Armaturen GmbH

Product information

M&S-Tees and crosses general information

M&S tees and crosses are used for flow distribution in hygienic pipe sections in the food, chemical, cosmetic and pharmaceutical industries.

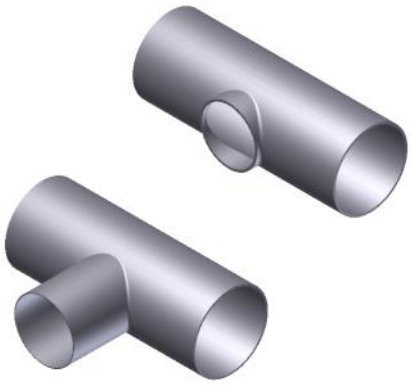
For aseptic applications, tees and crosses are available in orbital weldable version and in different hygienic classes.

Depending on the area of application, the operating conditions and the hygienic requirement, the right version, a suitable material and the required quality must be selected.

Variations of tees and crosses

Reducing tees

Fig. 1



Usage | Features | Versions

- Flow splitting in pipe sections for product and energy piping.
- Versions available for use in piggable pipeline sections.
- Construction of pipe structures, racks, railings and handrails.

Usage | Features | Versions

- Very extensive stock programme in different versions, dimensions and qualities according to standard.
- Manufactured from longitudinally welded pipes in annealed (BC*) or non-annealed design (CC).
- Compliance with angle and dimensional tolerances as well as ovality specifications guarantee welding without stresses and offsets.
- Flow-optimised tees also available as T-bends or double-T-bends.
- Versions for the production of piggable piping systems available.

* *Higher corrosion resistance against pitting corrosion when using moulded parts made of annealed material or in a post-annealed version (BC).*

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Product information

M&S-Tees and crosses general information

Usage

- Standards
  - Standards DIN 11865, DIN EN 10374 (DIN 11852)
- Design
  - Tees and crosses
    - Long: tee TL, cross (figure 2)
    - Long, reduced: tee TRL (figure 1), cross
    - Short: tee TS (figrue 3), cross
    - Short, reduced: tee TRS, cross
  - T-bend (figure 4) and double-T-bend (Y-piece, figure 5)
- Sizes
  - DN 10 - DN 200 (1/2“ - 4“)
- Pipe connection
  - Welding ends (standard) for pipes according to DIN EN 10357, other sizes available: Inch, ISO
  - Also available with orbital welding ends DIN 11865 for pipes according to DIN 11866.
  - With M&S-connecting parts
    - CCC (clamp-clamp-clamp)
    - MMM (male-male-male)
    - MML (male-male-liner/nut)
    - MLM (male-liner/nut-male)
    - MLL (male-liner/nut-liner/nut)
    - LLL (liner/nut-liner/nut-liner/nut)
- Permissible pressure (DIN 11852, only for temperatures up to 150°C)
  - DN 10 - DN 50: 25 bar
  - DN 65 - DN 80: 16 bar
  - DN 100: 12,5 bar
  - DN 125: 10 bar
  - DN 150: 8 bar
  - DN 200: 5 bar
- Materials
  - Standard: 1.4404/AISI 316L, 1.4307/AISI 304L
  - Other stainless steels, titanium or hastelloy
- Surfaces
  - DIN 11865: hygienic classes H2-H5
  - DIN EN 10374 (DIN 11852):
    Inside surface roughness $Ra \leq 1{,}6$ µm
    Weld seam area $Ra \leq 3{,}2$ µm
    Outside surface roughness $Ra \leq 3{,}2$ µm
  - Standard: metal blank, mat blasted, others available.
- Certification
  - Certificate 2.2 according to DIN EN10204
  - Inspection certificate 3.1 according to DIN EN 10204 for the primary material

Features

Versions

Fig. 2

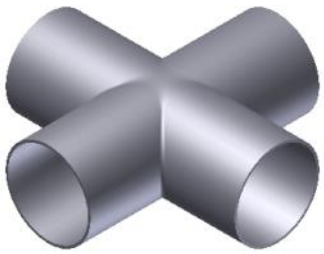

Fig. 3

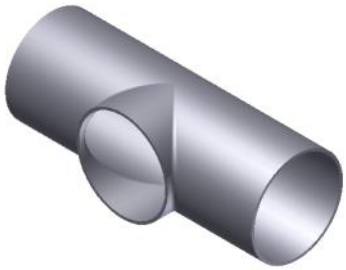

Fig. 4

Fig. 5

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