

INTERNATIONAL
STANDARD

ISO
8449

Second edition
1995-02-01

**Pipework — Single overlap flexible metal
hoses (with packing, limited tightness,
circular or polygonal section, in protected
carbon steel)**

iTeh STANDARD PREVIEW
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Tuyauteries — Tuyaux métalliques flexibles à agrafage simple (avec joint, à étanchéité limitée, de section circulaire ou polygonale, en acier non allié protégé)

<https://standards.iteh.ai/standards/sist/f9d9e9f-6c22-46b7-b9b5-Be930e14630/iso-8449-1995>



Reference number
ISO 8449:1995(E)

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.

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.

International Standard ISO 8449 was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 11, *Flexible interlocked and convoluted metallic hoses*. <https://standards.iteh.ai/catalog/standards/sist/ff9d9e9f-6c22-46b7-b9b5-bc230e14830/iso-8449-1995>

This second edition cancels and replaces the first edition (ISO 8449:1986), of which clause 1 has been technically revised.

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International Organization for Standardization

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Pipework — Single overlap flexible metal hoses (with packing, limited tightness, circular or polygonal section, in protected carbon steel)

1 Scope

This International Standard specifies the diameters of single overlap flexible metal hoses with packing, of limited tightness, of circular or polygonal section, in protected carbon steel in accordance with ISO 7657 and tested in accordance with ISO 7658. The packing should not be asbestos. Suitable materials include, for example, cotton, fibre-glass, nylon, Kevlar, polyamide, polyester etc.

This International Standard applies to flexible metal hoses, without external coating, as defined in ISO 7369:1989, 4.1.10, used under low pressure with permissible leakage, at temperatures between -20 °C and a maximum of 230 °C . In cases where the full temperature range of the packing (230 °C) is not used, the manufacturer will state the maximum temperature limit.

NOTE 1 The specifications and temperature-related requirements for use are given in ISO 7657.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

1) To be published. (Revision of ISO 6708:1980)

2) To be published. (Revision of ISO 7657:1984)

Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6708:—¹, *Pipe components — Definition of nominal size (DN)*.

ISO 7369:1983, *Pipework — Flexible metallic hoses — Vocabulary of general terms*.

ISO 7657:—², *Pipework — General requirements for stripwound flexible metal hoses*.

ISO 7658:1984, *Pipework — Stripwound flexible metal hoses — Testing and verification of characteristics*.

3 Dimensions and performance

Dimensions and performance shall be as given in figure 1 and table 1.

NOTE 2 Figure 1 is not intended to specify a given manufacturing method or to define coil dimensions.

4 Test requirements

Tests shall be in accordance with ISO 7658.

5 Designation

A single overlap flexible metal hose that meets the requirements of this International Standard shall be designated as follows:

- a) the four letters: TMFA (Tuyau Métallique Flexible Agrafé — Stripwound Flexible Metal Hose);
- b) a reference to this International Standard;
- c) pressure tightness;
- d) nominal size DN;
- e) the type of material and protective covering.

EXAMPLE

A single overlap flexible metal hose with packing, of limited tightness, of circular (or polygonal) section, of nominal size DN 40, in galvanized steel shall be designated as follows:

TMFA ISO 8449 - limited tightness, circular (or polygonal) section - DN 40 - galvanized steel

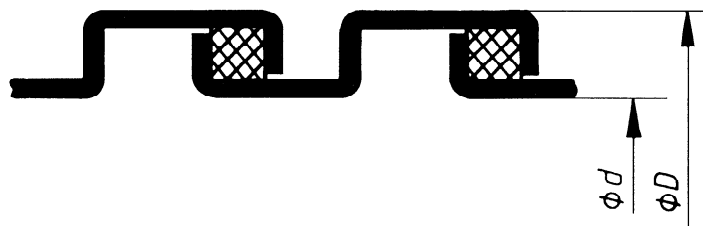


Figure 1

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Table 1

Nominal size ¹⁾ DN	Minimum internal diameter <i>d</i>	Maximum outside diameter <i>D</i>	Bend radius max.	Tensile strength min.	Crush strength
	mm	mm	mm	N	N
6	5	8,2	55	220	3 500
8	7	10,2	65	300	3 500
10	9,5	13,5	85	400	3 500
12	12	17	95	500	3 500
15	13	21	110	600	3 500
20	18	26	150	800	3 500
25	23	32	175	1 000	3 500
32	31	39	210	1 300	3 500
40	37	49	240	1 600	3 500
50	48	59	270	2 000	3 500
65	62	76	330	2 600	3 500
80	75	89	390	3 400	3 500
100	97	111	475	4 200	3 500
125	120	136	570	5 400	3 500
150	144	163	640	6 500	3 500
200	192	216	890	9 000	3 500
250	245	266	1 140	11 000	3 500
300	295	317	1 330	13 000	3 500
350	327	367	1 525	16 000	3 500
400	378	418	1 715	18 000	3 500
450	428	468	1 970	20 000	3 500
500	478	520	2 210	23 000	3 500

NOTES

- 1 The relationship between the bend radius and the coiling diameter of a hose is given in ISO 7658.
- 2 These hoses may be coated externally for special uses, in which case dimensions and performance shall be modified.

1) See ISO 6708.

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ICS 23.040.70

Descriptors: piping, metal tubes, hoses, lock-seamed metal hoses, specifications, dimensions, tests, designation.

Price based on 2 pages
