# **Product information**



### Armaturen GmbH

## M&S-Pipe fittings general information

M&S pipe fittings are used for the production of hygienic piping systems in the production facilities of the food, chemical, cosmetic and pharmaceutical industries. They are used to change direction, divide the flow and transition between different diameters in a pipeline section.

For aseptic applications, fittings are available in orbital weldable design and various hygienic classes. Depending on the area of application, the operating conditions and the hygienic requirement, a suitable material and the required quality must be selected.

### Variations of pipe fittings



#### Usage

#### Features

Versions

- Manufacture of media-carrying piping systems for production plants.
- Piping and connection of machines, apparatus and containers.
- Manufacture of piggable piping sections.
- Construction of pipe structures, racks, railings and handrails.

#### Usage

#### Features

Versions

- Very extensive stock programme in different designs, 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.
- Versions for the production of piggable piping systems are available.
- \* Higher corrosion resistance against pitting corrosion when using moulded parts made of annealed material or in a postannealed version (BC).

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Usage	Features	Versions
	- 4") for pipes according to DIN	
11866 and DIN EN 10	357.	Fig. 1
<ul> <li>Pipe connection         <ul> <li>Welding ends (standard) or the M&amp;S-connecting</li> </ul> </li> </ul>		
	ith orbital welding ends (DIN	
Permissible pressure		
<ul> <li>40/25/16/10/6 bar depending on dimension</li> </ul>		
Materials		
* 1.4435, 1.4404, 1.430		
* Other stainless steels,	titanium or hastelloy	
Surfaces		
* DIN 11865: hygienic cl		
* DIN EN 10374 (DIN 11	1852): ughness <i>Ra</i> ≤ 1,6 µm	
Weld seam area		
	roughness <i>Ra</i> ≤ 3,2 µm	Fig. 2
Certification		
<ul> <li>Certificate 2.2 according</li> </ul>	ng to DIN EN 10204	
<ul> <li>Inspection certificate 3 for the primary materia</li> </ul>	1 according to DIN EN 10204	
Bends (figure 1)		
	DIN 11867, DIN EN 10374 (DIN	
* 90°, 45°, 180°		
<ul> <li>In different radii e.g. 1,5</li> </ul>	D, 3D oder 5D (D = diameter)	
<ul> <li>With pull-out or socket feature</li> </ul>	or thermometer connection.	
• Tees and crosses (figure 2)		
* DIN 11865, DIN EN 103	374 (DIN 11852)	
<ul> <li>Short version (TK)</li> </ul>		
<ul> <li>Long version (TS)</li> </ul>		Fig. 3
* Outlet reduced		
<ul> <li>T-bends or double T-be</li> </ul>	nds (Y-piece)	
Reducers and connecting pi		
* DIN 11865, DIN EN 103	874 (DIN 11852)	
<ul> <li>Concentric (RK)</li> </ul>		
* Eccentric (RE)		
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