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**Equipment for crop protection —  
Knapsack motorized air-assisted  
sprayers — Test methods and  
performance limits**

*Matériel de protection des cultures — Pulvérisateurs à dos motorisés à  
jet porté — Méthodes d'essai et limites de performance*





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ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword .....	iv
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Terms and definitions .....</b>	<b>1</b>
<b>4 Requirements .....</b>	<b>2</b>
4.1 General .....	2
4.2 Material of construction .....	2
4.3 Straps and their fixation points .....	2
4.4 Spray tank .....	2
4.5 Strainers and filters .....	3
4.6 Nozzles .....	3
4.7 Air hoses and chemicals hoses .....	3
<b>5 Tests .....</b>	<b>3</b>
5.1 Test liquids and equipment .....	3
5.2 Test conditions .....	4
5.3 Liquid flow rate .....	5
5.4 Volume of total residual liquid .....	5
5.5 Stability .....	5
5.6 Contents gauge scale and total tank volume .....	5
5.7 Filling .....	6
5.8 Air velocity and air volume .....	6
5.9 Droplet size .....	7
5.10 Potential ground deposit .....	8
5.11 Potential vertical deposit .....	8
5.12 Test for compatibility of sprayer components .....	8
<b>6 Specifications and performance limits .....</b>	<b>9</b>
6.1 Volume of residual liquid .....	9
6.2 Stability .....	9
6.3 Contents gauge scale and total tank volume .....	9
6.4 Filling .....	9
6.5 Liquid flow rate .....	9
6.6 Emptying .....	9
6.7 Compatibility of sprayer components .....	10
<b>7 Instruction handbook .....</b>	<b>10</b>
<b>8 Test report .....</b>	<b>10</b>
<b>Annex A (informative) Sprayer locking device .....</b>	<b>11</b>
<b>Annex B (informative) Device for detecting potential vertical deposits .....</b>	<b>12</b>
<b>Annex C (normative) Stability test .....</b>	<b>13</b>
<b>Annex D (normative) Sampling grid position for air velocity determination .....</b>	<b>14</b>
<b>Annex E (informative) Position of sprayer and Petri dishes for potential ground deposit determination .....</b>	<b>15</b>
<b>Annex F (informative) Example test report .....</b>	<b>16</b>
<b>Bibliography .....</b>	<b>19</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10988 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 6, *Equipment for crop protection*.

# Equipment for crop protection — Knapsack motorized air-assisted sprayers — Test methods and performance limits

## 1 Scope

This International Standard specifies the requirements, test methods and minimum performance limits for knapsack motorized air-blast (twin-fluid) sprayers and air-assisted centrifugal sprayers as defined in ISO 5681.

It is applicable to those integrally powered knapsack sprayers, equipped with an engine and carried by the operator, intended primarily for use in agriculture and horticulture (hereafter referred to as “sprayers”).

It is not applicable to hydraulic pressure sprayers, thermal sprayers or cold foggers; nor is it applicable to sprayers adapted for the application of dry material.

It addresses general operating parameters as well as the potential deposition of spray droplets under specified controlled conditions. It does not deal with the safety of the operator in the use of the sprayers (see ISO 28139).

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5681, *Equipment for crop protection — Vocabulary*

ISO 9357:1990, *Equipment for crop protection — Agricultural sprayers — Tank nominal volume and filling hole diameter*

ISO 19932-1:2006, *Equipment for crop protection — Knapsack sprayers — Part 1: Requirements and test methods*

ISO 28139:2009, *Agricultural and forestry machinery — Knapsack combustion engine-driven mistblowers — Safety requirements*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5681, ISO 19932-1 and ISO 28139 apply.