

Responsibility and recognition



Performing competent authority:
Federal Biological Research Centre for Agriculture
and Forestry (BBA) (Germany)
Application Techniques Division; Messeweg 11-
12; D-38104 Braunschweig

This test is recognized by the ENTAM members:



HIAE Hungarian Institute of Agricultural
Engineering (Hungary) D-21/2007



NAGREF National Agricultural Research
Foundation (Greece) AE/98/01/ZZ



ENAMA Ente Nazionale per la Meccanizzazione
(Italy) ENTAM 01/2008



CMA Generalitat de Catalunya
Centre de Mecanització Agrària (CMA) (Spain) EB001/08



HBLuFA FRANCISCO JOSEPHINUM
WIESELBURG (Austria) BLT-Prot.-Nr. 0084/07



PIMR - Przemyslowy Instytut Maszyn Rolniczych
(Poland) PIMR - 15/ENTAM/08



ART Federal Department of Economic Affairs
Agroscope Reckholz-Tänikon Research Station
(ART) (Switzerland) D - 02.08



ENTAM - Test Report



Equipment type:	hydraulic nozzle, flat spray
Field of application:	field crop spraying
Pressure range:	1.5 - 6 bar tested
Trade mark:	Lechler
Model:	IDK 120-05 ceramic

Manufacturer:
Lechler GmbH
Ulmer Strasse 128
72555 Metzingen
Germany

Test report: D - 1802

November 2007

Test results

This nozzle has been tested without accessories.
This nozzle is appropriate for the use of spraying in crop.
The front page image of this report shows the demountable nozzle parts (left side) and the assembled nozzle in a 90° twisted position (right side).

Results:

- The cross distribution CV¹⁾ is between 1.8 % (2 bar, 75 cm) and 6.3 % (3.0 bar, 50 cm) for the tested pressure range 1.5 - 6.0 bar at a working height of 50 cm and 75 cm. The maximum allowed deviation is 9 %.
- The deviation between the measured single nozzle flow rate and the flow rate table is between -2.8 % (at 3.0 bar) and 4,2 % (at 1.5 bar). The maximum allowed deviation is 5 %.
- The max. deviation of the single nozzle flow rates from the mean flow rate is between 1.7 % and 2.4 %.
- A spray angle between 110 ° (at 1.5 bar) and 115 ° (at 6 bar) was determined.
- The nozzle fulfils the discharge rate requirement of the color code according ISO 10625 (color code: brown, 2.0 l/min at 3 bar). See tab.1.

Test results

Pressure (bar)	Discharge rate without accessories (l/min)	droplet size ²⁾
1.5	1.41	very coarse
3.0	1.94	very coarse
4.0	2.25	coarse
6.0	2.76	coarse

tab.1: Discharge rate and droplet size depending on liquid pressure.

- 1) on a spray boom with 50 cm nozzle distance
- 2) according BCPC scheme (additional information)

Additional information

For more information about the assessment of this nozzle relating to the German drift reduction system see: www.Bund-BBA.de

The tested nozzles (30) were picked out at random of a stock of 200 nozzles. Testing takes place according to the Technical Instructions for ENTAM-Tests of Spray nozzles, rel.1.

This procedure was developed by the competent testing authorities of the European countries participating in ENTAM and is based on the ISO 5682 standard: „Equipment for crop protection - Spraying equipment; Part 1 Test methods for sprayer nozzles" and on EN 12761 standard: „Agricultural and forestry machinery - Sprayers and liquid fertilizer distributors - Environmental protection; Part 2". This test is only a technical performance test which takes place without an accompanying field test. The test results apply only to the tested appurtenances of the sprayer. Statements on the behaviour of different appurtenances cannot be derived from these results.

Free download of the test report under: www.ENTAM.net
or: www.Bund-BBA.de