Armaturen GmbH

Product information

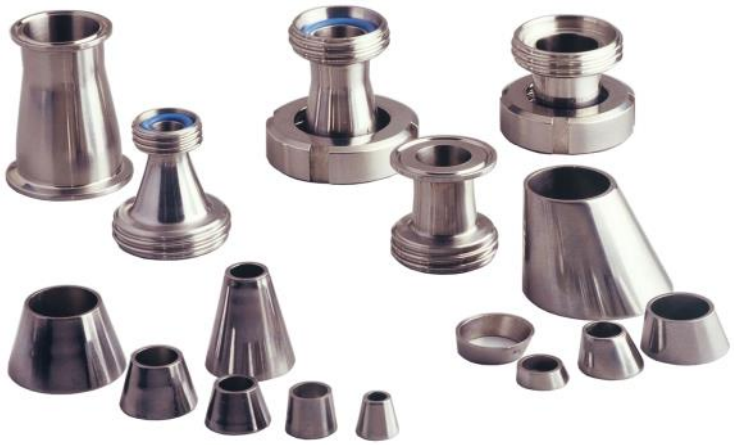
M&S-Reducers and intermediate pieces general

M&S reducers and intermeditate pieces are used as transitions between different diameters in hygienic pipe sections in the food, chemical, cosmetic and pharmaceutical industries.

For aseptic applications, reducers are available in orbital weldable design and in various quality classes.

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

Variations of reducers and intermediate pieces



Usage | Features | Versions

- Reducers as weldable or detachable transitions between different pipe diameters for product and energy piping. Eccentric, depending on the installation position, to avoid liquid residues (sump) or gas bubbles (dome).
- Intermediate pieces as detachable adapters for different connecting elements.

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 version (CC). Reducers according to DIN 11865 made of solid material.
- Adherence to angle and dimensional tolerances guarantee welding without stresses and offsets.
- With extended welding ends for orbital welding according to DIN 11865.

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

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Product information

M&S-Reducers and intermediate pieces general

Usage	Features	Versions

- Standards
  - Standards DIN 11865, DIN EN 10374 (DIN 11852)
- Design
  - Concentric RK (figure 1)
  - Eccentric RE (figure 2 and 4)
- Sizes
  - DN 10 - DN 200 (1/2“ - 4“)
- Pipe connection
  - Welding ends (standard) for pipes according to DIN EN 10357, other dimensions available: Inch, ISO
  - Also available with orbital welding ends DIN 11865 for pipes according to DIN 11866 (figure 4).
  - With M&S-connecting parts
    - CC (clamp-clamp, figure 3)
    - MM (male-male)
    - ML (male-liner/nut)
    - LM (liner/nut-male)
    - LL (liner/nut-liner/nut)
- Permissible pressure (only for temperatures up to 150°C)
  - DN 10 - DN 50: 25 bar
  - DN 65 - DN 100: 16 bar
  - DN 125 - DN 200: 10 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* ≤ 1,6 µm
    Weld seam area *Ra* ≤ 3,2 µm
    Outside surface roughness *Ra* ≤ 3,2 µm
  - Standard: metal blank, mat blasted, others available.
- Certification
  - Certificate 2.2 according to DIN EN 10204
  - Inspection certificate 3.1 according to DIN EN 10204 for the primary material

Fig. 1

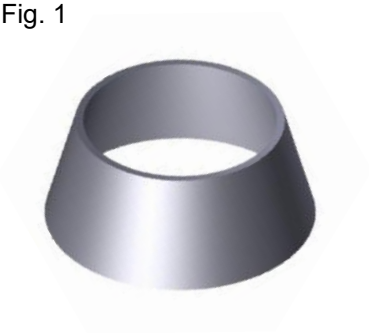

Fig. 2

Fig. 3

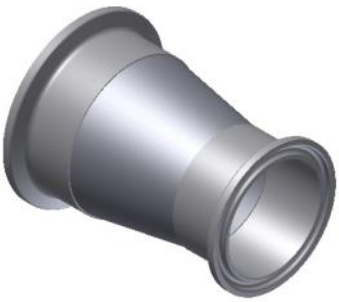

Fig. 4

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