

INCH-POUND

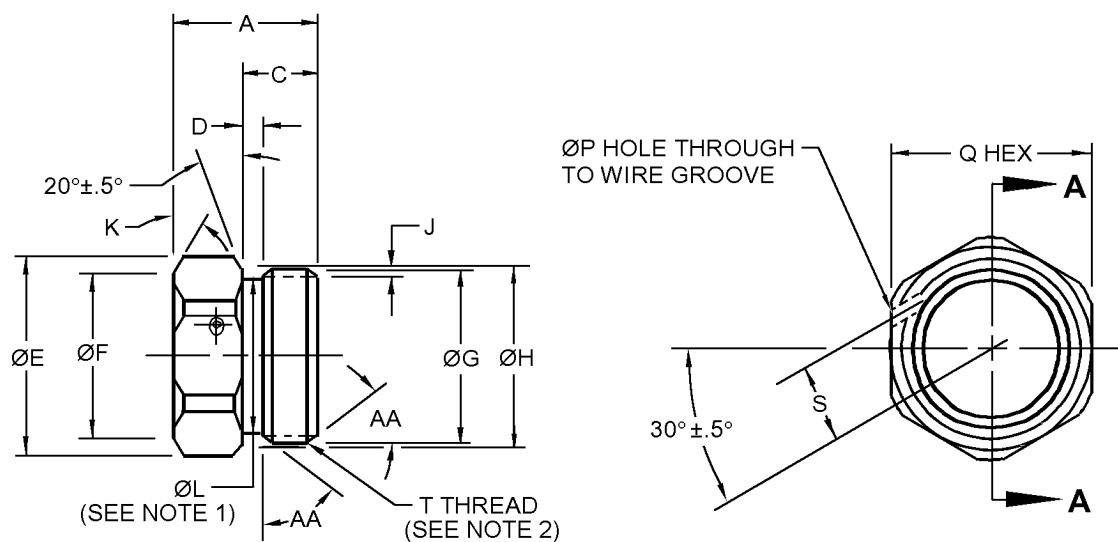
MS27071C  
 25 September 2003  
 SUPERSEDING  
 MS27071B  
 2 May 1966

## DETAIL SPECIFICATION SHEET

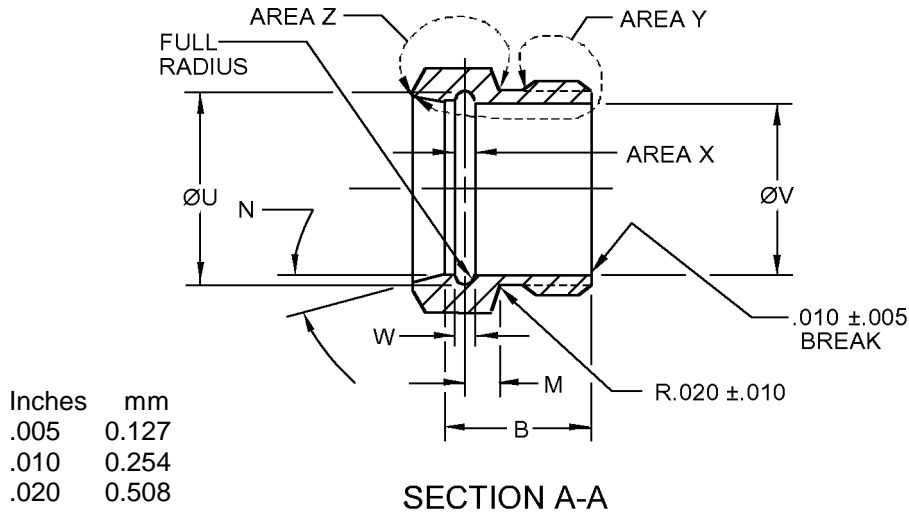
## UNION, NIPPLE

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. Union, nipple illustration.

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## NOTES:

1. Thread gauge must enter thread relief. Thread marks on thread relief are acceptable.
2. Threads shall be in accordance with SAE AS8879 except for -8 and -24 sizes, which shall be in accordance with ANSI ASME B1.1. Threads shall be rolled on corrosion-resistant steel only.
3. Dimensions are in inches. Metric equivalents are given for general information only.

FIGURE 1. Union, nipple illustration - Continued.TABLE I. Union, nipple requirements.

PIN MS27071		A ±.010	B		C ±.005		D ±.005		E ±.005
Steel	Alum				Steel	Alum	Steel	Alum	
-4C	-	.480	-	-	.250	-	.075	-	.634
-5C	-	.495	-	-	.245	-	.085	-	.707
-6C	-	.515	-	-		-	.050	-	.779
-8C	1/	.577	-	-	.265	-	.085	-	.995
-10C	-10D	.608	-	-	.295	.295	.100	.100	1.140
-12C	-12D	.715	.595	±.010	.355	.338		.083	1.284
-16C	-16D	.791	.640		.385	.365		.090	1.717
-20C	-20D	.835	.665		.395	.395		.085	2.078
-24C	-24D	.995	.765	±.005	.495	.495	.100	.100	2.439

See notes at end of table.

TABLE I. Union, nipple requirements - Continued.

PIN MS27071		F ±.02	G		H ±.02	J		K ±.5°	L <u>2</u> / +.005 -.000	M ±.003	N ±.5°	P ±.005
Steel	Alum											
-4C	-	.50	.500	+.000 -.006	.53	.031	±.005	30°	.438	.086	-	.078
-5C	-	.56	.562	+.000	.59				.491	.109	-	.086
-6C	-	.62	.625	-.007	.66	.015	max		.553		-	
-8C	<u>1</u> /	.81	.750		.84	.031	±.005		.678	.110	-	.101
-10C	-10D	.94	.875	+.000	.97	.035			.790	.116	-	
-12C	-12D	1.06	1.000	-.008	1.09			20°	.915	.135	15°	.131
-16C	-16D	1.44	1.375	+.000	1.47	.038			1.282	.150	10°	
-20C	-20D	1.75	1.688	-.009	1.78				1.594	.160	15°	
-24C	-24D	2.06	1.938	+.000 -.010	2.09	.043			1.833			

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PIN MS27071		Q ±.02	S ±.005	T <u>3</u> / thread	Pitch diameter thread	U +.005 -.000	V +.005 -.000	W		AA ±5°
Steel	Alum									
-4C	-	.56	.185	.5000 - 28 UNJEF-3A	.4768/.4740	.443	.379	.074	+.004	45°
-5C	-	.62	.203	.5625 - 24 UNJEF -3A	.5354/.5325	.487	.422	.084	-.000	
-6C	-	.69	.240	.6250 - 24 UNJEF -3A	.5979/.5949	.562	.497			30°
-8C	<u>3</u> /	.88	.301	.7500 - 24 UNS -3A	.7229/.7198	.698	.622	.098		45°
-10C	-10D	1.00	.346	.8750 - 20 UNJEF -3A	.8425/.8392	.788	.712			
-12C	-12D	1.12	.406	1.0000 - 20 UNJEF -3A	.9675/.9641	.938	.832	.128	+.005	
-16C	-16D	1.50	.571	1.3750 - 18 UNJEF - 3A	1.3389/1.3353	1.268	1.156		-.000	
-20C	-20D	1.81	.697	1.6875 - 18 UNJEF - 3A	1.6514/1.6476	1.519	1.411			
-24C	-24D	2.12	.814	1.9375 - 16 UN - 3A	1.8969/1.8929	1.754	1.641			30°

1/ MS27071-8D is canceled. Use MS27071-8C for new design.2/ Thread gauge must enter thread relief. Thread marks on thread relief are acceptable.3/ Threads shall be in accordance with SAE AS8879 except for -8 and -24 sizes, which shall be in accordance with ANSI ASME B1.1. Threads shall be rolled on corrosion-resistant steel only.

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## REQUIREMENTS

Intended use. This part is a component of MS27062 through MS27068 and MS27387 through MS27395. 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 of Identifying Number (PIN) for this part shall be as specified in table I (e.g., MS27071-4C).

Dimensions and tolerances. Dimensions in inches. Unless otherwise specified, break or radius all corners .005, +.005, -.000. All diameters must be concentric within .005 full indicator movement.

Material. PIN suffix C, corrosion-resistant steel, class 304, condition A, in accordance with SAE AMS-QQ-S-763.

PIN suffix D. Aluminum alloy, 2024 in accordance with SAE AMS-QQ-A-225/6, temper T6 or T851.

Remove all burrs and slivers.

Finish. Corrosion-resistant steel, passivate in accordance with SAE AMS-QQ-P-35. Dry-film lubricate area Y with lubrication conforming to SAE AS1701. No dry-film lubrication allowed in area Z. Dry-film lubrication allowed in area X, but not required.

Aluminum alloy. Anodize in accordance with MIL-A-8625, type II. For union used on flared and flanged nipple assemblies, dye blue. Dye yellow on flareless assemblies.

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

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.

Union, nipple illustration. See figure 1.

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 4730-0868-047)

## Review activities:

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