

INCH-POUND

AN844 Rev 12
 7 June 2011
 SUPERSEDING
 AN844 Rev 11
 17 May 1984

DETAIL SPECIFICATION SHEET

ELBOW - PIPE TO HOSE, 45°

Reinstated after 7 June 2011. Inactive for new design.
 For new design, use SAE-AS5186.

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.

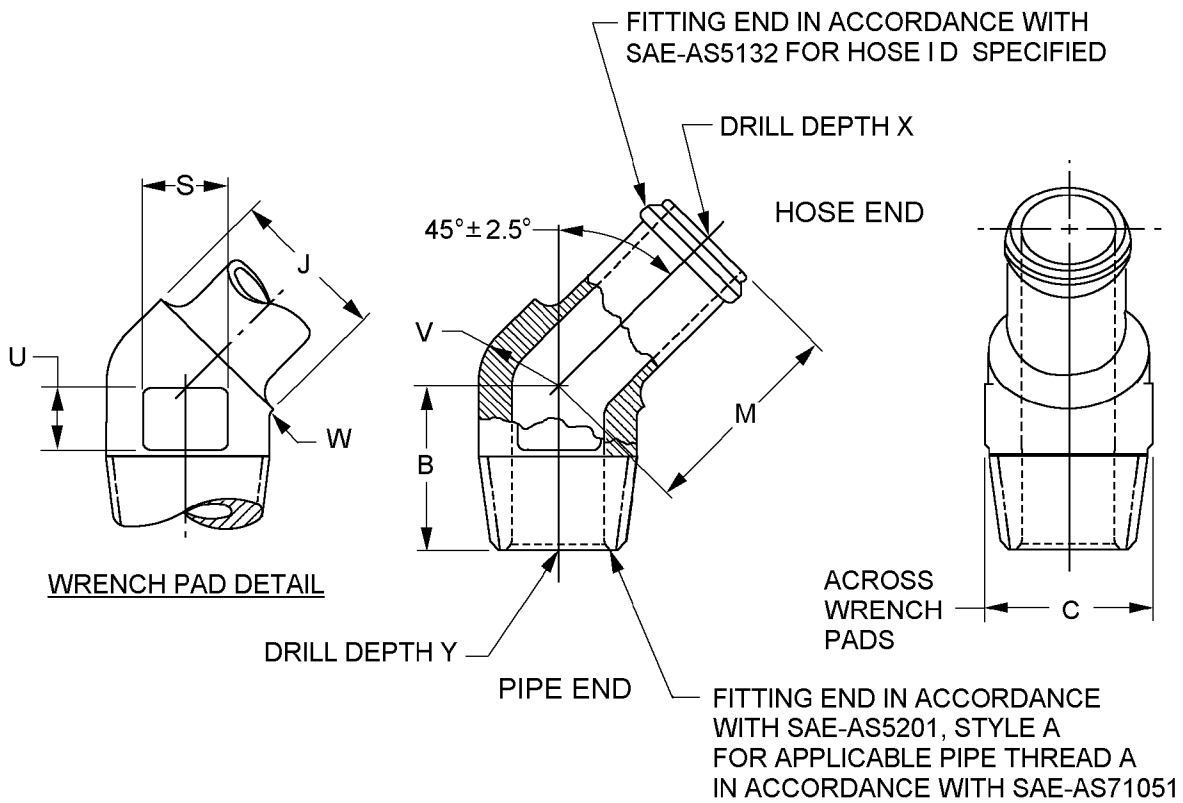


FIGURE 1. 45° elbow dimensions and configuration.

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Dash number	Hose ID inches (mm)	A Pipe thread SAE-AS71051	B +.047 (1.19) -.000 inches (mm)	C inches (mm)
4	.250 (6.35)	1/8-27 ANPT	.625 (15.88)	.438 (11.13)
6	.375 (9.53)	1/4-18 ANPT	.875 (22.23)	.625 (15.88)
8	.500 (12.70)	3/8-18 ANPT	.922 (23.42)	.750 (19.05)
10	.625 (15.88)	1/2-14 ANPT	1.156 (29.36)	.938 (23.83)
12	.750 (19.05)	5/8-14 ANPT	1.203 (30.56)	1.125 (28.58)
16	1.000 (25.40)	3/4-14 ANPT	1.484 (37.69)	1.125 (28.58)
17	1.000 (25.40)	1-11.5 ANPT	1.484 (37.69)	1.375 (34.93)
20	1.250 (31.75)	1 1/4-11.5 ANPT	1.500 (38.10)	1.750 (44.45)
21	1.250 (31.75)	1 -11.5 ANPT	1.484 (37.69)	1.375 (34.93)
24	1.500 (38.10)	1 1/2-11.5 ANPT	1.563 (39.70)	2.000 (50.80)
25	1.500 (38.10)	1 1/4-11.5 ANPT	1.438 (37.67)	1.750 (44.45)

Dash number	J dia. inches (mm)	M +.047 (1.19) -.000 inches (mm)	S approx inches (mm)	U approx inches (mm)
4	.438 (11.13)	1.625 (41.28)	.313 (7.95)	.219 (5.56)
6	.578 (14.68)	1.688 (42.88)	.375 (9.53)	.281 (7.14)
8	.719 (18.26)	1.719 (43.66)	.500 (12.70)	.313 (7.95)
10	.891 (22.63)	1.718 (43.64)	.625 (15.88)	.375 (9.53)
12	1.094 (48.36)	1.813 (46.05)	.625 (15.88)	.438 (11.13)
16	1.094 (48.36)	1.813 (46.05)	.625 (15.88)	.438 (11.13)
17	1.375 (34.93)	1.875 (47.63)	.750 (19.05)	.563 (14.30)
20	1.719 (43.66)	1.938 (49.23)	.938 (23.83)	.563 (14.30)
21	1.375 (34.93)	1.875 (47.63)	.750 (19.05)	.563 (14.30)
24	1.953 (49.61)	2.000 (50.80)	1.125 (28.58)	.625 (15.88)
25	1.719 (43.66)	2.000 (50.80)	1.125 (28.58)	.625 (15.88)

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

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Dash number	V radius. inches (mm)	W radius inches (mm)	X	Y
			+ .047 (1.19) - .000 inches (mm)	+ .047 (1.19) - .000 inches (mm)
4	.219 (5.56)	.063 (1.60)	1.672 (42.47)	.656 (16.66)
6	.282 (7.16)	.063 (1.60)	1.750 (44.45)	.938 (23.83)
8	.359 (9.12)	.094 (2.39)	1.797 (45.64)	1.000 (25.40)
10	.438 (11.13)	.094 (2.39)	1.890 (48.10)	1.266 (32.16)
12	.547 (13.89)	.125 (3.18)	1.938 (49.23)	1.359 (34.52)
16	.547 (13.89)	.125 (3.18)	2.000 (50.80)	1.359 (34.52)
17	.688 (17.48)	.125 (3.18)	2.063 (52.40)	1.672 (42.47)
20	.859 (21.82)	.125 (3.18)	2.156 (54.76)	1.719 (43.66)
21	.688 (17.48)	.125 (3.18)	2.109 (53.57)	1.672 (42.47)
24	.969 (24.61)	.125 (3.18)	2.281 (57.94)	1.844 (46.84)
25	.859 (21.82)	.125 (3.18)	2.281 (57.94)	1.656 (42.06)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified tolerances are ± 0.016 inch (0.41 mm).
4. Break sharp edges and remove all hanging burrs and slivers
5. Machined surfaces shall be finished to 125 μ in Ra, forged surfaces shall be 250 μ 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:

The elbow dimensions and configuration shall be in accordance with figure 1.

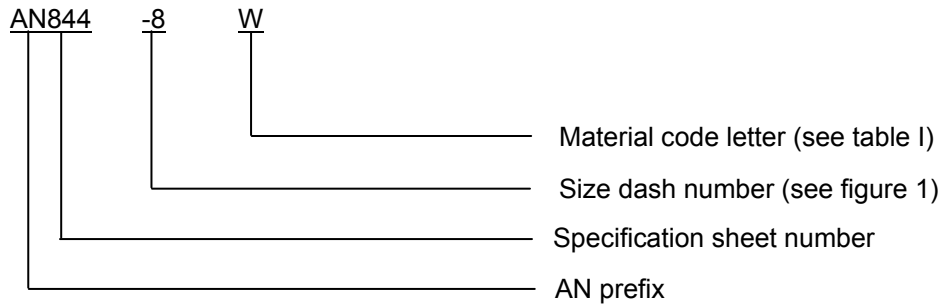
Materials and finishes shall be in accordance with SAE-AS4843/2, see table I for material code.

TABLE I. Material and code letters.

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

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



PIN example: AN844-8WP indicates a 45° elbow .500 inch (12.70 mm) hose to .375 inch (9.53 mm) pipe, 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 AN844 PINs and replacement SAE-AS5186 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.

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TABLE II. Cross-reference data. 1/

AN PIN	Hose Size	Pipe Size	Replacement AS PIN	New design
AN844-4	0.250	0.125	AS5186B0402	
AN844-4D	0.250	0.125	AS5186W0402	AS5186W0402
AN844-4R	0.250	0.125	AS5186R0402	
AN844-4S	0.250	0.125	AS5186R0402	AS5186R0402
AN844-4W	.2500	0.125	AS5186W0402	
AN844-6	0.375	0.250	AS5186B0604	
AN844-6D	0.375	0.250	AS5186W0604	AS5186W0604
AN844-6R	0.375	0.250	AS5186R0604	
AN844-6S	0.375	0.250	AS5186R0604	AS5186R0604
AN844-6W	0.375	0.250	AS5186W0604	
AN844-8	0.500	0.375	AS5186B0806	
AN844-8D	0.500	0.375	AS5186W0806	AS5186W0806
AN844-8R	0.500	0.375	AS5186R0806	
AN844-8S	0.500	0.375	AS5186R0806	AS5186R0806
AN844-8W	0.500	0.375	AS5186W0806	
AN844-10	0.625	0.500	AS5186B1008	
AN844-10D	0.625	0.500	AS5186W1008	AS5186W1008
AN844-10R	0.625	0.500	AS5186R1008	
AN844-10S	0.625	0.500	AS5186R1008	AS5186R1008
AN844-10W	0.625	0.500	AS5186W1008	
AN844-12	0.750	0.750	AS5186B1212	
AN844-12D	0.750	0.750	AS5186W1212	AS5186W1212
AN844-12R	0.750	0.750	AS5186R1212	
AN844-12S	0.750	0.750	AS5186R1212	AS5186R1212
AN844-12W	0.750	0.750	AS5186W1212	
AN844-16	1.000	0.750	AS5186B1612	
AN844-16D	1.000	0.750	AS5186W1612	AS5186W1612
AN844-16R	1.000	0.750	AS5186R1612	
AN844-16S	1.000	0.750	AS5186R1612	AS5186R1612
AN844-16W	1.000	0.750	AS5186W1612	

See note at end of table.

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

AN PIN	Hose Size	Pipe Size	Replacement AS PIN	New design
AN844-17	1.000	1.000	AS5186B1616	
AN844-17D	1.000	1.000	AS5186W1616	AS5186W1616
AN844-17R	1.000	1.000	AS5186R1616	
AN844-17S	1.000	1.000	AS5186R1616	AS5186R1616
AN844-17W	1.000	1.000	AS5186W1616	
AN844-20	1.250	1.250	AS5186B2020	
AN844-20D	1.250	1.250	AS5186W2020	AS5186W2020
AN844-20R	1.250	1.250	AS5186R2020	
AN844-20S	1.250	1.250	AS5186R2020	AS5186R2020
AN844-20W	1.250	1.250	AS5186W2020	
AN844-21	1.250	1.000	AS5186B2016	
AN844-21D	1.250	1.000	AS5186W2016	AS5186W2016
AN844-21R	1.250	1.000	AS5186R2016	
AN844-21S	1.250	1.000	AS5186R2016	AS5186R2016
AN844-21W	1.250	1.000	AS5196W2016	
AN844-24	1.500	1.500	AS5186B2424	
AN844-24D	1.500	1.500	AS5186W2424	AS5186W2424
AN844-24R	1.500	1.500	AS5186R2424	
AN844-24S	1.500	1.500	AS5186R2424	AS5186R2424
AN844-24W	1.500	1.500	AS5186W2424	
AN844-25	1.500	1.250	AS5186B2420	
AN844-25D	1.500	1.250	AS5186W2420	AS5186W2420
AN844-25R	1.500	1.250	AS5186R2420	
AN844-25S	1.500	1.250	AS5186R2420	AS5186R2420
AN844-25W	1.500	1.250	AS5186W2420	

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:

- ASME B46.1
- SAE-AS5132
- SAE-AS5186
- SAE-AS5201
- SAE-AS71051

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 4730-2011-058)

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>.