

Australian Standard™

**Tubes (stainless steel) and tube fittings  
for the food industry**

**Part 3: Butt weld tube fittings**



**S t a n d a r d s** Australia

This Australian Standard was prepared by Committee FT-012, Dairy Factory Equipment. It was approved on behalf of the Council of Standards Australia on 30 December 2000 and published on 13 March 2001.

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The following interests are represented on Committee FT-012:

- Australian Chamber of Commerce and Industry
- Australian Dairy Products Federation
- Australian Stainless Steel Development Association
- Dairy Food Safety, Victoria
- Dairy Industry Association of Australia
- Dairy Industry Authority of Western Australia
- Dairy Process Engineering Centre
- Safe Food Production, N.S.W.
- Queensland Dairy Authority

Additional interests participating in the preparation of this Standard:

- Stainless Steel Tube Manufacturers

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**Tubes (stainless steel) and tube fittings  
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**Part 3: Butt weld tube fittings**

Originated as AS N32—1960.  
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## PREFACE

This Standard was prepared by the Standards Australia Committee FT-012, Dairy Factory Equipment, to supersede AS 1528.3—1975, *Tubes (stainless steel) and tube fittings for the food industry, Part 3: Bends and tees*.

This is Part 3 of a series of Standards for tubes (stainless steel) and tube fittings for the food industry. The other Standards in the series are as follows:

## AS

1528 Tubes (stainless steel) and tube fittings for the food industry

1528.1 Part 1: Tubes

1528.2 Part 2: Screwed couplings

1528.4 Part 4: Clamp liners with gaskets

The Committee reviewed ISO 2851:1993, *Stainless steel bends and tees for the food industry*, for adoption.

The revision was undertaken to include specifications on additional butt weld tubular fittings, such as reducers, laterals, Y-sections and crosses used in pipelines in food industry plants. The ISO Standard does not cover these fittings.

In addition, the ISO Standard is impracticable for use in Australia, as it lacks such details as—

- (a) nine tube dimensions used in the Australian food industry plants;
- (b) the dimensions of the abovementioned fittings; and
- (c) the requirements on packaging and marking requirements for identification.

Therefore, the Committee did not recommend the adoption of the ISO Standard as the revision of AS 1528.3—1975.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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## STANDARDS AUSTRALIA

## Australian Standard

## Tubes (stainless steel) and tube fittings for the food industry

## Part 3: Butt weld tube fittings

**1 SCOPE**

This Standard applies to butt weld tubular fittings including bends, tees, reducers, lateral y-sections and crosses, for incorporation in pipelines in food processing plants. It specifies dimensional, material and hygienic requirements for these fittings.

NOTE: Information to be supplied by the purchaser is given in Appendix A.

This Standard excludes the operational requirements of the product.

**2 APPLICATION**

The bends and tees may be incorporated in pipelines either by being welded to tube ends or by fitment with the welded or expanded-type couplings specified in AS 1528.2.

**3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS

- 1528 Tubes (stainless steel) and tube fittings for the food industry
- 1528.1 Part 1: Tubes
- 1528.2 Part 2: Screwed coupling

## AS/NZS

- 1554 Structural steel welding
- 1554.6 Part 6: Welding stainless steels for structural purposes

## ASTM

- A240M Heat-resisting chromium and chromium-nickel stainless steel plate, sheet and strip for pressure vessels
- A269 Seamless and welded austenitic stainless steel tubing for general service

## ASME

- B16.9 Factory-made wrought steel butt welding fittings

**4 MATERIALS****4.1 Fittings**

The fittings shall be made from an austenitic or duplex stainless steel complying with the requirements of the relevant grade in ASTM A240M. Where fittings are manufactured from seamless tubing, materials shall comply with ASTM A269.

**4.2 Filler rods**

Filler rods used shall be appropriate to the parent metal, listed as pre-qualified in AS/NZS 1554.6.