INCH-POUND

AN840 Rev 10
7 June 2011
SUPERSEDING
AN840 Rev 9
20 March 1979

DETAIL SPECIFICATION SHEET

ADAPTER, STRAIGHT, PIPE TO HOSE

Reinstated after 7 June 2011. Inactive for new design.
For new design, use SAE-AS5183.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and SAE-AS4843/2.

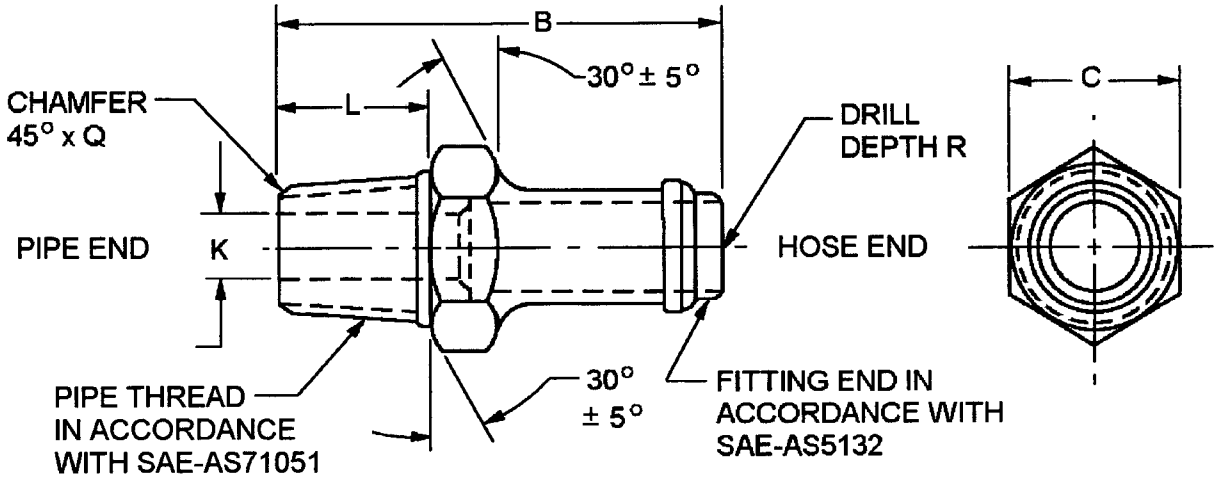


FIGURE 1. Adapter, straight, dimensions and configuration.

Dash number	Hose ID inches (mm)	Pipe thread SAE-AS71051	B inches (mm) ±.031 (0.79)	C inches (mm)	
4	.250 (6.35)	1/8-27 NPT	2.078 (52.78)	.437 (11.10)	+.003 (0.08) -.004 (0.10)
6	.375 (9.53)	1/4-18 NPT	2.344 (59.54)	.625 (15.88)	±.004 (0.10)
8	.500 (12.70)	3/8-18 NPT	2.375 (60.33)	.750 (19.05)	±.004 (0.10)
9	.625 (15.88)	3/8-18 NPT	2.375 (60.33)	.875 (22.23)	±.004 (0.10)
10	.625 (15.88)	1/2-14 NPT	2.578 (65.48)	.937 (23.80)	±.004 (0.10)
11	.750 (19.05)	3/8-18 NPT	2.406 (61.11)	1.000 (25.40)	±.004 (0.10)
12	.750 (19.05)	3/4-14 NPT	2.625 (66.78)	1.125 (28.58)	±.005 (0.13)
13	1.000 (25.40)	3/8-18 NPT	2.625 (66.78)	1.250 (31.75)	±.005 (0.13)
16	1.000 (25.40)	3/4-14 NPT	2.625 (66.78)	1.250 (31.75)	±.005 (0.13)
17	1.000 (25.40)	1-11.5 NPT	2.844 (72.24)	1.375 (34.93)	±.005 (0.13)
20	1.250 (31.75)	1/ 1/4-11.5 NPT	2.891 (73.43)	1.750 (44.45)	±.016 (0.41)
21	1.250 (31.75)	1-11.5 NPT	2.875 (73.03)	1.500 (38.10)	±.005 (0.13)
24	1.500 (38.10)	1 1/2-11.5 NPT	2.938 (74.63)	2.000 (50.80)	±.016 (0.41)
25	1.500 (38.10)	1 1/4-11.5 NPT	2.906 (73.81)	1.750 (44.45)	±.016 (0.41)

Dash number	K dia. ±.003 (0.08) inches (mm)	L inches (mm)	Q inches (mm)	R inches (mm)
4	---	.391 (9.93)	.031 (0.79)	---
6	---	.594 (15.09)	.047 (1.19)	---
8	---	.594 (15.09)	.047 (1.19)	---
9	.403 (10.24)	.594 (15.09)	.047 (1.19)	1.625 (41.28)
10		.766 (19.46)	.063 (1.60)	---
11	.403 (10.24)	.594 (15.09)	.047 (1.19)	1.625 (41.28)
12	---	.781 (19.84)	.063 (1.60)	---
13	.403 (10.24)	.719 (18.26)	.047 (1.19)	1.625 (41.28)
16	.717 (18.21) .736 (18.69) (see note 6)	.781 (19.84)	.063 (1.60)	1.656 (42.06)
17	---	.969 (24.61)	.078 (1.98)	---
20	---	.984 (24.99)	.078 (1.98)	---
21	.887 (22.53)	.969 (24.61)	.078 (1.98)	1.656 (42.06)
24	---	1.000 (24.50)	.078 (1.98)	---
25	1.091 (27.71)	.969 (24.61)	.078 (1.98)	1.656 (42.06)

FIGURE 1. Adapter, straight, dimensions and configuration - Continued.

Dash number	Weight max lbs (kg)			
	Copper alloy	Al alloy	Steel	Ti alloy
4	.039 (0.018)	.013 (0.059)	.038 (0.02)	.021 (0.01)
6	.069 (0.031)	.023 (0.010)	.067 (0.03)	.038 (0.02)
8	.099 (0.044)	.033 (0.015)	.097 (0.04)	.055 (0.02)
9	.126 (0.057)	.042 (0.019)	.123 (0.06)	.069 (0.03)
10	.171 (0.078)	.057 (0.026)	.167 (0.08)	.094 (0.04)
11	.159 (0.072)	.053 (0.024)	.156 (0.07)	.087 (0.04)
12	.258 (0.117)	.086 (0.025)	.252 (0.11)	.142 (0.06)
13	.258 (0.117)	.086 (0.039)	.252 (0.11)	.142 (0.06)
16	.270 (0.122)	.090 (0.041)	.264 (0.12)	.149 (0.07)
17	.381 (0.173)	.127 (0.057)	.373 (0.17)	.210 (0.10)
20	.681 (0.309)	.227 (0.103)	.666 (0.30)	.375 (0.17)
21	.471 (0.214)	.157 (0.071)	.461 (0.21)	.260 (0.12)
24	.825 (0.374)	.275 (0.125)	.807 (0.37)	.455 (0.21)
25	.705 (0.320)	.235 (0.107)	.689 (0.31)	.388 (0.18)

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified tolerances are ±.016 inch (0.41 mm).
4. Break sharp edges .and remove all hanging burrs and slivers
5. Machined surfaces shall be finished to 125µ in Ra, forged surfaces shall be 250µ inches Ra, unless otherwise specified on the figures. Surface finish shall be in accordance with ASME B46.1.
6. These dimensions are limits and specified tolerances do not apply.
7. For design features purposes, this standard takes precedence over documents referenced herein.

FIGURE 1. Adapter, straight, dimensions and configuration - Continued.

REQUIREMENTS:

Dimensions and configuration shall be in accordance with figure 1

Installation shall be in accordance with MS21344.

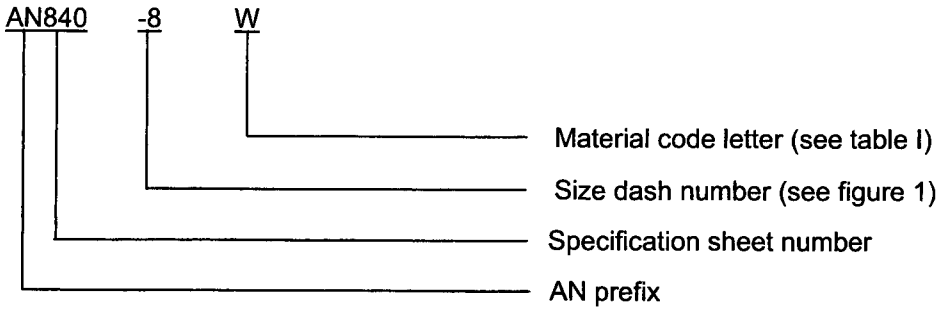
Materials and finishes shall be in accordance with SAE-AS4843/2, see table I for material code.

TABLE I. Material and designators.

Code letter	Material
Blank	Copper alloy
R	Corrosion resistant steel (CRES), Type 321
S	CRES, type 347
T 1/	Titanium alloy
W	Aluminum alloy 7075-T73

1/ Not for use in oxygen systems.

Part or Identifying Number (PIN): The PIN consists of the letter "AN" the specification sheet number, a dash number for hose and pipe size, and a code letter for material type. Unassigned PIN's shall not be used.



PIN example: AN840-8W indicates an adapter, straight, pipe to hose, .6250 inch (.1588 mm), aluminum alloy 7075-T73.

Supersession data. The aluminum "D" designator has been replaced by the "W" designator.

Marking: Part shall be permanently marked with the AN PIN, and include the manufacturers CAGE, name, or trademark.

Table II provides a detailed cross-reference of AN840 PINs and replacement SAE-AS5183 PINs. Users are cautioned to evaluate replacements for their particular application.

CAUTION: The superseding information is valid as of the date of this specification and may be superseded by subsequent revisions of the superseding document.

TABLE II. Cross-reference data. 1/

AN PIN	Tube Size	Pipe Size	Replacement AS PIN	New design
AN840-4	.250	.188	AS5183B0402	
AN840-4D	.250	.188	AS5183W0402	AS5183W0402
AN840-4R	.250	.188	AS5183R0402	
AN840-4S	.250	.188	AS5183R0402	AS5183R0402
AN840-4T	.250	.188	None	
AN840-4W	.250	.188	AS5183W0402	
AN840-6	.375	.250	AS5183B0604	
AN840-6D	.375	.250	AS5183W0604	AS5183B0604
AN840-6R	.375	.250	AS5183R0604	
AN840-6S	.375	.250	AS5183R0604	AS5183W0604
AN840-6T	.375	.250	None	
AN840-6W	.375	.250	AS5183W0604	
AN840-8	.500	.375	AS5183B0806	
AN840-8D	.500	.375	AS5183W0806	AS5183W0806
AN840-8S	.500	.375	AS5183R0806	
AN840-8S	.500	.375	AS5183R0806	AS5183R0806
AN840-8T	.500	.375	None	
AN840-8W	.500	.375	AS5183W0806	
AN840-9	.625	.375	AS5183B1006	
AN840-9D	.625	.375	AS5183W1006	AS5183B1006
AN840-9R	.625	.375	AS5183R1006	
AN840-9S	.625	.375	AS5183R1006	AS5183R1006
AN840-9T	.625	.375	None	
AN840-9W	.625	.375	AS5183W1006	
AN840-10	.625	.500	AS5183B1008	
AN840-10D	.625	.500	AS5183W1008	AS5183W1008
AN840-10R	.625	.500	AS5183R1008	
AN840-10S	.625	.500	AS5183R1008	AS5183R1008
AN840-10T	.625	.500	None	
AN840-10W	.625	.500	AS5183W1008	
AN840-11	.750	.375	AS5183B1206	
AN840-11D	.750	.375	AS5183W1206	AS5183W1206
AN840-11R	.750	.375	AS5183R1206	
AN840-11S	.750	.375	AS5183R1206	AS5183R1206
AN840-11T	.750	.375	None	
AN840-11W	.750	.375	AS5183W1206	
AN840-12	.750	.750	AS5183B1212	
AN840-12D	.750	.750	AS5183W1212	AS5183W1212
AN840-12R	.750	.750	AS5183R1212	
AN840-12S	.750	.750	AS5183R1212	AS5183R1212
AN840-12T	.750	.750	None	
AN840-12W	.750	.750	AS5183W1212	

See note at end of table.

TABLE II. Cross-reference data - Continued. 1/

AN PIN	Tube Size	Pipe Size	Replacement AS PIN	New design
AN840-13	1.000	.375	AS5183B1606	
AN840-13D	1.000	.375	AS5183W1606	AS5183W1606
AN840-13R	1.000	.375	AS5183R1606	
AN840-13S	1.000	.375	AS5183R1606	AS5183R1606
AN840-13T	1.000	.375	None	
AN840-13W	1.000	.375	AS5183W1606	
AN840-16	1.000	.750	AS5183B1612	
AN840-16D	1.000	.750	AS5183W1612	AS5183W1612
AN840-16R	1.000	.750	AS5183R1612	
AN840-16S	1.000	.750	AS5183R1612	AS5183R1612
AN840-16T	1.000	.750	None	
AN840-16W	1.000	.750	AS5183W1612	
AN840-17	1.000	1.000	AS5183B1616	
AN840-17D	1.000	1.000	AS5183W1616	AS5183W1616
AN840-17R	1.000	1.000	AS5183R1616	
AN840-17S	1.000	1.000	AS5183R1616	AS5183R1616
AN840-17T	1.000	1.000	None	
AN840-17W	1.000	1.000	AS5183W1616	
AN840-20	1.250	1.250	AS5183B2020	
AN840-20D	1.250	1.250	AS5183W2020	AS5183W2020
AN840-20R	1.250	1.250	AS5183R2020	
AN840-20S	1.250	1.250	AS5183R2020	AS5183R2020
AN840-20T	1.250	1.250	None	
AN840-20W	1.250	1.250	AS5183W2020	
AN840-21	1.250	1.000	AS5183B2016	
AN840-21D	1.250	1.000	AS5183W2016	AS5183W2016
AN840-21R	1.250	1.000	AS5183R2016	
AN840-21S	1.250	1.000	AS5183R2016	AS5183R2016
AN840-21T	1.250	1.000	None	
AN840-21W	1.250	1.000	AS5183W2016	
AN840-24	1.500	1.500	AS5183B2424	
AN840-24D	1.500	1.500	AS5183W2424	AS5183W2424
AN840-24R	1.500	1.500	AS5183R2424	
AN840-24S	1.500	1.500	AS5183R2424	AS5183R2424
AN840-24T	1.500	1.500	None	
AN840-24W	1.500	1.500	AS5183W2424	
AN840-25	1.500	1.250	AS5183B2420	
AN840-25D	1.500	1.250	AS5183W2420	AS5183W2420
AN840-25R	1.500	1.250	AS5183R2420	
AN840-25S	1.500	1.250	AS5183R2420	AS5183R2420
AN840-25T	1.500	1.250	None	
AN840-25W	1.500	1.250	AS5183W2420	

1/ For new design use material designator R and W.

Changes from previous issues. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced documents. In addition to SAE-AS4843/2, this document references the following:

MS21344
ASME B46.1
SAE-AS5132
SAE-AS5183
SAE-AS71051

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air Force - 99
DLA - CC

Preparing activity:
DLA - CC

(Project 4730-2011-055)

Review activity:
Air Force - 71

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.daps.dla.mil.