



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 40347-2021

**Crop protection equipment - Reciprocating positive
displacement pumps and centrifugal pumps - Test method**

Issued on: August 20, 2021

Implemented on: March 1, 2022

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document uses the translation method to be equivalent to ISO 12809.2020 "Plant protection machinery reciprocating positive displacement pump and centrifugal pump test method".

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 20085-2006 Plant Protection Machinery Vocabulary (ISO 5681.1992, MOD).

1 Scope

This document specifies the test methods and environmental conditions for evaluating the performance of reciprocating positive displacement pumps and centrifugal pumps for plant protection machinery.

This document is applicable to define the performance of stand-alone pumps or pumps installed on sprayers.

This document indicates that some tests are only applicable to certain types of pumps.

This document does not apply to pesticide metering pumps used in the injection system.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

ISO 5681 Plant Protection Machinery Vocabulary (Equipment for crop protection-Vocabulary)

3 Terms and definitions

The following terms and definitions defined in ISO 5681 apply to this document.

The International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) maintain a terminology database for standardization at the following address.

3.1

Reciprocating positive displacement pump

Through the reciprocating movement of the piston or plunger, a certain volume of liquid is transported from the input port to the discharge port of the machine.

3.2

Centrifugal pump

A non-positive displacement pump that achieves liquid flow through one or more impellers.

3.3

Suction pressure

The pressure at the suction port of the pump.

3.4

Reference suction pressure

Consider the suction pressure (3.3) value used when there is a pressure drop when the pump is installed on the sprayer.

3.5

Delivery pressure

The pressure at the pump discharge device (3.11).