



TEST REPORT

of the
Julius Kühn-Institut
Federal Research Institute
for Cultivated Plants, Braunschweig



Mixed nozzle assembly comprising of Lechler IDTA 120-05 C (Certification number G 2018) and 6 x nozzle Lechler ID-120-05 POM (Certification number G 1966) or 6 x nozzle Lechler ID-120-05 C (Certification number G 1973) used in the area behind the sprayer to prevent the contamination of sprayer parts

Approved for spraying field crops

Applicant and Manufacturer

Lechler GmbH
Präzisionsdüsen - Tropfenabscheider
Ulmer Strasse 128
72555 Metzingen

**Approved on
6 January 2016**

Assessment

Mixed assembly comprising of the nozzle Lechler IDTA 120-05 C (Ceramics, plastic coated, brown) combined with six nozzles Lechler ID-120-05 POM or Lechler ID-120-05 C used in the area behind the sprayer to prevent the contamination of sprayer parts. The nozzle set was tested without additional accessories and is suitable for spraying field crops, provided that the following technical requirements are fulfilled:

1. Installation in a spray boom with a sufficient and a steady amount of liquid flow,
2. 500 mm nozzle spacing,
3. 50 cm between nozzles and spray target (consistency of evenness of cross distribution proved satisfactory at a distance range from 40 cm to 60 cm),
4. Spray pressure – measured in front of the nozzle – between 2.0 and 8.0 bar; liquid volume flow per nozzle as stated in table below.

Suitable precautions should be taken to assure that the nozzles do not get blocked up or drip when in use. The dimensions of the nozzle tip comply with standard ISO 8169. The colour coding of the nozzle tip comply with standard ISO 10625. The nozzle IDTA 120-05 C is fitted out with a bajonet cap (Lechler MULTIJET).

Table 1: IDTA 120-05 C with 6 x ID-120-05 POM

Pressure (bar)	Liquid flow volume without accessories (l/min)	Max. deviation of single nozzle flow from the dosage tables	Evenness of cross distribution at (cm) 40 / 50 / 60 (Vk %)	Droplet spectrum (BCPC-Standard)
2.0	1.61	0.25 %	4.7 / 4.5 / 3.5	very coarse
3.0	1.97	-	- / 2.9 / -	very coarse
4.0	2.28	0.13 %	3.8 / 2.5 / 2.9	very coarse
5.0	2.55	-	- / 2.3 / -	coarse
6.0	2.79	-0.75 %	- / 2.5 / -	coarse
8.0	3.22	-3.48 %	- / 3.5 / -	coarse

Table 2: IDTA 120-05 C with 6 x ID-120-05 C

Pressure (bar)	Liquid flow volume without accessories (l/min)	Max. deviation of single nozzle flow from the dosage tables	Evenness of cross distribution at (cm) 40 / 50 / 60 (Vk %)	Droplet spectrum (BCPC-Standard)
2.0	1.61	0.31 %	5.9 / 4.3 / 3.7	very coarse
3.0	1.97	-	- / 3.3 / -	very coarse
4.0	2.28	-0.04 %	4.2 / 2.9 / 3.6	very coarse
5.0	2.55	-	- / 2.9 / -	coarse
6.0	2.79	-0.75 %	- / 3.1 / -	coarse
8.0	3.22	-3.35 %	- / 4.0 / -	coarse

Basics for testing

The tests were carried out on basis of the Regulations for Testing Plant Protection Equipment (Guideline 2-1.1:2013) and of ISO 5682-1:1999. The requirements of ISO 16119-2:2013 and of JKI-Guideline 1-2.1:2013 were fulfilled.

Field testing:

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Technical testing:

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