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წნევის მოწყობილობები სამაცივრო სისტემებისა და სითბური
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ეროვნული სააგენტო
თბილისი

საინფორმაციო მონაცემები

1 შემუშავებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

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Part 1: Vessels - General requirements

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Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 14276-1:2006+A1:2011) has been prepared by Technical Committee CEN/TC 182 "Refrigerating systems, safety and environmental requirements", 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of an identical text or by endorsement, at the latest by August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

This document includes Amendment 1, approved by CEN on 2010-12-13.

This document supersedes EN 14276-1:2006.

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

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This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to support Essential Requirements of EU Directive 97/23/EC concerning Pressure Equipment.

For relationship with EU Directive 97/23/EC see informative Annex ZA, which is an integral part of this document.

This document consists of the following parts under the general title "*Pressure equipment for refrigerating systems and heat pumps*":

- *Part 1: Vessels – General requirements*
- *Part 2: Piping – General requirements*

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, 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 recognises the unique nature of vessels for refrigerating systems or heat pumps and is intended to address the specific needs of the refrigeration and heat pump industry. This standard should be read in conjunction with the various parts of EN 13445.

When the text of this standard modifies or supplements a clause within EN 13445, then this standard should prevail. Where this standard does not modify or supplement the requirements of a clause, the requirements of EN 13445 should prevail.

The unique nature of a refrigerating system is defined as follows:

- a) the purpose of the refrigerating system is to extract and reject heat (this involves both cooling and heating);
- b) to operate the refrigerating system a pressure-imposing element (e.g. a compressor or an energy source) is necessary;
- c) the refrigerating system has a defined refrigerant charge in a closed circuit;
- d) the refrigerant has a chemical composition and purity defined in the relevant standards;
- e) the pressure of the refrigerant decreases when the temperature decreases (see typical curve in Annex A of this standard);
- f) due to the maximum temperature limit of 200 °C and the maximum pressure limit of 64 bar, the time dependent creep and fatigue due to pressure variation or vibrations are not significant design factors except for some materials such as aluminium, copper and titanium where the fatigue shall be taken into account;
- g) the risk of overpressure is due to:
 - the pressure imposing element;
 - an external heat source (e.g. fire or hot water);
 - improper operation.
- h) the refrigerating system is designed to minimise refrigerant emissions and the ingress of contaminants.

Only hermetic compressors are covered by this standard.