



this month's topic

Piping, Tubing, Fittings, and Hoses

Fittings Provide Leakfree Connection at High Pressures



These 360- μ m high-pressure fittings allow direct connection of 360- μ m-OD fused silica, polyetheretherketone (PEEK), stainless steel, or electroformed nickel tubing without the need to use liners. With fine 2-56 threads, the compact fittings provide a leakfree connection that seals at pressures well in excess of 20,000 psi. They can be easily formed with a manual tool, and are available with a PEEK or stainless steel nut; the PEEK nut is supplied with a glass-filled PEEK ferrule, while the stainless nut uses a 316 SS ferrule. The ferrule snaps into the nut so that the fitting is one piece, but the ferrule is free to rotate and does not twist the tube as the nut is tightened. Various bore sizes are available. The fittings are suitable for chemical, pharmaceutical, food and beverage, laboratory, and OEM applications.

Valco Instruments Co.

www.vici.com

Kink-Resistant Hose Transfers Corrosive Chemicals



The Chemflour Convoflex WCSR multipurpose chemical-transfer hose is designed to handle the bulk transfer of

corrosive chemicals (such as acids) that may damage the stainless steel braid commonly used as a cover on transfer hoses. The design of the low-profile, helical convoluted inner core provides flexibility and prevents kinking, a common cause of downtime for such demanding applications. The hose is constructed with a chemical-resistant, high-purity Chemflour polytetrafluoroethylene (PTFE) inner core and is reinforced with high-tensile-strength Type 304 stainless steel braids. A wear-resistant, vulcanized ethylene propylene diene monomer (EPDM) outer cover protects the integrity of the hose should the outer surface accidentally be exposed to acid or other corrosive chemicals. The hose comes in 0.75-in., 1-in., 1.5-in., and 2-in. sizes and can be used with over 40 different styles of PermaSeal crimp-style fittings in a wide range of materials.

Saint-Gobain Performance Plastics

www.plastics.saint-gobain.com

Press-to-Connect System Joins Pipe in Seconds



Vic-Press is a flame-free press-to-connect device that joins off-the-shelf ANSI Schedule 10S stainless steel pipe in a matter of seconds. It provides increased strength and durability, and eliminates the need to stock specialty pipe. With better flow characteristics than light-wall

tubing, the joined pipe handles up to one and a half times the flow with 20+% less pressure drop, and it offers up to three times the end-load performance and twice the bend-load performance. Installation requires 70% fewer man-hours than welding, which significantly reduces rework and risk to personnel. With pressure tolerances up to 500 psi (3,450 kPa), Vic-Press exceeds ANSI Class 150 standards. It also meets ASME B31.1, 31.3 and 31.9 support requirements. The system is available for 1/2-in. to 2-in. (15–50-mm) Type 304/304L and Type 316/316L pipe. It is suitable for a variety of wet and dry industrial and commercial applications, including oil, compressed air, lubricated air, noncombustible gas, and general chemical services.

Victaulic

www.vic-press.com

Hose Identification Systems Help Reduce Errors



Several new solutions now take the guesswork out of hose and manifold identification, which is crucial for safety, traceability, and regulatory compliance, as well as for identifying the capabilities and/or limitations of critical process hoses used in the pharmaceutical, biopharmaceutical, biomedical, chemical, and food and beverage industries. Options range from quick visual identifiers such as color (for the tubing or the braid), to laser-etched components, to radio

frequency identification (RFID) tags. The identification system is designed for tubing and reinforced hose manufactured of platinum-cured silicone and for rubber-covered or overbraided hoses of various materials. Laylines offer custom printing along a length of the hose to convey information such as recommended uses, temperature limitations, part numbers, sizes, etc. DocuLink is the firm's newest identification method, which addresses document retrieval situations associated with audits and validations and is designed for use with silicone process manifolds. The identification methods can be used separately, or in combination for multi-tier identification.

AdvantaPure

www.advantapure.com/hose-identification.htm

Single-Use Tubing Assemblies can be Customized for Secure Fluid Transfer



The BioFlex fluid-path assemblies are single-use tubing and filter/tubing units designed for secure fluid transfer

in critical biopharmaceutical processing applications. They can be customized to meet the end-user's requirements for tubing material, connections, and various other components to create a secure fluid path. They can also be used in conventional or hybrid facilities to connect single-use and stainless steel processing equipment. BioFlex assemblies can be integrated with sterilizing-grade filter capsules that use polyethersulfone (PES) or polyvinylidene fluoride (PVDF) membranes, or with depth media for clarification. BioFlex tubing and filter/tubing assemblies are supplied gamma-irradiated to ensure sterility and are fully documented using the firm's prequalified component library. **Meissner Filtration Products, Inc.** www.meissner.com

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With a dedicated carbon capture team, in-house pilot facilities, and a full line of mass transfer and separation technology equipment for CO₂ capture, Koch-Glitsch has the knowledge and experience to assist you with your carbon capture project.

Koch-Glitsch has designed equipment for 88 CO₂ capture columns ranging from 50 mm to greater than 15 m in amines, chilled ammonia, and mineralization services.

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