



NSAI
Standards

Irish Standard
I.S. EN ISO 8638:2014

Cardiovascular implants and extracorporeal systems - Extracorporeal blood circuit for haemodialysers, haemodiafilters and haemofilters (ISO 8638:2010)

I.S. EN ISO 8638:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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EUROPEAN STANDARD

EN ISO 8638

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN 1283:1996

English Version

**Cardiovascular implants and extracorporeal systems -
Extracorporeal blood circuit for haemodialysers, haemodiafilters
and haemofilters (ISO 8638:2010)**

Implants cardiovasculaires et systèmes extracorporels -
Circuit sanguin extracorporel pour les hémodialyseurs, les
hémodiafiltres et les hémofiltres (ISO 8638:2010)

Kardiovaskuläre Implantate und extrakorporale Systeme -
Extrakorporaler Blutkreislauf bei Hämodialysatoren,
Hämodiafiltern und Hämofiltern (ISO 8638:2010)

This European Standard was approved by CEN on 1 December 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 8638:2014 (E)

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Foreword

The text of ISO 8638:2010 has been prepared by Technical Committee ISO/TC 150 “Implants for surgery” of the International Organisation for Standardization (ISO) and has been taken over as EN ISO 8638:2014 by Technical Committee CEN/TC 205 “Non-active medical devices” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2014, and conflicting national standards shall be withdrawn at the latest by July 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1283:1986.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 8638:2010 has been approved by CEN as EN ISO 8638:2014 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC on medical devices

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 93/42/EEC on medical devices.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 93/42/EEC on medical devices

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 93/42/EEC	Qualifying remarks/Notes
4.1, 4.2, 4.3	7.2	
4.1	7.3	
4.1, 6.3(q)	7.5	Addressed only in general terms. Although these devices can incorporate materials containing phthalates, there is no specific requirement that the presence of phthalates be indicated in the labelling.
4.4.1, 4.4.9	7.6	
4.2, 4.4.1, 4.4.6, 4.4.9, 6.2(e), 6.2(j), 6.4(f), 6.4(i), 6.4(n)	8.1	
4.2, 5.3	8.3	Addressed only in general terms.
4.2, 5.3	8.4	
4.4.2, 4.4.3, 4.4.4, 4.4.9.2	9.1	Connectors are specified to match tubing connectors specified in ISO 8637 for the blood compartment.
4.4.6.1, 4.4.10, 4.6	9.2	
6	13.1	
6.1, 6.2, 6.3, 6.4	13.2	The NOTE at the end of each clause allows the use of symbols from Harmonized Standards.
6.2(a), 6.3(a), 6.3(b), 6.4(a)	13.3 (a)	
6.2(b), 6.2(c), 6.3(c), 6.3(d), 6.4(b), 6.4(c)	13.3 (b)	
6.2(e), 6.3(f), 6.4(d)	13.3 (c)	

Clause(s)/sub-clause(s) of this EN	Essential Requirements (ERs) of Directive 93/42/EEC	Qualifying remarks/Notes
6.2(d), 6.3(e)	13.3 (d)	
6.2(f), 6.3(g)	13.3 (e)	
6.2(g), 6.4(e)	13.3 (f)	
6.3(h)	13.3 (i)	
6.2(j), 6.4(g), 6.4(i), 6.4(l), 6.4(m), 6.4(o)	13.3 (j)	
6.2(j), 6.4(f)	13.3 (k)	
6.2(i)	13.3 (m)	
6.4(a), 6.4(b), 6.4(c), 6.4(d), 6.4(e), 6.4(f), 6.4(g), 6.4(i), 6.4(l), 6.4(m), 6.4(o)	13.6 (a)	There is no requirement for the information in 13.3(i) in the instructions for use. Instead, that information is required to be given on the outer container in which the device is sold.
6.4(r)	13.6 (c)	

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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INTERNATIONAL STANDARD

**ISO
8638**

Third edition
2010-07-01

Cardiovascular implants and extracorporeal systems — Extracorporeal blood circuit for haemodialysers, haemodiafilters and haemofilters

*Implants cardiovasculaires et systèmes extracorporels — Circuit
sanguin extracorporel pour les hémodialyseurs, les hémodiafiltres et les
hémofiltres*



Reference number
ISO 8638:2010(E)

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ISO 8638:2010(E)

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ISO 8638:2010(E)

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 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8638 was prepared by Technical Committee ISO/TC 150, *Implants for surgery*, Subcommittee SC 2, *Cardiovascular implants and extracorporeal systems*.

This third edition cancels and replaces the second edition (ISO 8638:2004), which has been technically revised.

Introduction

This International Standard is concerned with the extracorporeal blood circuit manufactured for single use and intended for use in conjunction with haemodialysers, haemodiafilters and haemofilters. The requirements specified in this International Standard for the extracorporeal blood circuit will help to ensure safety and satisfactory function.

It was not found practicable to specify materials of construction. This International Standard therefore requires only that materials have been tested and that the methods and results are made available upon request.

The dimensions of the connectors intended for connecting the extracorporeal blood circuit to a haemodialyser, haemodiafilter or haemofilter have been specified to ensure compatibility with these devices, as specified in ISO 8637. The design and dimensions have been selected in order to minimize the risk of leakage of blood and ingress of air. Connectors with either fixed or loose locking shells are permitted.

This International Standard reflects the consensus of physicians, manufacturers and other interested parties for devices that are approved for clinical use. Conformance with this International Standard is voluntary and it is not intended to supersede any national regulation.

Cardiovascular implants and extracorporeal systems — Extracorporeal blood circuit for haemodialysers, haemodiafilters and haemofilters

1 Scope

This International Standard specifies requirements for haemodialysers, haemodiafilters, haemofilters and haemoconcentrators (hereafter referred to as “the device”) and (integral and non-integral) transducer protectors which are intended for use in haemodialysis, haemodiafiltration and haemofiltration.

This International Standard does not apply to:

- haemodialysers, haemodiafilters or haemofilters;
- plasmafilters;
- haemoperfusion devices;
- vascular access devices;
- blood pumps;
- pressure monitors for the extracorporeal blood circuit;
- air detection devices;
- systems to prepare, maintain or monitor dialysis fluid;
- systems or equipment intended to perform haemodialysis, haemodiafiltration, haemofiltration or haemoconcentration.

NOTE Requirements for haemodialysers, haemodiafilters, haemofilters and haemoconcentrators are specified in ISO 8637.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 594-2, *Conical fittings with 6 % (Luer) taper for syringes, needles and certain other medical equipment — Part 2: Lock fittings*

ISO 7864, *Sterile hypodermic needles for single use*

ISO 10993-1, *Biological evaluation of medical devices — Part 1: Evaluation and testing within a risk management process*

ISO 10993-4, *Biological evaluation of medical devices — Part 4: Selection of tests for interactions with blood*

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