
INTERNATIONAL STANDARD



2547

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Welded plain end tubes made from unalloyed steel and without quality requirements

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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.

International Standard ISO 2547 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	Germany	Portugal
Austria	Hungary	Romania
Belgium	India	South Africa, Rep. of
Chile	Ireland	Spain
Czechoslovakia	Israel	Sweden
Denmark	Italy	Switzerland
Egypt, Arab Rep. of	Japan	Thailand
Finland	Netherlands	Turkey
France	Norway	U.S.S.R.

The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

Canada
United Kingdom
U.S.A.

Welded plain end tubes made from unalloyed steel and without quality requirements

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the characteristics of welded plain end tubes made from unalloyed steel and without quality requirements, intended for the conveyance of fluids and for other purposes where leak tightness is required.

2 REFERENCES

ISO 134, *Plain end steel tubes for general purposes.**

ISO/R 404, *General technical delivery requirements for steel.*

3 GENERAL REQUIREMENTS

3.1 The tubes shall be made by forming strip, sheet or plate into a tubular shape, followed by welding.

3.2 The tubes shall be suitable for fabrication and shaping by normal techniques.

3.3 The tubes shall be weldable.

3.4 Mechanical tests and chemical analyses are not required.

4 MATERIAL

The tubes shall be made of steel of commercial quality without verified test values.

For guidance, the steel shall have the following properties on longitudinal test pieces cut from the tube :

Steel designation (symbol)	Tensile strength	Minimum elongation after fracture ²⁾	Chemical composition (ladle analysis)	
	N/mm ²		%	P % max.
TW.O ¹⁾	320 to 520	15	0,06	0,06

1) Provisional symbol.

2) $L_0 = 5,65 \sqrt{S_0}$.

* At present at the stage of draft; revision of ISO/R 134.

The tensile strength and elongation values do not apply to the weld area.

5 APPEARANCE

5.1 The tubes shall have smooth external and internal surfaces, the degree of smoothness depending on the method of manufacture. The tubes shall have a workmanlike finish but small imperfections are permissible provided that the thickness remains within the lower tolerance limit.

The weld shall be free from cracks, large inclusions and other unacceptable defects.

5.2 Surface imperfections may be dressed provided that the thickness after dressing remains within the lower tolerance limit.

5.3 Peening of surface defects is not permitted.

5.4 Repair of the weld is permitted.

5.5 The tubes shall be cut square with the axis of the tube, and shall be free from burrs, and reasonably straight. Straightness cannot be guaranteed.

6 DIMENSIONS

6.1 The preferred values of outside diameter and thickness shall be those quoted in ISO 134.

6.2 The tubes are normally supplied in random lengths of 4 to 8 m. If specified in the order, they may be supplied in longer lengths.

6.2.1 If specified in the order, they may be supplied in limited lengths or exact lengths.