

INCH-POUND

AN914 Rev 10  
 19 July 2011  
 SUPERSEDING  
 AN914 Rev 9  
 20 March 1979

## DETAIL SPECIFICATION SHEET

## ELBOW, PIPE, INTERNAL AND EXTERNAL THREAD, 90°

Reinstated after 19 July 2011. Inactive for new design.  
 For new design, use SAE-AS4854.

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-AS4842.

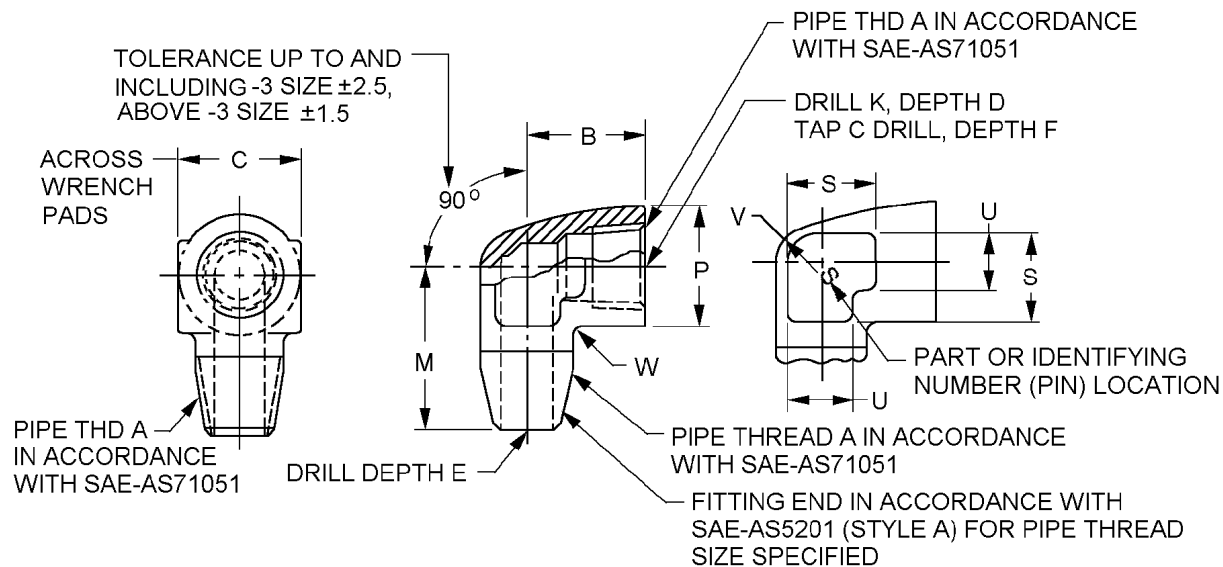


FIGURE 1. Elbow 90° dimensions and configuration.

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Dash number	A		B +.047 (1.19) -0.00 inches (mm)	C inches (mm)	D (drill depth) +.047 (1.19) -0.00 inches (mm)	E (drill depth) +.047 (1.19) -0.00 inches (mm)
	Pipe thread ANPT SAE-AS71051	SAE-AS5201 size code				
1	1/8-27	02	.609 (15.47)	.625 (15.88)	.641 (16.28)	.891 (22.63)
2	1/4-18	04	.891 (22.63)	.813 (20.65)	.938 (23.83)	1.266 (32.16)
3	3/8-18	06	.938 (23.83)	.938 (23.83)	1.000 (25.40)	1.359 (34.52)
4	1/2-14	08	1.172 (29.77)	1.188 (30.18)	1.297 (32.94)	1.734 (44.04)
6	3/4-14	12	1.344 (34.14)	1.375 (34.93)	1.469 (37.31)	1.859 (47.22)
8	1-11 1/2	16	1.594 (40.49)	1.750 (44.45)	1.719 (43.66)	2.234 (56.74)
10	1/ 1/4-11 1/2	20	1.750 (44.45)	2.156 (57.76)	1.906 (48.41)	2.375 (60.33)

Dash number	F (drill depth) inches (mm)	K Dia. inches (mm)	M +.047 (1.19) -0.00 inches (mm)	P Dia. inches (mm)	S Approx inches (mm)	U Approx inches (mm)
1	.422 (10.72)	.188 (4.78)	.859 (21.82)	.578 (14.68)	.500 (12.70)	.250 (6.35)
2	.563 (14.30)	.281 (7.14)	1.219 (30.96)	.781 (19.84)	.625 (15.88)	.375 (9.53)
3	.609 (15.47)	.406 (10.31)	1.297 (32.94)	.922 (23.42)	.750 (19.05)	.500 (12.70)
4	.797 (20.24)	.531 (13.49)	1.609 (40.87)	1.156 (29.36)	.875 (22.23)	.625 (15.88)
6	.813 (20.65)	.719 (18.26)	1.734 (44.04)	1.359 (34.52)	1.000 (25.40)	.750 (19.05)
8	.969 (24.61)	.938 (23.83)	2.109 (53.57)	1.688 (42.88)	1.125 (28.58)	.875 (22.23)
10	.969 (24.61)	1.125 (28.58)	2.250 (57.15)	2.063 (52.40)	1.250 (31.75)	1.000 (25.40)

Dash number	V Rad. inches (mm)	W Rad. inches (mm)	Weight max lbs (kg)			
			Copper alloy	Al alloy	Steel, CRES	Ti alloy
1	.219 (5.56)	.063 (1.60)	.069 (0.03)	.023 (0.010)	.069 (0.031)	.038 (0.017)
2	.281 (7.14)	.094 (2.39)	.180 (0.08)	.060 (0.027)	.180 (0.082)	.100 (0.045)
3	.344 (8.74)	.094 (2.39)	.240 (0.11)	.080 (0.036)	.240 (0.109)	.132 (0.060)
4	.438 (11.13)	.125 (3.18)	.435 (0.20)	.145 (0.066)	.434 (0.197)	.240 (0.109)
6	.574 (14.58)	.125 (3.18)	.600 (0.27)	.200 (0.091)	.599 (0.272)	.331 (0.150)
8	.688 (17.48)	.125 (3.18)	1.140 (0.52)	.380 (0.172)	1.138 (0.516)	.628 (0.285)
10	.859 (21.82)	.156 (3.96)	1.720 (0.78)	.580 (0.263)	1.737 (0.788)	.959 (0.435)

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified tolerances are  $\pm 0.016$  inch (0.41 mm).
4. Break sharp edges and remove all hanging burrs and slivers
5. Machined surfaces shall be finished to 125 $\mu$ m Ra, forged surfaces shall be 250 $\mu$ m 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. Elbow 90° dimensions and configuration - Continued.

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## REQUIREMENTS:

Dimensions and configuration shall be in accordance with figure 1.

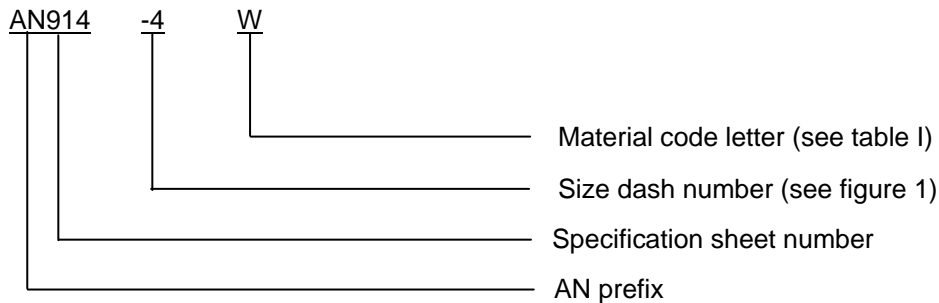
Materials and finishes shall be in accordance with SAE-AS4842, see table I for material code.

TABLE I. Material and code letters.

Code letter	Material
Blank	Copper alloy
J	Corrosion resistant steel (CRES), type 304
K	CRES, type 316
R	CRES. Type 321
T	Titanium alloy 1/
W	Aluminum alloy 7075-T73

1/ Not for use in oxygen systems.

PIN: The PIN consists of the prefix "AN" the specification sheet number, a dash number for pipe size, and material code letter. Unassigned PIN's shall not be used.



PIN example: AN914-4W indicates a 90° elbow 1/2-14 ANPT internal and external pipe thread, aluminum alloy 7075-T73.

## Supersession data:

Due to stress corrosion cracking aluminum alloys 2014 and 2024 "D" designator has been replaced by aluminum alloy 7075 "W" designator. Example: AN914-8D use AN918-8W.

Metal cracking due to high temperatures CRES alloy 347 "S" designator has been replaced by CRES alloy 321 "R" designator. Example: AN914-8S use AN914-8R.

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 AN914 PINs and replacement SAE-AS4854 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.

AN PIN (inactive)	Pipe size	Replacement AS PIN (for new design)	Replacement AN PIN (inactive)
AN914-1	.125	AS4854-01	
AN914-1D	.125	AS4854W01	AN914-1W
AN914-1J	.125	AS4854J01	
AN914-1K	.125	AS4854K01	
AN914-1R	.125	AS4854R01	
AN914-1S	.125	AS4854R01	AN914-1R
AN914-1T	.125	None	
AN914-1W	.125	AS4854W01	
AN914-2	.250	AS4854-02	
AN914-2D	.250	AS4854W02	AN914-2W
AN914-2J	.250	AS4854J02	
AN914-2K	.250	AS4854K02	
AN914-2R	.250	AS4854R02	
AN914-2S	.250	AS4854R02	AN914-2R
AN914-2T	.250	None	
AN914-2W	.250	AS4854W02	
AN914-3	.375	AS4854-03	
AN914-3D	.375	AS4854W03	AN914-3W
AN914-3J	.375	AS4854J03	
AN914-3K	.375	AS4854K03	
AN914-3R	.375	AS4854R03	
AN914-3S	.375	AS4854R03	AN914-3R
AN914-3T	.375	None	
AN914-3W	.375	AS4854W03	
AN914-4	.500	AS4854-04	
AN914-4D	.500	AS4854W04	AN914-4W
AN914-4J	.500	AS4854J04	
AN914-4K	.500	AS4854K04	
AN914-4R	.500	AS4854R04	
AN914-4S	.500	AS4854R04	AN914-4R
AN914-4T	.500	None	
AN914-4W	.500	AS4854W04	

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TABLE II. Cross-reference data - Continued.

AN PIN (inactive)	Pipe size	Replacement AS PIN (for new design)	Replacement AN PIN (inactive)
AN914-6	.750	AS4854-06	
AN914-6D	.750	AS4854W06	AN914-6W
AN914-6J	.750	AS4854J06	
AN914-6K	.750	AS4854K06	
AN914-6R	.750	AS4854R06	
AN914-6S	.750	AS4854R06	AN914-6R
AN914-6T	.750	None	
AN914-6W	.750	AS4854W06	
AN914-8	1.000	AS4854-08	
AN914-8D	1.000	AS4854W08	AN914-8W
AN914-8J	1.000	AS4854J08	
AN914-8K	1.000	AS4854K08	
AN914-8R	1.000	AS4854R08	
AN914-8S	1.000	AS4854R08	AN914-8R
AN914-8T	1.000	None	
AN914-8W	1.000	AS4854W08	
AN914-10	1.250	AS4854-10	
AN914-10D	1.250	AS4854W10	AN914-10W
AN914-10J	1.250	AS4854J10	
AN914-10K	1.250	AS4854K10	
AN914-10R	1.250	AS4854R10	
AN914-10S	1.250	AS4854R10	AN914-10R
AN914-10T	1.250	None	
AN914-10W	1.250	AS4854W10	

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-AS4842, this document references the following:

ASME B46.1  
SAE-AS4854  
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 4730-2011-075)

Review activities:

Navy - MC, SH  
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>.