

INTERNATIONAL STANDARD

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Steel tubes and fittings — Symbols for use in specifications —

Part 1: Tubes and tubular accessories with circular cross-section

Sample Document

Tubes et raccords en acier — Symboles à utiliser dans les spécifications —

Partie 1: Tubes et accessoires de forme tubulaire à section circulaire

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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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3545-1 was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*.

This first edition of ISO 3545-1 cancels and replaces ISO 3545 : 1981 of which it constitutes a minor revision.

ISO 3545 consists of the following parts, under the general title *Steel tubes and fittings* – *Symbols for use in specifications* :

- *Part 1: Tubes and tubular accessories with circular cross-section*
- *Part 2: Square and rectangular hollow sections*
- *Part 3: Tubular fittings with circular cross-section*

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International Organization for Standardization

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Steel tubes and fittings — Symbols for use in specifications —

Part 1 :

Tubes and tubular accessories with circular cross-section

1 Scope

This part of ISO 3545 defines the most common symbols with the aim of standardizing and facilitating the use of terminology in standards for steel tubes and associated products.

2 Fundamental symbols (see figure 1)

D = specified outside diameter

P = pressure

T = specified thickness

M = mass per unit length

3 Symbols for service conditions

DN = nominal size

PN = nominal pressure

PS = service pressure

TS = service temperature

4 Symbols for tolerances

See ISO 5252 : 1977, *Steel tubes — Tolerance systems*.

5 Symbols for tests

5.1 Pressure test

PE = test pressure

S = stress which occurs in the metal during the test

5.2 Flattening test (see figure 2)

H = distance between the platens of the test machine

L = length of the test piece

K = constant factor of deformation for the formula

$$H = \frac{(1 + K) \times T}{K + (T/D)}$$

5.3 Drift expanding test (see figure 3)

C = outside diameter of expansion

L = length of test piece before testing

5.4 Flanging test (see figure 4)

C = outside flange diameter

L = length of test piece before testing