Pipework - Corrugated metal hose assemblies for combustible gas - Performance requirements, testing and marking



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EUROPEAN STANDARD NORME EUROPÉENNE

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English Version

Pipework - Corrugated metal hose assemblies for combustible gas - Performance requirements, testing and marking

Tuyauterie - Tuyaux flexibles métalliques onduleux pour les gaz combustibles - Exigences de performances, essais et marquage

Rohrleitungen - Gewellte Metallschlauchleitungen für brennbare Gase - Leistungsanforderungen, Prüfung und Kennzeichnung

This European Standard was approved by CEN on 5 March 2015.

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Con	tents Pa	age
Forow	ord	,
1 01 6 w	Scope	
2	Normative references	
3	Terms and definitions	
4	Design requirements	
+ 4.1	General	
4.2	Nominal size (DN)	
4.2.1	General	
4.2.2	Overall length (I _O)	
4.3	Materials	8
4.3.1	General	
4.3.2	Metal hose, braid, end fittings and ferrules	
4.3.3	Braid	
4.3.4	Gaskets	10
4.4	Attachment of end fittings to the corrugated metal hose assembly for gas with or without	4.
4 5	braid External protection	
4.5 4.6	End fittings	
4.7	Electrical conductivity	
4.8	Hose joining	
4.9	Flow velocity	
4.10	Cleanliness	
5	Performance requirements and tests	11
5 5.1	General	
5.2	Pressure resistance	
5.2.1	Requirements	
5.2.2	Test	
5.3	Leak-tightness	12
5.3.1	Requirement	
5.3.2	Test	
5.4	High temperature resistance	
5.4.1	General	
5.4.2	Requirements	
5.4.3	High temperature test	
5.5 5.5.1	ElongationRequirement	
5.5.1 5.5.2	Test	
5.5. <u>2</u> 5.6	Impact test	
5.6.1	Requirement	
5.6.2	Test	
5.7	Burst pressure test	
5.7.1	Requirement	
5.7.2	Test	
5.8	Pliability and fatigue	
5.9	Electrical conductivity	15
6	Self-assessment report	15
7	Installation instruction	15

8	Designation	16
9	Marking	16
9.1 9.2	Permanent marking Marking on label	
10	Packaging	17
Annex	A (normative) Correspondence between the performance tests described by EN ISO 10380 and those of this European Standard	18
Biblio		
Dibilo	g	
	grapny	
	2	

Foreword

This document (EN 16617:2015) 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.

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 October 2015, and conflicting national standards shall be withdrawn at the latest by October 2015.

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1 Scope

This European Standard specifies general requirements for material, design, manufacture, testing, marking and documentation of corrugated metal hose assemblies for gas of diameter up to DN 300 for gases of the 2nd and 3rd families according to EN 437.

This European Standard applies to:

Corrugated metal hose assemblies for gas for the supply of combustible gas and having a maximum operating pressure (MOP) less than or equal to 16 bar.

This European Standard does not apply to:

- corrugated metal hose assemblies for gas for engines including turbines and internal combustion engines as stated by Pressure Equipment Directive 97/23/EC;
- corrugated metal hose assemblies for the connection of domestic appliances using gaseous fuels according to EN 14800;
- corrugated metal hose assemblies for gas buried in earth;
- corrugated metal hose assemblies with non-permanent detachable end fittings;
- stainless steel pliable corrugated tubing kits in buildings for gas with an operating pressure up to 0,5 bar (EN 15266).

Users of this European Standard should take into account national standards and existing code of practice in the country of destination.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 437, Test gases — Test pressures — Appliance categories

EN 549, Rubber materials for seals and diaphragms for gas appliances and gas equipment

EN 682, Elastomeric Seals — Materials requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids

EN 1562, Founding — Malleable cast irons

EN 1775:2007, Gas supply — Gas pipework for buildings — Maximum operating pressure less than or equal to 5 bar - Functional recommendations

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 10088-3, 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 10242, Threaded pipe fitting in malleable cast iron

EN 12163, Copper and copper alloys — Rod for general purposes

EN 12166, Copper and copper alloys — Wire for general purposes

EN 12168, Copper and copper alloys — Hollow rod for free machining purposes

EN 14800, Corrugated safety metal hose assemblies for the connection of domestic appliances using gaseous fuels

EN ISO 6708:1995, Pipework components — Definition and selection of DN (nominal size) (ISO 6708:1995)

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

EN ISO 10380:2012, Pipework — Corrugated metal hoses and hose assemblies (ISO 10380:2012)

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply:

3.1

corrugated metal hose

pressure-tight hose made from tube or from welded strip with corrugations, helicoidal or annular to the axis of the hose, made by deforming the metal

[SOURCE: EN ISO 7369:2004, 3.1.2]

3.2

braid

tubular woven stocking of metal wires used to provide pressure strength and/or external protection

[SOURCE: EN ISO 7369:2004, 4.1.9]

3.3

end fittings

non-detachable part which is permanently attached to the end of the corrugated metal hose and if relevant to the braid and which ensures a workable connection to the pipe system, so as to ensure that it cannot be detached without destruction or alteration of the corrugated metal gas hose assembly

3.4

corrugated metal gas hose assembly

element of flexible pipe-work consisting of a corrugated metal hose, with braid if required, its end fittings with appropriate gaskets if any and, if required, an external protection

3.5

external protection

outer cover used to protect the corrugated metal hose assembly against environmental and other outside influences

3.6

nominal length

length, including end fittings of the straightened-out hose assembly, unless otherwise specified

[SOURCE: EN ISO 7369:2004, 4.2.1]