

END CONNECTIONS: The Beginning of Improved Hose Performance and Efficiency



Avoid placing your workers at risk and depleting your Bottom Line:

When incorporating industrial hoses into your fluid system, there's plenty more to consider than just hose type for use.

YOUR OVERALL OPTIMIZATION PROCESS:

1

Start with our proven **methodology** for a better general understanding of which specific hose could best address your operating parameters and environment:

S

= Size

What's the necessary OD, ID, and length of Hose for your application?

T

= Temperature

Similar considerations for the material being conveyed and the overall operating environment.

A

= Application

What are the conditions of use? How and where will Hoses be routed? What's bend radius?

M

= Media

What's the type and concentration of the conveyed material? What's its conductivity?

P

= Pressure

What's your working pressure? Is there surge and/or vacuum to consider?

E

= End Connection

11 different options, including Tube Stubs, Tube Fittings, VCR/VCO, Kwik Clamps, Tube Butt Welds, and more. Think about your attachment method and orientation as well.

D

= Delivery

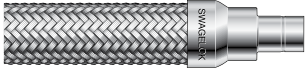
Testing, packaging, quality, and delivery requirements?

2

Make your pick from these four **core tube materials**:

All-Metal

For High-Temperature, Medium-Pressure, Vacuum, Corrosive, or General-Purpose applications.



FX-Series style shown

Thermoplastic

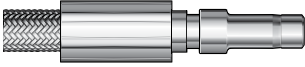
For High-Pressure, Low-Temperature applications.



7P Series style shown

Fluoropolymer

For Inert and Flexible applications.



T Series PTFE style shown

Rubber

For Flexible applications.



PB Series style shown

3

Remember that **reinforcement layers** secure pressure containment, hoop strength, kink resistance, electrical continuity, torsion strength, volumetric expansion control, flexibility, or bend force.

4

Make your pick from these six **cover options**:



Fire Jacket:

Provides insulation from internal system temperature extremes.

Armor Guard:

Protects against kinking and abrasion; highly flexible.

Spiral Guard:

Protects against abrasion; highly flexible.

Thermosleeve:

Protects from weld spatter and resists UV light effects.

Spring Guard:

Protects against kinking and abrasion; highly flexible.

Thermal Wrap:

Delivers superior insulation.

Some key factors for your **End Connections** decision-making:

5

Know your industry standards. For example, in the General Industrial market, high-pressure performance is critical – so a tube fitting psi rating of up to 60,000 and, perhaps, additional tube preparation will be mandatory.

6

Think about Permeation and Chemical Compatibility....and test any considered hose for such so that your final product mitigates chemical reactions, system damage, and corrosion.

7

Think about Pressure and Temperature Ratings....so that your final product can withstand extremes of such, especially if the hose needs to flex or change position during operation.

8

Think about Composition...not all hose materials work equally well across a wide range of applications. Sometimes, there might be only one choice for a particular media or in severe conditions.

9

RULE: System and end connection materials should always be the same, nor are connections truly interchangeable.

10

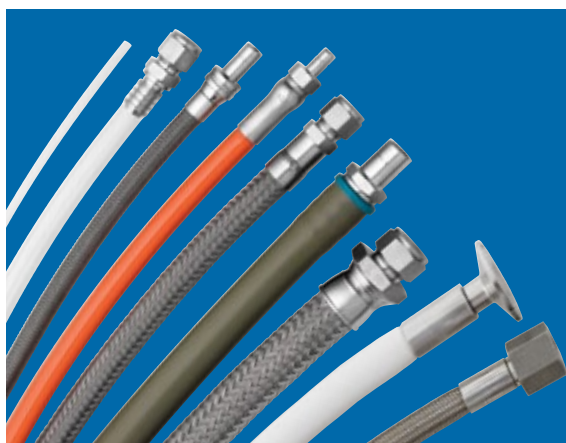
Think about ease of installation and permanence. How often will your ends need to be replaced – and how difficult will it be to do so?

11

Think about simplifying inventory. Can you easily store these components, can you streamline your reordering procedures, can you consolidate vendors....?

12

Lastly, think about cost. Do the short-term benefits of less expensive connections outweigh the extensive labor and downtime charges associated with frequent changeouts?



End Connections:

- eliminate the need for an adapter to attach a hose to your system
- reduce leak points and production stoppage
- decrease risk to personnel, facilities, equipment, and end product

Support:

Visit swagelok.com/en/blog/flexible-hose-end-connection-types

For more information, contact:



Gary Osman

Swagelok Field Engineer

gary.osman@swagelok.com
412.761.3212



Tony Del Bianco

Direct Sales Representative

tony.delbianco@swagelok.com
412.761.3212

P: 412.761.3212 **W:** pittsburgh.swagelok.com

@SwagelokPGH

SwagelokPittsburgh

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