

EATON

Aeroquip

AQP Hose
Technical Manual



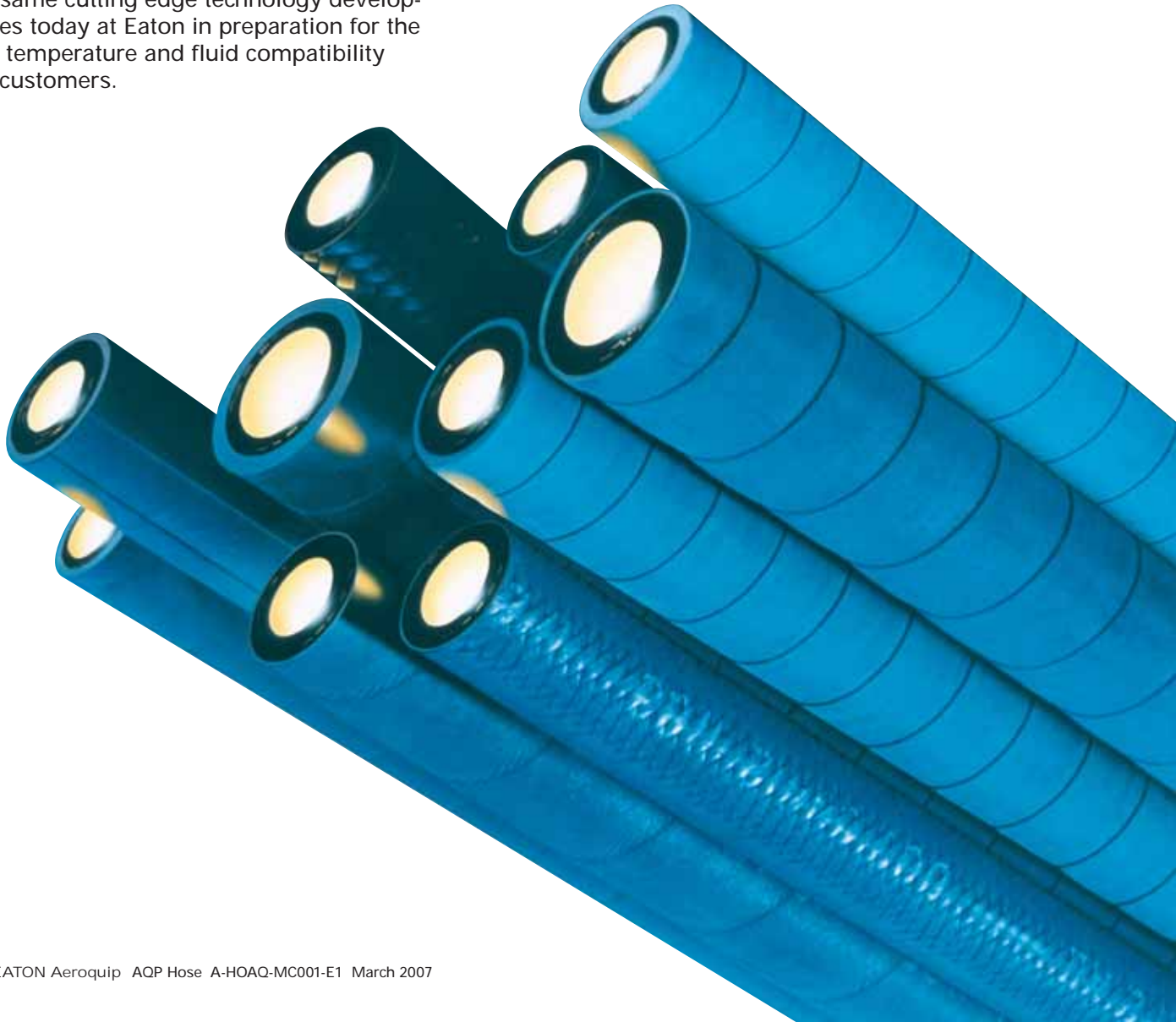
Introduction to AQP Hose

Eaton's AQP® family of hose is scientifically superior to any hose on the market today.

Materially different, AQP hose is constructed with elastomeric materials that carry the U.S. Patent No. 4,366,746. When launched in the early 70's, there was nothing like it. Over 30 years later, Eaton™ AQP is known as the most reliable 300°F hose in use in the field today! Years of performance verification have proven it's unique superiority. There really is, "nothing quite like it."

The development of AQP was a major breakthrough by an Aeroquip® team of chemists and engineers. AQP was the result of testing of thousands of compounds. The same cutting edge technology development continues today at Eaton in preparation for the even tougher temperature and fluid compatibility needs of our customers.

Take the AQP Test - Proven Performance.
Prove it for yourself.



Introduction to AQP Hose



Long Lasting Service

AQP superiority is reflected in its durability and long lasting service life under the most challenging conditions. AQP hose outlasts conventional hose up to five times longer.

Extreme Temperature Range

It's superior in its operating temperature range of up to +302° F. with straight petroleum base oils.

NOTE: While they have also shown compatibility up to +302° F. with certain synthetic fluid types, the fluid manufacturer's recommended maximum operating temper-

ature for any specific name brand fluid should be scrupulously observed by the user. These recommended temperatures can vary widely between name brands because of different fluid compositions, even though they fall into the same generic "family" of fluids.

Exceeding the manufacturer's recommended maximum temperature can result in fluid breakdown, producing by-products that are harmful to elastomeric products, as well as other materials in the systems. This also holds true with petroleum base fluids.

Specific high temperatures are shown next to each general fluid type listed below. The AQP elastomer is resistant to many fluids not shown. For more information, contact Aeroquip with details of your intended application.

The following are Aeroquip's recommended maximum fluid operating temperatures for AQP hose, by general fluid classification.

Fluid Compatibility

AQP hose superiority is reflected in its compatibility with virtually every type of hydraulic fluid, lubricating oil or fuel at both high and low temperature extremes.*

Versatility

The AQP compound is used in a variety of hose constructions including MatchMate BLUE,™ HI-IMPULSE® and HI-PAC® designs to provide excellent temperature resistance, extended fluid compatibility and performance well above SAE standards. MatchMate BLUE, HI-IMPULSE and HI-PAC AQP hose meet SAE dimensional specifications and exceed performance ratings to meet the most demanding requirements.

Reduce Inventory

You can reduce inventory by stocking Aeroquip's AQP hose because of its great diversity of fluid compatibility. It's no longer necessary to inventory an assortment of hose for use with petroleum and industrial phosphate

ester based fluids. Stock the scientifically superior AQP blue line and save your inventory dollars.

Shelf Aging Practically Nonexistent

AQP hose resists oxidation, effects of ozone and other agents in the air at industrial locations.

The Bottom Line

Your operating efficiency can be improved by AQP hose. Longer service life, less equipment maintenance, less downtime, less inventory...and the prompt, dependable service you have come to expect from Aeroquip and its distributors.

*Not recommended for use with the following phosphate ester type fluids typically used in aerospace applications: Stauffer Aero-Safe 2300W, Chevron Hy-Jet IV, and Monsanto Skydrol 500B, LD4.



Fluid	Operating Temperatures
Straight petroleum base oils	up to +302°F.
Petroleum base fuels	up to +200°F.
Industrial fire resistant synthetics	up to +180°F.
Water/oil emulsions and water/glycol solutions	up to +250°F.
Other industrial fluids	up to +250°F.
Air	up to +250°F.

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Exceeds SAE100R5. The superior high temperature and abrasion resistant hose. Features extensive fluid compatibility.	
GH194 AQP Hose	7
Exceeds SAE100R1AT. MatchMate BLUE GH194 hose is a thin cover version of FC194 which now allows use of Aeroquip's popular Matchmate Plus™ Through-The-Cover (TTC) Fittings. GH194 is available in all sizes up to -20 and performs at SAE and DIN pressure levels.	
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Exceeds SAE100R2AT. MatchMate BLUE GH195 hose is a thin cover version of FC195 which now allows use of Aeroquip's popular Matchmate Plus™ Through-The-Cover (TTC) Fittings. GH195 is available in all sizes up to -32 and performs at SAE and DIN pressure levels.	
FC194 AQP HI-IMPULSE® Hose	9
Exceeds SAE100R1. Combines superior high temperature resistance and extensive fluid compatibility plus operating pressures up to 40% greater than SAE100R1 hose. Aeroquip HI-IMPULSE hose construction is patented.	
FC195 AQP HI-IMPULSE® Hose	10
Exceeds SAE100R2. The superior high pressure (up to 40% greater than SAE100R2), high temperature hose. Aeroquip HI-IMPULSE hose construction is patented.	
FC510 AQP HI-PAC Hose	11
Exceeds SAE100R2 performance requirements. Combines the flexibility and economy of HI-PAC hose with the temperature and fluid compatibility of AQP hose. Aeroquip HI-PAC hose construction is patented.	
FC323 AQP Spiral Hose	12
3,000 psi maximum operating pressure in all sizes. The features of AQP construction and spiral wire reinforcement are combined in this quality hose style. Exceeds performance requirements of comparable SAE hose.	
FC324 AQP Spiral Hose	13
4,000 psi maximum operating pressure in all sizes. When tested under demanding impulse conditions at 302° F., FC324 AQP spiral hose lasted twice as long as the leading SAE100R12 spiral hose.	
FC325 AQP Spiral Hose	13
5,000 psi maximum operating pressure in all sizes. Exclusive internal skive/wire trap crimp fittings assure long service life for 5,000 psi pressure applications. In the plant or in the field, AQP spiral hose is the toughest, longest lasting hose available.	



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FC350 AQP Hose	14
FMVSS-106 Type AII. The revolutionary truck hose with superior abrasion resistance and high temperature resistance.	
FC355 AQP Hose	15
FMVSS-106 Type AII. The superior hose ideal for truck maintenance and piping conditions where external fluid compatibility and chemical resistance are required. Hose has blue AQP elastomer cover.	
FC234 AQP Hose	16
Fire resistant fuel hose meets USCG A1 requirements. Offers positive fire resistance in critical applications without using a fire-sleeve.	
FC332 AQP SOCKETLESS Hose	17
Offers extended fluid compatibility and operating temperature range for low pressure applications. Used with Aeroquip SOCKETLESS fittings for quick and easy assembly.	
FC498 AQP Hose	18
Exceeds SAE100R6 temperature requirements. The patented AQP elastomer permits continuous operating temperatures to +302° F. and greatly exceeds the intermittent temperature capabilities of other SAE100R6 hose.	
FC598 AQP Hose	18
Exceeds SAE100R6 temperature requirements. The patented AQP elastomer permits continuous operating temperatures to +302° F. and greatly exceeds the intermittent temperature capabilities of other SAE100R6 hose.	
2661 AQP Hose	19
Exceeds SAE100R4. The dual-purpose hose with extensive fluid compatibility is ideal for either suction or chemical transfer applications.	



FC300 AQP Hose

FC300 AQP Hose

Exceeds SAE100R5 requirements.



Meets AAMVA requirements.

Meets The Maintenance Council (TMC), American Trucking Association (ATA), Recommended Practice RP305b.

Meets DOT FMVSS 106 Type All requirements.

Polyester and Wire Braided Reinforcement and Polyester Braided Cover – SAE100R5 with Standard Reusable Fittings.

FC300 AQP hose, with its exclusive high temperature tube material, provides resistance to high ambient and fluid temperatures plus superior abrasion and chemical resistance.

Having withstood over 1,000,000 impulse cycles at a continuous +302° F. fluid temperature, it outlasted standard SAE100R5 hose under the same impulse test conditions by factors up to 40 to 1. (The SAE100R5 specification only requires 150,000 cycles at +200° F.).

FC300 AQP hose is compatible with standard reusable fittings used with other Aeroquip SAE100R5 dimensioned hose.

Under long-term test conditions of +302° F., circulating engine oil, combined with flexing and high ambient temperatures FC300 AQP hose outlasted competitive SAE100R5 and SAEJ1402 constructions by a minimum of 2 to 1, and in some cases as high as 5 to 1.

After 1,000 hours exposure to +302° F. ambient air, the polyester cover was virtually unaffected, providing superior resistance to high ambient temperature conditions.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
FC300-04	4,8	0.19	13,2	0.52	210,0	3,000	840,0	12,000	76,2	3.00	94,8	28	0,19	0.13
FC300-05	6,4	0.25	14,7	0.58	210,0	3,000	840,0	12,000	85,9	3.38	94,8	28	0,24	0.16
FC300-06	7,9	0.31	17,3	0.67	157,0	2,250	630,0	9,000	101,6	4.00	94,8	28	0,27	0.23
FC300-08	10,4	0.41	19,6	0.76	140,0	2,000	560,0	8,000	117,3	4.62	94,8	28	0,32	0.26
FC300-10	12,7	0.50	23,4	0.93	122,0	1,750	490,0	7,000	139,7	5.50	94,8	28	0,49	0.37
FC300-12	16,0	0.63	27,4	1.08	105,0	1,500	420,0	6,000	165,1	6.50	94,8	28	0,58	0.46
FC300-16	22,4	0.88	31,2	1.27	56,0	800	224,0	3,200	187,5	7.38	67,7	20†	0,55	0.44
FC300-20	28,4	1.12	38,1	1.50	43,0	625	175,0	2,500	228,6	9.00	67,7	20†	0,68	0.52
FC300-24	35,1	1.38	44,5	1.75	35,0	500	140,0	2,000	266,7	10.50	50,8	15†	0,92	0.67
FC300-32‡	46,0	1.81	56,4	2.22	21,0	300	84,0	1,200	336,6	13.25	37,3	11†	1,28	0.94
FC300-40‡	60,1	2.38	73,2	2.88	21,0	300	84,0	1,200	609,6	24.00	27,1	8†	2,11	1.50

Construction

AQP elastomer tube, polyester inner braid, single wire braid reinforcement and blue polyester braid cover.

Operating Temperature Range

-49°C to +150°C [-55°F to +302°F]

Air not to exceed +121°C [+250°F].

*See Temperature range notes on page 3.

Application

Hydraulics handling petroleum base fluids and air, gasoline, fuel and lubricating oils, fire resistant hydraulic fluids and other industrial fluids.

†Maximum negative pressure shown for -16 and larger are suitable for those which has suffered no external damage or kinking. If greater negative pressures are required for -16 and larger hose, the use of an internal support coil is recommended.

‡ Does not comply with SAE 100R5 operating pressure of 350 psi or minimum burst of 1400 psi.

Fittings

Aeroquip crimp and Reusable SAE100R5 type fittings.

GH194

AQP Hose







GH194 AQP Hose

Exceeds SAE 100R1AT performance.



Meets SAE and DIN pressure levels which are the highest 1-wire industry standards, globally.

MatchMate BLUE (GH194) hose is a thin cover version of FC194 which allows use of Aeroquip's popular MatchMate Plus™ Through-The-Cover (TTC) Fittings. GH194 is available in all sizes up to -20 and performs at SAE and DIN pressure levels.

# Part Number	 Hose I.D.		 Hose O.D.		 Maximum Operating Pressure		 Minimum Burst Pressure		 Minimum Bend Radius		 Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
GH194-4	6,4	0.25	13,5	0.53	227,0	3,250	897,0	13,000	100,0	4.00	0,25	0.17
GH194-6	9,7	0.38	17,5	0.69	210,0	3,000	840,0	12,000	125,0	5.00	0,37	0.25
GH194-8	12,7	0.50	20,6	0.81	175,0	2,500	700,0	10,000	180,0	7.00	0,45	0.30
GH194-10	16,0	0.63	23,9	0.94	140,0	2,000	560,0	8,000	205,0	8.00	0,54	0.36
GH194-12	19,1	0.75	27,7	1.09	124,0	1,800	497,0	7,200	240,0	9.50	0,68	0.46
GH194-16	25,4	1.00	35,8	1.41	90,0	1,300	359,0	5,200	300,0	12.00	0,98	0.66
GH194-20	31,8	1.25	43,9	1.73	62,0	900	248,0	3,600	420,0	16.50	1,26	0.85

Construction

AQP elastomer tube, single wire braid reinforcement and blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F].
*See Temperature range notes on page 3.

Application

Petroleum and fire-resistant hydraulic fluids, fuel and lubricating oils, gasoline, water and other industrial fluids.

Fittings

MatchMate Plus Through-The-Cover (TTC) and Skive-type crimp fittings.

GH195 AQP Hose

GH195 AQP Hose

Exceeds SAE 100R2AT performance.



Meets SAE and DIN pressure levels.

MatchMate BLUE (GH195) hose is a thin cover version of FC195 which now allows use of Aeroquip's popular MatchMate Plus™ Through-The-Cover (TTC) Fittings. GH195 is available in all sizes up to -32 and performs at SAE and DIN pressure levels.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
GH195-4	6,4	0.25	15,2	0.60	400,0	5,800	1600,0	23,200	101,6	4.00	0,40	0.27
GH195-6	9,7	0.38	19,1	0.75	350,0	5,000	1400,0	20,000	127,0	5.00	0,60	0.39
GH195-8	12,7	0.50	22,1	0.87	297,0	4,250	1190,0	17,000	177,8	7.00	0,68	0.46
GH195-10	16,0	0.63	25,2	0.99	227,0	3,250	897,0	13,000	203,2	8.00	0,80	0.54
GH195-12	19,1	0.75	29,5	1.16	210,0	3,000	840,0	12,000	241,3	9.50	1,00	0.67
GH195-16	25,4	1.00	37,9	1.49	175,0	2,500	700,0	10,000	304,8	12.00	1,44	0.97
GH195-20	31,8	1.25	48,8	1.92	157,0	2,250	630,0	9,000	419,1	16.50	2,39	1.60
GH195-24	38,1	1.50	54,6	2.15	122,0	1,750	490,0	7,000	508,0	20.00	2,60	1.74
GH195-32	50,8	2.00	67,8	2.67	105,0	1,500	420,0	6,000	635,0	25.00	3,38	2.27

Construction

AQP elastomer tube, double wire braid reinforcement and blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Petroleum and fire resistant hydraulic fluids, fuel and lubricating systems.

Fittings

MatchMate Plus Through-The-Cover (TTC) and Skive-type crimp fittings.

FC194 AQP HI-IMPULSE Hose

FC194 AQP HI-IMPULSE Hose

Exceeds SAE100R1
Performance.



Patented HI-IMPULSE Single Wire Braid Reinforcement, SAE100R1 Type with Crimp Fittings. Incorporating an AQP tube and cover, this hose construction has important bonus features not found in standard SAE100R1 hose.

The maximum operating pressures for FC194 AQP hose have been upgraded to pressures in excess of standard SAE100R1 hose by as much as 40%.

FC194 AQP hose is tested at a continuous +302° F. fluid temperature. Test findings indicate this hose has an extended service life, outlasting standard SAE100R1 hose.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
FC194-04	6,4	0.25	16,0	0.63	227,0	3,250	897,0	13,000	100,0	4.00	0,28	0.19
FC194-06	9,7	0.38	19,8	0.78	210,0	3,000	840,0	12,000	125,0	5.00	0,45	0.30
FC194-08	12,7	0.50	22,9	0.90	175,0	2,500	700,0	10,000	180,0	7.00	0,58	0.39
FC194-10	16,0	0.63	26,2	1.03	140,0	2,000	560,0	8,000	200,0	8.00	0,68	0.46
FC194-12	19,1	0.75	30,2	1.19	124,0	1,800	497,0	7,200	240,0	9.50	0,79	0.53
FC194-16	25,4	1.00	38,1	1.50	90,0	1,300	359,0	5,200	300,0	12.00	1,19	0.80
FC194-20	31,8	1.25	46,0	1.81	62,0	900	248,0	3,600	420,0	16.50	1,46	0.98

Construction

AQP elastomer tube, single wire braid reinforcement and blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Petroleum and fire-resistant hydraulic fluids, fuel, lubricating oils, gasoline, water, and other industrial fluids.

Fittings

Aeroquip Skive-type crimp fittings.

FC195 AQP HI-IMPULSE Hose

FC195 AQP HI-IMPULSE Hose

Exceeds SAE100R2A
Performance.









Patented HI-IMPULSE
Double Wire Braid
Reinforcement – Exceeds
SAE100R2A Requirements
with Reusable or Crimped
Fittings.

FC195 AQP HI-IMPULSE
hose is constructed to con-
form dimensionally to the
SAE100R2A specification.
The similarity to other two-
wire braid hose on the mar-
ket ends here.

The maximum operating
pressures for FC195 AQP
hose have been upgraded to
as much as 40% greater
than conventional SAE100R2
hose.

In laboratory impulse tests,
at +302° F, the tubes of
ordinary hose hardened into
a brittle material, subject to
cracking. After identical test-
ing, FC195 AQP hose only
gained a few points in
durometer hardness.

# Part Number	 Hose I.D.		 Hose O.D.		 Maximum Operating Pressure		 Minimum Burst Pressure		 Minimum Bend Radius		 Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
FC195-04	6,4	0.25	17,5	0.69	400,0 350,0	5,800† 5,000	1600,0 1400,0	23,200† 20,000	101,6	4.00	0,46	0.31
FC195-06	9,7	0.38	21,3	0.84	350,0 280,0	5,000† 4,000	1400,0 1120,0	20,000† 16,000	127,0	5.00	0,62	0.42
FC195-08	12,7	0.50	24,6	0.97	297,0 245,0	4,250† 3,500	1190,0 980,0	17,000† 14,000	177,8	7.00	0,76	0.51
FC195-10	16,0	0.63	27,7	1.09	227,0 192,0	3,250† 2,750	1000,0 770,0	14,500† 11,000	203,2	8.00	0,88	0.59
FC195-12	19,1	0.75	31,8	1.25	216,0 210,0	3,125† 3,000	870,0 630,0	12,500† 9,000	241,3	9.50	1,12	0.75
FC195-16	25,4	1.00	39,6	1.56	175,0 140,0	2,500† 2,000	700,0 560,0	10,000† 8,000	304,8	12.00	1,55	1.04
FC195-20	31,8	1.25	50,8	2.00	157,0 113,0	2,250† 1,625	630,0 455,0	9,000† 6,500	419,1	16.50	2,50	1.68
FC195-24	38,1	1.50	57,2	2.25	124,0 122,0	1,800† 1,750	497,0 350,0	7,200† 5,000	508,0	20.00	2,84	1.91
FC195-32	50,8	2.00	69,9	2.75	105,0 87,0	1,500† 1,250	420,0 315,0	6,000† 4,500	635,0	25.00	3,56	2.39

Construction

AQP elastomer tube, double wire
braid reinforcement and blue AQP
elastomer cover.

Operating Temperature Range

–40°C to +150°C [–40°F to +302°F]
*See temperature range notes on page 3.

Application

Petroleum and fire resistant
hydraulic fluids, fuel, and lubricat-
ing systems.

† Improved pressure performance
when used with global crimp
fittings.

Fittings

Aeroquip Skive-type crimp and
Reusable fittings.

FC510

AQP HI-PAC Hose

FC510 AQP HI-PAC Hose

Exceeds SAE100R2 Performance.

Patented HI-PAC Wire Reinforcement – Performs to SAE100R2 Specifications.



Bearing no resemblance to ordinary SAE100R2 hose, our FC510 AQP HI-PAC, like other Aeroquip HI-PAC hose, is lighter, more flexible, takes less space and costs less than conventional hose meeting SAE100R2 requirements. The patented HI-PAC wire braid reinforcement permits a tighter bend radius and can be used for a variety of applications.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
FC510-04	6,4	0.25	14,5	0.57	350,0	5,000	1400,0	20,000	76,2	3.00	0,34	0.23
FC510-06	9,7	0.38	17,5	0.69	280,0	4,000	1120,0	16,000	88,9	3.50	0,43	0.29
FC510-08	12,7	0.50	20,3	0.80	245,0	3,500	980,0	14,000	127,0	5.00	0,51	0.34
FC510-10	16,0	0.63	23,6	0.93	192,0	2,750	770,0	11,000	152,4	6.00	0,65	0.44
FC510-12	19,1	0.75	27,7	1.09	157,0	2,250	630,0	9,000	177,8	7.00	0,77	0.52
FC510-16	25,4	1.00	34,8	1.37	140,0	2,000	560,0	8,000	228,6	9.00	1,06	0.71
FC510-20	31,8	1.25	43,2	1.70	113,0	1,625	455,0	6,500	279,4	11.00	1,61	1.08

Construction

AQP elastomer tube, Hi-Pac braided wire reinforcement and blue AQP elastomer cover.

Operating Temperature Range

–40°C to +150°C [–40°F to +302°F]
*See Temperature range notes on page 3.

Application

Petroleum and fire-resistant hydraulic fluids, fuel, and lubricating systems.

Fittings

MatchMate Plus Through-The-Cover (TTC), Skive-type crimp & Reusable fittings.

FC323

AQP Spiral Hose

FC323 AQP Hose

3,000 psi Maximum Operating Pressure in all sizes.



Spiral Wire Reinforcement, Exceeds SAE100R9, SAE100R11 and SAE100R12 Performance (depending on size).

Years of development were required to perfect AQP spiral wire reinforced hydraulic hose. FC323, FC324 and FC325 AQP hose combine the best of spiral wire reinforcement techniques with superior AQP elastomer tubes and abrasion resistant blue covers.

All AQP spiral hose styles have broad fluid compatibility and provide superior performance over a wide range of temperatures. In the plant or in the field, AQP spiral hose is our top performer for tough, demanding applications. FC323 AQP hose is designed for use with either standard crimped fittings or internal skive/wire trap crimped fittings. Standard crimp fittings (available in sizes -12 through -24) provide simple assembly and a minimum of special assembly tooling.

The internal skive/wire trap crimped fittings designed for use with FC323 and FC325 AQP hose are available in sixteen different styles. The exclusive wire trap design enables the fittings to grip the reinforcing wire between two pieces of solid steel resulting in proven superior holding strength. FC324 hose uses screw-together reusable fittings in the 1/2-inch (-08) size and standard crimp fittings in the remaining sizes.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
FC323-12	19,1	0.75	30,5	1.20	210,0	3,000	840,0	12,000	241,3	9.50	1,40	0.94
FC323-16	25,4	1.00	37,6	1.48	210,0	3,000	840,0	12,000	304,8	12.00	1,82	1.22
FC323-20	31,8	1.25	47,2	1.86	210,0	3,000	840,0	12,000	419,1	16.50	2,53	1.70
FC323-24	38,1	1.50	53,6	2.11	210,0	3,000	840,0	12,000	508,0	20.00	3,27	2.20
FC323-32	50,8	2.00	66,8	2.63	210,0	3,000	840,0	12,000	635,0	25.00	4,78	3.21

Construction

AQP elastomer tube, 4-spiral wire reinforcement and a blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Hydraulic system service with petroleum, fire-resistant, and water-base fluids, fuel, and lubricating systems.

Fittings

Single Skive and Internal Skive/Wire Trap Crimped Fittings.

FC324 & FC325 AQP Spiral Hose

FC324 AQP Hose

4,000 psi maximum operating pressure in all sizes.



# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
FC324-08	12,7	0.50	23,1	0.91	280,0	4,000	1120,0	16,000	177,8	7.00	0,91	0.61
FC324-12	19,1	0.75	30,5	1.20	280,0	4,000	1120,0	16,000	241,3	9.50	1,47	0.99
FC324-16	25,4	1.00	37,6	1.48	280,0	4,000	1120,0	16,000	304,8	12.00	1,92	1.29

Construction

AQP elastomer tube, 4-spiral wire reinforcement and a blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Hydraulic system service with petroleum, fire-resistant, and water-base fluids, fuel, and lubricating systems.

Fittings

Single Skive and Internal Skive/Wire Trap Crimped Fittings.

FC325 AQP Hose

5000 psi maximum operating pressure in all sizes.



# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	Kg/m	lbs/ft
FC325-12	19,1	0.75	32,0	1.26	350,0	5,000	1400,0	20,000	241,3	9.50	1,62	1.09
FC325-16	25,4	1.00	38,6	1.52	350,0	5,000	1400,0	20,000	304,8	12.00	2,11	1.42

Construction

AQP elastomer tube, 4-spiral wire reinforcement and a blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Hydraulic system service with petroleum, fire-resistant, and water-base fluids, fuel, and lubricating systems.

Fittings

Internal Skive/Wire Trap Crimped Fittings for all sizes.

FC350

AQP Truck Hose

FC350 AQP Truck Hose

Meets DOT FMVSS 106 Type All.

Meets DOT FMVSS 106 Type All requirements.

Meets AAMVA requirements.

Meets The Maintenance Council (TMC), American Trucking Association (ATA), Recommended Practice RP305b.



Polyester and Single Wire Braided Reinforcement and Polyester Braided Cover – SAE100R5 Type Reusable Fittings.

FC350 AQP hose is designed for low-pressure uses, including truck air brake and engine applications. It incorporates a construction like that used in FC300 AQP hose, but contains less reinforcement. It is more flexible and lighter in weight for easy handling and routing.

It has been subjected to extensive testing for abrasion resistance, hot oil life, low temperature flexibility, fluid compatibility and corrosion resistance.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
FC350-04	4,8	0.19	13,2	0.52	140,0	2,000	560,0	8,000	19,1	0.75	94,8	28	0,22	0.13
FC350-05	6,4	0.25	14,7	0.58	105,0	1,500	420,0	6,000	25,4	1.00	94,8	28	0,34	0.16
FC350-06	7,9	0.31	17,3	0.68	105,0	1,500	420,0	6,000	31,8	1.25	94,8	28	0,35	0.20
FC350-08	10,4	0.41	19,6	0.77	87,0	1,250	350,0	5,000	44,5	1.75	94,8	28	0,43	0.23
FC350-10	12,7	0.50	23,9	0.94	87,0	1,250	350,0	5,000	57,2	2.25	94,8	28	0,59	0.33
FC350-12	16,0	0.63	27,4	1.08	52,0	750	210,0	3,000	69,9	2.75	67,7	20	0,68	0.39
FC350-16	22,4	0.88	31,2	1.23	28,0	400	112,0	1,600	88,9	3.50	50,8	15	0,74	0.50
FC350-20	28,4	1.12	38,1	1.50	21,0	300	84,0	1,200	114,3	4.50	50,8	15	0,87	0.56
FC350-24	35,1	1.38	44,5	1.75	17,0	250	70,0	1,000	139,7	5.50	37,2	11	1,02	0.63

Construction

AQP elastomer tube, polyester inner braid and a single wire braid reinforcement; black polyester textile braided cover.

Operating Temperature Range

-49°C to +150°C [-55°F to +302°F]

Air not to exceed +121°C [+250°F].

*See Temperature range notes on page 3.

Application

Air, gasoline, fuel lubricating oils and coolants.

Fittings

Aeroquip crimp and Reusable SAE100R5 type fittings.

FC355 AQP Hose

FC355 AQP Hose



FC355 AQP hose is designed for demanding truck applications. It is ideal for truck maintenance and piping conditions where external fluid compatibility and chemical resistance are required.

It provides outstanding resistance against heat, abrasion and has an extended shelf life.

FC355 AQP hose meets or exceeds these requirements:

1. U.S. Department of Transportation-Federal Motor Vehicle Safety Standard, 106 Type All (size -4 through -12).
2. The Maintenance Council (TMC), American Trucking Association (ATA), Recommended Practice RP305b.

FC355 AQP hose has a minimum bend radius that is ideal for easy routing in the following areas: air, transmission, brake retarder, coolant, fuel and lubricating oil piping systems.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
FC355-04	4,8	0.19	13,2	0.52	105,0	1,500	420,0	6,000	19,1	0.75	94,8	28	0,22	0.17
FC355-05	6,4	0.25	14,7	0.58	105,0	1,500	420,0	6,000	25,4	1.00	94,8	28	0,34	0.20
FC355-06	7,9	0.31	17,3	0.68	105,0	1,500	420,0	6,000	31,8	1.25	94,8	28	0,35	0.24
FC355-08	10,4	0.41	19,6	0.77	87,0	1,250	350,0	5,000	44,5	1.75	94,8	28	0,43	0.29
FC355-10	12,7	0.50	23,9	0.94	87,0	1,250	350,0	5,000	57,2	2.25	94,8	28	0,59	0.40
FC355-12	16,0	0.63	27,4	1.08	52,0	750	210,0	3,000	69,9	2.75	67,7	20	0,68	0.46
FC355-16	22,4	0.88	31,5	1.24	28,0	400	112,0	1,600	88,9	3.50	50,8	15	0,74	0.50
FC355-20	28,7	1.13	38,6	1.52	21,0	300	87,0	1,250	114,3	4.50	50,8	15	0,87	0.59
FC355-24	35,1	1.38	44,5	1.75	17,0	250	70,0	1,000	139,7	5.50	37,2	11	1,02	0.69
FC355-32	46,0	1.81	56,4	2.22	14,0	200	56,0	800	215,9	8.50	37,2	11	1,37	0.93

Construction

AQP elastomer tube, polyester inner braid and a single wire braid reinforcement, blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
Air not to exceed 250 psi or +250°C [+121°F].

*See Temperature range notes on page 3.

Application

Air, gasoline, fuel, lubricating oils and coolants.

Fittings

Aeroquip crimp and Reusable SAE100R5 type fittings.

FC234 AQP Hose

FC234 AQP Hose

Meets USCG AI Requirements.



Fire Resistant Hose Meets USCG AI Requirements.

FC234 AQP hose offers positive fire resistance in critical applications, including marine diesel and gasoline fuel systems. FC234 hose offers flame-resistant performance without using firesleeve-covered hose.

Filled with gasoline, FC234 hose can survive exposure for 2-1/2 minutes in a gasoline-fed fire with peak ambient temperatures exceeding 1,200° F. While in the flame, the hose assembly remains leakproof and capable of conducting fuel safely.

FC234 AQP hose meets these standards:

1. U.S. Coast Guard – USCG COMDTINST M16752.2 (Old CG-497) Type AI Hose Fire Test (Recreational Marine). Meets Class I permeation schedule.
2. U.S. Coast Guard – USCG/MMT CG-115 Hose Fire Test per 46CFR56.60-25(c) and Cover Flammability Test per 30CFR18.65 MSHA (Commercial Marine).
3. American Boat and Yacht Council – ABYC Fuel Systems Standard H-24, part 9C, per Aeroquip ACES testing.
4. BIA Type Accepted – meets requirements for permanent fuel systems in recreational boats. Ref: 1982 BIA Certification Handbook, BIA-144-79, based on ABYC Fuel System Standard H-24, 9C(1), and USCG M16752-2, Sub-part J.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
FC234-05	6,4	0.25	14,7	0.58	105,0	1,500	420,0	6,000	25,4	1.00	94,8	28	0,32	0.22
FC234-06	7,9	0.31	17,3	0.68	105,0	1,500	420,0	6,000	31,8	1.25	94,8	28	0,37	0.25
FC234-08	10,4	0.41	19,3	0.76	87,0	1,250	350,0	5,000	44,5	1.75	94,8	28	0,44	0.30
FC234-10	12,7	0.50	23,9	0.94	87,0	1,250	350,0	5,000	57,2	2.25	94,8	28	0,66	0.45
FC234-12	16,0	0.63	27,4	1.08	52,0	750	210,0	3,000	69,9	2.75	67,7	20	0,71	0.48
FC234-16	22,4	0.88	31,5	1.24	28,0	400	112,0	1,600	88,9	3.50	54,2	16	0,75	0.51

Construction

AQP elastomer tube, brass plated steel wire reinforcement, braided refractory insulation and blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Diesel fuel, gasoline, hot lube oil and water.

Fittings

Aeroquip crimp and Reusable SAE100R5 type fittings.

FC332 AQP SOCKETLESS Hose

FC332 AQP SOCKETLESS Hose



You can easily replace hose yourself in a matter of minutes. With Aeroquip FC332 AQP hose and matching SOCKETLESS reusable fittings, replacement of a failed low pressure hose line is as simple as "1-2-connect."

Like all AQP hose styles, FC332 resists temperature extremes, oxidation, ozone and the effects of shelf aging. Whenever low or continuous high temperatures or fluid compatibility is a problem, FC332 provides the ideal solution for low pressure applications.

The SOCKETLESS reusable fittings are designed for quick and easy assembly. No clamps, bands, wires, bolts or sockets are needed to retain the fitting to the hose. The design of the fitting and the special construction of the hose assures a tight connection with maximum operating pressures up to 250 psi.

Fittings can be used in a variety of industrial and automotive applications, but are not recommended for hydraulic impulse applications and are not approved for air brake applications.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
FC332-04	6,4	0.25	12,4	0.49	17,0	250	70,0	1,000	76,2	3.00	94,8	28	0,12	0.08
FC332-06	9,7	0.38	16,0	0.63	17,0	250	70,0	1,000	76,2	3.00	94,8	28	0,18	0.12
FC332-08	12,7	0.50	19,1	0.75	17,0	250	70,0	1,000	127,0	5.00	94,8	28	0,22	0.15
FC332-10	16,0	0.63	23,1	0.91	17,0	250	70,0	1,000	152,4	6.00	60,9	18	0,30	0.20
FC332-12	19,1	0.75	26,4	1.04	17,0	250	70,0	1,000	177,8	7.00	60,9	18	0,42	0.28

Construction

AQP elastomer tube, textile braid reinforcement, AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
Air not to exceed +121°C [+250°F] and water not to exceed +82°C [+180°F].
*See Temperature range notes on page 3.

Application

For gasoline, fuel and lubricating oils, air and water. Not recommended for hydraulic impulse applications and not approved for airbrake applications.

Fittings

SOCKETLESS Reusable Fittings.

FC498 & FC598 AQP Hose

Exceeds 100R6 intermittent temperature requirements.

Aeroquip FC498 AQP hose is specifically designed for low pressure valve and cylinder return line applications. The superior performance of the AQP elastomer permits continuous operating temperatures to 302° F. and greatly exceeds the intermittent temperature capabilities of other SAE100R6 hose.

The AQP elastomer tube in FC498 hose withstands long exposure to an extensive array of industrial fluids and is compatible with water, air, gasoline, fuel, petroleum-based and fire resistant hydraulic fluids and lubricating oils. FC498 hose resists temperature extremes (-40° F. to +302° F.), oxidation, ozone and the effects of shelf aging.

Whenever low or continuous high temperatures or fluid compatibility is a problem, FC498 hose provides the ideal solution for low pressure applications. FC498 hose and fittings are not approved for air brake applications.

FC498 AQP Hose



# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
FC498-04	6,4	0.25	12,7	0.50	28,0	400	112,0	1,600	63,5	2.50	94,8	28	0,12	0.08
FC498-06	9,7	0.38	15,7	0.62	28,0	400	112,0	1,600	75,0	3.00	94,8	28	0,19	0.13
FC498-08	12,7	0.50	19,1	0.75	28,0	400	112,0	1,600	100,0	4.00	94,8	28	0,22	0.15
FC498-10	16,0	0.63	23,1	0.91	24,0	350	98,0	1,400	125,0	5.00	60,9	18	0,30	0.20
FC498-12	19,1	0.75	26,2	1.03	24,0	350	98,0	1,400	150,0	6.00	60,9	18	0,42	0.28

Construction

AQP elastomer tube, textile braid reinforcement, blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Low pressure return lines in hydraulic systems.

Fittings

Crimped.

FC598 AQP Hose



# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
FC598-04	6,4	0.25	12,7	0.50	28,0	400	112,0	1,600	63,5	2.50	94,8	28	0,12	0.08
FC598-06	9,7	0.38	15,7	0.62	28,0	400	112,0	1,600	75,0	3.00	94,8	28	0,19	0.13
FC598-08	12,7	0.50	19,1	0.75	28,0	400	112,0	1,600	100,0	4.00	94,8	28	0,22	0.15
FC598-10	16,0	0.63	23,1	0.91	24,0	350	98,0	1,400	125,0	5.00	60,9	18	0,30	0.20
FC598-12	19,1	0.75	26,2	1.03	24,0	350	98,0	1,400	150,0	6.00	60,9	18	0,42	0.28

Construction

AQP elastomer tube, textile braid reinforcement, black AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Low pressure return lines in hydraulic systems.

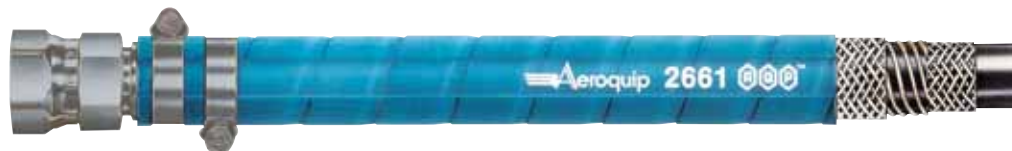
Fittings

Crimped.

2661 AQP Hose

2661 AQP Hose

Exceeds SAE100R4 Performance.



Hydraulic Suction and Chemical Transfer Hose.

Because of its AQP tube, Aeroquip 2661 AQP hose has versatility beyond normal SAE100R4 hydraulic suction applications. Its flexibility, light weight, smaller envelope dimensions and almost universal fluid compatibility permit extensive use in chemical plants and tank truck applications.

Unlike common rubber compounds, the AQP tube has proved resistant to many concentrated acids, solvents, petroleum products, as well as petroleum-base and industrial fire resistant hydraulic fluids, extending user service life. All this at a lower cost than most competitive chemical transfer hose.

# Part Number	Hose I.D.		Hose O.D.		Maximum Operating Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Service		Weight of Hose	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kPa	in/Hg	Kg/m	lbs/ft
2661-12	19,1	0.75	31,8	1.25	21,0	300†	84,0	1,200	125,0	5.00	94,8	28	0,62	0,42
2661-16	25,4	1.00	38,1	1.50	17,0	250†	70,0	1,000	150,0	6.00	94,8	28	0,74	0,50
2661-20	31,8	1.25	45,7	1.80	14,0	200†	56,0	800	200,0	8.00	94,8	28	1,34	0,90
2661-24	38,1	1.50	52,3	2.06	10,5	150†	42,0	600	255,0	10.00	94,8	28	1,68	1,13
2661-32	50,8	2.00	64,8	2.55	7,0	100†	28,0	400	300,0	12.00	94,8	28	1,93	1,30
2661-40	63,5	2.50	78,2	3.08	4,0	62	16,0	225	355,0	14.00	94,8	28	2,56	1,72
2661-48‡	76,2	3.00	90,9	3.58	4,0	62	16,0	225	460,0	18.00	94,8	28	2,92	1,96
2661-64‡	101,6	4.00	119,1	4.69	3,5	50	14,0	200	610,0	24.00	94,8	28	4,58	3,08

Construction

AQP elastomer tube, reinforcement consisting of a helical wire between two textile braids and blue AQP elastomer cover.

Operating Temperature Range

-40°C to +150°C [-40°F to +302°F]
*See Temperature range notes on page 3.

Application

Suction and transfer applications for petroleum and fire resistant hydraulic fluids, fuel, lubricating oils, gasoline, water and many other industrial fluids.

† Maximum working pressure for band clamp type fittings is 3,4 bar [50 psi].

‡ Sold as bulk hose only.

Fittings

Reusable Fittings: Nipple and Clamp.

Crimped Fittings: Sizes -12 through -48 only.

Hose Assembly Made Easy

AQP Hose

MatchMate BLUE™ Hose Styles GH194 and GH195 join five other steel braided hydraulic hose offerings now used with the MatchMate Plus™ Crimp Hose Assembly System.

All seven hose are available in popular sizes and can be quickly selected and assembled with factory quality results using the Aeroquip ProCrimp™ 1380 and 1390 electronic hose crimp machines or the Aeroquip ET1280 and ET1290 manual hose crimp machines.



Hose Assembly Equipment

ProCrimp 1380 and 1390

ProCrimp 1380

Featuring an electronic control pad with 10 programmable pre-set buttons for your most popular hose styles, the ProCrimp 1380 crimp machine crimps hydraulic hose including four spiral varieties, through 1-1/4" I.D.



ProCrimp 1390

Able to crimp hydraulic hose assemblies in sizes through 2 inch I.D., the ProCrimp 1390 crimp machine has the capacity and force to accommodate all crimp fitting styles produced by Aeroquip in the Americas. Like the ProCrimp 1380, the ProCrimp 1390 is designed to deliver accurate, repeatable and dependable performance through use of programmable electronic controls.



Hose Assembly Equipment

ET1280 and ET1290

ET1280

While being one of our most economical crimp machines to-date, the new ET1280 machine boasts a broad crimp capability with an ease-of-use that is sure to please hose assemblers. The new ET1280 will handle virtually all hose styles through -20 SAE100R12 hose and fittings. All die cages, crimp diameters and approved hose and fitting combinations are identical to the popular FT1380 & FT1380P crimp machines. Crimp diameters are controlled using a dial indicator and that allows for precise and adjustable finished crimp diameters.



Upright Model



Adjustable Model

ET1290

The new ET1290 will handle virtually all hose styles through -32 SAE100R13 hose and fittings. All die cages, crimp diameters and approved hose and fitting combinations are identical to the popular FT1390 crimp machine. Crimp diameters are controlled using a dial indicator and that allows for precise and adjustable finished crimp diameters.



Notes

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Aeroquip

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