

## **Corrugated metal hose assemblies for pressure applications - Part 1: Requirements**

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applications - Part 1: Requirements

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN 14585-1:2006 sisaldab Euroopa standardi EN 14585-1:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.03.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN 14585-1:2006 consists of the English text of the European standard EN 14585-1:2006.</p> <p>This document is endorsed on 30.03.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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| <p><b>Käsitlusala:</b></p> <p>This European Standard specifies the requirements for material, design, manufacturing, testing and documentation for corrugated metal hose assemblies for pressure applications for use with a maximum allowable pressure PS greater than 0,5 bar.</p> | <p><b>Scope:</b></p> <p>This European Standard specifies the requirements for material, design, manufacturing, testing and documentation for corrugated metal hose assemblies for pressure applications for use with a maximum allowable pressure PS greater than 0,5 bar.</p> |
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**ICS** 23.040.70

**Võtmesõnad:**

English Version

Corrugated metal hose assemblies for pressure applications -  
Part 1: Requirements

Tuyauteries métalliques flexibles onduleuses pour  
applications sous pression - Partie 1 : Prescriptions

Gewellte Metallschlauchleitungen für Druckanwendungen -  
Teil 1: Anforderungen

This European Standard was approved by CEN on 21 November 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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## Contents

Page

|  |    |
|--|----|
| Foreword .....   | 3  |
| Introduction .....   | 4  |
| 1 Scope .....  | 5  |
| 2 Normative references .....   | 5  |
| 3 Terms and definitions .....  | 5  |
| 4 Classification .....   | 7  |
| 5 SEP pressure hose assemblies .....   | 8  |
| 6 CAT pressure hose assemblies .....   | 8  |
| 6.1 Materials .....  | 8  |
| 6.2 Design requirements .....  | 10 |
| 6.3 Manufacturing .....  | 12 |
| 6.4 Cleaning .....   | 15 |
| 6.5 Repair and rework .....  | 15 |
| 6.6 Final tests .....  | 15 |
| 6.7 Marking .....  | 15 |
| 6.8 Final assessment .....   | 16 |
| 6.9 Operating instructions .....   | 16 |
| 6.10 Technical documentation .....   | 17 |
| Annex A (informative) Classification of pressure hose assemblies .....   | 18 |
| Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Pressure Equipment Directive ..... | 22 |
| Bibliography .....   | 24 |

## Foreword

This European Standard (EN 14585-1:2006) has been prepared by Technical Committee CEN/TC 342 “Metal hoses, hose assemblies, bellows and expansion joints”, the secretariat of which is held by UNI.

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 2006, and conflicting national standards shall be withdrawn at the latest by July 2006.

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) 97/23/EC [1].

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

This standard provides one means of conforming to the related essential requirements.

This standard has been produced to address the specific needs of corrugated metal hose assemblies for pressure applications using, and when necessary supplementing, the requirements of EN ISO 10380 “Pipework – Corrugated metal hoses and hose assemblies” which is the base standard for hoses and hose assemblies for general purposes.

This standard consists of 2 parts:

- EN 14585-1 “Corrugated metal hose assemblies for pressure applications – Part 1 – Requirements”;
- prCEN/TR 14585-2 “Corrugated metal hose assemblies for pressure applications – Part 2 – Guidance for the use of conformity assessment procedures”.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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

The requirements of this standard concern designers, manufacturers, suppliers and importers of corrugated metal hose assemblies for pressure application.

The unique nature of a corrugated metal hose assembly is characterised:

- by the interactive role of its pressure bearing parts: corrugated metal hose, braid, fittings and its permanent joints;
- and by the opposing requirements of pressure resistance and flexibility.

PED, Annex I, Clause 2.2.2 as a general rule limits the experimental design method for piping to  $PS \cdot DN$  less than 3000. For the time being there is no officially recognised calculation method available to design hose assemblies. Accordingly it is essential that validation tests support design for all values of  $PS \cdot DN$ .

## 1 Scope

This European Standard specifies the requirements for material, design, manufacturing, testing and documentation for corrugated metal hose assemblies for pressure applications for use with a maximum allowable pressure PS greater than 0,5 bar.

## 2 Normative references

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

EN 287-1, *Qualification test of welders - Fusion welding - Part 1: Steels*

EN 1418, *Welding personnel - Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials*

EN 1593, *Non destructive testing – Leak testing – Bubble emission techniques*

EN 1779, *Non destructive testing – Leak testing – Criteria for method and technique selection*

prEN 10028-7, *Flat products made of steels for pressure purposes - Part 7: Stainless steels*

EN 10045-1, *Metallic materials - Charpy impact test - Part 1: Test method*

EN 10088-1, *Stainless steels - Part 1: List of stainless steels*

EN 10204:2004, *Metallic products - Types of inspection documents*

EN 13133, *Brazing - Brazer approval*

EN 13134, *Brazing - Procedure approval*

EN 13480-2, *Metallic industrial piping – Part 2: Materials*

EN ISO 7369:2004, *Pipework - Metal hoses and hose assemblies - Vocabulary (ISO 7369:2004)*

EN ISO 9606-4, *Approval testing of welders - Fusion welding - Part 4: Nickel and nickel alloys (ISO 9606-4:1999)*

EN ISO 10380:2003, *Pipework - Corrugated metal hoses and hose assemblies (ISO 10380:2003)*

EN ISO 15614-1, *Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1:2004)*

## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 7369:2004 and the following apply.

### 3.1

#### **metal hose assembly**

assembly of a corrugated metal hose with its end fittings