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**Technical specifications for centrifugal
pumps — Class III**

Spécifications techniques pour pompes centrifuges — Classe III



Reference number
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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.

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.

International Standard ISO 9908 was prepared by Technical Committee ISO/TC 115, *Pumps*, Sub-Committee SC 1, *Dimensions and technical specifications of pumps*.

Annexes A, B and C form an integral part of this International Standard. Annexes D, E, F and G are for information only.

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Introduction

This International Standard is the third of a set dealing with technical specifications of centrifugal pumps; they are designated as Classes I, II and III. Class I (see ISO 9905) comprises the most severe and Class III (this International Standard) the least severe requirements. For requirements for Class II centrifugal pumps, see ISO 5199.

The selection of the class to be used is made in accordance with the technical requirements for the application for which the pump is intended. **The class chosen is to be agreed between purchaser and manufacturer/supplier.**

The safety requirements of the field of application are furthermore to be taken into account.

However, it is not possible to standardize the class of technical requirements for centrifugal pumps for a certain field of application, because each field of application comprises different requirements. All classes (I, II and III) can be used in accordance with the different requirements of the pump application. It may happen that pumps built in accordance with Classes I, II and III may work beside each other in one plant.

Further text covering specific applications or industry requirements are dealt with later in separate standards.

Criteria for the selection of a pump of the required class for a certain application may be based on:

- reliability,
- operating conditions,
- environmental conditions.

Throughout this International Standard, text written in bold letters indicates where a decision may be required by the purchaser, or where agreement is required between the purchaser and manufacturer/supplier.

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Technical specifications for centrifugal pumps — Class III

1 Scope

1.1 This International Standard covers Class III requirements for centrifugal pumps of single stage, multistage, horizontal or vertical construction (coupled or close-coupled) with any drive and any installation for general application.

1.2 This International Standard includes design features concerned with installation, maintenance and safety of such pumps including baseplate, coupling and auxiliary piping but excluding the driver, if it is not an integral part of the pump.

1.3 Where the application of this International Standard has been called for:

- a) and requires a specific design feature, alternative designs may be offered which meet the intent of this International Standard provided that the alternative is described in detail.
- b) pumps not complying with all requirements of this International Standard may be offered for consideration, provided that all deviations are stated.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

1) To be published.

Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 76:1987, *Rolling bearings — Static load ratings.*

ISO 281:1990, *Rolling bearings — Dynamic load ratings and rating life.*

ISO 2372:1974, *Mechanical vibration of machines with operating speeds from 10 to 200 rev/s — Basis for specifying evaluation standards.*

ISO 2548:1973, *Centrifugal, mixed flow and axial pumps — Code for acceptance tests — Class C (It is planned to combine ISO 2548 with ISO 3555 during their next revision to create a new International Standard).*

ISO 3069:1974, *End suction centrifugal pumps — Dimensions of cavities for mechanical seals and for soft packing.*

ISO 3555:1977, *Centrifugal, mixed flow and axial pumps — Code for acceptance tests — Class B (It is planned to combine ISO 3555 with ISO 2548 during their next revision to create a new International Standard).*

ISO 7005-1:1992, *Metallic flanges — Part 1: Steel flanges.*

ISO 7005-2:1988, *Metallic flanges — Part 2: Cast iron flanges.*

ISO 7005-3:1988, *Metallic flanges — Part 3: Copper alloy and composite flanges.*

ISO 9905:—¹⁾, *Technical specifications for centrifugal pumps — Class I.*