

# International Standard



# 8445

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

## Pipework — Double overlap flexible metal hoses (asbestos packing, leakproof, circular section, in protected carbon steel)

*Tuyauteries — Tuyaux métalliques flexibles à agrafage double (joint amiante, étanches, section circulaire, en acier non allié protégé)*

**iTeh STANDARD PREVIEW**

First edition — 1985-10-01

**(standards.iteh.ai)**

ISO 8445:1985

<https://standards.iteh.ai/catalog/standards/sist/f09d5492-2f0b-4155-935c-03749b321912/iso-8445-1985>

UDC 621.643.34

Ref. No. ISO 8445-1985 (E)

Descriptors : metal tubes, hoses, dimensions, designation.

Price based on 2 pages

## 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 8445 was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*.

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# Pipework — Double overlap flexible metal hoses (asbestos packing, leakproof, circular section, in protected carbon steel)

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## 1 Scope and field of application

This International Standard lays down diameters of double overlap leakproof flexible metal hoses with asbestos packing and 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 pressure, without leakage, at temperatures from  $-20$  to  $+230$  °C.

## 2 References

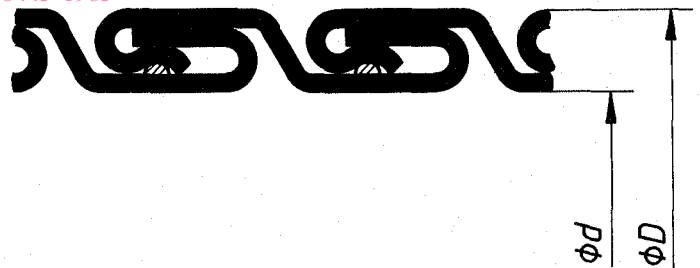
ISO 6708, *Pipe components — Definition of nominal size.*

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



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.

1) Use of asbestos may be limited by national regulations.

**5 Hydraulic pressure test**

Before delivery, the hoses shall be hydrostatically tested to one and a half times the maximum permissible working pressure.

**6 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, asbestos packing, leakproof, circular section of nominal size DN 40, in galvanized steel:

**TMFA ISO 8445 - leakproof - DN 40 - galvanized steel**

**Table**

Nominal size <sup>1)</sup> DN	Minimum internal diameter	Maximum outside diameter	Bend radius	Tensile strength	Crush strength	Maximum permissible working pressure
	<i>d</i>	<i>D</i>	max.	min.		min.
	mm	mm	mm	N	N	bar
12	12	17	165	900	8 000	40
15	13	21	185	1 500	7 500	30
20	18	26	210	2 300	7 200	25
25	23	32	240	3 200	6 900	21
32	31	39	290	4 400	6 600	18
40	37	49	340	6 000	6 400	15
50	48	59	410	8 000	6 200	13
65	62	76	540	12 000	6 000	11
80	75	89	650	16 000	5 800	9,5
100	97	111	820	21 000	5 600	8
125	120	136	1 050	28 000	5 400	7
150	144	163	1 250	36 000	5 300	6
200	192	216	1 600	36 000	5 100	5
250	245	266	2 000	36 000	4 900	4,4
300	295	317	2 400	36 000	4 800	3,8
350	327	367	2 800	36 000	4 700	3,4
400	378	418	3 200	36 000	4 600	3,1
450	428	468	3 600	36 000	4 550	2,9
500	478	520	4 000	36 000	4 500	2,7

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.