

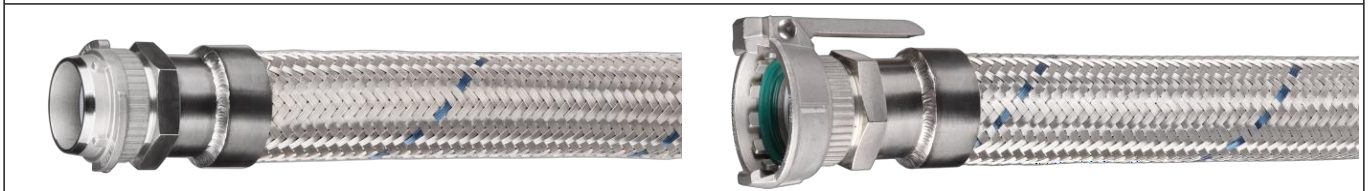


Metal hose end fittings - industrial connectors

Various types of industrial couplings or valves are often used for metal hoses. These couplings can be welded directly to the hose (stainless steel couplings having a weld-on connection) or tightened to a threaded spigot welded to the hose. Selection of industrial couplings according to specifications in the INDUSTRIAL FITTINGS section, taking into account the chemical resistance of the coupling materials and seals and the operating pressures of the couplings. Sleeved end length L_{max} to be determined in contact with Tubes International (if relevant to the application).



Example of industrial connectors welded directly to a steel hose. Left: PARNOR DN50 with CAMLOCK coupling (2" plug) in AISI 316 steel (AC-FW-200-SSX). On the right, PARNOR DN50 with CAMLOCK connector (2" socket) in AISI 316 steel (AC-BW-200-SSX). Both CAMLOCK couplings have a butt-weld end and are welded directly to the hose. See the INDUSTRIAL FITTINGS section, chapter "CAMLOCK couplings".

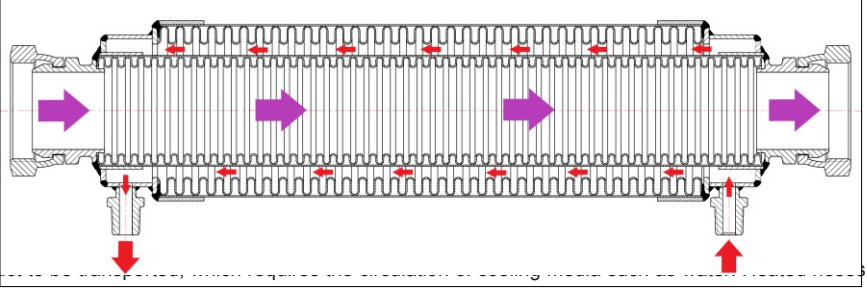


Example of industrial couplings mounted to a steel hose using a threaded spigot. Left: PARNOR DN50 with TW (DIN 28450) transhipment coupling in AISI 316 steel (coupling TW-VK-050-SS). On the right, PARNOR DN50 with TW reloading coupling (DIN 28450) in AISI 316 steel (coupling TW-MK-050-SS). Both TW couplings have an internal threaded termination, an internal PTFE flat gasket and are screwed onto a threaded spigot (TK-WGZ-050-200-SS316, BSP 2" male thread) with a butt-welded termination welded directly to the hose. For threaded stubs to be welded, see INDUSTRIAL FITTINGS section, chapter "Flanged connections".

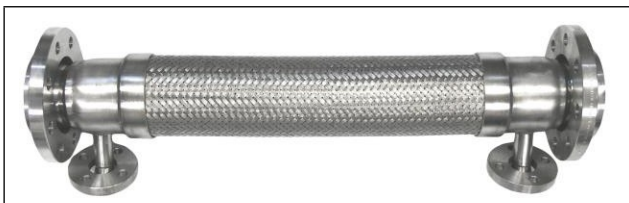
Note: In the case of many industrial connectors or valves having a BSP or NPT female threaded termination, no flat internal seal is provided, only a seal on the thread. In this case, we use AF1 terminals with a BSPT (NPT) male conical thread or TK-WGZT-... threaded ferrules having a BSPT male conical thread and seal the connection on the thread with e.g. Teflon tape.

Multi-walled heated, cooled or insulated hoses ("Jacket Hoses")

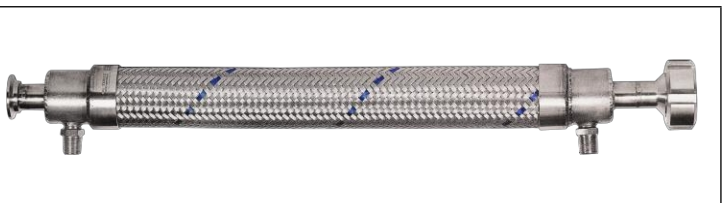
Metal hoses are used for the construction of flexible double-wall hoses, consisting of two hoses, an inner hose for the transfer of the basic substance (product) and an outer hose for the circulation of the heating or cooling medium. This type of hose is used in particular for highly viscous substances such as e.g. asphalt, sulphur, wax, paraffin, resins and plastics, food substances, which must be fluid during transfer through the hose, which requires the maintenance of an elevated temperature. The heating medium can be steam, hot water, oil etc. Other applications are to reduce or maintain the low temperature of the product and cooled hoses form a flexible heat exchanger.



In cryogenic applications, for the transfer of liquid low-temperature gases at temperatures below - 150°C, double-walled insulated hoses are used, in which air has been pumped out of the space between the hoses, creating an insulating vacuum layer, like in a thermos. These hoses are used in the chemical industry, medicine, biotechnology and in the food industry, e.g. LNF (Liquid Nitrogen Freezing) - for freezing food with liquid nitrogen. Tubes International manufactures multi-walled hoses according to individual customer orders.



METALFLEX/M DN75 hose with outer jacket for steam heating from METALFLEX/M DN100 hose, with PN16 DN80 and DN100 flanges, for phthalic anhydride. Working pressure 3 bar (product), 9 bar (steam), temperature 180°C.



FXSS DN25 Teflon hose for glycerine with outer jacket (PARRAP DN50) and separation jacket (METALFLEX/M DN32) heated with 60°C water, with TRICLOVER and IBC product fittings. Operating pressure 9 bar (glycerine), 5 bar (water).

