INTERNATIONAL STANDARD

ISO 3545-3

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Steel tubes and fittings — Symbols for use in specifications —

Part 3:
Tubular fittings with circular cross-section

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

Partie 3: Accessoires tubulaires à section circulaire

Reference number
ISO 3545-3 : 1989 (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 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 3545-3 was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*.

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*

Annex A of this part of ISO 3545 is for information only.

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Steel tubes and fittings — Symbols for use in specifications —

Part 3 :
Tubular fittings 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 tubular fittings and associated products.

2 Fundamental symbols

D = specified outside diameter

P = pressure

T = specified thickness

M_u = unit mass

3 Symbols for service conditions

DN = nominal size

PN = nominal pressure

PS = service pressure

TS = service temperature

4 Symbols for tolerances (see figure 1)

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

Q = angular alignment

P = perpendicular alignment

U = alignment of faces

5 Symbols for dimensions

5.1 Bends (see figure 2)

NOTE — Bends are usually designated by their curving diameter nD (e.g. $3D$, $5D$).

The numerical value of the curving (or bending) radius is designated by the letter F.

D = outside diameter

d = inside diameter

T = thickness

F = value of bending radius

L = length of straight end

B = dimension from the back to the face or to the start of the straight end for 180° bends

5.2 Reducers (see figure 3)

D = major outside diameter

d = major inside diameter

T = thickness adjacent to major diameter

D_1 = minor outside diameter

d_1 = minor inside diameter

T_1 = thickness adjacent to minor diameter

L = overall length of reducer

5.3 Tees (see figure 4)

D = major outside diameter

d = major inside diameter

T = thickness adjacent to major diameter

D_1 = minor outside diameter

d_1 = minor inside diameter

T_1 = thickness adjacent to minor diameter

F = dimension from centreline to face at d for equal and reducing tees

H = dimension from centreline to face at d_1 for reducing tees

5.4 Caps (see figure 5)

D = outside diameter

T = thickness

K = total height of cap

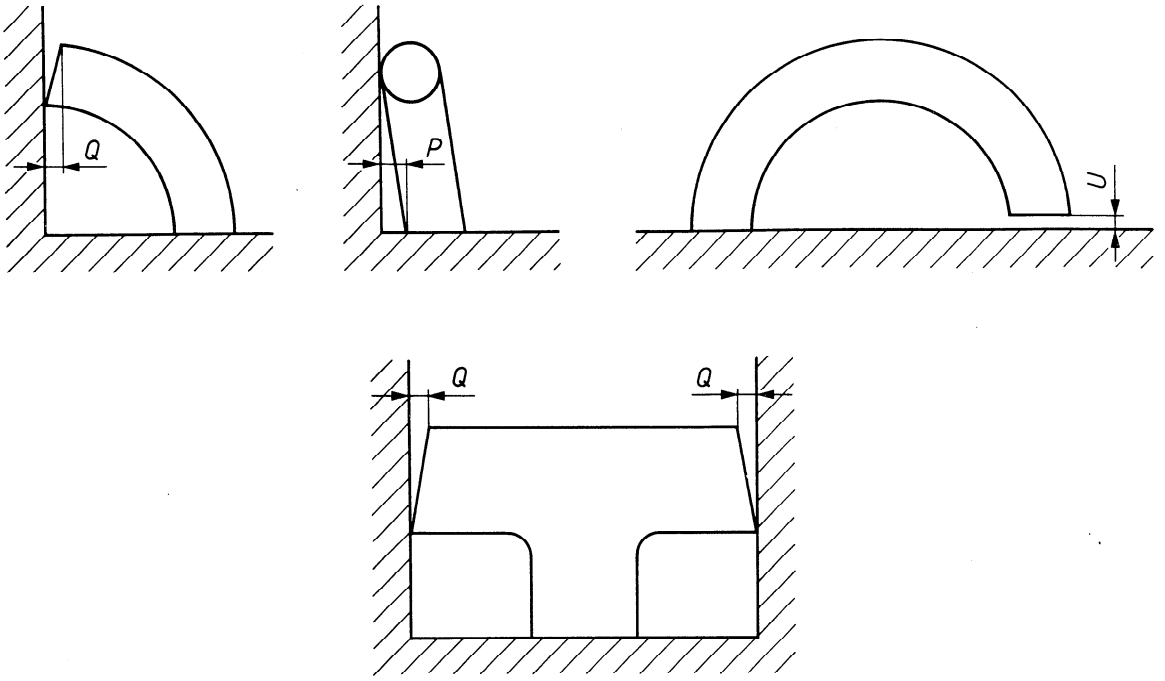

Figure 1 — Tolerances on alignment

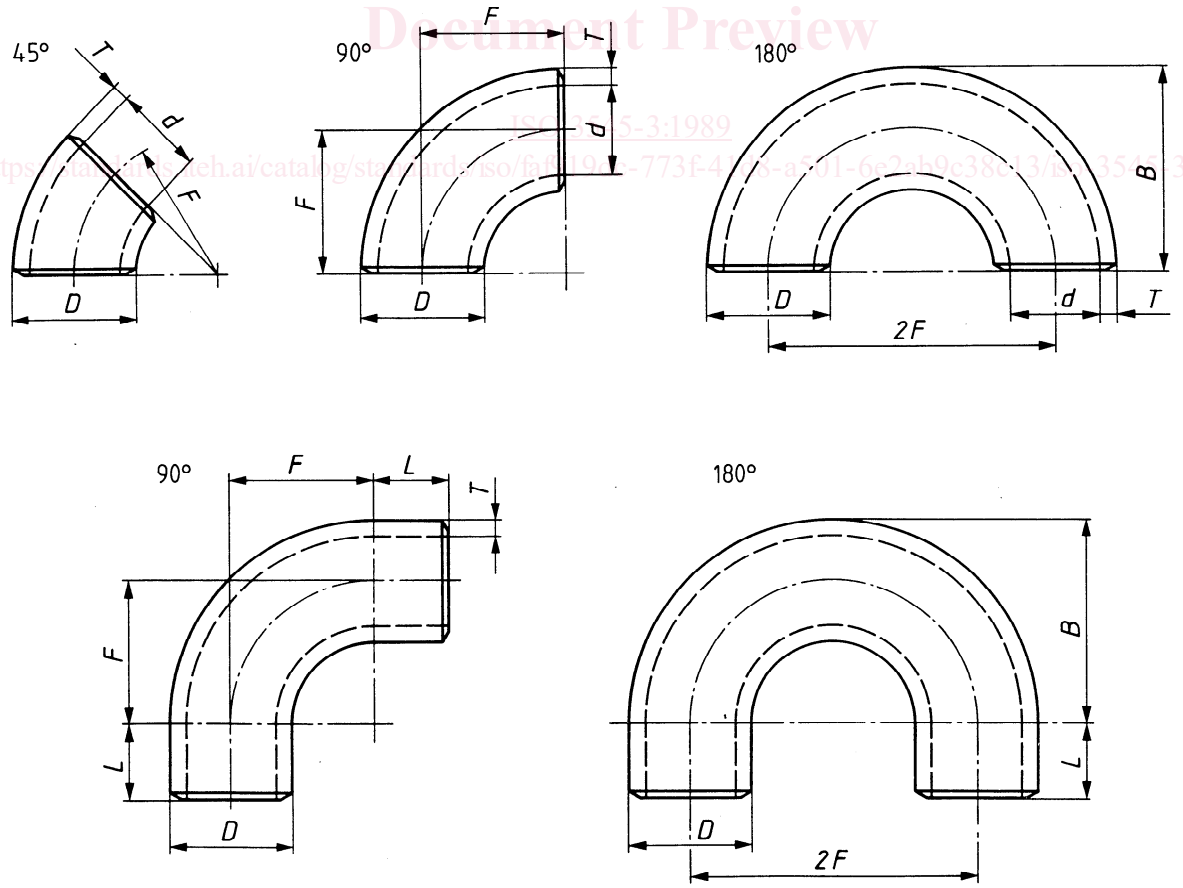

Figure 2 — Bends