94-210*
(revised 01/05)

COILHOSE PNEUMATICS®

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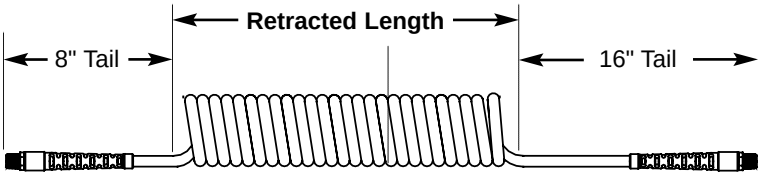
FLEXEEL®

Instruction and Engineering Data Sheet



Chemical Compatibility:

Polyurethane provides good resistance to fuels, oils, water and many solvents. Avoid lacquers, thinners and ketones. Consult factory for a complete chemical compatibility list.
Temperature Consideration: Since polyurethane is a thermoplastic elastomer, it is affected by temperature increases. As a compound, polyurethane has a general temperature range of -40° F to 180° F; however, its usefulness is limited to about 165° F. Careful consideration must be given to the reduced pressure capabilities as temperature rises. To estimate working pressure at various temperatures, use the "Polyurethane Tubing Technical Information" chart below to find the appropriate burst pressure, then calculate for safety factor as explained under "Working Pressure."

Hose Assembly Information:

Hose I.D. x O.D.	Standard Length	Retracted Length	Approximate Weight
1/4" x 3/8"	10 feet	9"	.41 lb.
	15 feet	14.5"	.59 lb.
	20 feet	19.5"	.74 lb.
	25 feet	26.5"	.88 lb.
5/16" x .473"	10 feet	9.5"	.68 lb.
	15 feet	15.5"	.89 lb.
	20 feet	21"	1.11 lbs.
	25 feet	27.75"	1.32 lbs.
3/8" x 9/16"	10 feet	10.5"	1.00 lb.
	15 feet	16.75"	1.40 lbs.
	20 feet	23"	1.85 lbs.
	25 feet	29"	2.25 lbs.

Working Pressure:

Working pressures are normally calculated by dividing the burst pressure by the desired safety factor. Safety factors of 3-to-1 or 4-to-1 are commonly employed depending upon the severity of the application:
Example: If tubing burst pressure is 380 PSI at 75° F, the working pressure with a 3-to-1 safety factor is 126 PSI (380 / 3 = 126). A 4-to-1 safety factor is 95 PSI (380 / 4 = 95).

Polyurethane Hose Technical Information:

Hose I.D. x O.D.	Approximate Burst Pressure (PSI)				Vacuum Rating "Hg" at 75°F
	at 75° F	at 100° F	at 125° F	at 150° F	
1/4" x 3/8"	850	770	640	550	28
5/16" x .473"	800	?	?	430	28
3/8" x 9/16"	800	?	?	430	28

Warning:

Recommended working length is 90% of the total hose length. Stretching the hose beyond that amount while pressurized may cause the fitting to blow out. This may cause violent hose whipping action which could cause injuries to user and surrounding personnel.

Using a higher pressure and / or temperature than rated may case the hose to rupture, potentially endangering personnel and surrounding equipment.

Specifications:

Description	1/4" x 3/8" Hose	5/16" x .473" Hose	3/8" x 9/16" Hose
Hose inside diameter tolerance	.250" / .240"	.320 / .310	.380 / .320
Hose outside diameter tolerance	.400" / .380"	.483 / .463	.573 / .553
Wall thickness	.080" / .070"	.085 / .075	.100 / .090
Coil outside diameter	1 3/4"	2 3/16"	2 7/8"
Recommended temperature range	-40° F to 165° F	-40° F to 165° F	-40° F to 165° F
Working pressure	200 PSI at 75° F	200 PSI at 75° F	200 PSI at 75° F

Fitting instructions on reverse.

FLEXEEL® Fitting Instructions

***NOTE**: For impact tool applications, we strongly recommend using a rigid fitting at the working (tool) end to assure a safer and more durable connection.*

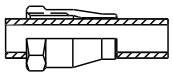
Introduction:

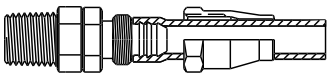
Unlike conventional reinforced air hoses, polyurethane will expand in diameter when pressurized. Although this highly elastic material will stretch, it will not break under tension. As it is stretched, the hose wall becomes thinner, thus increasing the possibility of "pulling out" from the fittings. This tendency is more pronounced at higher working temperatures as the material "flows" and wall thickness thins under tension.

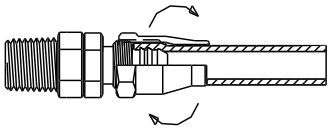
We have developed a fitting with the proper barb spacing and serration which, when used in conjunction with the retainer sleeve, will give optimum holding performance. The retainer sleeve also eliminates the need for a spring guard (strain relief). These same principles were designed into our reusable fittings which use an elongated nut to protect the tubing at its weakest point.

Assembly Instructions for Reusable Fitting:

1. Make a clean, straight cut on the hose end and then insert the hose through the rounded end of the brass sleeve (nut) or strain relief.
2. Press the barbed end of the fitting into the end of the hose until it seals against the thread base.
3. Slide the brass sleeve (nut) or strain relief over the barbed connection and thread it onto the fitting. The installation is completed by tightening the sleeve with the appropriate sized open end wrench until it securely meets the fitting body.



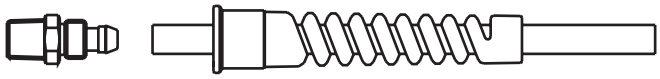




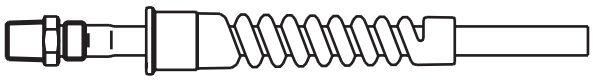
Reusable Type		Thread sealant on swivel fittings only. 		
Tube Size			Swivel	Rigid
I.D.	O.D.	Fitting	Model No.	Model No.
1/4"	3/8"	1/4" Male	PSM0404	PRM0404
1/4"	3/8"	1/4" BSPP	PSM0404P	–
5/16"	.473"	1/4" Male	PSM0504	PRM0504
5/16"	.473"	3/8" Male	PSM0506	PRM0506
5/16"	.473"	3/8" BSPP	PSM0506P	–
3/8"	9/16"	1/4" Male	PSM0604	PRM0604
3/8"	9/16"	3/8" Male	PSM0606	PRM0606
3/8"	9/16"	3/8" BSPP	PSM0606P	–

Assembly Instructions for Reusable Strain Relief Fitting:

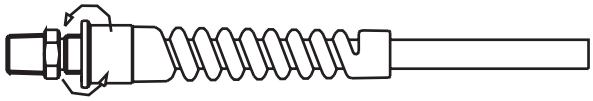
1. Make a square cut on the hose end. Slide the strain relief onto the hose.



2. Apply lubricant to the fitting barb. Place fitting against a stationary surface and push hose over barb until the hose reaches the threads.



3. Slide strain relief down to fitting.



4. Hold strain relief secure with one wrench, and using the other wrench, turn fitting hex clockwise.

Reusable Strain Relief Type				
Tube Size			Swivel	Rigid
I.D.	O.D.	Fitting	Model No.	Model No.
1/4"	3/8"	1/4" Male	PSM0404SR	PRM0404SR
1/4"	3/8"	3/8" Male	PSM0406SR	PRM0406SR
5/16"	.473"	1/4" Male	PSM0504SR	PRM0504SR
5/16"	.473"	3/8" Male	PSM0506SR	PRM0506SR
3/8"	9/16"	1/4" Male	PSM0604SR	PRM0604SR
3/8"	9/16"	3/8" Male	PSM0606SR	PRM0606SR

We reserve the right to make engineering changes in design or materials without notification.

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