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AS7051™

RATIONALE

FEDERAL SUPPLY CLASS
4720

NEW PART STANDARD.

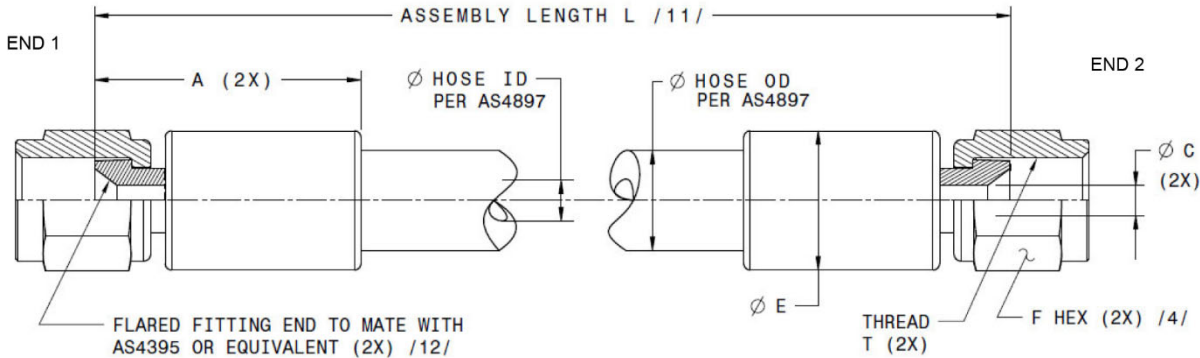


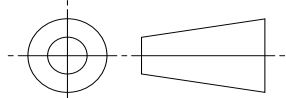
FIGURE 1 - HOSE ASSEMBLY

TABLE 1 - DIMENSIONS (INCHES)

HOSE ASSEMBLY NO. & SIZE /14/	HOSE SIZE (REF)	FITTING TYPE /15/	THREAD T PER AS8879 (REF)	HOSE ID MIN (REF)	A CUFF MAX	C MIN BALL DIA /8/	E MAX	F HEX (REF)
AS7051D (-03)	.188	S	.3750-24UNJF-3B	.110	1.23	.072	.58	.500
		E	.4375-20UNJF-3B	.110	1.25	.072	.58	.562
AS7051E (-04)	.250	R	.3750-24UNJF-3B	.173	1.34	.072	.69	.500
		S	.4375-20UNJF-3B	.173	1.35	.119	.69	.562
		E	.5000-20UNJF-3B	.173	1.42	.119	.69	.625
AS7051F (-05)	.313	R	.4375-20UNJF-3B	.235	1.36	.119	.72	.562
		S	.5000-20UNJF-3B	.235	1.36	.174	.72	.625
		E	.5625-18UNJF-3B	.235	1.49	.174	.72	.688
AS7051G (-06)	.375	R	.5000-20UNJF-3B	.298	1.52	.174	.79	.625
		S	.5625-18UNJF-3B	.298	1.59	.230	.79	.688
		E	.7500-16UNJF-3B	.298	1.70	.230	.79	.875
AS7051H (-08)	.500	R	.5625-18UNJF-3B	.391	1.70	.230	.91	.688
		S	.7500-16UNJF-3B	.391	1.72	.306	.91	.875
		E	.8750-14UNJF-3B	.391	1.89	.306	.91	1.000
AS7051J (-10)	.625	R	.7500-16UNJF-3B	.485	1.99	.306	1.05	.875
		S	.8750-14UNJF-3B	.485	2.04	.387	1.05	1.000
		E	1.0625-12UNJ-3B	.485	2.04	.387	1.05	1.250
AS7051K (-12)	.750	R	.8750-14UNJF-3B	.615	2.12	.387	1.19	1.000
		S	1.0625-12UNJ-3B	.615	2.12	.493	1.19	1.250
		E	1.3125-12UNJ-3B	.615	2.50	.493	1.19	1.500

For more information on this standard, visit
<https://www.sae.org/standards/content/AS7051/>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS4897 /7/



AEROSPACE STANDARD

HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE,
METAL BRAID, LOW PRESSURE, FIREPROOF, FLARED,
STRAIGHT TO STRAIGHT

AS7051™
SHEET 1 OF 3

Documents

ISSUED 2024-09

TABLE 2 - ASSEMBLY LENGTH TOLERANCES

HOSE ASSEMBLY LENGTH	TOLERANCE
UNDER 18 INCHES	±.125 INCH
18 TO 36 INCHES, EXCLUSIVE	±.250 INCH
36 TO 50 INCHES, EXCLUSIVE	±.500 INCH
50 INCHES AND OVER	±1%

TABLE 3 - HOSE WEIGHT MAX - ALL OTHERS REF

HOSE OR FITTING	FITTING TYPE	UNITS	HOSE SIZE -03	HOSE SIZE -04	HOSE SIZE -05	HOSE SIZE -06	HOSE SIZE -08	HOSE SIZE -10	HOSE SIZE -12
HOSE	--	LB/IN	.008	.010	.012	.014	.017	.022	.027
FITTING ENDS									
CRES	S	LB/EA	.032	.053	.065	.088	.151	.199	.298
TI	S	LB/EA	.026	.038	.046	.063	.106	.133	.198

NOTES:

1. CONSTRUCTION AND PERFORMANCE: AS4897, FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.
2. OPERATING CHARACTERISTICS: REFER TO AS4897.
3. HOSE AND FITTING MATERIALS PER AS4897. /5/
- /4/ STANDARD COUPLING NUTS SHALL BE IN ACCORDANCE WITH AN818, AS1790, OR AS4370 (AS1791 WIRE AS APPLICABLE) AND MATE WITH AS4395 OR EQUIVALENT FITTING ENDS. NONSTANDARD COUPLING NUTS MAY BE USED, PROVIDED THEY ARE FUNCTIONALLY EQUIVALENT, AND PROVIDED THEY CANNOT BE REMOVED FROM THE FITTING. NUTS SHALL MEET THE TORQUE TEST REQUIREMENTS PER AS4897.
- /5/ FOR TITANIUM FITTINGS, THE BASIC MATERIAL SHALL BE TITANIUM, EXCEPT THE COLLAR (SOCKET) AND SWIVEL NUT RETAINING WIRE MAY BE CORROSION-RESISTANT STEEL (CRES).
6. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 MICROINCHES Ra.
- /7/ PROCUREMENT SPECIFICATION: AS4897, EXCEPT AS SPECIFIED IN THIS STANDARD. PRODUCT MANUFACTURED TO THIS STANDARD SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN AND THE PROCUREMENT SPECIFICATION. ORIGINAL COMPONENT MANUFACTURERS (OCM) AND VALUE-ADDED DISTRIBUTORS (VAD) SHALL BE LISTED IN THE PRI QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS4897 FOR THIS STANDARD. SEE www.eAuditNet.com FOR CURRENT QPL ONLINE.
- /8/ A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING ID. HOWEVER, THE APPLICABLE MINIMUM BALL DIAMETER LISTED IN TABLE 1 MUST BE CAPABLE OF PASSING THROUGH THE HOSE ASSEMBLY.
9. MARKING: MARKING SHALL BE PER AS4897 ON A STAINLESS STEEL BAND NOT OVER 1.0 INCH WIDE OR ON THE COLLAR. THE CHARACTERS SHALL BE A MINIMUM OF .0625 INCH HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOVEMENT AND RESULTANT CHAFING. IT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND. HOSE ASSEMBLY DATE AND "PT" SYMBOL SHALL BE PERMANENTLY MARKED ON THE BAND OR ON AN END FITTING OR A FIRE SLEEVE CLAMP. IDENTIFICATION BANDS MAY BE APPLIED TO HOSE OR OVER END FITTING AND MAY BE COVERED WITH A CLEAR HEAT SHRINK SLEEVE PER AMS-DTL-23053/11. MARKING SHALL INCLUDE "AS1055 TYPE IIa CLASS B-S/P" AND/OR "AS150 TYPE IaB."
10. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
- /11/ LENGTH "L" IS A THREE-DIGIT NUMBER OF WHICH THE FIRST TWO DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE THIRD DIGIT, THE FRACTION OF AN INCH IN EIGHTHS. LENGTH "L" IS MEASURED FROM "END POINT" TO "END POINT." FOR LENGTH TOLERANCES, SEE TABLE 2.
- /12/ WHEN CODE "S" IS SPECIFIED IN THE PART NUMBER, SOLID FILM LUBE REQUIRED ON BOTH END FITTINGS. LUBRICATE "B" NUT ID THREADS AND SHOULDER OR WIRE GROOVE WITH SOLID FILM LUBRICANT PER AS5272, TYPE I.

NOTE: USERS SHALL EVALUATE AND DETERMINE TORQUE REQUIREMENTS FOR SOLID FILM LUBRICANT OPTION FOR EACH SPECIFIC APPLICATION.

	AEROSPACE STANDARD		AS7051™ SHEET 2 OF 3	
	HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, METAL BRAID, LOW PRESSURE, FIREPROOF, FLARED, STRAIGHT TO STRAIGHT			

