INCH-POUND

AN846 Rev 8
7 June 2011
SUPERSEDING
AN846 Rev 7
20 March 1979

DETAIL SPECIFICATION SHEET

ELBOW, HOSE, 45°

Reinstated after 7 June 2011. Inactive for new design.
For new design, use SAE-AS5187.

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.

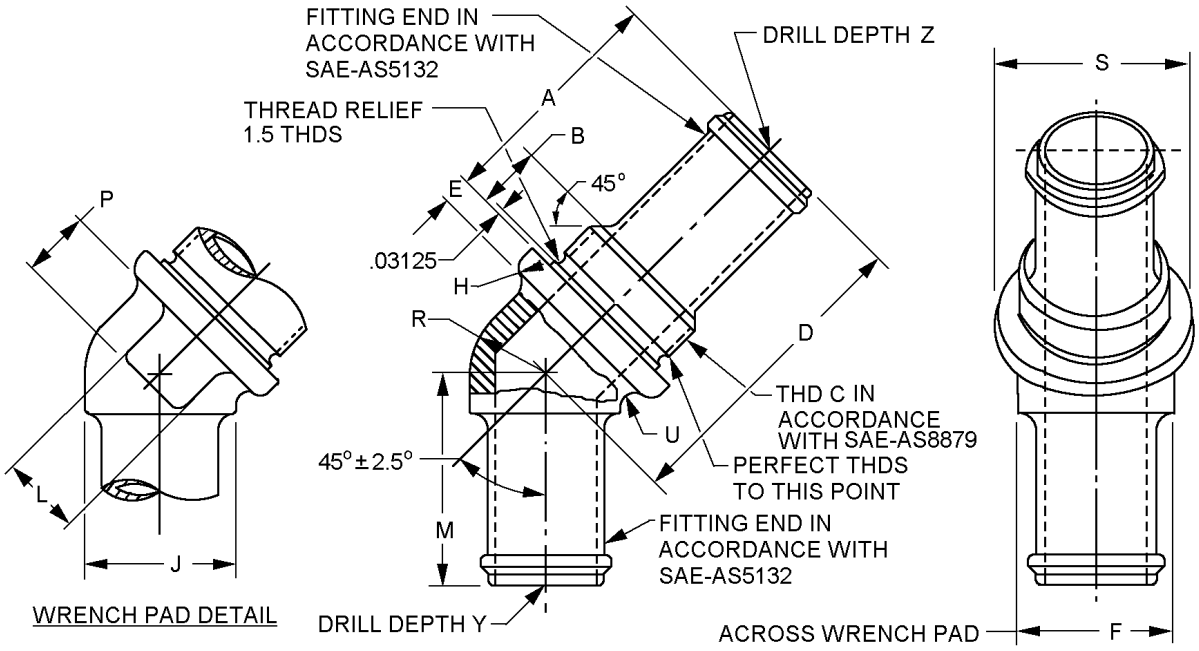


FIGURE 1. 45° elbow dimensions and configuration.

Dash number	Hose ID inches (mm)	A inches (mm)	B inches (mm)	Thread C Ref SAE-AS8879	D .047 (1.19) -.000 inches (mm)
4	.250 (6.35)	1.938 (49.23)	.438 (11.13)	.4375-20UNJF-3A	2.266 (57.56)
6	.375 (9.53)	1.969 (50.01)	.469 (11.91)	.5625-18UNJF-3A	2.406 (61.11)
8	.500 (12.70)	2.000 (50.80)	.500 (12.70)	.7500-16UNJF-3A	2.500 (63.50)
10	.675 (17.15)	2.031 (51.59)	.531 (13.49)	1.875 -12UNJ-3A	2.641 (67.08)
12	.750 (19.05)	2.167 (55.04)	.563 (14.30)	1.0625 -12UNJ-3A	2.703 (68.66)
16	1.000 (25.40)	2.167 (55.04)	.563 (14.30)	1.3125-12UNJ-3A	2.750 (69.85)
20	1.250 (31.75)	2.167 (55.04)	.563 (14.30)	1.6250-12UNJ-3A	2.938 (74.63)
24	1.500 (38.10)	2.167 (55.04)	.563 (14.30)	1.8750-12UNJ-3A	3.000 (76.20)

Dash number	E inches (mm)	F inches (mm)	H Radius inches (mm)	J Diameter inches (mm)	L Approx. inches (mm)	M +.047 (1.19) -.000 inches (mm)
4	.156 (3.96)	.438 (11.13)	.063 (1.60)	.438 (11.13)	.250 (6.35)	1.609 (40.87)
6	.188 (4.78)	.563 (14.30)	.063 (1.60)	.563 (14.30)	.375 (9.53)	1.656 (42.06)
8	.219 (5.56)	.750 (19.05)	.094 (2.39)	.750 (19.05)	.438 (11.13)	1.688 (42.88)
10	.250 (6.35)	.875 (22.23)	.094 (2.39)	.875 (22.23)	.500 (12.70)	1.734 (44.04)
12	.250 (6.35)	1.063 (27.00)	.094 (2.39)	1.063 (27.00)	.563 (14.30)	1.766 (44.86)
16	.250 (6.35)	1.313 (33.35)	.125 (3.18)	1.313 (33.35)	.688 (17.48)	1.828 (46.43)
20	.281 (7.14)	1.625 (41.28)	.125 (3.18)	1.625 (41.28)	1.000 (25.40)	1.922 (48.82)
24	.281 (7.14)	1.875 (47.63)	.125 (3.18)	1.875 (47.63)	1.125 (28.58)	1.969 (50.01)

Dash number	P Approx inches (mm)	R Radius inches (mm)	S Diameter inches (mm)	U Radius inches (mm)	Y +.047 (1.19) -.000 inches (mm)	Z +.047 (1.19) -.000 inches (mm)
4	.219 (5.56)	.219 (5.56)	.625 (15.88)	.063 (1.60)	1.641 (41.68)	2.297 (58.34)
6	.281 (7.14)	.281 (7.14)	.813 (20.65)	.094 (2.39)	1.719 (43.66)	2.469 (62.71)
8	.344 (8.75)	.375 (9.53)	1.000 (25.40)	.094 (2.39)	1.766 (44.86)	2.578 (65.48)
10	.438 (11.13)	.438 (11.13)	1.250 (31.75)	.125 (3.18)	1.848 (46.94)	2.750 (69.85)
12	.500 (12.70)	.531 (13.49)	1.438 (36.53)	.125 (3.18)	1.891 (48.03)	2.828 (71.83)
16	.563 (14.30)	.656 (16.66)	1.688 (42.88)	.125 (3.18)	2.016 (51.21)	2.938 (74.63)
20	.688 (17.48)	.813 (20.65)	2.063 (52.40)	.188 (4.48)	2.141 (54.38)	3.156 (80.16)
24	.750 (19.05)	.938 (22.83)	2.375 (60.33)	.188 (4.48)	2.250 (57.15)	3.281 (83.34)

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. For design features purposes, this standard takes precedence over documents referenced herein.
7. Referenced documents shall be of the issue in effect on date of invitation for bid.

FIGURE 1. 45° elbow dimensions and configuration - Continued.

REQUIREMENTS:

Dimensions and configuration shall be in accordance with figure 1.

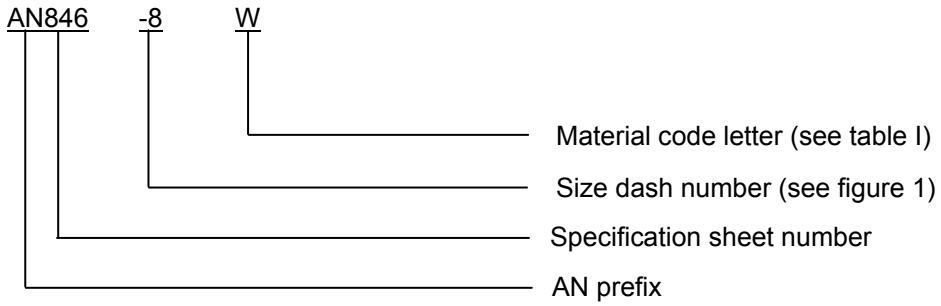
Materials and finishes shall be in accordance with SAE-AS4843/2, see table I for material code.

TABLE I. Material and code letters.

Code letter	Material
Blank	Copper alloy
J	Corrosion resistant steel (CRES), type 304
K	CRES, type 316
S	CRES, type 347
R	CRES. Type 321
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 tube sizes, and a code letter for material type. Unassigned PIN’s shall not be used.



PIN example: AN846-8WP indicates a, 45° elbow, hose to hose, .500 inch (12.70 mm) ID, 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 AN846 PINs and replacement SAE-AS5187 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	Hose Size	Tube Size	Replacement AS PIN	New design
AN846-4	0.250	0.250	AS5187B04	
AN846-4D	0.250	0.250	AS5187W04	AS5187W04
AN846-4J	0.250	0.250	AS5187J04	
AN846-4K	0.250	0.250	AS5187K04	
AN844-4R	0.250	0.250	AS5187R04	
AN844-4S	0.250	0.250	AS5187R04	AS5187R04
AN846-4T	0.250	0.250	None	
AN846-4W	0.250	0.250	AS5187W04	
AN846-6	0.375	0.375	AS5187B06	
AN846-6D	0.375	0.375	AS5187W06	AS5187W06
AN846-4J	0.375	0.375	AS5187J06	
AN846-4K	0.375	0.375	AS5187K06	
AN846-6R	0.375	0.375	AS5187R06	
AN846-6S	0.375	0.375	AS5187R06	AS5187R06
AN846-4T	0.375	0.375	None	
AN846-6W	0.375	0.375	AS5187W06	
AN846-8	0.500	0.500	AS5187B08	
AN846-8D	0.500	0.500	AS5187W08	AS5187W08
AN846-8J	0.500	0.500	AS5187J08	
AN846-8K	0.500	0.500	AS5187K08	
AN846-8R	0.500	0.500	AS5187R08	
AN846-8S	0.500	0.500	AS5187R08	AS5187R08
AN846-8T	0.500	0.500	None	
AN846-8W	0.500	0.500	AS5187W08	
AN846-10	0.625	0.625	AS5187B10	
AN846-10D	0.625	0.625	AS5187W10	AS5187W10
AN846-10J	0.625	0.625	AS5187J10	
AN846-10K	0.625	0.625	AS5187K10	
AN846-10R	0.625	0.625	AS5187R10	
AN846-10S	0.625	0.625	AS5187R10	AS5187R10
AN846-10T	0.625	0.625	None	
AN846-10W	0.625	0.625	AS5187W10	

See note at end of table.

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

AN PIN	Hose Size	Tube Size	Replacement AS PIN	New design
AN846-12	0.750	0.750	AS5187B12	
AN846-12D	0.750	0.750	AS5187W12	AS5187W12
AN846-12J	0.750	0.750	AS5187J12	
AN846-12K	0.750	0.750	AS5187K12	
AN846-12R	0.750	0.750	AS5187R12	
AN846-12S	0.750	0.750	AS5187R12	AS5187R12
AN846-12T	0.750	0.750	None	
AN846-12W	0.750	0.750	AS5187W12	
AN846-16	1.000	1.000	AN5187B16	
AN846-16D	1.000	1.000	AS5187W16	AS5187W16
AN846-16J	1.000	1.000	AS5187J16	
AN846-16K	1.000	1.000	AS5187K16	
AN846-16R	1.000	1.000	AS5187R16	
AN846-16S	1.000	1.000	AS5187R16	AS5187R16
AN846-16T	1.000	1.000	None	
AN846-16W	1.000	1.000	AS5187W16	
AN846-20	1.250	1.250	AS5187B20	
AN846-20D	1.250	1.250	AS5187W20	AS5187W20
AN846-20J	1.250	1.250	AS5187J20	
AN846-20K	1.250	1.250	AS5187K20	
AN846-20R	1.250	1.250	AS5187R20	
AN846-20S	1.250	1.250	AS5187R20	AS5187R20
AN846-20T	1.250	1.250	None	
AN846-20W	1.250	1.250	AS5187W20	
AN846-24	1.500	1.500	AS5187B24	
AN846-24D	1.500	1.500	AS5187W24	AS5187W24
AN846-24J	1.500	1.500	AS5187J24	
AN846-24K	1.500	1.500	AS5187K24	
AN846-24R	1.500	1.500	AS5187R24	
AN846-24S	1.500	1.500	AS5187R24	AS5187R24
AN846-24T	1.500	1.500	None	
AN846-24W	1.500	1.500	AS5187W24	

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, this document references the following:

ASME B46.1
SAE-AS4843/2
SAE-AS5132
SAE-AS5187
SAE-AS8879

CONCLUDING MATERIAL

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

Preparing activity:
DLA - CC

(Project 4730-2011-059)

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.