



AEROSPACE ENGINEERING BULLETIN

AA

3

Supersedes APN-1

HOSE/FITTINGS

# AE645 Nomex\* Reinforced Convolutated Teflon\* Hose

**Weights up to 36% less than  
equivalent wire braid hose**

Aeroquip AE645 hose was developed to combine the routing flexibility of lightweight rubber hose with the fluid compatibility of Teflon hose. Consisting of a conductive convoluted Teflon tube and Nomex reinforcement, AE645 hose is lightweight, flexible and ideal for applications such as electronic coolant lines, fuel lines, etc. Lightweight aluminum nipple assemblies and stainless steel sockets are offered as standard end fittings to ensure Aeroquip's proven compression crimp retention.

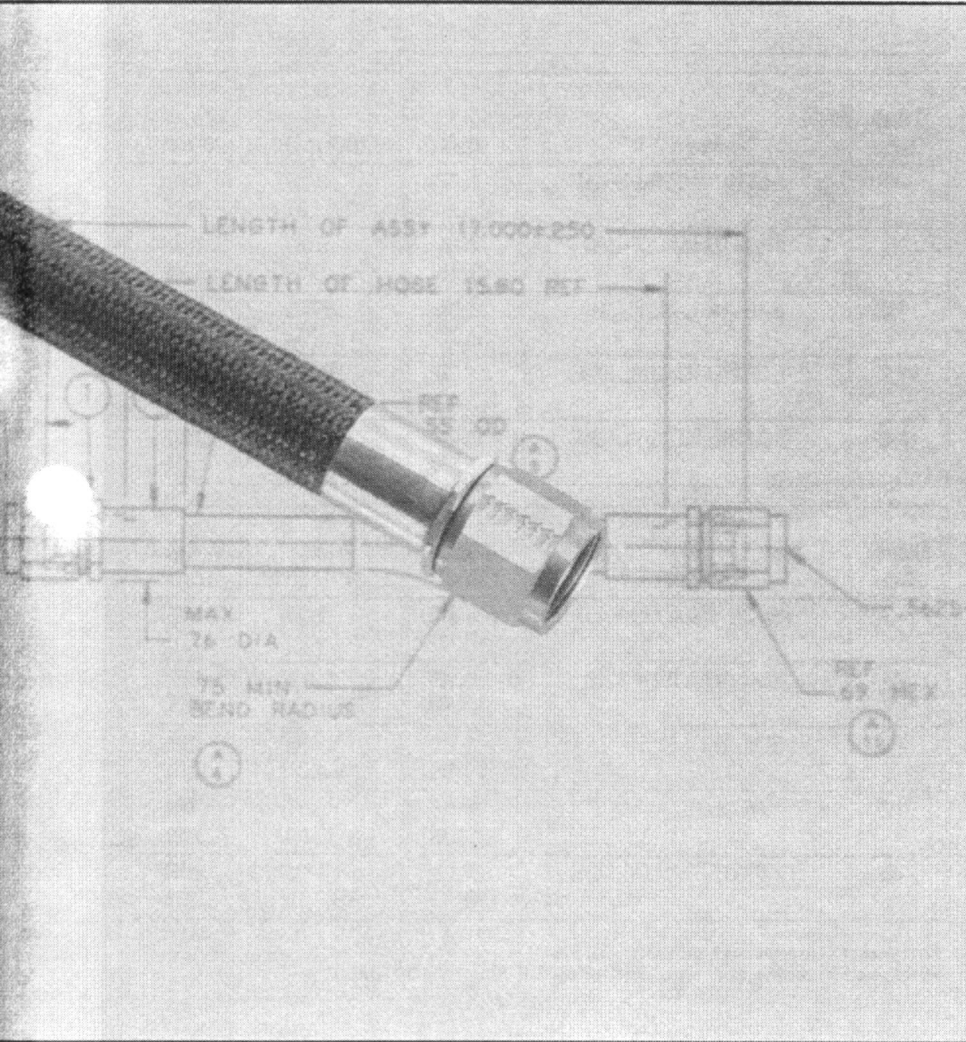
AE645 hose meets or exceeds the performance requirements of AS1227, Class 2, Type I. (-10, -12 and -16 sizes require an internal support coil to meet vacuum requirements of AS1227.) Operating temperature range: -65° F (-54° C) to +275° F (+135° C).

\*Nomex and Teflon are DuPont trademarks.

### WEIGHT COMPARISON

Lbs./Ft. in bold type, Kgs./m in light type

Size	AE645 Hose (Nomex Braid)	AE641 Hose (CRES Braid)
-6	<b>.08</b>	<b>.10</b>
	.12	.15
-8	<b>.12</b>	<b>.15</b>
	.18	.22
-10	<b>.15</b>	<b>.20</b>
	.22	.30
-12	<b>.19</b>	<b>.30</b>
	.28	.45
-16	<b>.25</b>	<b>.39</b>
	.37	.58



### AE645 HOSE DATA

Inches and Pounds in bold type, Millimeters and Bars in light type

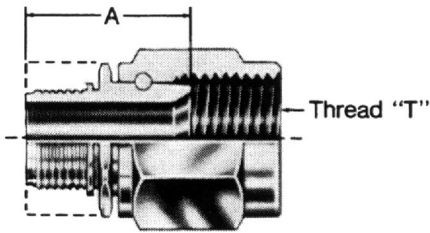
Size	Operating Pressure (PSIG/Bar)	I.D. Min. (in./mm)	O.D. Max. (in./mm)	Min. Bend Radius (in./mm)	Vacuum Rating (in./mm Hg)
-6	<b>300</b>	<b>.355</b>	<b>.575</b>	<b>.75</b>	<b>28</b>
	20.70	9.02	14.60	19.05	711
-8	<b>250</b>	<b>.510</b>	<b>.760</b>	<b>1.00</b>	<b>28</b>
	17.25	12.95	19.30	25.40	711
-10	<b>250</b>	<b>.600</b>	<b>.870</b>	<b>1.50</b>	<b>15**</b>
	17.25	15.24	22.10	38.10	381

Size	Operating Pressure (PSIG/Bar)	I.D. Min. (in./mm)	O.D. Max. (in./mm)	Min. Bend Radius (in./mm)	Vacuum Rating (in./mm Hg)
-12	<b>200</b>	<b>.765</b>	<b>1.075</b>	<b>2.00</b>	<b>15**</b>
	13.80	19.43	27.30	50.80	381
-16	<b>200</b>	<b>.980</b>	<b>1.315</b>	<b>3.00</b>	<b>10**</b>
	13.80	24.89	33.40	76.20	254

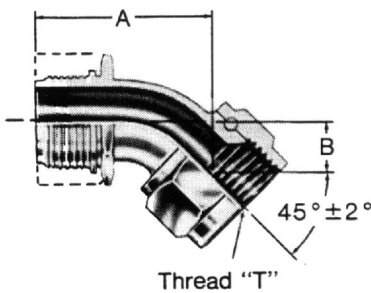
\*\* Vacuum rating without internal support coil

# FITTING DATA

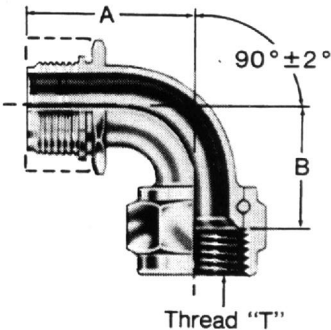
## ALUMINUM NIPPLES WITH CRES SOCKETS



Dash Size	Thread "T"	A* Ref.	Weight Max.
-6	.5625-18 UNJF-3B	<b>1.21</b> 30.73	<b>.052</b> .024
-8	.750-16 UNJF-3B	<b>1.34</b> 34.04	<b>.086</b> .039
-10	.875-14 UNJF-3B	<b>1.51</b> 38.35	<b>.113</b> .051
-12	1.0625-12 UNJ-3B	<b>1.60</b> 40.64	<b>.172</b> .078
-16	1.3125-12 UNJ-3B	<b>1.71</b> 43.43	<b>.227</b> .103



Dash Size	Thread "T"	A* Ref.	B Ref. ± .035/.889	Weight Max.
-6	.5625-18 UNJF-3B	<b>1.73</b> 43.94	<b>.479</b> 12.167	<b>.054</b> .024
-8	.750-16 UNJF-3B	<b>1.81</b> 45.97	<b>.509</b> 12.929	<b>.086</b> .039
-10	.875-14 UNJF-3B	<b>2.05</b> 52.07	<b>.573</b> 14.554	<b>.116</b> .053
-12	1.0625-12 UNJ-3B	<b>2.30</b> 58.42	<b>.625</b> 15.875	<b>.180</b> .082
-16	1.3125-12 UNJ-3B	<b>2.44</b> 61.98	<b>.682</b> 17.323	<b>.243</b> .110



Dash Size	Thread "T"	A* Ref.	B Ref. ± .035/.889	Weight Max.
-6	.5625-18 UNJF-3B	<b>1.54</b> 39.12	<b>.979</b> 24.867	<b>.055</b> .025
-8	.750-16 UNJF-3B	<b>1.59</b> 40.39	<b>1.014</b> 25.756	<b>.087</b> .039
-10	.875-14 UNJF-3B	<b>1.85</b> 46.99	<b>1.176</b> 29.870	<b>.129</b> .059
-12	1.0625-12 UNJ-3B	<b>2.17</b> 55.12	<b>1.378</b> 35.001	<b>.196</b> .089
-16	1.3125-12 UNJ-3B	<b>2.32</b> 58.93	<b>1.532</b> 38.913	<b>.253</b> .115

\*Dimension is measured from end of socket.

**Inches and Pounds in bold type, Millimeters and Kilograms in light type**



**Aerospace Group**

300 S. East Avenue, Jackson, MI 49203-1972

Phone: 517-787-8121, Telex: 223412, Fax: 517-787-5758

**ATRINOVA** Company

**AEROQUIP CORPORATION / MAUMEE, OHIO, U.S.A. 43537**

*Specifications subject to change without notice / Aeroquip products are protected by patents internationally*

***Aeroquip products are available around the corner, around the world***