

## Responsibility and recognition



### Performing competent authority:

Crop Protection Technology  
DEIAFA - meccanica  
Via L. da Vinci, 44  
I -10095 Grugliasco (TO)

### This test is recognized by the ENTAM members:

	<b>Cemagref</b> -Institut de recherche pour l'ingénierie de l'agriculture et de l'environnement – FRANCE	<b>CEMAGREF/ENTAM/10/008</b>
	<b>CMA</b> - Centre de Mecanització Agrària - SPAIN	<b>EB008/10</b>
	<b>HBLFA</b> Francisco Josephinum Wieselburg - BIOMASS   LOGISTICS   TECHNOLOGY (FJ - BLT) - AUSTRIA	<b>018/10</b>
	<b>JKI</b> - Julius Kühn-Institut (formerly BBA) – GERMANY	<b>ENT-I-08/10</b>
	<b>MGI</b> - MEZOGAZDASÁGI GÉPESÍTÉSI INTÉZET Hungarian Institute of Agricultural Engineering - HUNGARY	<b>I-31/2010</b>
	<b>PIMR</b> - Przemysłowy Instytut Maszyn Rolniczych - Industrial Institute of Agricultural Engineering - POLAND	<b>PIMR-52/ENTAM/10</b>



## ENTAM - Test Report



Trade mark: ARAG  
Model: WRC 11008  
Equipment type: hydraulic nozzle, flat spray  
Field of application: field crop spraying  
Pressure range: 1 – 4 bar  
Standard working height: 50 cm tested

**Manufacturer:**  
ARAG srl  
Via Palladio, 5/A  
I - 42048 Rubiera (RE)

**Test report: 46a.013**  
February 2010

**NOTE:** Since 23<sup>rd</sup> January 2012:

**Manufacturer:**  
ASJ srl  
Via Busca, 101  
I - 12044 Centallo (CN)

**Trade mark:** ASJ

## Test results

This nozzle has been tested without accessories.

This nozzle is appropriate for the use of spraying in crop with a liquid pressure of 1 - 4 bar.

- The cross distribution CV<sup>1</sup>) is between 5.7% (50 cm working height) and 8.8% (35 cm working height) for the tested pressure of 3.0 bar. The maximum allowed CV for one working height and one pressure (specified by the manufacturer) is 7%, for all heights and pressures is 9%.
- The deviation between the measured single nozzle flow rate and the flow rate table is between -2.6% and 3.0%. 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 -0.6%.
- A spray angle between 110° (at 2 bar) and 116° (at 4 bar) was determined.
- The nozzle fulfils the discharge rate requirement of the color code according ISO 10625 (color code: Traffic white, 3.20 l/min at 3 bar). See tab.1.

Free download of the complete test report under: [www.ENTAM.net](http://www.ENTAM.net)  
or: [www.ENAMA.it](http://www.ENAMA.it)

## Test results

Pressure (bar)	Discharge rate without accessories (l/min)	Deviation from the mean flow rate
1.0	1.84	-0.7%
2.0	2.60	-0.6%
3.0	3.14	-1.8%
4.0	3.67	-0.6%

Tab. 1: Discharge rate depending on liquid pressure.

- 1) On a spray boom with 50 cm nozzle distance

*The tested nozzles (20) 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 method for sprayer nozzles" and on EN 12671 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 filed test. The test results apply only to the tested appurtenances of the sprayer. Statements on the behavior of different appurtenances cannot be derived from these results.*