

DIN EN ISO 16122-4:2026-05 (E)

Agricultural and forestry machines - Inspection of sprayers in use - Part 4: Fixed and semi-mobile sprayers (ISO 16122-4:2024)

Contents		Page
Foreword		v
Introduction		vii
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Requirements and method of verification	1
4.1	General	1
4.2	Leaks and dripping	2
4.2.1	Static leaks	2
4.2.2	Dynamic leaks	2
4.2.3	Spraying and dripping on parts	2
4.3	Pump(s)	2
4.3.1	Capacity	2
4.3.2	Pulsations	3
4.3.3	Air chamber	3
4.4	Spray mix agitation	3
4.4.1	Hydraulic	3
4.4.2	Mechanical	3
4.5	Spray tank(s)	4
4.5.1	Lid	4
4.5.2	Tank filling strainer(s)	4
4.5.3	Pressure compensation	4
4.5.4	Tank content indicator(s)	4
4.5.5	Tank emptying	4
4.5.6	Tank filling	4
4.5.7	Induction hopper	4
4.5.8	Cleaning device for plant protection product containers	5
4.5.9	Cleaning equipment	5
4.6	Measuring systems, controls and regulation systems	5
4.6.1	General	5
4.6.2	Pressure indicator for spray liquid	5
4.6.3	Other measuring devices	6
4.6.4	Pressure adjusting devices	6
4.6.5	Direct injection systems	6
4.7	Lines (pipes and hoses)	7
4.7.1	Lines	7
4.8	Filters	7
4.8.1	Filter presence	7
4.8.2	Isolating device	7
4.8.3	Filter insert changeability	7
4.9	Application unit	7
4.9.1	Dripping	7
4.9.2	Horizontal spray booms	7
4.9.3	Vertical spray boom	9
4.9.4	Spray guns and lances	10
4.10	Blower	10
4.10.1	Condition	10
4.10.2	Adjustability	10
4.11	Distribution	10

4.11.1	Uniformity of spray jet	10
4.11.2	Nozzle output	11
4.11.3	Spray distribution measurement on a patternator (optional)	11
4.11.4	Optional vertical distribution information	11
4.12	Autonomous application units	11
4.12.1	Drive system	11
4.12.2	Travel speed spray robots	12
4.13	Cleaning equipment	12
5	Test methods	12
5.1	Test facilities and equipment	12
5.1.1	General	12
5.1.2	Test facilities	12
5.2	Spray agitation pumps	12
5.2.1	Pump capacity test	12
5.2.2	Pump pulsations	14
5.3	Sprayer's pressure indicators	14
5.3.1	Specification of pressure indicators used for verification	14
5.3.2	Verification method of the sprayer pressure indicator	14
5.4	Flow meters for controlling the volume/area rate	15
5.4.1	General	15
5.4.2	Operating procedure No. 1: Verification by nozzle flow rate measurement	15
5.4.3	Operating Procedure No. 2: Verification by installing a calibrated flow meter in the circuit of the sprayer	15
5.5	System for controlling forward speed	15
5.6	Uniformity of the transverse volume distribution with a horizontal patternator	15
5.6.1	Specification of the horizontal patternators used for verification	15
5.6.2	Calculation of coefficient of variation (C_V)	16
5.6.3	Verification method of the uniformity of the transverse distribution	16
5.6.4	Verification method of spray gun/lance flow rate	16
5.7	Flow rate of the spray nozzles	16
5.7.1	General	16
5.7.2	Measurement with nozzles fitted on the sprayer	17
5.7.3	Measurement with nozzles removed from the sprayer	17
5.8	Pressure drop	17
5.9	Pressure variation when the sections are closed	17
5.10	Pressure variation when the spray is switched off	17
5.11	Accuracy of direct injection systems	17
5.12	Pressure distribution	18
	Bibliography	19