

Fluoropolymer chemical hoses (MFA) - for the most aggressive chemicals



MANIFLON

Hose for aggressive chemicals requiring the utmost cleanliness

Inner layer: white MFA polymer **Reinforcement:** synthetic cord, steel spiral

Outer layer: black EPDM rubber

Operating temp: -50°C to +170°C

Top-quality suction and delivery hose designed for the transfer of aggressive chemicals, solvents and concentrated chemicals, characterised by high thermal and mechanical strength and the highest purity of the inner layer.

Inner layer of white perfluoroalkoxy MFA polymer (fluoropolymer with properties similar to Teflon), mirror-smooth (prevents medium from depositing on the walls and is easy to clean), odourless and tasteless, meeting high hygienic requirements (FDA, USP, European EU). Synthetic rubber **intermediate layer**, includes synthetic cord **reinforcement**, steel wire spiral.

Outer layer made of EPDM rubber, antistatic ($R < 10^{(6)\Omega}$), abrasion, ozone and weather resistant.

The hose is characterised by excellent **chemical resistance and MFA purity, impenetrability, r**

oxidation and mechanical stress. Widely used in the chemical industry due to its total resistance to most chemicals. Suitable for transmission of concentrated acids and lyes (sulphuric acid, hydrochloric acid, phosphoric acid, nitric acid, sodium lye, potassium lye, etc.). Resistant to the stringent cleaning conditions of the Cleaning-in-Place (CIP) method. On special request, M-version according to EN 12115 with integrated two copper cables for electrical charge dissipation.



Cleaning (food industry):

| hot water | steam | oxidising acids (peracetic, nitric), hydrogen peroxide (3%) | non-oxidizing acids (phosphoric acid) (5%) | chlorine, sodium hypochlorite (200 ppm) | sodium hydroxide (3%) |
|---------------|----------------|---|--|---|-----------------------|
| 95°C / 30 min | 130°C / 30 min | max 80°C / 30 min | max 80°C / 30 min | 80°C / a few minutes | max 80°C / 30 min |

Standards and requirements:

Chemical hoses: EN 12115:2011 (type Ω). Food industry, contact With food: 1935/2004/EC, 2023/2006/EC (GMP); internal layer: 10/2011/EU, USP Class VI, FDA 21 CFR 177.1550 (e-i); ISO 10993. No. contains plasticisers, phthalates and substances of animal origin.

Chemical resistance check: PTFE chemical resistance table (pre-selection), MFA resistance table (available from Tubes International, pre-selection), confirmation of resistance and conditions of use by Tubes International.

Fitting: Spigot ("tail" to hose) ends should be used which are smooth and have no sharp or high notches which could cut or damage the MFA inner layer when clamped. The diameter of the spigot should be exactly matched to the diameter of the hose to ensure tightness. Installation with collets or shell clamps.



| index | internal diameter [mm] | external diameter [mm] | wall thickness [mm] | working pressure [bar] | Bursting pressure [bar] | vacuum [bar] | bend radius [mm] | mass [kg/m] | Roll length [m] |
|-----------------|------------------------|------------------------|---------------------|------------------------|-------------------------|--------------|------------------|-------------|-----------------|
| MT-MANIFLON-010 | 10 | 22 | 6 | 16 | 64 | 0,9 | 65 | 0,42 | 20 |
| MT-MANIFLON-13 | 13 | 25 | 6 | 16 | 64 | 0,9 | 90 | 0,55 | 20 |
| MT-MANIFLON-016 | 16 | 28 | 6 | 16 | 64 | 0,9 | 105 | 0,63 | 20 |
| MT-MANIFLON-19 | 19 | 32 | 6,5 | 16 | 64 | 0,9 | 125 | 0,75 | 30 |
| MT-MANIFLON-25 | 25 | 38 | 6,5 | 16 | 64 | 0,9 | 150 | 0,95 | 30 |
| MT-MANIFLON-32 | 32 | 45 | 6,5 | 16 | 64 | 0,9 | 175 | 1,15 | 30 |
| MT-MANIFLON-38 | 38 | 51 | 6,5 | 16 | 64 | 0,9 | 225 | 1,50 | 30 |
| MT-MANIFLON-51 | 51 | 66 | 7,5 | 16 | 64 | 0,9 | 275 | 2,20 | 30 |
| MT-MANIFLON-63 | 63,5 | 79,5 | 8 | 16 | 64 | 0,9 | 300 | 3,00 | 20 |
| MT-MANIFLON-76 | 76 | 93 | 8,5 | 16 | 48 | 0,9 | 350 | 3,70 | 20 |
| MT-MANIFLON-100 | 100 | 118 | 9 | 16 | 48 | 0,9 | 500 | 5,00 | 20 |

Note: Indexes highlighted in colour - most commonly used.