



PURITY IN FLUID FLOW SYSTEMS®



HIGH PURITY TUBING, HOSE, & FITTINGS
SANITARY HOSE ASSEMBLIES
MOLDED SILICONE COMPONENTS
SINGLE USE SYSTEMS
RFID SOLUTIONS



Silicone Tubing & Hose

Low volatile grade, platinum cured silicone meets USP Class VI, FDA CFR 177.2600, ISO 10993, European Pharmacopoeia 3.1.9, and 3-A standards. All tubing cores are extruded in a clean room and are animal derived ingredient free.

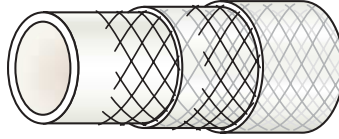


APST – Silicone Tubing:

49 stock sizes from .030" I.D. to 1" I.D.

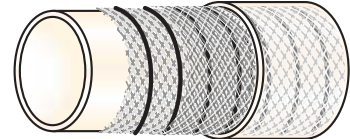
APSPG – Silicone Pump Tubing:

11 stock sizes from .031" I.D. to 1/2" I.D.



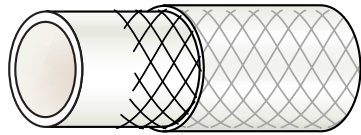
APSH-DB – Double Braid Reinforced

Silicone Hose: Polyester Braiding; 3 stock sizes from 1/2" I.D. to 1" I.D.



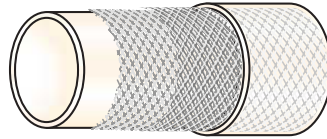
APSW – 4-Ply, Wire-Reinforced, Mandrel-Wrapped Silicone Suction Hose:

Polyester* Mesh Fabric; Smooth or Convoluted O.D.; 8 stock sizes from 1/2" I.D. to 4" I.D.



APSH – Braid Reinforced Silicone

Hose: Polyester* Braiding; 10 stock sizes from .063" I.D. to 1" I.D.



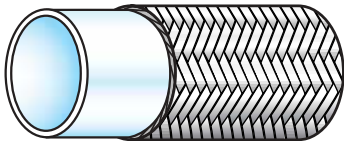
APSM – 4-Ply, Mandrel-Wrapped Silicone

Hose: Polyester* Mesh Fabric; Smooth O.D.; 8 stock sizes from 1/2" I.D. to 4" I.D.

*Nomex® available through special order.

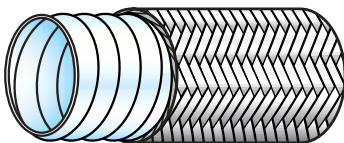
Stainless Steel Overbraided PTFE Hose

Constructed of virgin grade white PTFE with a series 300 stainless steel wire braid reinforcement. Also available with a black conductive PTFE core. Can be configured with a **silicone** or **rubber** jacket.



APFOS-W – White PTFE Core,

Smooth I.D.: 6 stock sizes from 1/4" I.D. to 1-1/2" I.D.

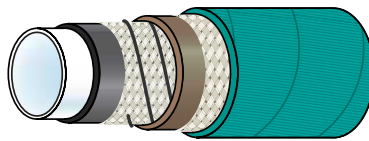


APFOS-WC – White PTFE Core,

Convoluted I.D.: 7 stock sizes from 1/2" I.D. to 4" I.D.

Rubber-Covered FEP Hose

A highly flexible hose constructed of virgin grade fluoropolymer overbraided with a tightly-woven fabric and double spiral steel wire. All materials are sanctioned by the FDA for food contact surfaces. White FEP core is USP Class VI approved.

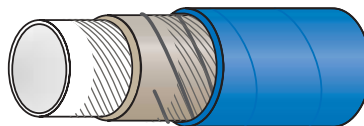


APFRC-W-FLX – Smooth White FEP

Core: 5 stock sizes from 1/2" I.D. to 2" I.D.

EPDM Hose

Excellent chemical resistance properties make this hose ideal for many demanding applications.



APEWF – Wire-Reinforced, EPDM

Rubber Core: 6 stock sizes from 3/4" I.D. to 4" I.D.

Biopharmaceutical Grade Tubing



A new formulation of high purity tubing has been developed for fluid transfer in the biopharmaceutical industry.



- Sterile weldable and heat sealable
- Provides excellent life in peristaltic pumps
- Proven to have a cleaner profile than competitive products
- Eliminates the need to incorporate sections of silicone tubing into bag filling and sampling applications
- Extensive validation and extractables test portfolios available
- Gamma irradiatable



APAF-BP – Biopharmaceutical Tubing:

14 stock sizes from 1/8" I.D. to 1" I.D.

FITTINGS

All AdvantaPure® Fittings are made of high quality **316L Stainless Steel**. Most are available in sizes from 1/4" I.D. to 4" I.D. **Sanitary Fittings**, manufactured with a 15 Ra finish or better, meet 3-A standards. **Electro-Polishing** services are also available.



Sanitary



Male I-Line

Female I-Line

Tri-Clamp®

Tri-Clamp Elbow

Mini Tri-Clamp

Male Bevel Seat

Female Bevel Seat

Pipe Thread



Female Pipe

Male Pipe

Cam & Groove



Female C&G
(Swivel shown)

Male C&G

JIC



Female JIC Swivel

Flange



Stainless Steel Flange Retainer

Flange (sold separately) available in: 304 & 316 Stainless Steel or Powder Coated Carbon Steel

Compression



Tube Adapter

Weld End



Tube and Pipe
Weld Adapters

Adapters



Male JIC x MNPT

Male JIC x FNPT

Plastic Barbed



Thermobarb® FDA PP
Polypropylene Barbed Fitting

Contact us
about fabricating
your complete
Hose Assemblies

SINGLE USE SYSTEMS



Eliminate production stoppages for sterilization, reduce the risk of contamination, and increase efficiency by incorporating single use systems from AdvantaPure®. Single use systems, or SUS, simplify cleaning validations—use once and discard.

Each system is custom made using platinum-cured, Class VI silicone tubing and hose or Class VI biopharmaceutical grade tubing for peristaltic pump applications. Add fittings, stoppers and container closures (see page 6), filters, bags, bottles, labels and tracking options, and other components.

Single use systems are not intended for implantation or continuous steam applications.



Tubing and Hose

Silicone Tubing and Hose

Low-volatile grade, platinum-cured silicone tubing and braid-reinforced silicone hose is clean-room manufactured by AdvantaPure for pharmaceutical and biotech applications.

Both the tubing (called APST) and hose (APSH) have undergone extensive physical, chemical, and biological testing and meet USP Class VI, FDA CFR 177.2600, ISO 10993, European Pharmacopoeia 3.1.9, and 3-A standards.

APST size range: .030" through 1" I.D. (.76mm through 25.40mm I.D.)
APSH size range: .063" through 1" I.D. (1.59mm through 25.40mm I.D.)



AdvantaFlex® BioPharmaceutical Grade Tubing

AdvantaFlex addresses the need for a flexible, translucent, sterilizable, heat sealable, and weldable biopharmaceutical tubing for fluid processing. The unique properties of AdvantaFlex help it outlast similar tubing tested in peristaltic pumps by 6-10 times.

AdvantaFlex is ideal for aseptic tubing welds, as it eliminates costly aseptic connectors and multiple contact surfaces. The tubing is made from FDA-approved ingredients and meets various ISO and USP standards, including Class VI, as well as European Pharmacopoeia 3.2.2.1 standards.

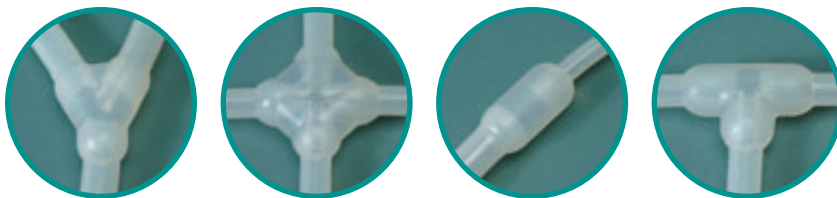
Size range: 1/8" to 1" I.D. (3.18mm to 25.40mm I.D.)



Manifolds

Single use molded silicone manifolds provide a seamless transition between tubing and connections for a continuous, leak-proof flow. Molded connections include Y, T, cross, reducer, Tri-Clamp®, and mini Tri-Clamp styles. Made from platinum-cured silicone, they allow for one material contact surface throughout the system. Connection sizes differ depending on style.

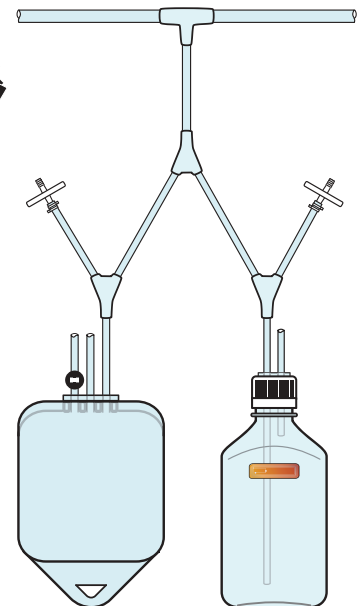
Size range: .188" to 1" I.D. (4.76mm to 25.40mm I.D.)



Select from a number of different crevice-free connections



Available in mini and standard Tri-Clamp fitting styles, molded ends are supplied with male gaskets molded directly to the face of the fitting. Protective backup cups provide a stable clamping surface and safeguard the fittings during installation and use.



Silicone manifolds can be used with a variety of containers, vessels, biobags, etc. for batch filling and sampling needs in drug and vaccine production.

SINGLE USE SYSTEMS

Connections, Filters, Bags, Bottles

Overmolded Ends

are available in Tri-Clamp and mini Tri-Clamp styles in Hytrel® and polypropylene materials.

Size range: 1/8" to 1-3/16" hose I.D. (3.18mm to 30.16mm hose I.D.)



Barbed fittings

come in Y, T, elbow, and reducer styles. Materials include polypropylene, polyethylene, and PVDF.

Size range: 1/8" to 1" hose I.D. (3.18mm to 25.40mm hose I.D.)



Pinch Clamps

of polypropylene or polyester squeeze tubing closed anywhere along a line. One piece construction.

Sizes fit up to 3/4" tubing O.D. (19.05mm tubing O.D.)



Aseptic Connectors

reduce contamination risks and keep processing systems pure. Several easy-to-use styles are available.



Quick Connects

offer on-the-spot connections and come in several materials. Dependable and secure.



Filters

Choose from a variety of styles, sizes, and manufacturers for your single use system.



Bags

AdvantaPure can supply bags from a number of leading manufacturers. Let us know what you need.



Bottles

Laboratory and sampling bottles can also be incorporated into your system. Select from HPDE and other materials.



DocuLink™ MANIFOLD ASSEMBLY IDENTIFICATION SYSTEM



DocuLink (patent pending) is a service designed to save time and effort during document retrieval. It identifies a single use system on the product itself, not only on the bag from which it was removed, by use of a permanently-affixed label at a silicone connector, which can handle

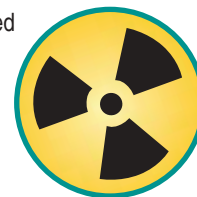
clean-in-place (CIP), steam-in-place (SIP), autoclave, and gamma irradiation processes.

DocuLink can list the individual part number and lot number to allow quick lookup of documents such as certificates of compliance and certificates of analysis. It can also be linked to an online data management site (optional) for quick document retrieval.



Gamma Irradiation Services

Have your single use system gamma irradiated before it arrives at your location and save the additional inventorying, transportation costs, and transit time. Bagged and labeled products are picked up from AdvantaPure's facility and conveyed to a local gamma irradiation service provider. Using Cobalt 60 radiation, microorganisms and bacteria are destroyed while your single use system remains in its original packaging. Products are then returned to AdvantaPure for final inspection and shipment to your location.



Contact us
about integrating multiple
components into a complete
Single Use System

MOLDED COMPONENTS



Part of our high purity manufacturing suite, the AdvantaPure® Mold Shop features a clean room environment to produce a variety of molded components suitable for any number of applications in the pharmaceutical, biomedical, and biotechnology industries. Our molded products are custom made to meet your application's specific requirements, documented lot traceable, and certified to be free of animal-derived ingredients. Contact your AdvantaPure representative for more details.

BioClosure® Systems High Purity Container Closures



BioClosure container closures are made from Class VI, platinum-cured silicone elastomer for the utmost in purity and consist of silicone bottle stoppers and sealing systems for carboys and vessels, bottles, laboratory equipment, and process and storage containers. They are biologically safe and work with receptacles of glass, metal, or plastic. Available with cored holes for tubing, dip tubes, or vents and with tubing installed.



A securely sealed bioprocessing system is critical. That's why BioClosure Systems are clean room manufactured with platinum-cured silicone following strict tolerance requirements.

Stoppers, caps, inserts for True Unions and GL45s, and other styles, available with or without tubing, are available. Stopper sizes range from 2 to 12. Other items are custom manufactured.

Standard size bottle stoppers are available with tubing already attached to speed your installation, reduce multiple product inventories, and save labor costs.



Use as a disposable item to reduce cross contamination risks, cleaning requirements, and validation time and costs.



Molded Silicone Assemblies

Supplied as silicone fittings attached directly to silicone tubing or hose, AdvantaPure's Molded Silicone Assemblies are well-suited for applications involving aseptic transfer, sterile processing, and other critical applications in the pharmaceutical, biomedical, and high purity industries. The assemblies reduce installation time, improve cleanliness, and retain the many benefits of silicone.



Molded Silicone Assemblies are available from AdvantaPure in mini and standard Tri-Clamp® fitting styles and are supplied with male gaskets molded directly to the face of the fitting. Straight-through and step-up bore configurations are produced in sizes up to 1" tube I.D. Protective backup cups, offered in polysulfone or series 304 stainless steel for extra durability, provide a stable clamping surface and safeguard the fittings during installation and use.



AdvantaFlex® Biopharmaceutical Grade TPE



AdvantaFlex tubing can be an excellent alternative to silicone for many applications, especially for peristaltic pump use. Molded components made from AdvantaFlex Biopharmaceutical Grade TPE allow for one material contact surface throughout the system, while providing a seamless transition between tubing and connections for a continuous, leak-proof flow. Molded connections include Y, T, cross, reducer, Tri-Clamp®, and mini Tri-Clamp styles.



For more information about
AdvantaFlex® molding,
call us at 1-888-755-4370

RFID SOLUTIONS

AdvantaPure® offers a new degree of safety and reduced risk for high purity applications. Using RFID (radio frequency identification) technology, all process equipment involved with a particular batch of product can be monitored from start to finish.



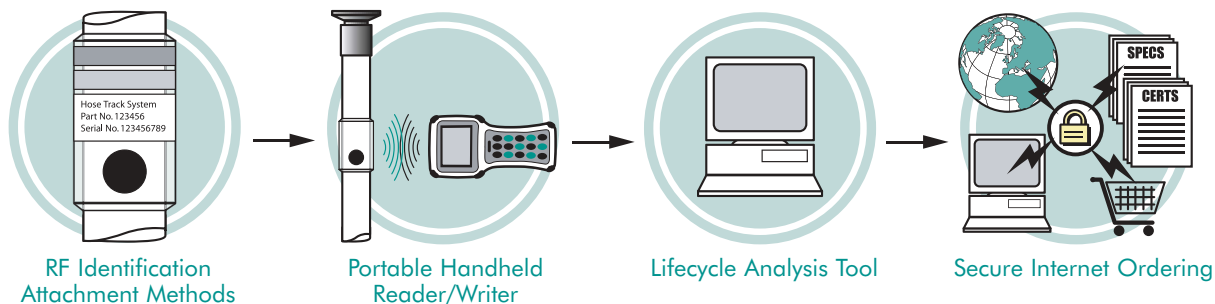
HoseTRACK®



The **Hose Track®** Hose Lifecycle Analysis System is a unique, revolutionary hose assembly tracking system. Hose Track helps users minimize the risk of contamination and hose failure and the costly repercussions associated with batch waste and production stoppages. It offers an excellent way for manufacturing and maintenance personnel to monitor hose assembly cleaning, usage rates, and replacement. (U.S. Patents 7,195,149 and 7,328,837. Other U.S. and foreign patents pending.)



RF IDENTIFICATION AND HOSE LIFECYCLE ANALYSIS SYSTEM



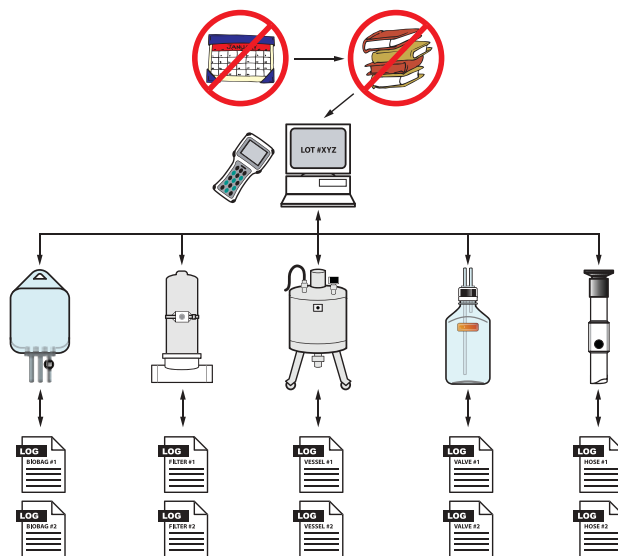
P-E-T Process Equipment Tracking®

The same RFID technology developed for hoses can be used for other components in the process chain—valves, filters, vessels, biobags, and more. Track usage and cleaning cycles to ensure timely maintenance and replacement... before parts begin to fail, risk product integrity, and waste time and labor. It's a logical approach to tracking all critical process components. (U.S. Patents 7,195,149 and 7,259,675. Other U.S. and foreign patents pending.)

Calendar & Manual Log Methods for replacing critical process components can be unreliable, increasing the risk of product contamination and wear related failure.

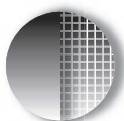
RFID Tags attached to process equipment are scanned by a reader/writer to track wear related events and update the computer database.

A Process Equipment Tracking System provides a detailed audit trail to assist in the validation process.



GammaTAG®

GAMMA STERILIZABLE RFID TAGS



GammaTag® – the industry's first gamma-radiation-resistant read/write RFID tag is available exclusively from AdvantaPure. Ideal for use on products where gamma sterilization is required.

SERVICES

What really sets AdvantaPure® apart from other manufacturers is our ability and willingness to offer various services to create a custom part from stock material. This benefits you in two ways—fast delivery and low cost. Contact a helpful AdvantaPure Sales Representative to discuss your needs.



Hose Identification Systems

AdvantaPure offers various Hose Identification methods that may be used together or individually.

- **AdvantaLabel®** -

Silicone hose labeling system uses permanently-vulcanized silicone to encase a label and color stripes to the outside of silicone tubing and hose for quick, easy-to-read identification.



- **Color Tracer Braid** -

Incorporated into flexible, braid-reinforced silicone hose, the colored braid material offers a quick and easy way to differentiate between lines.



- **Color Silicone Tubing** -

Solid color throughout the tubing provides quick, easy-to-see identification along the entire length of line. Tubing retains the performance characteristics silicone is known for.



- **Laser-Etched Collars** -

Stainless steel collars are etched using precise laser technology for sharper and more legible text and images.



- **Laser-Etched Tags** -

Sharper and more legible than traditional acid-etched parts or handwritten labels, laser-etched tags are inexpensive, easy to attach to hoses, and work well for existing installations.



Hose Assemblies



High Purity Silicone Hose with Sanitary Stainless Steel Fittings

By combining our broad line of stock tubing, hose, and fittings, the optimum hose assembly for your application can be fabricated quickly. Let our Fabrication Team handle the assembly labor for you, so you receive a finished, pressure-tested, ready-to-install product. We can also provide choices for non-entrapment hose assemblies, where conveyed materials contact only the pure inner-core of the assembly—from end to end—providing a seamless transition and higher flow rates.

Special Hose Coverings

Special coverings offer additional protection from high temperatures or pressures, excessive friction, kinking or crushing, etc. Available materials include: Stainless Steel Armor, Rubber, Silicone, Polypropylene, or Kynar® braid, and more.



Stainless Steel Armor



Silicone Covered Stainless Steel Braid



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