First edition 2000-12-15

## Pen-injectors for medical use —

Part 1:

## Pen-injectors — Requirements and test methods

Stylos-injecteurs à usage médical —

Partie 1: Stylos-injecteurs — Exigences et méthodes d'essai



Reference number ISO 11608-1:2000(E)

© ISO 2000

Copyright International Organization for Standardization Provided by IHS Markit under license with ANSI No reproduction or networking permitted without license from IHS Order Number: W2108280 Sold to:PHILIP BARAHONA [224858100001] - PHILIP.BARAHONA@WEIL.COM, Not for Resale, 2018-08-02 18:42:04 UTC



#### **PDF** disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

#### © ISO 2000

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.ch
Web www.iso.ch

Printed in Switzerland

Copyright International Organization for Standardization Provided by IHS Markit under license with ANSI No reproduction or networking permitted without license from IHS Order Number: W2108280 © ISO 2000 — All rights reserved Sold to:PHILIP BARAHONA [224858100001] - PHILIP.BARAHONA@WEIL.COM, Not for Resale, 2018-08-02 18:42:04 UTC



**Contents** Page

Forew	ord	iv
Introdu	uction	v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviations	3
5	General requirements	4
6	Test conditions	5
6.1	Standard atmosphere	5
6.2 6.3	Cool atmosphere	
7.	Preconditioning of pen-injectors	
7.1	Preconditioning in dry heat atmosphere	€
7.2	Preconditioning in cold storage atmosphere	
7.3	Preconditioning in cyclical atmosphere	
7.4	Preconditioning by free fall	
7.5	Preconditioning by vibration for pen-injectors with electronic components	7
8	Reagent and apparatus	7
9	Determination of dose accuracy	7
9.1	Dose accuracy	
9.2	Dose accuracy requirements	.12
10	Freedom from defects	.14
10.1	Defects after being subjected to cyclical preconditioning	
10.2	Freedom from defects after being subjected to vibration	
10.3	Freedom from defects after being subjected to free fall	.14
11	Determination of electromagnetic compatibility	
11.3	Electromagnetic compatibility (EMC)	
11.2	Electrostatic discharge	
11.3	Radiated radio frequency (RF) fields	.15
12	Visual inspection	.15
13	Functional inspection	.16
13.1	Replaceable cartridge	
13.2	Nonreplaceable cartridge	
13.3	Accuracy	.16
14	Test report	.16
15	Information supplied by the manufacturer	.16
15.1	General	
15.2	Marking	
15.3	Instructions for use	. 17
Annex	A (informative) Two-sided tolerance limit factors (k)	.19
Riblioc	nnex A (informative) Two-sided tolerance limit factors (k)19	

Copyright Internated as Ogazine To All nights reserved Provided by IHS Markt under license with ANSI No reproduction or networking permitted without license from IHS

Order Number: W2108280 Sold to:PHILIP BARAHONA [224858100001] - PHILIP.BARAHONA@WEIL.COM, Not for Resale,2018-08-02 18:42:04 UTC





### **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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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.

Attention is drawn to the possibility that some of the elements of this part of ISO 11608 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 11608-1 was prepared by Technical Committee ISO/TC 84, Medical devices for injections.

ISO 11608 consists of the following parts, under the general title Pen-injectors for medical use:

- Part 1: Pen-injectors Requirements and test methods
- Part 2: Needles Requirements and test methods
- Part 3: Finished cartridges Requirements and test methods

Annex A of this part of ISO 11608 is for information only.

Copyright in transitional Organization for Standardization Provided by IHS Markit under license with ANSI No reproduction or networking permitted without license from IHS Order Number: W2108280 © ISO 2000 — All rights reserved Sold to:PHILIP BARAHONA [224858100001] - PHILIP.BARAHONA@WEIL.COM, Not for Resele, 2018-08-02 18:42:04 UTC



## Introduction

This part of ISO 11608 covers pen-injectors primarily intended for human use. It provides performance requirements regarding essential aspects, so that variations of design are not unnecessarily restricted.

The devices described in this part of ISO 11608 are designed to be used with devices described in ISO 11608-2 and ISO 11608-3.

It is recognized that interchangeability of the components (pen-injector, needle and cartridge) is desirable for some medicinal products and to be avoided for other medicinal products, and that future design may change the current concepts. Therefore, ISO 11608-2 and ISO 11608-3 encourage interchangeability by establishing certain specific requirements for interchangeable needles (Type A) and interchangeable cartridges (Type A) respectively.

Performance requirements are imposed on both Type A (interchangeable) and non-Type A needles and cartridges. Additional dimensional requirements are imposed on Type A needles and cartridges and hereby indirectly on peninjectors intended for either Type A needles and/or Type A cartridges.

Information as to whether the components are interchangeable (Type A) or not should be given on the unit container.

The sampling plans for inspection selected for this part of ISO 11608 are intended to verify, at a high confidence level, the manufacturer's ability to manufacture one "lot" of pen-injectors that conforms to the critical product attributes. The sampling plans for inspection do not replace the more general manufacturing quality systems that appear in standards on quality systems, e.g. the ISO 9000 series.

Materials to be used for the construction are not specified, as their selection to some extent will depend upon the design, the intended use and the process of manufacture by individual manufacturers. All materials should be resistant to the medicinal product intended to be injected with the pen-injector.

In some countries national regulations exist, and their requirements may supersede or complement this part of ISO 11608.

Copyright Intermed to Span 2000 to All nights reserved Provided by IHS Markit under license with ANSI No reproduction or networking permitted without license from IHS

Order Number: W2108280 Sold to:PHILIP BARAHONA [224858100001] - PHILIP.BARAHONA@WEIL.COM, Not for Resale, 2018-08-02 18:42:04 UTC



# DOCKET

## Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

## **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

