
**Filters for compressed air — Test
methods —**

**Part 1:
Oil aerosols**

Filtres pour air comprimé — Méthodes d'essai —

Partie 1: Aérosols d'huile



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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 12500-1 was prepared by Technical Committee ISO/TC 118, *Compressors and pneumatic tools, machines and equipment*, Subcommittee SC 4, *Quality of compressed air*.

ISO 12500 consists of the following parts, under the general title *Filters for compressed air — Test methods*:

- *Part 1: Oil aerosols*
- *Part 2: Oil vapours*
- *Part 3: Particulates*

Introduction

Oil aerosols are a typical contaminant found in compressed air streams. Coalescing filters are designed to remove oil aerosols from compressed air.

The most important performance characteristics are the ability of the filter to remove oil aerosols from the air stream and the amount of pressure drop caused by the filter as compressed air flows through it when the filter element is saturated with oil. This part of ISO 12500 provides a means of comparing the performance of filters.

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Filters for compressed air — Test methods —

Part 1:

Oil aerosols

1 Scope

This part of ISO 12500 specifies the test layout and test procedures required for testing coalescing filters used in compressed-air systems to determine their effectiveness in removing oil aerosols.

This part of ISO 12500 provides the means to indicate performance characteristics of the pressure drop and the capability of removing oil aerosols.

This part of ISO 12500 defines one method of presenting filter performance as outlet oil aerosol concentration stated in milligrams per cubic metre from results obtained under standard rating parameters.

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 1219-1, *Fluid power systems and components — Graphic symbols and circuit diagrams — Part 1: Graphic symbols for conventional use and data-processing applications*

ISO 2602, *Statistical interpretation of test results — Estimation of the mean — Confidence interval*

ISO 2854, *Statistical interpretation of data — Techniques of estimation and tests relating to means and variances*

ISO 3649:1980, *Cleaning equipment for air or other gases — Vocabulary*

ISO 5598, *Fluid power systems and components — Vocabulary*

ISO 7000, *Graphical symbols for use on equipment — Index and synopsis*

ISO 7183¹⁾, *Compressed-air dryers — Specifications and test methods*

ISO 8573-1:2001, *Compressed air — Part 1: Contaminants and purity classes*

ISO 8573-2, *Compressed air — Part 2: Test methods for oil aerosol content*

ISO 14644-3:2005, *Cleanrooms and associated controlled environments — Part 3: Test methods*

1) To be published. (Revision of ISO 7183:1986)