








Responsibility and recognition



Performing competent authority:
 Julius Kühn-Institute (Germany)
 Institute for Application Techniques in Plant
 Protection; Messeweg 11-12;
 D-38104 Braunschweig

This test is recognized by the ENTAM members:

	BLT BLT- Francisco Josephinum, Wieselburg (Austria)	009/09
	Cemagref - Institut de recherche pour l'ingénierie de l'agriculture et de l'environnement (France)	CEMAGREF/ENT/09/004
	HIAE Hungarian Institute of Agricultural Engineering (Hungary)	D-4/2009
	ENAMA Ente Nazionale per la Meccanizzazione Agricola (Italy)	ENTAM „Rapporto di prova prestazionale“ 01/2009
	PIMR - Przemyslowy Instytut Maszyn Rolniczych Industrial Institute of Agricultural Engineering (Poland)	PIMR - 25/ENTAM/09
	CMA Generalitat de Catalunya Centre de Mecanització Agrària (CMA) (Spain)	EB 001/09
	ART - Agroscope Reckenholz-Taenikon (Switzerland)	D-04.09



ENTAM - Test Report



Trade mark:	Lechler
Model:	IDK 90-015 ceramic
Equipment type:	hydraulic nozzle, flat spray
Field of application:	Wine / orchard spraying
Pressure range:	2 - 15 bar tested

Manufacturer:
 Lechler GmbH
 Ulmer Strasse 128
 72555 Metzingen
 Germany
 Feb. 2009

Test report: D - 1834

Test results

This nozzle has been tested without accessories.
This nozzle is appropriate for the use of spraying in wine, orchards, tree nursery, special crops and ornamental plants with a liquid pressure of 2.0 - 20 bar.

The front page image of this report shows the demountable nozzle parts (right side) and the assembled nozzle in a 90° twisted position (left side).

- The deviation between the measured single nozzle flow rate and the flow rate table is between -4.24 % (at 10 bar) and 0.63 % (at 2 bar). The maximum allowed deviation is 5 %.

- The max. deviation of the single nozzle flow rates from the mean flow rate is between -1.8 % and 2.4 %.

- A spray angle of 94 ° (at 5.0 bar) was determined.

Note for hydraulic nozzles: the spray angle is varying depending of liquid pressure.

- The nozzle fulfils the discharge rate requirement of the color code according ISO 10625 (color code: Traffic green, 0.6 l/min at 3 bar). See tab.1.

Test results

Pressure (bar)	Discharge rate without accessories (l/min)	droplet size ²⁾
2.0	0.475	very coarse
5.0	0.746	coarse
8.0	0.942	coarse
10.0	1.044	coarse
15.0	1.281	medium

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

2) according BCPC scheme (additional information)

Additional information

At the time of publishing this report the nozzle is listed in the drift reduction classes 50 % and 75 % of the German drift reduction system, depending on the regulations of use. For more information about the assessment of this nozzle relating to the **German drift reduction system** see: www.jki.bund.de

The tested nozzles (24) 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.jki.bund.de