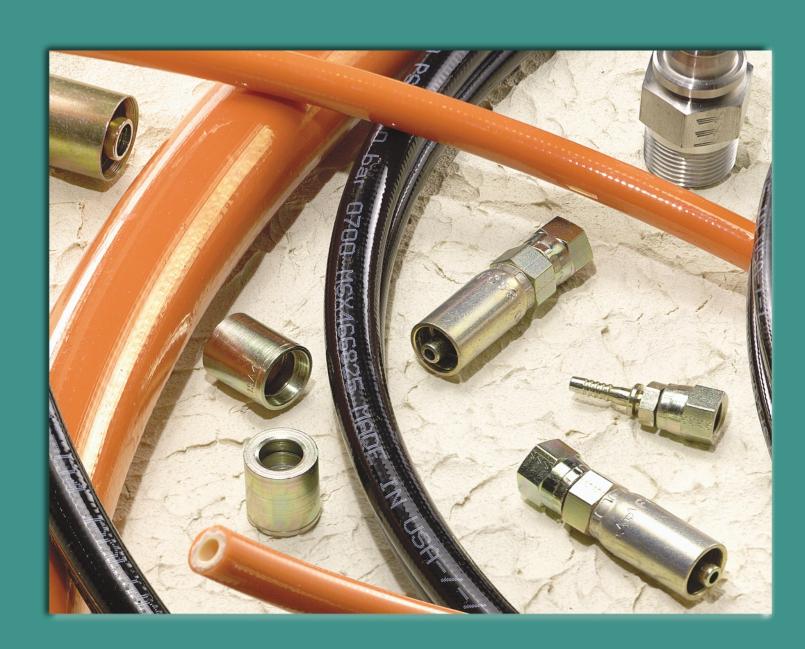
# POLYON THERMOPLASTIC HOSE AND FITTINGS





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Eaton is a global diversified industrial manufacturer of highly engineered products that serve industrial, vehicle, construction, commercial and aerospace markets. Principal products include hydraulic products and fluid connectors, electrical power distribution and control equipment, truck drivetrain systems, engine components and a wide variety of controls. The company has 59,000 employees and 195 manufacturing sites in 24 countries. The Internet address for Eaton is: http://www.eaton.com/

#### Introduction

**Design**—Polyon<sup>™</sup> hose products meet or exceed all applicable SAE specifications. More importantly, they meet the more rigid Eaton Engineering Standards. Hose products are designed at Eaton's Technical Center in Maumee, Ohio, using advanced equipment, such as Finite Elemental Analysis (FEA) software.

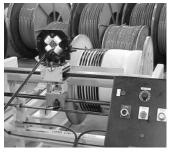
**Testing**—Extensive testing is conducted before release of any Eaton Aeroquip product. Polyon hose products pass over 15 Eaton Aeroquip and SAE tests before they are released for sale.

**Manufacturing**—Following extensive testing, our hose is manufactured at modern facilities to strict product standards, ensuring the highest quality products.

**Quality Control**—As dictated by Eaton Engineering Standards, Polyon hose is tested periodically to ensure that all products produced by Eaton meet stated requirements.









# **Aeroquip Polyon Thermoplastic Hose Products**

- Customers in material handling, utility, sewer cleaning, truck and bus, and rescue equipment markets depend on Aeroquip Polyon products.
- Hose, fittings, and accessories are available for a wide range of pressure applications.
- Polyon products perform up to 10,000 psi operating pressure.
- Fittings are available in ½-inch to 1¼-inch in numerous end configurations.
- Fitting materials include stainless steel and carbon steel.
- Hose and fittings meet numerous industry and government standards.
- Online ordering is available.

# More Than 20 Years in the Following Applications



**Spreader Equipment** 



**Lift Trucks** 



**Sewer Cleaning** 



**Utility Vehicles** 



#### Eaton's Responsibility to the Environment

Everyone wants to decrease pollution while preserving our natural environment. As a result, many companies, such as forestry and construction equipment manufacturers, have made the decision to use alternative fluids or "green fluids" to fuel their vehicles. By the beginning of 2001, approximately five percent of all vehicles in North America will utilize a non-mineral-based product in their hydraulic systems.

As the popularity of alternative hydraulic fluids increases, Eaton has taken the initiative to test its Polyon thermoplastic hose products with biodegradable fluids—whether it's a synthetic-based glycol, ester fluid, or a vegetable-based rapseed (canola) oil.

Since green fluids perform differently than traditional hydraulic products, Eaton is studying the effects of these products on its hose materials as well as the effects of by-products on hose service life.

Our knowledge base is growing, and we would like to share it with you. Through our extensive testing, we are ready to answer your questions concerning the compatibility of green fluids with Aeroquip hose products. We are also ready to perform compatibility testing required by our customers.

The world is moving toward green fluids, and Eaton is helping to make it a smooth move.

# Why use Aeroquip Polyon Hose?

- It is lighter weight for the same operating pressure (for example, SAE 100R7 hose versus one-wire-braid rubber hose).
- It offers a tighter bend radius for the same operating pressure (for example, SAE 100R7 hose versus one-wire braid rubber hose).
- SAE 100R8 hose has a smaller outer diameter (OD) and lower volumetric expansion than a SAE 100R2 rubber hose.
- It is offered in non-conductive configurations that are ideal for applications near high-voltage sources.
- Standard SAE 100R7 and SAE 100R8 products show minimal change in overall length during pressurization.
- Cover color options are offered for coding purposes.
- It can be used in a variety of applications/systems with other Aeroquip products.
- It offers
- Good abrasion resistance
- Good tear resistance
- Excellent ozone resistance
- Excellent weathering resistance
- Excellent UV stability
- SAE 100R7 products are qualified with global skive fittings that are offered in a wide range of end configurations, including metric ends.
- Its Hytrel<sup>™</sup> inner tube has good chemical resistance to a wide range of fluids when compared to rubber products.
- It is offered in longer continuous lengths than rubber hose.
- It has outstanding shelf life.
- It can be twin-lined and multi-lined.



#### **How to Order**

Accurate processing and prompt delivery of your order depend on easy identification of your requirements. Please order Aeroquip parts using correct part numbers as described in this catalog. Inquiries and orders should be directed to your Aeroquip Products Distributor.

#### Part Numbers and Dash Sizes

Dash size designates the nominal size in 16ths of an inch. This number immediately follows the part number and is separated from it with a dash.

#### **Dimensions**

Dimensions given in this catalog for Aeroquip products are approximate and should be used for reference only. Exact dimensional information for a given product is subject to change and varying tolerances; contact Eaton directly for full current information.

#### **Cut Length Hose**

For alpha-numeric part numbers:	FC372- 04- 00484
Hose type	
Hose dash size —	
Cut length (in inches)	
last digit is in 1/8ths of an inch 00484 = 4	181/2 inches

#### **Bulk Hose**

Bulk hose should	be	ordered	by	specifying	length	in	feet	as
shown below.								

Complete number	500 ft FC372-04
Quantity (in feet)	
Hose type —	
Hose size (in 16ths of an inch) —	

**Note:** Length tolerance for hose, assemblies and sleeves is: Up to and including 12 inches: ±1/8"

Above 12 inches to and including 18 inches:  $\pm \frac{3}{16}$ "
Above 18 inches to and including 36 inches:  $\pm \frac{1}{4}$ "

Above 36 inches: ±1% of length

#### **Fittings**

Fittings are ordered as complete assemblies.

Complete number	FC5805-04 06 S
Basic part number —	
Pipe or port size (in 16ths of an inch) —	
Mating hose size —	
Material designation suffix ———————————————————————————————————	

#### **WARNING**

Aeroquip manufactures the terminal ends of our hose fittings to the appropriate requirements established by the SAE. Therefore, the performance ratings of these hose fittings meet the SAE requirements. It is possible to order a hose assembly with a fitting terminal end that has a performance rating lower than the hose rating. When ordering hose assemblies, please keep the terminal end performance rating in mind since this may affect overall hose assembly performance.

Many hose assembly components (hose and fittings) are easily assembled in the field. However, factory assembled swaged, crimped and reusable hose assemblies are available. For complete information, contact Aeroquip.

#### MIXING/MATCHING

AEROQUIP FITTING TOLERANCES ARE ENGINEERED TO MATCH AEROQUIP HOSE TOLERANCES. THE USE OF AEROQUIP FITTINGS ON HOSE SUPPLIED BY OTHER MANUFACTURERS AND/OR THE USE OF AEROQUIP HOSE WITH FITTINGS SUP-

PLIED BY OTHER MANUFACTURERS MAY RESULT IN THE PRODUCTION OF UNRELIABLE AND UNSAFE HOSE ASSEMBLIES AND IS NEITHER RECOMMENDED NOR AUTHORIZED BY AEROQUIP.

AEROQUIP SHALL NOT BE SUBJECT TO AND DISCLAIMS ANY OBLIGATIONS OR LIABILITIES (INCLUDING BUT NOT LIMITED TO ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES) ARISING OUT OF BREACH OF CONTACT OR OF WARRANTY OR ARISING FROM TORT CLAIMS (INCLUDING WITHOUT LIMITATION NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORIES OF LAW WITH RESPECT TO ANY HOSE ASSEMBLIES NOT PRODUCED FROM GENUINE AEROQUIP HOSE FITTINGS, HOSE AND AEROQUIP APPROVED EQUIPMENT, AND IN CONFORMANCE WITH AEROQUIP PROCESS AND PRODUCT INSTRUCTIONS FOR EACH SPECIFIC HOSE ASSEMBLY.

FAILURE TO FOLLOW AEROQUIP PROCESS AND PRODUCT INSTRUCTIONS AND LIMITATIONS COULD LEAD TO PREMATURE HOSE ASSEMBLY FAILURES RESULTING IN PROPERTY DAMAGE, SERIOUS INJURY OR DEATH.

#### **Hose Selection Chart**

Hose Series	Performance Designation	Size Range	Pressure Range	Temperature Range
FC372	100R7 EN855 Type R7	−02 to −16	1000 to 3000 psi	+200°F to -65°F
FC373	100R7 EN855 Type R7	−02 to −16	1000 to 3000 psi	+200°F to -65°F
FC390	100R7 EN855 Type R7 MSHA	-06 and -08	2000 to 2500 psi	+200°F to -65°I
FC690	100R7 EN855 Type R7	-04 to -08	2500 to 2750 psi	+200°F to -65°I
FC444	100R5	-06 to -08	2000 to 2250 psi	+200°F to -65°l
FC374	100R8 EN855 Type R8	−03 to −16	2000 to 5000 psi	+200°F to -65°
FC375	100R8 EN855 Type R8	−03 to −16	2000 to 5000 psi	+200°F to -65°
FC615	None	-06	3800 psi	+200°F to -65°
FC376	None	−03 to −04	10000 psi	+150°F to -40°
FC377	None	−03 to −04	10000 psi	+150°F to -40°
FC701	WEMI	−12 to −20	2500 psi	+150°F to -40°
FC702	WEMI	−12 and −16	3000 psi	+150°F to -40°
FC901	100R7 EN855 Type R7	−02 to −16	1000 to 3000 psi	+200°F to -65°
FC902	100R7 EN855 Type R7	−02 to −16	1000 to 3000 psi	+200°F to -65°
FC914	100R8 EN855 Type R8	−03 to −16	2000 to 5000 psi	+200°F to -65°
FC916	100R8 EN855 Type R8	−03 to −16	2000 to 5000 psi	+200°F to -65°

Hose Series	Cover Color	Reinforcement	Twin-line/Multi-line Capability	Fittings
FC372	Black	Polyester	Yes	Swage, Global Skive and Thermoplastic Reusable
FC373	Orange	Polyester	Yes	Swage, Global Skive and Thermoplastic Reusable
FC390	Black	Polyester	Yes	Swage and Global Skive
FC690	Black	Polyester	Yes	Swage and Global Skive
FC444	Black	Polyester	No	100R5 Reusable
FC374	Black	Aramid	Yes	Swage
FC375	Orange	Aramid	Yes	Swage
FC615	Black	Aramid	Yes	Swage
FC376	Black	Aramid	Yes	Swage
FC377	Orange	Aramid	Yes	Swage
FC701	Orange	Polyester	Yes	Swage
FC702	Blue	Polyester	Yes	Swage
FC901	Orange	Polyester	_	Swage, Global Skive and Thermoplastic Reusable
FC902	Black	Polyester	_	Swage, Global Skive and Thermoplastic Reusable
FC914	Black	Aramid	_	Swage
FC916	Orange	Aramid		Swage

MSHA—United States Safety and Health Administration EN—Committee for European Normalization SAE—Society of Automotive Engineers



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**Hose Length Information** 

Part Number	Minimum Reel Length FEET	Maximum Reel Length FEET	Minimum Length FEET	Longest Length Possible FEET
FC372-02	FEE!	FEEI	10	300
	750	4500		
FC372-02RL	750	1500	50	300
FC373-03			10	300
FC373-03RL	450	550	50	300
FC372-04			10	550
FC372-04RL	450	550	50	550
FC372-05			10	500
FC372-05RL	450	550	50	500
FC372-06			10	500
FC372-06RL	450	550	50	500
FC372-08			10	400
FC372-08RL	450	550	50	400
FC372-12		333	10	300
FC372-12RL	450	550	50	300
	450	330		
FC372-16			10	600
FC372-16RL	270	330	50	600
FC373-02			10	300
FC373-02RL	750	1500	50	300
FC373-03			10	300
FC373-03RL	500	500	50	300
FC373-04			10	500
FC373-04RL	500	500	50	500
FC373-05			10	300
FC373-05RL	450	550	50	300
FC373-06	400	000	10	550
FC373-06RL	450	550	50	550
	430	330		
FC373-08	450		10	400
FC373-08RL	450	550	50	400
FC373-12			10	400
FC373-12RL	450	550	50	400
FC373-16			10	600
FC373-16RL	270	330	50	600
FC374-03			40	000
	450		10	320
FC374-03RL	450	550	50	320
FC374-04			10	600
FC374-04RL	450	550	50	600
FC374-06			10	600
FC374-06RL	450	550	50	600
FC374-08			10	400
FC374-08RL	450	550	50	400
FC374-12			10	260
FC374-12RL	450	550	50	260
FC375-04			10	200
FC375-04RL	450	550	50	200
FC375-04KL	100	330	10	400
FC375-06 FC375-06RL	450	EEO		400
	450	550	50	
FC375-08	450		10	300
FC375-08RL	450	550	50	300
FC375-12			10	600
FC375-12RL	450	550	50	610
E0070 00			40	-
FC376-03			10	300
FC376-03RL	300	550	50	450
FC376-04			10	300
FC376-04RL	300	550	50	450



#### FC372\*

#### Polyon™/Thermoplastic, SAE 100R7



#### Thermoplastic Hose Tech Tip

If the hoses you are using on your pneumatics are exhibiting cover blisters—use FC372 or FC374—these hoses are designed with perforations in the cover allowing for use in pneumatic situations—no air will become trapped under the cover.

Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\odot$	$\bigcirc$		
FC372-02	0.13	0.33	2500	10000	0.50	0.05
FC372-03	0.19	0.44	3000	12000	0.75	0.06
FC372-04	0.25	0.53	2750	11000	1.25	0.09
FC372-05	0.31	0.59	2500	10000	1.75	0.10
FC372-06	0.38	0.66	2250	9000	2.00	0.12
FC372-08	0.50	0.83	2000	8000	3.00	0.17
FC372-10	0.63	0.94	1500	6000	4.00	0.19
FC372-12	0.75	1.07	1250	5000	5.00	0.22
FC372-16	1.00	1.32	1000	4000	8.00	0.28

All FC372 hose sizes are available on reels—add 'RL' to the end of required part number.

Construction: Thermoplastic elastomer tube (Hytrel™), single braid polyester reinforcement and a black perforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

**Application:** Hydraulic system service with petroleum, fire-resistant, and water base fluids, pneumatic fuel, and lubricating systems. For more information on specified fluid applications, see pages 00.

Operating Temperature Range: -65°F to +200°F† (-54°C to +93°C). Water not to exceed +150°F (+66°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

#### FC373\*

#### Polyon™/Thermoplastic, SAE 100R7 Nonconductive

quip FC373 Polyon



#### Thermoplastic Hose Tech Tip

Do you need hoses with a special color code? Contact Eaton, and we can provide you with a 100R7 and/or 100R8 Polyon™ hose that meets your exact color requirements. Contact Eaton for minimum run quantities.

Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>1</b>
FC373-02	0.13	0.33	2500	10000	0.50	0.05
FC373-03	0.19	0.44	3000	12000	0.75	0.06
FC373-04	0.25	0.53	2750	11000	1.25	0.09
FC373-05	0.31	0.59	2500	10000	1.75	0.10
FC373-06	0.38	0.66	2250	9000	2.00	0.12
FC373-08	0.50	0.83	2000	8000	3.00	0.17
FC373-10	0.63	0.94	1500	6000	4.00	0.19
FC373-12	0.75	1.07	1250	5000	5.00	0.22
FC373-16	1.00	1.32	1000	4000	8.00	0.28

All FC373 hose sizes are available on reels—add 'RL' to the end of required part number.

**Construction:** Thermoplastic elastomer tube (Hytrel™), single braid polyester reinforcement and an orange perforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

**Application:** Hydraulic system service with petroleum, fire-resistant, and water base fluids, and lubricating systems. Excellent for use with rescue tools, aerial equipment, and near high voltage sources. For more information on specified fluid applications, see page 00.

Operating Temperature Range: -65°F to +200°Ff (-54°C to +93°C). Water not to exceed +150°F (+66°C); air not to exceed +160°F (+71°C)

Available in multi-line and twin-line constructions.

For added protection against moisture absorption in transit, Aeroquip nonconductive hose in bulk is shipped with cap seals on both ends. To maintain minimum levels of conductivity, cap seals must be placed on Aeroquip nonconductive bulk hose at all times.

†-40°F to +200°F (-40°C to +93°C) for flexing applications.

<sup>\*\*</sup>No skiving of cover needed.



<sup>†-40°</sup>F to +200°F (-40°C to +93°C) for flexing applications.

<sup>\*</sup>Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

<sup>\*\*</sup>No skiving of cover needed.

<sup>\*</sup>Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

#### FC390\*

#### Polyon™/Thermoplastic SAE100R7 with Flame Retardant Cover

#### Thermoplastic Hose Tech Tip If weld splatter or sparks from in-plant use of machinery are causing your hoses to igniteuse FC390—FC390 has a MSHA-approved cover material that is self-extinguishing.



Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#			$\bigcirc$	$\bigcirc$	$\odot$	1
FC390-06	0.38	0.65	2500	10000	2.50	0.11
FC390-08	0.50	0.82	2500	10000	3.50	0.18

Construction: Thermoplastic elastomer tube (Hytrel<sup>TM</sup>), double braid polyester reinforcement and a black perforated flame retardant polyurethane cover. Bonded construction for kink resistance and maximum flex life.

Application: Hydraulic system service with petroleum, fire-resistant, and water base fluids, pneumatic fuel, and lubricating systems. FC390 exhibits a cover with a low coefficient of friction that translates into easier routing. Good for applications like welding. The FC390 cover resists weld splatter, sparks, and is self–extinguishing. Meets MSHA requirements. For more information on specified fluid applications, see page 00.

Operating Temperature Range: -65°F to +200°F† (-54°C to +93°C). Water not to exceed +150°F (+66°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

- †-40°F to +200°F (-40°C to +93°C) for flexing applications.
- \*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).
  \*\*No skiving of cover needed.

#### FC690\* Polyon™/Thermoplastic SAE100R7—Low Temperature Flexing



#### Thermoplastic Hose Tech Tip

If you are using your equipment in a refrigerated environment and you are experiencing cover cracks on your hydraulic hoses—use FC690 or FC615 for low temperature flexing applications—these hoses have been designed to flex continuously down to a temperature of -65°F without failure.

Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\odot$	$\bigcirc$	<b>3</b>	
FC690-04	0.25	0.53	2750	11000	1.25	0.09
FC690-06	0.38	0.66	2500	10000	2.50	0.11
FC690-08	0.50	0.84	2500	10000	3.50	0.18

All FC690 hose sizes are available on reels-add 'RL' to the end of required part number.

Construction: Thermoplastic elastomer tube (Hytrel<sup>TM</sup>), double braid polyester reinforcement and low temperature black perforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

Application: Hydraulic system service with petroleum, fire-resistant, and water base fluids, pneumatic fuel, and lubricating systems utilized in continuous low temperature flexing applications. For more information on specified fluid applications, see page 00.

Operating Temperature Range: -65°F to +200°F† (-54°C to +93°C). Water not to exceed +150°F (+66°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

\*\*No skiving of cover needed.



#### FC444\*

#### Polyon™/Thermoplastic SAE100R5—Advanced Abrasion Resistant Hose

# ⇒Aeroquip FC444

#### Thermoplastic Hose Tech Tip

If your current hoses experience cover lacerations or excessive abrasion, try FC444. FC444 exhibits a spun polyester cover that resists cutting and abrasion.

Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#			$\bigcirc$	$\bigcirc$	$\bigcirc$	
FC444-06	0.32	0.69	2250	9000	4.00	0.12
FC444-08	0.42	0.76	2000	8000	4.62	0.13

Construction: Thermoplastic elastomer tube (Hytrel<sup>TM</sup>), one polyester braid reinforcement and black polyester braided outer cover. Outer cover provides advanced abrasion resistance when compared to standard polyurethane cover. Bonded construction for kink resistance and maximum flex life.

Application: Hydraulic system service with petroleum, fire-resistant, and water base fluids, pneumatic fuel, and lubricating systems. For more information on specified fluid applications, see page 00.

 $\textbf{Operating Temperature Range: -65°F to +200°F^{\dagger} (-54°C to +93°C)}. \label{eq:operating Temperature Range: -65°F to +200°F^{\dagger} (-54°C to +93°C)}. \\$ 

# FC374\* Polyon™/Thermoplastic SAE 100R8—High Pressure



#### Thermoplastic Hose Tech Tip

Your rubber hose has too large a bend radius and you cannot fit the hose into the tight area? Try an Aeroquip Polyon™ hose. For example, our FC374-06 hose has a minimum bend radius of 2.00 inches when compared to a 100R1 size −6 hose that exhibits a bend radius of 5.00 inches at the same operating pressure.

Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>1</b>
FC374-03	0.19	0.40	5000	20000	1.50	0.05
FC374-04	0.25	0.51	5000	20000	2.00	0.08
FC374-06	0.38	0.66	4000	16000	2.50	0.12
FC374-08	0.50	0.81	3500	14000	4.00	0.16
FC374-12	0.75	1.08	2250	9000	8.00	0.23
FC374-16	1.00	1.32	2000	8000	10.00	0.27

All FC374 hose sizes are available on reels—add 'RL' to the end of required part number.

Construction: Thermoplastic elastomer tube (Hytrel<sup>TM</sup>), single braid aramid reinforcement and a black perforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

**Application:** High pressure hydraulic system service with petroleum, fire-resistant, and water base fluids, pneumatic fuel, and lubricating systems. For more information on specified fluid applications, see page 00.

Operating Temperature Range: -65°F to +200°F† (-54°C to +93°C). Water not to exceed +150°F (+66°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

 $^{\dagger}$ -40°F to +200°F (-40°C to +93°C) for flexing applications.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).



<sup>†-40°</sup>F to +200°F (-40°C to +93°C) for flexing applications.

<sup>\*</sup>Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

#### FC375\*

#### Polyon™/Thermoplastic SAE 100R8—High Pressure—Nonconductive

#### Thermoplastic Hose Tech Tip

Is your rubber hose expanding too much during pressurization? Aeroquip's 100R8 hoses (FC374 and FC375) are reinforced with an aramid yarn. As a result, these hoses do not expand very much during pressurization.



Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\odot$	$\bigcirc$	<b>3</b>	
FC375-03	0.19	0.41	5000	20000	1.50	0.05
FC375-04	0.25	0.51	5000	20000	2.00	0.08
FC375-06	0.38	0.66	4000	16000	2.50	0.12
FC375-08	0.50	0.81	3500	14000	4.00	0.16
FC375-12	0.75	1.06	2250	9000	8.00	0.23
FC375-16	1.00	1.37	2000	8000	10.00	0.27

All FC375 hose sizes are available on reels—add 'RL' to the end of required part number.

Construction: Thermoplastic elastomer tube (Hytrel<sup>TM</sup>), single braid aramid reinforcement and an orange nonperforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

**Application:** High pressure hydraulic system service with petroleum, fire-resistant, and water base fluids, and lubricating systems. Excellent for use with rescue tools, aerial equipment, and near high voltage sources. For more information on specified fluid applications see page 0.

Operating Temperature Range: -65°F to +200°F† (-54°C to +93°C). Water not to exceed +150°F (+66°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

For added protection against moisture absorption in transit, Aeroquip nonconductive hose in bulk is shipped with cap seals on both ends. To maintain minimum levels of conductivity, cap seals must be placed on Aeroquip nonconductive bulk hose at all times.

†-40°F to +200°F (-40°C to +93°C) for flexing applications.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

#### FC615\*

#### Polyon™/Thermoplastic High Pressure–Low Temperature Flexing



Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\bigcirc$	$\bigcirc$	$\bigcirc$	<b>1</b>
FC615-06	0.40	0.66	3800	15200	2.50	0.17

FC615 hose size is available on a reel—add 'RL' to the end of required part number.

Construction: Thermoplastic elastomer tube (Hytrel<sup>TM</sup>), single braid aramid reinforcement and low temperature black, perforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

**Application:** High pressure hydraulic system service with petroleum, fire-resistant, and water base fluids, and lubricating systems utilized in continuous low temperature flexing applications. For more information on specified fluid applications, see page 00.

Operating Temperature Range: -65°F to +200°F† (-54°C to +93°C). Water not to exceed +150°F (+66°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).



#### FC376\* Polyon™/Thermoplastic Very High Pressure



Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\odot$	$\bigcirc$	<b>3</b>	
FC376-03	0.19	0.50	10000‡	40000	1.50	0.09
FC376-04	0.25	0.63	10000‡	35000	2.50	0.13

All FC376 hose sizes are available on reels-add 'RL' to the end of required part number.

Construction: Thermoplastic elastomer tube (HytrelTM), single braid aramid reinforcement and a black perforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

Application: Very high pressure hydraulic system service with petroleum, fire-resistant, and water base fluids, pneumatic fuel, and lubricating systems. Ideal for off-shore applications. For more information on specified fluid applications, see page 00.

Operating Temperature Range: -40°F to +150°F¹ (-40°C to +66°C). Water not to exceed +160°F (+71°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

\*CAUTION: Applies only to hose that has suffered no damage, has been properly assembled with hose guards, and tested to required test pressure.

WARNING: The use of this hose in high pressure application requires the use of undamaged hose which has been properly assembled with hose guards and tested to the required pressure. Installations must not exceed the recommended minimum bend radius. The failure to follow these instructions may result in sudden hose failure with the potential for serious personal injury and property damage.

#### FC377\* Polyon™/Thermoplastic Very High Pressure—Nonconductive



#### Thermoplastic Hose Tech Tip

If you are operating equipment near a high voltage sourcenonconductive Polyon™ hose like FC373, FC375, or FC377—these hoses are designed for applications that require electrical isolation. Aeroquip nonconductive hoses have a leakage factor of less than 50 microamperes. By SAE standards, this is considered a safe level of conductivity. An orange polyurethane cover identifies Aeroquip nonconductive hose. This cover is not perforated in order to prevent moisture from entering the hose and affecting its overall conductivity.

Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\odot$	$\bigcirc$	<b>3</b>	
FC377-03	0.19	0.50	10000‡	40000	1.50	0.09
FC377-04	0.25	0.63	10000‡	35000	2.50	0.13

All FC377 hose sizes are available on reels—add 'RL' to the end of required part number.

Construction: Thermoplastic elastomer tube (Hytrel<sup>TM</sup>), single braid aramid reinforcement and an orange nonperforated polyurethane cover. Bonded construction for kink resistance and maximum flex life.

**Application:** Very high pressure hydraulic system service with petroleum, fire-resistant, and water base fluids, and lubricating systems. Ideal for off–shore applications and for use with rescue tools, aerial equipment, and near high voltage sources. For more information on specified fluid applications, see page 00.

Operating Temperature Range: -40°F to +150°F (-40°C to +66°C). Water not to exceed +160°F (+71°C); air not to exceed +160°F (+71°C).

Available in multi-line and twin-line constructions.

For added protection against moisture absorption in transit, Aeroquip nonconductive hose in bulk is shipped with cap seals on both ends. To maintain minimum levels of conductivity, cap seals must be placed on Aeroquip nonconductive bulk hose at all times.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

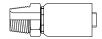
‡CAUTION: Applies only to hose that has suffered no damage, has been properly assembled with hose guards, and tested to required test pressure.

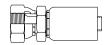
WARNING: The use of this hose in high pressure application requires the use of undamaged hose which has been properly assembled with hose guards and tested to the required pressure. Installations must not exceed the recommended minimum bend radius. The failure to follow these instructions may result in sudden hose failure with the potential for serious personal injury and property damage.



#### FC376 and FC377 Assembly Products

#### FC376 and FC377 Fittings





#### **Male Pipe Fittings**

Part Number	Hose Sizes
FJ7164-0403S	-03
FJ7164-0404S	-04

#### Female 37° JIC FJ7163

Part Numb	er	Hose Sizes
FJ7163-040	3S	-03
FJ7163-040	4S	-04

#### FC376 and FC377 Accessories

#### Collar

Part Number	Hose Sizes
FF9843-03	-03
FF9843-04	-04

#### Conduit

Part Number	Α	В	С
FF9842-03C	3.000 +0.062 -0.000	0.610 0.595	0.725 MAX
FF9842-04C	3.000 +0.062 -0.000	0.685 0.670	0.800 MAX

#### **PVC Flex Guard**

Part Number	Hose Sizes	
FF9841-03	-03	
FF9841-04	-04	

#### FC701\* Sewer Cleaning Hose Gator™ hose





Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
#	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
FC701-12	0.75	1.15	2500	6250	9.50	0.27
FC701-16	1.01	1.41	2500	6250	12.00	0.36
FC701-20	1.26	1.79	2500	6250	12.00	0.58

All FC701 hose sizes are available on reels—see page 00 for details.

Construction: Blue polyethylene tube, single polyester braid reinforcement and an orange ether-based polyurethane cover. Cover thickness—0.055" reference.

Application: High pressure sanitary sewer line cleaning. Not for hydraulic use.

Operating Temperature Range: -40°F to +150°F (-40°C to +66°C).

Available in multi-line and twin-line constructions.

Agency Listing: Meets WEMI specifications.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

#### FC702\* Sewer Cleaning Hose Gator™ hose

eroquip FC702 Gator Hose



#### Thermoplastic Hose Tech Tip

Are your sewer hoses failing during use?
Try Aeroquip's Gator™ hoses (FC701 and FC702).
These hoses use an abrasion–resistant polyurethane
material that has a cover material thickness
of 0.055" (thickest in the industry).

Part Number	Hose I.D.	Hose O.D.	Maximum Operating Pressure	Minimum Burst Pressure	Minimum Bend Radius	Weight Per Foot
	INCHES	INCHES	PSI	PSI	INCHES	POUNDS
#	0		$\odot$	$\bigcirc$	<b>3</b>	
FC702-12	0.75	1.19	3000	7500	9.50	0.29
FC702-16	1.01	1.41	3000	7500	12.00	0.36

All FC702 hose sizes are available on reels—see page 00 for details.

Construction: Blue polyethylene tube, single polyester braid reinforcement and a blue ether-based polyurethane cover.

Cover thickness—0.055" reference.

Application: High pressure sanitary sewer cleaning. Not for hydraulic use.

Operating Temperature Range: -40°F to +150°F (-40°C to +66°C).

Available in multi-line and twin-line constructions.

Agency Listing: Meets WEMI specifications.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).



#### **Sewer Hose Reel Information**

Contact Aeroquip for availability.

#### FC701-12 Gator™ Hose with FJ9372-1212S Fittings

Part Number	Reel Length		
	FEET		
FB7186-0046	100		
FB7186-0051	200		
FB7186-0021	300		
FB7186-0028	400		
FB7186-0007	500		
FB7186-0020	600		
FB7186-0052	800		
FB7186-0038	1000		

#### FC701-16 Gator™ Hose with FJ9372-1616S Fittings

Part Number	Reel Length
	FEET
FB7186-0025	50
FB7186-0008	100
FB7186-0026	150
FB7186-0009	200
FB7186-0016	250
FB7186-0013	300
FB7186-0004	400
FB7186-0001	500
FB7186-0014	550
FB7186-0002	600
FB7186-0003	650
FB7186-0005	700
FB7186-0047	750
FB7186-0006	800
FB7186-0017	850
FB7186-0019	900
FB7186-0018	1000
FB7186-0049	1200

#### FC701-20 Gator™ Hose with FJ9372-2020S Fittings

Part Number	Reel Length
	FEET
FB7186-0039	100
FB7186-0040	150
FB7186-0015	200
FB7186-0022	250
FB7186-0045	300
FB7186-0011	400
FB7186-0010	500
FB7186-0012	600
FB7186-0027	700
FB7186-0044	800
FB7186-0024	1000
FB7186-0042	1200

#### FC702-12 Gator™ Hose with FJ5020-1212S Fittings

Part Number	Reel Length
	FEET
FB7187-0020	100
FB7187-0023	125
FB7187-0019	150
FB7187-0013	200
FB7187-0010	300
FB7187-0004	400
FB7187-0021	450
FB7187-0005	500
FB7187-0006	600
FB7187-0024	625
FB7187-0029	700
FB7187-0016	800
FB7187-0011	900
FB7187-0014	1000

#### FC702-16 Gator™ Hose with FJ9372-1616S Fittings

Part Number	Reel Length
	FEET
FB7187-0012	50
FB7187-0008	100
FB7187-0028	150
FB7187-0009	200
FB7187-0022	250
FB7187-0007	300
FB7187-0002	400
FB7187-0001	500
FB7187-0003	600
FB7187-0015	700
FB7187-0017	800
FB7187-0018	1000

#### FC901\*

#### Polyon™/Thermoplastic Twin-line **SAE 100R7 Nonconductive**



Part Number	Number of Hoses	Hose I.D.	Polyon™ Hose Series
		INCHES	
FC901-00-Length Designation	2	0.19	FC373-03
FC901-01-Length Designation	2	0.25	FC373-04
FC901-02-Length Designation	2	0.31	FC373-05
FC901-03-Length Designation	2	0.38	FC373-06
FC901-04-Length Designation	2	0.50	FC373-08
FC901-05-Length Designation	2	0.75	FC373-12
FC901-06-Length Designation	2	1.00	FC373-16

Construction: Two Aeroquip SAE 100R7 Nonconductive Thermoplastic hoses permanently joined.

Minimum Order: 250 feet.

Polyon™ twin-line hoses may be separated at the ends to permit fitting attachment. The FT1258 hand-held cut-off tool is available for quick, clean cuts in the

Application: Ideal for lift trucks, aerial lifts, and hydraulic cranes. The advantage is easier installation.

Operating Temperature Range: Same as FC373.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).
\*\*No skiving of cover needed.

#### FC902\* Polyon™/Thermoplastic Twin-line **SAE 100R7**



#### Thermoplastic Hose Tech Tip

Do the hoses used in the same area become tangled during use or during installation? Try an Aeroquip twin-line construction (FC901, FC902, etc.).

Part Number	Number of Hoses	Hose I.D.	Polyon™ Hose Series
		INCHES	
FC902-00-Length Designation	2	0.19	FC372-03
FC902-01-Length Designation	2	0.25	FC372-04
FC902-02-Length Designation	2	0.31	FC372-05
FC902-03-Length Designation	2	0.38	FC372-06
FC902-04-Length Designation	2	0.50	FC372-08
FC902-05-Length Designation	2	0.75	FC372-12
FC902-06-Length Designation	2	1.00	FC372-16

Construction: Two Aeroquip SAE 100R7 Thermoplastic hoses permanently joined.

Minimum Order: 250 feet.

Polyon™ twin-line hoses may be separated at the ends to permit fitting attachment. The FT1258 hand-held cut-off tool is available for quick, clean cuts in the field.

Application: Ideal for lift trucks, aerial lifts, and hydraulic cranes. The advantage is easier installation.

Operating Temperature Range: Same as FC372.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

\*\*No skiving of cover needed.



# FC914\* Polyon™/Thermoplastic Twin-line SAE 100R8



Part Number	Number of Hoses	Hose I.D.	Polyon™ Hose Series
		INCHES	
FC914-00-Length Designation	2	0.19	FC374-03
FC914-01-Length Designation	2	0.25	FC374-04
FC914-03-Length Designation	2	0.38	FC374-06
FC914-04-Length Designation	2	0.50	FC374-08
FC914-05-Length Designation	2	0.75	FC374-12
FC914-06-Length Designation	2	1.00	FC374-16

Construction: Two Aeroquip SAE 100R8 Thermoplastic hoses permanently joined.

Minimum Order: 250 feet.

Polyon™ twin-line hoses may be separated at the ends to permit fitting attachment. The FT1258 hand-held cut-off tool is available for quick, clean cuts in the field.

Application: Ideal for lift trucks, aerial lifts, and hydraulic cranes. The advantage is easier installation.

Operating Temperature Range: Same as FC374.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).

#### FC916\*

# Polyon™/Thermoplastic Twin-line SAE 100R8 Nonconductive



Cut lengths of twin-line hoses should be ordered as shown below by specifying the length in inches:

Example: <u>FC902–00</u>–<u>00484</u>

Hose type -

Cut length (in inches)-

Last digit is in eighths of an inch, i.e., 00484=48.5 inches

Aeroquip hose part numbers FC372, FC373, FC374, FC375, FC376, and FC377 can be permanently joined to form twinline or multi-line hose designs. The above twin-line part numbers are the typical standard designs. If you would like to mate multiple pressure hoses in one design, please contact Aeroquip.

Note: All hoses are formed flat.

Part Number	Number of Hoses	Hose I.D.	Polyon™ Hose Series
FC916-00-Length Designation	2	0.19	FC375-03
FC916-01-Length Designation	2	0.15	FC375-04
FC916-03-Length Designation	2	0.38	FC375-06
FC916-04-Length Designation	2	0.50	FC375-08
FC916-05-Length Designation	2	0.75	FC375-12
FC916-06-Length Designation	2	1.00	FC375-16

Construction: Two Aeroquip SAE 100R8 Thermoplastic Nonconductive Hoses permanently joined.

Minimum Order: 250 feet.

Polyon™ twin-line hoses may be separated at the ends to permit fitting attachment. The FT1258 hand-held cut-off tool is available for quick, clean cuts in the field.

Application: Ideal for lift trucks, aerial lifts, and hydraulic cranes. The advantage is easier installation.

**Operating Temperature Range:** Same as FC375.

\*Not to be used with refrigerants or in static discharge applications (i.e., airless paint spray).



#### FB9218/FB9219/FB9220

#### Polyon™ recoil air hose assemblies



Assembly Part Number	Hose I.D.	Assembly Length	Male NPT NPT Each End, Size	Retracted Length Nominal	Rec. Max. Work Length	Outside Coil Dia.
	INCHES	FEET	INCHES	INCHES	FEET	INCHES
#	0					
FB9218-12	0.25	12	1/4-18	6	10	3
FB9218-25	0.25	25	1/4-18	12	22	3
FB9218-50	0.25	50	1/4-18	23	45	3
FB9219-12	0.38	12	³% <b>–18</b>	5	10	5½
FB9219-25	0.38	25	³% <b>–</b> 18	10	21	5½
FB9219-50	0.38	50	³% <b>–</b> 18	20	42	5½
FB9220-12	0.50	12	1/2-14	5	9	8
FB9220-25	0.50	25	1/2-14	9	18	8
FB9220-50	0.50	50	1/2-14	18	37	8

Construction: Red nylon coiled tubing; Male NPT swivel fittings and spring guards at both ends.

Application: Air up to 180 psi maximum all sizes.

Operating Temperature Range: -40°F to +180°F (-40°C to +82°C).

**Bulk Hose:** Order part number FC341-04 (1/4"), FC341-06 (3/8"), FC341-08 (1/2").

Note: Aeroquip Polyon recoil air hose swivel assemblies are not recommended or approved for air brake

application.

#### Safety Blow Gun 1/4" Female NPT Port



Maximum outlet pressure: 30 psi. Conforms to OSHA standards.

Part Number: FF9791-01



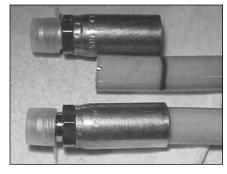
#### Thermoplastic Hose Crimping/Swaging

Select a matching hose and fitting combination.



## Step 1 Cut the Hose

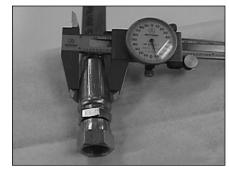
Cut the hose squarely and to the proper length using the FCM3662 or FT1258 cutoff tool. The angle of cut must not exceed 5.° Read your cut-off tool operator's manual for cutting instructions.



#### Step 3

#### Insert the Fitting into the Hose

Using the bottom edge of the fitting part number as a reference point, determine the length of the hose to be inserted into the socket. Mark the hose for insertion length with a grease pencil. Lightly lubricate the fitting nipple and push the fitting onto the hose leaving the socket edge even with the mark placed on the hose. Do not bottom the hose in the fitting.



#### Step 5

#### Attaching the Fitting

Attach the fitting then measure the crimp diameter and ovality dimensions. Inspect the nipple/socket position. If the hose mark is not within 1/8 inch of the socket skirt, reject the assembly. Refer to your hose in the Hose Style Index for die selection, finished crimp diameter, ovality measurement and operating crimp instructions.



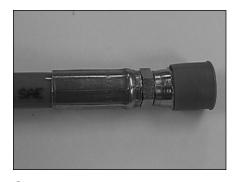
# Step 2 Clean the Hose Bore

Using the FT1355-01 Jet Cleaner or hose compatible solvent, bottle brush, and compressed air, flush contaminants from the hose bore. See operating instructions for the FT1355-01. Follow shop safety rules.

#### Step 4

#### **Choosing the Right Tooling**

Refer to the Aeroquip crimp machine owner's manual and the Hose Style Index for tooling specifications for your swage or crimp machine.



#### Step 6

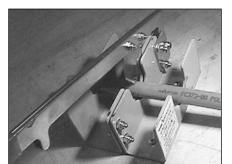
#### Plug or Cap the Fitting Ends

23055 dust plugs and caps protect the fitting threads and seal out contamination until hose assembly is installed.

#### Swage Style High Pressure Fittings (Polyon™)

For use with hose FC376 and FC377: sizes -03 and -04.

Select a matching hose and fitting combination.



#### Step 1

#### **Cut the Hose**

Cut the hose squarely and to the proper length using the FCM3662 or FT1258 cutoff tool. The angle of cut must not exceed 5° Read your cut-off tool operator's manual for cutting instructions and blade application.

**Note:** Hose must be a minimum of thirty (30) inches long when using plastic guards.



Step 2

#### Clean the Hose Bore

Using the FT1355–01 Jet Cleaner or hose compatible solvent, bottle brush, and compressed air, flush contaminants from the hose bore. See operating instructions for the FT1355–01. Follow shop safety rules.

#### Step 3

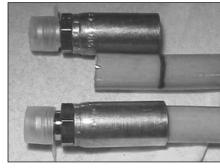
#### **Plastic Guard Installation**

Slide hose into plastic guard (FF9841-03 for -03 size; FF9841-04 for -04 size). Leave a minimum 6 inch gap from end of hose.

#### Step 4

#### **Metal Conduit Installation**

Slide metal conduit (FF9842-03C for -03 size; FF9842-04C for -04 size) over hose outer diameter and slide into plastic guard cavity.



#### Step 5

#### Insert the Fitting into the Hose

Using the bottom edge of the fitting part number as a reference point, determine the length of the hose to be inserted into the socket. Mark the hose for insertion length with a grease pencil. Lightly lubricate the fitting nipple and push the fitting onto the hose leaving the socket edge even with the mark placed on the hose. Do not bottom the hose in the fitting.

#### Step 6

#### **Choosing the Right Tooling**

Refer to the Aeroquip crimp machine owner's manual and your hose in the Hose Style Index for tooling specifications for your swage or crimp machine.

#### Step 7

#### **Hose Guard and Metal Conduit Location**

Push hose guard and metal conduit over the end of the swage fitting, to the end of the socket. Make sure that the swivel hex or male pipe hex is fully exposed.

#### Step 8

#### **Collar Assembly**

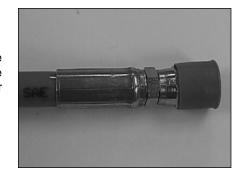
Slip collar over the end of the flexible plastic hose guard (FF9843-03S for -03 size; FF9843-04S for -04 size).



#### Step 9

#### Attaching the Fitting

Attach the fitting then measure the crimp diameter and ovality dimensions. Inspect the nipple/socket position. If the hose mark is not within 1/8 inch of the socket skirt, reject the assembly. Refer to your hose in the Hose Selection Style Index for die selection, finished crimp diameter, ovality measurement and operating crimp instructions.



Step 10

#### Plug or Cap the Fitting Ends

23055 dust plugs and caps protect the fitting threads and seal out contamination until hose assembly is installed.



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#### **How to Separate Twin-line and Multi-line Hoses**



Step 1

Place hose separation blade in a vise at a 45° angle to the top of the vise. Fasten securely in the vise jaws.



Lightly lubricate the hoses on both sides at the connecting web with a lubricating oil.



Step 6

Remove the lubricant from the hoses and proceed with normal hose assembly.



Step 2

Measure and mark the distance to be separated.



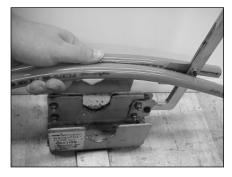
Step 4

Push the hose into the knife blade using a rocking motion to start the hoses into the blade.



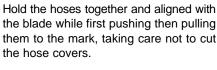
Step 7

Examine the hose cover material where the hoses were attached to ensure that they have not been cut or the reinforcement fiber exposed. If the hose covers show signs of damage, the hose assembly should not be placed in service.



Step 5

the blade while first pushing then pulling them to the mark, taking care not to cut





#### **Hose to Fitting Page Reference Chart**

Hose Part Number	Skive Nipples	Swage	Thermoplastic Reusable	100R5 Reusable
FC372	X	Х	X	
FC373	X	Х	X	
FC390	X	Х		
FC690	X	Х		
FC444				Χ
FC374		Х		
FC375		Х		
FC615		Х		
FC376		Х		
FC377		Х		
FC701		Х		
FC702		Х		
FC901	X	Х	X	
FC902	X	Х	X	
FC914		Х		
FC916		Х		

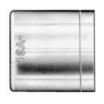
#### Part Numbers and Dash Sizes

Dash size designates the nominal size in 16ths of an inch. This number immediately follows the part number and is separated from it with a dash.

Fittings with "FC" or "FJ" part numbers will have the size expressed in four numerals. The first two numerals indicate the size of the connecting end and the second two numerals indicate the size of the hose end. All other fittings are followed by a dash number which is the nominal size of the fitting expressed in 16ths of an inch. Where two dash numbers are given, the first one generally indicates the pipe or port size and the second indicates the tube or hose size. The hose dash number should always be the same as the last dash number on the fitting.

#### **Global Skive Socket Identification**

1SA sockets are stamped 1SA(size) for one wire braid hose and 1SB sockets are stamped 1SB(size) for two wire braid hose. 1SA sockets have one ring and 1SB sockets have two rings grooved around the circumference of each socket.





1SA

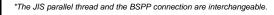
1SB

Nipple Part Number	Thread	Hose Size	Α	D	E∅	н	(1)	(2)
	Tilleau	Size	A	U	<b>E</b> Ø	п	λ <u>ι</u> /	22/
30 D A								
Male Pipe (M	P)							
1SA2MP3 1/8-27		-03	1.59	.90	.10			.44
1SA4MP3	1/4-18	-03	1.62	.93	.10			.56
1SA2MP4	1/8-27	-04	1.84	.92	.17			.56
1SA4MP4	1/4-18	-04	2.06	1.14	.17			.56
1SA6MP4	3/8-18	-04	1.90	.98	.17			.69
1SA4MP6	1/4-18	-06	2.18	1.18	.26			.69
1SA6MP6	3/8-18	-06	2.27	1.28	.26			.69
1SA8MP6	1/2-14	-06	2.27	1.28	.16			.88
1SA4MP8	1/4-18	-08	2.40	1.23	.30			.81
1SA6MP8	3/8-18	-08	2.49	1.32	.38			.81
1SA8MP8	1/2-14	-08	2.74	1.56	.38			.88
1SA12MP8	3/4-14	-08	2.56	1.39	.38			1.06
1SA6MP10	3/8-18	-10	2.49	1.33	.42			.94
1SA8MP10	1/2-14	-10	2.74	1.58	.50			.94
1SA12MP10	3/4-14	-10	2.56	1.40	.50			1.06
1SA8MP12	1/2-14	-12	2.78	1.60	.56			1.13
1SA12MP12	3/4-14	-12	2.84	1.65	.61			1.13
1SA16MP12	1-111/2	-12	2.80	1.61	.61			1.38
1SA12MP16	3/4-14	-16	3.02	1.67	.76			1.38
1SA16MP16	1-111/2	-16	3.22	1.86	.82			1.38
1SA20MP16	11/4-111/2	-16	3.08	1.72	.82			1.69

Nipple Part Number	Thread	Hose Size	А	D	E∅	н	(1)	<u>\$2</u> \$
37 D A								
Female JIC	SAE 37	Swive	el (FJ)					
1SA3FJ3	3/8-24	-03	1.69	1.00	.10		.50	.44
1SA4FJ3	7/16-20	-03	1.69	1.00	.10		.56	.44
1SA3FJ4	3/8-24	-04	1.94	1.02	.13		.50	.56
1SA4FJ4	7/16-20	-04	2.00	1.07	.17		.56	.56
1SA5FJ4	1/2-20	-04	1.98	1.06	.17		.62	.56
1SA6FJ4	9/16-18	-04	2.03	1.11	.17		.69	.56
1SA5FJ5	1/2-20	-05	2.08	1.14	.21		.62	.56
1SA6FJ5	9/16-18	-05	2.06	1.12	.21		.69	.56
1SA4FJ6	7/16-20	-06	2.19	1.19	.17		.56	.69
1SA5FJ6	1/2-20	-06	2.24	1.24	.23		.62	.69
1SA6FJ6	9/16-18	-06	2.28	1.28	.26		.69	.69
1SA8FJ6	3/4-16	-06	2.31	1.31	.26		.88	.69
1SA10FJ6	<sup>7</sup> / <sub>8</sub> –14	-06	2.42	1.43	.26		1.00	.81
1SA8FJ8	3/4-16	-08	2.63	1.46	.38		.88	.81
1SA10FJ8	<sup>7</sup> / <sub>8</sub> –14	-08	2.64	1.47	.38		1.00	.81
1SA12FJ8	11/16-12	-08	2.73	1.56	.38		1.25	1.00
1SA16FJ8	15/16-12	-08	3.06	1.89	.38		1.50	1.25
1SA8FJ10	3/4-16	-10	2.65	1.50	.39		.88	.94
1SA10FJ10	<sup>7</sup> / <sub>8</sub> –14	-10	2.77	1.61	.50		1.00	.94
1SA12FJ10	11/16-12	-10	2.72	1.57	.50		1.25	1.00
1SA10FJ12	<sup>7</sup> / <sub>8</sub> –14	-12	2.81	1.63	.48		1.00	1.12
1SA12FJ12	11/16-12	-12	2.84	1.65	.61		1.25	1.12
1SA14FJ12	13/16-12	-12	2.84	1.65	.61		1.38	1.12
1SA16FJ12	15/16-12	-12	2.91	1.72	.61		1.50	1.25
1SA12FJ16	11/16-12	-16	3.15	1.80	.61		1.25	1.38
1SA16FJ16	15/16-12	-16	3.29	1.93	.81		1.50	1.38
1SA20FJ16	15/8-12	-16	3.17	1.81	.81		2.00	

Nipple Part Number	Thread T	Hose Size	Α	D	E∅	Н	<u>(1)</u>	(2)
-T	) D A							
JIS/BSPP Fe	male Swi	ivel (B	F)*					
1S4BF4	G 1/4	-04	42.3	18.9	4.2		19	
1S6BF6	G 3/8	-06	46.4	21.1	6.7		22	
1S8BF6	G 1/2	-06	47.9	22.6	6.7		27	
1S8BF8	G 1/2	-08	53.5	23.8	9.6		27	
1S10BF10	G 5/8	-10	54.1	24.7	12.8		30	
1S12BF12	G <sup>3</sup> / <sub>4</sub>	-12	55.5	25.3	15.5		32	
1S16BF16	G 1	-16	62.0	27.6	20.7		41	
T	D A							
JIS/BSPP Fe	male Sw	ivel, 45	s° Elbo	w (BI	FA)*			
1S4BFA4	G 1/4	-04	65.3	41.9	4.2	16.5	19	
1S6BFA6	G <sup>3</sup> / <sub>8</sub>	-06	73.8	48.5	6.7	19.0	22	
1S8BFA8	G 1/2	-08	_	61.8		24.8	27	
1S10BFA10	G 5/8	-10	100.4			27.4	30	
1S12BFA12	G <sup>3</sup> / <sub>4</sub>	-12	108.8		15.5	29.4	32	
1S16BFA16	, ,	<u>–16</u>	126.8	92.4	20.7	33.2	41	
÷Ē.								
BSP Male Ta								
1S4BT4	R <sup>1</sup> / <sub>4</sub> -19	-04	50.6	27.2	4.2		14	
1S6BT6	R <sup>3</sup> / <sub>8</sub> -19	-06	54.9	29.6	6.7		19	
1S8BT8	R <sup>1</sup> / <sub>2</sub> -14	-08	66.2	36.5	9.6		22	
1S12BT12	R <sup>3</sup> / <sub>4</sub> -14	-12	71.1	40.9	15.5		30	
1S16BT16	R 1 -11	-16	81.2	46.8	20.7		36	

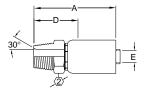
Nipple	Thread	Hose						
Part Number	Т	Size	Α	D	E∅	Н	$\langle 1 \rangle$	<u>\( 2</u> \)
D A -								
JIS/BSPP Fe	male Sw	ivel (JI	M)*					
1S4JM4	G 1/4	-04	47.0	23.6	4.2		19	19
1S6JM6	G 3/8	-06	51.0	25.7	6.7		22	22
1S8JM8	G 1/2	-08	58.0	28.3	9.6		27	27
1S12JM12	G <sup>3</sup> / <sub>4</sub>	-12	62.0	31.8	15.5		32	36
1S16JM16	G 1	-16	69.0	34.6	20.7		41	41
T 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	D A							
JIS/BSPP Fer	nale Swi	vel 90°	Elbov	v (BFE	B)*			
1S4BFB4	G 1/4	-04	56.4	33.0	4.2	31.0	19	
1S6BFB6	G 3/8	-06	64.1	38.8	6.7	36.6	22	
1S8BFB6	G 1/2	-06		49.3	6.7	48.5	27	
1S8BFB8	G 1/2	-08		50.5	9.6	48.5	27	
1S10BFB10	G 5/8	-10	90.6		12.8	56.3	30	
1S12BFB12 1S16BFB16	G <sup>3</sup> / <sub>4</sub> G 1	-12 -16	99.3	69.1 83.8	15.5 20.7	61.5 71.5	32 41	
600 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
BSP Male Pa	rallel (Bl	 P)						
1S4BP4	G 1/4	-04	44.3	20.9	4.2			19
1S6BP6	G 3/8	-06	48.4	23.1	6.7			22
1S8BP6	G 1/2	-06	52.4	27.1	6.7			27
1S8BP8	G 1/2	-08	58.0	28.3	9.6			27
1S12BP12	G <sup>3</sup> / <sub>4</sub>	-12	63.1	32.9	15.5			32
1S16BP16	G 1	-16	70.9	36.5	20.7			41

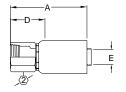


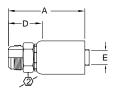


#### For use with hose:

FC372, FC373, FC374, FC375, FC615, FC390, FC690, FC901, FC902, FC914, FC916







Male Pipe FC5805

Female Pipe FC5806

SAE 37° (JIC) Male Flare FC5807

All dimensions in inches.

Note: Fittings on this page may be swaged or crimped. See bulletin JA55 for crimp information.

Complete Fitting	Dia Bassi Na	Baselian Basel Na	<b>Thurst 1</b>	Hose			Fa		(1)	(2)
Part Number	Die Part No.	Pusher Part No.	Thread	Size	A	D	EØ	Н		$\overline{}$
Male Pipe FC5805-0202S	FT1243-100-2 <sup>†</sup>	FT1243-150-1	1/8-27	-02	1 10	00	.07			.56
FC5805-0202S FC5805-0203S		FT1243-150-1 FT1243-150-1			1.48	.92	_			
	FT1243–100–3 <sup>†</sup> FT1243–100–3 <sup>†</sup>		1/8-27 1/4-18	-03 -03	1.87 2.06	1.08 1.26	.10 .10			.56 .69
FC5805-0403S* FC5805-0603S	FT1243-100-3 <sup>†</sup>	FT1243–150–4 FT1243–150–5	<sup>3</sup> / <sub>8</sub> -18	-03 -03	2.06	1.36	.10			.75
FC5805-0204S FC5805-0404S*	FT1243-100-4 <sup>†</sup> FT1243-100-4 <sup>†</sup>	FT1243-150-2	1/8-27 1/4-18	-04 -04	1.98	1.08	.15			.62 .69
		FT1243-150-4		-04 -04	2.16	1.26	.15			
FC5805-0604S	FT1243-100-4 <sup>†</sup>	FT1243-150-5	3/8-18		2.26	1.36	.15			.75
FC5805-0405S	FT1243-100-5 <sup>†</sup>	FT1243-150-4	1/4-18	-05	2.34	1.06	.22			.69
FC5805-0605S	FT1243-100-5 <sup>†</sup>	FT1243-150-5	3/8-18	-05	2.34	1.06	.22			.75
FC5805-0406S	FT1243-100-6 <sup>†</sup>	FT1243-150-5	1/4-18	-06	2.51	1.06	.28			.75
FC5805-0606S*	FT1243-100-6 <sup>†</sup>	FT1243-150-5	3/8-18	-06	2.51	1.06	.28			.75
FC5805-0806S	FT1243-100-6 <sup>†</sup>	FT1243-150-5	1/2-14	-06	2.80	1.35	.28			.94
FC5805-0608S	FT1243-100-8 <sup>†</sup>	FT1243-150-8	3/8-18	-08	2.71	1.06	.38			.88
FC5805-0808S*	FT1243-100-8 <sup>†</sup>	FT1243-150-9	1/2-14	-08	3.00	1.35	.38			.94
FC5805-1212S*	FT1243-100-12 <sup>†</sup>	FT1243-150-11	3/4-14	-12	3.20	1.35	.59			1.12
FC5805-1616S*	FT1243-100-16 <sup>†</sup>	FT1243-150-13	1-111/2	-16	3.97	1.58	.81			1.38
Female Pipe										
FC5806-0403S	FT1243-100-3 <sup>†</sup>	FT1243-250-1	1/4-18	-03	2.13	1.33	.10			.75
FC5806-0404S	FT1243-100-4 <sup>†</sup>	FT1243-250-2	1/4-18	-04	2.23	1.33	.15			.75
FC5806-0808S	FT1243-100-8 <sup>†</sup>	FT1243-250-6	1/2-14	-08	2.98	1.33	.38			1.06
SAE 37°(JIC) Mal	e Flare									
FC5807-0403S	FT1243-100-3 <sup>†</sup>	FT1243-150-1	7/16-20	-03	2.10	1.30	.10			.56
FC5807-0404S	FT1243-100-4 <sup>†</sup>	FT1243-150-2	<sup>7</sup> / <sub>16</sub> -20	-04	2.18	1.28	.15			.62
FC5807-0504S	FT1243-100-4 <sup>†</sup>	FT1243-150-2	1/2-20	-04	2.18	1.28	.15			.62
FC5807-0604S	FT1243-100-4 <sup>†</sup>	FT1243-150-2	9/16-18	-04	2.16	1.26	.15			.69
FC5807-0505S	FT1243-100-5 <sup>†</sup>	FT1243-150-2	1/2-20	-05	2.32	1.05	.22			.62
FC5807-0605S	FT1243-100-5 <sup>†</sup>	FT1243-150-4	9/16-18	-05	2.33	1.06	.22			.69
FC5807-0606S	FT1243-100-6 <sup>†</sup>	FT1243-150-5	9/16-18	-06	2.54	1.09	.28			.75
FC5807-0806S	FT1243-100-6 <sup>†</sup>	FT1243–150–7	3/4-16	-06	2.64	1.19	.28			.81
FC5807-0808S	FT1243-100-8 <sup>†</sup>	FT1243-150-8	3/4-16	-08	2.81	1.16	.38			.88
FC5807-1008S	FT1243-100-8 <sup>†</sup>	FT1243-150-9	<sup>7</sup> / <sub>8</sub> -14	-08	3.04	1.39	.38			.94
FC5807-1010S	FT1243-100-10 <sup>†</sup>		<sup>7</sup> /8-14	-10	3.21	1.39	.48			1.06
FC5807-1212S		FT1243-150-11		<del>-12</del>	3.26	1.42	.59			1.12
. 50001 12120			1 / 10 12	- '-	0.20		.55			
									<del>                                     </del>	
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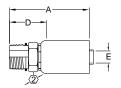
<sup>\*</sup>Also available in 316 stainless steel; substitute "-259" for "S" in base part number when ordering.

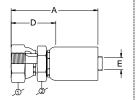


<sup>†</sup>Two die cages are required for FT1243-100.

#### For use with hose:

FC372, FC373, FC374, FC375, FC615, FC390, FC615, FC690, FC901, FC902, FC914, FC916





SAE Straight Thread O-Ring Male\*\* **FC5809** 

SAE 37° (JIC) Swivel **FC5810** 

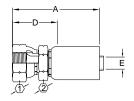
All dimensions in inches.

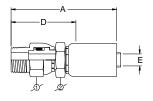
Complete Fitting Part Number	Die Part No.	Pusher Part No.	Thread	Hose Size	A	D	E∅	н	(1)	(2)
Male O-Ring Boss	<u> </u>									
FC5809-0403S	FT1243-100-3 <sup>†</sup>	FT1243-150-1	<sup>7</sup> / <sub>16</sub> -20	-03	1.91	1.11	.10			.56
FC5809-0604S	FT1243-100-4 <sup>†</sup>	FT1243-150-4	9/16-18	-04	2.02	1.12	.15			.69
FC5809-0606S	FT1243-100-6 <sup>†</sup>	FT1243-150-5	9/16-18	-06	2.37	.92	.28			.75
FC5809-0806S	FT1243-100-6 <sup>†</sup>	FT1243-150-8	3/4-16	-06	2.42	.97	.28			.88
FC5809-0808S	FT1243-100-8 <sup>†</sup>	FT1243-150-9	3/4-16	-08	2.72	1.07	.38			.94
FC5809-1008S	FT1243-100-8 <sup>†</sup>	FT1243–150-18	<sup>7</sup> / <sub>8</sub> -14	-08	2.78	1.13	.38			1.06
SAE 37° (JIC) Swi	ivel									
FC5810-0402S	FT1243-100-2 <sup>†</sup>	FT1243-250-11	1/16-20	-02	1.81	1.12	.07		.62	.56
FC5810-0303S	FT1243-100-3 <sup>†</sup>	FT1243-250-17	³/ <sub>8</sub> -24	-03	2.12	1.32	.10		.56	.56
FC5810-0403S*	FT1243-100-3 <sup>†</sup>	FT1243-250-10	<sup>7</sup> / <sub>16</sub> -20	-03	2.20	1.40	.10		.62	.56
FC5810-0503S	FT1243-100-3 <sup>†</sup>	FT1243-250-1	1/2-20	-03	2.22	1.42	.10		.75	.56
FC5810-0404S*	FT1243-100-4 <sup>†</sup>	FT1243-250-11	<sup>7</sup> / <sub>16</sub> -20	-04	2.37	1.47	.15		.62	.62
FC5810-0504S	FT1243-100-4 <sup>†</sup>	FT1243-250-12	1/2-20	-04	2.40	1.50	.15		.75	.62
FC5810-0604S	FT1243-100-4 <sup>†</sup>	FT1243-250-12	9/16-18	-04	2.40	1.50	.15		.75	.62
FC5810-0505S	FT1243-100-5 <sup>†</sup>	FT1243-250-12	1/2-20	-05	2.48	1.20	.22		.75	.62
FC5810-0605S	FT1243-100-5 <sup>†</sup>	FT1243-250-12	9/16-18	-05	2.54	1.26	.22		.75	.62
FC5810-0606S*	FT1243-100-6 <sup>†</sup>	FT1243-250-14	9/16-18	-06	2.76	1.32	.28		.75	.75
FC5810-0806S	FT1243-100-6 <sup>†</sup>	FT1243-250-4	3/4-16	-06	2.81	1.36	.28		.94	.75
FC5810-1006S	FT1243-100-6 <sup>†</sup>	FT1243-250-5	<sup>7</sup> /8-14	-06	2.90	1.46	.28		1.00	.88
FC5810-0808S*	FT1243-100-8 <sup>†</sup>	FT1243-250-15	3/4-16	-08	3.11	1.46	.38		.94	.88
FC5810-1008S	FT1243-100-8 <sup>†</sup>	FT1243-250-5	<sup>7</sup> /8-14	-08	3.10	1.46	.38		1.00	.88
FC5810-1208S	FT1243-100-8 <sup>†</sup>	FT1243-250-7	11/16-12	-08	3.19	1.54	.38		1.25	1.00
FC5810-1010S	FT1243-100-10 <sup>†</sup>	FT1243-250-5	<sup>7</sup> /8-14	-10	3.36	1.54	.50		1.00	1.00
FC5810-1212S*	FT1243-100-12 <sup>†</sup>	FT1243-250-7	11/16-12	-12	3.39	1.54	.59		1.25	1.12
FC5810-1616S*	FT1243-100-16 <sup>†</sup>	FT1243-250-8	15/16-12	-16	4.14	1.74	.78		1.50	1.38

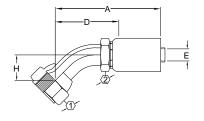
<sup>\*</sup>Also available in 316 stainless steel; substitute "-259" for "S" in base part number when ordering.
\*\*22617 O-Ring supplied.

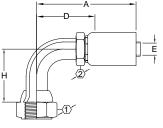
<sup>&</sup>lt;sup>†</sup>Two die cages are required for FT1243-100.











SAE 45° Swivel FC5811

Male Pipe Swivel FC5812

45° Elbow Universal Swivel FC5936 SAE 37° (JIC) Swivel FC5813

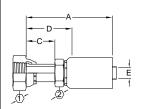
90° Elbow Universal Swivel FC5937 SAE 37° (JIC) Swivel FC5814

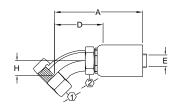
All dimensions in inches.

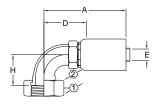
Complete Fitting				Hose	_	_			(1)	(2)
Part Number	Die Part No.	Pusher Part No.	Thread	Size	Α	D	E∅	Н	\(\frac{1}{2}\)	1 22
SAE 45° Swivel										
FC5811-0403S	FT1243-100-3†	FT1243–250–10	<sup>7</sup> / <sub>16</sub> -20	-03	2.20	1.40	.10		.62	.56
FC5811-0404S	FT1243-100-4†	FT1243-250-11	<sup>7</sup> / <sub>16</sub> -20	-04	2.37	1.47	.15		.62	.62
FC5811-0604S	FT1243-100-4†	FT1243-250-3	⁵/8-18	-04	2.40	1.51	.15		.81	.62
FC5811-0605S	FT1243-100-5†	FT1243-250-3	⁵/8-18	-05	2.57	1.30	.22		.81	.62
FC5811-0606S	FT1243-100-6†	FT1243-250-13	⁵/8-18	-06	2.76	1.32	.28		.81	.75
FC5811-0806S	FT1243-100-6†	FT1243-250-4	3/4-16	-06	2.81	1.36	.28		.94	.75
FC5811-0808S	FT1243-100-8†	FT1243–250–15	3/4-16	-08	3.11	1.46	.38		.94	.88
FC5811-1008S	FT1243-100-8†	FT1243–250–5	<sup>7</sup> / <sub>8</sub> -14	-08	3.10	1.46	.38		1.00	.88
Male Pipe Swivel										
FC5812-0404S	FT1243-100-4†	FT1243-150-3	1/4-18	-04	2.74	1.84	.15		.69	.62
FC5812-0606S	FT1243-100-6†	FT1243-150-6	3/8-18	-06	3.18	1.73	.28		.75	.75
FC5812-0808S	FT1243-100-8†	FT1243-150-10	1/2-14	-08	3.66	1.96	.38		.94	.88
FC5812-1212S	FT1243-100-12†	FT1243-150-12	3/4-14	-12	3.88	2.03	.58		1.12	1.12
45° Elbow Univers	 sal Swivel/SAE 37° (	(IIC) Swivel								
FC5936-0403S	FT1243-100-3†	FT1243–550–4	<sup>7</sup> / <sub>16</sub> <b>-20</b>	-03	2.09	1.29	.10	.33	.56	.56
FC5936-0404S	FT1243=100=31 FT1243=100=4†	FT1243-550-5	<sup>7</sup> / <sub>16</sub> -20	-03 -04	2.09	1.29	.15	.33	.56	.62
FC5936-0404S FC5936-0504S	FT1243-100-4†	FT1243-550-5 FT1243-550-5	1/2-20	-04 -04	2.19	1.29	.15	.36	.62	.62
FC5936-0304S FC5813-0605S	FT1243-100-4†	FT1243-550-5 FT1243-550-6	<sup>9</sup> / <sub>16</sub> -18	-04 -05	2.20	1.21	.13	.39	.69	.62
FC5813-0606S	FT1243-100-51 FT1243-100-6†	FT1243-550-6 FT1243-550-8	9/ <sub>16</sub> -18	-05 -06	2.49	1.21	.24	.39	.69	.75
FC5936-0806S	FT1243-100-6†	FT1243-550-8	<sup>3</sup> / <sub>4</sub> -16	-06	3.01	1.56	.28	.55	.88	.73
	· ·		3/4-16							
FC5936-0808S	FT1243-100-8†	FT1243-550-8		-08	3.21	1.56	.37	.55	.88	.88
FC5936-1008S	FT1243-100-8†	FT1243-550-10	<sup>7</sup> / <sub>8</sub> -14	-08	3.31	1.66	.38	.64	1.00	.88
FC5813-1212S	FT1243-100-12†	FT1243-550-12	11/16-12	-12	3.75	1.91	.58	.77	1.25	1.12
FC5813-1616S	FT1243-100-16†	FT1242–550–16	15/16-12	-16	4.57	2.33	.81	1.07	1.50	1.38
90° Elbow Univers	sal Swivel/SAE 37° (	(JIC) Swivel								
FC5937-0403S	FT1243-100-3†	FT1243-550-4	<sup>7</sup> / <sub>16</sub> -20	-03	1.99	1.19	.10	.68	.56	.56
FC5937-0404S	FT1243-100-4†	FT1243-550-5	<sup>7</sup> / <sub>16</sub> -20	-04	2.08	1.19	.15	.68	.56	.62
FC5937-0504S	FT1243-100-4†	FT1243-550-5	1/2-20	-04	2.15	1.25	.15	.76	.62	.62
FC5814-0604S	FT1243-100-4†	FT1243-550-5	9/16-18	-04	2.21	1.31	.15	.85	.69	.62
FC5814-0605S	FT1243-100-5†	FT1243-550-6	9/16-18	-05	2.38	1.11	.22	.85	.69	.62
FC5814-0606S	FT1243-100-6†	FT1243-550-8	<sup>9</sup> / <sub>16</sub> -18	-06	2.56	1.11	.28	.85	.69	.75
FC5937-0806S	FT1243-100-6†	FT1243-550-8	3/4-16	-06	2.78	1.33	.28	1.09	.88	.75
FC5937-0808S	FT1243-100-8†	FT1243-550-8	3/4-16	-08	2.98	1.33	.38	1.09	.88	.88
FC5937-1008S	FT1243-100-8†	FT1243-550-10	<sup>7</sup> /8-14	-08	3.01	1.36	.38	1.23	1.00	.88
FC5814-1212S	FT1243-100-12†	FT1243-550-12	11/16-12	-12	3.71	1.86	.59	1.82	1.25	1.12
FC5814-1616S	FT1243-100-16†	FT1243-550-16	15/16-12	-16	4.53	2.14	.81	2.39	1.50	1.38

†Two die cages are required for FT1243-100.









H 22

ORS® Swivel Straight FJ9480

ORS® Swivel 45° Elbow FJ9481

ORS® Swivel 90° Elbow (Short) FJ9482

ORS® Swivel 90° Elbow (Long) FJ9483

All dimensions in inches.

Note: Fittings on this page may be swaged or crimped. See bulletin JA55 for crimp information.

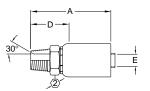
Complete Fitting Part Number	Die Part No.	Pusher Part No.	Thread T	Hose Size	A	С	D	ΕØ	н	<u>(1)</u>	(2)
Straight											
FJ9480-0404S	FT1243-100-4 <sup>†</sup>	FT1243-650-4	9/16-18	-04	2.43	.62	1.54	.15		.69	.62
FJ9480-0406S	FT1243-100-6 <sup>†</sup>	FT1243-650-6	9/16-18	-06	2.58	.72	1.13	.17		.69	.75
FJ9480-0606S	FT1243-100-6 <sup>†</sup>	FT1243-650-6	11/16-16	-06	2.86	.72	1.42	.26		.81	.75
FJ9480-0608S	FT1243-100-8 <sup>†</sup>	FT1243-650-8	11/16-16	-08	2.92	.87	1.28	.26		.81	.88
FJ9480-0808S	FT1243-100-8 <sup>†</sup>	FT1243-650-8	13/16-16	-08	3.35	.87	1.71	.38		.94	.88
FJ9480-1008S	FT1243-100-8 <sup>†</sup>	FT1243-650-8	1-14	-08	3.18	.87	1.53	.38		1.12	.88
FJ9480-1010S	FT1243-100-10 <sup>†</sup>	FT1243-650-10	1-14	-10	3.63	.97	1.81	.50		1.12	1.00
FJ9480-1212S	FT1243-100-12 <sup>†</sup>	FT1243-650-12	13/16-12	-12	3.65	1.07	1.80	.58		1.38	1.12
FJ9480-1616S	FT1243-100-16 <sup>†</sup>	FT1243-650-16	17/16-12	-16	4.41	1.14	2.02	.78		1.62	1.38
45° Elbow											
FJ9481-0404S	FT1243-100-4 <sup>†</sup>	FT1243-550-4	9/16-18	-04	2.30		1.40	.15	.41	.69	.62
FJ9481-0606S	FT1243-100-6 <sup>†</sup>	FT1243-550-6	11/16-16	-06	2.70		1.26	.24	.43	.81	.75
FJ9481-0808S	FT1243-100-8 <sup>†</sup>	FT1243-550-8	<sup>13</sup> / <sub>16</sub> -16	-08	3.25		1.61	.37	.59	.94	.88
FJ9481-1212S	FT1243-100-12 <sup>†</sup>	FT1243-550-12	13/16-12	-12	3.81		1.96	.58	.83	1.38	1.12
90° Elbow (Short)											
FJ9482-0404S	FT1243-100-4 <sup>†</sup>	FT1243-550-4	9/16-18	-04	2.15		1.25	.15	.82	.69	.62
FJ9482-0606S	FT1243-100-6 <sup>†</sup>	FT1243-550-6	11/16-16	-06	2.68		1.24	.24	.90	.81	.75
FJ9482-0808S	FT1243-100-8 <sup>†</sup>	FT1243-550-8	13/16-16	-08	3.10		1.46	.37	1.15	.94	.88
90° Elbow (Long)											
FJ9483-0404S	FT1243-100-4 <sup>†</sup>	FT1243-550-4	9/16-18	-04	2.15		1.25	.15	1.80	.69	.62
FJ9483-0606S	FT1243-100-6 <sup>†</sup>	FT1243-550-6	11/16-16	-06	2.68		1.24	.24	2.13	.81	.75
FJ9483-0808S	FT1243-100-8 <sup>†</sup>	FT1243-550-8	<sup>13</sup> / <sub>16</sub> -16	-08	3.10		1.46	.37	2.51	.94	.88

†Two die cages are required for FT1243-100.

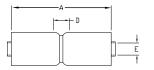


#### For use with hose:

FC701, FC702



Swage Male Pipe Fitting FJ9372/FJ5020



Swage Hose Mender Fitting FJ9373/FJ7938/FJ5021

All dimensions in inches.

Complete Fitting Part Number	Die Part No.	Pusher Part No.	Thread T	Hose Size	A	С	D	EØ	н	(1)	(2)
Swage Male Pipe											
FJ9372-0810S	FT1243-200-10	FT1243-150-21	1/2-14	-10	3.20		1.31	.50			
	FT1284-100-10	FT1284-150-10									
FJ9372-1212S	FT1243–200–12	FT1243-150-11	3/4-14	-12	3.20		1.35	.58			
	FT1284-100-12	FT1284-150-12									
FJ5020-1212S**	FT1243–200–12A	FT1243-150-11	3/4-14	-12	3.20		1.35	.58			
	FT1284-100-12A	FT1284-150-12									
FJ9372-1616S	FT1243-200-16	FT1243-150-13	1-111/2	-16	3.72		1.58	.78			
	FT1284-100-16	FT1284-150-16									
FJ9372-2020S	FT1243-200-20A	FT1243-150-20	11/4-111/2	-20	4.35		1.99	1.02			
	FT1284-100-20A	FT1284-150-20									
Swage Hose Mend	er	Yoke Part No.									
FJ9373-1010S	FT1284-100-10*	FT1284–50–10		-10	3.38		.38	.49			
FJ9373-1212S	FT1284-100-12*	FT1284–50–12		-12	3.38		.38	.58			
FJ5021-1212S**	FT1284-100-12A*	FT1284–50–12		-12	3.38		.38	.58			
FJ7938-1616S	FT1284-100-16*	FT1284-50-16		-16	4.00		.46	.81			
FJ9373-2020S	FT1284-100-20A*	FT1284-50-20		-20	4.91		.52	1.02			

<sup>\*</sup>Two die sets are required for assembly of the swage mender fitting when using the FT1284 tool. \*\*For FC702–12 hose only.

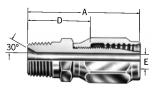




#### Polyon™ Reusable Fittings

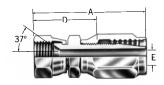
For use with hose: FC372, FC373, FC901, FC902

All dimensions in inches.



Male pipe FJ5102-

Dash Size	Thread	Hose Size	Α	D	Еф
FJ5102-					
0404S	1/4-18	-04	2.50	1.25	.17
0606S	3⁄ <sub>8</sub> -18	-06	2.41	1.17	.31
0808S	1/2-14	-08	3.10	1.50	.40



SAE 37° (JIC) swivel FJ5100-

OAL 37 (310) 3WVC11 03100					
Dash Size	Thread	Hose Size	A	D	<b>Ε</b> φ
FJ5100-					
0404S	<sup>7</sup> / <sub>16</sub> <b>-20</b>	-04	2.60	1.35	.17
0606S	%16 <b>-18</b>	-06	2.60	1.36	.30
0808S	3/4-16	-08	3.20	1.59	.39
1212S	11/16-12	-12	3.78	1.78	.61

# Designating Separate SAE Boss O-Rings

The charts below offer a simple method to assure the correct O-Ring for your application.

O-Ring Base Number	Material	Operating Temperature Range
22617 (Standard)	90 Durometer Buna–N Nitrile Rubber	-30°F to +250°F (-34°C to +121°C)
22033	EPR Ethylene Propylene Rubber	-65°F to +212°F (-55°C to +100°C)
22068	Viton Fluoroelastomer	-15°F to +400°F (-25°C to +205°C)
22012	Buna–N, Low Temperature Nitrile Rubber	-65°F to +225°F (-55°C to +107°C)



O-Ring Dash Size	Tube Size	A	E
-04	-04 (1/4)	.351	.072
-06	-06 (%)	.468	.078
-08	-08 (½)	.644	.087
-10	-10 (%)	.755	.097
-12	-12 (¾)	.924	.116
-16	-16 (1)	1.171	.116
-20	-20 (1 <sup>1</sup> / <sub>4</sub> )	1.475	.118
-24	-24 (1½)	1.720	.118

# Designating Separate ORS O-Rings

The charts below offer a simple method to assure the correct O-Ring for your application.

ORS O-Ring Base Number	Material	Operating Temperature Range
FF9446 (Standard)	90 Durometer Buna–N Nitrile Rubber	-40°F to +250°F (-40°C to +121°C)
FF9807	EPR Ethylene Propylene Rubber	−65°F to +300°F (−55°C to +150°C)
22046	Viton Fluoroelastomer	-15°F to +400°F (-25°C to +205°C)
FF9855	Buna–N, Low Temperature Nitrile Rubber	-65°F to +225°F (-55°C to +107°C)
22546	Neoprene	-65°F to +300°F (-55°C to +150°C)



O-Ring Size Designation	ORS Tube Size	A	E
-11	-04	.301	.07
-12	-06	.364	.07
-14	-08	.489	.07
-16	-10	.614	.07
-18	-12	.739	.07
-21	-16	.926	.07
-25	-20	1.176	.07
-29	-24	1.489	.07



 $\mathcal{L}$ 

Since the FT1242 Swage Machine has been obsoleted, Eaton approves the following machine/tooling combinations in order to attach Polyon™ fittings onto Aeroquip thermoplastic hoses:

- Ditto-3000 Electric Machine with Aeroquip Dies— Kurt Manufacturing/Ditto Hydraulic Products can be contacted at 1-800-578-1018
- Synflex Super Mark V (part number 4530-005S2) with Aeroquip Dies
- Synflex Super Mark V with Synflex Dies.



#### **Pusher and Die Cross Reference**

Aeroquip	Synflex	Parker
FT1243-100-2	4540-302	302
FT1243-100-3	4540-303	303
FT1243-100-4	4540-304	304
FT1243-100-5	4540-305	305
FT1243-100-6	4540-306	306
FT1243-100-8	4540-308	308
FT1243-100-10	4540-310	310
FT1243-100-12	4540-312	312
FT1243-100-16	4540-316	316
FT1243-150-1	4599-MP001	PUM 001
FT1243-150-2	4599-MP002	PUM 002
FT1243-150-3	4599-MP003	PL 4
FT1243-150-4	4599-MP004	PUM 004
FT1243-150-5	4599-MP005	PUM 005
FT1243-150-6	4599-MP006	PL 6
FT1243-150-7	4599-MP007	PUM 007
FT1243-150-8	4599-MP008	PUM 008
FT1243-150-9	4599-MP009	PUM 009
FT1243-150-10	4599-MP010	PL 8
FT1243-150-11	4599-MP011	PUM 011
FT1243-150-12	4599-MP012	PL 12
FT1243-150-13	4599-MP013	PUM 013
FT1243-150-18	4599-MP018	PUF 019
FT1243-250-1	4599-FP001	PUF 001
FT1243-250-2	4599-FP002	PUF 002
FT1243-250-3	4599-FP003	PUF 003
FT1243-250-4	4599-FP005	PUF 005
FT1243-250-5	4599-FP006	PUF 006
FT1243-250-6	4599-FP007	PUF 007
FT1243-250-7	4599-FP008	PUF 008
FT1243-250-8	4599-FP009	PUF 009
FT1243-250-10	4599-FP011	PUF 011
FT1243-250-11	4599-FP012	PUF 012
FT1243-250-12	4599-FP013	PUF 013
FT1243-250-13	4599-FP014	PUF 014
FT1243-250-14	4599-FP015	PUF 015
FT1243-250-15	4599-FP016	PUF 016
FT1243-550-4	4599-TP204	PUT 001
FT1243-550-5	4599-TP205	PUT 002
FT1243-550-6	4599-TP206	PUT 002
FT1243-550-8	4599-TP208	PUT 003
FT1243-550-10	4599-TP310	PUT 004
FT1243-550-12	4599-TP312	PUT 005
FT1243-550-16	4599-TP316	



#### FF10257 Sewer Cleaning Hose Inspection Kit

The sewer cleaning hose inspection kit comes complete with a blue inspection gauge, china marker and instructions.

Hose Part Number	Inspection Kit Part Number
FC701-12	FF10257-12
FC701-16	FF10257-16
FC701-20	FF10257-20
FC702-12	FF10257-12
FC702-16	FF10257-16



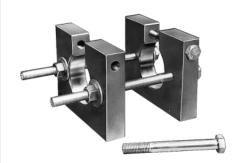
#### FT1282 Hand Swage Machine

#### **Hose Specification**

All styles on Polyon thermoplastic hose, 1/6" through 1" I.D. See Polyon fittings for die and pusher requirements.

#### **Features**

- · Lightweight aluminum and steel construction
- Easy field assembly
- Portable
- · Vise or bench mounted
- No electricity required
- 5" x 6%" x 17%," 12 lbs.



#### FT1284 Swage Assembly Tool

#### **Hose Specification**

For use with Polyon Sewer Cleaning hose.

#### **Features**

- Lightweight portable design for convenient on-the-job assembly
- Simple operation, only requires optional dies, 2 wrenches, yoke and lubricant to assemble hose and fittings

#### **Specifications**

- Size: 101/2" long; 81/4" wide; 61/2" high
- Weight: 221/2 lbs.
- · Material: steel

Swage die
Swage die
Swage die
Swage die
Pusher
Pusher
Pusher
Pusher
Yoke
Yoke
Yoke
Yoke

\*Two die sets required for swage mender assembly.
†Required for mender assembly.



#### ProCrimp® 1380

The *Pro*Crimp FT1380 is the industry's easiest and fastest means of assembling Aeroquip hose and fittings. The *Pro*Crimp 1380 is electronically controlled to give fast, accurate crimps each and every time you need a hose assembly.

Part Number	Description
FT1380-1-1 Includes machine and instruction video	
FT1380-115	Crimp machine only

#### **Crimp Cages for FT1380**

<u> </u>
Part Number
FT1380-200-M090
FT1380-200-M120
FT1380-200-M150*
FT1380-200-M180*
FT1380-200-M210*
FT1380-200-M240*
FT1380-200-M280*
FT1380-200-M320*

\*FT1380-115-8 kit includes these 8 die cages

- User friendly operation minimizes training and mistakes
- Electronic controls mean minimal maintenance
- Crimps thermoplastic hose
- Preset crimp and simple die cage insertion to reduce setup time and errors
- Upright design for easy hose insertion
- Compact design requires little space
- Crimps -2 through -20



#### **Cut-Off Tool**

Part Number	Description
FT1258	Bench mounted cut-off tool for all non-wire reinforced hose.



#### **Hand-Held Hose Cutter**

Aeroquip's hand-held hose cutter has been specially designed for cutting all non-wire reinforced hose. The cutter's compact size makes it ideal for working in confined areas. It provides fast, accurate easy cuts—every time.

- Features a replaceable stainless steel blade that closes into its own handle for safe carrying and handling
- Includes tough, durable nylon handles
- Offered with an optional tool pouch
- Saves time and effort due to its small size and lightweight design

Part Number	Description
FCM3662	Hand-Held Hose Cutter
FCM3663	Replacement Blade
FCM3664	Tool Pouch







The rotating/rocking technique produces fast easy cuts.



#### 900705 **Steel Protective** Coil Sleeve



Recommended for use where hose lines are subjected to excessive abrasion, kinking or accidental damage. Construction: spring steel, rust resistant.

This coil should fit snugly to the hose O.D. expanding the coil I.D. (unwind the coil) may be necessary for proper installation.

#### For use with hose: see bulletin JA776.

Sleeve Dash No.	Sleeve I.D. (inches)
-17S	.44
-1S	.50
-13S	.57
-2S	.63
-3S	.75
-4S	.88
-5S	1.03
-14S	1.13
-6S	1.22
-7S	1.47

#### 900729 **Support Clamp**



These light weight vinyl-coated steel support clamps are designed to support hose where long runs are necessary.

This clamp not only furnishes a cleaner installation, but prevents damage, exposure and chafing.

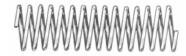
The lining will withstand high ambient temperatures

Bolt hole dia: Clamp dash no. -01 thru -8, -18 thru -23 is .406; -9 thru -17, -24 thru -31 is .531.

#### For use with hose: see bulletin JA776

For use with hose, see bulletin JATTO.				
Clamp Dash No.	Clamp I.D. (inches) Closed			
<b>–</b> 18	.25			
<b>–19</b>	.38			
-01	.44			
<b>-1</b>	.50			
-2	.56			
<del>-</del> 21	.63			
-3	.69			
-4	.75			
<b>-</b> 5	.81			
-6	.94			
-23	1.00			
-8	1.06			
<b>-9</b>	1.13			
-27	1.19			

## **Steel Protective Coil Spring**



Protects hose cover and reinforcement from abrasion and accidental damage. Construction; steel wire, rust resistant

This coil should fit snugly to the hose O.D. expanding the coil I.D. (unwind the coil) may be necessary for proper installation.

#### For use with hose: see bulletin JA776.

Spring Dash No.	Spring I.D. (inches)
-1S	.61
-12S	.67
-2S	.75
-15S	.81
-14S	.85
-3S	.91
-4S	1.04
-5S	1.18
-6S	1.34

#### 900952 **Plastic Protective Coil Sleeve**



Recommended to protect hose from abrasion, this light weight plastic sleeve is unaffected by air, water, oil, gasoline, hydraulic and most other fluids. This coil can also be used for group bundling of hose lines. Temperature range of 0°F to +180°F.

#### For use with hose: see bulletin JA776.

Sleeve Dash No.	Sleeve I.D. (inches)
-4	.25
-6	.38
-8	.50
-10	.63
-12	.75
-16	1.00
-22	1.38



Hose Cleaning System
The Jetcleaner™ hose cleaning system offers a revolutionary solution for the internal cleaning of bulk hose and finished hose assemblies. Using a low pressure air gun, the Jetcleaner™ system routes a foam projectile through the hose to thoroughly remove debris remaining from cutting, skiving and assembly operations. Available in kit form or as individual components, the Jetcleaner™ hose cleaning system is the system of choice for hose assembly professionals.

#### **Hose Kit** (P/N FT1355-01)

Includes:

Jetcleaner™ pistol, hose nozzles, 1/4" through 2" ID, adapter ring, bench stand, aluminum case, quick disconnect coupling

Note: Hose projectiles (P/N FT1355-3-size) not included in kit.

Also available individually: Jetcleaner™ pistol – FT1355-1-01 Hose nozzles - FT1355-2-size Hose projectiles - FT1355-3-size Coupling nozzles - FT1355-4-size Coupling projectiles - FT1355-5-size Adapter ring - FT1355-10-01 Carrying case – FT1355-11-02 Bench stand - FT1355-12-01

#### 23055\* Dust Plug and Cap





These flexible, plastic cap-plugs can be used for male or female ends on fittings, valves, hydraulic components, etc. They protect the threads and seal out dust and other foreign matter during storage and shipment.

\*Specify fitting part number and size.



#### Fluid Compatibility Chart

This chart indicates tube, cover and fitting material suitability for the agents shown. It is intended for use as a guide only and is not a guarantee. Final determination of the proper application is further dependent on pressure, fluid and ambient temperature, concentration of agent, intermittent or continuous exposure, etc. For further details consult your Aeroquip Field Sales Manager or Eaton Industrial Division, Van Wert, Ohio.

#### **Use of Chart**

Locate the agent to be carried. Determine suitability for the application:

G = Good

C = Conditional (Service conditions should be outlined to Aeroquip for concurrence of suitability)

U = Unsatisfactory

**Note:** When the cover rating is given as Conditional or Unsatisfactory and the tube is rated as Good or Conditional, the hose may be suitable for the application depending on the extent to which the agent contacts the cover (contact Aeroquip for further information).

**Note:** The hose cover must be perforated for use with gases. Use FC372 or FC374 which are perforated during manufacturing.

	Hytrel™	Urethane	Steel	Stainless	
Hydraulic Oil to Be Carried	Но	Hose		Fittings	
Petroleum Base Oil	G	G	G	G	
Water/Petroleum Oil Emulsion	С	С	С	G	
Water/Glycol Solution	С	С	С	G	
Phosphate Ester	G	С	G	G	
Phosphate Ester/Petroleum Oil	G	С	G	G	
Ester Blend (MIL-L-7808)	G	G	G	G	
Silicone Oil	G	G	G	G	
Polyol Ester	G	G	G	G	
Chlorinated Hydrocarbon	С	С	G	U	
Silicate Ester	G	G	G	G	

#### **Chemical Agent to Be Carried**

Acetate Solvents, crude	G	С	С	G
Acetate Solvents, pure	G	С	С	G
Acetic Acid, dilute (10%)	G	С	С	G
Acetic Acid, Glacial	G	С	С	G
Acetic Acid, vapors	С	С	С	U
Acetone	G	С	G	G
Acetylene	G	G	G	G
Air	G	G	G	G
Air (hot—to 200°F)	G	G	G	G
Alcohols	G	G	С	G
Aluminum Chloride	G	G	С	U
Aluminum Sulfate	G	G	С	G
Ammonia Gas, cold	G	С	G	G
Ammonia Liquid (Anhydrous)	U	U	G	G
Ammonium Chloride	G	G	G	U
Ammonium Hydroxide	U	U	G	G
Ammonium Nitrate	G	G	G	G
Aminorium Niliale	G	٦	G	٦

	Hytrel™	Urethane	Steel	Stainless
Chemical Agent to Be Carried	Hose		Fittings	
Ammonium Phosphate Ammonium Sulfate Amyl Acetate Amyl Alcohol Aniline, Aniline Oil Aniline Dyes Asphalt up to 180°F Barium Chloride Barium Sulfide Beet Sugar Liquors Benzene, Benzol Borax Boric Acid Brine Bromine Butyl Alcohol, Butanol Calcium Bisulfite Calcium Chloride Carbon Loride Carbon Dioxide Carbon Monoxide (hot) Carbon Tetrachloride Castor Oil Cellosolve Acetate China Wood Oil (Tung) Chlorinated Solvents Chloroform Chlorosulphonic Acid Chromic Acid 30% Citric Acid 10% Copper Chloride Copper Sulfate Cottonseed Oil Creosote Diesel Oil, Light Ethers Ethyl Acetate Ethyl Alcohol Ethylene Dichloride Ethylene Glycol Ferric Chloride Ferric Sulfate Ferrous Salt Solution Formaldehyde Formic Acid Freon 12 Freon 13 Freon 12 Freon 13 Freon 22 Fuel Oil Fufural Gasoline Glue Glycerine, Glycerol Grease Petro Heptane Hexane Hydrochloric Acid, cold, 20% Hydrocyloric Acid, hot, 20% Hydrocyloric Acid, cold Kerosene Lacquer Lacquer Solvents Linseed Oil	$\mathbf{r}$ oooossooooooooooooooooooooooooooooooo	$_{f g}$   00000000000000000000000000000000000	$ \bigcirc \bigcirc$	$ \hat{\mathbf{g}} $

	Hytrel™	Jrethane	Steel	Stainless
Chemical Agent to Be Carried	_	se	Fitti	_
LPG	G	G	G	G
Magnesium Chloride	G C	G C	G G	C G
Magnesium Hydroxide Magnesium Sulfate	G	G	G	G
Mercuric Chloride	G	G	U	С
Mercury Methyl Alcohol, Methanol	G G	G G	G	G
Methyl Chloride, cold	U	U	G	G
Methyl Ethyl Ketone	G	С	G	G
Mineral Oil Naphtha	G G	G G	G	G
Naphthalene	G	C	G	G
Nickel Chloride	G	G	С	С
Nickel Sulfate Nitric Acid, crude	G U	G U	C	G
Nitric Acid, 10%	C	c	Ü	G
Nitric Acid, 70%	U	U	U	G
Nitrobenzene Oleic Acid	U G	U G	G	G C
Oleum Spirits	Ğ	Ğ	Ğ	G
Paint (Oil Base)	G	G	G	G
Palmitic Acid Perchlorethylene	G	G U	G	G
Phosphoric Acid (Commercial)	Ü	Ŭ	Ü	G
Picric Acid, Molten	U	U	U	U
Picric Acid Solution Potassium Cyanide	U G	U G	C G	G
Potassium Hydroxide	G	С	С	G
Potassium Sulfate	G	G	G	G
Sewage Soap Solution	G G	G G	C G	U G
Soda Ash, Sodium Carbonate	G	Ğ	G	G
Sodium Bisulfate	G	G	С	С
Sodium Chloride Sodium Cyanide	G G	G	G	G
Sodium Hydroxide 50%	Ğ	Ğ	Ğ	G
Sodium Hypochlorite	G	G	С	U
Sodium Nitrate Sodium Perborate	G G	G G	G U	G
Sodium Peroxide	G	G	U	G
Sodium Phosphates	G G	G G	C G	G G
Sodium Silicates Sodium Sulfate	G	G	G	G
Sodium Sulfide	G	G	G	G
Sodium Thiosulfate "Hypo"	G G	G G	U G	G
Soybean Oil Stannic Chloride	G	G	C	U
Steam—up to 250°F	U	U	G	G
Stearic Acid Sulfur	G G	G G	U G	C G
Sulfur Chloride	С	C	U	C
Sulfur Dioxide	U	U	G	G
Sulfur Trioxide Sulfuric Acid—cold (good to 50%)	U G	U G	G U	C U
Sulfuric Acid—hot (good to 50%)	G	G	Ü	Ü
Sulfuric Acid—75% cold	U	U	U	U
Sulfuric Acid—75% hot Sulfuric Acid—95% cold	U	U	U	U
Sulfuric Acid—95% hot	U	Ü	Ü	U
Sulfuric Acid—fuming	U	U	G	С
Sulfurous Acid Tannic Acid	G G	C G	U G	G
Tar	G	G	G	G
Tartaric Acid	G	G	С	G
Toluene Trichlorethylene	G U	C	G U	G G
Turpentine	G	G	G	G
Varnish	G	G	G	G
Water Water (over +150°F)	C U	C C	C C	G G
Xylene	С	С	G	G
Zinc Chloride	G	G	U	U
Zinc Sulfate	G	G	C	G

This page is part of a complete catalog which contains technical and safety data that must be reviewed when selecting a product.



#### **Service Life Factors**

Hose assemblies, like other products, have a finite service life. The actual service life of a given hose assembly in a given application is dependent on many variable factors, including those below.

#### 1. Operating Pressure

Aeroquip hose lines are rated for continuous operation at the maximum operating pressure specified for the hose. Generally, the operating pressure is one fourth the hose minimum burst pressure.

#### 2. Pressure Surges

Almost all hydraulic systems develop pressure surges which may exceed relief valve settings. Exposing the hose to surge pressure above the maximum operating pressure will shorten hose life and must be considered. A surge (rapid and transient rise in pressure) will not be indicated on many common pressure gauges but can be measured using electronic measuring devices. In systems where surges are severe, select a hose with a higher maximum operating pressure.

#### 3. Burst Pressure

These are test values only and apply to hose assemblies that have not been used and have been assembled for less than 30 days.

#### 4. High Pressure

High pressure gaseous systems especially over 250 psi are very hazardous and should be adequately protected from external shock and mechanical or chemical damage. They should also be suitably protected to prevent whip-lash action in the event of failure.

#### 5. Operating Temperatures

Operating temperatures specified refer to the maximum temperature of the fluid or gas being conveyed. High heat conditions may have an adverse effect on hoses due to degradation of the rubber which will limit hose usefulness and reduce fitting retention. In some cases the fluid being conveyed will slow down this degradation whereas other fluids may accelerate it. Therefore, the maximum temperature of each hose does not apply to all fluids or gases. Continuous use at maximum temperatures together with maximum pressures should always be avoided.

Continuous use at or near the maximum temperature rating will cause a deterioration of physical properties of the tube and cover of most hoses. This deterioration will reduce the service life of the hose.

#### 6. Ambient Temperatures

Very high or low ambient (outside of hose) temperatures will affect cover and reinforcement materials, thus reducing the life of the hose.

Ambient temperatures in conjunction with internal temperatures are also an important factor. For specific recommendations, please consult Aeroquip.

#### 7. Bend Radius

Recommended minimum bend radii are based on maximum operating pressures with no flexing of the hose. Safe operating pressure decreases when bend radius is reduced below the recommended minimum. Flexing the hose to less than the specified minimum bend radius will reduce hose life.

#### 8. Electrical Conductivity

Textile reinforced thermoplastic hoses are available for electrically nonconductive applications.

For applications requiring electrical isolation by the hose, Aeroquip non-conductive hose has a leakage factor of less than 50 microamperes. By SAE J517 standard, this is considered a safe level of conductivity.

An orange polyurethane cover identifies Aeroquip nonconductive hose. This cover is not perforated, in order to prevent moisture from entering the hose and affecting its overall conductivity.

For added protection against moisture absorption in transit, Aeroquip non-conductive hose in bulk is shipped with cap seals on both ends. To maintain minimum levels of conductivity, cap seals must be placed on Aeroquip non-conductive bulk hose at all times.

#### 10. Vacuum Service

Maximum negative pressures shown for hoses –16 and larger are suitable only for hose which has suffered no external damage or kinking. If greater negative pressures are required for –16 and larger hoses, the use of an internal support coil is recommended. See page 00. If vacuum data is not given for a hose, Aeroquip does not recommend it for a vacuum application.

#### 13. Hose Fittings

Aeroquip manufactures hose fittings to meet applicable SAE standards. It is possible to select a fitting with a connecting end that has a performance rating lower than the hose rating. In selecting hose fittings, please consider the performance rating of the connecting end.

#### **IMPORTANT**

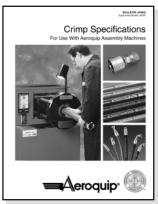
#### **Hose Assembly Inspection**

Hose assemblies in service should be inspected frequently for leakage, kinking, corrosion, abrasion, or any other signs of wear or damage. Hose assemblies that are worn or damaged should be removed from service and replaced immediately.

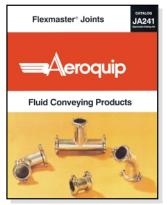




### Other Aeroquip Product Literature



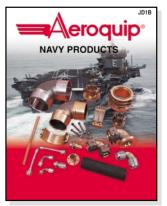
Crimp Specifications Bulletin JA55



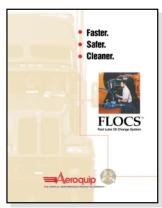
Flexmaster Joints Catalog JA241



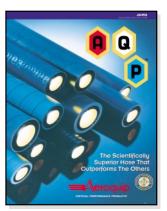
Performance Products Bulletin JC125



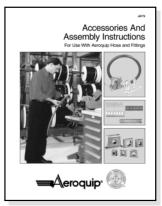
Marine Products Catalog JD1



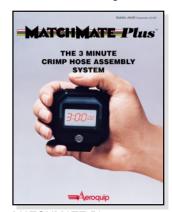
FLOCS Bulletin JB13



AQP Products Bulletin JA49



Accessories And Assembly Instructions Catalog JA776



MATCHMATE Plus Bulletin JA592



Fluid Products Catalog JA316



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Specifications subject to change without notice