

INCH-POUND

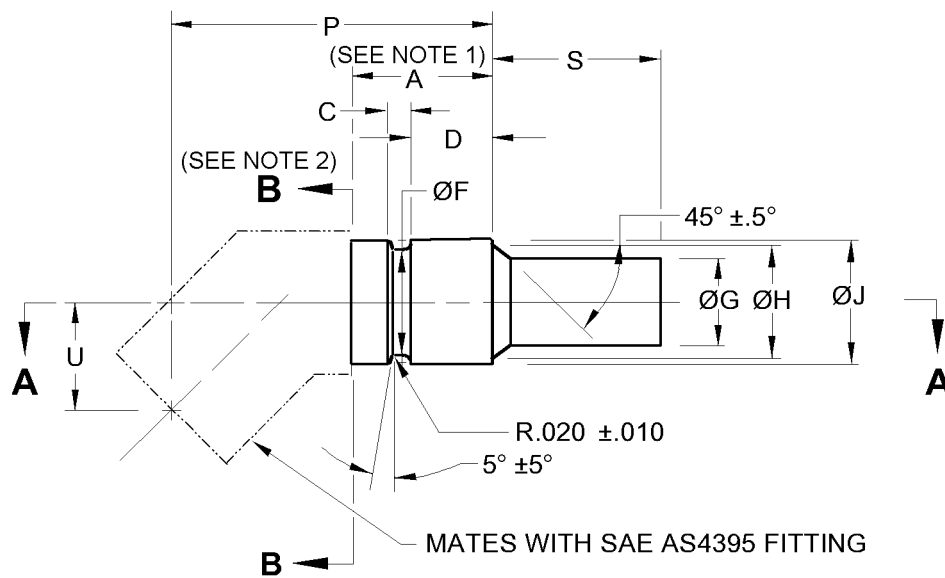
MS27087C
 25 September 2003
 SUPERSEDING
 MS27087B
 30 June 1972

DETAIL SPECIFICATION SHEET

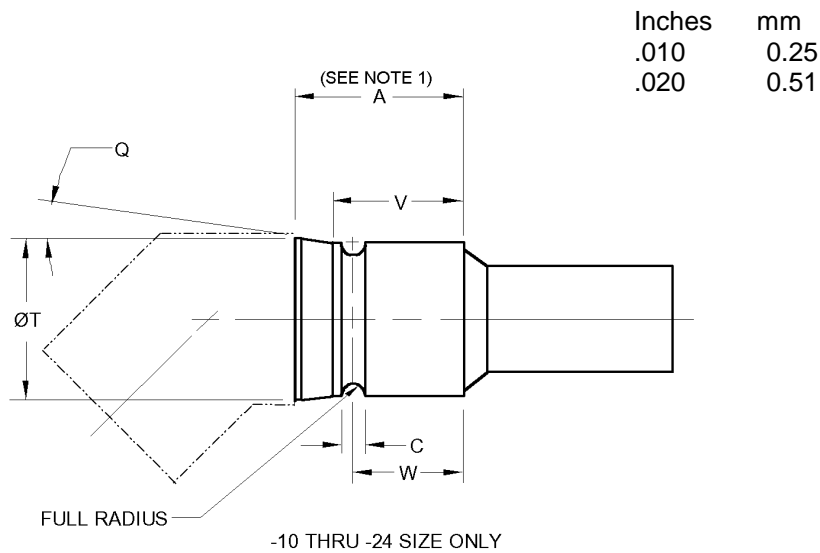
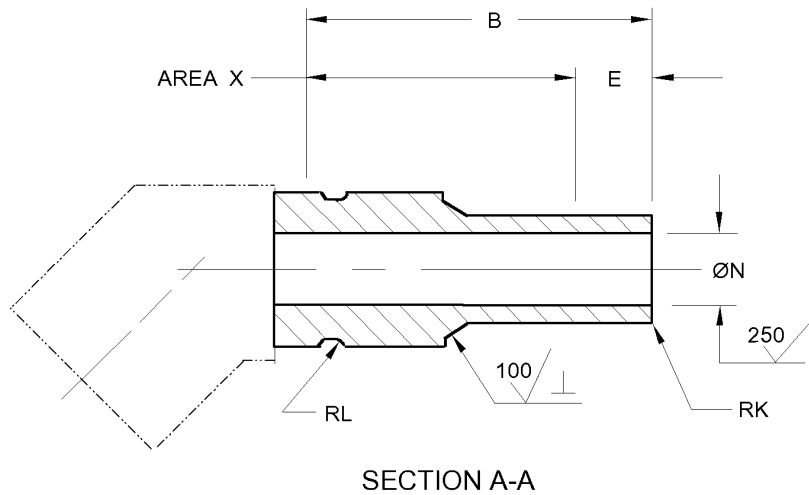
ELBOW, NIPPLE END, FLARED, TUBE TO HOSE - 45° SWIVEL NUT

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 and MIL-DTL-27272.

FIGURE 1. Elbow illustration.

MS27087C



NOTES:

1. Use A dimension when the adjacent diameter to t
2. he left of plane B-B is greater than J dimension. When the adjacent diameter is equal to or less than J dimension, M dimension may be used in place of A dimension.
3. Any design of the elbow to the left of plane B-B is acceptable provided the dimensions P and U and the requirements of this specification sheet and the procurement specification are met. Any forged design is acceptable for -3/-4 through -8 size. Any bent tube design is acceptable for -10 through -24 size. The inside diameter (ID) of the elbow for the -10 through -24 sizes shall not be less than the ID of the nipple end of the adapter. Ovality shall not exceed 7.5 percent of nominal tubing OD.
4. Dimensions are in inches. Metric equivalent is given for general information only.

FIGURE 1. Elbow illustration - Continued.

MS27087C

TABLE I. Elbow requirements.

PIN MS27087		A $\frac{1}{2}$ min	B min	C		D +.005 -.000	E		F		G +.005 -.000	H \pm .005	J +.005 -.000
Steel	Alum												
-3/-4C	-	.515	.870	.106	\pm .010	.307	.25	\pm .05	.288	+.005 -.000	.205	.295	.373
-4C	-												
-5C	-	.520	.890	.116		.322			.316		.268	.360	.416
-6C	-	.555							.391		.330	.425	.491
-8C	-8D	.630	1.030	.140	\pm .020	.335	.32	\pm .12	.497		.426	.530	.616
-10C	-10D	.654	1.130	.098	+.004 -.000	-	.35	\pm .15	.586		.526	.625	.706
-12C	-12D	.755	1.240	.128	+.005	-			.674		.650	.760	.826
-16C	-16D	.831	1.340		-.000	-	.39	\pm .19	1.001	+.008 -.000	.900	1.040	1.150
-20C	-20D	.881	1.570			-	.48	\pm .28	1.255	+.005	1.151	1.275	1.405
-24C	-24D	.035	1.720			-	.50	\pm .30	1.490	-.000	1.401	1.550	1.635

PIN MS27087		K		L \pm .004	M $\frac{1}{2}$ min	N			P		Q max	S	
Steel	Alum					Steel	Alum						
-3/-4C	-	.015	+.005 -.000	.036	.485	.161	-	+.005	1.078	\pm .020	-	.480	\pm .010
-4C	-						-	-.000	1.117		-		
-5C	-			.040	.501	.224	-		1.150		-		
-6C	-				.521	.261	-		1.224		-		
-8C	-8D	.020		.047	.583	.345	.345	+.006	1.720		-	.600	
-10C	-10D		\pm .005	-	.620	.440	.440	-.000	1.486	\pm .035	-	.650	\pm .015
-12C	-12D	.030		-	.720	.560	.560		1.937		15.5°	.675	\pm .025
-16C	-16D			-	.796	.828	.828		1.993		10.5°	.730	
-20C	-20D			-	.846	1.058	1.058		2.252		15.5°	.935	
-24C	-24D	.035		-	1.000	1.253	1.282	+.005 -.000	2.561			.980	

See note at end of table

MS27087C

TABLE I. Elbow requirements - Continued.

PIN MS27087		T max	U		V		W +.005 -.000	
Steel	Alum						Steel	Alum
-3/-4C	-	-	.283	±.020	-	-	-	-
-4C	-	-	.322		-	-	-	-
-5C	-	-	.340		-	-	-	-
-6C	-	-	.389		-	-	-	-
-8C	-8D	-	.465		-	-	-	-
-10C	-10D	-	.536	±.035	-	-	.420	.427
-12C	-12D	.900	.623		.625	±.010	.500	.500
-16C	-16D	1.190	.660		.670		.545	.545
-20C	-20D	1.485	.768		.695		.565	.571
-24C	-24D	1.750	.867		.795		.665	.665

1/ Use A dimension when the adjacent diameter to the left of plane B-B is greater than J dimension. When the adjacent diameter is equal to or less than J dimension, M dimension may be used in place of A dimension.

REQUIREMENTS

Intended use. This part is a component of MS27067 for sizes -3/-4 through -8, and MS27063 for sizes -10 through -24. This is a design standard for manufacturing purposes. The item is only procured as an integral part of adapter assemblies.

Identification of product. The Part or Identifying Number (PIN) for this part shall be as specified in table I (e.g., MS27087-4C).

Dimensions and tolerances. Dimensions are in inches. Unless otherwise specified, break or radius all corners .005, +.005, -.000. All diameters within length A plus S must be concentric within .005 total indicator reading.

Material. PIN suffix C: Corrosion-resistant steel, class 304 or 321, cold finish condition A, in accordance with SAE AMS-QQ-S-763.

PIN suffix D. Aluminum alloy, 6061-T6 or T651, in accordance with SAE-AMS-QQ-A-367 or SAE AMS-QQ-A-225/8.

Finish. Corrosion-resistant steel, passivate in accordance with SAE AMS-QQ-P-35. Dry-film lubricate area X with lubricant conforming to SAE AS1701. No overspray allowed.

Aluminum alloy. Anodize in accordance with MIL-A-8625, type II, dye blue.

Remove all burrs and slivers.

Elbow illustration. See figure 1.

Surface roughness. Unless otherwise specified, maximum surface roughness shall not exceed 125 μ in. R_a in accordance with ASME B46.1.

MS27087C

Order of precedence. This specification takes precedence over the documents referenced herein. Unless otherwise specified, referenced documents shall be of the issue in effect on the date of solicitation.

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

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 4730-0868-061)

Review activities:

Army - AR, AT, MI
Navy - MC, SA, SH
Air Force - 71