

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION MEXACYHAPOZHAA OPFAHIALUAA OR CTAHZAPTIALUH ORGANISATION INTERNATIONALE DE NORMALISATION

# Pipe connections for plain end steel and other metal tubes in industrial applications

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Descriptors : tubes, metal pipe, pipe fittings, pipe joints, pipe threads, dimensions.

#### FOREWORD

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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.

International Standard ISO 1179 was drawn up by Technical Committee ISO/TC 5, *Metal pipes and fittings,* and circulated to the Member Bodies in April 1972.

It has been approved by the Member Bodies of the following countries :

Australia	Hungary	Romania
Austria	India	South Africa, Rep. of
Belgium	Ireland	Spain
Canada	Israel	Sweden
Czechoslovakia	Italy	Switzerland
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The Member Body of the following country expressed disapproval of the document on technical grounds :

France

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### Pipe connections for plain end steel and other metal tubes in industrial applications

#### **1 SCOPE AND FIELD OF APPLICATION**

This International Standard lays down a limited range of threads for connection of tubes to machines or equipment and indicates the related outside diameters of the tubes.

This International Standard does not attempt to specify the method of connecting the tube to the fitting, or the type of pipe connector.

#### 2 REFERENCES

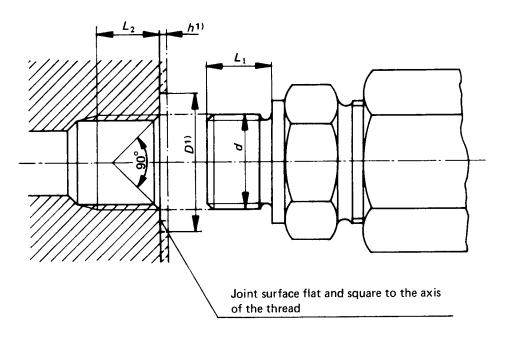
ISO/R 7, Pipe threads for gas list tubes and screwed fittings where pressure-tight joints are made on the threads (1/8 inch to 6 inches).

ISO/R 228, Pipe threads where pressure-tight joints are not made on the threads (1/8 inch to 6 inches).

#### **3 TYPE OF THREADS**

The specified thread denotes the connection between the machine or equipment and the connector. It shall be in accordance with ISO/R 228 - Class A tolerances.

#### **4 DIMENSIONS**



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FIGURE 1

Nominal size	Thread length		Dimensions of recess <sup>1)</sup>			
of thread d		le max. ale min.	Dı	πin.	hr	nax.
in	mm	in	mm	in	mm	in
G 1/16	7,4	0.290 2	13	0.512	1	0.039
G 1/8	7,4	0.290 2	15	0.591	1	0.039
G 1/4	11,0	0.434 0	19	0.748	1,5	0.059
G 3/8	11,4	0.447 3	23	0.906	2	0.079
G 1/2	15,0	0.589 2	27	1.063	2,5	0.098
G 3/4	16,3	0.642 8	33	1.299	2,5	0. <b>098</b>
G 1	19,1	0.750 0	40	1.575	2,5	0.098
G 1 1/4	21,4	0.840 9	50	1.969	2,5	0.098
G 1 1/2	21,4	0.840 9	56	2.205	2,5	0.098
G 2	25,7	1.011 3	69	2.717	3	0.118

TABLE 1

1) Where a recess is necessary, the dimensions shall be as given

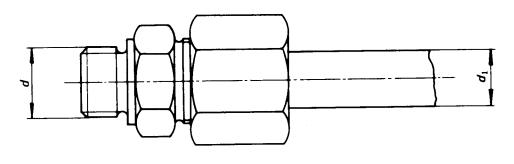
in Table 1, unless otherwise specified, for example for O-rings.

The lengths  $L_2$  of the female threads given in Table 1 are also suitable for assembly with male threads in accordance with ISO/R 7.

#### **5 CHOICE OF TUBES**

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The outside diameter of tubes shall be chosen from Table 2, as appropriate to the nominal size of thread.



#### FIGURE 2

Nominal size of thread	Tubes Outside diameters d′ <sub>1</sub>			
d	Metric series	Inch series		
in	mm	in		
G 1/16	4			
G 1/8	6	0.250		
	6	0.250		
G 1/4	8	0.312		
	10	0.375		
	10	0.375		
G 3/8	12	0.375		
	15	0.500		
G 1/2	16	0.625		
	18	0.025		
	20	0.750		
G 3/4	22	0.875		
G 1	25	1.000		
	28	1.000		
G 1 1/4	30	1.250		
	35	1.250		
G 1 1/2	38	1.500		
	42	1.500		
G 2	50	2.000		

#### TABLE 2

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