

INCH-POUND

MS27627A  
29 September 2000  
SUPERSEDING  
MS27627  
17 March 1971

## DETAIL SPECIFICATION SHEET

### ELBOW, FLARED, TUBE TO HOSE-90°, 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 sheet and MIL-DTL-83296.

#### REQUIREMENTS:

1. Elbows shall be in accordance with figure 1 and table I.
2. Material shall be a corrosion resistant steel, class 304 per SAE AMS5639, 304L per SAE AMS5647, 316 per SAE AMS5648, or 321 per SAE AMS5645, or condition A (accepted classes only), as specified in SAE AMS-QQ-S-763.
3. Finish shall be passivated as specified in MIL-DTL-83296.
4. Radius or break all corners to .005 +.005/-0.000, unless otherwise specified.
5. All burrs and slivers shall be removed.
6. Surface roughness, in accordance with ASME B46.1, shall not exceed 125  $\mu\text{in}$   $R_a$ , unless otherwise specified.
7. All tolerances shall be  $\pm 0.005$ , unless otherwise specified.
8. On -10 size, the bent tube, before forming, shall not be less than the nipple I.D. Ovality of all bent tube fittings shall not exceed 7.5% of nominal tubing O.D.

MS27627A

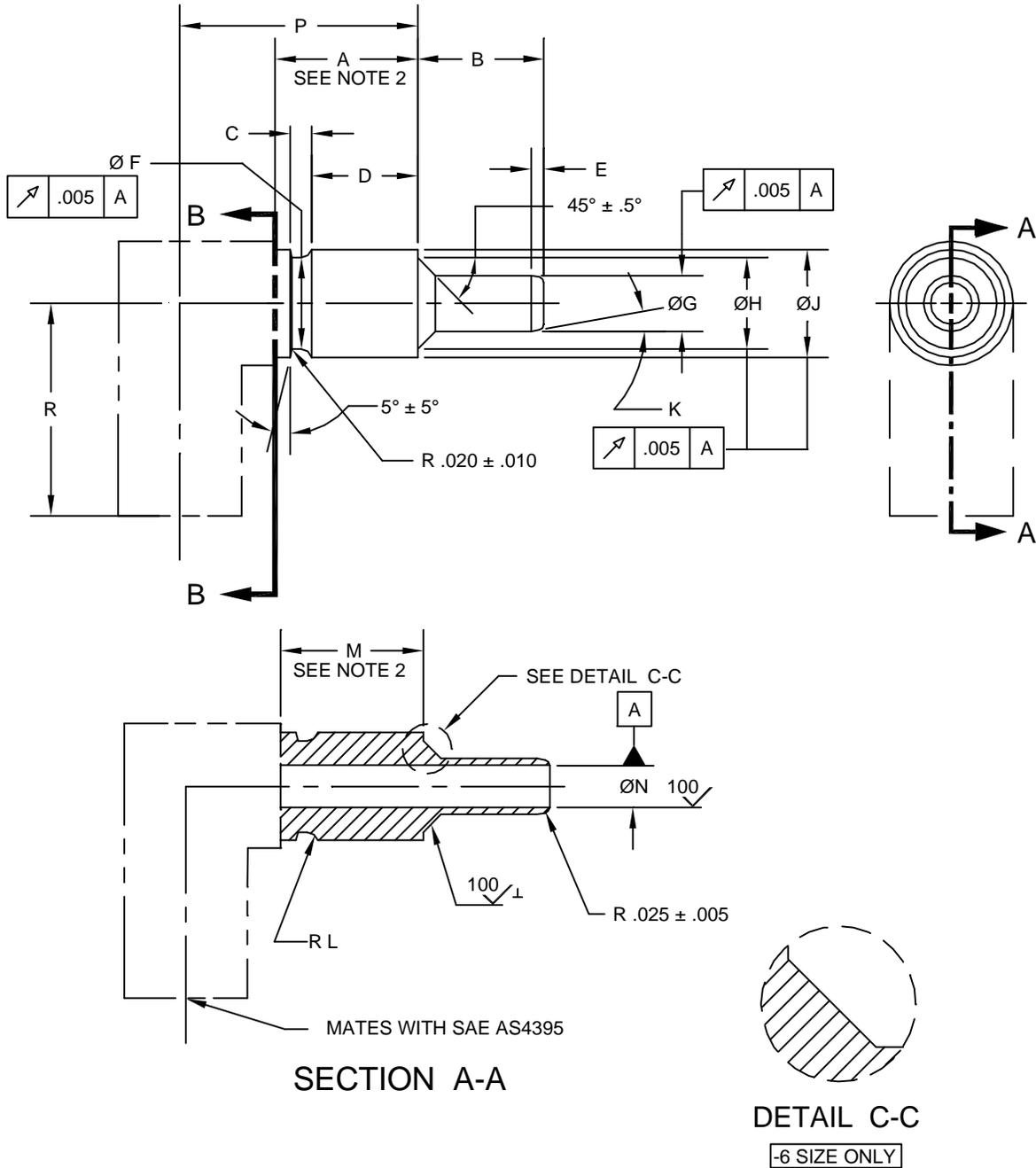


FIGURE 1. Flared, 90°, elbow.

## MS27627A

TABLE I. Elbow dimensions.

Part number	A min	B ±.010	C		D +.005 -.000	E ±.005	F +.000 -.005
MS27627-4C	.633	.550	.116	±.010	.413	-	.346
MS27627-6C	.709	.620	.140	±.020	.442	-	.395
MS27627-8C	.779	.737			.472	-	.564
MS27627-10C	.660	1.050	.170		.405	.150	.679

TABLE I. Elbow dimensions - Continued.

Part number	G +.000 -.005	H ±.005	J ±.003	K ±.5°	L ±.004	M min
MS27627-4C	.250	.420	.443	-	.040	.578
MS27627-6C	.343	-	.497	-	.047	.654
MS27627-8C	.445	.610	.680	-		.692
MS27627-10C	.588	.762	.823	10°	.062	.606

TABLE I. Elbow dimensions - Continued.

Part number	N ±.005	P		R	
MS27627-4C	.161	.970	±.020	.705	±.020
MS27627-6C	.271	1.088		.836	
MS27627-8C	.375	1.304		.980	
MS27627-10C	.465	1.434	±.035	1.176	±.035

## NOTES:

- Dimensions are in inches, unless otherwise specified.
- On -4, -6, and -8 sizes, dimension A shall be used when the adjacent diameter to the left of plane B-B is greater than dimension J. When the adjacent diameter is equal to or less than dimension J, dimension M may be used in place of dimension A.
- Any forged design fitting is acceptable for -4, -6, and -8 sizes. Any bent tube design fitting is acceptable for -10 size.
- This part is for use with MIL-DTL-83298 hose.
- This specification sheet takes precedence over documents referenced herein.
- This is a design specification sheet for manufacturing purposes. The item is only procured as an integral part of adapter assembly.

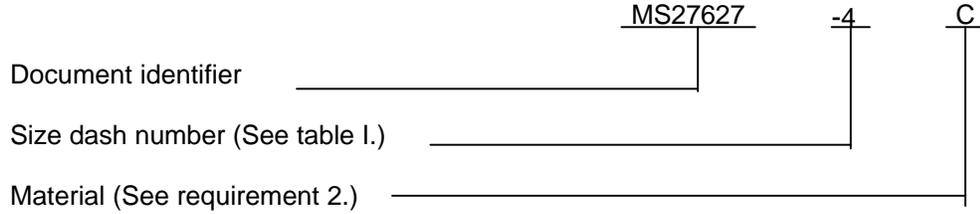
MS27627A

7. Referenced documents shall be of the issue listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation.

8. Dimensioning and tolerancing are in accordance with ASME Y14.5M-1994.

9. Part or Identifying Number (PIN):

Example of a PIN: MS27627-4C.



10. Next assembly is MS27621.

Custodians:

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

Preparing activity:

- DLA - CC
- (Project 4730-1040-024)

Review activities:

- Air Force - 82
- Navy - MC, SA