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Third edition
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Needle-based injection systems for medical use — Requirements and test methods —

Part 1: Needle-based injection systems

*Systèmes d'injection à aiguille pour usage médical — Exigences et
méthodes d'essai —*

Partie 1: Systèmes d'injection à aiguille



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.

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).

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).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#).

The committee responsible for this document is ISO/TC 84, *Devices for administration of medicinal products and intravascular catheters*.

This third edition cancels and replaces the second edition (ISO 11608-1:2012), which has been technically revised.

ISO 11608 consists of the following parts, under the general title *Needle-based injection systems for medical use — Requirements and test methods*:

- *Part 1: Needle-based injection systems*
- *Part 2: Needles*
- *Part 3: Finished containers*
- *Part 4: Requirements and test methods for electronic and electromechanical pen-injectors*
- *Part 5: Automated functions*

This third edition of ISO 11608-1:2014 incorporates the following corrections:

- a) in 4 Y: the term 'pens' is changed to 'NISs';
- b) in 5.5 n): reference to ISO 11608-4 is deleted since 5.5. o) already addresses this;
- c) in [Table 3](#): the word "or" is changed to "and" so that it reads "Condition at 70 °C and –40 °C, then standard DA";
- d) in [10.1](#), NOTE 1: Explanation is inserted;
- e) in [10.5 a\)](#) designation B is deleted;
- f) in [10.5 b\)](#) designation D is deleted;
- g) in [10.5 b\) 3\) iv\)](#) the term 'replacements' is changed to 'obvious container failures';

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- h) in [10.5](#) d) 2) iv) the term 'replacements' is changed to 'obvious container failures';
- i) in [10.8](#) the temperature range is changed from $(25 \pm 3) \text{ }^\circ\text{C}$ to $(5 \pm 3) \text{ }^\circ\text{C}$;
- j) in [10.10.4](#) and [10.10.5](#) "five NISs" is changed to "20 NISs" according to [Table 3](#);
- k) in [Table 3](#) – references to [10.10.4](#) and [10.10.5](#) are added under column A;
- l) in [13.2.3](#) "unit packaging" has been changed into "user packaging".

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Introduction

This part of ISO 11608 covers needle-based injection systems (referred to as NISs) primarily intended for human use. It provides performance requirements regarding essential aspects so that variations of design are not unnecessarily restricted.

This part of ISO 11608 should be used in conjunction with the other parts of ISO 11608.

The first edition of this part of ISO 11608 introduced the concept of interchangeability and the labelling designations "Type A" (i.e. interchangeable) and "non-Type A" for needles and container systems. Since its promulgation, experience has shown that the complexity of these systems makes it very difficult to ensure functional compatibility as defined in the different parts of this International Standard, particularly when products are made by different manufacturers. Based on this experience, it is believed that the Type A designation does not represent adequate guidance to the user in making decisions on the compatibility of needles and containers with specific needle-based injector systems. As such, the labelling designation "Type A" has been removed. The design requirements related to system function have been maintained as a guide to assist manufacturers during the design phase, supporting the achievement of cross-platform compatibility. However, these design requirements are an insufficient replacement for system testing of the components and, where possible, direct communication and/or quality agreements between system component manufacturers. Therefore, given the patient convenience benefits associated with cross-platform compatibility, manufacturers of needles, containers and needle-based injectors shall label their products with the specific system components that have been tested and demonstrated to be functionally compatible.

The sampling plans for inspection selected for this part of ISO 11608 are intended to verify the design at a high confidence level. The sampling plans for inspection do not replace the more general manufacturing quality systems that appear in standards on quality systems, for example the ISO 9000 series and ISO 13485.

Materials to be used for construction are not specified, as their selection will depend on the design, the intended use and the process of manufacture used by individual manufacturers.

There are other international and national standards and guidance publications and, in some countries, national regulations that are applicable to medical devices and pharmaceuticals. Their requirements might supersede or complement this part of ISO 11608. Developers and manufacturers of NISs are encouraged to investigate and determine whether there are any other requirements relevant to the safety or marketability of their products.

Manufacturers are expected to follow a risk-based approach during the design, development and manufacture of the product. Given the specific medicinal product and intended use, this might result in product-specific requirements and test methods that differ from what is outlined in this part of ISO 11608.