# INTERNATIONAL STANDARD

### ISO 12500-3

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## Filters for compressed air — Test methods —

Part 3: Particulates

Filtres pour air comprimé — Méthodes d'essai — Partie 3: Particules



Reference number ISO 12500-3:2009(E)

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#### Foreword

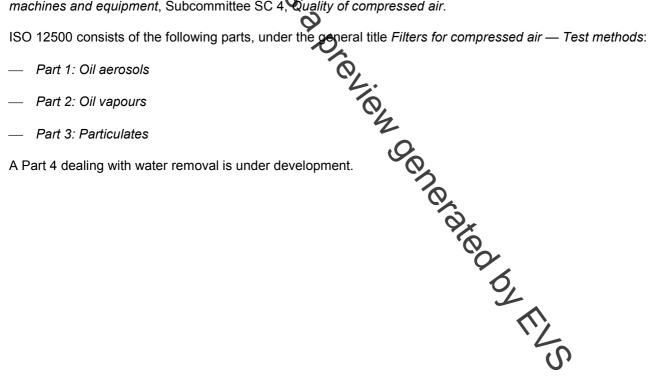
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ISO 12500-3 was prepared by Technical committee ISO/TC 118, Compressors and pneumatic tools, machines and equipment, Subcommittee SC 4, Quality of compressed air.



#### Introduction

Particulates are a typical contaminant found in compressed air streams. Particulate filters are designed to remove particulates from compressed air.

The most important performance characteristics are the ability of the filter to remove particulates from the air stream and the amount of pressure drop caused by the filter as compressed air flows through it.

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 3: Particulates

#### 1 Scope

This part of ISO 12500 provides a guide for choosing an appropriate method of determining the solid particulate removal efficiency rating by particle size of filters used in compressed air systems.

This part of ISO 12500 specifies the layouts and procedures for testing these filters. Measurement methods are recommended based on the size range of the particulates that the filter being tested has been designed to remove. The test is performed as a "type-test" on filters as being representative of a range.

The following two particle diameter size ranges are identified in this part of ISO 12500:

- fine filter range 0,01  $\mu$ m to 5,0  $\mu$ m;
- coarse filter range

#### 2 Normative references

The following referenced documents are indispensate 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 5598, Fluid power systems and components — Vocabulary

≥ 5.0 µm to ≼

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

ISO 8573-4:2001, Compressed air — Part 4: Test methods for solid particle content

ISO 12103-1, Road vehicles — Test dust for filter evaluation — Part 1: Arizona test/dust

EN 1822-1, High efficiency air filters (HEPA and ULPA) — Part 1: Classification, pelformance testing, marking

EN 1822-2:1998, High efficiency air filters (HEPA and ULPA) — Part 2: Aerosol production, measuring equipment, particle counting statistics

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8573-1, ISO 5598 and the following apply.