BS EN ISO 10380:2012

BSI Standards Publication

Pipework — Corrugated metal hoses and hose assemblies

This British Standard is the UK implementation of EN ISO 10380:2012. It supersedes BS EN ISO 10380:2003, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GSE/42, Gas fittings and connections including metal hose and hose assemblies.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Pipework - Corrugated metal hoses and hose assemblies (ISO 10380:2012)

Tuyauteries - Tuyaux et tuyauteries métalliques flexibles onduleux (ISO 10380:2012)

Rohrleitungen - Gewellte Metallschläuche und Metallschlauchleitungen (ISO 10380:2012)

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Foreword

This document (EN ISO 10380:2012) has been prepared by Technical Committee CEN/TC 342 “Metal hoses, hose assemblies, bellows and expansion joints", the secretariat of which is held by SNV, in collaboration with Technical Committee ISO/TC 5 “Ferrous metal pipes and metallic fittings".

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of an identical text or by endorsement, at the latest by April 2013, and conflicting national standards shall be withdrawn at the latest by April 2013.

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 ISO 10380:2003.

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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 10380 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 342, *Metal hoses, hose assemblies, bellows and expansion joints*, in collaboration with ISO Technical Committee TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 11, *Metal hoses and expansion joints*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 10380:2003), which has been technically revised.

Introduction

It was decided to produce an International Standard under the Vienna Agreement on technical cooperation between ISO and the European Committee for Standardization (CEN) in order to maintain a unique EN ISO document.

The major changes in this revision of this International Standard are the following:

— update of the structure of the International Standard;

— update of the test and performance requirements to reflect the practice of the industry at the time of publication;

— introduction of an evaluation of conformity and a system of certification.

This International Standard is a base standard for corrugated metal hoses and hose assemblies for general purpose.

Corrugated metal hoses and metal hose assemblies conforming to all aspects of this International Standard are considered to be designed and manufactured to sound engineering practice.

The requirements of this International Standard are of importance to designers, manufacturers, users, suppliers and importers of corrugated metal hoses.

Non-permanent, detachable connections between hoses and fittings are available in the market. Their design is not covered by this International Standard.

Pipework — Corrugated metal hoses and hose assemblies

1 Scope

This International Standard specifies the minimum requirements for the design, manufacture, testing and installation of corrugated metal hose and metal hose assemblies.

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 6208, *Nickel and nickel alloy plate, sheet and strip*

ISO 9328-7, *Steel flat products for pressure purposes — Technical delivery conditions — Part 7: Stainless steels*

ISO 9723, *Nickel and nickel alloy bars*

ISO 9724, *Nickel and nickel alloy wire and drawing stock*

ISO 13585, *Brazing — Qualification test of brazers and brazing operators*

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 16143-3, *Stainless steels for general purposes — Part 3: Wire*

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

EN 1652, *Copper and copper alloys - Plate, sheet, strip and circles for general purposes*

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

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

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

EN 10088-3, *Stainless steels — Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes*

EN 10204, *Metallic products — Types of inspection documents*

EN 13133, *Brazing — Brazer approval*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
corrugated metal hose
pressure-tight hose made from tube or from strip, with corrugations, helical or annular to the axis of the hose, made by deforming the metal, its flexibility being obtained by bending the corrugations

NOTE 1 Classified by material, DN, PS at 20° C, bend radius and lifetime.

NOTE 2 In this International Standard, helical is designated “h” and annular is designated “a”.