
International Standard



6584

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Cleaning equipment for air and other gases — Classification of dust separators

Séparateurs aérauliques — Classification des dépoussiéreurs

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6584 was developed by Technical Committee ISO/TC 142, *Cleaning equipment for air and other gases*, and was circulated to the member bodies in October 1979.

It has been approved by the member bodies of the following countries :

Australia	Finland	Japan
Austria	France	Korea, Rep. of
Belgium	Germany, F. R.	Poland
Chile	India	Romania
China	Ireland	Sweden
Czechoslovakia	Italy	

The member body of the following country expressed disapproval of the document on technical grounds :

United Kingdom

Cleaning equipment for air and other gases — Classification of dust separators

0 Introduction

It is not possible to cover every possible combination of dust separator because of the variety and complexity of the wide range of different types of dust separator on the market. The classification given in this International Standard is based on the main operating principles and does not attempt to specify complex or multi-component dust separators (for example, for venturi scrubbers, only the first stage of the process is considered without specifying the following stages such as droplet separation).

1 Scope and field of application

This International Standard defines a classification of dust separators, gives their operating principles and defines their characteristics.

Examples are given, for guidance, of each class of dust separator, but this list is not exhaustive. Symbols are given for each class of dust separator and these shall be used as the basis for symbols for more complex types of separator.

This International Standard will be supplemented by another International Standard dealing with the determination of the performance characteristics of dust separators.

2 References

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

ISO 7000, *Graphic symbols — Index, survey and compilation of the single sheets*.¹⁾

3 Classification and working principles of dust separators

3.1 Inertial separators

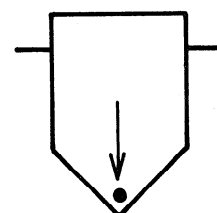
The principles of particle separation by mass effects allow three main categories of separators to be distinguished, i.e. separators of the following types :

- gravity;
- impingement;
- centrifugal.

3.1.1 Gravity separators

Inertial separators in which the particles are sedimented under the effect of gravity.

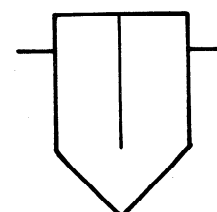
Example : Settling chambers.



3.1.2 Impingement separators

Separators in which the dust-laden flow is forced to make various changes of direction. The particles which follow less curved trajectories than the lines of the gaseous flow, move towards depositing surfaces, along which they descend by gravity to discharge hoppers.

Example : Baffle chambers.



1) At present at the stage of draft.