



SLOVENSKI STANDARD
SIST EN 14276-2:2007/kprA1:2010
01-november-2010

Tlačna oprema za hladilne sisteme in toplotne črpalke - 2. del: Cevovodi - Splošne zahteve

Pressure equipment for refrigerating systems and heat pumps - Part 2: Piping - General requirements

Druckgeräte für Kälteanlagen und Wärmepumpen - Teil 2: Rohrleitungen - Allgemeine Anforderungen

Équipements sous pression pour systèmes de réfrigération et pompes à chaleur - Partie 2: Tuyauteries - Exigences générales

Ta slovenski standard je istoveten z: EN 14276-2:2007/FprA1

ICS:

23.020.30	Tlačne posode, plinske jeklenke	Pressure vessels, gas cylinders
27.080	Toplotne črpalke	Heat pumps
27.200	Hladilna tehnologija	Refrigerating technology

SIST EN 14276-2:2007/kprA1:2010 **en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

FINAL DRAFT
EN 14276-2:2007

FprA1

August 2010

ICS 23.020.30; 27.080; 27.200

English Version

Pressure equipment for refrigerating systems and heat pumps - Part 2: Piping - General requirements

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Rohrleitungen - Allgemeine Anforderungen

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 182.

This draft amendment A1, if approved, will modify the European Standard EN 14276-2:2007. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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.

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Foreword

This document (EN 14276-2:2007/FprA1:2010) has been prepared by Technical Committee CEN/TC 182 "Refrigerating systems, safety and environmental requirements", the secretariat of which is held by DIN.

This document is currently submitted to the Unique Acceptance Procedure.

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.

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.

EN 14276-2:2007/FprA1:2010 (E)**1 Modification of Clause 2, Normative references**

Replace references EN 378-1:2000, EN 378-2:2000, EN 378-3:2000 and EN 378-4:2000 with the following:

"EN 378-1:2008, *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 1: Basic requirements, definitions, classification and selection criteria*

EN 378-1:2008/prA1:2008, *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 1: Basic requirements, definitions, classification and selection criteria*

EN 378-2:2008+A1:2009, *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 2: Design, construction, testing, marking and documentation*

EN 378-3:2008, *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 3: Installation site and personal protection*

EN 378-4:2008, *Refrigerating systems and heat pumps — Safety and environmental requirements — Part 4: Operation, maintenance, repair and recovery*".

Replace reference EN 13445-3:2002 with the following:

"EN 13445-3:2009, *Unfired pressure vessels — Part 3: Design*".

Replace reference EN ISO 4063:2000 with the following:

"EN ISO 4063:2009, *Welding and allied processes — Nomenclature of processes and reference numbers (ISO 4063:2009)*".

Add the following normative references

"EN 14276-1:2006/FprA1:2010, *Pressure equipment for refrigerating systems and heat pumps — Part 1: Vessels — General requirements*" and

"EN ISO 23277:2009, *Non-destructive testing of welds — Penetrant testing of welds — Acceptance levels (ISO 23277:2006)*".

2 Modification of Clause 3, Terms, definitions, symbols, quantities and units

Replace the existing sentence with the following:

"For the purposes of this document, the terms, definitions, symbols, quantities and units given in EN 378-1:2008, EN 764-1:2004, EN 764-2:2002, EN 764-3:2002, EN 764-4:2002, EN 764-5:2002, EN 14276-1:2006, EN 14276-1:2006/FprA1:2010 and the following apply."

3 Modification to 4.1, General

Replace "EN 14276-1" in the 1st paragraph with "EN 14276-1 and EN 14276-1:2006/FprA1".

NOTE Needs to be adapted to "EN 14276-1:2006+A1", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

4 Modification to 4.3.1.1

Replace "Annex I of EN 14276-1:2006" in the 1st paragraph with "EN 14276-1:2006, Annex I and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, Annex I", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

5 Modification to 4.3.2, Special considerations

Replace "4.3.3 of EN 14276-1:2006" with "EN 14276-1:2006, 4.3.3 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 4.3.3", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

6 Modification to 4.4, Requirements for the prevention of brittle fracture

Replace "4.4 of EN 14276-1:2006" with "EN 14276-1:2006, 4.4 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 4.4", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

7 Modification to 4.5, Material documentation

Replace "4.5 of EN 14276-1:2006" with "EN 14276-1:2006, 4.5 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 4.5", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

8 Modification to 4.6, Materials for non-pressure retaining parts

Replace "4.6 of EN 14276-1:2006" with "EN 14276-1:2006, 4.6 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 4.6", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

9 Modification to 5.1, Category of piping

Replace "5.2 of EN 14276-1:2006" in item b) with "EN 14276-1:2006, 5.2 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 5.2", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

10 Modification to Table 3, Applicable requirements per piping type

Replace "EN 14276-1" three times with "EN 14276-1 and EN 14276-1:2006/FprA1".

NOTE Needs to be adapted to "EN 14276-1:2006+A1", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

EN 14276-2:2007/FprA1:2010 (E)**11 Modification to 6.7, Design stress**

Replace "6.12 of EN 14276-1:2006" in the 1st paragraph with "EN 14276-1:2006, 6.12 and EN 14276-1:2006/FprA1:2010".

Replace "Table 4 of EN 14276-1:2006" in the last paragraph with "EN 14276-1:2006, Table 4 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 6.12" and "EN 14276-1:2006+A1:2010, Table 4", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

12 Modification to 6.9.1, General

Replace "Annex E of EN 14276-1:2006" in the last paragraph with "EN 14276-1:2006, Annex E and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, Annex E", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

13 Modification of 6.9.2.3, Other piping components

Replace the existing text and Table 5 with the following:

"For other piping components such as fabricated elbow, reducers, end cap, opening etc., the appropriate requirements of EN 13480-3:2002, Clauses 6 to 8 or equivalent clauses of EN 13445-3:2009, as given in Table 5, shall apply.

Table 5 — Correspondence between EN 13480-3 and EN 13445-3

Subject	Clause of EN 13480-3:2002	Clause of EN 13445-3:2009
Cone	6.4.3 to 6.4.6	7.6
Flange	6.6	11 or Annex G
Hemispherical end	7.1.2	7.5.2
Torispherical end	7.1.3	7.5.3
Elliptical end	7.1.4	7.5.4
Circular flat end	7.2	10
Opening	8	9
External pressure	9	8
Fatigue	10	17 and 18

".

14 Modification to 6.9.3, Joint design

Replace "6.14.3 of EN 14276-1:2006" with "EN 14276-1:2006, 6.14.3 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 6.14.3", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

15 Modification to 7.1, Material traceability

Replace "7.2 of EN 14276-1:2006" with "EN 14276-1:2006, 7.2 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 7.2", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

16 Modification to 7.3, Permanent joints

Replace "7.4 of EN 14276-1:2006" with "EN 14276-1:2006, 7.4 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 7.4", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

17 Modification to 7.4, Forming of pressure parts

Replace "7.5 of EN 14276-1:2006" with "EN 14276-1:2006, 7.5 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 7.5", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

18 Modification to 7.5, Post weld heat treatment

Replace "7.6 of EN 14276-1:2006" with "EN 14276-1:2006, 7.6 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 7.6", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

19 Modification to 7.6, Internal cleanness

Replace "7.7 of EN 14276-1:2006" with "EN 14276-1:2006, 7.7 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 7.7", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

20 Modification to 8.2.3, Design review and design approval

Replace "8.2.3 of EN 14276-1:2006" with "EN 14276-1:2006, 8.2.3 and EN 14276-1:2006/FprA1:2010".

NOTE Needs to be adapted to "EN 14276-1:2006+A1:2010, 8.2.3", when the amendment text will be adopted and consolidated. When "EN 14276-1:2006/FprA1:2010" will not be adopted, this instruction needs to be deleted.

21 Modification to 8.2.4, Design documentation change

Replace "8.2.4 of EN 14276-1:2006" with "EN 14276-1:2006, 8.2.4 and EN 14276-1:2006/FprA1:2010".