G 1755
G 1999
G 2000
G 2087



Dimensions in mm.

Crop production | Ground care

Nozzle size
02 – 06

Spray angle
80°

Material
POM

Pressure range
– Sprayer/broadcast spraying:
2 – **4 – 8** bar
– Vertical sprayer boom:
2 – **8 – 15** bar

Recommended filters
60 M 02 – 04
25 M 05 – 06

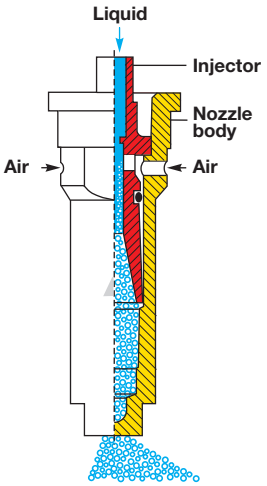
Droplet size
Ultra coarse – medium

Width across flats
10 mm

Application areas

- Border nozzle
- Band spraying in orchards and vineyards
- Vertical boom ends
- Spray frame

Toolless removable injector



Spray table for air-injector off center nozzles IS 80

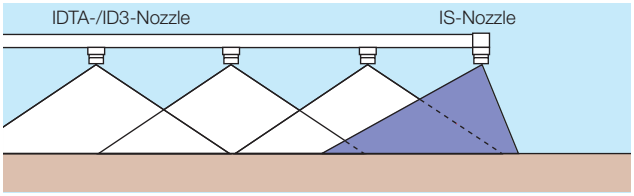
		l/min						
		2.0	3.0	4.0	5.0	6.0	7.0	8.0
IS 80-02	60 M	0.49	0.60	0.69	0.77	0.84	0.91	0.97
IS 80-025	60 M	0.70	0.86	0.90	1.13	1.24	1.34	1.43
IS 80-03	60 M	0.86	1.05	1.21	1.35	1.48	1.60	1.71
IS 80-04	60 M	1.11	1.36	1.57	1.75	1.92	2.07	2.21
IS 80-05	25 M	1.23	1.51	1.74	1.95	2.14	2.31	2.47
IS 80-06	25 M	1.36	1.67	1.93	2.16	2.37	2.56	2.73

- Application data valid for water
- Gauge the nozzle flow rates prior to each spraying season
- Spray pressure at the nozzle tip

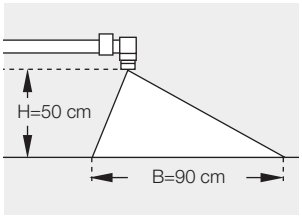
Please ask for additional installation instructions A100 for broadcast spraying and A 200 for banding.

Example of ordering

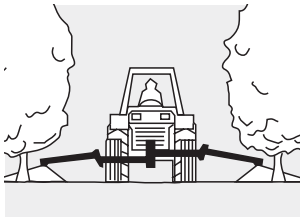
Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering no.
IS		80°		02		(POM)	=	IS 80-02



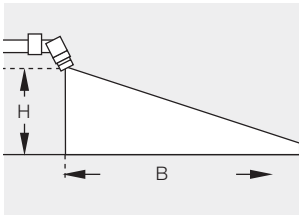
Defined border spraying



Spray dimensions



Band spraying in orchards/ vineyards



Accessories: swivel nozzle holders, etc. (see page 112)

Underleaf spraying in row crops

Air-injector off center compact nozzles IDKS 80

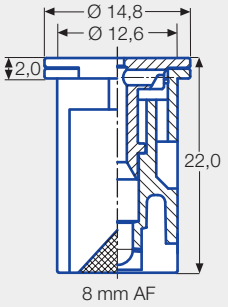
Drift reduction: 90/75/50 %

Current list under
www.lechler-agri.com/drift-reduction

Very low-drift, compact air-injector off center nozzle for border application and banding.

Advantages
- Same JKI drift reduction class in combination with IDK-/IDKN-/IDKT-nozzles in the field spray boom
- Volume flow adapted for optimum cross distribution in combination with IDK-/IDKN-/IDKT-nozzles of the same size
- Asymmetrical spray pattern (20°/60° to axis)
- Precise edge application along water courses and field boundaries
- Optimum protection of neighboring crops (field edge application) or row/special cultures (herbicide banding/underleaf spraying)

G 1786
G 1787
G 1788
G 1789
G 1998



Dimensions in mm.

Crop production | Ground care

Nozzle size
015 – 06

Spray angle
80°

Material
POM

Pressure range
- Sprayer / broadcast spraying: 1 – **1.5 – 3** – 6 bar
- Vertical sprayer boom: 1 **– 8 – 15** bar

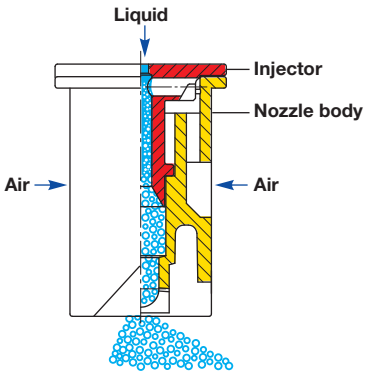
Recommended filters
60 M 015 – 04
25 M 05 – 06

Droplet size
Ultra coarse – medium

Width across flats
8 mm

Application areas
- Border nozzle
- Band spraying in orchards and vineyards
- Vertical boom
- Spray frame
- Knapsack sprayer
- Greenhouse

Toolless removable injector



Spray table for air-injector off center compact nozzles IDKS 80

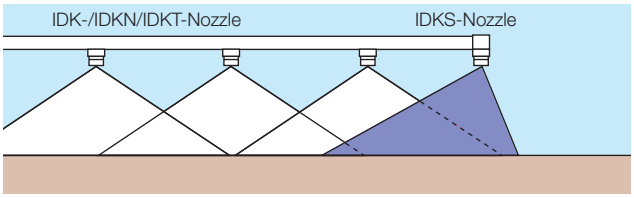
		l/min						
		1.0	1.5	2.0	3.0	4.0	5.0	6.0
IDKS 80-015	60 M	-	0.28	0.32	0.39	0.45	0.51	0.55
IDKS 80-02	60 M	-	0.42	0.48	0.59	0.68	0.76	0.83
IDKS 80-025	60 M	-	0.56	0.65	0.80	0.92	1.03	1.13
IDKS 80-03	60 M	0.57	0.70	0.81	0.99	1.15	1.28	1.40
IDKS 80-04	60 M	0.69	0.84	0.97	1.19	1.37	1.53	1.68
IDKS 80-05	25 M	0.91	1.12	1.29	1.58	1.82	2.04	2.23
IDKS 80-06	25 M	1.14	1.39	1.61	1.97	2.28	2.55	2.79

- Application data valid for water
- Gauge the nozzle flow rates prior to each spraying season
- Spray pressure at the nozzle tip

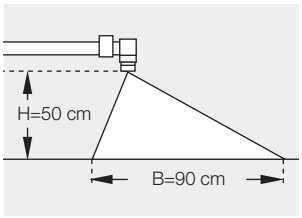
Please ask for additional installation instructions A100 for broadcast spraying and A 200 for banding.

Example of ordering

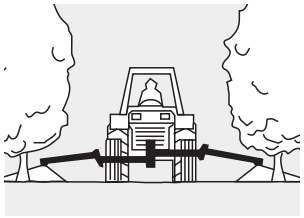
Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering no.
IDKS		80°		02		(POM)	=	IDKS 80-02



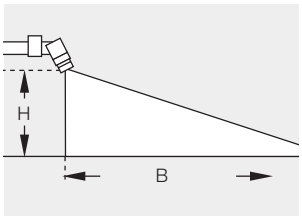
Defined border spraying



Spray dimensions



Band spraying in orchards/ vineyards



Accessories: swivel nozzle holders, etc. (see page 112)

Underleaf spraying in row crops

Off center flat spray nozzles BN

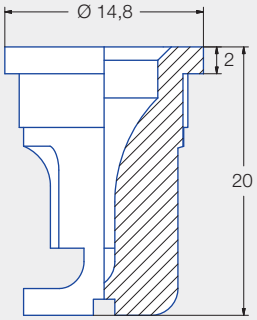
Off center nozzle with wide throw characteristic for area spraying without spray boom as well as for border application and banding.

Advantages

- Asymmetrical flat spray nozzle
- Robust and clog-resistant flood nozzle design
- Spraying on both sides with max. 2.75 m spray bandwidth at 0.5 m spray height
- Color marking of left-spraying (white) and right-spraying (black) nozzles
- Uniform cross distribution of nozzle combination

BN 07 L

BN 07 R



Dimensions in mm.

Crop production | Ground care

Nozzle size
07

Spray angle
100°

Material
POM

Pressure range
1 – **2** – **4** – 6 bar

Recommended filters
25 M

Droplet size
Medium – fine

Threaded cap
Ø 12.65 mm

Application areas

Banding

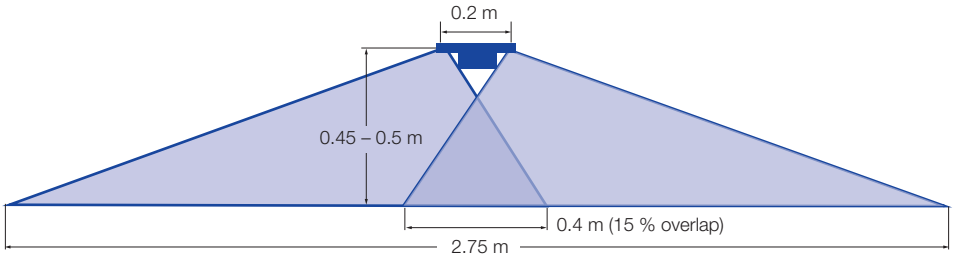
Boomless application

Spray table for off center flat spray nozzles BN

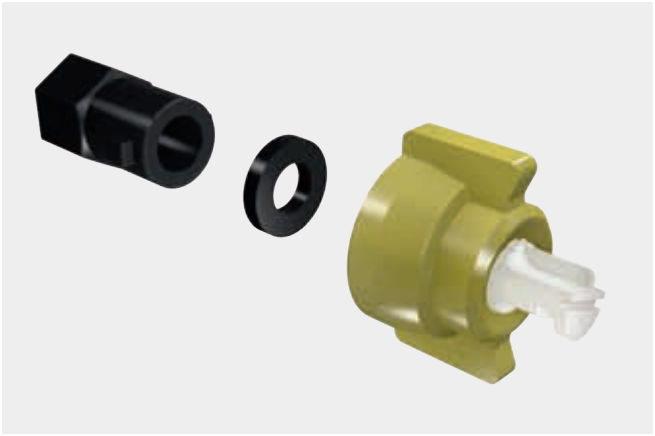
		l/min					
		1.0	2.0	3.0	4.0	5.0	6.0
BN 07	25 M	1.59	2.25	2.76	3.18	3.56	3.90

Example of ordering					
Type	**+ spray angle**	**+ int'l nozzle size**	**+ material**	**=**	**ordering no.**
BN	**100°**	**07**	**POM L (white)**	**=**	**BN 07 L**
BN	**100°**	**07**	**POM R (black)**	**=**	**BN 07 R**

Configuration of the nozzle in the bandage:



Fixed installation of BN-nozzle on special bayonet cap system MULTIJET (see page 109) and TWISTLOC (see page 111) for tongue nozzles.

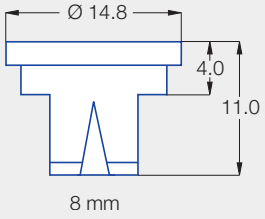


Alternative mounting of the nozzle with a round hole bayonet cap (see page 109) or union nut 3/8" (see page 114).
The correct adjustment and alignment is done by twisting the nozzle e.g. with screwdriver slot on the tongue.

Off center flat spray nozzles OC

Off center nozzle for border application and banding.

Advantages
- Laterally offset orifice
- Asymmetrical flat spray nozzle



Dimensions in mm.

Crop production | Ground care

Nozzle size
2 – 30

Spray angle
90°

Material
Brass, stainless steel

Pressure range
1.5 – 2.5 – 5 bar

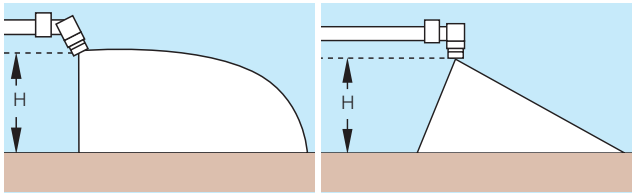
Recommended filters
60 M 2 – 4
25 M 5 – 30

Droplet size
Medium – fine

Width across flats
8 mm

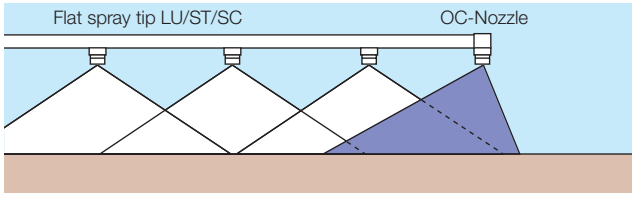
Application areas

- Border nozzle
- Band spraying in orchards and vineyards
- Vertical boom ends
- Spray frame
- Knapsack sprayer
- Greenhouse
- Riding arena floor



Spray dimensions

OC nozzles mounted on individual or double swivel joints* allow adjustment to any angle and, hence, wide and narrow covered areas.
*(see page 112)



Defined border spraying

Spray table for off center flat spray nozzles OC

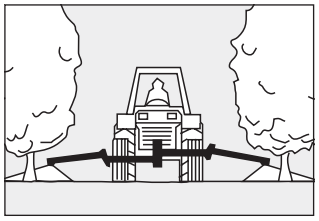
		l/min				
		1.5	2.0	3.0	4.0	5.0
OC 2	60 M	0.49	0.65	0.80	0.92	1.03
OC 3	60 M	0.88	1.01	1.24	1.43	1.60
OC 4	60 M	1.11	1.28	1.56	1.81	2.02
OC 5	25 M	1.37	1.58	1.94	2.24	2.50
OC 6	25 M	1.64	1.90	2.32	2.68	3.00
OC 8	25 M	2.16	2.50	3.06	3.53	3.95
OC 12	25 M	3.47	4.00	4.90	5.66	6.33
OC 20	25 M	5.45	6.30	7.71	8.91	9.96
OC 30	25 M	8.66	10.00	12.25	14.14	15.81

- Application data valid for water
- Gauge the nozzle flow rates prior to each spraying season
- Spray pressure at the nozzle tip (gauged with a diaphragm valve)

Example of ordering

Type	+	int'l nozzle size	+	material	=	ordering no.
OC		2		S (stainless steel)	=	OC 2 S
OC		2		Brass	=	OC 2 brass

Nozzle size in boom (LU/ST/SC)	Recommended OC-end nozzle
	Defined border spraying
-02	OC 2
-03	OC 3
-04	OC 4
-05	OC 5
-06	OC 6
-08	OC 8



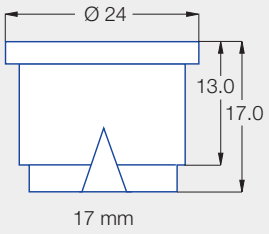
Banding in orchards/vineyards

Underleaf spraying in row crops

Off center flat spray nozzles OC

Off center nozzle with wide throw width characteristic.

Advantages
- Laterally offset orifice
- Asymmetrical flat spray nozzle
- Spraying range 6 – 8 m



Crop production | Ground care

Dimensions in mm.

Nozzle size
40 – 80

Spray angle
90°

Material
Brass

Pressure range
2 – 5 bar

Recommended filters
25 M

Droplet size
Medium – fine

Width across flats
Ø 17 mm

Application areas

Greenhouse

Riding arena floor

Boomless application

Spray table for off center flat spray nozzles OC

	l/min				Recommended combination with flat-spray nozzles, e.g. LU-/IDK-/IDKN-nozzles
	2.0	3.0	4.0	5.0	
OC 40-846	12.50	15.30	17.70	19.80	-03/-04
OC 60-926	20.00	24.49	28.28	31.62	-05/-06
OC 80-966	25.00	30.62	35.36	39.53	-06/-08

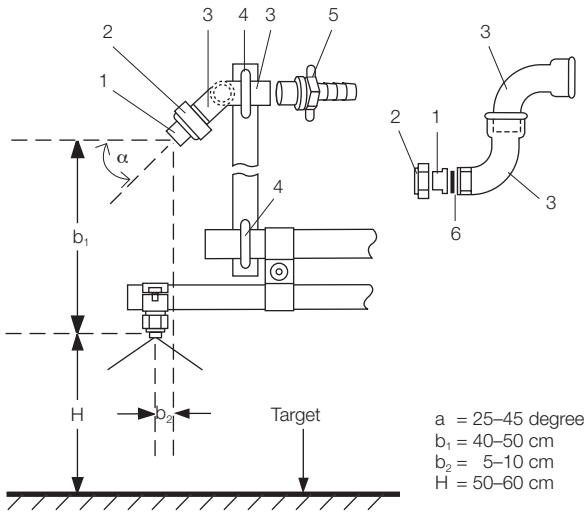
- Application data valid for water
- Gauge the nozzle flow rates prior to each spraying season
- Spray pressure at the nozzle tip (gauged with a diaphragm valve)

Mounting/adjusting of boom-sprayer nozzles

Mount one wide-angle nozzle at each end of the boom. The individual nozzles are supplied with liquid via separate section valve or T-connector from adequately sized feedlines.

Take care to ensure that the implement has a sufficiently powerful pump, because a pair of wide-angle nozzles consume up to 80 l/min.

Item	Description	Ordering no.
1	OC nozzle	OC 40-846 OC 60-926 OC 80-966
2	Threaded cap	065.600.30.00
3	90° elbow 3/4" male and female threads	see page 116
4	Pipe clamp	-
5	3/4" hose shank	see page 115
6	Gasket	065.640.72.00



Spraying range/ effective working width

The spraying range is a function of the setting angle α:

Setting angle α (degree)	Spraying range a (m) ca.
25	9.0
30	8.5
35	8.0
40	6.0
45	5.5

Nippel
Ordering no.
065.611.30

Gasket
Ordering no.
065.640.72

OC nozzle

Threaded cap 3/4"
Ordering no.
065.600.xx
(Brass or stainless steel)

Even flat spray nozzles E

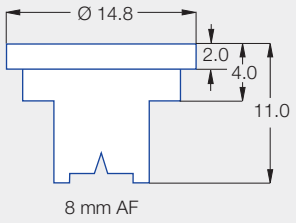
Drift reduction: 90 %

Current list under
www.lechler-agri.com/drift-reduction

Flat spray nozzle with rectangular liquid distribution for band and row spraying.

Advantages
- Only even flat spray nozzle with 90 % drift reduction approved by JKI (depending on nozzle size, pressure and country)
- Fully formed spray angle from 1 bar
- Uniform active ingredient distribution over the entire bandwidth
- Extremely small spraying distances possible

G 1435
G 1436
G 1437
G 1438



Crop production | Ground care

Dimensions in mm.

Nozzle size
01 – 08

Spray angle
80°

Material
Brass, POM

Pressure range
1 – 3 – 4 bar

Recommended filters
80 M 01 – 015
60 M 02 – 04
25 M 05 – 08

Droplet size
Very coarse – very fine

Width across flats
8 mm

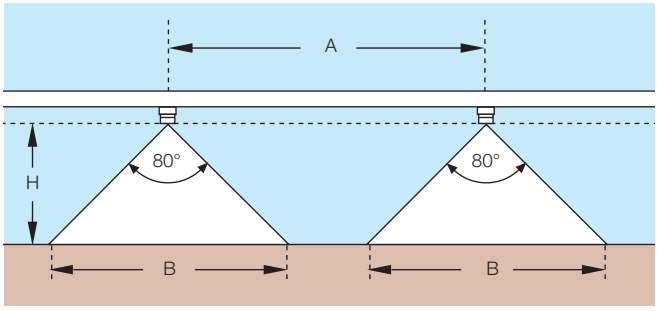
Application areas

Band spraying

Knapsack sprayer

Nozzle alignment

Lechler's even flat spray nozzles ES enable extremely short spray heights (H), thus extensively avoiding band drift. The width of the spray band (B) can be varied by altering the spray height (H) and/or rotating the spray axis to change the spray offset.



Application-rate reduction

Depending on the band width and row width, the amount of spraying liquid for band spraying amounts to 10–50 % of the amount of liquid for full surface treatment.

Calculation formula for band and row spraying see page 9.

Spray height H cm	Band width B cm	Application rate* (in %), for a row spacing A		
		50 cm	75 cm	100 cm
7	10	20	13	10
10	15	30	20	15
13	20	40	27	20
16	25	50	33	25

* Percentages in comparison with full-area treatment.

Spray table for even flat spray nozzles E

	ISO 25358	bar	l/min	(l/ha) Row spacing 0.5 m					Row spacing 0.75 m					Row spacing 1 m				
				5.0 km/h	6.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	5.0 km/h	6.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h	5.0 km/h	6.0 km/h	8.0 km/h	10.0 km/h	12.0 km/h
E 8001 (80 M)	F	1.0	0.23	55	46	35	28	23	37	31	23	18	15	28	23	17	14	12
	F	1.5	0.28	67	56	42	34	28	45	37	28	22	19	34	28	21	17	14
	F	2.0	0.32	77	64	48	38	32	51	43	32	26	21	38	32	24	19	16
	VF	3.0	0.39	94	78	59	47	39	62	52	39	31	26	47	39	29	23	20
	VF	4.0	0.45	108	90	68	54	45	72	60	45	36	30	54	45	34	27	23
E 80015 (80 M)	F	1.0	0.34	82	68	51	41	34	54	45	34	27	23	41	34	26	20	17
	F	1.5	0.42	101	84	63	50	42	67	56	42	34	28	50	42	32	25	21
	F	2.0	0.48	115	96	72	58	48	77	64	48	38	32	58	48	36	29	24
	VF	3.0	0.59	142	118	89	71	59	94	79	59	47	39	71	59	44	35	30
	VF	4.0	0.68	163	136	102	82	68	109	91	68	54	45	82	68	51	41	34
E 8002 (60 M)	M	1.0	0.46	110	92	69	55	46	74	61	46	37	31	55	46	35	28	50
	M	1.5	0.56	134	112	84	67	56	90	75	56	45	37	67	56	42	34	57
	M	2.0	0.65	156	130	98	78	65	104	87	65	52	43	78	65	49	39	71
	F	3.0	0.80	192	160	120	96	80	128	107	80	64	53	96	80	60	48	57
	F	4.0	0.92	221	184	138	110	92	147	123	92	74	61	110	92	69	55	81
E 8003 (60 M)	C	1.0	0.72	173	144	108	86	72	115	96	72	58	48	86	72	54	43	36
	M	1.5	0.88	211	176	132	106	88	141	117	88	70	59	106	88	66	53	44
	M	2.0	1.01	242	202	152	121	101	162	135	101	81	67	121	101	76	61	51
	F	3.0	1.24	298	248	186	149	124	198	165	124	99	83	149	124	93	74	62
	F	4.0	1.43	343	286	215	172	143	229	191	143	114	95	172	143	107	86	72
E 8004 (60 M)	VC	1.0	0.91	218	182	137	109	91	146	121	91	73	61	109	91	68	55	46
	C	1.5	1.12	269	224	168	134	112	179	149	112	90	75	134	112	84	67	56
	C	2.0	1.29	310	258	194	155	129	206	172	129	103	86	155	129	97	77	65
	M	3.0	1.58	379	316	237	190	158	253	211	158	126	105	190	158	119	95	79
	M	4.0	1.82	437	364	273	218	182	291	243	182	146	121	218	182	137	109	91
E 8005 (25 M)	VC	1.0	1.14	274	228	171	137	114	182	152	114	91	76	137	114	86	68	57
	VC	1.5	1.39	334	278	209	167	139	222	185	139	111	93	167	139	104	83	70
	C	2.0	1.61	386	322	242	193	161	258	215	161	129	107	193	161	121	97	81
	M	3.0	1.97	473	394	296	236	197	315	263	197	158	131	236	197	148	118	99
	M	4.0	2.28	547	456	342	274	228	365	304	228	182	152	274	228	171	137	114
E 8006 (25 M)	VC	1.0	1.36	326	272	204	163	136	218	181	136	109	91	163	136	102	82	68
	VC	1.5	1.67	401	334	251	200	167	267	223	167	134	111	200	167	125	100	84
	VC	2.0	1.93	463	386	290	232	193	309	257	193	154	129	232	193	145	116	97
	C	3.0	2.36	566	472	354	283	236	378	315	236	189	157	283	236	177	142	118
	M	4.0	2.73	655	546	410	328	273	437	364	273	218	182	328	273	205	164	137
E 8008 (25 M)	VC	1.0	1.82	437	364	273	218	182	291	243	182	146	121	218	182	137	109	91
	VC	1.5	2.23	535	446	335	268	223	357	297	223	178	149	268	223	167	134	112
	VC	2.0	2.58	619	516	387	310	258	413	344	258	206	172	310	258	194	155	129
	C	3.0	3.16	758	632	474	379	316	506	421	316	253	211	379	316	237	190	158
	M	4.0	3.65	876	730	548	438	365	584	487	365	292	243	438	365	274	219	183

Example of ordering

Type	+	spray angle	+	int'l nozzle size	+	material	=	ordering no.
E		80°		02		Brass	=	8002 E brass
E		80°		02		POM	=	8002 E

ISO 25358
Droplet size classification

New measuring system!
Further information see page 13.

VF	Very fine
F	Fine
M	Medium
C	Coarse
VC	Very coarse
XC	Extremely coarse
UC	Ultra coarse

Classifications are subject to change.

- Spray pressure at the nozzle tip (gauged with a diaphragm valve)
- The stated liter-per-hectare rates apply to water
- Prior to each spraying season, verify the table data by gauging the flow rates
- Make sure that all nozzles have the same settings

Online nozzle calculator

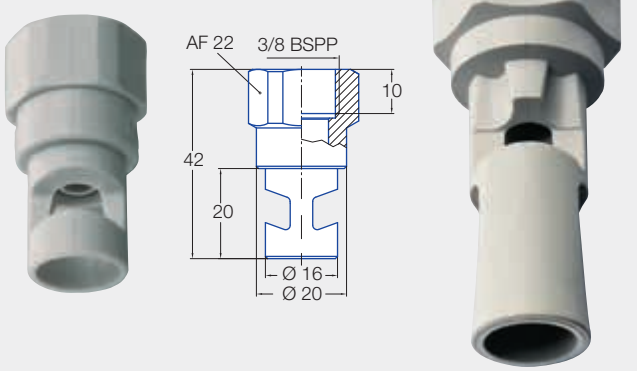
Apple

Android

Injector agitator nozzles

Agitator nozzle for fast and homogeneous mixing in tanks.

Advantages
- Injector effect reinforces turbulence of the solid jet in the tank
- Effective circulation of large liquid quantities with a relatively small flow rate
- Clog-resistant due to large cross-sections



Dimensions in mm.

Bore diameter
Ø 2.2 – 10.55 mm

Material
PP

Pressure range
2 – 10 bar

Ordering no.	Bore- Ø (mm)	l/min				
		2.0 bar	4.0 bar	6.0 bar	8.0 bar	10.0 bar
500.262.53.02	2.2	4.4	6.3	7.7	8.9	9.9
500.262.53.04	3.6	11.1	15.7	19.2	22.1	27.7
500.262.53.06	4.5	18.3	26.0	31.8	36.7	41.0
500.262.53.08	6.0	31.6	44.7	54.8	63.2	70.7
500.262.53.20*	10.55	96.1	136.0	166.5	192.3	215.0

* See dimensioning

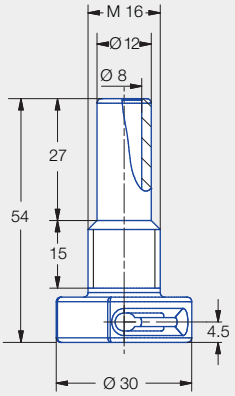
Assembly note
Assembly with eyelet connector
(see page 112)

Cleaning nozzle for induction hopper »WallCleaner«

Special nozzle for induction hoppers for induction and cleaning.

Advantages

- Lump-free induction of plant protection products by rotating liquid flow
- Complete rinsing of inner wall up to under the edge for round induction hoppers
- Simple assembly by
  – M 16 bolt/nut design
  – Plug connection for rinsing water (Ø 12 mm)
- Simple alignment of nozzle head with open-end wrench 24 AF
- ISO 10625 colour coded, size 40



Dimensions in mm.

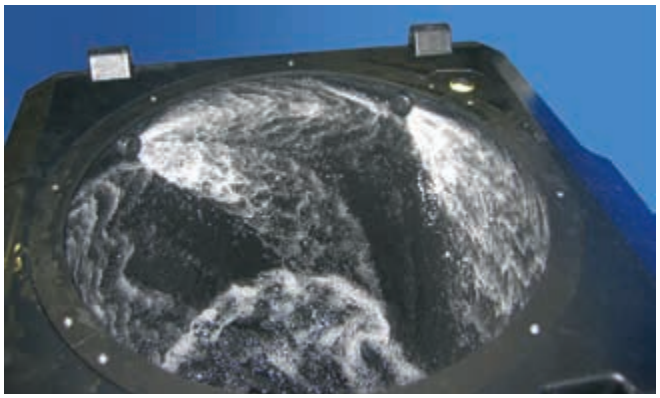
Bore diameter
Ø 4.0 mm

Spray angle
60°

Material
POM

Pressure range
2 – **4 – 8** bar

Type	Ordering no.	Bore-Ø [mm]	l/min			
			2.0 bar	4.0 bar	6.0 bar	8.0 bar
WallCleaner 40	600.569.56.40	4.0	14.0	19.8	24.3	28.0
Gasket for WallCleaner	095.015.6C.01.99	-	-	-	-	-



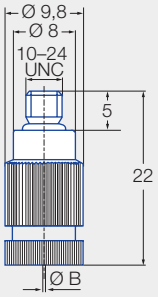
High-pressure fog nozzle 2MN

High-pressure nozzle for extremely fine, fog-like spray. For air moisturization, adiabatic cooling and disinfection of stables and greenhouses.

Advantages
- Extremely fine, fog-like hollow cone spray
- Non-return valve included

Connection
10–24 UNC

Additional versions on request:
- Bore diameters
  – 0.6 mm
  – 0.7 mm
- Connections
  – 12–24 UNC
  – M5
- Material
  – 316L SS
- Gasket
  – FKM/Viton® (brown)
- Nozzle plug



Dimensions in mm.

	Ordering no.		B Ø [mm]	V̇ [l/h]							
	Type	Mat. no. 16 303 SS		p [bar] (p_{min} = 30 bar)* (p_{max} = 130 bar)**							
				30	40	50	60	70	80	90	100
55°	**2MN.014.16.00.00**	○	0.15	1.44	2.28	2.58	2.82	3.00	3.48	3.84	4.08
70°	**2MN.025.16.00.00**	○	0.2	2.46	3.42	3.78	4.26	4.50	5.10	5.10	5.46
85°	**2MN.055.16.00.00**	○	0.3	4.20	4.92	5.46	6.12	6.30	6.96	7.32	7.92
90°	**2MN.086.16.00.00**	○	0.4	5.64	6.96	7.68	8.52	9.00	9.54	10.14	11.10
95°	**2MN.106.16.00.00**	○	0.5	7.02	8.16	9.60	10.80	11.40	11.70	12.54	13.68

B = bore diameter
* Opening pressure: approx. 8 bar
** The pipe system is the limiting factor.

Bore diameter
0.15 – 0.5
0.6 and 0.7 on request

Spray angle
55° – 95°

Materials
303 SS, nozzle tip
316L SS, spring
302 SS,
gasket NBR (black)

Pressure range
30 – **60 – 80** – 130 bar

Application areas

Greenhouse

Stable

High- and medium-pressure cleaning nozzles

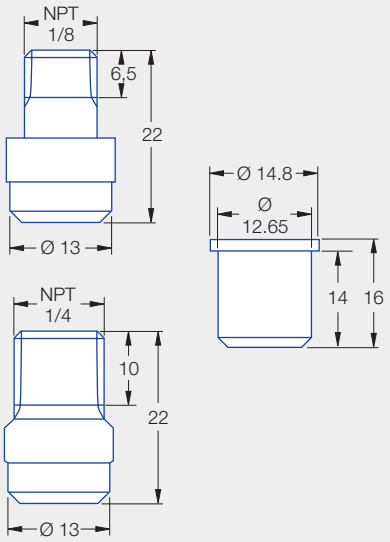
Solid and flat spray nozzles for high- and medium-pressure pressure cleaners.

Advantages

- Maximum cleaning force due to „razor-sharp“ cleaning jets
- Wear-resistant, hardened special stainless steel for long service life
- Recessed outlet opening protects nozzle against mechanical damage
- Maximum precision for uniform, concentrated jet force
- Connection possible via external thread and union nut

Flat spray nozzles

Cluster solid jets



Dimensions in mm.

Nozzle sizes
04 – 06

Spray angle
0° – 40°

Material
hardened stainless steel, (hard-metal insert on request)

Pressure range
5 – **40 – 200** bar

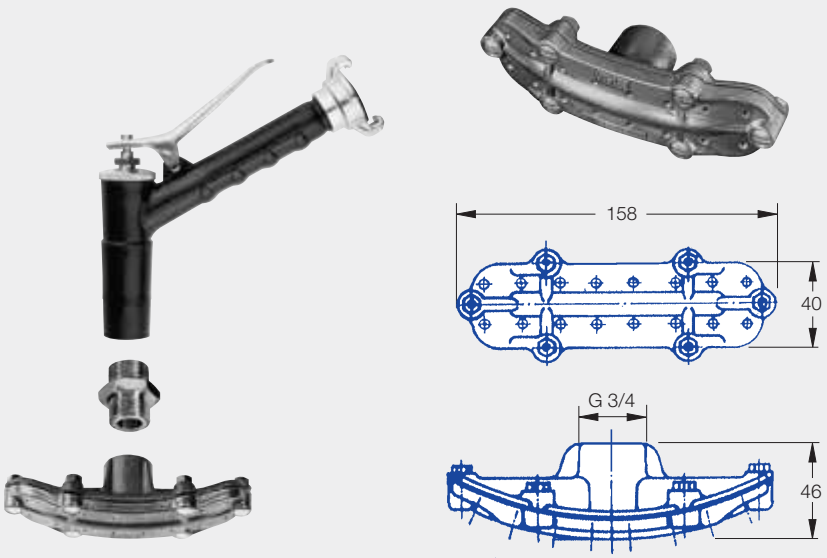
Width across flats
10 mm

	Nozzle type	l/min [bar]			Ordering no.		
					Male threads		Threaded version
		5.0	60.0	100.0	NPT 1/8	NPT 1/4	G 3/8
0°	00-04	2.04	7.1	9.2	550.450	546.450	548.450
	00-05	2.55	8.9	11.5	550.480	546.480	548.480
	00-06	3.05	10.6	13.6	550.520	546.520	548.520
15°	15-04	2.04	7.1	9.2	608.451	602.451	652.451
	15-05	2.55	8.9	11.5	608.481	602.481	652.481
	15-06	3.05	10.6	13.6	608.521	602.521	652.521
25°	25-04	2.04	7.1	9.2	608.452	602.452	652.452
	25-05	2.55	8.9	11.5	608.482	602.482	652.482
	25-06	3.05	10.6	13.6	608.522	602.522	652.522
40°	40-04	2.04	7.1	9.2	608.453	602.453	652.453
	40-05	2.55	8.9	11.5	608.483	602.483	652.483
	40-06	3.05	10.6	13.6	608.523	602.523	652.523

Fan nozzles

Special nozzle for gentle delivery of large liquid quantities.

Advantages
- Fine, gentle atomization
- Gentle plant irrigation
- Effective disinfection of livestock buildings. Please observe the safety instructions of the chemical label
- Optionally available with spray gun and GEKA connection coupling



Dimensions in mm.

Material
Light alloy

Pressure range
2 – 10 bar

Ordering no. Nozzle with spray gun GEKA connector	**Ordering no.** Double nipple G 3/4"
095.016.00.01.76	065.611.30

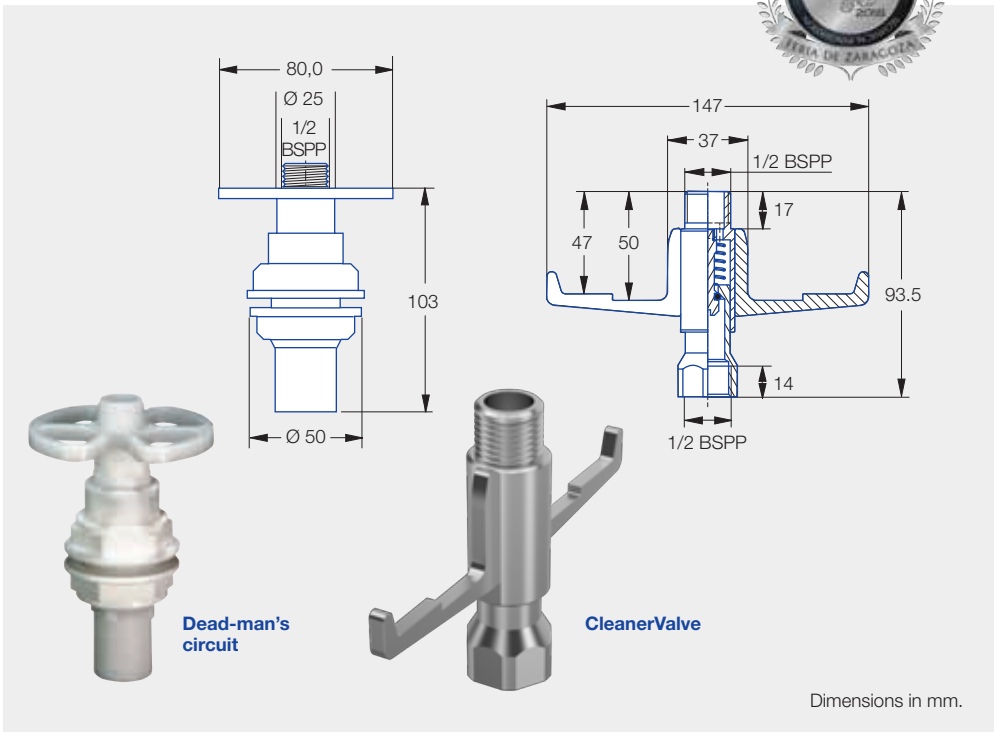
Ordering no. Nozzle excl. stay tube 3/4" connector	**Flow rate** l/min, at 2.0 bar	5.0 bar	10.0 bar
531.003.41.00	31.5	49.8	70.4
531.093.41.00	53.0	83.8	119
531.133.41.00	67.0	106	150

Dead-man's circuit and »CleanerValve«

Safety valve for practical canister cleaning.

Advantages
- Valve is simple and convenient to operate
- Safety valve opens only in the event of container pressure
- Can be combined with static and rotating container cleaning nozzles
- Suitable for internal cleaning of all common canisters, containers and plant protection product packaging
- Better cleaning effect with stainless steel version in that container cleaning nozzle plunges deeper into container

Cleaner Valve
- Cleaning nozzle goes deaper into the canister, so the cleaning efficiency is increased
- Very robust stainless steel valve
- Extra wide bearing area for easy cleaning of measuring cups
- Operators safety: gradings on the bearing area prevent slipping



Dimensions in mm.

Type	Material	Ordering no.
Dead-man's circuit	POM	A.510.100.00
CleanerValve	stainless steel	092.175.17.01.00

Material
POM,
stainless steel

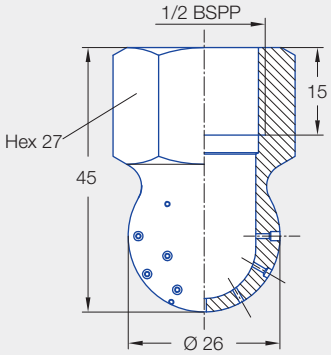
Pressure range
2 – 5 bar
>5 bar: use orifice for reduction of the pressure

Width across flats
CleanerValve
hex Ø 27 mm

Static spray ball Series 540/541

Static multichannel solid jet nozzle.

Advantages
- Ideal for rinsing containers
- Compact design
- Self-draining
- No moving parts and thus fault-free
- Easy to inspect



Dimensions in mm.

Spray angle
240°

Material
Solid stainless steel, PVC

Pressure range
2 – **3** – 10 bar

Operating principle
Static

Installation
Operation in every direction is possible

Max. tank diameter
7.5 m

	Ordering no.	l/min					Max. tank diameter [m]
		2.0 bar	3.0 bar	4.0 bar	5.0 bar	10.0 bar	
240°	540.909.16[1]	18.0	22.0	25.4	28.5	40.2	6.5
	540.989.16[1]	28.0	34.3	39.6	44.3	62.6	7.0
	541.109.16	57.0	69.8	80.6	90.1	127.5	7.5

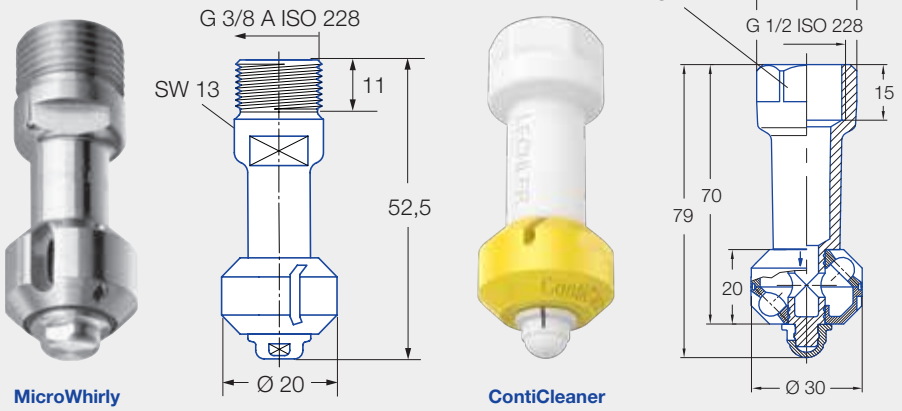
[1] Also available in PVC

Rotating cleaning nozzles »MicroWhirly« and »ContiCleaner« with slide bearing

Rotating cleaning head with flat spray nozzles and slide bearings.

Advantages
- Effective rotating cleaning by means of flat spray nozzles
- Optimum internal cleaning of plant protection equipment tanks, canisters, containers and plant protection product packaging
- Self-powered, without external drive
- Robust design
- Resistant to chemicals

ContiCleaner
- Optimised for continuous internal cleaning
- ISO 10625 colour coded, sizes 12, 25, 30 and 60
- It runs easily even at low pressure
- Suitable for all sprayers



Dimensions in mm.

Spray angle
360°

Material
PVDF, PTFE, stainless steel

Pressure range
2 - 5 bar

Operating principle
Free-spinning

Installation
Operation in every direction is possible

Max. tank diameter
Type 566: 1.7 m
ContiCleaner: 1.6 m

Filtration
Line strainer with a mesh size of 0.3 mm/50 mesh

Bearing
Slide bearing made of PEEK and PVDF

	Type	Ordering no.	Material			l/min			Max. tank diameter [m]
			AISI 316L	PVDF	PTFE und PVDF	2.0 bar	3.0 bar	5.0 bar	
360°	ContiCleaner 12 (60M)	500.191.55.12.00	–	–	○	4.1	5	6.5	1.6
	ContiCleaner 25 (60M)	500.191.55.25.00	–	–	○	8.2	10	12.9	1.6
	ContiCleaner 30 (60M)	500.191.55.33.00	–	–	○	9.8	12	15.5	1.6
	ContiCleaner 60 (25M)	500.191.55.60.00	–	–	○	20.4	25	32.3	1.6
	MicroWhirly stainless steel (25M)	566.939.1Y.AE	○	–	–	21	26.0	33.6	1.7
	MicroWhirly PVDF (25M)	500.191.5E.00	–	○	–	20	24	31	1.1

Function video

Scan the QR-code or go to:
www.lechler.com/microwhirly

Function video

Scan the QR-code or go to:
www.lechler.com/pvdfmicrowhirly

Accessories
More information see page 12.

Rotating cleaning nozzles, »CanCleaner« and »MiniWhirly« ball bearing-mounted

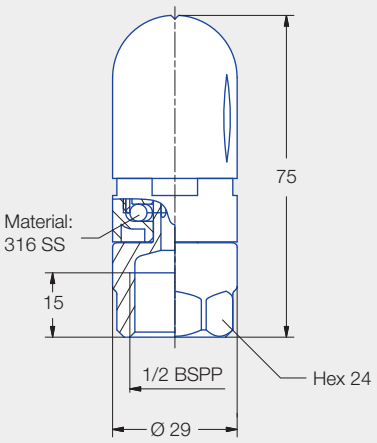
Rotating cleaning head with flat spray nozzles and ball bearings.

Advantages
- Effective rotating cleaning by means of flat spray nozzles
- Optimum internal cleaning of plant protection equipment tanks, canisters, containers and plant protection product packaging
- Self-powered, without external drive
- Slow rotation for optimum cleaning effect
- Resistant to chemicals

CanCleaner
- 20 % increased flow rate towards canister bottom
- ISO 10625 colour coded, size 60

MiniWhirly

CanCleaner



Dimensions in mm.

Spray angle
300°

Material
POM

Pressure range
2 – 3 – 5 bar

Operating principle
Free-spinning

Max. tank diameter
1.3 m

Filtration
Line strainer with a mesh size of 0.3 mm/50 mesh

Bearing
Ball bearing made of stainless steel

	Type	Ordering no.	l/min				Max. tank diameter [m]
			2.0 bar	3.0 bar	4.0 bar	5.0 bar	
300°	CanCleanar 60	500.186.56.06.00.0	20.4	25	28.9	32.3	1.3
	MiniWhirly	500.186.56.AH	18.0	22.0	25.4	28.4	1.3

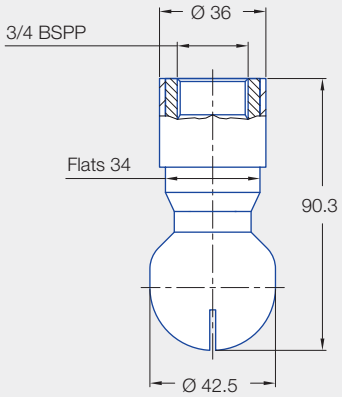
Function video

Scan the QR-code or go to:
www.lechler.com/miniwhirly

Rotating tank cleaning nozzle »MiniSpinner« double ball bearing mounted

Rotating cleaning head with flat spray nozzles and double ball bearings.

Advantages
- Efficient internal cleaning thanks to innovative slot design
- Reliable and long service life due to double ball bearings
- Self-powered, without external drive
- Resistant to chemicals



Dimensions in mm.

Spray angle
360°

Material
Stainless steel

Pressure range
1 - **2** - 3 bar

Operating principle
Free-spinning

Installation
Operation in every direction is possible

Max. tank diameter
2.3 m

Filtration
Line strainer with a mesh size of 0.1 mm/170 Mesh

Bearing
Double ball bearing made of AISI 440C

	Ordering no.	l/min			Max. tank diameter [m]
		1.0 bar	2.0 bar	3.0 bar	
360°	5MI.054.1Y.AL	21	30	37	1.8
	5MI.074.1Y.AL	35	49	60	2.1
	5MI.014.1Y.AL	49	69	85	2.3

Function video

Scan the QR-code or go to:
www.lechler.com/spinner

ENGINEERING
YOUR SPRAY SOLUTION

Accessories

ESV (Electrical Stop Valve)

PATENTED

Electrical Stop Valve to control individual nozzles in a field spray boom.

Advantages:
- Energy storage device with boost- and buck-mode (patented)
- Very precise application thanks to individual nozzle control
- Ability to communicate with ISOBUS
- Simple cabling allows easy upgrade
- Very robust thanks to encapsulated electronics and ventilation of the valves
- Low power consumption thanks to charge control and energy storage device

Electrical Stop Valve: More precision and less costs thanks to less overlapping

Designation	Ordering no.
Valve inside (black)	065.288.00.00.00
Valve outside (grey)	065.288.00.01.00
Terminating resistor	065.288.00.30.00
Adapter box	065.288.00.50.00
Adapter box for intermediate power supply	065.288.00.51.00
Extension cable 2.5 m	065.288.00.20.00

Power consumption
Max. 120 mA

Emergency stop
(at input voltage < 8V)

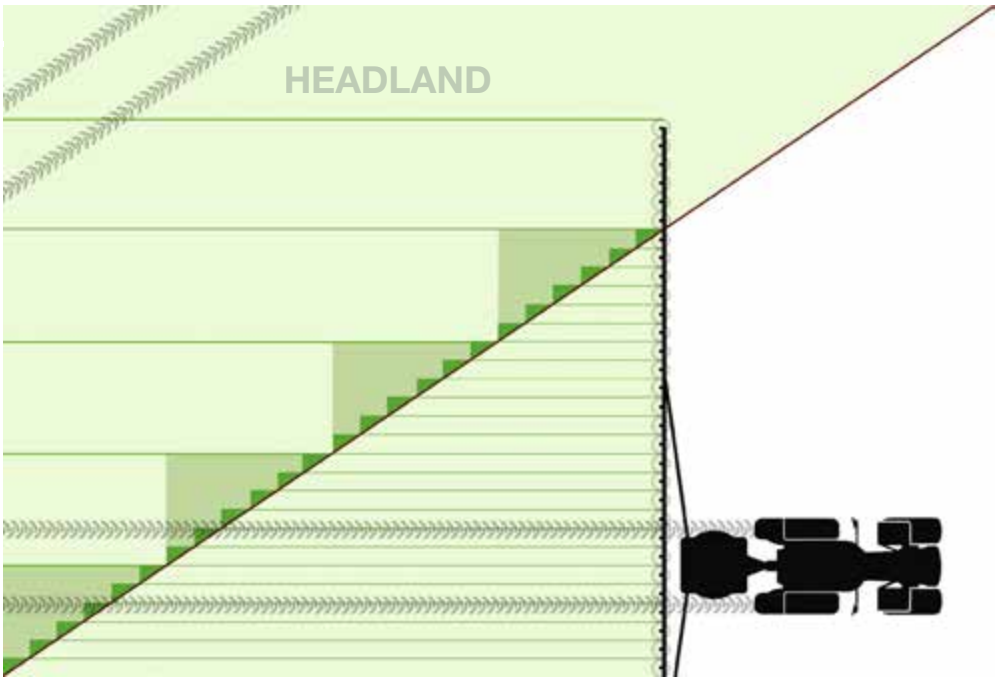
Switching valve
open: 0.3 sec
close: 0.45 sec

Protection class connectors
IP68

Material
PA, POM, PVDF, Viton®, stainless steel

Pressure range
Max. 8 bar

Comparison of 3 m and 0.5 m part-width sections



Single nozzle control with the ESV
Part-widths of 50 cm and 25 cm possible
Example: 24 m working width with 50 cm nozzle spacing

= sprayed once
= overlap with 3 m part-width sections
= overlap with ESV

PSV (Pneumatic Stop Valve) with single nozzle holder

Single nozzle holder with pneumatic control.

Advantages

- Continuous field spray line design as ring line with circulation and return
- Spray pressure is held in the spray line when nozzles are closed
- Immediate spray jet build-up at all nozzles after opening the pneumatic shut-off valves
- Easier boom design as no control units are required
- Rotating pneumatic connector facilitates assembly and routing of the air pressure line in the boom

Single nozzle holder with pneumatic shut off

Note: Perfect operation of the PSV requires oil in the pneumatic system.

Material
PA, POM, Viton®, PTFE, stainless steel

Pressure range
Max. 8 bar
air pressure
min. 4.5 bar

Emergency stop
at input voltage
4.5 bar

Switching valve
0.2 sec

Code for pipe diameter:		Code for pre-assembled pneu-matic quick connectors (optional):	
20 mm	20	Basis	B
1/2"	21	90°	A
25 mm	25	Straight	S
3/4"	27	Y	Y
1"	34	T	T

Example of ordering
PSV 1/2" with 90° pneumatic connection **065.282.56.21.0A.0**

VarioSelect®/VarioSelect® II
2- and 4-way nozzle holder

2-way or 4-way nozzle holder with pneumatic control for variable application rate control.

Advantages

- Operation optionally in „Vario“ or „Select“ mode
  - Vario: Fully-automatic control of nozzles/nozzle combination and continuously variable adaptation of the application rate and pressure
  - Select: Manual activation and deactivation of individual nozzles/nozzle combinations
- V2 in new more compact design with proven PSV valve technology (see page 103)
- V4 in modular design
- Single valve located directly in front of the nozzle
- Central liquid supply

VarioSelect® II 2-way nozzle holder (pneumatic quick-action connectors optional)

VarioSelect® 4-way nozzle holder (pneumatic quick-action connectors optional)

Note: Fit all valve bodies on the boom in the same nozzle configuration (size, type), perfect operation of the VarioSelect® requires oil in the pneumatic system.

Material
POM, POM fibre glass reinforced, EPDM, Viton®, FPM, stainless steel

Pressure range
Max. 8 bar

Emergency stop
at input voltage 4.5 bar

Switching valve
0.2 sec

Code for pipe diameter:	
20 mm	20
25 mm	25
1/2", 22 mm	21
3/4"	27
1"	34

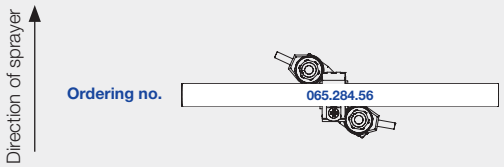
Code for pre-assembled pneumatic quick-action connection (optional):	
90°	A
Basis	B
Y	Y

Others on request.

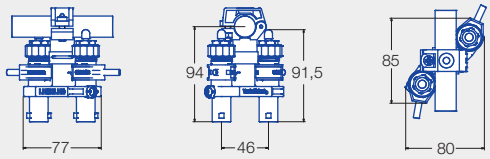
Example of ordering

V2, 1/2" with Y pneumatic connection	**065.284.56.21.0Y**
V4, 3/4" with 90° pneumatic connection	**065.286.MN.27.A0**

2-way nozzle body V2

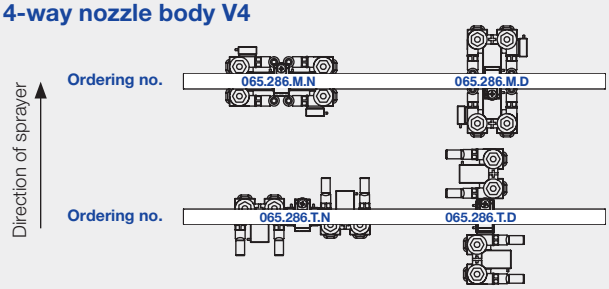


Main dimensions of 2-way nozzle body 1/2"

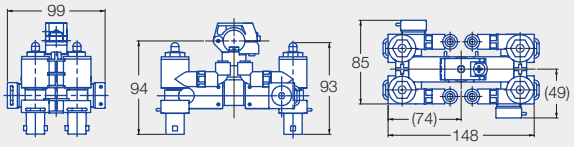


Dimensions in mm.

4-way nozzle body V4

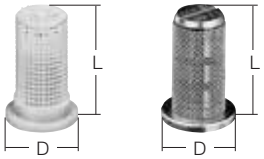
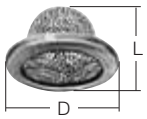


Main dimensions of 4-way nozzle body 1/2"



Dimensions in mm.

Ball check valves
Nozzle strainers

Ball check valves, nozzle strainers	Opening pressure	Mesh size	L [mm]	D [mm]	Material	Filter area (without gasket)	Ordering no.
Ball check valves* 	0.5 bar	25 M ■ red	21.5	14.8	POM	628 mm²	065.266.56.00
	0.5 bar	60 M ■ blue	21.5	14.8	POM	628 mm²	065.265.56.00
	0.5 bar	25 M	21	14.8	Brass	430 mm²	065.261.30.00
	0.5 bar	60 M	21	14.8	Brass	430 mm²	065.260.30.00
	2.5 bar	25 M ■ red	21.5	14.8	POM	628 mm²	065.266.56.02
	2.5 bar	60 M ■ blue	21.5	14.8	POM	628 mm²	065.265.56.02
Ball check valve (excl. strainers) 	0.5 bar	-	18.5	14.8	POM	-	065.266.56.01
Nozzle strainer* 	-	25 M ■ red	21.5	14.8	POM	628 mm²	065.256.56.00
	-	60 M ■ blue	21.5	14.8	POM	628 mm²	065.257.56.00
	-	80 M ■ yellow	21.5	14.8	POM	430 mm²	A.424.310.5
Slotted strainer 	-	25 M ■ red	21.0	14.8	POM	430 mm²	095.009.56.13.43
Cup strainer 	-	25 M	8.5	14.8	Cu/Monel	184 mm²	065.252.26.00
	-	25 M ■ red	8.5	14.8	PA, Monel	184 mm²	200.029.26.00.03
	-	60 M ■ blue	8.5	14.8	PA,stainless steel	184 mm²	200.029.1C.01.03
Nozzle strainer with integrated seal for TWISTLOC 	-	25 M ■ red	19.2	18.0	POM, Santoprene	628 mm²	065.269.7J
	-	60 M ■ blue	19.2	18.0	POM, Santoprene	628 mm²	065.268.7J
Nozzle strainer with integrated seal for MULTIJET 	-	60 M ■ blue	19.2	18.8	POM, Santoprene	628 mm²	065.268.7J.10

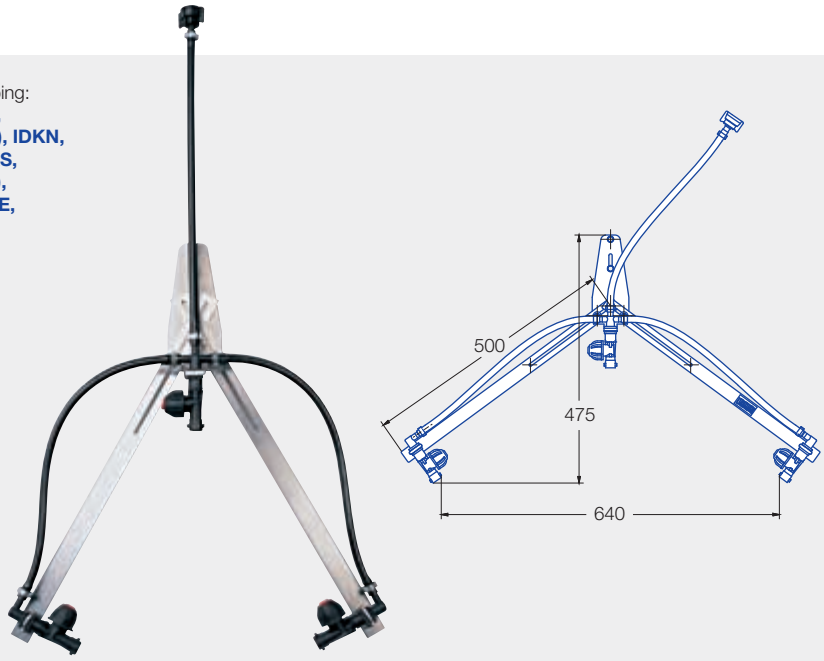
* Please note: If applicable we deliver the strainers and ball check valves in the colour coding according to ISO 19732:2007 (see page 6).

Spray frame

3 nozzle fork for uniform spraying and penetration of row crops.

Advantages
- Variable nozzle equipment, e.g. with twin (IDKT at top) and flat spray nozzles (IDK at sides)
- Uniform wetting and crop penetration at the sides and from above
- Flexible adaptation to individual crop by adjustable spray arms
- Robust, wear-resistant spray arm design in stainless steel
- Easy assembly on every spray boom

Nozzle equipping:
ID (90°/120°), IDK (90/120°), IDKN, IDKT, IS, IDKS, LU (90°/120°), ST (60°), DF, E, TR, OC



Dimensions in mm.

Ordering no. 092.165.00
Delivery contents: Spray frame without nozzles, nozzle strainer, gaskets and bayonet caps

Opening angle
Spraying arms:
55° – 107°

Material
Stainless steel, PA

Pressure range
Max. 8 bar

Application areas

Plant protection products

Strawberries

Calculation example:
1,000 l/ha, 4 km/h, row spacing 0.9 m

Total output of spray frame:

$$\frac{\textbf{1,000 (l/ha) x 4 (km/h) x 0.9 (m)}}{\textbf{600}} = \textbf{6.0 l/min}$$

3 nozzles same size:

6.0 l/min : 3 = 2.0 l/min

Recommendation: IDKT-05 (top) at 3.0 bar
IDKS 80-06 (lateral) at 3.0 bar

Dropleg[UL]

2017 European Bee Award

ELO European Landowners' Organization

CEMA European Agricultural Machinery

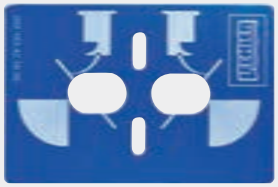
Underleaf spraying system for broadcast and row applications.

Advantages

- Fits all booms
- Gentle on plants because of lateral free swinging tube
- Less weather-dependent use due to low-drift application on crop
- Optimum plant protection product deposition at the sides and from below on the leaf undersides and stalks
- Variable nozzle equipment with plant protection and liquid fertilizer nozzles
- Robust, light and flexible – only approx. 400 g

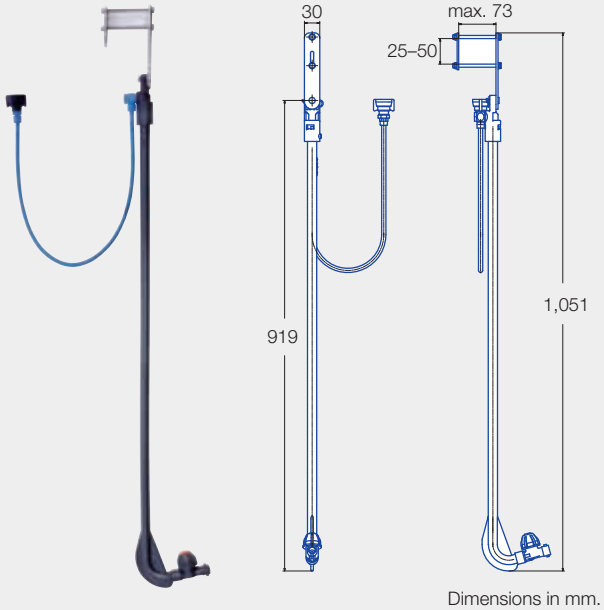
JKI Julius Kühn-Institut – Amtlich geprüft und anerkannt

G 1994



Template
Ordering no. 092.163.42.10.30

Nozzle equipping:
FT, IDKT, DF, TwinSprayCap
– ID3
– IDK/IDKN
– LU
– FT



Dimensions in mm.

Material
POM fibre glass reinforced, PE, PA, stainless steel

Pressure range
Max. 8 bar

Application areas

- Plant protection products and growth regulators
- Vegetable growing
- Liquid fertilizer (AHL, UAN)

Ordering no. 092.171.56.00
Delivery contents: Preassembled without nozzles, nozzle strainer, gasket and bayonet cap

Designation	Photo	Ordering no.
TwinSprayCap, System MULTIJET, for flood nozzles		092.163.56.10
Nozzle strainer 60 M		065.257.56.00
MULTIJET Y-Connector 45° forward angling of nozzle		Y.823.001.80.00.00
MULTIJET-bayonet cap 1/4" NTP female		A.402.910.01
Double nipple 1/4" male		095.019.30.00.42
Y-kit for row application		092.176.00.00.00
Double swivel nozzle holder 1/4" female* Free adjustable forward angling of nozzle		A.404.172

* For combined application of standard/spray boom + Dropleg[UL]

Dropleg[UL] calculator

Dropleg[UL] Flyer

»MULTIJET«, »MultiCap«
Quick release system – wet booms (max. pressure 20 bar)

Nozzle holder	Description	Material	Ordering no.
	**5-way nozzle holder, compact version with diaphragm check valve** with eyelet connector		
	for 1/2" pipes	Polyamide (PA)	A.406.494.7
	for 3/4" pipes	Polyamide (PA)	A.406.495.7
	for 1" pipes	Polyamide (PA)	A.406.496.7
	**4-way nozzle holder, compact version with diaphragm check valve** with eyelet connector		
	for 20 mm pipes	Polyamide (PA)	A.406.472.71
	for 1/2" pipes	Polyamide (PA)	A.406.474.7
	for 3/4" pipes	Polyamide (PA)	A.406.475.7
	for 1" pipes	Polyamide (PA)	A.406.476.7
	**3-way nozzle holder, compact version, with diaphragm check valve** with eyelet connector		
	for 20 mm pipes	Polyamide (PA)	A.406.422.71
	for 1/2" pipes	Polyamide (PA)	A.406.424.7
	for 3/4" pipes	Polyamide (PA)	A.406.425.7
	for 1" pipes	Polyamide (PA)	A.406.426.7
	**3-way nozzle holder with diaphragm check valve** with eyelet connector		
	for 1/2" pipes	Polyamide (PA)	A.401.274.7
	for 3/4" pipes	Polyamide (PA)	A.401.275.7
	for 1" pipes	Polyamide (PA)	A.401.276.7
	**Single nozzle body with diaphragm check valve** with eyelet connector		
	for 20 mm pipes	Polyamide (PA)	A.402.725
	for 1/2" pipes	Polyamide (PA)	A.402.745
	for 25 mm pipes	Polyamide (PA)	A.402.75A.5
	for 3/4" pipes	Polyamide (PA)	A.402.755
	for 1" pipes	Polyamide (PA)	A.402.765

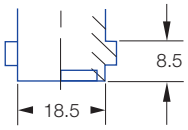
MultiCap fibre glass reinforced	Description	Color code	Bestell-Nr.
On request completely assembled with IDK/IDKN/IDKT  MultiCap with IDK-Nozzle  Standard-Bayonet cap with IDK-nozzle	**Bayonet cap** – incl. gasket (A.402.200.04) – POM fibre glass reinforced – Long side walls fix IDK/IDKN/IDKS/IDKT nozzles best – Best protection of the nozzle – Less exposure of nozzle flats to damage – Optimal fit and offset of nozzle – Fits MULTIJET Bayonet system	yellow	092.164.56.10.00
		lavender	092.164.56.20.00
		blue	092.164.56.30.00
		red	092.164.56.40.00
		brown	092.164.56.50.00
		black	092.164.56.60.00

Material
PA, stainless steel, EPDM

Code for pipe diameter:

1/2"	21 mm
3/4"	27 mm
1"	34 mm

Bayonet caps for »MULTIJET« and non-Lechler origin Intermediate and extension adaptor

MULTIJET	Description		Color code	Ordering no.
  Labeling on request.	**Bayonet cap** incl. gasket Y.G00.002.02.0 for combination with System MULTIJET, for example:   Dimensions in mm.	**Combi cap** for nozzles with 8 and 10 mm AF ID3, IDK, IDKN, IDKT, AD, QS, LU, ST, DF, IS, IDKS, OC, E, FL, FS	red	Y.825.3C0.00.00.00.0
			blue	Y.825.3C0.00.30.00.0
			yellow	Y.825.3C0.00.10.00.0
			lavender	Y.825.3C0.00.80.00.0
			green	Y.825.3C0.00.20.00.0
			brown	Y.825.3C0.00.70.00.0
			black	Y.825.3C0.00.40.00.0
			grey	Y.825.3C0.00.90.00.0
			white	Y.825.3C0.00.50.00.0
		Fibre-glass reinforced for nozzles with		
		AF 8	black	A.402.900.01.A
		AF 10	black	A.402.902.01.A
		for hollow cone nozzles TR, ITR, FT, BN hose shanks	black	A.402.904.10
		for flood nozzles FT	blue	A.402.908.4
		Bayonet cap 1/4" NPT	black	A.402.910.01
		female		
		Shut off cap	black	A.402.909

Non-Lechler origin	Description		Color code	Ordering no.
Bayonet cap Type H 	System: **– Hardi** incl. gasket (8 and 10 mm AF: 095.015.73.06.36)	**Combi cap** for nozzles with 8 and 10 mm AF ID3, IDK, IDKN, IDKT, AD, QS, LU, ST, DF, IS, IDKS, OC, E, FL, FS	black	090.078.56.00.40.1
	Gasket with special shape (in combination with nozzle strainer 065.256.56 or 065.257.56, see page 105)			095.015.7J.04.34
Bayonet cap Type R 	System: **– Rau** incl. gasket (095.015.73.04.61) since 2000 see Bayonet cap MULTIJET above	for nozzles with 8 mm AF IDK, IDKN, IDKT, AD, QS, LU, ST, IDKS, OC, E	red	095.016.56.05.90
		for nozzles with 10 mm AF ID3, DF, IS, FL, FS	lavender	095.016.56.05.97

Intermediate and extension adaptor

Intermediate adaptor*
System Lechler TWISTLOC
(092.163.56.00.22.1)
Extension: 22 mm

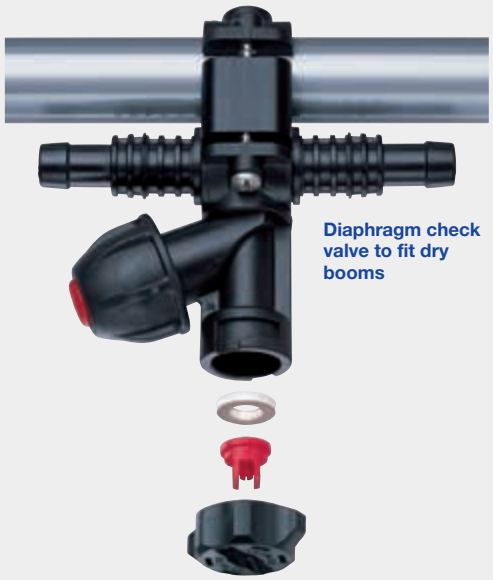
Intermediate adaptor*
System Rau
(092.163.56.00.21.0)
Extension: 20 mm

Intermediate adaptor*
System Hardi
(092.163.56.00.20.1)
Extension: 17 mm

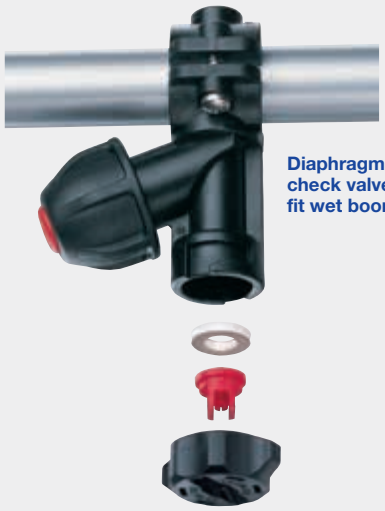
Extension adaptor*
System MULTIJET
(092.163.56.00.23.1)
Extension: 32 mm

*Incl. gasket.

»TWISTLOC«
Quick release system
(Max. pressure 20.0 bar)



Diaphragm check valve to fit dry booms



Diaphragm check valve to fit wet booms

Diaphragm check valve with eyelet connector
for 3/4" pipes
065.272.56.KL
for 1/2" pipes
065.272.56.KH

Diaphragm check valve for threaded connection
M 18 x 1.5
065.272.56.HB

Single-hose connector
for 3/4" boom tubings
(25-28 mm O.D.)
065.274.56.KL
for 1/2" boom tubings
(20-22 mm O.D.)
065.274.56.KH

Two-hose connector
for 3/4" boom tubings
(25-28 mm O.D.)
065.275.56.KL
for 1/2" boom tubings
(20-22 mm O.D.)
065.275.56. KH

Strainer (with integrated seal)
60 M
065.268.7J
see page 105
25 M
065.269.7J
see page 105

Eyelet connector
for 1" pipes
090.023.51.KA
for 3/4" pipes
090.013.51.KA
for 1/2" pipes
090.003.51.KA

Bayonet adapter with female thread
M 18 x 1.5
Ordering no. 095.009.00.07.98

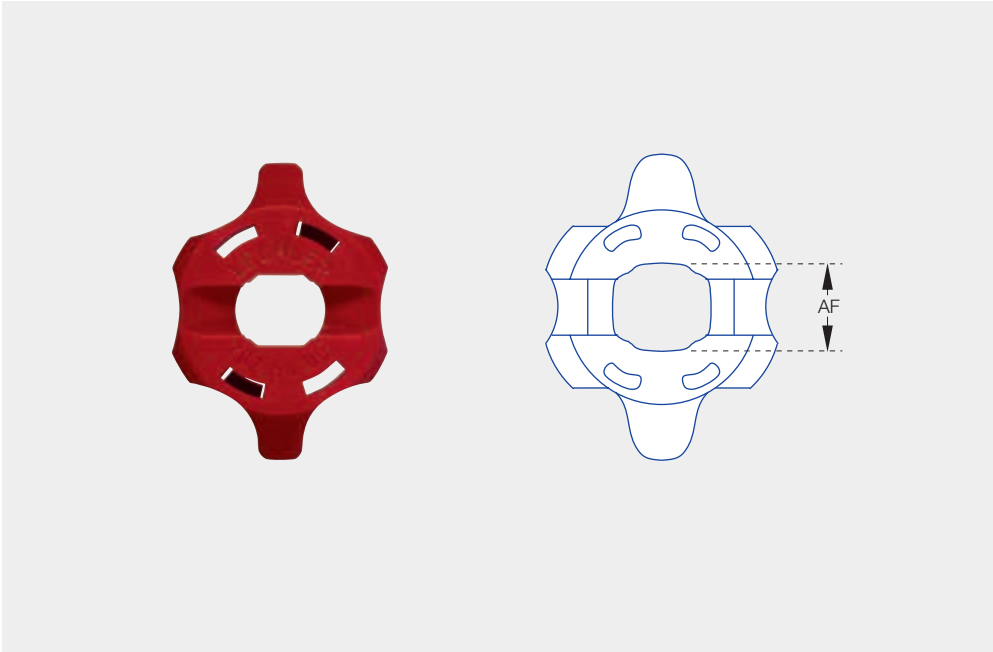
Ball check valve
60 M
065.265.56.00
25 M
065.266.56.00

Bayonet cap
Range page 111

Gasket
065.242.73

»TWISTLOC« Bayonet caps Solenoid valve

- Simple handling
- Ergonomic shape

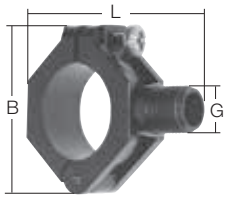


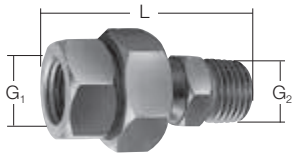
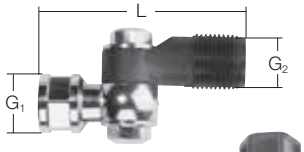
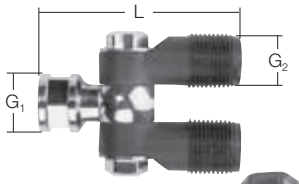
TWISTLOC	Description	Color code	Ordering no.
incl. gasket (065.242.73.00) combines with following systems*: – Lechler – Holder – Amazone – Schmotzer – Brendecke – Vogel & Noot	for nozzles with 8 mm AF (IDK, IDKN, IDKT, AD, QS, LU, ST, IDKS, OC, E)	white	065.204.56.05
		brown	065.204.56.06
	for nozzles with 8 and 10 mm AF (ID3, IDK, IDKN, IDKT, AD, QS, LU, ST, DF, IS, IDKS, OC, E, FL, FS)	red	065.202.56.00
		black	065.202.56.01
		yellow	065.202.56.02
		green	065.202.56.03
		blue	065.202.56.04
		grey	065.202.53.00
Round-hole bayonet cap incl. gasket (065.242.73.00)	for TR, ITR, FT, BN, hose shank	black	065.202.56.11
	for FT	dark grey	065.202.56.50
Shut-off cap incl. gasket (095.015.6C.02.85.0)		beige	065.202.56.40

* Depending on series/type.

Solenoid valve	Description	Max. pressure	Ordering no.
	**Fitting to TWISTLOC and MULTIJET nozzle holders**		
	3-pin plug connection GDM according to DIN 43650 Power consumption: 0.8 A Tightening torque at nozzle holder 2,5 Nm	8.0 bar	065.277.56.00.00.0
	**Solenoid valve to fit dry booms. Power consumption: 0.5 A**		**Z-Endvalve**
	Hose-Ø 11.0 mm	10.0 bar	Z-Endvalve 11
	Hose-Ø 13.0 mm	10.0 bar	Z-Endvalve 00
	Spare part piston		Z-E06011.00

Eyelet connectors
Ball joint thread connectors/Swivel nozzle holders »CleanerFix«

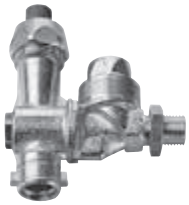
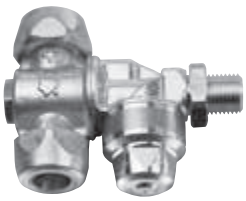
Eyelet connectors*	for pipe-Ø	Male thread G	L [mm]	B [mm]	Material	Ordering no.
Split eyelet connector, max. 10 bar, with stainless-steel screw 	3/8"	G 3/8"	49	41	Polyamide	090.053.51
	1/2"	G 3/8"	53	45	Polyamide	090.003.51
	3/4"	G 3/8"	57	51	Polyamide	090.013.51
	1"	G 3/8"	65	61	Polyamide	090.023.51

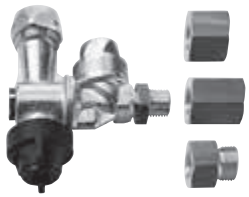
Ball joint thread connectors, swivel nozzle holders*	G_1	G_2	L [mm]	Material	Ordering no.
Ball joint thread connector, max. 25 bar, full-swivel type max. 30° 	3/8" female	3/8" female	56	Brass	092.022.30 AF
	1/2" female	1/2" female	71	Brass	092.040.30 AH
	3/4" female	3/4" female	80	Brass	092.050.30 AL
Single swivel nozzle holder, max. 20 bar 	1/4" male	3/8" male	35	Polyamide	095.016.56.07.22
	NPT 1/4" female	3/8" male	35	Polyamide	095.016.56.07.21
incl. threaded cap G 3/8" 				POM	065.200.56
and gasket 				Rubber	065.240.73.00
Double swivel nozzle holder, max. 20 bar 	NPT 1/4" female	3/8" male	35	Polyamide	095.016.56.07.20
incl. threaded cap G 3/8" 				POM	065.200.56
and gasket 				Rubber	065.240.73.00

* Recommended ball check valves see page 105.

CleanerFix		Ordering no.
	Mounting cleaning nozzles without entering the tank. Simple, fast and safe exchange of cleaning nozzles in the tank.	050.050.56.00.00.0
	**Extension for CleanerFix** approx. 9,5 cm.	050.050.53.10.00

Diaphragm nozzle holder for air assisted sprayer
Assembly accessories
Relocation kit nozzle holder

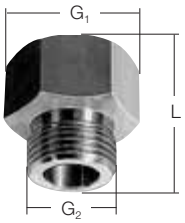
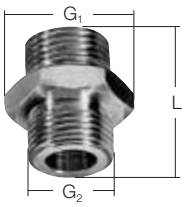
Diaphragm nozzle holder	Description	Material	Ordering no.
	Bayonet diaphragm nozzle holder incl. threaded cap and bayonet cap Opening pressure: 0.7 bar Closing pressure: 0.7 bar Max. working pressure: 25 bar		
	1/4" male	Brass	Z.TRA.EGE.RK.OM.B
	Diaphragm nozzle holder incl. 2 threaded caps opening pressure: 1.1 bar closing pressure: 0.9 bar max. working pressure: 40 bar		
	G 1/4" male	Brass	095.016.30.09.61.0
	G 1/4" female	Brass	095.016.30.09.62.0

Assembly accessories	Description	Material	Ordering no.
	Reduction socket M 18 x 1,5 female / 1/4" female	Brass	095.016.30.12.80.0
	Reduction socket 3/8" female / 1/4" female	Brass	095.019.30.00.23
	Reduction coupling 3/8" male / 1/4" female	Brass	065.221.30

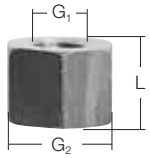
Relocation kit nozzle holder	Description	Ordering no.
	**Row width adaption (e.g. corn 0.75 cm row spacing) with relocation kit nozzle holder** assembly to wet boom 1/2" (20–22 mm) 3/4" (25–28 mm) on request	092.174.00.00.00.0

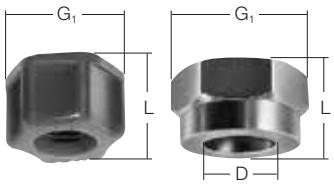
Find further information and our manual here:
www.lechler-agri.com/manuals

Reducing Coupling
Nipples
Threaded caps

Couplers, nipples	G_1	G_2	L [mm]	Material	Ordering no.
Coupler 	G 1/8	G 3/8 A	20	Brass	040.211.30
	G 1/4	G 3/8 A	23	Brass	065.221.30
	G 1/4	G 3/8 A	36*	Brass	065.228.30.00.00.1
	G 3/8	G 3/8 A	28	Brass	065.220.30
	M 11 x 1	G 3/8 A	36*	Brass	065.222.30
	G 3/4	G 3/4 A	35	Brass	065.620.30
	G 3/8	M 18 x 1,5	28	Galv. steel	095.016.02.03.43
Nipple 	G 1/4 A	G 1/4 A	27	Brass	095.019.30.00.42
	G 1/4 A	G 3/8 A	25	Brass	065.215.30
	G 1/4 A	G 3/8 A	35*	Brass	065.215.30.02
	G 3/8 A	G 3/8 A	25	Brass	065.211.30
	M 11 x 1 A	G 3/8 A	36*	Brass	065.213.30
	G 3/4 A	G 3/4 A	35	Brass	065.611.30

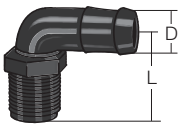
* Assembly of nozzle strainer and ball check valve possible (see page 105). A = male thread

Reduction socket	G_1 female	G_2 female	L [mm]	Material	Ordering no.
	M 18 x 1.5	G 1/4	21	Brass	095.016.30.12.80
	G 3/8"	G 1/4	26	Brass	095.019.30.00.23

Threaded caps	G_1 female	L [mm]	D [mm]	AF [mm]	Material	Ordering no.
	M 18 x 1.5	18	13.0	*	Polyamide	095.011.51.00.21
	G 3/8	13	12.8	22	Stainless steel	065.200.16
	G 3/8	13	12.8	22	Brass	065.200.30
	G 3/8	13	12.8	22	POM	065.200.56
	G 3/4	16	20.1	32	Brass	065.600.30
	Gasket for threaded version	M 18 x 1.5	16 x 10 x 2.5		Rubber	090.020.73.00.03
	Gasket for threaded version	3/8"	11 x 15 x 1.6		Rubber	065.240.73
	Gasket for threaded version	3/4"	18 x 24 x 1.0		EWP	065.640.72

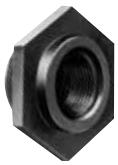
* Wing nut.

Hose connectors

Hose connectors	Threads	Max. pressure bar	Hose-Ø D [mm]	L [mm]	Material	Ordering no.
Hose shank to match threaded cap 065.200.XX. (page 114) or round-hole bajonet cap 065.202.56.11 (page 111) A.402.904.10 (page 109) 		10.0	12	34	PA	095.016.56.07.49
Hose shank connector male 	G 3/8"	25.0	11	35	Brass	095.016.30.07.67
	G 1/2"	25.0	11	40	Brass	095.016.30.07.68
	NPT 1/4"	10.0	10	54	PP	BHB025038
	NPT 3/8"	10.0	13	66	PP	BHB038050
	NPT 1/2"	10.0	13	68	PP	BHB050
	NPT 3/4"	10.0	19	74	PP	BHB075
	NPT 3/4"	10.0	25	76	PP	BHB075100
	NPT 1"	10.0	25	80	PP	BHB100
	NPT 1"	10.0	32	90	PP	BHB100125
	NPT 1 1/4"	10.0	30	90	PP	BHB125
	NPT 1 1/4"	10.0	25	81	PP	BHB125100
	NPT 1 1/2"	10.0	37	104	PP	BHB150
	NPT 2"	10.0	36	107	PP	BHB200150
	NPT 2"	10.0	49	115	PP	BHB200
	G 2"	6.0	60	134	PVC	095.016.50.05.73
	NPT 3"	10.0	75	160	PP	BHB300
Hose shank connector 90° 	NPT 1/4"	10.0	6	35	PP	BHB02590
	NPT 3/8"	10.0	10	36	PP	BHB03890
	NPT 1/2"	10.0	10	36	PP	BHB05003890
	NPT 1/2"	10.0	12	38	PP	BHB05090
	NPT 1/2"	10.0	20	41	PP	BHB05007590
	NPT 3/4"	10.0	12	42	PP	BHB07505090
	NPT 3/4"	10.0	20	45	PP	BHB07590
	NPT 3/4"	10.0	25	48	PP	BHB07510090
	NPT 1"	10.0	20	50	PP	BHB10007590
	NPT 1"	10.0	25	53	PP	BHB10090
	NPT 1"	10.0	32	56	PP	BHB10012590
	NPT 1 1/4"	10.0	25	53	PP	BHB12510090
	NPT 1 1/4"	10.0	32	56	PP	BHB12590
	NPT 1 1/2"	10.0	40	63	PP	BHB15090
	NPT 2"	10.0	50	64	PP	BHB20090
	NPT 3"	10.0	75	113	PP	BHB30090
Hose shank connector female 	G 1/2"	25.0	11	42	Brass	095.016.30.06.41
	G 1/2"	25.0	13	42	Brass	095.016.30.06.42
	G 1 1/4"	10.0	30	77	PP	095.016.53.07.47
	G 1 1/2"	10.0	40	67	PP	095.016.53.07.48
	G 2"	6.0	50	70	PP	A.100.750
MULTIJET Bajonett Nippel 		10.0	16	65	PP	092.163.56.00.25.0

Thread table see page 12.

Pipe fittings (Polypropylene/NPT threads) Max. 10 bar

Description	Threads	Ordering no.
Double nipple 	1/2" male	BNIP050-SH
	3/4" male	BNIP075-SH
	1" male	BNIP100-SH
	1 1/4" male	BNIP125-SH
	1 1/2" male	BNIP150-SH
	1 1/2" male, lenght: 4"	BNIP150-4
	2" male	BNIP200-SH
	2" male, lenght: 4"	BNIP200-4
	3" male	BNIP300-SH
Reducing coupler 	1/2" male x 3/8" female	BRB050-038
	3/4" male x 1/4" female	BRB075-025
	3/4" male x 1/2" female	BRB075-050
	1" male x 3/4" female	BRB100-075
	1 1/4" male x 3/4" female	BRB125-075
	1 1/4" male x 1" female	BRB125-100
	1 1/2" male x 3/4" female	BRB150-075
	1 1/2" male x 1" female	BRB150-100
	1 1/2" male x 1 1/4" female	BRB150-125
	2" male x 3/4" female	BRB200-075
	2" male x 1" female	BRB200-100
	2" male x 1 1/4" female	BRB200-125
	2" male x 1 1/2" female	BRB200-150
	3" male x 1 1/2" female	BRB300-150
	3" male x 2" female	BRB300-200
Reducer 	1" female x 3/4" female	BRC100-075
	1 1/2" female x 1" female	BRC150-100
	1 1/2" female x 1 1/4" female	BRC150-125
	2" female x 1" female	BRC200-100
	2" female x 1 1/4" female	BRC200-125
	2" female x 1 1/2" female	BRC200-150
	3" female x 2" female	BRC300-200
Taper nipple 	1/2" male x 3/4" male	BRN075-050
	1/2" male x 1" male	BRN100-050
	3/4" male x 1" male	BRN100-075
	3/4" male x 1 1/4" male	BRN125-075
	1" male x 1 1/4" male	BRN125-100
	1" male x 1 1/2" male	BRN150-100
	1 1/4" male x 1 1/2" male	BRN150-125
	1 1/4" male x 2" male	BRN200-125
	1 1/2" male x 2" male	BRN200-150
	2" male x 2" male	BRN300-200
Blanking plug 	3/4" male	BPlug075
	1" male	BPLUG100
	1 1/2" male	BPLUG150
	2" male	BPLUG200

Description	Threads	Ordering no.
Coupler 	1/2" female	BCPLG050
	3/4" female	BCPLG075
	1" female	BCPLG100
	1 1/4" female	BCPLG125
	1 1/2" female	BCPLG150
	2" female	BCPLG200
	3" female	BCPLG300
Tee 	3/8" female	BTEE038
	1/2" female	BTEE050
	3/4" female	BTEE075
	1" female	BTEE100
	1 1/4" female	BTEE125
	1 1/2" female	BTEE150
	2" female	BTEE200
	3" female	BTEE300
45° elbow 	3/4" female x 3/4" male	BSL075-45
	1" female x 1" male	BSL100-45
	1 1/4" female x 1 1/4" male	BSL125-45
	1 1/2" female x 1 1/2" male	BSL150-45
	2" female x 2" male	BSL200-45
	3" female x 3" male	BSL300-45
90° elbow 	3/8" female x 3/8" female	BEL038-90
	1/2" female x 1/2" female	BEL050-90
	3/4" female x 3/4" female	BEL075-90
	1" female x 1" female	BEL100-90
	1 1/4" female x 1 1/4" female	BEL125-90
	1 1/2" female x 1 1/2" female	BEL150-90
	2" female x 2" female	BEL200-90
	3" female x 3" female	BEL300-90
	3/8" female x 3/8" male	BSL038-90
	1/2" female x 1/2" male	BSL050-90
	3/4" female x 3/4" male	BSL075-90
	1" female x 1" male	BSL100-90
	1 1/4" female x 1 1/4" male	BSL125-90
	1 1/2" female x 1 1/2" male	BSL150-90
	2" female x 2" male	BSL200-90
	3" female x 3" male	BSL300-90
Cross 	3/4" female	BCR075
	1" female	BCR100
	1 1/4" female	BCR125
	1 1/2" female	BCR150
	2" female	BCR200

Thread table see page 12.
Other thread sizes on request.

Manifold flange system

Description	Connection	Ordering no.
Check valve 	1"	BMCV100
	2", full port	BMCV220
	3", full port	BMCV 300
Straight flange 	1" x 1" flange	BM100CPG
	2" x 2" full port flange	BM220CPG
	3" x 3" full port flange x 4" long	BM300CPG
	2" x 2" full port flange x 6" long	BM220CPG6
	3" x 3" full port flange x 7" long	BM300CPG7
45° flange coupling 	1" x 1" 45° flange	BM100CPG45
	2" x 2" 45° full port flange	BM220CPG45
	3" x 3" 45° full port flange	BM300CPG45
90° flange coupling 	1" x 1" 90° flange	BM100CPG90
	2" x 2" 90° full port flange	BM220CPG90
	3" x 3" 90° full port flange	BM2300CPG90
90° flange, „Sweeps", (10 % more flow) 	2" 90° full port flange "Sweep"	BM220SWP90
	3" 90° flange "Sweep"	BM300SWP90
Flange reducer coupling 	2" flange x 1" flange	BM200100CPG
	2" full port flange x 1" flange	BM220100CPG
	3" flange x 2" flange	BM300200CPG
	3" flange x 2" full port flange	BM300220CPG
Flange tee 	1"	BM100TEE
	2"	BM200TEE
	2" full port flange tee x 2"	BM220200TEE
	2" full port flange tee	BM220TEE
	3"	BM300TEE
U-bolt (stainless steel)	100 series	BUB100
	200 series	BUB202
	220 series	BUB220

Description	Connection	Ordering no.
Adapter, flange – BSP Gewinde (AG) 	1" flange x 1" BSP	BM100BSP
	2" full port flange x 2" BSP	BM220BSP
	3" full port flange x 3" BSP	BM300BSP
Adapter, flange – NPT Gewinde (AG) 	1" flange x 1" NPT (AG)	BM100MPT
	2" flange x 1 1/2" NPT (AG)	BM200150MPT
	2" full port flange x 2" NPT (AG)	BM220MPT
	3" flange x 3" NPT (AG)	BM300MPT
Full Port 	1" flange x 1" FIXLOC	BM100A
	2" full port flange x 2" FIXLOC	BM220A
	3" full port flange x 3" FIXLOC	BM300A
Flange – hose barb 	1" flange x 3/4" hose	BM100075BR
	1" flange x 1" hose	BM100BRB
	2" flange x 1 1/2" hose	BM200150BRB
	2" full port flange x 1" hose	BM220100BR
	2" full port flange x 1 1/4" hose	BM220125BR
	2" full port flange x 1 1/2" hose	BM220150BR
	2" full port flange x 2" hose	BM220BRB
	3" flange x 2" hose	BM300220BR
	3" flange x 3" hose	BM300BRB
Flange – 90° hose barb 	1" flange x 3/4" hose	BM100075BRB90
	1" flange x 1" hose	BM100BRB90
	2" full port flange x 1 1/2" hose	BM220150BRB90
	2" full port flange x 2" hose	BM220BRB90
	3" flange x 2" hose	BM300220BRB90
	3" flange x 3" hose	BM300BRB90

Manifold flange system

Full Port = full flow according to the connection

Description	Connection	Ordering no.
Flange - 45° hose barb elbow 	1" Flange x 1" hose	BM100BRB45
	2" Full Port Flange x 2" hose	BM220BRB45
	3" Flange x 3" hose	BM300BRB45
Flange cross 	1" Flange	BM100CR
	2" Full Port Flange	BM220CR
	3" Flange	BM300CR

Full Port = full flow according to the connection

Description	Connection	Ordering no.
Flange clamp (stainless steel) 	100 series	BFC100
	200 series	BFC 200
	220 series (for Full Port)	BFC220
	300 series (for Full Port)	BFC300
Flange gaskets (EPDM) 	1" with rib	BM101G
	1 1/2"	B150G
	2" with rib	BM201G
	2" full port with rib	BM221G
	3" with rib	BM301G

Description	Connection	Pressure max. (bar)	Opening	Ordering no.
2-way valve (bolted, „full port“) 	1"	10	1"	BMV100CF
	2"	10	2"	BMV220CF
	3"	7	3"	BMV300CF
Compact „Stubby“ 2-way valves („full port“) 	2" flange - FIXLOC male adapter	7	2"	BMVSF220FP
	2" flange - flange	7	2"	BMVS220CF
	3" flange - FIXLOC male adapter	7	3"	BMVSF300FP
	3" flange - flange	7	3"	BMVS300CFFP
3-way valves („full port“) 	2" bottom load	7	2"	BMV220BL
	2" side load, (cannot be turned off)	7	2"	BMV220SL
	3" bottom load	7	3"	BMV300BL

»FIXLOC« Lever couplings with NPT- and BSP-threads (BS21 respectively DIN EN 10226)

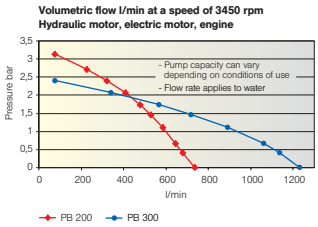
Features
- Chemically resistant to agricultural chemicals and liquid fertilizers
- Corrosion-resistant stainless steel
- Easy handling
- Pressure:
  ½" – 2" max. 9.0 bar
  3" max. 5.0 bar

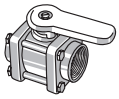
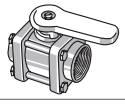
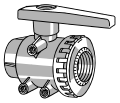
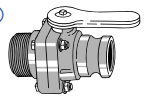
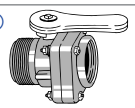
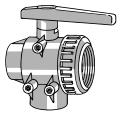
FIXLOC parts	Description	Connector	Ordering no.
	**Male adapter with female threads** straight version	NPT 1/2"	B050-A-NPT
		NPT 3/4"	B075-A-NPT
		BSP 1"	B100-A-BSP
		NPT1 1/4"	B125-A-NPT
		BSP 1 1/2"	B150-A-BSP
		BSP 2"	B200-A-BSP
		BSP 3"	B300-A-BSP
	dito as 90° elbow	NPT 1 1/2"	B150-A 90°-NPT
		NPT 2"	B200-A 90°-NPT
	**Male adapter with male threads** straight version	NPT 1/2"	B050-F-NPT
		NPT 3/4"	B075-F-NPT
		BSP 1"	B100-F-BSP
		NPT 1 1/4"	B125-F-NPT
		BSP 1 1/2"	B150-F-BSP
		BSP 2"	B200-F-BSP
		NPT 3"	B300-F-NPT
		BSP 3"	B300-F-BSP
	dito as 90° elbow	NPT 1 1/2"	B150-F 90°-NPT
		NPT 2"	B200-F 90°-NPT
	**Male adapter with hose shank**	1/2"	B050-E
		3/4"	B075-E
		1"	B100-E
		1 1/4"	B125-E
		1 1/2"	B150-E
		2"	B200-E
		3"	B300-E
	**Female coupler with female threads** straight version	NPT 1/2"	B050-D-NPT
		NPT 3/4"	B075-D-NPT
		BSP 1"	B100-D-BSP
		NPT 1 1/4"	B125-D-NPT
		BSP 1 1/2"	B150-D-BSP
		BSP 2"	B200-D-BSP
		NPT 3"	B300-D-NPT
		BSP 3"	B300-D-BSP
	dito as 90° elbow	NPT 1 1/2"	B150-D 90°-NPT
		NPT 2"	B200-D 90°-NPT

FIXLOC parts	Description	Connector	Ordering no.
	**Female coupler with male threads**	NPT 1/2"	B050-B-NPT
		NPT 3/4"	B075-B-NPT
		BSP 1"	B100-B-BSP
		NPT 1 1/4"	B125-B-NPT
		BSP 1 1/2"	B150-B-BSP
		BSP 2"	B200-B-BSP
		NPT 3"	B300-B-NPT
		BSP 3"	B300-B-BSP
	**Female coupler with hose shank** straight version	1/2"	B050-C
		3/4"	B075-C
		1"	B100-c
		1 1/4"	B125-C
		1 1/2"	B150-C
		2"	B200-C
		3"	B300-C
	dito as 90° elbow	1 1/2"	B150-C 90°
		2"	B200-C 90°
	**Plug for female coupler**	1/2"	B050-PL
		3/4"	B075-PL
		1"	B100-PL
		1 1/4"	B125-PL
		1 1/2"	B150-PL
		2"	B200-PL
		3"	B300-PL
	**Plug for male coupler**	1/2"	B050-CAP
		3/4"	B075-CAP
		1"	B100-CAP
		1 1/4"	B125-CAP
		1 1/2"	B150-CAP
		2"	B200-CAP
		3"	B300-CAP
	**Spare gasket for FIXLOC lever couplings EPDM**	1/2"	B075-G
		3/4"	B075-G
		1"	B100-G
		1 1/4"	B100-G
		1 1/2"	B150-G
		2"	B200-G
		3"	B300-G

1/2" series couplings interchange with 3/4" size couplings; Coupling ends are 3/4" · 1 1/4" series couplings interchange with 1" size couplings; Coupling ends are 1"
Thread table see page 12

Pumps
Ball valves

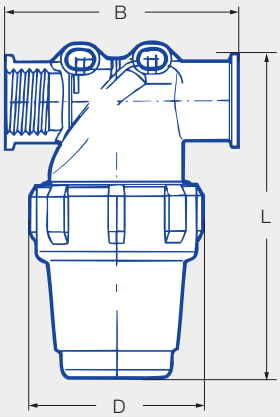
Pumps*	Description	Ordering no.
 	PB 200 pump with base (excl. motor) Connector: 2" female	095.016.00.07.82
	PB 200 pump with three-phase a.c. motor Connector: BSP 2" female	095.016.00.08.02
	PB 200 pump with hydraulic motor Connector: BSP 2" female	095.016.00.08.01
	PB 200 pump with gasoline engine Connector: 2" female	095.016.00.07.81
	PB 300 pump with base (excl. motor) Connector: BSP 3" female	095.009.00.12.21
	PB 300 pump with three-phase a.c. motor Connector: BSP 3" female	095.009.00.12.20
	PB 300 pump with hydraulic motor Connector: BSP 3" female	095.009.00.12.22

Ball valves		Type/Connector	Max. pressure	Ordering no.
2-way valve (example) 	① 	① 2-way valve with NPT threads		
		NPT 1/2"	7.0	BUV050FP
		NPT 3/4"	7.0	BUV075FP
		NPT 1"	7.0	BUV100FP
		NPT 1 1/4"	7.0	BUV125FP
		NPT 1 1/2"	7.0	BUV150FP
		NPT 2"	7.0	BUV200FP
	② 	② 2-way valve with NPT threads		
		NPT 1/2"	10.0	BV050
		NPT 3/4"	10.0	BV075
		NPT 1"	10.0	BV100
		NPT 1 1/2"	10.0	BV150
		NPT 2"	10.0	BV200
	② 	② 2-way valve with BSP threads		
		BSP 3"	7.0	BV300-BSP
		BSP 3"	7.0	BV300FP-BSP
	③ 	③ 2-way valve with G threads		
		G 1/2"	16.0	A.454.132
		G 3/4"	16.0	A.454.133
		G 1"	16.0	A.454.134
		G 1 1/4"	10.0	A.454.135
		G 1 1/2"	10.0	A.454.136
		G 2"	10.0	A.454.137
	④ 	④ 2-way valve with 2" FIXLOC male adapter and 2" NPT female threads	7.0	BVSF200
	⑤ 	⑤ 2-way valve with 2" FIXLOC male adapter and 2" NPT male threads	7.0	BVSFMT200
	⑥ 	⑥ 2-way valve with 2" NPT male threads and 2" female threads	7.0	BVSMT200
3-way valve (example) 	⑦ 	⑦ 3-way valve with G threads		
		G 1"	16.0	A.454.234
		G 1 1/4"	10.0	A.454.235
		G 1 1/2"	10.0	A.454.236
		G 2"	10.0	A.454.237

Thread table see page 12

Line strainers

Features
- Line strainers up to max. 14 bar
- Large-area filter
- Strainer inserts color-coded in accordance with ISO 19732
- Mounting points on filter housing



Line strainer

SGI
female thread

SGA
male thread

③

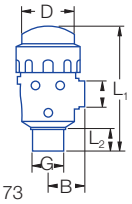
SGI 6R
model with
cleanout
connector

④

A.345.033
A.345.033.5
high-pressure
strainer,
max. 50 bar

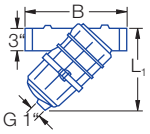
Suction strainer

⑤



A.316.172/A.316.173

⑥



SGA2.300.53/
SGA3.300.53

max. 8 bar

Max. Flow rate [l/min]	Ordering no.	Connector G	Dimensions D [mm]	L [mm]	B [mm]	Screen insert ordering no. Mesh size* Color code 30 M ■ red	50 M ■ blue	80 M ■ yellow	100 M ■ green
① SGI female (incl. Screen insert 50M. blue ■)									
100	SGI 2	1/2" female	74	136	99	012.06	012.03	012.08	012.02
100	SGI 3	3/4" female	74	136	99	012.06	012.03	012.08	012.02
160	SGI 4	1" female	86	165	107	100.06	100.03	100.08	100.02
280	SGI 5	1 1/4" female	116	279	146	114.06	114.03	114.08	114.02
280	SGI 6	1 1/2" female	116	279	146	114.06	114.03	114.08	114.02
② SGA male (incl. Screen insert 50M. blue ■)									
100	SGA 2	1/2" male	74	136	99	012.06	012.03	012.02	012.02
100	SGA 3	3/4" male	74	136	99	012.06	012.03	012.02	012.02
160	SGA 4	1" male	86	165	112	100.06	100.03	100.02	100.02
280	SGA 5	1 1/4" male	116	279	146	114.06	114.03	114.02	114.02
280	SGA 6	1 1/2" male	116	279	146	114.06	114.03	114.02	114.02
③ SGI 6R model with cleanout connector*									
280	SGI 6R	1 1/2" female	116	353	146	114.06	114.03	114.02	114.02

Max. Flow rate [l/min]	Ordering no.	Connector G	Dimensions D [mm]	L [mm]	Screen insert (incl.)
④ High-pressure strainer, 50 bar, made of fiberglass reinforced nylon					
150	A.345.033	1/2" / 3/4"	104	259	50 M blue ■
150	A.345.033.5	1/2" / 3/4"	104	259	80 M yellow ■

Ordering no.	Description
Accessory for High-pressure strainer 50 bar	
A.004.010.020	1/2" plug
A.403.000.060	Gasket for 1/2" plug
A.465.230.020	3/4" plug
A.465.005.140	Gasket for 3/4" plug

Max. Flow rate [l/min]	Ordering no.	Con-nector G	Dimensions D [mm]	L_1 [mm]	L_2 [mm]	B [mm]	Screen insert Mesh* Color code
⑤ A316.172 / A.316.173							
220	A. 316.172 incl. screen 30 M	2" male	170	292	42	98	30 M red ■ A.316.002.030
220	A. 316.173 incl. screen 50 M	2" male	170	292	42	98	50 M blue ■ A.316.003.030
⑥ SGA2.300.53 / SGA3.300.53							
800	SGA2.300.53 incl. screen 30 M SGA3.300.53 incl. screen 50 M	3" male	-	358	-	415	30 M red ■ 002.26 50 M blue ■ 003.26

* Please always specify desired mesh size on order.
Screen inserts are delivered in colour coding according to ISO 19732:2007

Pressure gauges

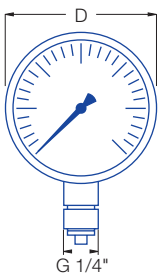
Features
With 63 mm and 100 mm housings

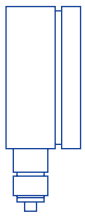
- Scaling corresponds to EN 12761
- Expanded colored scale range
- Robust against mechanical loads
- Externally adjustable pressure mark (63 mm housing)

100-mm dial

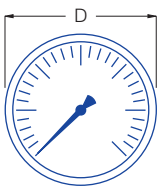
Range of display [bar]	Range of over-pressure up to ... [bar]	Connector	Scale-diameter D [mm]	Model/Ordering no. Standard	Model/Ordering no. Liquid fertilizer-proof	Scale-division [bar]
1.0 - 10.0	60.0	rear	63	-	095.009.00.11.35*	0.2
1.0 - 5.0	25.0	bottom	63	-	095.009.00.10.71*	0.1
1.0 - 10.0	25.0	bottom	100	-	095.009.00.12.90*	0.1
5.0 - 30.0	60.0	bottom	63	095.009.00.14.07.0*	-	1.0

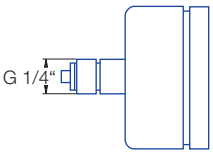
* Clearance





63-mm dial, bottom connector





63-mm dial, rear connector

»Top Flow II«
Electro magnetic flow meter with digital read out

Features
- Display of overall volume and volume flow
- Temperature range -15 °C to +65 °C
- Measuring accuracy 99 %:
  1": 8 – 400 l/min
  2": 25 – 1.100 l/min
  3": 60 – 2.500 l/min
- Max. pressure: 10 bar at 20 °C

Advantages
- Self-calibrating
- Independent of density and viscosity
- Simple and fast assembly via manifold and Fixloc connection
- Suitable for UAN and PPP

Includes manifold fittings

- **1", 2" or 3" FP manifold**
- **flange with FIXLOC male adapter**
- **FP worm screw clamp**
- **FP gasket EPDM**

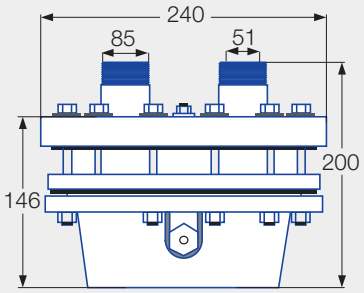
Note: Please consider manual.

Ordering no.
1": B.MFM. 100.CO.M
2": B.MFM. 220.CO.M
3": B.MFM. 300.CO.M

AirPress HP –
pneumatic pressure regulator for boom sprayers

Pressure regulation via pressure chamber with air pressure.

Advantages
- Large volume flow range
- Fast pressure regulation without delay
- Ideal in combination with automatic boom section and individual nozzle control
- NEW – up to 10 bar spray pressure



Ordering no.
1 1/4": RC90.011.40.00.00
1 1/4" Viton®: RC90.0V1.14.00.00
2": RC90.020.00.00.00
2" Viton®: RC90.0V2.00.00.00

Dimensions in mm.

Specifications	AirPress HP 1 ¼"	AirPress HP 2"
Weight	5.4 kg	5.5 kg
Connections	G 1 1/4" male for In- and Outlet 1/4" BSP for air connection	G 2" male for In- and Outlet 1/4" BSP for air connection
Material	Nylon, Polyethylene, Stainless Steel, NBR (option Viton®), CR	
Pressure Range - New	max. 10 bar	
Pressure Drop	Up to 100 lpm only 0.2 bar pressure drop, at 250 lpm ~ 0.5 bar	
Max. Flow	250 lpm	500 lpm

Farmer’s helpers
Anemometer

Pocketwind IV

Features
- Backlit display
- Waterproof and shockproof housing
- Lanyard
- Integrated hard cover for protection against damage and dirt
- Tripod thread

Advantages
- Self-calibrating humidity sensor
- Hard cover protects the measuring sensors against damage
- Measures all decision-relevant application parameters

Measuring functions
- Air humidity
  - Relative humidity
  - Dew point
  - ΔT
  - Wet bulb thermometer
- Wind speed
  - Maximum
  - Average
  - Units m/s, km/h, fpm, mph, kn and bft, switchable
- Temperature/wind chill units °C and °F, switchable
- Wind direction
  - Digital compass
  - Integrated wind vane

Ordering no.: Z.WIN.DME.SS.ER.010

Farmer’s helpers

Accessories

Droplet-size/
dosage calculator
Ordering no.: 095.009.50.12.11.0

Apple Android

Online nozzle calculator

Water sensitive paper
Size: 76 x 26 mm
Ordering no.: Z.WSP.76X.26.00.00.0

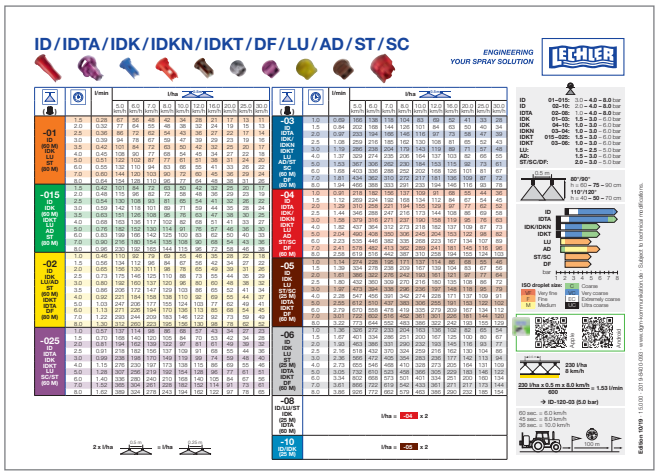
Nozzle aligner
Ordering no..: 065.231.02

Cleaning brush
Ordering no.: 095.009.50.10.89.0

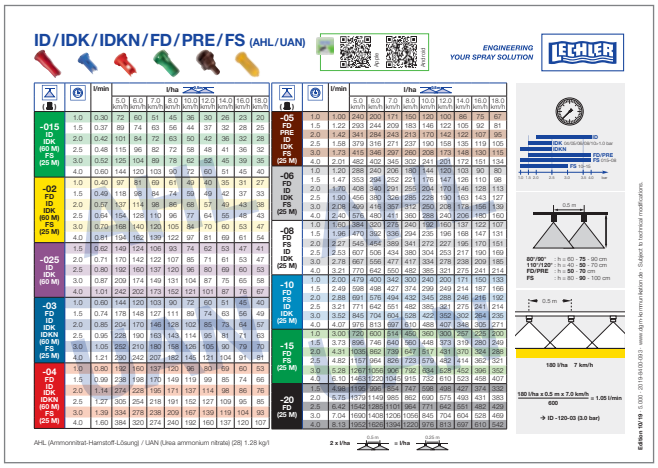
Nozzle assembly wrench
Ordering no.: 092.164.40.00.99.0

Template for Dropleg[UL]
Ordering no.: 092.163.42.10.30

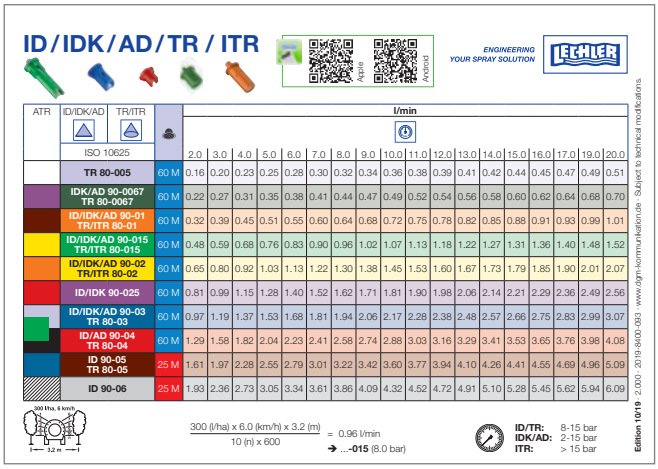
Spray tables (sticker)



Arable crops (A4)



Arable crops UAN (A4)



Fruit crops (e.g. orchards, vineyards and speciality crops) (A5)

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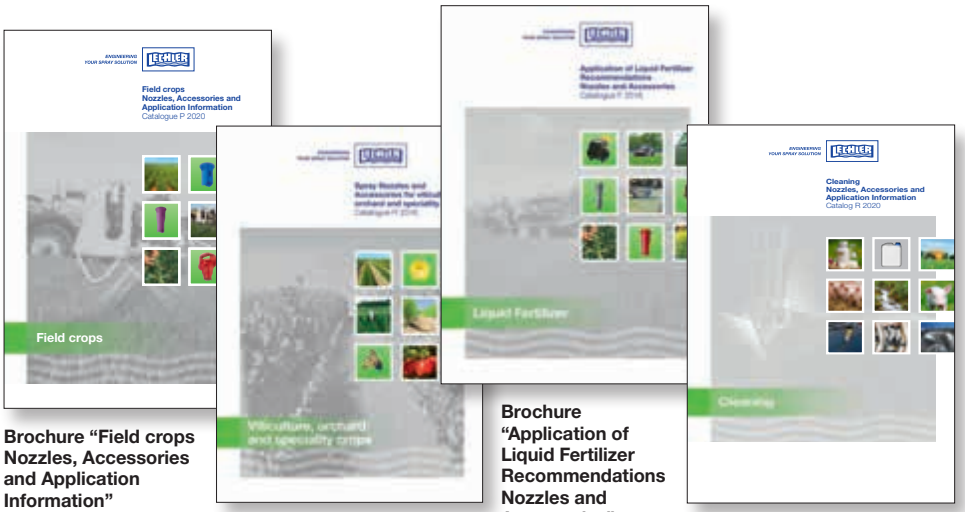
Information is available for various applications in special brochures.

All documents can be downloaded from our web-site at www.lechler.com. We would also be happy to send you the brochures.



Brochure "Field crops Nozzles, Accessories and Application Information"

Brochure "Spray Nozzles and Accessories for viticulture, orchard and speciality crops"

Brochure "Application of Liquid Fertilizer Recommendations Nozzles and Accessories"

Brochure "Cleaning Nozzles, Accessories and Application Information"

FULL INFORMATION IN JUST A CLICK AWAY: THE LECHLER WEBSITE

Our website contains further information on our products as well as useful resources. In addition to technical data, there is also a droplet-size/ dosage calculator and nozzles recommendations for many crops to help you in your search for the adequate nozzle.

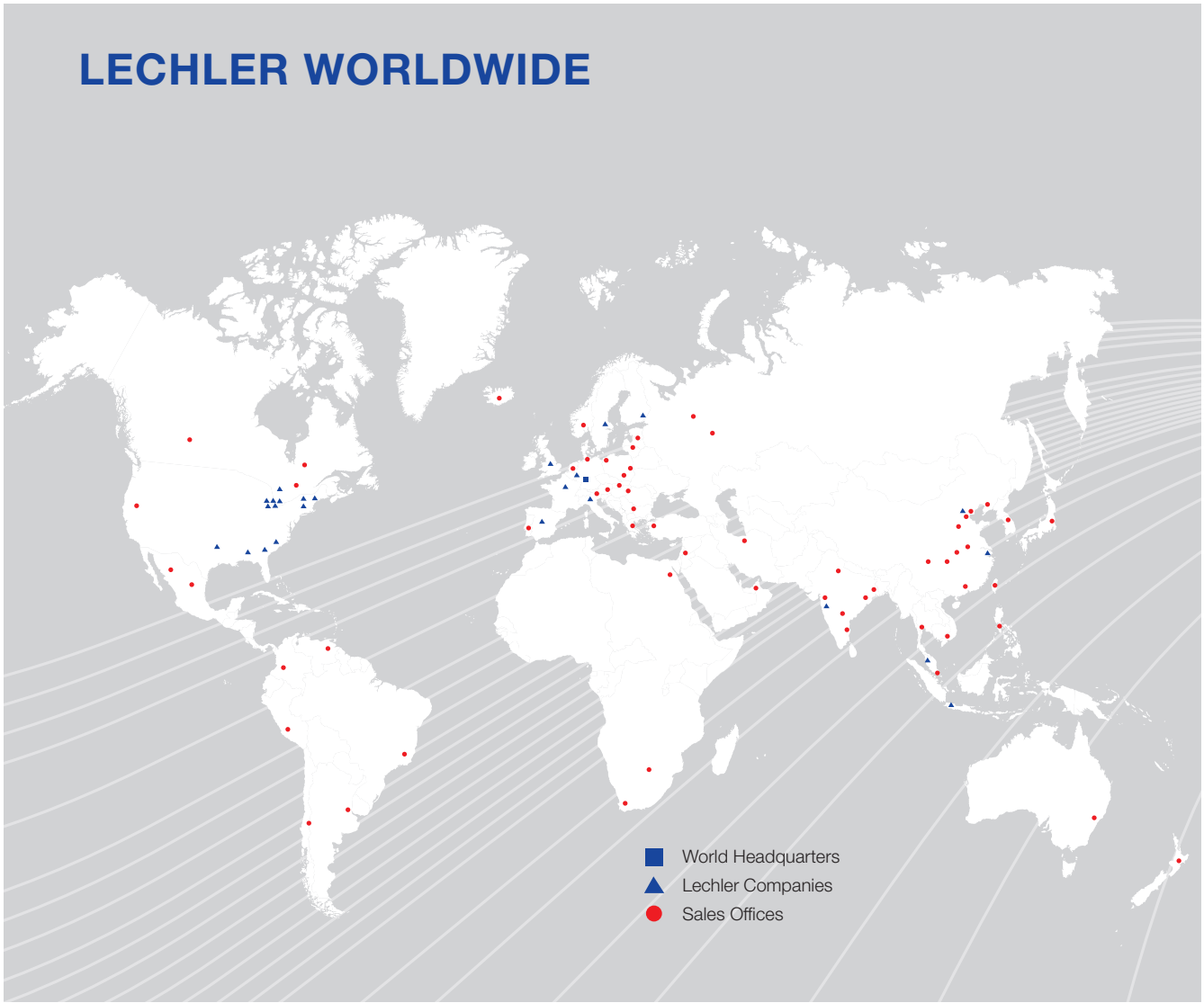
www.lechler-agri.com

Our general terms and conditions can be found at www.lechler-agri.com. We will also send them to you on request.
The general safety instructions are also available at www.lechler-agri.com.

FOR YOUR NOTES

ENGINEERING
YOUR SPRAY SOLUTION

LECHLER WORLDWIDE



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