



**Stainless steel tubes and tube fittings
for food processing and hygienic
applications**

Part 3: Butt weld tube fittings



AS 1528.3:2019

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The following are represented on Committee FT-027:

- Australian Chamber of Commerce and Industry
- Australian Food Engineering Association
- Australian Industry Group
- Australian Stainless Steel Development Association
- Dairy Australia
- Winery Engineering Association

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Stainless steel tubes and tube fittings for food processing and hygienic applications

Part 3: Butt weld tube fittings

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Preface

This Standard was prepared by the Standards Australia Committee FT-027, Stainless Steel Tubes and Tube Fittings for Food Processing and Hygienic Applications, to supersede AS 1528.3—2001, *Tubes (stainless steel) and tube fittings for the food industry, Part 3: Butt weld tube fittings*.

The objective of this Standard is to specify dimensional, material and hygienic requirements for butt weld tubular fittings used in tube lines for food processing and hygienic applications.

This is Part 3 of a series of Standards for stainless steel tubes and tube fittings for food processing and hygienic applications. The Standards in the series are as follows:

AS 1528.1, *Stainless steel tubes and tube fittings for food processing and hygienic applications, Part 1: Tubes*

AS 1528.2, *Stainless steel tubes and tube fittings for food processing and hygienic applications, Part 2: Screwed tube couplings*

AS 1528.3, *Stainless steel tubes and tube fittings for food processing and hygienic applications, Part 3: Butt weld tube fittings* (this Standard)

AS 1528.4, *Stainless steel tubes and tube fittings for food processing and hygienic applications, Part 4: Clamp tube fittings*

The revision of the AS 1528 series closely aligns with other national and international Standards applicable to stainless steel tube and tube fittings for hygienic applications, while retaining a number of requirements that were identified in the prefaces to the 2001 editions as lacking in ASTM and ISO Standards.

ISO, European and other national Standards were reviewed and found not suitable for current Australian requirements.

The major changes to this Standard in this revision include the following:

- (a) The title of the Standard was changed to include “hygienic applications” in recognition of a broader application than simply the food processing industry.
- (b) Common internal surface finish requirements for all parts of the Standard.
- (c) Closer alignment of tolerances with International, European and US-based Standards.
- (d) Expansion of the diameter range and inclusion of wall thicknesses common to various tube diameters.
- (e) Addition of fittings new standard for the intended applications.

The term “informative” is used in Standards to define the application of the appendix to which it applies. An “informative” appendix is only for information and guidance.

Contents

Preface	ii
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	1
5 Working pressure	2
6 Materials	2
6.1 Fittings	2
6.2 Filler rods	2
7 90°, 45° and 180° tube bends	3
8 Equal tees and crosses	4
9 Equal radius tees	7
10 Reducing tees, pulled tees and crosses	7
11 Swept tees	10
12 45° tees	11
13 Y pieces	12
14 Reducers	13
15 Tolerances	15
16 Surface finish	17
16.1 External surfaces	17
16.2 Internal surfaces	17
17 Hygienic requirements	17
17.1 Absence of contaminants	17
17.2 Freedom from defects	17
18 Packaging	17
19 Identification marking	18
19.1 On the container	18
19.2 On products	18
20 Inspection certificates	18
21 Assembling	18
21.1 Welding	18
21.2 Expanding	18
Appendix A (informative) Information to be supplied for purchase	19

Australian Standard®

Stainless steel tubes and tube fittings for food processing and hygienic applications

Part 3: Butt weld tube fittings

1 Scope

This Standard specifies dimensional, material and hygienic requirements for butt weld tubular fittings including bends, tees, reducers, y-sections and crosses, for incorporation in tube lines for food processing and hygienic applications.

The fittings in this Standard are intended to be incorporated in tube lines either by being welded directly to tube ends (as specified in AS 1528.1) or by welding or expansion to the screwed tube fittings specified in AS 1528.2 and clamp tube fittings in AS 1528.4.

NOTE Information to be supplied for purchase is given in [Appendix A](#).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

AS 1528.1, *Stainless steel tubes and tube fittings for food processing and hygienic applications, Part 1: Tubes*

AS 1528.2, *Stainless steel tubes and tube fittings for food processing and hygienic applications, Part 2: Screwed tube couplings*

AS 1528.4, *Stainless steel tubes and tube fittings for food processing and hygienic applications, Part 4: Clamp tube fittings*

AS/NZS 1554.6, *Structural steel welding, Part 6: Welding stainless steels for structural purposes*

ISO 4288, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*

ASTM A240M, *Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications*

ASTM A269M, *Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service*

AWS D18.1M, *Specification for Welding of Austenitic Stainless Steel Tube and Pipe Systems in Sanitary (Hygienic) Applications*

EN 10204, *Metallic products — Types of inspection documents*

3 Terms and definitions

No terms and definitions are listed in this document.

4 Symbols

Symbol	Description
A	= projected length of 45° bend
B	= branch dimension of swept tees