



M&S hygienic fittings are used to manufacture hygienic piping systems for aseptic processes in plants, machines and apparatus in the cosmetic, pharmaceutical and chemical industries.

They consist of orbital weldable pipe fittings and connection components for various pipe and hygienic classes. In addition, various process fittings, such as diaphragm sampling valves and safety valves, are available in the same material and the same hygienic class. The fittings and components meet the highest demands in terms of material, workmanship and hygienic design.

M&S manufactures two corresponding continuous product lines as standard, the PharmCom range (Pharmaceutical Components) in material 1.4435 and the HyCom range (Hygienic Components) in material 1.4404, and stock these in various hygienic classes.

### Pharm-/HyCom-pipe fittings and connections



### Pharm-/HyCom-process valves



#### Usage

#### Features

#### Versions

- Production of piping systems for aseptic processes in plants, machines and apparatus with the highest demands on hygienic properties.

#### Usage

#### Features

#### Versions

- Complete self-contained programmes consisting of different pipe connections and pipe fittings in the same material quality, the same hygienic class and in an orbital weldable design. Can be optionally supplemented with various process valves of the same quality.
  - \* **PharmCom product range**
    - ◆ Material 1.4435;
    - ◆ Delta-ferrite content < 0,5%.
  - \* **HyCom product range**
    - ◆ Material 1.4404;
    - ◆ Delta-ferrite content < 3,0%.
- Documentation optional
  - \* Certificate 2.2 according to DIN EN 10204;
  - \* Inspection certificate 3.1 according to DIN EN 10204 for the primary material;
  - \* Inspection certificate 3.1/AD2000-W2 according to DIN EN 10204;
  - \* Restamping certificate;
  - \* Other inspection certificates according to DIN EN 10204 (e.g. for surface roughness)

**Usage****Features****Versions****PharmCom-/HyCom product range**

- **Products**
  - \* Pipe fittings acc. to DIN 11865, pipe connections acc. to DIN 11864 ff./DIN 32676;
  - \* PharmCom-sampling valves (see product information diaphragm-sampling valve PharmCom);
  - \* HyCom-safety valve (see product information safety valve HyCom).
- **Pipe connections**
  - \* **PharmCom**
    - ◆ Pipe fittings and connectors with orbital welding ends according to DIN 11864/11865;
    - ◆ PharmCom-sampling valve with short weld end.
  - \* **HyCom**
    - ◆ Pipe fittings and connectors with orbital welding ends according to DIN 11864/11865 or weld ends according to DIN 11853;
    - ◆ HyCom-safety valve with flange groove according to DIN 11853 or weld in flange for the tank dome or other connections on request.
- **Primary material**
  - \* Welded or seamless pipe; forgings as well as bar steel;
  - \* Delta-ferrite content of the material including the weld seam
    - ◆ PharmCom < 0,5 %;
    - ◆ HyCom < 3 %.
- **Material:**
  - \* PharmCom: 1.4435;
  - \* HyCom: 1.4404.
- **Sizes according to DIN 11866**
  - \* Row A: 13,0 x 1,5 mm to 154,0 x 2,0 mm, according to DIN EN 10357 series A;
  - \* Row B: 13,5 x 1,6 mm to 114,3 x 2,3 mm, according to DIN EN ISO 1127;
  - \* Row C: 12,7 x 1,65 mm to 101,6 x 2,11 mm, according to DIN EN 10357 series C.
- **Technical specification**
  - \* Pipe fittings made of pipe according to DIN 11866 as well as EN 10216-5 and 10217-7, reducers made of bar steel according to DIN EN 10088-3 as well as DIN EN 10272, pipe connections are made of forgings according to DIN EN 10254 or steel bar according to DIN EN 10088-3 or DIN EN 10272;
  - \* **Tolerances**
    - ◆ PharmCom according to DIN 11864, DIN 11865, DIN 11866, ISO 2768-m;
    - ◆ HyCom according to DIN EN 10357, DIN 11852, DIN 11853, DIN 11864, DIN 11865, DIN 11866, ISO 2768-m.
- **Surfaces**
  - ◆ Inside and outside classified in different hygienic classes