

---

---

**Foundry machinery — Vocabulary —**  
**Part 3:**  
**Die casting machines and other**  
**equipment related to permanent mold**  
**casting process**

*Machines de fonderie — Vocabulaire —*

*Partie 3: Machines à couler sous pression et autres équipements liés  
au processus de moulage permanent*



This document is a preview generated by EKO



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
Bibliography .....	11
Index (Alphabetical) .....	12

## 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 306, *Foundry machinery*.

A list of all parts in the ISO 23472 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

Documentation gives rise to numerous international exchanges of both intellectual and material nature. These exchanges often become difficult, either because of the great variety of terms used in various fields or languages to express the same concept, or because of the absence of, or the imprecision of, useful concepts.

To avoid misunderstandings due to this situation and to facilitate such exchanges, it is advisable to select terms to be used in various languages or in various countries to express the same concept, and to establish definitions providing satisfactory equivalents for the various terms in different languages.

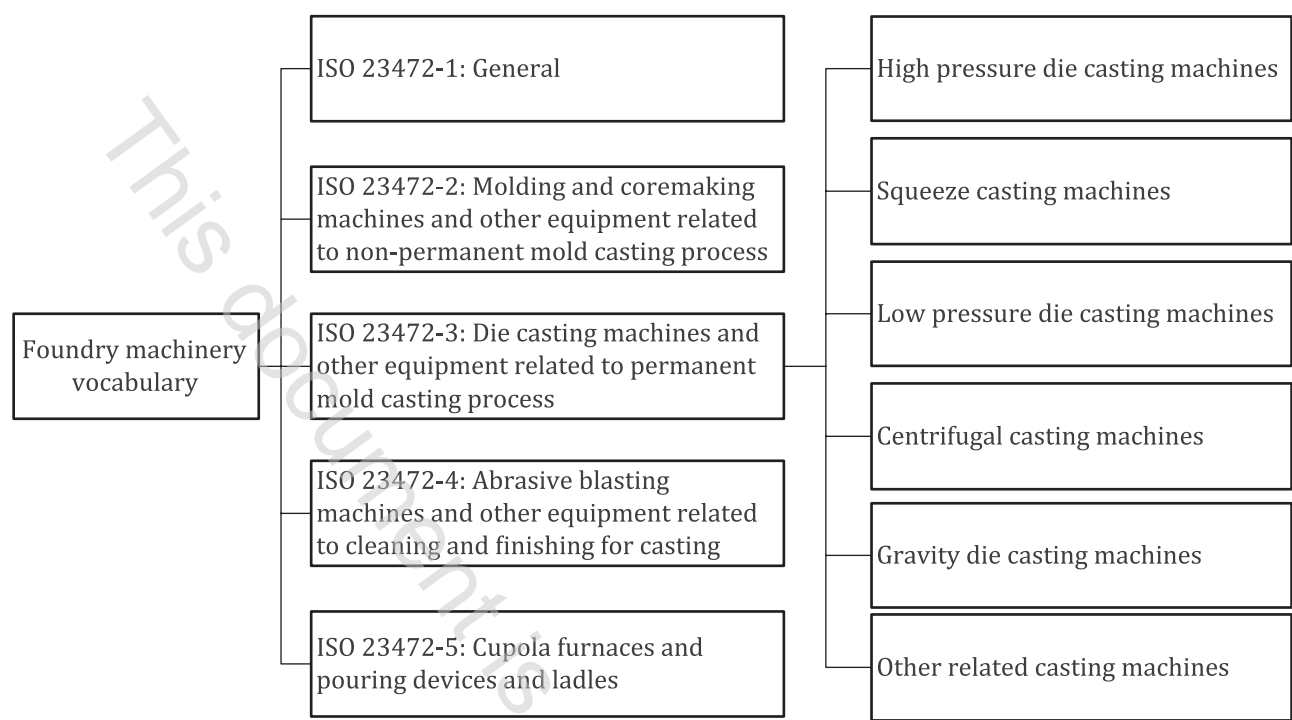
The objects involved in the ISO 23472 series are foundry machines used in foundry production.

The purpose of the ISO 23472 series is to provide definitions in English that are rigorous, uncomplicated and which can be understood by all concerned. The scope of each concept defined has been chosen to provide a definition that is suitable for general application within foundry machinery, which includes machines and equipment adapted in each stage of the processes within different casting processes.

As a metal thermoforming method that fills molten metal into the mold to produce machine parts or rough parts after solidification, casting has a long history and various processes, and its technology remains constantly developing and changing. According to the differences in the mold used, or different ways of molten metal filling or solidification, casting processes are usually divided into sand casting, permanent casting and other casting processes. According to different casting processes and different stages of production, casting equipment covered by foundry machinery is divided into the following major categories:

- molding and core-making machines and other equipment related to non-permanent mold casting process;
- die casting machines and other equipment related to permanent mold casting process;
- abrasive blasting machines and other equipment related to cleaning and finishing for casting;
- cupola furnaces and pouring devices and ladles.

This document only involves terms and definitions of die casting machines and other equipment related to permanent mold casting process, including basic concepts specifically concerning structural characteristics and functions, important mechanisms and parts, main technological processes and parameters of various die casting machines, squeeze casting machines, low pressure casting machines, centrifugal casting machines, gravity die casting machines and other related casting machines (see [Figure 1](#)).



**Figure 1 — Structure of vocabulary on die casting machines and other equipment related to permanent mold casting process**

It is expected to be used in the field of die casting machines and other equipment related to permanent mold casting process, technical documentation, related scientific and technical publications.

# Foundry machinery — Vocabulary —

## Part 3:

## Die casting machines and other equipment related to permanent mold casting process

### 1 Scope

This document defines a set of terms and definitions of die casting machines and other equipment related to permanent mold casting process.

### 2 Normative references

There are no normative references in this document.

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

#### 3.1

##### **acceleration of fast injection**

time required to achieve the maximum injection velocity from the *fast injection* (3.41) start during the injection process

#### 3.2

##### **access door**

doors of the distance guards of a *die casting cell* (3.16)

#### 3.3

##### **auxiliary equipment**

devices which carry out additional process functions within a *die casting cell* (3.16)

#### 3.4

##### **biscuit**

##### **slug**

metal surplus which solidifies in the cold-chamber *shot sleeve* (3.92) and is ejected with the casting

#### 3.5

##### **cantilever type horizontal centrifugal casting machine**

*horizontal centrifugal casting machine* (3.53) whose *pipe die* (3.81) in cantilever shaped to be fixed on one end or both ends of main axle of the machine, or the flange disc(s) which to be connected with one or both ends of main axle of the machine

#### 3.6

##### **casting area**

maximum projected area of the *die casting machine* (3.17) that allows the casting (including the gating system, venting system and overflow system) on the parting surface of the die