
International Standard



8444

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Pipework — Double overlap flexible metal hoses (copper packing, limited tightness, circular section, in protected carbon steel)

Tuyauteries — Tuyaux métalliques flexibles à agrafage double (joint cuivre, étanchéité limitée, section circulaire, en acier non allié protégé)

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[ISO 8444:1985](#)

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Descriptors : metal tubes, hoses, dimensions, designation.

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8444 was prepared by Technical Committee ISO/TC 5,
Ferrous metal pipes and metallic fittings.

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1 Scope and field of application

This International Standard lays down diameters of double overlap flexible metal hoses with copper packing, of limited tightness, of circular section, in protected carbon steel, and specifies requirements to be verified in accordance with ISO 7658.

This International Standard applies to uncoated flexible metal hoses (without external coating as defined in clause 4.1.10 of ISO 7369) used under low pressure with permissible leakage, at temperatures from -20 to $+600$ °C.

2 References

ISO 6708, *Pipe components — Definition of nominal size.*

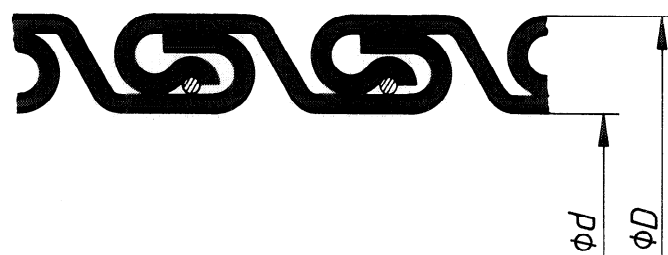
ISO 7369, *Pipework — Flexible metal hoses — Vocabulary of general terms.*

ISO 7657, *Pipework — Stripwound flexible metal hoses — Specifications and temperature-related requirements for use.*

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

3 Dimensions and performance

Dimensions and performance are shown in the figure and table.



Figure

NOTE — The figure is not intended to specify a given manufacturing method nor to define coil dimensions.

4 Test methods

For test methods, see ISO 7658.

5 Designation

A double 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:

Designation of a flexible metal hose with double overlap, copper packing, limited tightness, circular section of nominal size DN 40, in galvanized steel:

TMFA ISO 8444 - limited tightness - DN40 - galvanized steel

Table

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
12	12	17	165	900	10 000
15	13	21	180	1 500	9 400
20	18	26	205	2 300	9 000
25	23	32	235	3 200	8 700
32	31	39	275	4 400	8 300
40	37	49	320	6 000	8 100
50	48	59	370	8 000	7 800
65	62	76	460	12 000	7 500
80	75	89	570	16 000	7 300
100	97	111	700	21 000	7 100
125	120	136	860	28 000	6 900
150	144	163	1 040	36 000	6 700
200	192	216	1 360	36 000	6 400
250	245	266	1 700	36 000	6 200
300	295	317	2 000	36 000	6 000
350	327	367	2 350	36 000	5 900
400	378	418	2 650	36 000	5 800
450	428	468	2 950	36 000	5 700
500	478	520	3 250	36 000	5 600

1) See ISO 6708.

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 will be modified.