



# AN/MS HARDWARE

Standard Packages

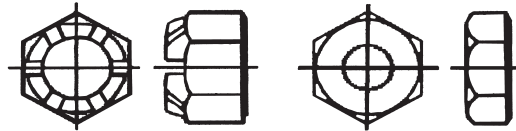
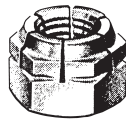
25 pcs

## SELF-LOCKING NUTS

These self-locking nuts with nylon color give a friction grip on the threads of the bolt that holds fast under all conditions. The all metal high temperature nuts are supplied in cadmium plated steel.

### MS21045 Regular Hex (to 550° F)

Military Number	Thread Size
MS21045-06	6-32
MS21045-08	8-32
MS21045-3	10-32
MS21045-4	1/4-28
MS21045-5	5/16-24



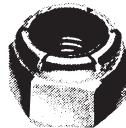
### AN310 Castle

### AN315 Plain

Part Number	Part Number	Dia. & Thread
AN310-3	AN315-3	No. 10-32
-4	-4	1/4-28
-5	-5	3/16-24
-6	-6	3/8-24

### MS21044 Regular Hex, Fiber (to 250° F)

Military Number	Thread Size
Cadmium Plated Steel	
MS21044-N06	6-32
MS21044-N08	8-32
MS21044-N3	10-32
MS21044-N4	1/4-28
MS21044-N5	5/16-24
MS21044-N6	3/8-24



### Two Lug Anchor Nut

Cadmium plated steel. Nylon locking insert. For blind mounted applications



Part Number	Equivalent Number	Thread Size
MS21078-06	NAS1023N06	6-32
MS21078-08	NAS1023N08	8-32
MS21078-3	NAS1023N3	10-32
MS21078-4	NAS1023N4	1/4-28
MS21078-5	NAS1023N5	5/16-24

### Two Lug, Floating Anchor Nut

Heat treated, cadmium plated steel with dry film lubricant applied. High temp. Counterbore in base area of nut eliminates shimming to prevent bottoming on the imperfect thread. Use to allow engagement of thread in cases of bolt hole misalignments.



Part Number	Equivalent Number	Thread Size
MS21059L06	NAS686AD6	6-32
MS21059L08	NAS686AD8	8-32
MS21059L3	NAS686AD3	10-32
MS21059L4	NAS686AD4	1/4-28

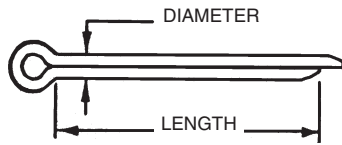
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# CADMIUM PLATED INSTRUMENT NUTS FLAT WASHERS COTTER PINS

## Cotter Pins MS24665

Available in cadmium plated carbon steel.



Diameter and Length (Inches)	Carb	
	MS24665	AN380
	Dash No.	
1/32 x 3/8	-3	-1-1
1/32 x 1/2	-5	-1-2
1/32 x 3/4	-7	-1-3
1/32 x 1	-9	-1-4
1/16 x 5/16	-	-
1/16 x 3/8	.130	-2-1
1/16 x 7/16	-	-
1/16 x 1/2	.132	-2-2
1/16 x 5/8	-	-
1/16 x 3/4	.134	-2-3
1/16 x 7/8	-	-
1/16 x 1	.136	-2-4
1/16 x 1 1/4	-138	-2-5
1/16 x 1 1/2	-140	-2-6
1/16 x 1 3/4	-142	-2-7
1/16 x 2	-143	-2-8
1/16 x 2 1/2	-144	-
1/16 x 3	-145	-
5/64 x 1/2	-208	-
5/64 x 5/8	-	-
5/64 x 3/4	-210	-
5/64 x 1	-212	-
3/32 x 1/2	-281	-3-2
3/32 x 5/8	-	-
3/32 x 3/4	-283	-3-3
3/32 x 7/8	-	-
3/32 x 1	-285	-3-4
3/32 x 1 1/8	-286	-
3/32 x 1 1/4	-287	-3-5
3/32 x 1 1/2	-289	-3-6
3/32 x 1 3/4	-291	-3-7
3/32 x 2	-292	-3-8
3/32 x 2 1/2	-294	-
3/32 x 3	-205	-
1/8 x 1/2	-340	-4-2
1/8 x 3/4	-351	-4-3
1/8 x 1	-353	-4-4
1/8 x 1 1/8	-	-
1/8 x 1 1/4	-355	-4-5
1/8 x 1 1/2	-357	-4-6
1/8 x 1 3/4	-359	-4-7
1/8 x 2	-360	-4-8
1/8 x 2 1/4	-361	-
1/8 x 2 1/2	-362	-4-10
5/32 x 1	-419	-5-4
5/32 x 1 1/2	-423	-5-6
5/32 x 2 1/2	-428	-5-10

## INSTRUMENT MOUNTING NUTS

Cage-type. Permit mounting of aircraft instruments from the front of the panel. No change in panel or instrument design required. Non-magnetic (speed nut is brass; cage is phosphor bronze). Conform to MIL-N3336. Gage is easily compressed with finger-pressure to allow insertion of legs into clearance holes. When fully inserted and pressure is released, legs spring apart; retain SPEED NUT in screw receiving position. Turned-down corners hold firm against force of inserting screw and screw-tightening torque. All instrument mounting nuts listed below take a 6-32 machine screw.



MS Part No.	Tinnerman Part No.	NAS Part No.	Panel Thickness
MS33737-9	A8938-632-493	487-13	.062
MS33737-10	A8939-632-493	487-14	.091
MS33737-11	A8939-632-493	487-15	.125
MS33737-12	A8940-632-493	487-16	.187
MS33737-13	A8941-632-493	487-17	.250
MS33737-14	A8942-632-493	487-18	.313
MS33737-15	A8943-632-493	487-20	.375
MS33737-16	A8944-632-493	487-21	over .375

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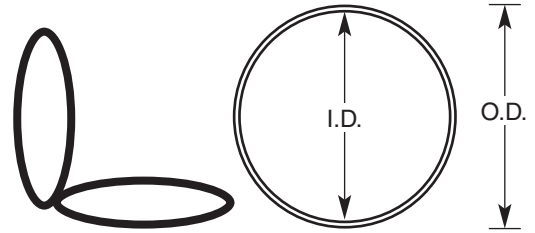
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# O-RINGS



## AN6227B, AN6230B, MS28775

The same compound is used for all three part numbers. For use in aircraft hydraulic systems using MIL-H-5606 petroleum base hydraulic fluid at -65°F to +160°F.

I.D.	O.D.	W.	AN6227B Meets MIL-P5516B	Same As	MS28775 Meets MIL-P-25732
1/8	1/4	1/16	AN6227B-1		MS28775-006
5/32	9/32	1/16	AN6227B-2		MS28775-007
3/16	5/16	1/16	AN6227B-3		MS28775-008
7/32	11/32	1/16	AN6227B-4		MS28775-009
1/4	3/8	1/16	AN6227B-5		MS28775-010
5/16	7/16	1/16	AN6227B-6		MS28775-011
3/8	1/2	1/16	AN6227B-7		MS28775-012
3/8	9/16	3/32	AN6227B-8		MS28775-110
7/16	5/8	3/32	AN6227B-9		MS28775-111
1/2	11/16	3/32	AN6227B-10		MS28775-112
9/16	3/4	3/32	AN6227B-11		MS28775-113
5/8	13/16	3/32	AN6227B-12		MS28775-114
11/16	7/8	3/32	AN6227B-13		MS28775-115
3/4	15/16	3/32	AN6227B-14		MS28775-116
3/4	1	1/8	AN6227B-15		MS28775-210
13/16	1-1/16	1/8	AN6227B-16		MS28775-211
7/8	1-1/8	1/8	AN6227B-17		MS28775-212
15/16	1-13/16	1/8	AN6227B-18		MS28775-213
1	1-1/4	1/8	AN6227B-19		MS28775-214
1-1/16	1-5/16	1/8	AN6227B-20		MS28775-215
1-1/8	1-3/8	1/8	AN6227B-21		MS28775-216
1-3/16	1-7/16	1/8	AN6227B-22		MS28775-217
1-1/4	1-1/2	1/8	AN6227B-23		MS28775-218
1-5/16	1-9/16	1/8	AN6227B-24		MS28775-219
1-3/8	1-5/8	1/8	AN6227B-25		MS28775-220
1-7/16	1-11/16	1/8	AN6227B-26		MS28775-221
1-1/2	1-3/4	1/8	AN6227B-27		MS28775-222
1-1/2	1-7/8	3/16	AN6227B-28		MS28775-325
1-5/8	2	3/16	AN6227B-29		MS28775-326
1-3/4	2-1/8	3/16	AN6227B-30		MS28775-327
1-7/8	2-1/4	3/16	AN6227B-31		MS28775-328
2	2-3/8	3/16	AN6227B-32		MS28775-329
2-1/8	2-1/2	3/16	AN6227B-33		MS28775-330
2-1/4	2-5/8	3/16	AN6227B-34		MS28775-331
2-3/8	2-3/4	3/16	AN6227B-35		MS28775-332
2-1/2	2-7/8	3/16	AN6227B-36		MS28775-333
2-5/8	3	3/16	AN6227B-37		MS28775-334
2-7/8	3-1/4	3/16	AN6227B-39		MS28775-336
3-1/8	3-1/2	3/16	AN6227B-41		MS28775-338
3-1/4	3-5/8	3/16	AN6227B-42		MS28775-339
3-3/8	3-3/4	3/16	AN6227B-43		MS28775-340
3-1/2	3-7/8	3/16	AN6227B-44		MS28775-341
3-5/8	4	3/16	AN6227B-45		MS28775-342
3-3/4	4-1/8	3/16	AN6227B-46		MS28775-343
3-7/8	4-1/4	3/16	AN6227B-47		MS28775-344
4	4-3/8	3/16	AN6227B-48		MS28775-345
4-1/8	4-1/2	3/16	AN6227B-49		MS28775-346
4-1/4	4-5/8	3/16	AN6227B-50		MS28775-347

I.D.	O.D.	W.	AN6230B Meets MIL-P5516B	Same As	MS28775 Meets MIL-P-25732
1-5/8	1-7/8	1/8	AN6230B-1		MS28775-223
1-3/4	2	1/8	AN6230B-2		MS28775-224
1-7/8	2-1/8	1/8	AN6230B-3		MS28775-225
2	2-1/4	1/8	AN6230B-4		MS28775-226
2-1/8	2-3/8	1/8	AN6230B-5		MS28775-227
2-1/4	2-1/2	1/8	AN6230B-6		MS28775-228
2-3/8	2-5/8	1/8	AN6230B-7		MS28775-229
2-1/2	2-3/4	1/8	AN6230B-8		MS28775-230
2-5/8	2-7/8	1/8	AN6230B-9		MS28775-231
2-3/4	3	1/8	AN6230B-10		MS28775-232
2-7/8	3-1/8	1/8	AN6230B-11		MS28775-233
3	3-1/4	1/8	AN6230B-12		MS28775-234
3-1/8	3-3/8	1/8	AN6230B-13		MS28775-235
3-1/4	3-1/2	1/8	AN6230B-14		MS28775-236
3-3/8	3-5/8	1/8	AN6230B-15		MS28775-237
3-1/2	3-3/4	1/8	AN6230B-16		MS28775-238
3-5/8	3-7/8	1/8	AN6230B-17		MS28775-239
3-3/4	4	1/8	AN6230B-18		MS28775-240
3-7/8	4-1/8	1/8	AN6230B-19		MS28775-241
4	4-1/4	1/8	AN6230B-20		MS28775-242
4-1/8	4-3/8	1/8	AN6230B-21		MS28775-243
4-1/4	4-1/2	1/8	AN6230B-22		MS28775-244
4-3/8	4-5/8	1/8	AN6230B-23		MS28775-245
4-1/2	4-3/4	1/8	AN6230B-24		MS28775-246
4-5/8	4-7/8	1/8	AN6230B-25		MS28775-247

## O-Rings Fuel Resistant MS29513

For use with hydrocarbon fuels MIL-F-5572, MIL-F-5616 and MIL-F-5624 at temperatures from -65°F to +200°F.

MS29513 Dash No.	I.D. (In)	O.D. (In)	W (In)	MS29513 Dash No.	I.D. (In)	O.D. (In)	W (In)
-006	.114	.254	.070	-020	.864	1.004	.070
-008	.176	.316	.070	-111	.424	.630	.103
-010	.239	.379	.070	-138	2.112	2.318	.103
-011	.301	.441	.070	-155	3.987	4.193	.103
-012	.364	.504	.070	-232	2.734	3.012	.139
-013	.426	.566	.070	-238	3.484	3.762	.139
-014	.489	.629	.070	-338	3.100	3.520	.210
-015	.551	.691	.070				
-018	.739	.879	.070				

## Tube Fitting/Boss Gasket/ O-Ring MS28778

Supersedes AN6290



MS28778 Dash No.	Old AN6290 Dash No.	Tube O.D. Nominal	I.D. (In)	W (In)
-2	-2	1/8	.239	.064
-3	-3	3/16	.301	.064
-4	-4	1/4	.351	.072
-5	-5	5/16	.414	.072
-6	-6	3/8	.468	.078
-8	-8	1/2	.644	.087
-10	-10	5/8	.755	.097
-12	-12	3/4	.924	.116

## AN901 Gaskets

Tube connection seals made of aluminum alloy. Order according to the tube size of the fittings with which the gasket is used.

Dash Number	Tube O.D. (Inches)
-4A	1/4
-5A	5/16
-6A	3/8
-8A	1/2
-10A	5/8
-12A	3/4
-16A	1



## AN900 Gaskets

Annular copper asbestos gaskets. Ring width is 1/8"; thickness is 3/32".

Part Number	I.D. (Inches)	Alternative Part No.	Part Number	I.D. (Inches)	Alternative Part No.
AN900-4	1/4	MS35769-2	-15	15/16	-20
-5	5/16		-16	1	-21
-6	3/8		-17	1-1/16	-24
-7	7/16		-18	1-1/8	-26
-8	1/2		-20	1-1/4	-31
-9	9/16		-21	1-5/16	-33
-10	5/8		-22	1-3/8	-35
-11	11/16		-24	1-1/2	-39
-12	3/4		-26	1-3/4	-42
-13	13/16		-29	1-13/16	-51
-14	7/8		-30	1-7/8	-52

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