



NSAI
Standards

Irish Standard
I.S. EN 809:1998+A1:2009

Pumps and pump units for liquids - Common safety requirements

I.S. EN 809:1998+A1:2009

Incorporating amendments/corrigenda issued since publication:

<i>This document replaces:</i> EN 809:1998	<i>This document is based on:</i> EN 809:1998+A1:2009 EN 809:1998	<i>Published:</i> 14 October, 2009 4 December, 1998
This document was published under the authority of the NSAI and comes into effect on: 2 November, 2009		ICS number: 23.080
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie
Údarás um Chaighdeáin Náisiúnta na hÉireann		

English Version

Pumps and pump units for liquids - Common safety requirements

Pompes et groupes motopompes pour liquides -
Prescriptions communes de sécurité

Pumpen und Pumpenaggregate für Flüssigkeiten -
Allgemeine sicherheitstechnische Anforderungen

This European Standard was approved by CEN on 7 November 1997 and includes Corrigendum 1 issued by CEN on 20 March 2002 and Amendment 1 approved by CEN on 20 August 2009.

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 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 Management Centre has the same status as the official versions.

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



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	4
2 Normative references	5
3 Definitions	6
4 List of hazards.....	7
5 Safety requirements and/or measures	9
5.1 General requirements.....	9
5.1.1 Environmental and working conditions	9
5.2 Special requirements	11
5.2.1 Requirements to avoid mechanical hazards.....	11
5.2.2 Requirements to avoid electrical hazards.....	12
5.2.3 Requirements to avoid thermal hazards	13
5.2.4 Requirements to avoid the danger of noise and vibrations	14
5.2.5 Requirements to avoid hazards from materials	14
5.2.6 Requirements to avoid hazards from neglecting ergonomic principles of machine design.....	15
5.2.7 Requirements to avoid hazards caused by failure of energy supply, break-downs of machinery components and other malfunctions	15
5.2.8 Requirements to avoid hazards through breakdown and/or wrong installation of protection devices	16
6 Verification of the safety requirements and/or measures	16
6.1 General reference	16
6.2 Specific methods of verification	17
6.2.1 Inspection	17
6.2.2 Review of documentation	17
6.2.3 Calculations.....	17
6.2.4 Hydrostatic pressure test for pressure containing parts	17
6.2.5 Noise measurement.....	17
6.2.6 Guarding	17
6.2.7 Stability	17
6.2.8 Surface temperatures	18
7 Information for use	18
7.1 General.....	18
7.2 Instruction for use - Instruction handbook	18
7.2.1 General.....	18
7.2.2 Contents	18
7.3 A1 Assembly instruction for partly completed machinery	23
8 Marking	23
Annex ZA (informative) A1 Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/CE A1	25
Annex ZB (informative) A1 Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC A1	26
A1 Bibliography A1	27

Foreword

This document (EN 809:1998+A1:2009) has been prepared by Technical Committee CEN/TC 197 “Pumps”, the secretariat of which is held by AFNOR.

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 April 2010, and conflicting national standards shall be withdrawn at the latest by April 2010.

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 includes Amendment 1, approved by CEN on 2009-08-20 and Corrigendum 1, issued by CEN on 2001-02-14.

This document supersedes EN 809:1998.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** and **A1**.

The modifications of the related CEN Corrigendum have been implemented at the appropriate places in the text and are indicated by the tags **AC** and **AC**.

This European Standard 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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This Standard has been prepared to be a harmonized standard to provide one means of conformity with the Essential requirements of the Machinery Directive and associated EFTA Regulations.

A1 This European Standard is a type C standard as stated in EN ISO 12100-1.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this European Standard.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards for machines that have been designed and built according to the provisions of this type C standard.

The extent to which hazards are covered is indicated in Clause 4 "List of hazards" of this European Standard. **A1**

1 Scope

A1 This European Standard establishes the technical safety requirements for:

- constructing;
- assembling;
- erecting;
- operating;
- servicing;

a liquid pump or pump unit. It contains a list of significant hazards, which can arise with the use of a liquid pump or pump unit, and establishes the requirements and/or protective measures which will lead to a reduction of the risks.

Liquid pumps covered by this European Standard are:

- rotodynamic pumps;
- rotary positive displacement pumps;
- reciprocating displacement pumps;

supplied separately without drive (electric motor or internal combustion engine).

In general, pumps are defined as being terminated by their inlet and outlet connections as well as by their shaft ends. Pumps supplied in this form are usually called bareshaft pumps. They are 'machines' in the definition of the Machinery Directive.

The assembly of a bareshaft pump with its driver can require measures that are outside the scope of this European Standard.

Pump units are described as:

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-