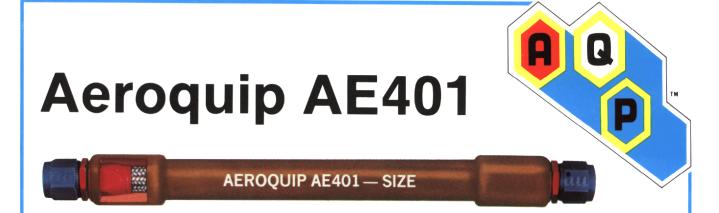


**AEROSPACE ENGINEERING BULLETIN** 

35

Supersedes AEB-251

HOSE/FITTINGS



## Silicone Covered AQP Hose for Fire Protection

# Provides long life and high performance for fuel, lube, oil and coolant applications.

AE401 AQP hose lets you maintain the light weight, low profile and same minimum bend radius as AE701 AQP hose, while meeting the fire test requirements of TSO-C53a Type C.

The integral silicone fire protection cover is applied directly onto the hoses' metal braid and

end fittings to form a smooth, tight bond. This hose/fire protection cover combination lasts many times longer than unsleeved hose and provides high performance in demanding power plant and air frame applications.

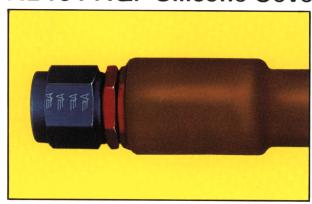
## **AE401 AQP Hose Benefits**

- Offers excellent chafe resistance for long life
- · Silicone cover is asbestos free
- Permits tight clamping when routed which eliminates internal chafing between the hose and sleeve
- Smaller envelope for neater appearance
- Hose flexibility is not impaired which aids tight routing
- Non-age sensitive for extra-long life
- Light weight
- Prevents fluid "wicking" often associated with conventional firesleeves
- Manufactured in long lengths
- Temperature range, -65°F to +300°F

Assemblies can be fabricated from bulk hose and "little gem"® reusable fittings. See Aeroquip Service Bulletin ASB-129 and Engineering Bulletin AA38.



## **AE401 AQP Silicone Covered Hose**



#### How It's Made

**Inner Tube:** seamless, specially formulated synthetic AQP compound.

**Reinforcement:** stainless steel wire braid consisting of a partial inner braid and full coverage outer braid with an integral silicone cover.

#### **Specifications**

Fluid Compatibility: versatile inner tube is compatible with nearly all petroleum-based oils, aviation gas, JP fuels, synthetic-based fluids including MIL-L-7808 and MIL-L-23699 lubricating



AE401 AQP hose permits tight clamping when routed which eliminates internal chafing between the hose and cover often associated with conventional firesleeves.

fluids. Unaffected by alcohols, coolants and solvents commonly used in aerospace systems.

Operating Temperatures: -65°F to +300°F

**Testing:** AE401 hose assemblies were subjected to extensive qualification tests. A copy of the test report is available upon request.

**NOTE:** Consult Aeroquip for approval before using AE401 hose in hydraulic impulse pressure applications.

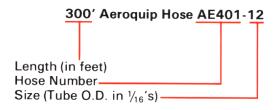
## **AE401 Hose AQP Dimensional Data**

Hose Size	O.D. Tube Size	I.D. Min.	O.D. Max.	Operating Pressure (PSIG)	Proof Pressure (PSIG)	Min. Burst Pressure (PSIG)	Min. Bend Radius	Weight lbs./ft.
-4	1/4	.204	.755	1000	3000	6000	2.00	.310
-6	3/8	.329	.864	1000	3000	6000	2.50	.351
-8	1/2	.415	.966	1000	2500	5000	3.50	.396
-10	5/8	.539	1.112	1000	2500	5000	4.00	.474
-12	3/4	.665	1.253	1000	2000	4000	4.50	.592
-16	1	.844	1.465	750	1500	3000	5.50	.750
-20	1 1/4	1.094	1.726	500	1300	2000	8.00	.891

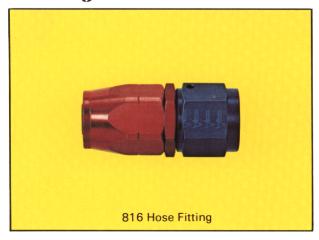
## How to Order Aeroquip AE401 AQP Hose in Bulk Quantities

To order Aeroquip AE401 hose, simply state the length desired followed by the part number and the size, as indicated in the following example:

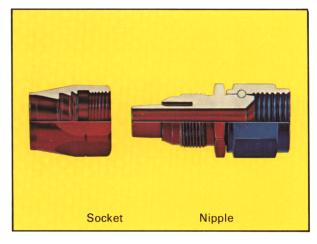
See next page for socket cover ordering instructions. Request Aerospace Service Bulletin ASB-129 for AE401 hose assembly instructions.



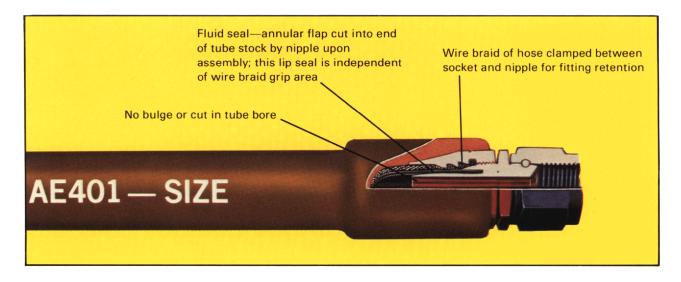
## "little gem" Reusable Fittings



Aeroquip "little gem" fittings are noted for their outstanding performance as a result of a unique lipseal design concept. During assembly the nipple spur cuts a lip in the tube stock of the hose forming



the fluid seal. The hose reinforcement is separated from this annular flap and is gripped firmly between the outside of the nipple and the serrations inside the socket.



#### "little gem" Fittings Standard Material Specifications

Nut: -3, -4 and -5 steel AMS5024 (C1137)

Nut: -6 and up aluminum, AMS4119 (2024)

Nut Wire: Cres., AMS5685 (305)

Nipple: -3, -4 and -5 steel AMS5024 (C1137)

Nipple: -6 and up aluminum, AMS4119 (2024)

Elbow: -3, -4 and -5 steel AMS5024 (C1137) -6 and up aluminum, AMS4117 (6061)

Socket: AMS4117 (6061) All sizes

## **How to Order Bulk Fittings**

Contact your nearest Aeroquip Aerospace Division distributor or write to Advertising Department—Aeroquip Corporation, Aerospace Division. Request Aeroquip Engineering Bulletin AA38. It contains the complete line of "little gem" reusable fittings.

## Silicone Socket Covers

Order by part number AE23389-size

"little gem" fitting size	-4	-6	-8	-10	-12	-16	-20
mating socket cover size	-002	-003	-004	-005	-006	-007	-008

Example: AE23389-006 fits -12 size fitting.

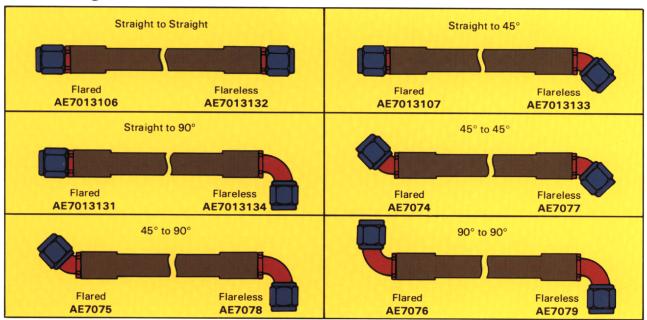
Silicone Rubber Sealant: AE15965-002 (cartridge); AE15965-005 (tube)

## How to Order Aeroquip AE401 AQP Hose Assemblies

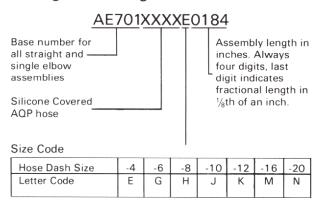
In order to properly specify the correct hose assembly you need, please use the simple numbering system shown. Straight and single elbow assemblies are identified by the number on this page beginning with AE701, and double elbow

assemblies are identified by a number beginning with AE7XXX. Any assembly you wish to specify can be ordered using one of the two numbers shown.

#### **End Configurations Available**



#### Straight and Single Elbow Assemblies



#### AE70XXE0184-225 Angle in degrees AE7000 series Measure angle Elbow position applies to double counter-clockwise angle expressed in elbow assemblies **FND** three digits **VIEW** Assembly length. Always four digits, last digit indicates fractional length in 1/8th of an inch Size Code Hose Dash Size -4 -6 -8 -10 -12 20

Ε

G

Н

J

K

-16

Μ

Ν

**Double Elbow Assemblies** 



#### **Aerospace Group**

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Letter Code

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