

INCH-POUND

MIL-STD-1903  
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# MILITARY STANDARD

## NUTS PREFERRED FOR DESIGN, LISTING OF



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**MIL-STD-1903**

DEPARTMENT OF DEFENSE  
Washington, DC 20301

Nuts Preferred for Design, Listing of

**MIL-STD-1903**

1. This Military Standard is approved for use by all Departments and Agencies of the Department of Defense.
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## MIL-STD-1903

FOREWORD

1. The purpose of this bookform standard is to provide a commodity type parts document on nuts to aid military equipment designers and engineers in the selection of preferred nuts.

2. This document consists of an index of preferred standardization documents and a listing of preferred parts within these documents that have been selected with respect to configuration, sizes, materials, and finishes for nuts.

3. The selection of preferred documents listed in this standard and the selection of part numbers within the preferred documents were made as follows:

a. Selection of documents

(1) Documents listed or scheduled for listing in the Department of Defense Index of Specifications and Standards (DODISS).

(2) Documents which are active for design.

(3) Documents specifying part numbers (dash numbers) which designate specific sizes, materials, and finishes.

b. Selection of part numbers

(1) By conducting a thorough search and evaluation of existing DOD procurement information.

(2) By evaluation of preferred parts listed in recent weapon system contracts.

(3) By evaluation of preferred parts lists obtained from industry.

4. To increase the scope and versatility of this nut standard, periodic revisions will be developed. Results from standardization studies, MILITARY PARTS CONTROL ADVISORY GROUP (MPCAG) evaluations, evaluation of a new family of nuts and recommendations from interested activities will form a basis for these revisions.

5. The following issued military standards cover other preferred for design standard parts:

- MIL-STD-1251 - Screws and Bolts Preferred for Design, Listing of
- MIL-STD-1598 - Studs, Preferred for Design, Listing of
- MIL-STD-1754 - Fastening Devices, Preferred for Design, Listing of
- MIL-STD-1755 - Keys and Pins, Preferred for Design, Listing of
- MIL-STD-1756 - Rings, Retaining, Preferred for Design, Listing of
- MIL-STD-1758 - Inserts, Screw Thread, Preferred for Design, Listing of
- MIL-STD-1759 - Rivets and Rivet Type Fasteners, Preferred for Design,  
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## 1. SCOPE

1.1 Scope. This standard provides a listing of preferred nuts encompassing the following characteristics:

- a. Configuration
- b. Size
- c. Materials
- d. Protective Coatings and Finishes

1.2 Purpose. The purpose of this standard is as follows:

- a. Provide the designer with a listing of preferred nuts to promote their use in design of weapon systems and equipments.
- b. Control and minimize the variety of nuts used in military equipment thereby facilitating logistic support of the equipment during its life cycle.

1.3 Application. To minimize the proliferation of nuts, only the preferred part number listed herein is authorized for use in new design. All other part numbers, even though shown on current Military Specification Sheets, Military Standards (MS), National Aerospace Standards (NAS), Aeronautical Standards (AS), and Air Force/Navy Aeronautical Standards (AN), are not approved for use in new design unless approved by the cognizant Government procuring activity.

1.4 Intended Use. Implement this standard by including one of the following options in this contract:

a. Require this standard as a supplement to an end use type standard such as MIL-STD-1515. When thus required, only the nuts listed in both the end use type and this standard are acceptable. Use of other nuts requires approval of the Government procuring activity.

b. Require this standard as a guide to be used with an end use type standard such as MIL-STD-1515. When thus required, the nuts listed in the end use type standard and this standard are acceptable. The designer must assure himself the nuts listed in both the end type standard and this standard are not adequate for his requirement before using nuts not listed herein. Use of nuts not listed in the end type standard requires approval of the Government procuring activity.

c. Require this standard and indicate exceptions to it. When thus required, only the nuts listed in this standard and not excluded by the exceptions are acceptable. Use of other nuts requires approval of the Government procuring activity.

d. Require this standard as a guide. When thus required, the designer must assure himself the nuts listed in this standard are not adequate for the requirement before using other nuts.

## 2. REFERENCED DOCUMENTS

2.1 Issues of Documents. The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this standard to the extent specified herein.

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## SPECIFICATIONS

## MILITARY

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MIL-N-45938/1	-	Nut, Plain, Clinch (Self-Clinching, Round) .....	509
MIL-N-45938/2	-	Nut, Plain, Clinch and Nut, Self-Locking, Clinch (Swage-Clinching, Hexagon Shank) .....	507/1905
MIL-N-45938/3	-	Nut, Plain, Clinch and Nut, Self-Locking, Clinch (Self-Clinching, Knurled Collar, 450°F and 600°F) .....	508/1906
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MS3186	-	Nut, Plain, Hexagon, Connector Mounting .....	705
MS3214	-	Nut, Plain, Clinch, Flush .....	506

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MS9201	- Nut-Plain, Hex, Boss Connection, Cres. ....	703
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MS9357	- Nut, Plain, Hexagon - A-286, Silver Plated, MIL-S-8879 .	701
MS9358	- Nut, Castellated, Hexagon - A-286, MIL-S-8879 .....	401
MS9359	- Nut, Castellated, Hexagon - A-286, Silver Plated, MIL-S-8879 .....	401
MS9360	- Nut, Plain, Hex-Drilled - A-286, Silver Plated, MIL-S-8879 .....	701
MS9361	- Nut, Plain, Hexagon, Check - A-286, MIL-S-8879 .....	704
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MS9364	- Nut, Slotted, Hexagon-Shear, A-286, Silver Plated, MIL-S-8879 .....	1001
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MS9881	- Nut, Plain, Hexagon-AMS6322, Cadmium Plated, MIL-S-8879 ..	701
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MS9951	- Nut, Spanner-End Slots, Cupwasher Locked, Steel, AMS6322, MIL-S-8879 .....	901
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MS14146	- Nut, Self-Locking, Castellated, Hexagon, C'Bored, Captive Washer, 450°F .....	1502
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MS14164	- Nut, Wheel, Self-Locking, Flanged, Steel, 180 KSI Ftu, 450°F Spline Drive .....	2501
MS14182	- Nut, Self-Locking, Inconel, 220 KSI, Ftu, 800°F, Flanged, MS33787 Wrenching Element .....	2501
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MS16211	- Nut, Plain, Square, Regular, Unfinished, Copper-Silicon Alloy, UNC-2B, Nonmagnetic .....	1201
MS16228	- Nut, Self-Locking, Hexagon-Thin, UNC-3B (Non-Metallic Insert) Austenitic Corrosion Resistant Steel, Nonmagnetic, 250°F .....	2301
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MS21042	- Nut, Self-Locking, 450°F, Reduced Hexagon, Reduced Height, Ring Base, Non-Corrosion Resistant Steel .....	2101
MS21043	- Nut, Self-Locking, 450°F, Reduced Hexagon, Reduced Height, Ring Base, Corrosion Resistant Steel .....	2101
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MS21069	- Nut, Self-Locking, Plate, Two Lug, Reduced Rivet Spacing, Low Height, Cres, 125 KSI Ftu, 450°F and 800°F .....	2416
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MS21071	- Nut, Self-Locking, Plate, One Lug, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F .....	2407
MS21072	- Nut, Self-Locking, Plate, One Lug, Reduced Rivet Spacing, Low Height, Cres, 125 KSI Ftu, 450°F and 800°F .....	2407
MS21073	- Nut, Self-Locking, Plate, Corner, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F .....	2401
MS21074	- Nut, Self-Locking, Plate, Corner, Reduced Rivet Spacing, Low Height, Cres, 125 KSI Ftu, 450°F and 800°F .....	2401
MS21075	- Nut, Self-Locking, Plate, Two Lug, Floating, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F ..	2419
MS21076	- Nut, Self-Locking, Plate, Two Lug, Floating, Reduced Rivet Spacing, Low Height, Cres, 125 KSI Ftu, 450°F and 800°F .....	2419
MS21077	- Nut, Self-Locking, Plate, Two Lug, Floating, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F .....	2419
MS21078	- Nut, Self-Locking, Plate, Two Lug, Non-Metallic Insert, 125 KSI Ftu, 250°F .....	2416
MS21079	- Nut, Self-Locking, Gang Channel, Non-Metallic Insert, 125 KSI Ftu, 250°F .....	2201
MS21080	- Nut, Self-Locking, Plate, One Lug, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F .....	2410
MS21081	- Nut, Self-Locking, Plate, Corner, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F .....	2402
MS21082	- Nut, Self-Locking, Plate, One Lug, Floating, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F .....	2409
MS21083	- Nut, Self-Locking, Hexagon, Non-Metallic Insert, Low Height, 250°F .....	2301
MS21084	- Nut, Self-Locking, Steel, 220 KSI Ftu, 450°F, Flanged, MS33787 Wrenching Element .....	2501
MS21085	- Nut, Self-Locking, Steel, 260 KSI Ftu, 450°F, Flanged, MS33787 Wrenching Element .....	2501

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## STANDARDS

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		<u>SECTION</u>
MS21086	- Nut, Self-Locking, Plate, Side by Side Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F .....	2413
MS21087	- Nut, Self-Locking, Plate, Side by Side Reduced Rivet Spacing, Low Height, Cres, 125 KSI Ftu, 450°F and 800°F .....	2413
MS21133	- Nut, Self-Locking, Steel, 180 KSI Ftu, 450°F, Flanged, MS33787 Wrenching Element .....	2501
MS21224	- Nut, Self-Locking, Castellated, Hexagon, Counterbored, Assembled Washer, 250°F, Non-Metallic Insert (For Self Retaining Bolts) .....	1501
MS21225	- Nut, Self-Locking, Castellated, Hexagon-800°F .....	2601
MS21244	- Nut, Castellated, Hexagon, Counterbored Assembled Washer, 450°F (For Self Retaining Bolts) .....	1501
MS21245	- Nut, Self-Locking, Hexagon-Thin, 450°F, 80 KSI Ftu ....	2301
MS21304	- Nut, Plain, Square .....	1201
MS21331	- Nut, Plain, Cinch .....	501
MS24679	- Nut, Plain, Cap, Low Crown, UNC-2B and UNF-2B .....	301
MS24680	- Nut, Plain, Cap, High Crown, UNC-2B and UNF-2B .....	301
MS25082	- Nut, Plain, Hexagon, Electrical, Thin .....	706
MS27040	- Nut, Plain, Square-Steel, Cadmium Plated .....	1201
MS27127	- Nut, Welding-Without Pilot .....	1302
MS27128	- Nut, Welding-Pilot .....	1301
MS27130	- Nut, Plain, Blind Rivet-Flat and Countersunk Head, Open End .....	201
MS27151	- Nut, Stamped-Standard Type .....	2901
MS27952	- Nut, Plain-Hexagon, Jam, Left Hand .....	707
MS27955	- Nut, Plain-Round, Spanner .....	901
MS33737	- Nuts, Self-Locking, Clip-In Type, Instrument Mounting .	2801
MS35425	- Nut, Plain, Wing, UNC-2B .....	1401
MS35426	- Nut, Plain, Wing, UNF-2B .....	1401

**MIL-STD-1903****STANDARDS****MILITARY (Continued)**

	<u>SECTION</u>
MS35649 - Nut, Plain-Hexagon, Machine Screw, UNC-2B .....	708
MS35650 - Nut, Plain-Hexagon, Machine Screw, UNF-2B .....	708
MS35691 - Nut, Plain, Hexagon (Jam) UNC-2B and UNF-2B .....	707
MS35692 - Nut, Slotted-Hexagon, UNC-2B and UNF-2B .....	1001
MS51468 - Nut, Plain, Wing .....	1401
MS51469 - Nut, Plain, Hexagon (Machine Screw) Carbon Steel, UNC-2B, Zinc Coat .....	711
MS51470 - Nut, Plain, Hexagon (Machine Screw) Carbon Steel, UNC-2B, Zinc Coat .....	711
MS51471 - Nut, Plain, Hexagon (Jam), Carbon Steel, UNC-2B, Zinc Coat .....	711
MS51472 - Nut, Plain, Hexagon, Carbon Steel, UNC-2B, Zinc Coat ..	711
MS51473 - Nut, Plain, Hexagon, Carbon Steel, UNF-2B, Zinc Coat ..	711
MS51857 - Nut, Push-On Steel .....	3001
MS51858 - Nut, Plain-Hexagon, Plastic (Nylon) .....	709
MS51865 - Nut, Self-Locking, Cap-General Purpose, 250°F .....	1801
MS51866 - Nut, Self-Locking, Spline-General Purpose, 250°F .....	2701
MS51922 - Nut, Self-Locking, Hexagon-Prevailing Torque, General Purpose, 250°F, UNC-2B and UNF-2B .....	2301
MS51943 - Nut, Self-Locking, Hexagon-Prevailing Torque, For Critical Installations, 250°F, UNC-3B and UNF-3B .....	2301
MS51967 - Nut, Plain, Hexagon-Carbon Steel, Cadmium Plated, UNC-2B (in./mm) .....	701
MS51968 - Nut, Plain, Hexagon-Carbon Steel, Cadmium Plated, UNF-2B (in./mm.) .....	701
MS51969 - Nut, Plain, Hexagon-Brass, Black Chemical Finish, UNC-2B .....	701
MS51970 - Nut, Plain, Hexagon-Brass, Black Chemical Finish, UNF-2B .....	701

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## STANDARDS

## MILITARY (Continued)

	<u>SECTION</u>
MS51971 - Nut, Plain, Hexagon-Steel, Corrosion Resisting, 300 Series, Passivated, UNC-2B .....	701
MS51972 - Nut, Plain, Hexagon-Steel, Corrosion Resisting, 300 Series, Passivated, UNF-2B .....	701
MS51984 - Nut, Plain, Cone Seat, Hexagon Wheel Mounting, 1/2 Inch .....	601
MS51988 - Nut, Self-Locking, Flanged-Prevailing Torque, Steel, Cadmium, UNC and UNF, (in./mm.) .....	2101
MS90723 - Nut, Sheet Spring - "J" Type .....	2803
MS90724 - Nut, Sheet Spring - "U" Type .....	2804
MS172321 thru MS172370 - Nut-Spanner, Aeronautical .....	901

## AIR FORCE - NAVY AERONAUTICAL

AN256 - Nut, Self-Locking, Plate, Right Angle .....	2411
AN310 - Nut, Plain, Castellated, Airframe .....	401
AN315 - Nut, Plain, Hexagon, Airframe .....	702
AN316 - Nut, Jam, Hexagon .....	707
AN320 - Nut, Plain, Castellated, Shear .....	1002
AN150401 thru AN150425 - Nut, Plain, Hexagon, Check .....	704

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other Publications. The following documents form a part of this standard to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. (AIA)

NATIONAL AEROSPACE STANDARDS

## MIL-STD-1903

## STANDARDS

## NATIONAL AEROSPACE

	<u>SECTION</u>
NAS446 - Nut, Sheet Spring (Flat Type) .....	2802
NAS509 - Nut, Drilled Jam .....	707
NAS577 - Nut, Self-Locking, Barrel-Floating .....	1601
NAS671 - Nut, Plain, Hexagon, Small Pattern .....	710
NAS1033 - Nut, Self-Locking, Plate, Right-Angle, Floating .....	2412
NAS1291 - Nut, Self-Locking, Extended Washer, Hexagon, Low Height .....	2101
NAS1329 - Nut, Blind Rivet-Flathead, Internal Thread, Non-Locking (Free Running) or Self-Locking (Prevailing Torque) ...	202/1704
NAS1330 - Nut, Blind Rivet-Countersunk Head, Internal Thread, Non-Locking (Free Running) or Self-Locking (Prevailing Torque) .....	201/1703
NAS1423 - Nut, Plain, Hexagon, Drilled Jam, Thin .....	707
NAS1473 - Nut, Self-Locking, Plate, Two Lug, Cap, Floating .....	2418
NAS1474 - Nut, Self-Locking, Plate, Two Lug, Cap, Floating, Reduced Rivet Spacing .....	2418
NAS1731 - Nut, Blind, Serrated Head, Self-Locking, 450°F .....	1705
NAS1734 - Nut, Blind, Elliptical Head, Self-Locking, 450°F .....	1702
NAS1735 - Nut, Blind, Elliptical Head, Self-Locking, Closed End, 450°F .....	1701
NAS1766 - Nut, Self-Locking, Plate, Corner, Floating, 125 KSI Ftu .....	2404
NAS1770 - Nut, Self-Locking, Plate, Two Lug, 160 KSI Ftu .....	2417
NAS1771 - Nut, Self-Locking, Plate, One Lug, 160 KSI Ftu .....	2408
NAS1772 - Nut, Self-Locking, Plate, One Lug, 160 KSI Ftu .....	2403
NAS1773 - Nut, Self-Locking, Plate, Two Lug, Low Height, Floating 160 KSI Ftu .....	2421
NAS1774 - Nut, Self-Locking, Plate, One Lug, Floating, 125 KSI Ftu, 160 KSI Ftu .....	2409

**MIL-STD-1903****STANDARDS****NATIONAL AEROSPACE (Continued)****SECTION**

NAS1775	- Nut, Self-Locking, Plate, Two Lug, 160 KSI Ftu .....	2417
NAS1776	- Nut, Self-Locking, Plate, One Lug, 160 KSI Ftu .....	2408
NAS1777	- Nut, Self-Locking, Plate, Corner, 160 KSI Ftu .....	2403
NAS1778	- Nut, Self-Locking, Plate, Side by Side, 160 KSI Ftu ...	2414
NAS1779	- Nut, Self-Locking, Plate, Two Lug, Low Height, Floating Reduced Rivet Spacing, 160 KSI Ftu .....	2422
NAS1780	- Nut, Self-Locking, Plate, Two Lug, 160 KSI Ftu .....	2417
NAS1781	- Nut, Self-Locking, Plate, One Lug, 160 KSI Ftu .....	2408
NAS1782	- Nut, Self-Locking, Plate, Corner, 160 KSI Ftu .....	2403
NAS1789	- Nut, Self-Locking, Plate, Side by Side, Floating, Low Height, 160 KSI Ftu .....	2415
NAS1791	- Nut, Self-Locking, Plate, Two Lug, Floating, Replaceable Nut Element, 125 KSI Ftu .....	2420
NAS1792	- Nut, Self-Locking, Plate, One Lug, Floating, Replaceable Nut Element, 125 KSI Ftu .....	2406
NAS1793	- Nut, Self-Locking, Plate, Corner, Floating, Replaceable Nut Element, 125 KSI Ftu .....	2405

(Application for copies should be addressed to the Aerospace Industries Association of America, Inc., 1725 De Sales Street N.W., Washington, D.C. 20036).

**Society of Automotive Engineers (SAE) Aerospace Standards****AEROSPACE STANDARDS**

AS3163	- Nut, Plain, Round, Spanner, O.D. Slots .....	901
AS3261	- Nut, Sheet, Spring "U" Type, Self-Locking .....	2805

(Application for copies should be addressed to the Society of Automotive Engineers, Inc. 400 Commonwealth Drive, Warrendale, PA 15096).

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies).

## MIL-STD-1903

## 3. DEFINITIONS

3.1 Adopted Industry Standards. Any Industry Specifications or Standard which is listed in the Department of Defense Index of Specifications and Standards (DODISS).

3.2 Commodity Type Document. A document which lists preferred parts within a Federal Supply Classification class or Item Name. This document is to be used for selecting preferred parts for a new design when the document is invoked as a contractual requirement in conjunction with a parts control requirement.

3.3 End Use Type Document. A document that lists preferred documents and establishes parts requirements which are contractually binding for the design and construction/manufacture of a weapon system or an established equipment category such as MIL-STD-1515.

3.4 Military Parts Control Advisory Group (MPCAG). A Department of Defense organization which provides advice to the Military Departments and military contractors on the selection of parts assigned commodity classes, and collects data on nonstandard parts for developing or updating military specifications and standards.

3.5 Approved Item Names. Approved item names used in this standard are defined in the following paragraphs corresponding to the section numbers:

- a. NUT. A fastening device of various shapes having internal thread or an aperture of lugs or prongs designed to mate with an external thread for the purpose of securely holding threaded members brought into engagement therewith.
- (100) LOCKNUT, TUBE FITTING. An item with internal machine threads designed to fit the external machine threads of a tube fitting. It has flat faces, one of which has a counterbored recess to accommodate packing, packing or sealing ring(s), gasket(s), and the like. The item, when installed, provides a method of locking and sealing the connection.
  - (200) NUT, PLAIN, BLIND RIVET. A metallic headed fastener having internal threads for a portion of the full length. It may have a smooth, hexagon or splined shank with an open or closed end. Is designed to be expanded tightly against the material it is being installed in by means of a special tool. The item must have a specified grip range. The grip range is the thickness of the material into which the item is being installed.
  - (300) NUT, PLAIN, CAP. An item internally threaded from one end, and completely enclosed on the opposite end. The outer periphery parallel to the threaded axis may be square, cylindrical, hexagonal, octagonal, or dodecagonal and taper to a cone or dome shape on the closed end.
  - (400) NUT, PLAIN, CASTELLATED, HEXAGON. A nut having 6 flat sides, flat on the bottom and having a slotted cylindrical or dome shaped upper portion.



## MIL-STD-1903

## DEFINITIONS (Continued)

- (500) NUT, PLAIN, CLINCH. A nut having a sleeve portion on its under side, which can be crimped or clinched to hold the item in place when inserted in a hole.
- (600) NUT, PLAIN, CONE SEAT, HEXAGON. A nut having 6 flat sides and a cone seat bearing surface. Items may have a removable collar.
- (700) NUT, PLAIN, HEXAGON. A nut, flat on top and bottom having 6 flat sides.
- (800) NUT, PLAIN, KNURLED. A nut, round in shape, having all or part of its outer surface knurled. It may have provisions for external wrenching.
- (900) NUT, PLAIN, ROUND. A nut, circular in shape, that may have wrench flats on its periphery or may have holding or tightening features, such as slots, holes or protrusions in the periphery or in the face opposite the bearing surface.
- (1000) NUT, PLAIN, SLOTTED, HEXAGON. A nut having a flat bearing surface and 6 flat sides with slots in its upper portion.
- (1100) NUT, PLAIN, SPLINE. A nut having an externally splined sleeve which holds it in position when forced into a hole of slightly smaller diameter.
- (1200) NUT, PLAIN, SQUARE. A nut, flat on top and bottom, having 4 flat sides.
- (1300) NUT, PLAIN, WELDING. A nut with projection(s) that is designed to localized heating, during welding, at predetermined points and to fuse with the metal to which the nut is mounted.
- (1400) NUT, PLAIN, WING. A nut having wings designed for manual turning without driver or wrench.
- (1500) NUT, SELF-LOCKING, ASSEMBLED WASHER. A nut on which has been assembled a non-removable washer. An integral feature is incorporated for locking on the threads of a mating member.
- (1600) NUT, SELF-LOCKING, BARREL. A semicylindrical nut with internal threads perpendicular to the center of the flat. An integral feature is incorporated for locking on the threads of a mating member.
- (1700) NUT, SELF-LOCKING, BLIND RIVET. A metallic headed fastener having internal threads for a portion of the full length. It may have a smooth, hexagon or splined shank with an open or closed end. It is designed to be expanded tightly against the material it is being installed in by means of a special tool. The item must have a specified grip range. The grip range is the thickness of the material the item is being installed in. An integral feature is incorporated for locking on the threads of a mating member.

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## DEFINITIONS (Continued)

- (1800) NUT, SELF-LOCKING CAP. A nut flat on the bottom and having 6 flat sides, the top is extended and closed over to protect the end of the bolt when assembled. An integral feature is incorporated for locking on the threads of a mating member.
- (1900) NUT, SELF-LOCKING, CLINCH. A nut having a sleeve portion on its under side, which can be crimped or clinched to hold the item in place when inserted in a hole. An integral feature is incorporated for locking.
- (2000) NUT, SELF-LOCKING, DOUBLE HEXAGON. A nut having 12 drive points and 24 sides. The bearing surface may be washer faced. An integral locking feature is incorporated in the design of the heads or in the threads.
- (2100) NUT, SELF-LOCKING, EXTENDED WASHER, HEXAGON. A nut having 6 flat sides and an integral washer which extends beyond the flats or periphery. An integral feature is incorporated for locking on the threads of a mating member.
- (2200) NUT, SELF-LOCKING, GANG CHANNEL. A nut having ears or lugs designed to hold it in position after its installation in a specially designed channel. An integral feature is incorporated for locking on the threads of a mating member.
- (2300) NUT, SELF-LOCKING, HEXAGON. A nut having a flat bottom and 6 sides. An integral feature is incorporated for locking on the threads of a mating member.
- (2400) NUT, SELF-LOCKING, PLATE. A nut with a flanged base of varied shapes which may be plain or mounted rivets, bolts, welding or integral prongs. An integral feature is incorporated for locking on the threads of mating member.
- (2500) NUT, SELF-LOCKING, ROUND. A nut circular in shape, which may have holding or tightening features, such as slots, holes, protrusions in the periphery or flats. An integral feature is incorporated for locking on the threads of a mating member.
- (2600) NUT, SELF-LOCKING, SLOTTED, HEXAGON. A nut having a flat bearing surface and 6 flat sides, with slots in its upper portion. An integral feature is incorporated for locking on the threads of a mating member.
- (2700) NUT, SELF-LOCKING, SPLINE. A nut having an externally splined sleeve, which holds it in position when forced into a hole of slightly smaller diameter. An integral feature is incorporated for locking.
- (2800) NUT, SHEET SPRING. A nut formed from sheet spring material, usually steel, into varying flat, concave, bent or curved designs, having apertures with suitable boss or bosses usually on the upper side capable of securely gripping a mating threaded member.

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## DEFINITIONS (Continued)

- (2900) NUT, STAMPED. A nut formed from sheet spring material, usually steel, into various shapes, having the external appearance of a solid nut, and having an aperture with suitable bosses, lugs, notches, and/or slits capable of securely gripping a mating threaded member.
- (3000) PUSH ON NUT. An item formed from sheet spring material into varying flat, concave, curved or nutlike design. It has an aperture with an elliptical-shaped hole or suitable lugs or prongs designed to retain threaded or unthreaded stud like projecting members. When pushed on, it grips by imbedding into the material of the projecting members, and does not mate with a thread helix.

## 4. GENERAL STATEMENTS

4.1 Selection Procedure

4.1.1 Document Selection. The applicable section shall be selected after reviewing the table of contents.

4.1.2 Part Number Selection (Preliminary). A preliminary selection of the applicable part number shall be made after reviewing the nominal parameters (sizes, materials, finishes) listed in the sections.

4.1.3 Part Number Selection (Final). A final selection of the applicable part number shall be made after viewing the detailed requirements specified in the referenced nut documents for suitability in the particular military equipment being designed (considering the application and environmental conditions).

## 5. DETAILED REQUIREMENTS

5.1 The detailed requirements for preferred nuts are contained in the applicable nut document and associated procurement specification. If there is disagreement between the nominal parameters listed in this standard and the parameters specified in the applicable nut document or associated procurement specification, the parameters specified in the applicable nut document or associated procurement specification shall prevail.

## 6. NOTES

6.1 Dimensions. Dimensions shown in the sections contained herein are in inches.

6.2 Unified standard screw threads used in this standard are listed in Table I.

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TABLE 1. UNIFIED STANDARD SCREW THREADS

NOMINAL SIZE (inches) - (threads per inch)		
.060-80 UNF	.625-11 UNC	1.500-6 UNC
.073-64 UNC	-18 UNF	-12 UNF
.086-56 UNC	-24 UNEF	-18 UNEF
-64 UNF		
	.750-10 UNC	1.625-12 UNF
.112-40 UNC	-16 UNF	-18 UNEF
-48 UNF	-20 UNEF	
		1.750-5 UNC
.138-32 UNC	.875-9 UNC	-12 UNF
-40 UNF	-14 UNF	-16 UNEF
	-20 UNEF	
.164-32 UNC		1.875-12 UNF
-36 UNF	1.000-8 UNC	
	-12 UNF	2.000-4.5 UNC
.190-24 UNC	-20 UNEF	-12 UNF
-32 UNF		-16 UNEF
	1.0625-12 UNF	
.250-20 UNC		2.125-16 UNEF
-28 UNF	1.125-7 UNC	
	-12 UNF	2.250-4.5 UNC
.3125-18 UNC	-18 UNEF	-12 UNF
-24 UNF		-16 UNEF
	1.1875-12 UNF	
.375-16 UNC		2.500-4 UNC
-24 UNF	1.250-7 UNC	-12 UNF
	-12 UNF	-16 UNEF
.4375-14 UNC	-18 UNEF	
-20 UNF		2.750-4 UNC
	1.3125-12 UNF	-16 UNEF
.500-13 UNC		
-20 UNF	1.375-6 UNC	3.000-4 UNC
-28 UNEF	-12 UNF	-16 UNEF
	-18 UNEF	

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6.3 Decimal equivalents rounded to three decimal places used in this standard to specify dimensions.

TABLE II. DECIMAL EQUIVALENTS (except for thread sizes).

1/64---.016	33/64---.516
1/32-----.031	17/32-----.531
3/64---.047	35/64---.547
1/16-----.062	9/16-----.562
5/64---.078	37/64---.578
3/32-----.094	19/32-----.594
7/64---.109	39/64---.609
1/8-----.125	5/8-----.625
9/64---.141	41/64---.641
5/32-----.156	21/32-----.656
11/64---.172	43/64---.672
3/16-----.188	11/16-----.688
13/64---.203	45/64---.703
7/32-----.219	23/32-----.719
15/64---.234	47/64---.734
1/4-----.250	3/4-----.750
17/64---.266	49/64---.766
9/32-----.281	25/32-----.781
19/64---.297	51/64---.797
5/16-----.312	13/16-----.812
21/64---.328	53/64---.828
11/32-----.344	27/32-----.844
23/64---.359	55/64---.859
3/8-----.375	7/8-----.875
25/64---.391	57/64---.891
13/32-----.406	29/32-----.906
27/64---.422	59/64---.922
7/16-----.438	15/16-----.938
29/64---.453	61/64---.953
15/32-----.469	31/32-----.969
31/64---.484	63/64---.984
1/2-----.500	

6.4 Code Letters. Generally, code letters used in this standard to indicate material, are placed as prefix of dash number (in place of first dash), and all other codes are placed as suffix of dash numbers.

6.4.1 When multiple code letters are used as suffix, they are arranged in alphabetical order.

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CUSTODIANS:

Army - AR  
Air Force - 99

REVIEW ACTIVITIES:

Army - AT, AV, GL  
Navy - AS, SH  
Air Force - 11, 17  
DLA-IS  
Other - FSS

USER ACTIVITIES:

Army - ME  
Navy - SH, MC  
Other - NS

PREPARING ACTIVITY:

Army - AR

AGENT:

DLA - IS  
(Project 5310-1519)

## MIL-STD-1903

## SECTION 101

## LOCKNUT, TUBE FITTING, BOSS CONNECTION

APPLICABLE DOCUMENTS: MS9099, MS9100, MS9553

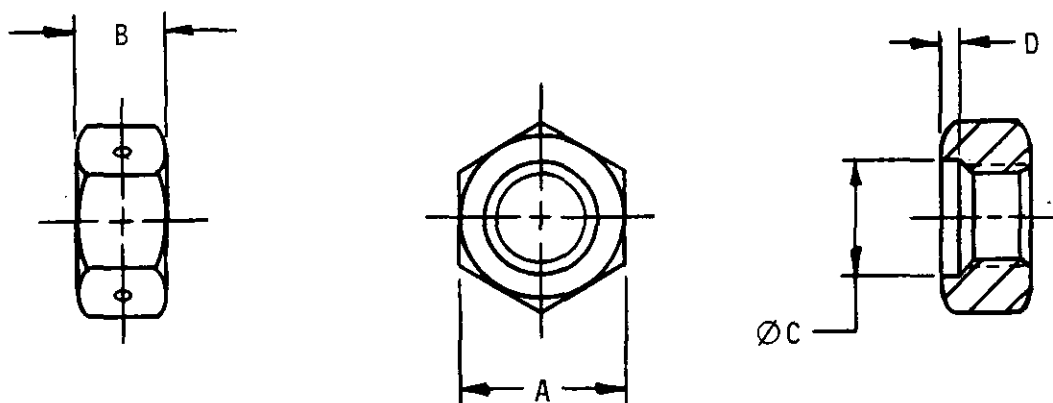


TABLE I.

Material -----					CRES		Aluminum alloy
Protective finish -----					Not specified		Anodize
Drilled/Not Drilled -----					Not drilled	Drilled	
Thread	A Nom	B Nom	ØC Nom	D Nom	MS9553 + Dash no.	MS9100 + Dash no.	MS9099 + Dash no.
.3125-24UNJF-3B	.562	.250	.483	.037	-02	-02	-02
.375-24UNJF-3B	.625	.250	.546	.037	-03	-03	-03
.4375-20UNJF-3B	.688	.281	.608	.042	-04	-04	-04
.500-20UNJF-3B	.750	.281	.670	.042	-05	-05	-05
.625-18UNJF-3B	.875	.297	.795	.042	-07	-07	-07
.750-16UNJF-3B	1.000	.344	.920	.042	-08	-08	-08
.875-14UNJF-3B	1.125	.391	1.045	.054	-10	-10	-10
1.000-12UNJ-3B	1.312	.438	1.210	.054	-11	-11	-11
1.0625-12UNJ-3B	1.375	.438	1.295	.054	-12	-12	-12
1.1875-12UNJ-3B	1.500	.438	1.417	.054	-14	-14	-14
1.3125-12UNJ-3B	1.625	.438	1.541	.054	-16	-16	-16
1.500-12UNJ-3B	1.812	.438	1.729	.054	-18	-18	-18
1.625-12UNJ-3B	1.938	.438	1.854	.054	-20	-20	-20
1.875-12UNJ-3B	2.188	.438	2.104	.054	-24	-24	-24
2.250-12UNJ-3B	2.562	.438	2.478	.054	-28	-28	-28
2.500-12UNJ-3B	2.812	.438	2.728	.054	-32	-32	-32

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## SECTION 201

## NUT, PLAIN, BLIND RIVET, COUNTERSUNK HEAD

APPLICABLE DOCUMENTS: MS27130, NAS 1330

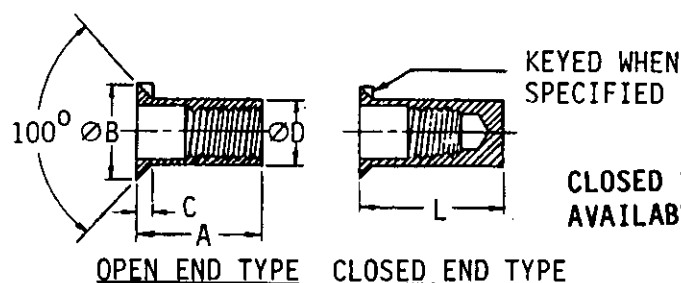


TABLE I.

Material						Aluminum alloy				Carbon steel		Alloy steel	CRES					
Protective finish						Anodize				Cadmium Plate		Passivate						
Thread		ØB Nom	C Max	ØD Nom	Grip range	A Nom		L Nom		NAS 1330	MS27130	NAS 1330	MS27130	NAS 1330	+Dash no.	MS27130	+Dash no.	
						Open End	Keyed	Closed End	Keyed	+Dash no.	+Dash no.	+Dash no.	+Dash no.	+Dash no.	+Dash no.			
.112	4UNC-3B	.263	.051	.155	.050-.081	.370		.525	.525	A04-81	-A81	S04-81	-S81	H04-81	C04-81	-CR81		
					.081-.106	.395		.550	.550	A04-106	-A82	A04-106	-S82	H04-106	C04-106	-CR82		
					.106-.131	.420		.575	.575	A04-131	-A83	S04-131	-S83	H04-131	C04-131	-CR83		
					.131-.156	.450		.600	.600	A04-156	-A84	S04-156	-S84	H04-156	C04-156	-CR84		
					.156-.181	.475		.625	.625	A04-181	-A85	S04-181	-S85	H04-181	C04-181	-CR85		
					.181-.206	.500		--	--	--	-A86	--	-S86	--	--	--	-CR86	
					.138	32UNC-3B	.323	.063	.189	.065-.106	.500		.687	.812	A06-106	-A87	S06-106	-S87
.106-.161	.500		.687	.812						A06-161	-A88	S06-161	-S88	H06-161	C06-161	-CR88		
.161-.201	.562		.687	.812						A06-201	-A89	S06-201	-S89	H06-201	C06-201	-CR89		
.201-.241	.625		.812	.812						A06-241	-A90	S06-241	-S90	H06-241	C06-241	-CR90		
.241-.281	.625		.812	.812						A06-281	-A91	S06-281	-S91	H06-281	C06-281	-CR91		
.281-.321	.687		--	--						--	-A92	--	-S92	--	--	--	-CR92	
.164	32UNC-3B	.355	.063	.221						.065-.106	.500		.687	.812	A08-106	-A93	S08-106	-S93
					.106-.161	.500		.687	.812	A08-161	-A94	S08-161	-S94	H08-161	C08-161	-CR94		
					.161-.201	.562		.687	.812	A08-201	-A95	S08-201	-S95	H08-201	C08-201	-CR95		
					.201-.241	.625		.875	.875	A08-241	-A96	S08-241	-S96	H08-241	C08-241	-CR96		
					.241-.281	.687		.875	.875	A08-281	-A97	S08-281	-S97	H08-281	C08-281	-CR97		
					.281-.321	.687		--	--	--	-A98	--	-S98	--	--	--	-CR98	
					.190	24UNC-3B	.391	.065	.250	.065-.116	.578	.828	.828	--	-A127	--	-S127	--
32UNF-3B	A3-116	-A99	S3-116	-S99		H3-116								C3-116	-CR99			
24UNC-3B	--	-A128	--	-S128		--								--	-CR128			
32UNF-3B	A3-166	-A100	S3-166	-S100		H3-166								C3-166	-CR100			
24UNC-3B	--	-A129	--	-S129		--								--	-CR129			
32UNF-3B	A3-216	-A101	S3-216	-S101		H3-216								C3-216	-CR101			
24UNC-3B	--	-A130	--	-S130		--								--	-CR130			
32UNF-3B	A3-266	-A102	S3-266	-S102		H3-266								C3-266	-CR102			
24UNC-3B	--	-A131	--	-S131		--								--	-CR131			
32UNF-3B	A3-316	-A103	S3-316	-S103		H3-316								C3-316	-CR103			
24UNC-3B	--	-A132	--	-S132		--								--	-CR132			
32UNF-3B	--	-A104	--	-S104		--								--	-CR104			
.250	20UNC-3B	.529	.089	.332	.089-.151	.687	1.000	1.000	--	-A133	--	-S133	--	--	--	-CR133		
	28UNF-3B								A4-151	-A105	S4-151	-S105	H4-151	C4-151	-CR105			
	20UNC-3B								--	-A134	--	-S134	--	--	-CR134			
	28UNF-3B								A4-211	-A106	S4-211	-S106	H4-211	C4-211	-CR106			
	20UNC-3B								--	-A135	--	-S135	--	--	-CR135			
	28UNF-3B								A4-271	-A107	S4-271	-S107	H4-271	C4-271	-CR107			
	20UNC-3B								--	-A136	--	-S136	--	--	-CR136			
	28UNF-3B								A4-331	-A108	S4-331	-S108	H4-331	C4-331	-CR108			
	20UNC-3B								--	-A137	--	-S137	--	--	-CR137			
	28UNF-3B								A4-391	-A109	S4-391	-S109	H4-391	C4-391	-CR109			
	20UNC-3B								--	-A138	--	-S138	--	--	-CR138			
	28UNF-3B								--	-A110	--	-S110	--	--	-CR110			



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TABLE I (CONT.)

Material ----- Protective finish -----										Aluminum alloy Anodize		Carbon steel Cadmium plate		Alloy steel	CRES Passivate	
Thread	Ø B Nom	C Max	Ø D Nom	Grip range	A Nom Open End		L Nom Closed End			NAS 1330 +Dash no.	MS27130 +Dash no.	NAS 1330 +Dash no.	MS27130 +Dash no.	NAS 1330 +Dash no.	MS27130 +Dash no.	
					Keyless	Keyed	Keyless	Keyed								
.3125	18UNC-3B	.656	.104	.413	.106-.181	.844	1.218	1.218	--	--	--	--	--	--	--	-CR139'
	24UNF-3B								A5-181	-A111	S5-181	-S111	H5-181	C5-181	--	-CR111
	18UNC-3B				.181-.256	.937	1.312	1.312	--	-A140	--	-S140	--	--	--	-CR140
	24UNF-3B								A5-256	-A112	S5-256	-S112	H5-256	C5-256	--	-CR112
	18UNC-3B				.256-.331	1.000	1.406	1.406	--	-A141	--	-S141	--	--	--	-CR141
	24UNF-3B								A5-331	-A113	S5-331	-S113	H5-331	C5-331	--	-CR113
	18UNC-3B				.331-.406	1.093	1.468	1.468	--	-A142	--	-S142	--	--	--	-CR142
	24UNF-3B								A5-406	-A114	S5-406	-S114	H5-406	C5-406	--	-CR114
	18UNC-3B				.406-.481	1.156	--	--	--	-A143	--	-S143	--	--	--	-CR143
	24UNF-3B								--	-A115	--	-S115	--	--	--	-CR115
	18UNC-3B				.481-.556	1.250	--	--	--	-A144	--	-S144	--	--	--	-CR144
	24UNF-3B								--	-A116	--	-S116	--	--	--	-CR116
.375	16UNC-3B	.770	.124	.490	.125-.211	.938	1.375	1.375	--	-A145	--	-S145	--	--	--	-CR145
	24UNF-3B								A6-211	-A117	S6-211	-S117	H6-211	C6-211	--	-CR117
	16UNC-3B				.211-.296	1.031	1.468	1.468	--	-A146	--	-S146	--	--	--	-CR146
	24UNF-3B								A6-296	-A118	S6-296	-S118	H6-296	C6-296	--	-CR118
	16UNC-3B				.296-.381	1.125	1.562	1.562	--	-A147	--	-S147	--	--	--	-CR147
	24UNF-3B								A6-381	-A119	S6-381	-S119	H6-381	C6-381	--	-CR119
	16UNC-3B				.381-.466	1.219	1.656	1.656	--	-A148	--	-S148	--	--	--	-CR148
	24UNF-3B								A6-466	-A120	S6-466	-S120	H6-466	C6-466	--	-CR120
	16UNC-3B				.466-.551	1.312	--	--	--	-A149	--	-S149	--	--	--	-CR149
	24UNF-3B								--	-A121	--	-S121	--	--	--	-CR121
	16UNC-3B				.551-.636	1.422	--	--	--	-A150	--	-S150	--	--	--	-CR150
	24UNF-3B								--	-A122	--	-S122	--	--	--	-CR122
.500	13UNC-3B	.906	.124	.625	.125-.226	.984	--	--	--	-A151	--	-S151	--	--	--	-CR151
	20UNF-3B								--	-A123	--	-S123	--	--	--	-CR123
	13UNC-3B				.226-.326	1.094	--	--	--	-A152	--	-S152	--	--	--	-CR152
	20UNF-3B								--	-A124	--	-S124	--	--	--	-CR124
	13UNC-3B				.326-.426	1.218	--	--	--	-A153	--	-S153	--	--	--	-CR153
	20UNF-3B								--	-A125	--	-S125	--	--	--	-CR125
	13UNC-3B				.426-.526	1.312	--	--	--	-A154	--	-S154	--	--	--	-CR154
	20UNF-3B								--	-A126	--	-S126	--	--	--	-CR126
.500	20UNF-3B	.990	.154	.640	.156-.276	1.188	1.781	1.781	A8-276	--	S8-276	--	H8-276	C8-276	--	--
					.276-.396	1.312	1.906	1.906	A8-396	--	S8-396	--	H8-396	C8-396	--	--
					.396-.516	1.438	2.031	2.031	A8-516	--	S8-516	--	H8-516	C8-516	--	--
					.516-.636	1.578	2.172	2.172	A8-636	--	S8-636	--	H8-636	C8-636	--	--

## NOTE:

## NAS 1330

Letter between dash  
numbers indicates type:

"-" Keyless open end  
 "K" Keyed open end  
 "B" Keyless closed end  
 "KB" Keyed closed end

## MS 27130

"K" After dash number  
 for a keyed nut

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## SECTION 202

## NUT, PLAIN, BLIND RIVET, FLAT HEAD

APPLICABLE DOCUMENTS: MS27130, NAS1329

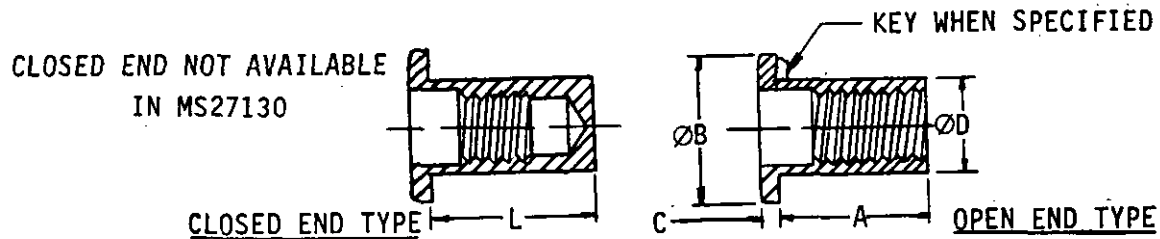


TABLE I

Material								Aluminum alloy	
Protective finish								Anodize	
Thread	Ø B Nom	C Nom	Ø D Max	Grip range	A Nom Open end Keyless and keyed	L Nom Closed and Keyless Keyed		NAS 1329 + Dash no.	MS27130 + Dash no.
.112	40UNC-3B	.270	.155	.010 - .060	.345	.500	.500	A04-60	-A1
				.060 - .085	.370	.525	.525	A04-85	-A2
				.085 - .110	.400	.555	.555	A04-110	-A3
				.110 - .135	.425	.580	.580	A04-135	-A4
				.135 - .160	.450	.605	.605	A04-160	-A5
				.160 - .185	.480	--	--	--	-A6
.138	32UNC-3B	.325	.189	.010 - .075	.438	.625	.750	A06-75	-A7
				.075 - .120	.500	.625	.750	A06-120	-A8
				.120 - .160	.500	.750	.750	A06-160	-A9
				.160 - .200	.562	.750	.750	A06-200	-A10
				.200 - .240	.625	.750	.750	A06-240	-A11
				.240 - .280	.687	--	--	--	-A12
.164	32UNC-3B	.357	.221	.010 - .075	.438	.625	.750	A08-75	-A13
				.075 - .120	.500	.625	.750	A08-120	-A14
				.120 - .160	.500	.750	.750	A08-160	-A15
				.160 - .200	.625	.750	.750	A08-200	-A16
				.200 - .240	.625	.875	.875	A08-240	-A17
				.240 - .280	.687	--	--	--	-A18

Carbon steel		Alloy steel	CRES		Brass
Cadmium plate			Passivate		None
NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.
S04-60	-S1	H04-60	-CR1	C04-60	-B1
S04-85	-S2	H04-85	-CR2	C04-85	-B2
S04-110	-S3	H04-110	-CR3	C04-110	-B3
S04-135	-S4	H04-135	-CR4	C04-135	-B4
S04-160	-S5	H04-160	-CR5	C04-160	-B5
--	-S6	--	-CR6	--	-B6
S06-75	-S7	H06-75	-CR7	C06-75	-B7
S06-120	-S8	H06-120	-CR8	C06-120	-B8
S06-160	-S9	H06-160	-CR9	C06-160	-B9
S06-200	-S10	H06-200	-CR10	C06-200	-B10
S06-240	-S11	H06-240	-CR11	C06-240	-B11
--	-S12	--	-CR12	--	-B12
S08-75	-S13	H08-75	-CR13	C08-75	-B13
S08-120	-S14	H08-120	-CR14	C08-120	-B14
S08-160	-S15	H08-160	-CR15	C08-160	-B15
S08-200	-S16	H08-200	-CR16	C08-200	-B16
S08-240	-S17	H08-240	-CR17	C08-240	-B17
--	-S18	--	-CR18	--	-B18

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TABLE I (CONT.)

Material -----								Aluminum alloy	
Protective finish -----								Anodize	
Thread	ØB Nom	C Nom	ØD Max	Grip range	A Nom Open end Keyless and keyed	L Nom Closed and Keyless      Keyed		NAS 1329 + Dash no.	MS27130 + Dash no.
.190	24UNC-3B	.406	.038	.250	.010 - .080	.531	--	--	--
					.080 - .130	.594	--	--	-A19
					.130 - .180	.641	--	--	-A20
					.180 - .230	.703	--	--	-A21
					.230 - .280	.750	--	--	-A22
					.280 - .330	.797	--	--	-A23
									-A24
	32UNC-3B	.406	.038	.250	.010 - .080	.531	.781	.781	A3-80
					.080 - .130	.594	.843	.843	A3-130
					.130 - .180	.641	.891	.891	A3-180
					.180 - .230	.703	.953	.953	A3-230
					.230 - .280	.750	1.000	1.000	A3-280
					.280 - .330	.797	--	--	--
.250	20UNC-3B	.475	.058	.332	.020 - .080	.625	--	--	--
					.080 - .140	.687	--	--	-A31
					.140 - .200	.750	--	--	-A32
					.200 - .260	.812	--	--	-A33
					.260 - .320	.875	--	--	-A34
					.320 - .380	.937	--	--	-A35
									-A36
	28UNF-3B	.475	.058	.332	.020 - .080	.625	.937	.937	A4-80
					.080 - .140	.687	1.000	1.000	A4-140
					.140 - .200	.750	1.062	1.062	A4-200
					.200 - .260	.812	1.125	1.125	A4-260
					.260 - .320	.875	1.187	1.187	A4-320
					.320 - .380	.937	--	--	--

Carbon steel		Alloy steel	CRES		Brass
Cadmium plate			Passivate		None
NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.
--	-S19	--	-CR19	--	-B19
--	-S20	--	-CR20	--	-B20
--	-S21	--	-CR21	--	-B21
--	-S22	--	-CR22	--	-B22
--	-S23	--	-CR23	--	-B23
--	-S24	--	-CR24	--	-B24
S3-80	-S25	H3-80	-CR25	C3-80	-B25
S3-130	-S26	H3-130	-CR26	C3-130	-B26
S3-180	-S27	H3-180	-CR27	C3-180	-B27
S3-230	-S28	H3-230	-CR28	C3-230	-B28
S3-280	-S29	H3-280	-CR29	C3-280	-B29
--	-S30	--	-CR30	--	-B30
--	-S31	--	-CR31	--	-B31
--	-S32	--	-CR32	--	-B32
--	-S33	--	-CR33	--	-B33
--	-S34	--	-CR34	--	-B34
--	-S35	--	-CR35	--	-B35
--	-S36	--	-CR36	--	-B36
S4-80	-S37	H4-80	-CR37	C4-80	-B37
S4-140	-S38	H4-140	-CR38	C4-140	-B38
S4-200	-S39	H4-200	-CR39	C4-200	-B39
S4-260	-S40	H4-260	-CR40	C4-260	-B40
S4-320	-S41	H4-320	-CR41	C4-320	-B41
--	-S42	--	-CR42	--	-B42

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TABLE II

Material		Protective finish						
Thread		ØB Nom	C Nom	ØD Max	Grip range	A Nom Open end Keyless and keyed	L Nom Closed end Keyless Keyed	
.3125	18UNC-3B	.665	.062	.413	.030 - .125 .125 - .200 .200 - .275 .275 - .350 .350 - .425 .425 - .500	.750 .875 .937 1.032 1.125 1.187	-- -- -- -- -- --	
	24UNF-3B	.665	.062	.413	.030 - .125 .125 - .200 .200 - .275 .275 - .350 .350 - .425 .425 - .500	.750 .875 .937 1.032 1.125 1.187	1.187 1.281 1.343 1.437 -- --	

Aluminum alloy		Carbon steel		Alloy steel	CRES		Brass
Anodize		Cadmium plate			Passivate		None
NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.
-- -- -- -- --	-A43 -A44 -A45 -A46 -A47 -A48	-- -- -- -- --	-S43 -S44 -S45 -S46 -S47 -S48	-- -- -- -- --	-CR43 -CR44 -CR45 -CR46 -CR47 -CR48	-- -- -- -- --	-B43 -B44 -B45 -B46 -B47 -B48
A5-125 A5-200 A5-275 A5-350 -- --	-A49 -A50 -A51 -A52 -A53 -A54	S5-125 S5-200 S5-275 S5-350 -- --	-S49 -S50 -S51 -S52 -S53 -S54	H5-125 H5-200 H5-275 H5-350 -- --	-CR49 -CR50 -CR51 -CR52 -CR53 -CR54	C5-125 C5-200 C5-275 C5-350 -- --	-B49 -B50 -B51 -B52 -B53 -B54

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TABLE II (CONT.)

Material -----								Aluminum alloy			
Protective finish -----								Anodize			
Thread		ØB Nom	C Nom	ØD Max	Grip range	A Nom Open end Keyless and keyed	L Nom Closed end Keyless      Keyed	NAS 1329 + Dash no.	MS27130 + Dash no.		
.375	16UNC-3B	.781	.088	.490	.030 - .115	.844	--	--	--	-A55	
					.115 - .200	.938	--	--	--	-A56	
					.200 - .285	1.031	--	--	--	-A57	
					.285 - .370	1.125	--	--	--	-A58	
					.370 - .455	1.218	--	--	--	-A59	
					.455 - .540	1.312	--	--	--	-A60	
	24UNF-3B	.781	.088	.490	.030 - .115	.844	1.281	1.281	A6-115	-A61	
					.115 - .200	.938	1.375	1.375	A6-200	-A62	
					.200 - .285	1.031	1.468	1.468	A6-285	-A63	
					.285 - .370	1.125	1.562	1.562	A6-370	-A64	
					.370 - .455	1.218	--	--	--	-A65	
					.455 - .540	1.312	--	--	--	-A66	
.500	13UNC-3B	.906	.085	.625	.050 - .150	.906	--	--	--	-A67	
					.150 - .250	1.031	--	--	--	-A68	
					.250 - .350	1.141	--	--	--	-A69	
					.350 - .450	1.250	--	--	--	-A70	
	20UNF-3B	.906	.085	.625	.050 - .150	.906	--	--	--	-A71	
					.150 - .250	1.031	--	--	--	-A72	
					.250 - .350	1.141	--	--	--	-A73	
					.350 - .450	1.250	--	--	--	-A74	
		1.000	.125	.640	.025 - .145	1.062	1.656	1.656	A8-145	--	
					.145 - .265	1.188	1.781	1.781	A8-265	--	
					.265 - .385	1.312	1.906	1.906	A8-385	--	
					.385 - .505	1.453	2.156	2.156	A8-505	--	

Carbon steel		Alloy steel	CRES		Brass
Cadmium plate			Passivate		None
NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.	NAS 1329 + Dash no.	MS27130 + Dash no.
--	-S55	--	-CR55	--	-B55
--	-S56	--	-CR56	--	-B56
--	-S57	--	-CR57	--	-B57
--	-S58	--	-CR58	--	-B58
--	-S59	--	-CR59	--	-B59
--	-S60	--	-CR60	--	-B60
S6-115	-S61	H6-115	-CR61	C6-115	-B61
S6-200	-S62	H6-200	-CR62	C6-200	-B62
S6-285	-S63	H6-285	-CR63	C6-285	-B63
S6-370	-S64	H6-370	-CR64	C6-370	-B64
--	-S65	--	-CR65	--	-B65
--	-S66	--	-CR66	--	-B66
--	-S67	--	-CR67	--	-B67
--	-S68	--	-CR68	--	-B68
--	-S69	--	-CR69	--	-B69
--	-S70	--	-CR70	--	-B70
--	-S71	--	-CR71	--	-B71
--	-S72	--	-CR72	--	-B72
--	-S73	--	-CR73	--	-B73
--	-S74	--	-CR74	--	-B74
S8-145	--	H8-145	--	C8-145	--
S8-265	--	H8-265	--	C8-265	--
S8-385	--	H8-385	--	C8-385	--
S8-505	--	H8-505	--	C8-505	--

## NOTE:

## NAS 1329

Letter between dash numbers indicates type.  
 "-" Keyless open end  
 "K" Keyed open end  
 "B" Keyless closed end  
 "KB" Keyed closed end

## MS 27130

"K" after dash number for a keyed nut

## MIL-STD-1903

# SECTION 301

## NUT, PLAIN, CAP, LOW AND HIGH CROWN

APPLICABLE DOCUMENTS: MS24679, MS24680

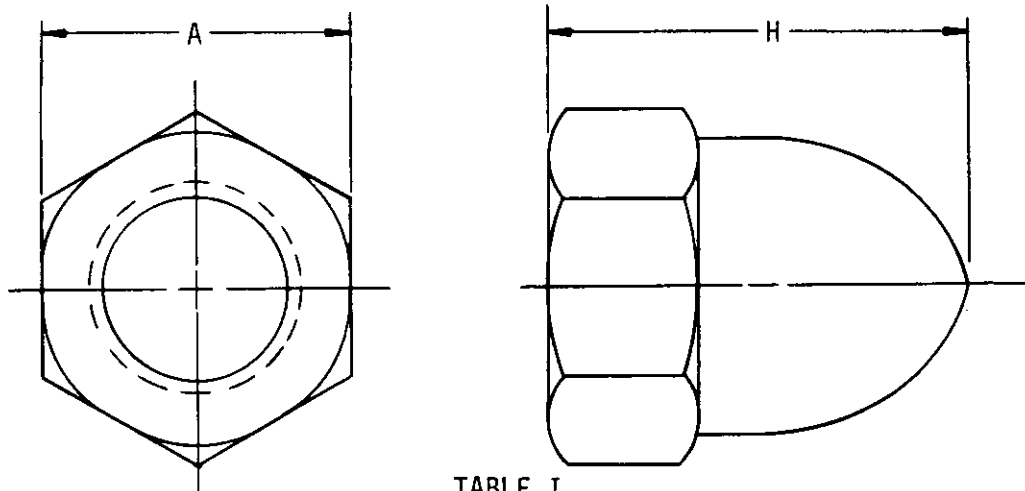


TABLE I

			Low Crown			High Crown		
Material -----			Carbon steel	CRES	Brass	Carbon steel	CRES	Brass
Protective finish -----			Cadmium plate	Passivate	Black oxide	Cadmium plate	Passivate	Black oxide
Thread (-2B)	A Nom	H Nom	1/ MS24679 + Dash no.			2/ MS24680 + Dash no.		
.138	32UNC	.312	.34	-1	-21	-411	--	--
	40UNF		.42	--	--	--	-1	-21
.164	32UNC	.312	.34	-61	-81	-201	--	--
	36UNF		.42	--	--	--	-61	-81
.190	24UNC	.375	.41	-2	-22	-412	--	--
	32UNF		.52	--	--	--	-2	-22
.250	20UNC	.438	.47	-62	-82	-202	--	--
	28UNF		.59	--	--	--	-62	-82
.3125	18UNC	.500	.53	--	--	--	--	--
	24UNF		.69	-3	-23	-413	--	--
.375	16UNC	.562	.78	--	--	--	-3	-23
	24UNF		.81	-63	-83	-203	--	--
.500	13UNC	.750	1.03	--	--	--	-63	-83
	20UNF		1.03	-5	-25	-415	--	--
.625	11UNC	.938	1.28	--	--	--	-5	-25
	18UNF		1.28	-65	-85	-205	--	--
.750	10UNC	1.062	1.16	--	--	--	-65	-85
	16UNF		1.45	-6	-26	-416	--	--
1.000	8UNC	1.438	1.97	-7	-27	-417	--	--
	12UNF		1.97	-67	-87	-207	--	--
1.250	7UNC	1.312	2.47	-7	-27	-417	-67	-87
	12UNF		2.47	-9	-29	-419	--	--
1.500	6UNC	1.312	2.97	-9	-29	-419	-9	-29
	12UNF		2.97	-69	-89	-209	--	--
1.750	5UNC	1.312	3.47	-11	-31	-421	--	--
	12UNF		3.47	-71	-91	-211	-11	-31
2.000	4UNC	1.312	3.97	-12	-32	-422	--	--
	12UNF		3.97	-72	-92	-212	-12	-32
2.250	3UNC	1.312	4.47	-14	-34	-424	--	--
	12UNF		4.47	-74	-94	-214	-14	-34
2.500	2UNC	1.312	4.97	-16	-36	-426	--	--
	12UNF		4.97	-76	-96	-216	-16	-36

1/ - Low crown  
2/ - High crown

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## SECTION 401

## NUT, PLAIN, CASTELLATED, HEXAGON

APPLICABLE DOCUMENTS: MS59358, MS9359, AN310

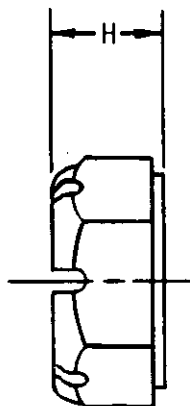
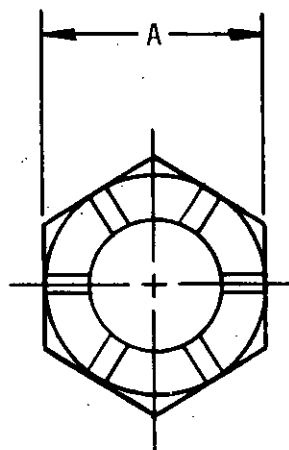
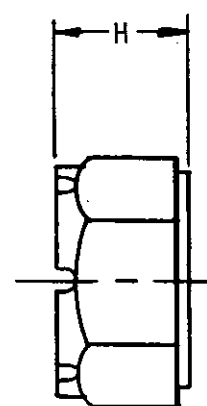
CONFIGURATION OF  
AN310CONFIGURATION OF  
MS9358 & MS9359

TABLE I

Material -----				Aluminum alloy		Steel	CRES		
Protective finish -----				Anodize		Cadmium plate	Passivate	None	Silverplate
Thread	A Nom	H Nom	Tensile Strength min(lbs.)		AN310 + Dash no.	AN310 + Dash no.	AN310 + Dash no.	MS9358 + Dash no.	MS9359 + Dash no.
			Steel	Al alloy					
.164	36UNJF-38	.344	.219	--	--	--	--	-08	-08
.190	32UNF-38	.375	.250	2210	1100	03	-3	C-3	--
	32UNJF-38			--	--	--	--	-09	-09
.250	28UNF-38	.438	.282	4080	2030	04	-4	C-4	--
	28UNJF-38			--	--	--	--	-10	-10
.3125	24UNF-38	.500	.328	6500	2220	05	-5	C5	--
	24UNJF-38			--	--	--	--	-11	-11
.375	24UNJF-38	.563	.406	10100	5020	06	-6	C6	--
	24UNJF-38			--	--	--	--	-12	-12
.4375	20UNF-38	.625	.454	13600	6750	07	-7	C7	--
	20UNJF-38	.684		--	--	--	--	-13	-13
.500	20UNF-38	.750	.562	18500	9180	08	-8	C8	--
	20UNJF-38			--	--	--	--	-14	-14
.625	18UNF-38	1.000	.718	30100	14900	010	-10	C10	--
	18UNJF-38	.934		--	--	--	--	-16	-16
.750	16UNF-38	1.125	.812	44000	21800	012	-12	C12	--
	16UNJF-38	1.062		--	--	--	--	-17	-17
.875	14UNF-38	1.313	.906	60000	29800	014	-14	C14	--
	14UNJF-38	1.250		--	--	--	--	-18	-18
1.000	12UNF-38	1.500	1.000	80000	40000	015	-15	C15	--
	12UNJF-38	1.433		--	--	--	--	-19	-19
1.125	12UNF-38	1.688	1.156	101800	50500	018	-18	C18	--
1.250	12UNF-38	1.875	1.250	130200	64400	020	-20	C20	--

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## SECTION 501

## NUT, PLAIN, CLINCH

APPLICABLE DOCUMENT: MS21331

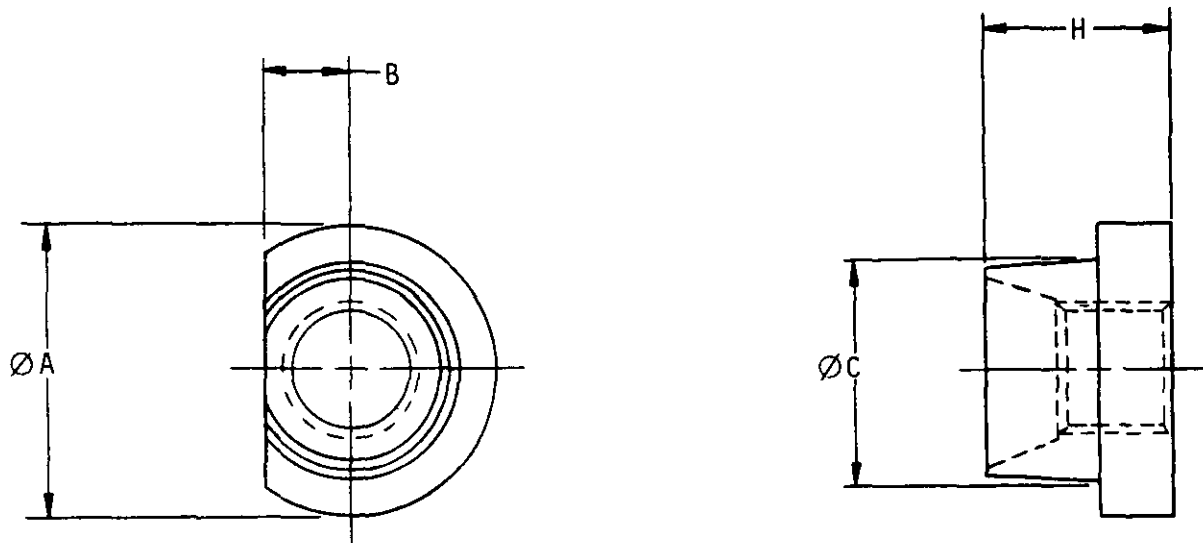


TABLE I

Material -----						Carbon Steel
Protective finish -----						Cadmium plate
Thread		Ø A Nom	B Max	Ø C Max	H Max	MS21331 +Dash no.
.190	24UNC-2B	.562	.152	.437	.270	-1
	32UNF-2B					-2
	20UNC-2B					-3
.250	28UNF-2B	.625	.182	.500	.364	-4
	20UNC-2B					-5
	28UNF-2B					-6
.3125	18UNC-2B	.688	.215	.562	.473	-7
	24UNF-2B					-8
	18UNC-2B					-9
.375	24UNF-2B	.750	.250	.625	.505	-10
	16UNC-2B					-11
	24UNF-2B					-12
.3125	18UNC-2B	.875	.277	.750	.505	-13
	24UNF-2B					-14
	16UNC-2B					-15
.375	24UNF-2B	.938	.344	.812	.599	-16
	14UNC-2B					-17
	20UNF-2B					-18
.4375	14UNC-2B	1.000	.375	.875	.630	-19
	20UNF-2B					-20
	13UNC-2B					-21
.500	20UNF-2B	1.125	.438	1.000	.693	-22
	13UNC-2B					-23
	20UNF-2B					-24
.625	11UNC-2B	1.125	.438	1.000	.693	-27
	18UNF-2B					-28

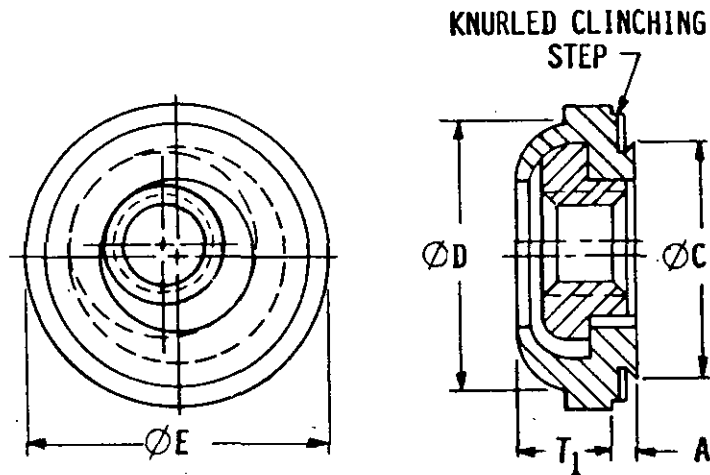


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## SECTION 502

## NUT, PLAIN, CLINCH (FLOATING, 400°F)

APPLICABLE DOCUMENT: MIL-N-45938/11



## PLAIN

TABLE I

Material -----							Carbon Steel	CRES
Protective Finish -----							Cadmium Plate	Passivate
Thread (-2B)	Panel Thickness Min	A Max	ØC Max	ØD Max	ØE Max	T <sub>1</sub> Max	M45938/11 + Dash No.	
.112-40UNC	.040	.038	.289	.290	.36	.13	-1	-1C
	.056	.054					-2	-2C
.138-32UNC	.040	.038	.327	.330	.39	.13	-3	-3C
	.056	.054					-4	-4C
.164-32UNC	.040	.038	.367	.365	.44	.13	-5	-5C
	.056	.054					-6	-6C
.190-24UNC	.040	.038	.405	.405	.47	.16	-7	-7C
	.056	.054					-8	-8C
.190-32UNF	.040	.038	.405	.405	.47	.16	-9	-9C
	.056	.054					-10	-10C
.250-20UNC .250-28UNF	.056	.054	.514	.510	.60	.20	-11	-11C
							-12	-12C

502.1

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SECTION 503

# NUT, PLAIN, CLINCH, FLOATING, KNURLED COLLAR, MINIATURE, 4500F AND 6000F

APPLICABLE DOCUMENT: MIL-N-45938/13

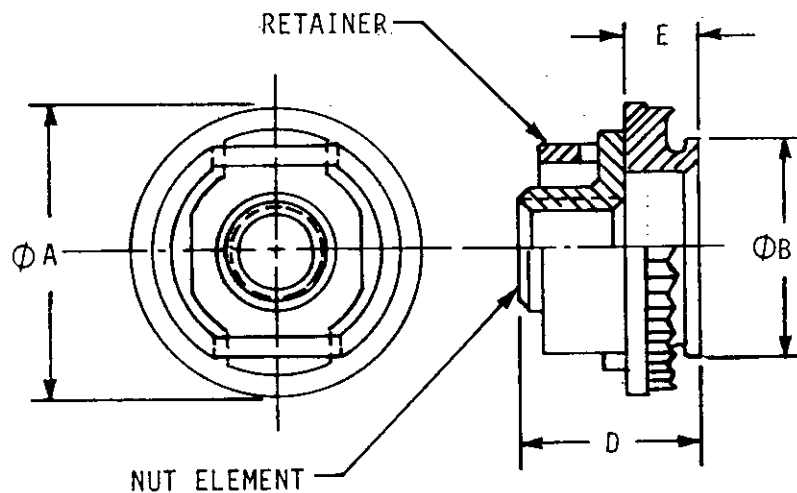


TABLE I

Material -----						Alloy Steel	Cres
Protective Finish -----						Cadmium Plate & Dry Film	Silver Plate & Dry Film
Performance Temperature -----						4500F	6000F
Thread (-3B)	Panel Thickness Min	ØA Nom	ØB Max	D Max	E Nom	M45938/13 + Dash No.	
.1120-40 UNJC	.040	.320	.249	.224	.077	-2	-2C
.1380-32 UNJC						-3	-3C
.1640-32 UNJC	.040	.410	.311	.265	.097	-4	-4C
.1900-32 UNJF				.285		-5	-5C
.2500-20 UNJC	.074	.500	.374	.360	.145	-6	-6C
.2500-28 UNJF						-7	-7C

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## SECTION 504

NUT, PLAIN, CLINCH, FLOATING, KNURLED COLLAR,  
450°F AND 600°F

APPLICABLE DOCUMENT: MIL-N-45938/14

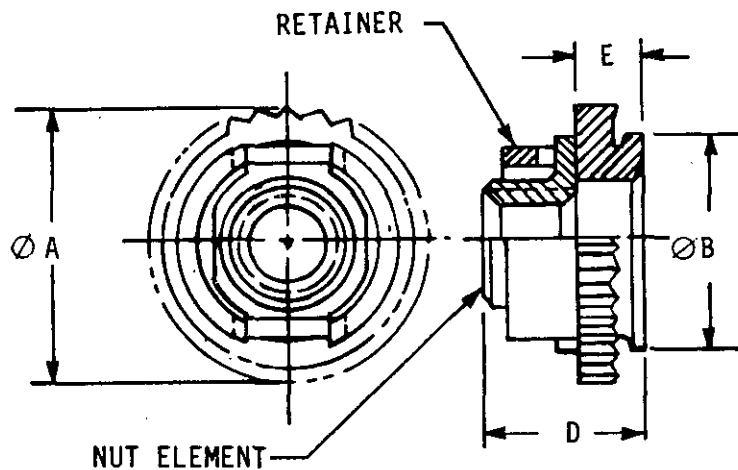


TABLE 1

Material -----						Alloy Steel	Cres
Protective Finish -----						Cadmium Plate & Dry Film	Silver Plate & Dry Film
Performance Temperature -----						450°F	600°F
Thread (-3B)	Panel Thickness Min	$\phi A$ Nom	$\phi B$ Max	D Max	E Nom	M45938/14 + Dash No.	
.1120-40 UNJC	.045	.350	.280	.225	.088	-2	-2C
.1380-32 UNJC						-3	-3C
.1640-32 UNJC	.060	.450	.374	.275	.115	-4	-4C
.1900-32 UNJF				.295		-5	-5C
.2500-20 UNJC	.090	.560	.499	.365	.141	-6	-6C
.2500-28 UNJF						-7	-7C

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SECTION 505  
NUT, PLAIN, CLINCH (FLUSH)

APPLICABLE DOCUMENT: MIL-N-45938/4

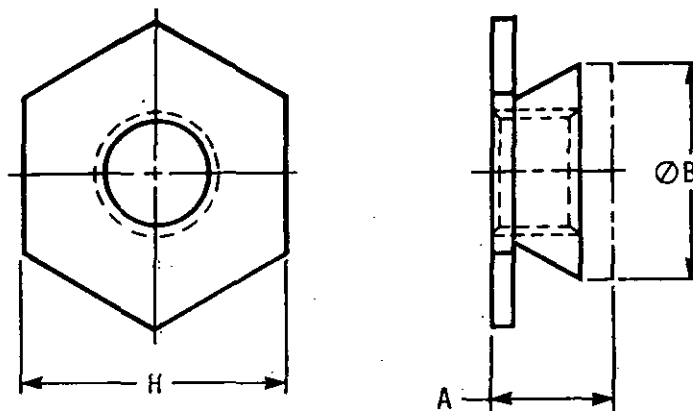


TABLE I

Material -----				Carbon Steel
Protective finish -----				Passivate
Thread	A Max	H Nom	Ø B Max	M45938/4 + Dash no.
.086-56UNC-2B	.060	.188	.171	-1
	.090			-2
.112-40UNC-2B	.060	.188	.171	-3
	.090			-4
.138-32UNC-2B	.060	.250	.212	-5
	.090			-6
.164-32UNC-2B	.060	.312	.289	-7
	.090			-8
.190-24UNC-2B	.060	.344	.311	-14
	.090			-15
.190-32UNF-2B	.060	.344	.311	-9
	.090			-10
.250-28UNF-2B	.120	.375	.343	-11
	.151			-12
	.182			-13

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# SECTION 506

## NUT, PLAIN, CLINCH (FLUSH)

APPLICABLE DOCUMENT: MS 3214

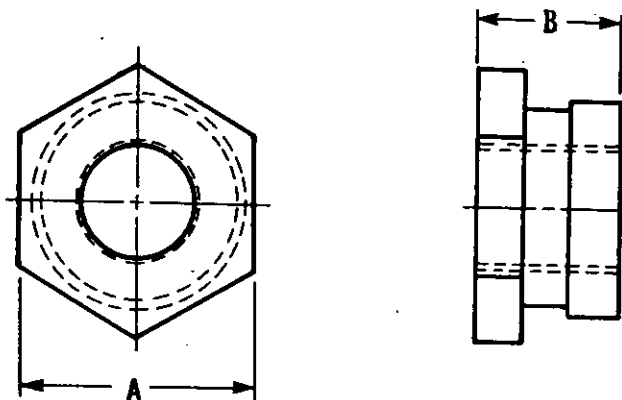


TABLE I

Material			CRES
Protective Finish			Passivate
Thread	A Nom	B Nom	MS214 + Dash no.
.086 -56 UNC-2B	3/16	.058	1
	1/4		2
	3/16		3
.112 -40 UNC-2B	1/4	.085	4
	3/16		5
	1/4		6
.112 -40 UNC-2B	1/4	.117	7
.138 -32 UNC-2B	5/16		8
.164 -32 UNC-2B	5/16		9
.190 -32 UNF-2B	5/16	.147	10
	3/16		11
	1/4		12
.112 -40 UNC-2B	1/4	.177	13
.138 -32 UNC-2B	5/16		14
.164 -32 UNC-2B	5/16		15
.190 -32 UNF-2B	5/16	.236	16
.250 -20 UNC-2B	7/16		17
	7/16		18
.250 -28 UNF-2B	7/16	.236	19
	1/4		20
	5/16		21
.138 -32 UNC-2B	5/16	.236	22
.164 -32 UNC-2B	5/16		23
.190 -32 UNF-2B	5/16		24
.250 -20 UNC-2B	7/16	.236	25
	7/16		26
.250 -28 UNF-2B	7/16		27
	1/4	.236	28
	5/16		29
.138 -32 UNC-2B	5/16		30
.164 -32 UNC-2B	5/16	.236	31
.190 -32 UNF-2B	5/16		32
.250 -20 UNC-2B	7/16		33
	7/16	.236	34
.250 -28 UNF-2B	7/16		35
	1/4		36

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## SECTION 507

## NUT, PLAIN, CLINCH (HEXAGON SHANK)

APPLICABLE DOCUMENT: MIL-N-45938/2

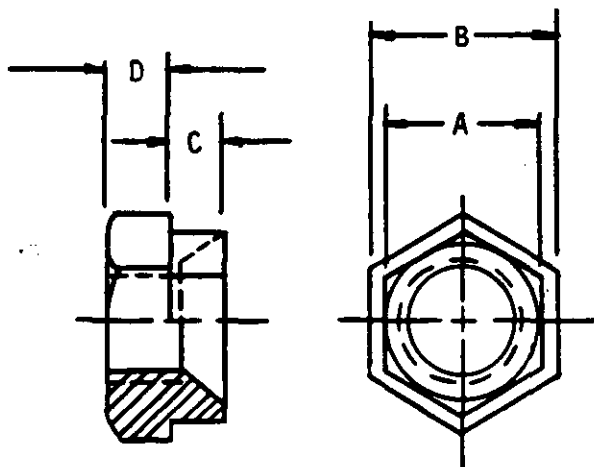


TABLE I

Material -----						Carbon steel
Protective finish -----						Cadmium plate
Thread	A Nom	B Nom	C Nom	D Nom	Sheet thk max	M45938/2 +Dash no.
.138-32UNC-2B	.244	.297	.078	.109	.036	-1
.164-32UNC-2B	.305	.368	.094	.125	.047	-2
.190-32UNF-2B	.305	.368	.094	.125	.047	-3
.250-28UNF-2B	.429	.521	.125	.172	.062	-4
.3125-24UNF-2B	.491	.584	.156	.203	.078	-5
.375-24UNF-2B	.551	.670	.188	.234	.094	-6
.500-20UNF-2B	.742	.860	.250	.297	.125	-7

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SECTION 508

## NUT, PLAIN, CLINCH (KNURLED COLLAR, 450°F AND 600°F)

APPLICABLE DOCUMENT: MIL-N-45938/3

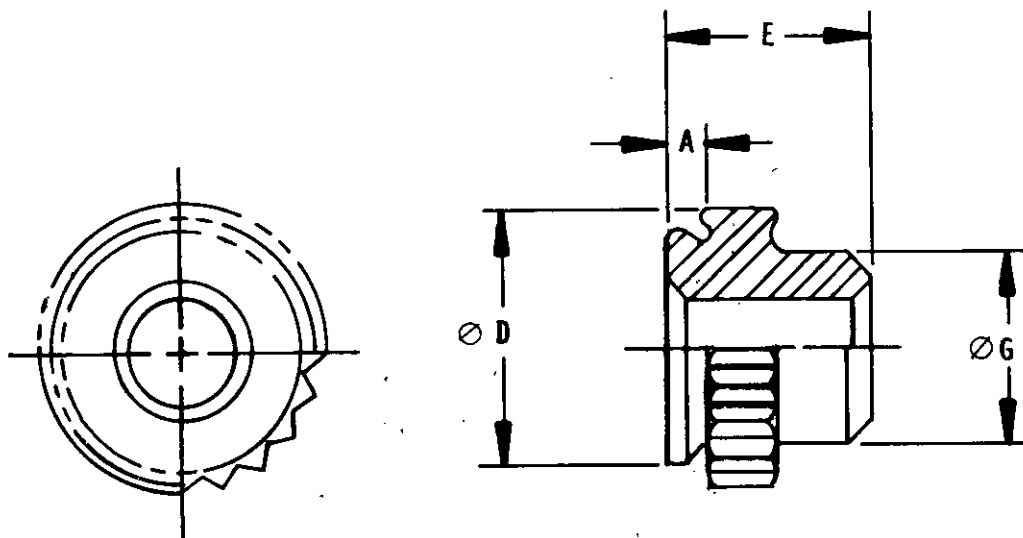


TABLE I

Material -----						Steel alloy (450°F)	CRES 303 (450°F)	CRES A-286 (600°F)
Protective finish -----						Cadmium Plate	Passivate	Silver Plate
Thread (-38)	Sheet Thk Min	A Nom	Ø D Nom	E Nom	Ø G Nom	M45938/3 + Dash No.		
.086-56UNJC	.040	.030	.260	.178	.125	-1	-1C	--
			.190	.140	.106	-2	--	-2C
.112-40UNJC	.040	.030	.260	.178	.160	-3	-3C	--
			.220	.160	.135	-4	--	-4C
.138-32UNJC	.040	.030	.290	.178	.175	-5	-5C	--
			.250		.161	-6	--	-6C
.164-32UNJC	.050	.040	.350	.188	.215	-7	-7C	--
			.280		.200	-8	--	-8C
.190-24UNJC -32UNJF	.050	.040	.350	.188	.240	-13	-13C	-
						-9	-9C	-
.250-20UNJC -28UNJF	.060	.050	.450	.250	.313	-14	-14C	-
						-10	-10C	-
.3125-18UNJC -24UNJF	.080	.063	.490	.312	.386	-15	-15C	-
						-11	-11C	-
.375-16UNJC -24UNJF	.125	.094	.560	.375	.448	-16	-16C	-
						-12	-12C	-

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**SECTION 509**  
**NUT, PLAIN, CLINCH (ROUND)**  
 APPLICABLE DOCUMENT: MIL-N-45938/1, MIL-N-45938/10

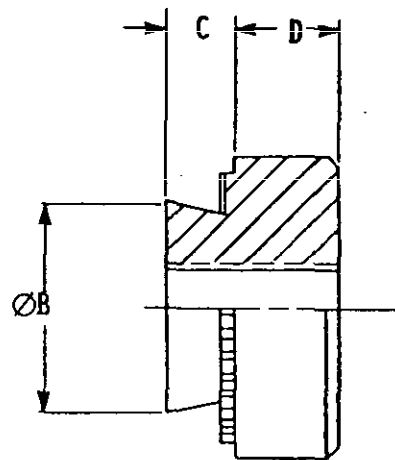
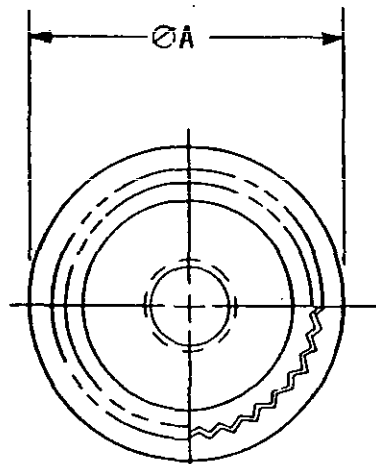


TABLE I

Material -----					Al Alloy	Carbon Steel	CRES	Carbon Steel
Protective Finish -----					Plain	Cadmium Plate	Passivate	Cadmium Plate
Rockwell Hardness -----					--	C-35	--	--
Thread (-2B)	ØA Nom	ØB Max	C Max	D Nom	M45938/1 + Dash Number			M45938/10 + Dash Number
.086-56UNC	.250	.165	.030	.062	-1A	-1	-1C	--
			.038		-2A	-2	-2C	--
			.030		--	-3	-3C	--
			.038		--	-4	-4C	--
			.054		--	-5	-5C	--
			.038		-6A	--	--	--
.112-40UNC	.281	.187	.054	.094	-7A	--	--	--
			.038		--	-8	-8C	--
			.054		--	-9	-9C	--
			.038		-10A	--	--	--
			.054		-11A	--	--	--
			.038		--	-12	-12C	--
.138-32UNC	.312	.212	.054	.094	--	-13	-13C	--
			.038		-14A	--	--	--
			.054		-15A	--	--	--
			.038		--	-16	-16C	--
			.054		--	-17	-17C	--
			.087		-18A	--	--	--
.164-32UNC	.344	.249	.054	.156	-27A	-27	-27C	--
			.038		-28A	-28	-28C	--
			.054		-29A	-29	-29C	--
			.038		--	--	--	--
			.054		--	--	--	--
			.087		-19A	-19	-19C	--
.190-32UNF	.375	.295	.054	.172	-20A	-20	-20C	--
			.038		--	--	--	--
			.054		-21A	-21	-21C	--
			.038		-22A	-22	-22C	--
			.058		--	--	--	--
			.087		-23A	-23	-23C	--
.250-20UNC	.438	.343	.058	.300	-24A	-24	-24C	--
			.120		-25A	-25	-25C	--
			.087		-26A	-26	-26C	--
			.120		--	--	--	--
			.058		--	--	--	--
			.087		--	--	--	--
.250-28UNF	.500	.411	.120	.359	--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
.3125-18UNC	.650	.499	.120	.300	--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
.375-16UNC	.650	.499	.120	.300	--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
.375-24UNF	.650	.499	.120	.300	--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
.500-20UNF	.812	.654	.120	.359	--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--
			.120		--	--	--	--
			.058		--	--	--	--



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## SECTION 601

## NUT, PLAIN, CONE SEAT, HEXAGON

APPLICABLE DOCUMENT: MS51984

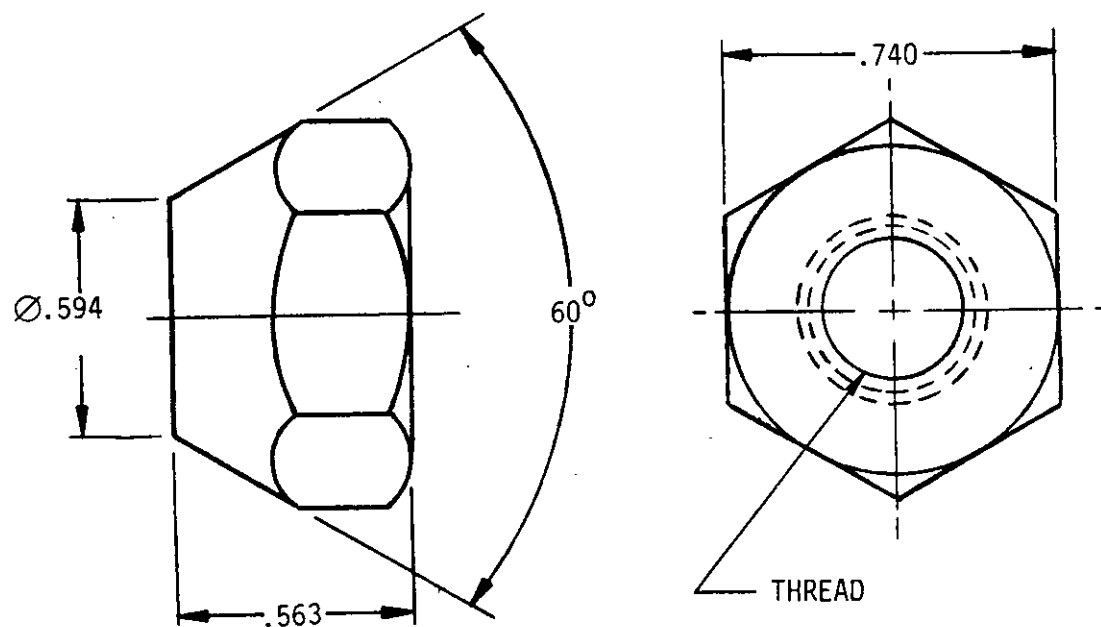


TABLE I

Material	Protective finish	Rockwell hardness
Carbon steel	Zinc plate	15-N, 89-92

TABLE II

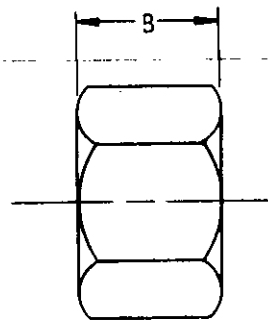
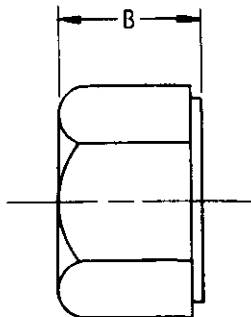
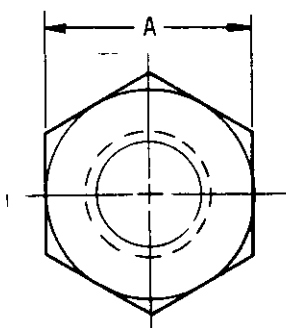
Thread .500-20UNF-3B	MS51984 +Dash no.
Left hand thread	-1
Right hand thread	-2

## MIL-STD-1903

## SECTION 701

## NUT, PLAIN, HEXAGON

APPLICABLE DOCUMENTS: MS16203, MS51967 thru MS51972, MS9356,  
MS9357, MS9360, MS9881, MS9882



TABLES I &amp; II ACCEPTABLE DESIGNS

TABLE I ONLY

TABLE I

Material	Brass		Carbon steel				CRES	Cu-Si	Aluminum	Phos-bronze
Protective finish	Black chemical		Cadmium plate				Passivate	--	Anodize	--
Carbon steel grade	--		Grade B	Grade C	Grade B	Grade C	--	--	--	--
Thread	A Nom	B Nom	MS51969 +Dash no.	MS51970 +Dash no.	MS51968 +Dash no.	MS51967 +Dash no.	MS51971 +Dash no.	MS51972 +Dash no.	MS16203 + DASH NO.	
.250 20UNC-28	.438	.219	-1	--	-2	-1	-1	--	-25	-49
.250 28UNC-28			--	-1	--	-2	--	-1	--	-63
.3125 18UNC-28	.500	.266	-2	--	-5	-6	-2	--	-26	-50
.3125 24UNC-28			--	-2	--	-5	--	-2	--	-64
.375 16UNC-28	.562	.328	-3	--	-8	-9	-3	--	-27	-51
.375 24UNC-28			--	-3	--	-8	--	-3	--	-65
.4375 14UNC-28	.688	.375	-4	--	-11	-12	-4	--	-28	-52
.4375 20UNC-28			--	-4	--	-11	--	-4	--	-66
.500 13UNC-28	.750	.438	-5	--	-14	-15	-5	--	-29	-53
.500 20UNC-28			--	-5	--	-14	--	-5	--	-67
.625 11UNC-28	.938	.549	-7	--	-20	-21	-7	--	-30	-54
.625 18UNC-28			--	-7	--	-20	--	-7	--	-68
.750 10UNC-28	1.125	.641	-8	--	-23	-24	-8	--	-31	-55
.750 16UNC-28			--	-8	--	-23	--	-8	--	-69
.875 9UNC-28	1.312	.750	-9	--	-26	-27	-9	--	-32	-70
.875 14UNC-28			--	-9	--	-26	--	-9	--	-71
1.000 8UNC-28	1.500	.859	-10	--	-29	-30	-10	--	-33	-72
1.000 12UNC-28			--	-10	--	-29	--	-10	--	-73
1.125 7UNC-28	1.688	.969	-11	--	-32	-33	-11	--	-34	-74
1.125 12UNC-28			--	-11	--	-32	--	-11	--	-75
1.250 7UNC-28	1.875	1.063	-12	--	-35	-36	-12	--	-35	-76
1.250 12UNC-28			--	-12	--	-35	--	-12	--	-77
1.375 6UNC-28	2.062	1.172	-13	--	-38	-39	-13	--	-36	-78
1.375 12UNC-28			--	-13	--	-38	--	-13	--	-79
1.500 6UNC-28	2.250	1.281	-14	--	-41	-42	-14	--	-37	-80
1.500 12UNC-28			--	-14	--	-41	--	-14	--	-81
1.750 5UNC-28	2.625	1.500	-15	--	-44	-45	-15	--	-38	-82
2.000 4UNC-28	3.000	1.719	-16	--	-47	-48	-16	--	-39	-83
2.250 4UNC-28	3.375	1.922	-17	--	-50	-51	-17	--	-40	-84
2.500 4UNC-28	3.750	2.140	-18	--	-53	-54	-18	--	-41	-85
2.750 4UNC-28	4.125	2.359	-19	--	-56	-57	-19	--	-42	-86
3.000 4UNC-28	4.500	2.578	-20	--	-59	-60	-20	--	-43	-87

TABLE II

Material	Corrosion and heat resistant steel				AMS-6322 (RC26-32)	
Protective finish	Silver plate				Cadmium plate	
Thread (UNJF-3B)	A Nom	B Nom	MS9356 +Dash no.	MS9357 +Dash no.	MS9360 +Dash no. (Drilled hex)	MS9881 +Dash no. (Drilled hex)
.112-48	.251	--	-04	-04	-04	-04
.138-40	.313	.136	-06	-06	-06	-06
.164-36	.345	--	-08	-08	-08	-08
.190-32	.376	.156	-09	-09	-09	-09
.250-28	.439	.219	-10	-10	-10	-10
.3125-24	.502	.266	-11	-11	-11	-11
.375-24	.564	.328	-12	-12	-12	-12
.4375-20	.690	.375	-13	-13	-13	-13
.500-20	.752	.438	-14	-14	-14	-14
.625-18	.940	.547	-16	--	-16	-16
.750-16	1.064	.656	-17	-17	-17	-17
.875-14	1.252	.766	-18	-18	-18	-18
1.000-12	1.440	.875	-19	-19	-19	-19

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SECTION 702  
NUT, PLAIN, HEXAGON, AIRFRAME

APPLICABLE DOCUMENT: AN315

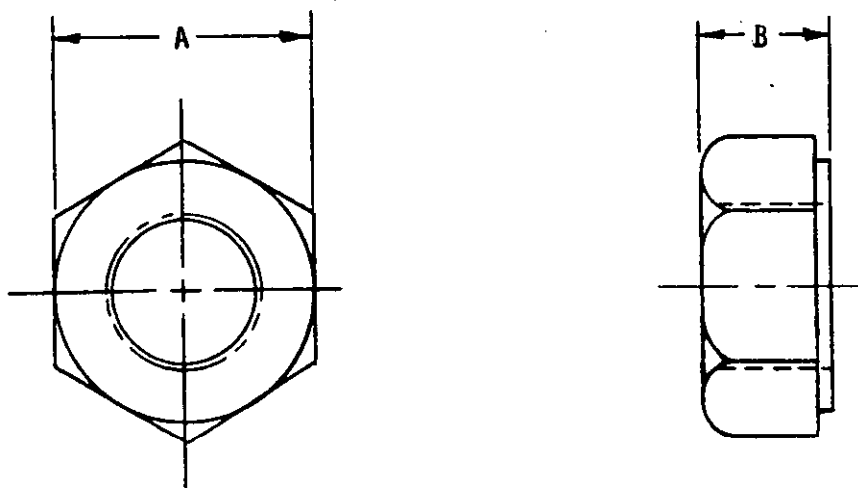


TABLE I

Material -----			CRES	Steel	Aluminum Alloy
Protective Finish -----			Passivate	Cadmium Plate	Anodize
Thread	A nom	B nom	AN315 + Dash No. -1/		
.138-40UNF-3B	.312	.109	-C640	-640	-D640
.190-32UNF-3B	.375	.141	-C3	-3	-D3
.250-28UNF-3B	.488	.188	-C4	-4	-D4
.3125-24UNF-3B	.500	.234	-C5	-5	-D5
.375-24UNF-3B	.562	.281	-C6	-6	-D6
.4375-20UNF-3B	.625	.328	-C7	-7	-D7
.500-20UNF-3B	.750	.375	-C8	-8	-D8
.5625-18UNF-3B	.875	.422	-C9	-9	-D9
.625-18UNF-3B	1.000	.469	-C10	-10	-D10
.750-16UNF-3B	1.125	.625	-C12	-12	-D12
.875-14UNF-3B	1.312	.656	-C14	-14	-D14
1.000-12UNF-3B	1.500	.750	-C15	-15	-D15
1.125-12UNF-3B	1.688	.813	-C18	-18	-D18
1.250-12UNF-3B	1.875	.875	-C20	-20	-D20

1/ Add "R" after dash number for right-hand thread and "L" for left-hand thread.

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## SECTION 703

## NUT, PLAIN, HEXAGON, BOSS CONNECTION

APPLICABLE DOCUMENTS: MS9200, MS9201

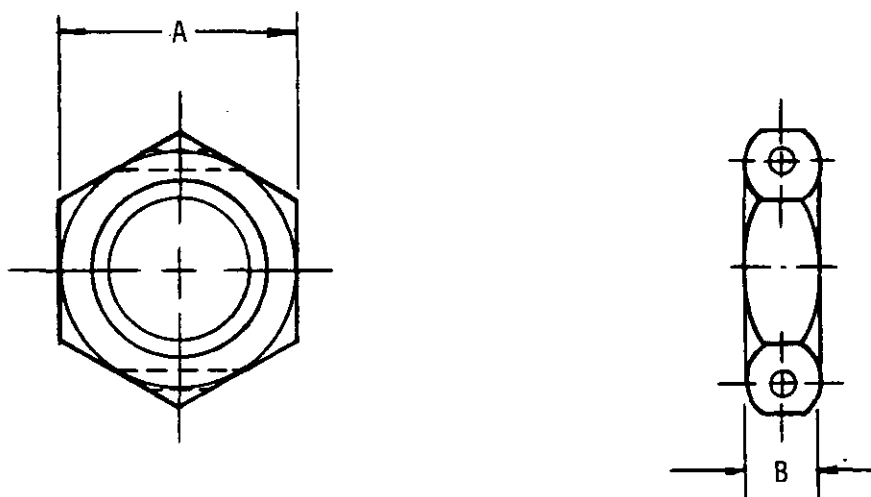


TABLE I

Material -----				Aluminum	CRES
Protective finish -----				Anodize	Silver plate
Thread	Tube OD Nom	A Nom	B Nom	MS9200 + Dash no.	MS9201 + Dash no.
.3125-24UNJF-3B	.125	.562	.219	-02	-02
.375-24UNJF-3B	.188	.625	.219	-03	-03
.4375-20UNJF-3B	.250	.688	.250	-04	-04
.500-20UNJF-3B	.312	.750	.250	-05	-05
.625-18UNJF-3B	.438	.875	.266	-07	-07
.750-16UNJF-3B	.500	1.000	.312	-08	-08
.875-14UNJF-3B	.625	1.125	.359	-10	-10
1.000-12UNJF-3B	.688	1.312	.406	-11	-11
1.1875-12UNJ-3B	.875	1.500	.406	-14	-14
1.3125-12UNJ-3B	1.000	1.625	.406	-16	-16
1.500-12UNJF-3B	1.125	1.812	.406	-18	-18
1.625-12UNJ-3B	1.250	1.938	.406	-20	-20
1.875-12UNJ-3B	1.500	2.188	.406	-24	-24
2.250-12UNJ-3B	1.750	2.562	.406	-28	-28
2.500-12UNJ-3B	2.000	2.812	.406	-32	-32

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## SECTION 704

## NUT, PLAIN, HEXAGON, CHECK

APPLICABLE DOCUMENTS: MS9361, MS9362  
AN150401 THRU AN150425

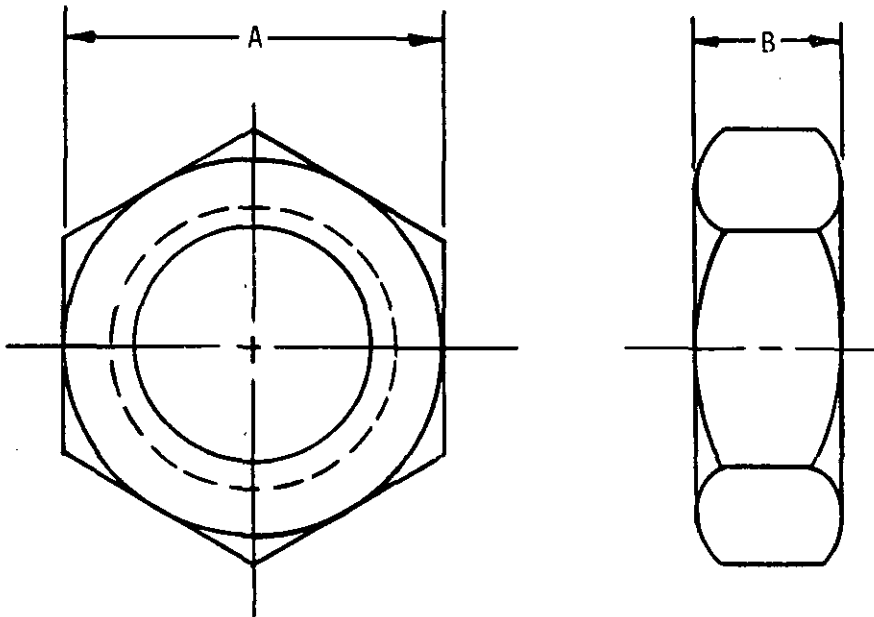


TABLE I

Material -----			Corrosion & Heat Resistant Steel		Alloy Steel
Protective finish -----			--	Silver plate	Cadmium Plate
Thread (UNJF-3B)	A Nom	B Nom	MS9361 + Dash no.	MS9362 + Dash no.	Part No.
.164-36	.344	.109	-08	-08	---
.190-32	.375	.125	-09	-09	AN150407
.250-28	.438	.125	-10	-10	AN150408
.3125-24	.500	.156	-11	-11	AN150409
.375-24	.562	.188	-12	-12	AN150410
.4375-20	.688	.219	-13	-13	AN150411
.500-20	.750	.250	-14	-14	AN150412
.625-18	.938	.312	-16	-16	AN150414
.750-16	1.062	.375	-17	-17	AN150415
.875-14	1.250	.438	-18	-18	---
1.000-12	1.438	.500	-19	-19	---

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# SECTION 705

## NUT, PLAIN, HEXAGON, CONNECTOR MOUNTING

APPLICABLE DOCUMENT: MS3186

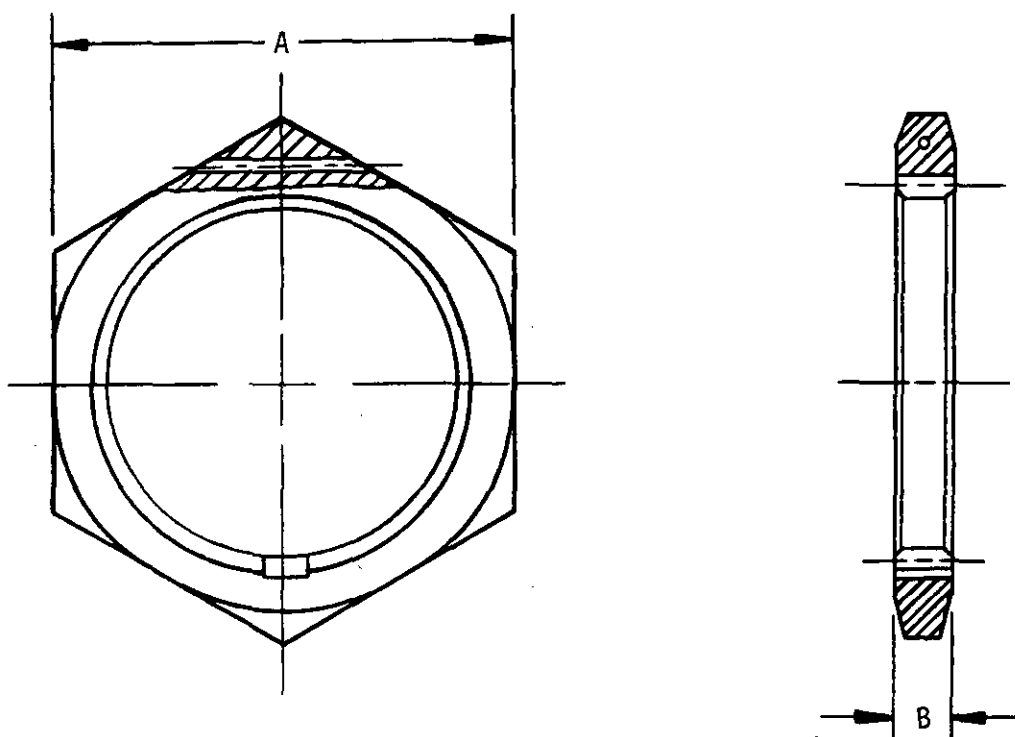


TABLE I.

Material -----			Aluminum	Steel	CRES	For connector shell size	
Color -----			Olive Drab		Black		
Protective finish -----			Cadmium Plate				
Thread	A Nom	B Nom	MS3186 + Dash no.			MIL-C-5015	MIL-C-26482
.500-28UNEF-2B	.687	.125	-25	-26	-27	8S	--
.625-24UNEF-2B	.812	.125	-31	-32	-33	10S, 10SL	--
.750-20UNEF-2B	.937	.125	-37	-38	-39	12S, 12	--
.875-20UNEF-2B	1.062	.125	-40	-41	-42	14S, 14	12
1.000-20UNEF-2B	1.188	.125	-43	-44	-45	16S, 16	14
1.125-18UNEF-2B	1.312	.125	-46	-47	-48	18	16
1.250-18UNEF-2B	1.438	.125	-49	-50	-51	20	18
1.375-18UNEF-2B	1.562	.125	-52	-53	-54	22	20
1.500-18UNEF-2B	1.688	.125	-55	-56	-57	24	22
1.625-18UNEF-2B	1.812	.125	-58	-59	-60	--	24

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# SECTION 706

## NUT, PLAIN, HEXAGON, ELECTRICAL THIN

APPLICABLE DOCUMENTS: MS25082

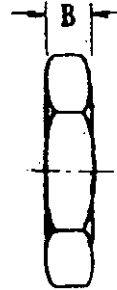
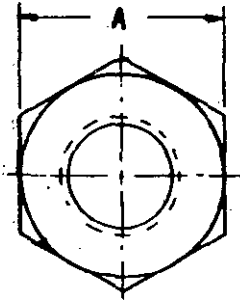


TABLE I

Material -----			Steel	CRES	BRASS	BRASS
Protective Finish -----			Cadmium	Passivate	Black Oxide	Silver Plate
Thread	A	B	MS 25082 + Dash No.			
.138 32UNC-2B	.309	.078	-1	-C1	-B1	-S1
.164 32UNC-2B	.340	.078	-2	-C2	-B2	-S2
.190 32UNF-2B	.372	.078	-3	-C3	-B3	-S3
	.247		-12	-C12	-B12	-S12
	.434	.089	-4	-C4	-B4	-S4
.250 32UNEF-2B	.309	.078	-13	-C13	-B13	-S13
40UNS-2B	.063		-14	-C14	-B14	-S14
.3125 24UNF-2B	.558	.104	-5	-C5	-B5	-S5
	.616	.104	-6	-C6	-B6	-S6
.375 32UNEF-2B	.558	.078	-7	-C7	-B7	-S7
		.093	-20	-C20	-B20	-S20
.4375 32NS-2B	.500	.093	-18	-C18	-B18	-S18
.4687 32NS-2B	.558	.078	-8	-C8	-B8	-S8
		.093	-21	-C21	-B21	-S21
	.624	.109	-19	-C19	-B19	-S19
.500 32UN-2B	.558	.078	-15	-C15	-B15	-S15
		.093	-22	-C22	-B22	-S22
	.818	.139	-10	-C10	-B10	-S10
.625 24UNEF-2B	.752	.104	-11	-C11	-B11	-S11
.6875 27NS-2B	.812	.093	-16	-C16	-B16	-S16
1.000 27UNS-2B	1.124	.093	-17	-C17	-B17	-S17

TABLE I

[illegible]

11/ All threads under this standard are left-handed.



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## SECTION 708

## NUT, PLAIN, HEXAGON, MACHINE SCREW

APPLICABLE DOCUMENTS: MS35649, MS35650

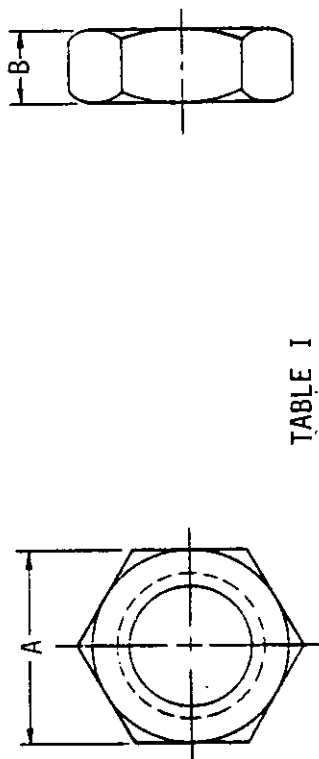


TABLE I

Material -----			CARBON STEEL				CRES		BRASS		COPPER SILICON ALLOY
Protective finish -----			Cadmium plate		Phosphate coating		Passivate 1/		Black oxide 2/		
Threads (-28)	A Max	B Nom	MS35649 + Dash no.	MS35650 + Dash no.	MS35649 + Dash no.	MS35650 + Dash no.	MS35649 + Dash no.	MS35650 + Dash no.	MS35649 + Dash no.	MS35650 + Dash no.	
.060 80UNF	.156	.047	--	-312	--	-13	--	-314	--	-315	MS35649 + Dash no.
.066 64UNF	.188	.063	--	-322	--	-23	--	-324	--	-325	
.086 56UNC			-222	--	-23	--	-224	--	-225	--	-226
.112 48UNF	.250	.094	--	-342	--	-43	--	-344	--	-345	-246
.112 40UNC			-242	--	-43	--	-244	--	-245	--	
.138 40UNF	.312	.109	--	-362	--	-63	--	-364	--	-365	-266
.164 32UNC			-262	--	-63	--	-264	--	-265	--	
.164 36UNF	.344	.125	--	-382	--	-83	--	-384	--	-386	-287
.190 32UNC	.375	.125	-282	--	-83	--	-284	--	-286	--	
.190 32UNF			--	-302	--	-103	--	-304	--	-305	-206
.250 24UNC	.438	.188	-202	--	-103	--	-204	--	-205	--	
.250 28UNF			--	-3252	--	--	--	-3254	--	-3255	-2256
.250 20UNC	.562	.219	-2252	--	--	--	-2254	--	-2255	--	
.3125 24UNF			--	-3312	--	--	--	-3314	--	-3315	-2316
.375 18UNC	.625	.250	-2312	--	--	--	-2314	--	-2315	--	
.375 24UNF			--	-3382	--	--	--	-3384	--	-3385	-2386
.500 16UNC	.813	.438	-2382	--	--	--	-2384	--	-2385	--	
.500 20UNF			--	-3392	--	--	--	-3394	--	-3395	-3405
.625 18UNF	1.000	.531	--	-3402	--	--	--	-3404	--	--	

1/ If black oxide is required, add "B" after dash number.

2/ If tin plating is required, add "T" after dash number; if silver plating is required, add "S" after dash number.

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# SECTION 709

## NUT, PLAIN, HEXAGON, PLASTIC (NYLON)

APPLICABLE DOCUMENT: MS51858

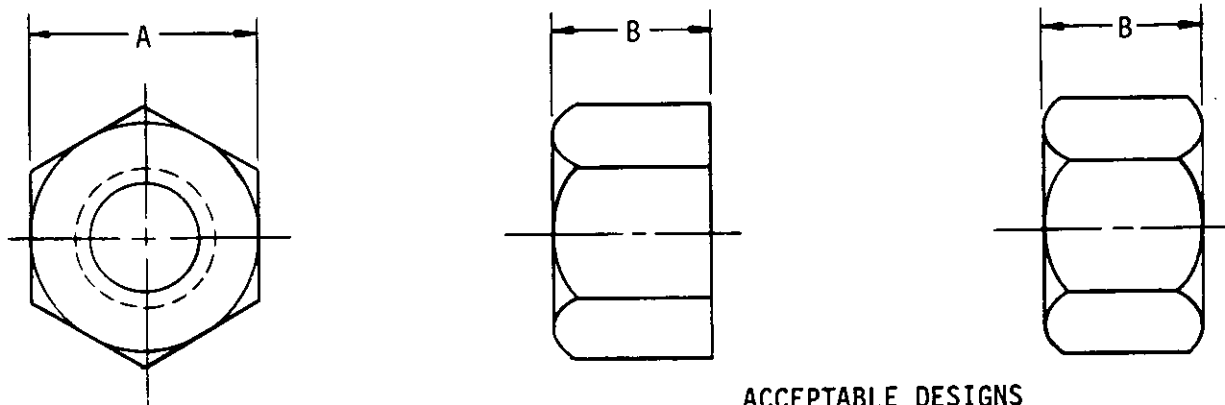


TABLE I

Material -----			Nylon
Thread	A Nom	B Nom	MS51858 +Dash no.
.086-56UNC-2B	.188	.063	-1
.112-40UNC-2B	.250	.094	-2
.138-32UNC-2B	.312	.109	-3
.164-32UNC-2B	.344	.125	-4
.190-24UNC-2B	.375	.125	-5
.190-32UNF-2B			-6
.250-20UNC-2B	.438	.219	-7
.250-28UNF-2B			-8
.3125-18UNC-2B	.500	.266	-9
.375-16UNC-2B	.562	.328	-10

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# SECTION 710

## NUT, PLAIN, HEXAGON, SMALL PATTERN

APPLICABLE DOCUMENT: NAS 671

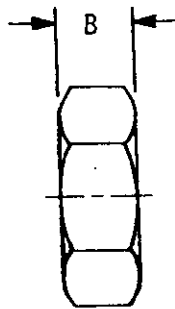
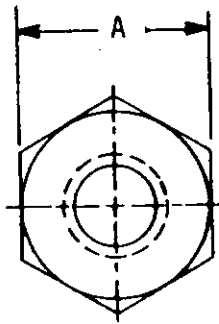
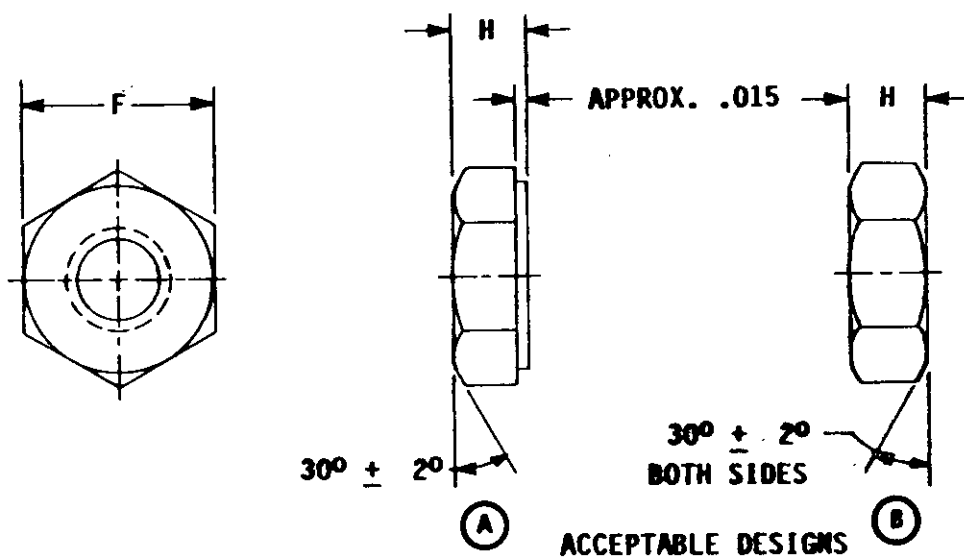


TABLE I

Material -----			Steel	CRES	Brass
Protective Finish -----			Cadmium Plate	Passivate	Cadmium Plate
Thread	A Max	B Max	NAS 671 + Dash No.		
.0600-80 UNJF-3B	.125	.050	-0	-C0	-B0
.0730-64 UNJC-3B	.125	.050	-1	-C1	-B1
.0860-56 UNJC-3B	.156	.066	-2	-C2	-B2
.0990-48 UNJC-3B	.156	.066	-3	-C3	-B3
.1120-40 UNJC-3B	.188	.066	-4	-C4	-B4
.1380-32 UNJC-3B	.250	.098	-6	-C6	-B6
.1640-32 UNJC-3B	.313	.114	-8	-C8	-B8
.1900-32 UNJF-3B	.344	.130	-10	-C10	-B10

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SECTION 711  
NUT, PLAIN, HEXAGON, ZINC COATAPPLICABLE DOCUMENTS: MS51469, MS51470, MS51471, MS51472  
MS51473

ACCEPTABLE DESIGNS

TABLE I

Material ----- Steel, Carbon				
Protective Finish ----- Zinc Coat				
Document	Thread (-2B)	F Max	H Nom	Design
MS51469	.086-56 UNC	.187	.062	B
	.138-32 UNC	.312	.109	
	.164-32 UNC	.343	.125	
MS51470	.112-48 UNF	.250	.094	B
	.138-40 UNF	.312	.109	
	.190-32 UNF	.375	.125	
MS51471	.500-13 UNC	.750	.312	A or B
MS51472	.500-13 UNC	.750	.438	A or B
	1.000-8 UNC	1.500	.859	
	.250-28 UNF	.4375	.219	
MS51473	.3125-24 UNF	.5000	.266	A or B
	.4375-20 UNF	.6875	.375	
	.500-20 UNF	.7500	.438	
	.5625-18 UNF	.8750	.484	
	.750-16 UNF	1.1250	.641	
	.875-14 UNF	1.3125	.750	
				Dash No.
				-01
				-02
				-03
				-01
				-02
				-03
				-04
				-05
				-06
				-07

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# SECTION 801

## NUT, PLAIN, KNURLED (ROUND)

APPLICABLE DOCUMENT: MS16994

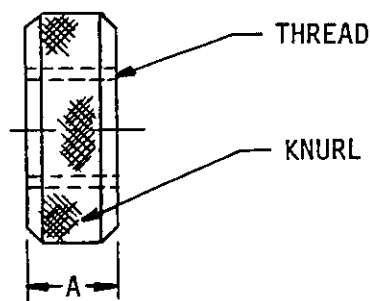
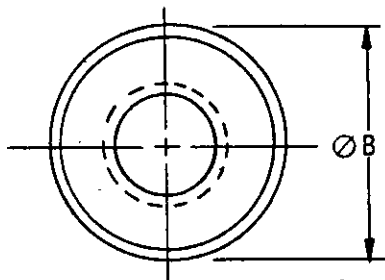


TABLE I

Material -----				Brass (1/2 Hard)	CRES (300)	Carbon Steel	Aluminum alloy (T-4)
Protective finish -----				Black chemical	Passivate	Cadmium plate	Anodize
Thread	A Nom	ØB Nom	MS16994 +Dash no.				
.112	40UNC-2B	.09	.88	-2B	-2C	-2S	-2A
		.25	.38	-5B	-5C	-5S	-5A
		.50	.38	-6B	-6C	-6S	-6A
.138	32UNC-2B	.19	.50	-10B	-10C	-10S	-10A
		.25	.38	-12B	-12C	-12S	-12A
		.34	.50	-15B	-15C	-15S	-15A
		.94	.88	-17B	-17C	-17S	-17A
.164	32UNC-2B	.19	.50	-19B	-19C	-19S	-19A
		.25	.75	-21B	-21C	-21S	-21A
		.28	.50	-22B	-22C	-22S	-22A
		.38	.68	-25B	-25C	-25S	-25A
		.47	.38	-27B	-27C	-27S	-27A
		.50	.50	-28B	-28C	-28S	-28A
		.62	.75	-30B	-30C	-30S	-30A
.190	32UNF-2B	.25	1.00	-33B	-33C	-33S	-33A
		.31	.50	-35B	-35C	-35S	-35A
		.33	.52	-36B	-36C	-36S	-36A
		.50	.50	-40B	-40C	-40S	-40A
	24UNC-2B	.56	.76	-41B	-41C	-41S	-41A
		.23	.50	-43B	-43C	-43S	-43A
		.25	.75	-44B	-44C	-44S	-44A
.250	20UNC-2B	.44	.75	-48B	-48C	-48S	-48A
		.69	1.00	-49B	-49C	-49S	-49A
	28UNF-2B	.12	.88	-50B	-50C	-50S	-50A
		.38	1.00	-52B	-52C	-52S	-52A
		.50	.50	-54B	-54C	-54S	-54A
	28UNF-2B	.55	1.25	-55B	-55C	-55S	-55A
		.19	.62	-58B	-58C	-58S	-58A
.3125	18UNC-2B	.25	.88	-59B	-59C	-59S	-59A
		.38	1.25	-61B	-61C	-61S	-61A
		.56	.88	-62B	-62C	-62S	-62A
		.25	.88	-63B	-63C	-63S	-63A
	24UNF-2B	.25	.88	-66B	-66C	-66S	-66A
		.31	1.00	-67B	-67C	-67S	-67A
		.50	.75	-69B	-69C	-69S	-69A
.375	16UNC-2B	.94	1.25	-71B	-71C	-71S	-71A
		.25	.88	-72B	-72C	-72S	-72A
		.31	1.00	-75B	-75C	-75S	-75A
		.50	.75	-77B	-77C	-77S	-77A
	32UNEF-2B	.12	.50	-79B	-79C	-79S	-79A
		.16	.94	-81B	-81C	-81S	-81A
		.25	.69	-83B	-83C	-83S	-83A
.500	20UNF-2B	.31	1.00	-84B	-84C	-84S	-84A
		.75	.75	-86B	-86C	-86S	-86A
	24UNF-2B	.12	.69	-88B	-88C	-88S	-88A
		.25	1.25	-89B	-89C	-89S	-89A
		.50	.75	-92B	-92C	-92S	-92A
	20UNF-2B	.12	1.12	-94B	-94C	-94S	-94A
		.25	.75	-105B	-105C	-105S	-105A
.750	20UNF-2B	.38	1.00	-107B	-107C	-107S	-107A
		.47	1.50	-108B	-108C	-108S	-108A
		.75	1.50	-110B	-110C	-110S	-110A
		.88	2.50	-112B	-112C	-112S	-112A
	20UNEF-2B	.12	1.72	-113B	-113C	-113S	-113A
		.39	1.25	-116B	-116C	-116S	-116A
		.44	1.88	-119B	-119C	-119S	-119A
		.75	1.50	-120B	-120C	-120S	-120A
				-121B	-121C	-121S	-121A

## MIL-STD-1903

# SECTION 901

## NUT, PLAIN, ROUND, SPANNER

APPLICABLE DOCUMENTS: MS9951, MS9984, MS27955, MS172321 thru MS172370, AS3163

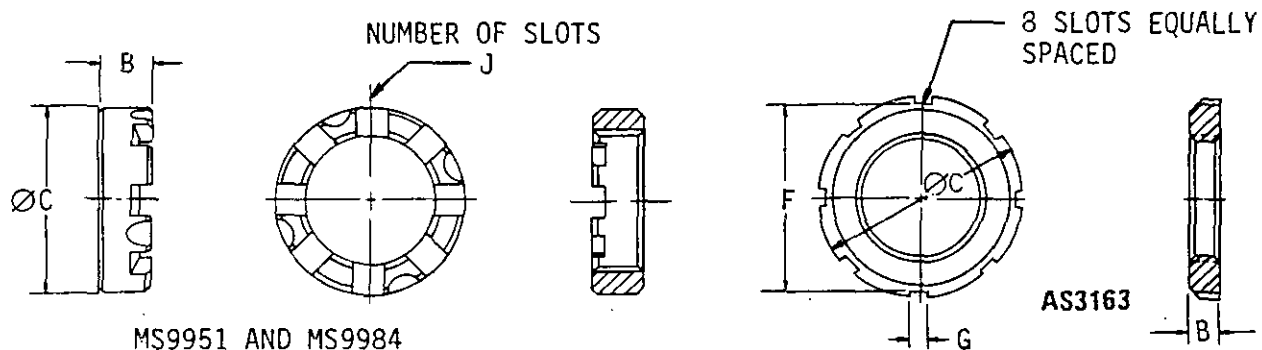


TABLE I MS27955 AND MS172321 THRU MS 172370

Material -----						CRES	Alloy steel	Steel	
Protective finish -----						Silver plate	Phosphate coating	None	Phosphate coating
Rockwell hardness -----						C32-38	C26-32		
Thread	B	ØC	J (slots)	F Nom	G Min	MS9984 + Dash no.	MS27955 + Dash no.	MS9951 + Dash no.	MS172321 thru MS172353 Part no.
.375	32UNJEF-3B	.300	.598	4	--	--	-02	--	--
.4375	28UNJEF-3B	.300	.748	6	--	--	-03	--	--
.500	28UNJEF-3B	.300	.798	6	--	--	-04	--	--
	28UNEF-3B	.188	1.047	8	.922	.120	--	-1	MS172321
.625	24UNJEF-3B	.300	.923	6	--	--	-06	--	--
	24NEF-3B	.219	1.172	8	1.047	.120	--	-3	MS172323
.750	20UNJEF-3B	.300	1.073	6	--	--	-08	--	--
	20UNEF-3B	.250	1.391	8	1.266	.178	--	-5	MS172325
.875	20UNJEF-3B	.300	1.198	8	--	--	-10	--	--
	20UNEF-3B	.250	1.531	8	1.406	.178	--	-7	MS172327
1.000	20UNJEF-3B	.300	1.348	8	--	--	-12	--	--
	20UNEF-3B	.281	1.719	8	1.531	.178	--	-9	MS172329
1.125	18UNJEF-3B	.325	1.473	8	--	--	-14	--	--
	18NEF-3B	.281	1.875	8	1.688	.178	--	-11	MS172331
1.250	18UNJEF-3B	.325	1.623	8	--	--	-16	--	--
	18NEF-3B	.281	2.000	8	1.812	.178	--	-13	MS172333
1.375	18UNJEF-3B	.325	1.748	8	--	--	-18	--	--
	18NEF-3B	.281	2.125	8	1.938	.178	--	-15	MS172335
1.500	18UNJEF-3B	.325	1.898	10	--	--	-20	--	--
	18NEF-3B	.281	2.250	8	2.062	.240	--	-17	MS172337
1.625	16UNJ-3B	.325	2.023	10	--	--	-22	--	--
	16NEF-3B	.312	2.375	8	2.188	.240	--	-18	MS172339
1.750	16UNJ-3B	.325	2.173	10	--	--	-24	--	--
	16UN-3B	.312	2.531	8	2.344	.240	--	-19	MS172341
1.875	16UNJ-3B	.325	2.298	10	--	--	-26	--	--
	16N-3B	.312	2.656	8	2.469	.240	--	-20	MS172343
2.000	16UNJ-3B	.325	2.448	10	--	--	-28	--	--
	16UN-3B	.312	2.781	8	2.594	.240	--	-21	MS172345
2.125	16UNJ-3B	.375	2.545	10	--	--	-30	--	--
	16N-3B	.312	2.906	8	2.719	.240	--	-22	MS172347
2.250	16UNJ-3B	.375	2.695	10	--	--	-32	--	--
	16UN-3B	.312	3.031	8	2.844	.240	--	-23	MS172349
2.375	16UNJ-3B	.375	2.820	10	--	--	-34	--	--
	16N-3B	.312	3.156	8	2.969	.240	--	-24	MS172351
2.500	16UNJ-3B	.375	2.970	10	--	--	-36	--	--
	16UN-3B	.312	3.281	8	3.094	.240	--	-25	MS172353
2.750	16UNJ-3B	.375	3.245	10	--	--	-39	--	--
3.000	16UNJ-3B	.375	3.520	10	--	--	-41	--	--

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NOTE: To be used with MS9952 cupwashers

## MIL-STD-1903

TABLE II

Material -----							Alloy Steel
Protective Finish -----							None
Rockwell Hardness -----							C26-32
Thread		B Nom	Ø C Nom	J (slots)	F Nom	G Min	AS3163 + Dash No.
.500	28UNJEF-3B	.188	1.042	8	.922	.120	-04
.625	24UNJEF-3B	.219	1.167	8	1.047	.120	-06
.750	20UNJEF-3B	.250	1.387	8	1.266	.178	-08
.875	20UNJEF-3B	.250	1.526	8	1.406	.178	-10
1.000	20UNJEF-3B	.281	1.714	8	1.531	.178	-12
1.125	18UNJEF-3B	.281	1.870	8	1.688	.178	-14
1.250	18UNJEF-3B	.281	1.995	8	1.812	.178	-16
1.375	18UNJEF-3B	.281	2.120	8	1.938	.178	-18
1.500	18UNJEF-3B	.281	2.245	8	2.062	.240	-20
1.625	18UNJEF-3B	.312	2.370	8	2.188	.240	-22
1.750	16UNJ-3B	.312	2.526	8	2.344	.240	-24
1.875	16UNJ-3B	.312	2.651	8	2.469	.240	-26
2.000	16UNJ-3B	.312	2.776	8	2.594	.240	-28
2.125	16UNJ-3B	.312	2.901	8	2.719	.240	-30
2.250	16UNJ-3B	.312	3.026	8	2.844	.240	-32
2.375	16UNJ-3B	.312	3.151	8	2.969	.240	-34
2.500	16UNJ-3B	.312	3.276	8	3.094	.240	-36

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**SECTION 1001**  
**NUT, PLAIN, SLOTTED, HEXAGON**  
 APPLICABLE DOCUMENTS: MS9363, MS9364, MS35692

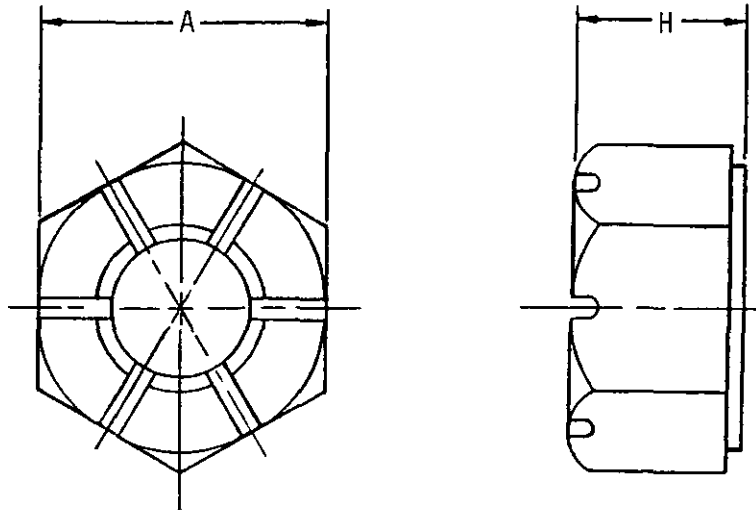


TABLE I

Material -----			Brass		Carbon steel		CRES		
					Grade B	Grade C			
Protective finish -----			Black oxide	Cadmium plate		Passivate	None	Silver plate	
Thread		A Nom	H Nom	MS35692 + Dash no.			MS9363 + Dash no.	MS9364 + Dash no.	
.164	36UNJF-3B	.344	.156	--	--	--	--	-08	-08
.190	32UNJF-3B	.375	.188	--	--	--	--	-09	-09
.250	20UNC-2B	.438	.218	-4	-1	-2	-3	--	--
	28UNF-2B		-8	-5	-6	-7	--	--	
	28UNJF-3B		--	--	--	--	-10	-10	
.3125	18UNC-2B	.500	.265	-12	-9	-10	-11	--	--
	24UNF-2B		-16	-13	-14	-15	--	--	
	24UNJF-3B		--	--	--	--	-11	-11	
.375	16UNC-2B	.562	.328	-20	-17	-18	-19	--	--
	24UNF-2B		-24	-21	-22	-23	--	--	
	24UNJF-3B		.219	--	--	--	--	-12	-12
.4375	14UNC-2B	.688	.375	-28	-25	-26	-27	--	--
	20UNF-2B		-32	-29	-30	-31	--	--	
	20UNJF-3B		.219	--	--	--	--	-13	-13
.500	13UNC-2B	.750	.438	-36	-33	-34	-35	--	--
	20UNF-2B		-40	-37	-38	-39	--	--	
	20UNJF-3B		.250	--	--	--	--	-14	-14
.625	11UNC-2B	.938	.546	-52	-49	-50	-51	--	--
	18UNF-2B		-56	-53	-54	-55	--	--	
	18UNJF-3B		.312	--	--	--	--	-16	-16
.750	10UNC-2B	1.125	.640	-60	-57	-58	-59	--	--
	16UNF-2B		-64	-61	-62	-63	--	--	
	16UNJF-3B		1.062	.375	--	--	--	--	-17
.875	9UNC-2B	1.312	.750	-68	-65	-66	-67	--	--
	14UNF-2B		-72	-69	-70	-71	--	--	
	14UNJF-3B		1.250	.438	--	--	--	--	-18
1.000	8UNC-2B	1.500	.859	-76	-73	-74	-75	--	--
	12UNF-2B		-80	-77	-78	-79	--	--	
	12UNJF-3B		1.438	.500	--	--	--	--	-19
1.125	7UNC-2B	1.688	.969	-84	-81	-82	-83	--	--
	12UNF-2B		-88	-85	-86	-87	--	--	
	7UNC-2B		-92	-89	-90	-91	--	--	
1.250	12UNF-2B	1.875	1.016	-96	-93	-94	-95	--	--
	6UNC-2B		-100	-97	-98	-99	--	--	
1.375	12UNF-2B	2.062	1.171	-104	-101	-102	-103	--	--
	6UNC-2B		-108	-105	-106	-107	--	--	
1.500	12UNF-2B	2.250	1.281	-112	-109	-110	-111	--	--



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## SECTION 1002

## NUT, PLAIN, SLOTTED, HEXAGON, SHEAR

APPLICABLE DOCUMENT: AN320

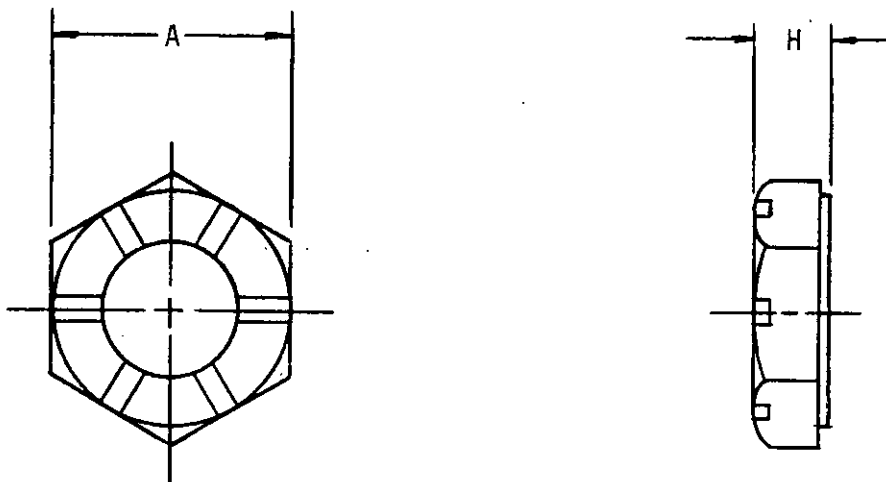


TABLE I

Material -----				Aluminum alloy	Steel	CRES	
Protective finish -----				Anodize	Cadmium plate	Passivate	
Thread	A Nom.	H Nom.	Tensile strength min (lbs)		AN320 +Dash no.	AN320 +Dash no.	AN320 +Dash no.
			Steel	Al. alloy			
.138-40UNF-3B	.312	.156	—	—	D1	-1	C1
.164-36UNF-3B	.344	.156	—	—	D2	-2	C2
.190-32UNF-3B	.375	.188	1,105	550	D3	-3	C3
.250-28UNF-3B	.438	.188	2,040	1,015	D4	-4	C4
.3125-24UNF-3B	.500	.188	3,250	1,610	D5	-5	C5
.375-24UNF-3B	.562	.219	5,050	2,510	D6	-6	C6
.4375-20UNF-3B	.625	.219	6,800	3,375	D7	-7	C7
.500-20UNF-3B	.750	.250	9,250	4,590	D8	-8	C8
.625-18UNF-3B	1.000	.312	15,050	7,450	D10	-10	C10
.750-16UNF-3B	1.125	.375	22,000	10,900	D12	-12	C12
.875-14UNF-3B	1.312	.438	30,000	14,900	D14	-14	C14
1.000-12UNF-3B	1.500	.500	40,350	20,000	D15	-15	C15
1.125-12UNF-3B	1.688	.562	50,900	25,250	D18	-18	C18
1.250-12UNF-3B	1.875	.625	65,100	32,200	D20	-20	C20

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## SECTION 1101

## NUT, PLAIN, SPLINE, ROUND

APPLICABLE DOCUMENT: MIL-N-45938/12

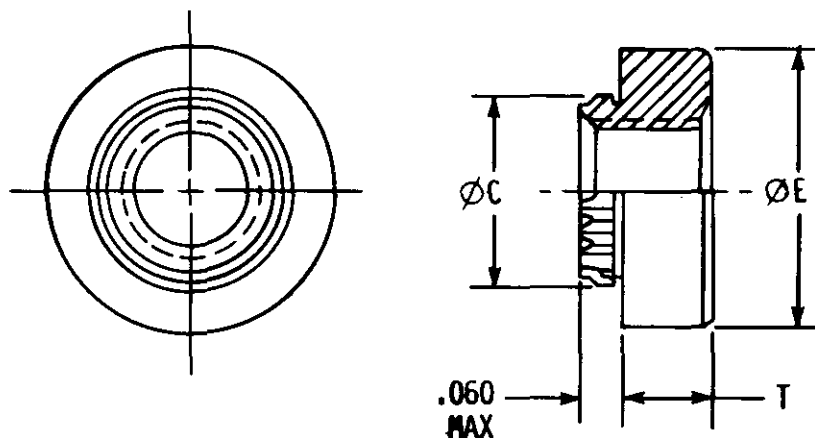


TABLE I

Material-----				Steel	Cres
Protective Finish-----				Tin Plate	Passivate
Thread (-2B)	$\varnothing C$ Min	$\varnothing E$ Min	T Min	M45938/12 + Dash No.	
.086-56UNC	.160	.219	.065	1	1C
.112-40UNC	.179	.219	.065	2	2C
.138-32UNC	.226	.281	.065	3	3C
.164-32UNC	.263	.344	.096	4	4C
.190-32UNC	.285	.375	.127	5	5C

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## SECTION 1201

## NUT, PLAIN, SQUARE

APPLICABLE DOCUMENTS: MS16211, MS21304, MS27040

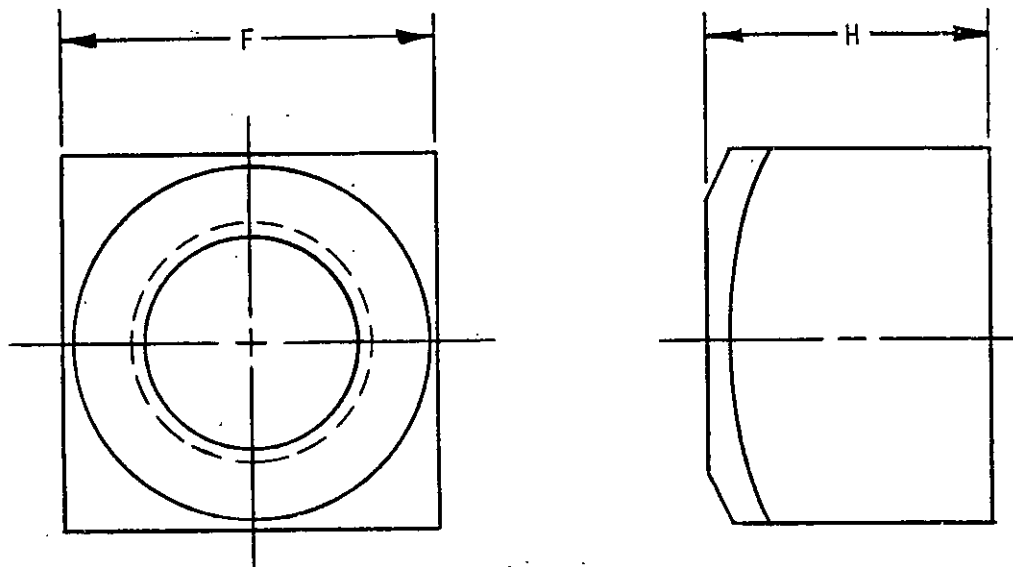


TABLE I

Material -----			Carbon Steel	Steel	Copper Silicon Alloy 1/
Protective finish -----			Cadmium plate	Galvanize	None specified
Thread	F Max	H Max	MS27040 +Dash no.	MS21304 +Dash no.	MS16211 +Dash no.
.086-56UNC-2B	.188	.066	-2	--	--
.112-40UNC-2B	.250	.098	-4	--	--
.138-32UNC-2B	.312	.114	-6	--	--
.164-32UNC-2B	.344	.130	-7	--	--
.190-24UNC-2B	.375	.130	-8	--	--
.250-20UNC-2B	.438	.235	-10	-1	-1
.3125-18UNC-2B	.562	.283	-11	-2	-2
.375-16UNC-2B	.625	.346	-12	-3	-3
.4375-14UNC-2B	.750	.394	-13	-4	-4
.500-13UNC-2B	.812	.458	-14	-5	-5
.625-11UNC-2B	1.000	.569	-15	-6	-6
.750-10UNC-2B	1.125	.680	-16	-7	-7
.875-9UNC-2B	1.312	.792	-17	--	-8
1.000-8UNC-2B	1.500	.903	-18	-8	-9
1.125-7UNC-2B	1.688	1.030	-19	--	-10
1.250-7UNC-2B	1.875	1.126	-20	--	-11
1.375-6UNC-2B	2.062	1.237	-21	--	-12
1.500-6UNC-2B	2.250	1.348	-22	--	-13

1/ Non magnetic

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# SECTION 1301

## NUT, PLAIN, WELDING (WITH PILOT)

APPLICABLE DOCUMENT: MS27128

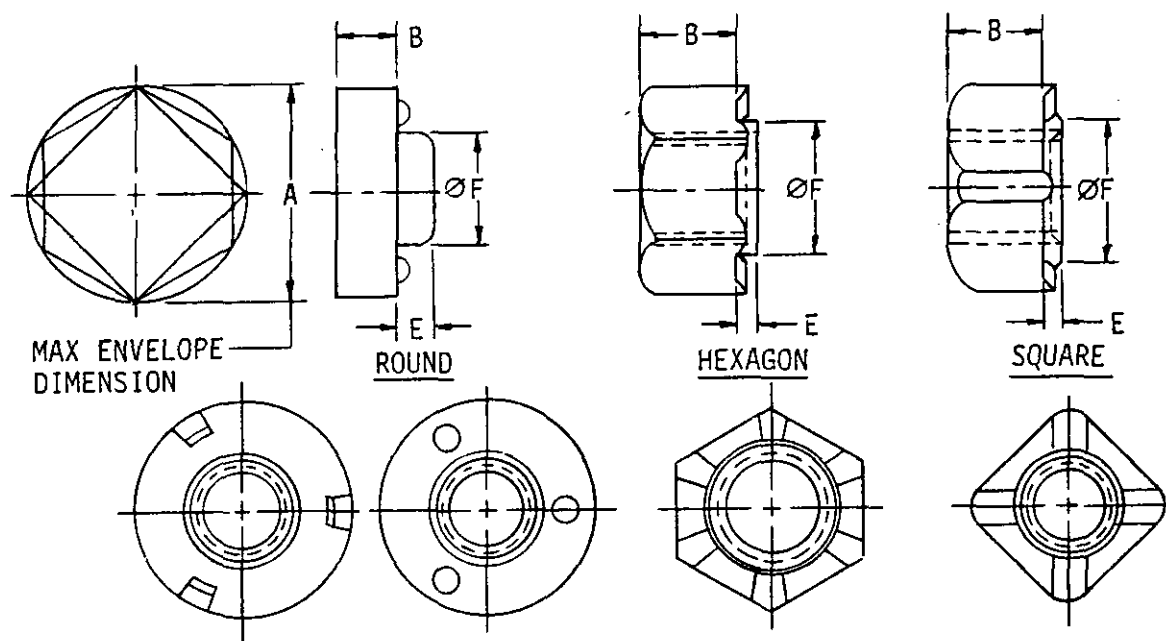


TABLE I

Material -----					Carbon Steel		
Protective finish -----					Uncoated		
Thread	Ø or points A Max	B Max	E Max	ØF Max	MS27128 + Dash no.		
					Hex	Square	Round
.164 -32UNC-2B	.707	.197	.067	.406	-1	-19	-37
			.099		-2	-20	-38
.190 -24UNC-2B	.750	.260	.067	.406	-3	-21	-39
			.099		-4	-22	-40
.250 -20UNC-2B	.750	.260	.067	.406	-5	-23	-41
			.099		-6	-24	-42
.312 -18UNC-2B	.795	.229	.070	.469	-7	-25	-43
			.099		-8	-26	-44
.375 -16UNC-2B	.884	.330	.070	.531	-9	-27	-45
			.099		-10	-28	-46
.500 -13UNC-2B	1.149	.385	.070	.719	-13	-31	-49
			.099		-14	-32	-50
.625 -11UNC-2B	1.237	.570	.070	.781	-17	-35	-53
			.099		-18	-36	-54

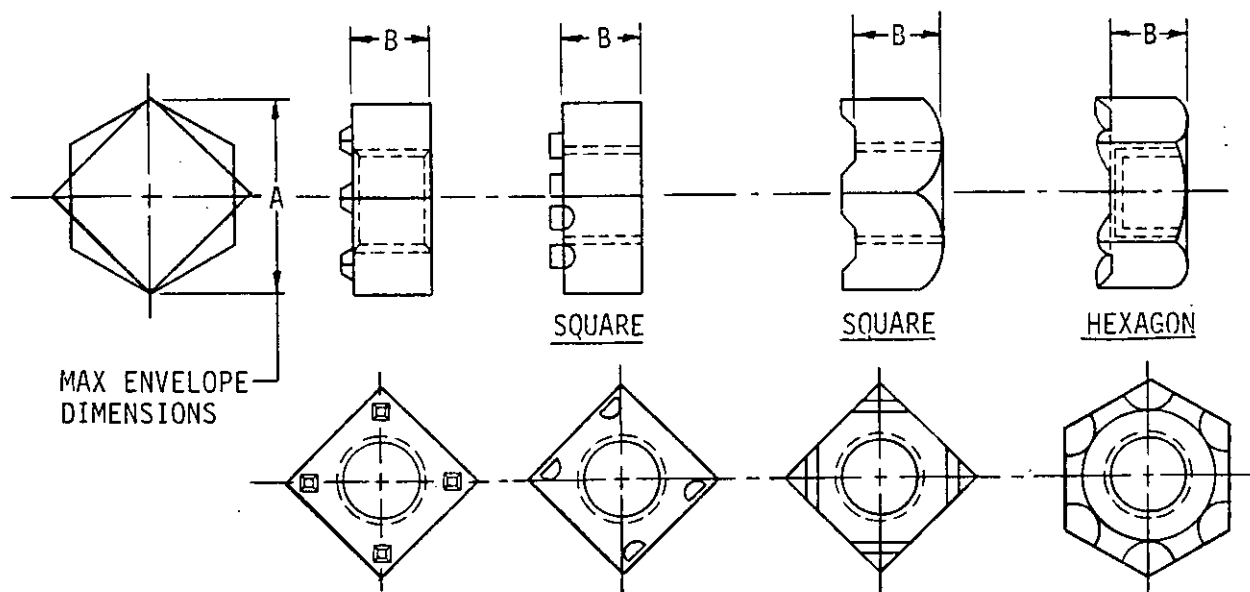
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MIL-STD-1903

# SECTION 1302

## NUT, PLAIN, WELDING (WITHOUT PILOT)

APPLICABLE DOCUMENT: MS27127



ACCEPTABLE LUG DESIGNS

TABLE I

Material -----			Carbon steel	
Protective finish -----			Uncoated	
Thread	Ø or points A Max	B Max	MS27127 +Dash no.	
			Square	Hex
.138-32UNC-2B	.642	.126	-10	-12
.164-32UNC-2B	.642	.204	-1	-13
.190-24UNC-2B	.642	.204	-2	-14
.250-20UNC-2B	.810	.255	-3	-16
.312-18UNC-2B	.900	.313	-4	-17
.375-16UNC-2B	.990	.365	-5	-18
.500-13UNC-2B	1.350	.495	-7	-20
.625-11UNC-2B	1.414	.635	-9	-22

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SECTION 1401  
NUT, PLAIN, WING

APPLICABLE DOCUMENTS: MS35425 MS35426 MS51468

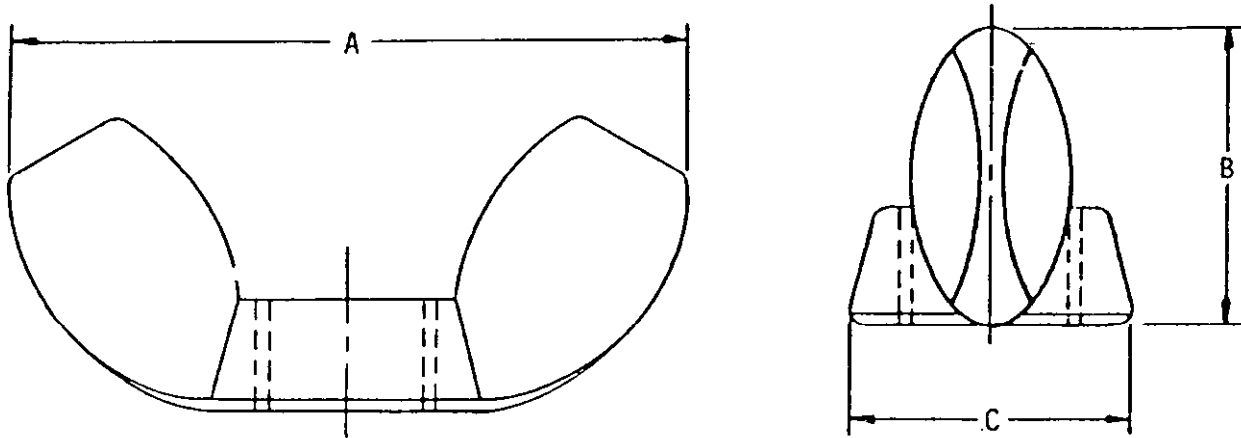


TABLE I

Material -----				Brass		Carbon Steel		
Protective finish -----				None specified		Cadmium plate		Zinc Coat
Thread	A Nom	B Nom	C Nom	MS35425 + Dash no.	MS35426 + Dash no.	MS35425 + Dash no.	MS35426 + Dash no.	MS51468 + Dash no.
.138 32UNC-2B	.84	.41	.41	-51	--	-50	--	--
.164 32UNC-2B	.84	.41	.41	-53	--	-52	--	-01
.190 24UNC-2B	.84	.41	.41	-38	--	-37	--	--
.190 32UNF-2B				--	-26	--	-25	--
.250 20UNC-2B	1.03	.50	.47	-40	--	-39	--	-02
.250 28UNF-2B				--	-28	--	-27	--
.3125 18UNC-2B	1.18	.59	.54	-24	--	-41	--	-03
.3125 24UNF-2B				--	-30	--	-29	--
.375 16UNC-2B	1.38	.72	.67	-28	--	-42	--	-04
.375 24UNF-2B				--	-32	--	-31	--
.500 13UNC-2B	1.87	.93	.89	-36	--	-44	--	-05
.500 20UNF-2B				--	-36	--	-35	--

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## SECTION 1501

**NUT, PLAIN AND SELF-LOCKING, ASSEMBLED WASHER,  
CASTELLATED. HEXAGON, COUNTERBORED, 250°F, 450°F**

APPLICABLE DOCUMENTS: MS21224, MS21244

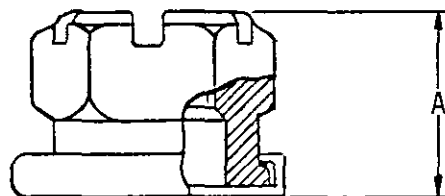
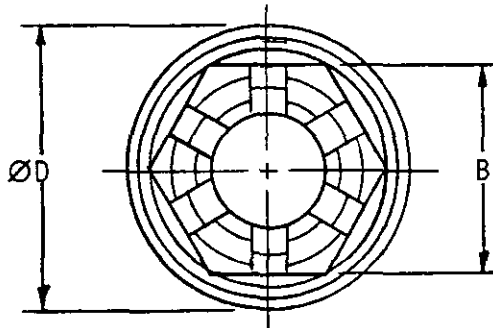


TABLE I

Material -----		Nut -----		Steel	CRES
		Washer-----		Aluminum alloy	Aluminum alloy
Protective finish -----		Nut -----		Cadmium plate	Cadmium plate
		Washer-----		Alodine	Alodine
Thread	A Max	B Nom	ØD Max	MS21224 + Dash no.	
.190-32UNJF-3B	.374	.375	.490	-3	-3C
.250-28UNJF-3B	.405	.438	.560	-4	-4C
.3125-24UNJF-3B	.436	.500	.640	-5	-5C
.375-24UNJF-3B	.482	.562	.710	-6	-6C
.4375-20UNJF-3B	.513	.625	.785	-7	-7C
.500-20UNJF-3B	.576	.750	.925	-8	-8C
.625-18UNJF-3B	.822	1.000	1.224	-10	-10C
.750-16UNJF-3B	.951	1.062	1.283	-12	-12C
.875-14UNJF-3B	1.058	1.250	1.495	-14	-14C
1.000-12UNJF-3B	1.202	1.438	1.707	-16	-16C

NOTE: Self-locking feature is insert, nylon or equivalent.

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## SECTION 1502

NUT, SELF-LOCKING, ASSEMBLED WASHER, SLOTTED  
HEXAGON, COUNTERBORED, 450°F

APPLICABLE DOCUMENT: MS14146

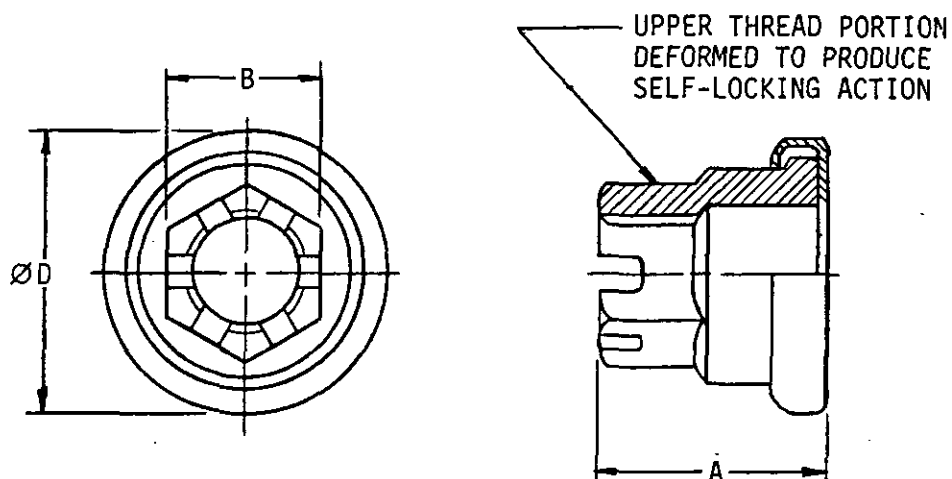


TABLE I

Material -----				Nut---	Carbon steel
				Washer--	CRES
Protective finish -----				Nut 1/--	Cadmium plate
				Washer--	Passivate
Thread	A Max	B Nom	Ø D Nom	MS14146 + Dash no	
.190-32UNJF-3B	.374	.250	.475	-3	
.250-28UNJF-3B	.405	.312	.545	-4	
.312-24UNJF-3B	.436	.375	.625	-5	
.375-24UNJF-3B	.482	.438	.695	-6	
.437-20UNJF-3B	.513	.500	.770	-7	
.500-20UNJF-3B	.576	.562	.910	-8	
.625-18UNJF-3B	.819	.750	1.128	-10	
.750-16UNJF-3B	.951	.875	1.268	-12	
.875-14UNJF-3B	1.058	1.000	1.480	-14	
1.000-12UNJF-3B	1.202	1.125	1.692	-16	

1/ Finish: Plus molybdenum disulfide dry film lubricant.



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# SECTION 1601

## NUT, SELF-LOCKING, BARREL (FLOATING)

APPLICABLE DOCUMENT: NAS577

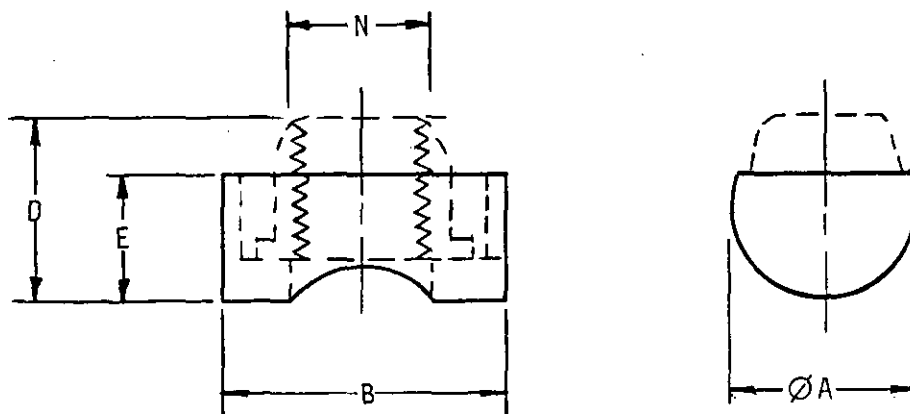


TABLE I

Material -----						Non Corrosion Resistant Steel	
Protective finish -----						Cadmium plate	Cadmium 1/ fluoroborate
Thread UNJF or UNF-3B	Ø A Max	B Nom	D Max	E Max	N Max	NAS577 + Dash no.	
.250-28	.528	.625	.406	.320	.375	B-4A	B-4F
.3125-24	.590	.688	.463	.360	.406	B-5A	B-5F
.375-24	.684	.750	.531	.420	.500	B-6A	B-6F
.4375-20	.778	.875	.625	.470	.563	B-7A	B-7F
.500-20	.872	1.000	.703	.540	.625	B-8A	B-8F
.625-18	1.060	1.125	.844	.650	.750	B-10A	B-10F
.750-16	1.278	1.500	1.062	.750	.875	B-12A	B-12F
.875-14	1.433	1.531	1.156	.850	1.000	B-14A	B-14F
1.000-12	1.559	1.728	1.281	.880	1.125	B-16A	B-16F
1.125-12	1.872	2.063	1.562	1.230	1.250	B-18A	B-18F
1.250-12	2.122	2.352	1.813	1.320	1.375	B-20A	B-20F
1.375-12	2.372	2.646	2.000	1.460	1.500	B-22A	B-22F
1.500-12	2.622	3.000	2.187	1.520	1.625	B-24A	B-24F

1/ Add "X" in addition to "A" or "F" for plated steel nuts without lubricant.

Note:

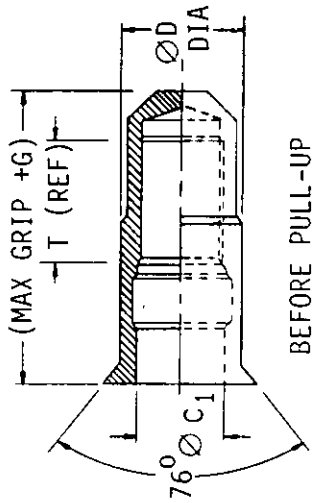
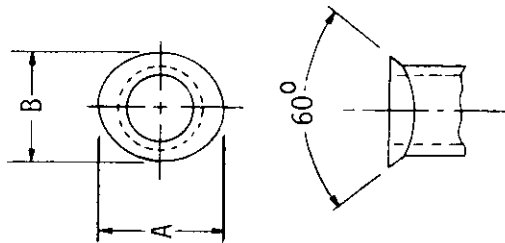
Total Float: Transverse: .028 minimum  
 Longitudinal: Permissible but not required  
 Vertical: .016 maximum

## MIL-STD-1903

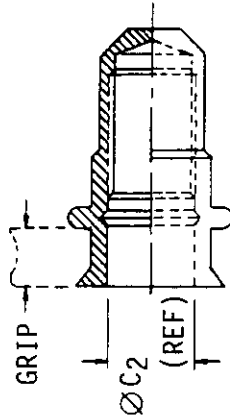
## SECTION 1701

NUT, SELF-LOCKING, BLIND RIVET  
(CLOSED END) ELLIPTICAL HEAD

APPLICABLE DOCUMENT: NAS1735



BEFORE PULL-UP



AFTER PULL-UP

TABLE I

Material		Protective finish		CRCS	
Thread		Passivate 2/		NAS 1735	
A	B	ØC1	ØC2	ØD	T Min
Nom	Nom	Max	Max	Max	(Ref)
.190 -32UNJF-3B	.280	.196	.195	.241	.468
.250 -28UNJF-3B	.372	.258	.255	.327	.544
.3125 -24UNJF-3B	.446	.320	.318	.396	.614
.375 -24UNJF-3B	.526	.383	.380	.471	.724
.4375 -20UNJF-3B	.600	.445	.442	.539	.834
.500 -20UNJF-3B	.680	.508	.505	.614	.946
.625 -18UNJF-3B	.848	.633	.630	.769	1.192

1/ " ( ) " Indicates second dash number, Grip range.

2/ Add "p" after second dash number for Cadmium plate.

TABLE II

Grip range	Dash no.	Grip range	Dash no.
.080 - .130	-1	.880 - .940	-15
.100 - .160	-2	.940 - 1.000	-16
.160 - .220	-3	1.000 - 1.060	-17
.220 - .280	-4	1.060 - 1.120	-18
.280 - .340	-5	1.120 - 1.180	-19
.340 - .400	-6	1.180 - 1.240	-20
.400 - .460	-7	1.240 - 1.300	-21
.460 - .520	-8	1.300 - 1.360	-22
.520 - .580	-9	1.360 - 1.420	-23
.580 - .640	-10	1.420 - 1.480	-24
.640 - .700	-11	1.480 - 1.540	-25
.700 - .760	-12	1.540 - 1.600	-26
.760 - .820	-13	1.600 - 1.660	-27
.820 - .880	-14		

TABLE III

Thread/Grip range combinations	
.190 (-1 through -9)	.4375 (-3 through -24)
.250 (-2 through -14)	.500 (-3 through -27)
.3125 (-2 through -17)	.625 (-3 through -27)
.375 (-3 through -20)	

3/ Special Grip range for -1 only.

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## SECTION 1702

NUT, SELF-LOCKING, BLIND RIVET (OPEN END),  
ELLIPTICAL HEAD

APPLICABLE DOCUMENT: NAS1734

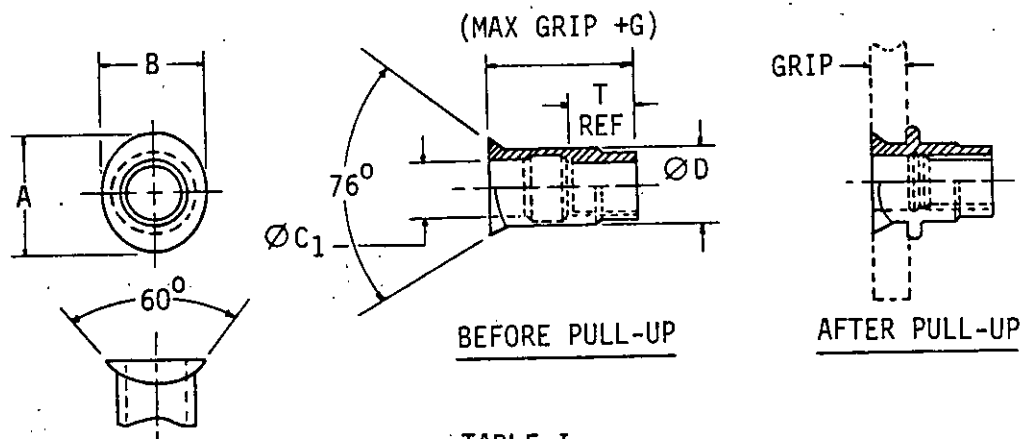


TABLE I

Material -----								CRES
-Protective finish -----								Passivate 2/
Thread		A Nom	B Nom	Ø C1 Max	Ø D Max.	G Nom	T Min (Ref)	NAS 1734 +Dash no. 1/
.190	-32UNJF-3B	.331	.280	.196	.241	.335	.260	-3-( )
.250	-28UNJF-3B	.438	.372	.258	.327	.387	.278	-4-( )
.3125	-24UNJF-3B	.520	.446	.320	.396	.468	.340	-5-( )
.375	-24UNJF-3B	.623	.526	.383	.471	.577	.416	-6-( )
.4375	-20UNJF-3B	.706	.600	.445	.539	.678	.508	-7-( )
.500	-20UNJF-3B	.794	.680	.508	.614	.789	.619	-8-( )
.625	-18UNJF-3B	.978	.848	.633	.769	1.041	.862	-10-( )

1/ "( )" Indicates second dash number, "Grip range".

2/ Add "P" after second dash number for Cadmium plating.

TABLE II

Grip range	Dash no.	Grip range	Dash no.
3/.080 - .130	-1	.640 - .700	-11
.100 - .160	-2	.700 - .760	-12
.160 - .220	-3	.760 - .820	-13
.220 - .280	-4	.820 - .880	-14
.280 - .340	-5	.880 - .940	-15
.340 - .400	-6	.940 - 1.000	-16
.400 - .460	-7	1.000 - 1.060	-17
.460 - .520	-8	1.060 - 1.120	-18
.520 - .580	-9	1.120 - 1.180	-19
.580 - .640	-10	1.180 - 1.240	-20

3/ Special Grip range for -1 only.

TABLE III

The following are thread sizes and the applicable grip range dash number	
.190 (-1 through -9)	.4375 (-3 through -20)
.250 (-2 through -14)	.500 (-3 through -20)
.3125 (-2 through -17)	.625 (-3 through -20)
.375 (-3 through -20)	

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## SECTION 1703

NUT, SELF-LOCKING, BLIND RIVET, OPEN END,  
COUNTERSUNK HEAD

APPLICABLE DOCUMENT: NAS1330

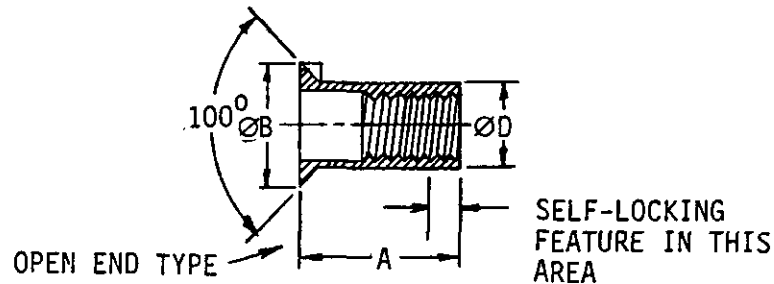


TABLE I

Material -----					Alloy steel
Protective finish -----					Cadmium plate
Thread	ØB Nom	ØD Nom	Grip range	A Open End Keyed	NAS1330 + Dash no.
.112-40UNC-3B	.263	.155	.050 - .081	.370	H04K81L
			.081 - .106	.395	H04K106L
			.106 - .131	.420	H04K131L
			.131 - .156	.450	H04K156L
			.156 - .181	.475	H04K181L
.138-32UNC-3B	.323	.189	.065 - .106	.500	H06K106L
			.106 - .161	.500	H06K161L
			.161 - .201	.562	H06K201L
			.201 - .241	.625	H06K241L
			.241 - .281	.625	H06K281L
.164-32UNC-3B	.355	.221	.065 - .106	.500	H08K106L
			.106 - .161	.500	H08K161L
			.161 - .201	.562	H08K201L
			.201 - .241	.625	H08K241L
			.241 - .281	.687	H08K281L
.190-32UNF-3B	.391	.250	.065 - .116	.578	H3K116L
			.116 - .166	.625	H3K166L
			.161 - .216	.687	H3K216L
			.216 - .266	.734	H3K266L
			.266 - .316	.781	H3K316L
.250-28UNF-3B	.529	.332	.089 - .151	.687	H4K151L
			.151 - .211	.750	H4K211L
			.211 - .271	.812	H4K271L
			.271 - .331	.875	H4K331L
			.331 - .391	.937	H4K391L
.3125-24UNF-3B	.656	.413	.106 - .181	.844	H5K181L
			.181 - .256	.937	H5K256L
			.256 - .331	1.000	H5K331L
			.331 - .406	1.093	H5K406L
.375-24UNF-3B	.770	.490	.125 - .211	.938	H6K211L
			.211 - .296	1.031	H6K296L
			.296 - .381	1.125	H6K381L
			.381 - .466	1.219	H6K466L
.500-20UNF-3B	.990	.640	.156 - .276	1.188	H8K276L
			.276 - .396	1.312	H8K396L
			.396 - .516	1.438	H8K516L
			.516 - .636	1.578	H8K636L

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## SECTION 1704

## NUT, SELF-LOCKING, BLIND RIVET, OPEN END, FLAT HEAD

APPLICABLE DOCUMENTS: NAS1329

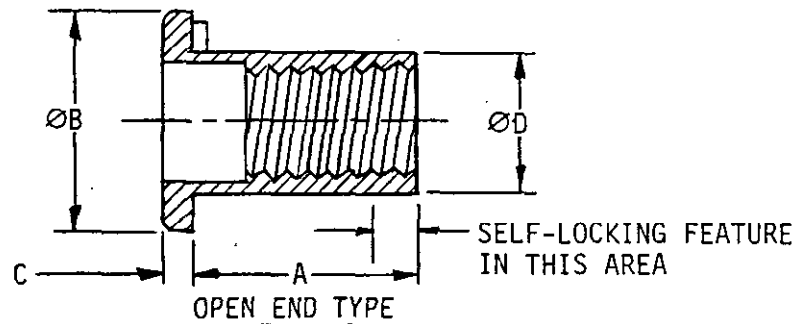


TABLE I

Material ----- Alloy steel						
Protective finish ----- Cadmium plate						
Thread	ØB Nom	C Nom	ØD Nom	Grip range	A Open end Keyed	NAS 1329 + Dash no.
.112-40UNC-3B	.270	.025	.155	.010 - .060	.345	H04K60L
				.060 - .085	.370	H04K85L
				.085 - .110	.400	H04K110L
				.110 - .135	.425	H04K135L
				.135 - .160	.450	H04K160L
.138-32UNC-3B	.325	.032	.189	.010 - .075	.438	H06K75L
				.075 - .120	.500	H06K120L
				.120 - .160	.500	H06K160L
				.160 - .200	.562	H06K200L
				.200 - .240	.625	H06K240L
.164-32UNC-3B	.357	.032	.221	.010 - .075	.438	H08K75L
				.075 - .120	.500	H08K120L
				.120 - .160	.500	H08K160L
				.160 - .200	.625	H08K200L
				.200 - .240	.625	H08K240L
.190-32UNC-3B	.406	.038	.250	.010 - .080	.531	H3K80L
				.080 - .130	.594	H3K130L
				.130 - .180	.641	H3K180L
				.180 - .230	.703	H3K230L
				.230 - .280	.750	H3K280L
.250-28UNF-3B	.475	.058	.332	.020 - .080	.625	H4K80L
				.080 - .140	.687	H4K140L
				.140 - .200	.750	H4K200L
				.200 - .260	.812	H4K260L
				.260 - .320	.875	H4K320L
.3125-24UNF-3B	.665	.062	.413	.050 - .125	.750	H5K125L
				.125 - .200	.875	H5K200L
				.200 - .275	.937	H5K275L
				.275 - .350	1.032	H5K350L
.375-24UNF-3B	.781	.088	.490	.030 - .115	.844	H6K115L
				.115 - .200	.938	H6K200L
				.200 - .285	1.031	H6K285L
				.285 - .370	1.125	H6K370L
.500-20UNF-3B	1.000	.125	.640	.025 - .145	1.062	H8K145L
				.145 - .265	1.188	H8K265L
				.265 - .385	1.312	H8K385L
				.385 - .505	1.453	H8K505L

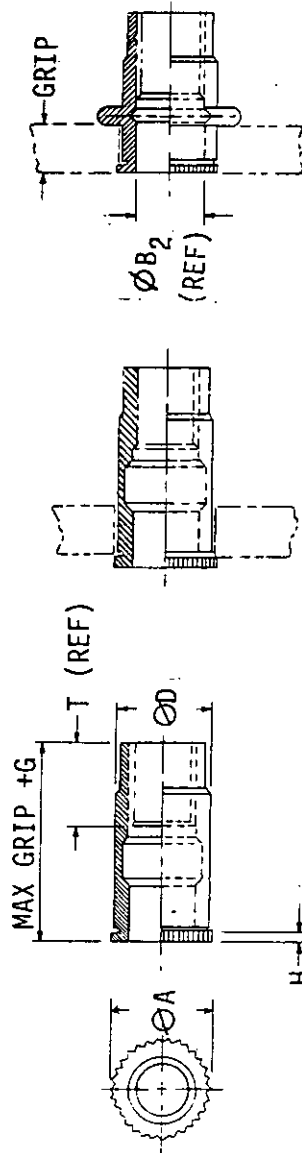
1704.1

## MIL-STD-1903

# SECTION 1705

## NUT, SELF-LOCKING, BLIND RIVET, SERRATED HEAD

APPLICABLE DOCUMENT: NAS1731



BEFORE PULL-UP

AFTER PULL-UP

TABLE I

Material		Protective finish		CRES	
Thread		Passivate 2/		MAS 1731	
ØA	ØB2	ØD	G	H	T
Max	Max (ref)	Max	Max	Max	min (ref)
.112	.176	.155	.234	.021	.181
.138	.208	.188	.300	.021	.235
.164	.241	.220	.300	.021	.235
.190	.267	.241	.335	.025	.260
.250	.353	.327	.387	.030	.278
.3125	.425	.386	.468	.035	.340
.375	.510	.471	.577	.035	.416
.4375	.575	.519	.618	.035	.508
.500	.654	.614	.769	.035	.619
.625	.808	.769	1.041	.035	.862
.750	.966	.918	1.234	.035	.966

1/ "( ) " indicates second dash number, Grip range.

2/ Add "p" after second dash number for Cadmium plating.

NOTES:

Add "L" between dash numbers for Cadmium plating.

Example part number: MAS-1731-416P

TABLE II

2nd Dash number	Thread size		
	-04	-06	-08
-1	.030 - .050	.030 - .060	.030 - .060
-2	.050 - .070	.060 - .090	.060 - .090
-3	.070 - .090	.090 - .120	.090 - .120
-4	.090 - .110	.120 - .150	.120 - .150
-5	.110 - .130	.150 - .180	.150 - .180
-6	.130 - .150	.180 - .210	.180 - .210
-7	.150 - .170	.210 - .240	.210 - .240
-8	.170 - .190	.240 - .270	.240 - .270
-9	---	---	.270 - .300
-10	---	---	.300 - .330
-11	---	---	.330 - .360
-12	---	---	.360 - .400
-13	---	---	.400 - .440
-14	---	---	.440 - .480
-15	---	---	.480 - .520
-16	---	---	.520 - .560
-17	---	---	.560 - .600
-18	---	---	.600 - .640
-19	---	---	.640 - .680
-20	---	---	.680 - .720
-21	---	---	.720 - .760
-22	---	---	.760 - .800
-23	---	---	.800 - .840
-24	---	---	.840 - .880
-25	---	---	.880 - .920
	---	---	.920 - .960
	---	---	.960 - 1.000
	---	---	1.000 - 1.040

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## SECTION 1801

## NUT, SELF-LOCKING, CAP

APPLICABLE DOCUMENT: MS51865

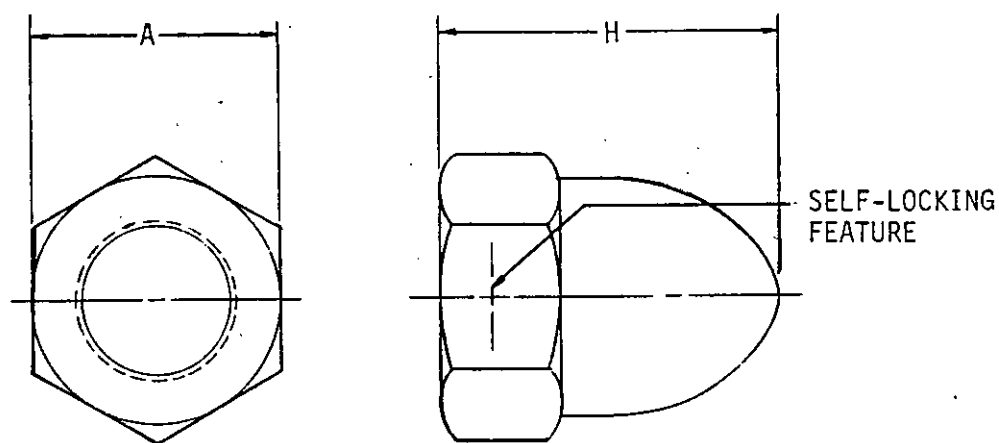


TABLE I

Material -----				Carbon steel	CRES	Aluminum alloy	Brass
Protective finish -----				Cadmium plate	Passivate	Anodize	Uncoated
Thread (-2B)		A Nom	H Nom	MS51865 + Dash no.			
.138	32UNC	.312	.34	-1	-1C	-1A	-1B
	40UNF			-2	-2C	-2A	-2B
.164	32UNC	.312	.34	-3	-3C	-3A	-3B
	36UNF			-4	-4C	-4A	-4B
.190	24UNC	.375	.41	-5	-5C	-5A	-5B
	32UNF			-6	-6C	-6A	-6B
.250	20UNC	.438	.47	-7	-7C	-7A	-7B
	28UNF			-8	-8C	-8A	-8B
.312	18UNC	.500	.53	-9	-9C	-9A	-9B
	24UNF			-10	-10C	-10A	-10B
.375	16UNC	.562	.62	-11	-11C	-11A	-11B
	24UNF			-12	-12C	-12A	-12B
.500	13UNC	.750	.81	-15	-15C	-15A	-15B
	20UNF			-16	-16C	-16A	-16B
.625	11UNC	.938	1.00	-19	-19C	-19A	-19B
	18UNF			-20	-20C	-20A	-20B
.750	10UNC	1.062	1.16	-21	-21C	-21A	-21B
	16UNF			-22	-22C	-21A	-21B

NOTE: Locking feature:

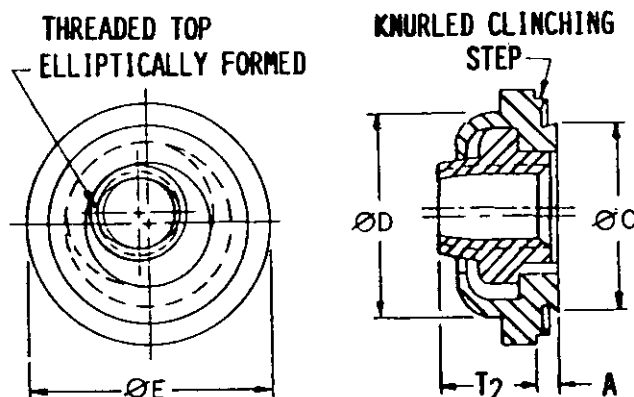
All metal or non-metal insert (optional)  
 Non-metal to be nylon or equivalent.

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# SECTION 1901

## NUT, SELF-LOCKING, CLINCH (FLOATING, 4000F)

APPLICABLE DOCUMENT: MIL-M-45938/11



### SELF-LOCKING

TABLE 1

Material -----							Carbon Steel	CRES
Protective Finish -----							Cadmium Plate	Passivate
Thread (-3B)	Panel Thickness Min	A Max	ØC Max	ØD Max	ØE Max	T <sub>2</sub> Max	M45938/11 + Dash No.	
.112-40UNC	.040 .056	.038 .054	.289	.290	.36	.17	-1L	-1CL
							-2L	-2CL
.138-32UNC	.040 .056	.038 .054	.327	.330	.39	.18	-3L	-3CL
							-4L	-4CL
.164-32UNC	.040 .056	.038 .054	.367	.365	.44	.20	-5L	-5CL
							-6L	-6CL
.190-24UNC	.040 .056	.038 .054	.405	.405	.47	.25	-7L	-7CL
							-8L	-8CL
.190-32UNF	.040 .056	.038 .054	.405	.405	.47	.25	-9L	-9CL
							-10L	-10CL
.250-20UNC .250-28UNF	.056	.054	.514	.510	.60	.31	-11L	-11CL
							-12L	-12CL



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## SECTION 1902

## NUT, SELF-LOCKING, CLINCH (FLOATING 450°F, 125 KSI FTU)

APPLICABLE DOCUMENTS: MS14200, MS14210

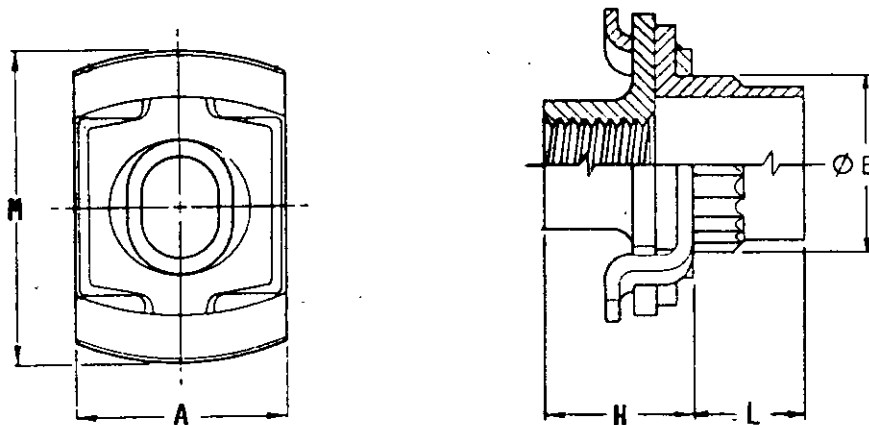


TABLE I

Material -----					Steel	Alloy Steel	Cres
Protective Finish -----					Cadmium Plate & Dry Film		Passivate
Thread (-3B)	A Max	Ø E Max	H Max	M Max	MS14200 + Dash No.	MS14210 + Dash No.	
.112-40UNJC	.310	.234	.214	.435	-04	-AL04	-CL04
.138-32UNJC	.310	.234	.214	.435	-06	-AL06	-CL06
.164-32UNJC	.405	.304	.270	.587	-08	-AL08	-CL08
.190-32UNJF	.405	.304	.270	.587	-3	-AL3	-CL3
.250-28UNJF	.465	.369	.325	.665	-4	-AL4	-CL4

NOTE: For repair 1/64 oversize, use: MS14201 or MS14211

## MIL-STD-1903

TABLE II

L (Nom)	Grip Suffix No.
.073	-2
.099	-4
.130	-6
.161	-8
.192	-10
.223	-12
.254	-14
.285	-16
.316	-18
.347	-20
.378	-22
.409	-24
.440	-26
.471	-28
.502	-30

## MIL-STD-1903

## SECTION 1903

NUT, SELF-LOCKING, CLINCH, FLOATING,  
KNURLED COLLAR, 450°F AND 600°F

APPLICABLE DOCUMENT: MIL-N-45938/14

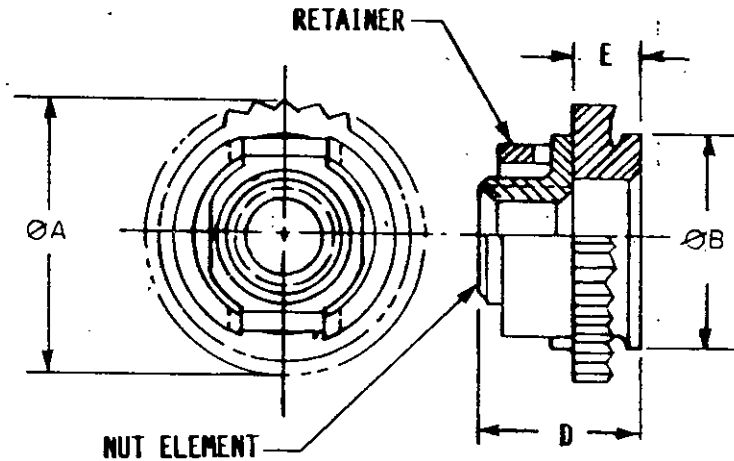


TABLE I

Material -----						ALLOY STEEL	CRES
Protective Finish-----						CADMIUM PLATE + DRY FILM	Silver Plate + Dry Film
Performance Temperature -----						450°F	600° F
Thread (-3B)	Panel Thickness Min	ØA Nom	ØB Max	D Max	E Nom	M45938/14 + Dash No.	
.1120-40UNJC .1380-32UNJC	.045	.350	.280	.225	.088	-2L	-2CL
						-3L	-3CL
.1640-32UNJC .1900-32UNJF	.060	.450	.374	.275 .295	.115	-4L	-4CL
						-5L	-5CL
.2500-20UNJC .2500-28UNJF	.090	.560	.499	.365	.141	-6L	-6CL
						-7L	-7CL

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## SECTION 1904

NUT, SELF-LOCKING, CLINCH, FLOATING,  
KNURLED COLLAR, MINIATURE, 450°F AND 600°F

APPLICABLE DOCUMENT: MIL-N-45938/13

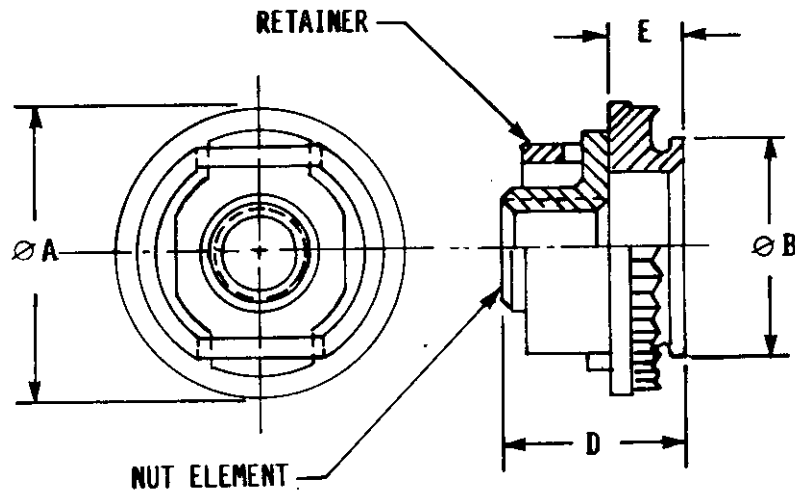


TABLE I

Material - - - - -						Alloy Steel	CRES
Protective Finish - - - - -						Cadmium Plate + Dry Film	Silver Plate + Dry Film
Performance Temperature - - - - -						450°F	600°F
Thread (-3B)	Panel Thickness Min	Ø A Nom	Ø B Max	D Max	E Nom	M45938/13 + Dash No.	
.1120-40UNJC	.040	.320	.249	.224	.077	-2L	-2CL
.1380-32UNJC						-3L	-3CL
.1640-32UNJC	.040	.410	.311	.265	.097	-4L	-4CL
.1900-32UNJF				.285		-5L	-5CL
.2500-20UNJC	.074	.500	.374	.360	.145	-6L	-6CL
.2500-28UNJF						-7L	-7CL

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## SECTION 1905

## NUT, SELF - LOCKING, CLINCH (HEXAGON SHANK)

APPLICABLE DOCUMENT: MIL-N-45938/2

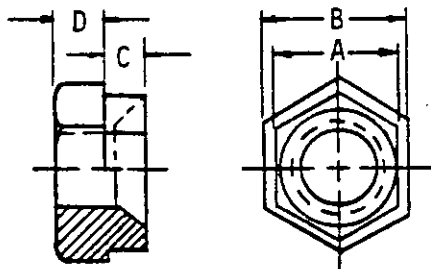


TABLE I

Material -----						Carbon steel
Protective finish -----						Cadmium plate
Thread	Sheet thk max	A Nom	B Nom	C Nom	D Nom	M45938/2 + Dash no.
.138-32UNC-2B	.036	.244	.297	.078	.109	-1L
.164-32UNC-2B	.047	.305	.368	.094	.125	-2L
.190-32UNF-2B	.047	.305	.368	.094	.125	-3L
.250-28UNF-2B	.062	.429	.521	.125	.172	-4L
.3125-24UNF-2B	.078	.491	.584	.156	.203	-5L
.375-24UNF-2B	.094	.551	.670	.188	.234	-6L
.500-20UNF-2B	.125	.742	.860	.250	.297	-7L

## MIL-STD-1903

## SECTION 1906

## NUT, SELF-LOCKING, CLINCH (KNURLED COLLAR, 450°F AND 600°F)

APPLICABLE DOCUMENT: MIL-N-45938/3

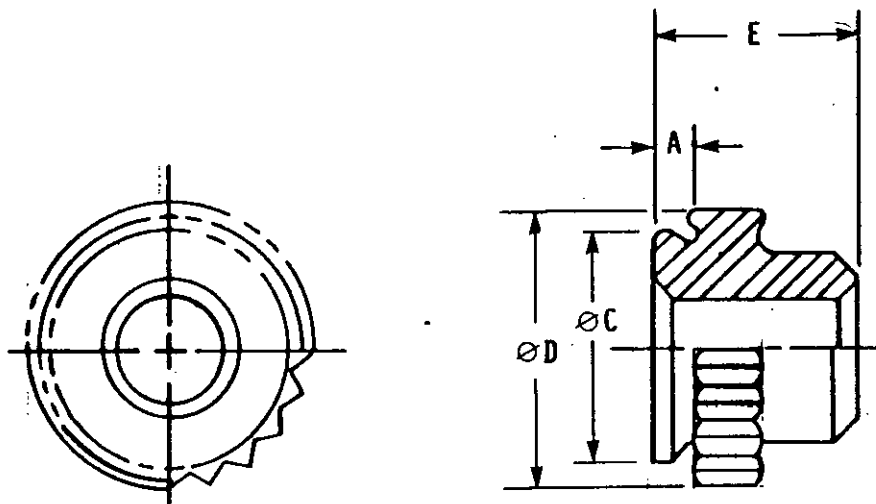


TABLE I

Material -----						Steel Alloy	CRES 303	CRES A-286
Performance Temperature -----						450°F	450°F	600°F
Protective Finish -----						Cadmium Plated	Passivate	Silver Plate
Thread (-3B)	Sheet thk min	A Nom	øC Nom	øD Nom	E Nom	M45938/3 + Dash No.		
.086-56UNJC	.040	.030	.199	.260	.178	-1L	-1CL	--
			.123	.190	.140	-2L	--	-2CL
.112-40UNJC	.040	.030	.199	.260	.178	-3L	-3CL	--
			.154	.220	.160	-4L	--	-4CL
.138-32UNJC	.040	.030	.226	.290	.178	-5L	-5CL	--
			.186	.250	.178	-6L	--	-6CL
.164-32UNJC	.050	.040	.279	.350	.188	-7L	-7CL	--
			.217	.280	.188	-8L	--	-8CL
.190-24UNJC -32UNJF	.050	.040	.279	.350	.188	-13L	-13CL	--
						-9L	-9CL	--
.250-20UNJC -28UNJF	.060	.050	.373	.450	.250	-14L	-14CL	--
						-10L	-10CL	--
.3125-18UNJC -24UNJF	.080	.063	.404	.490	.312	-15L	-15CL	--
						-11L	-11CL	--
.375-16UNJC -24UNJF	.125	.094	.498	.560	.375	-16L	-16CL	--
						-12L	-12CL	--

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## SECTION 1907

## NUT, SELF-LOCKING, CLINCH (KNURLED COLLAR, MINIATURE 4500F)

APPLICABLE DOCUMENT: MIL-N-45938/7

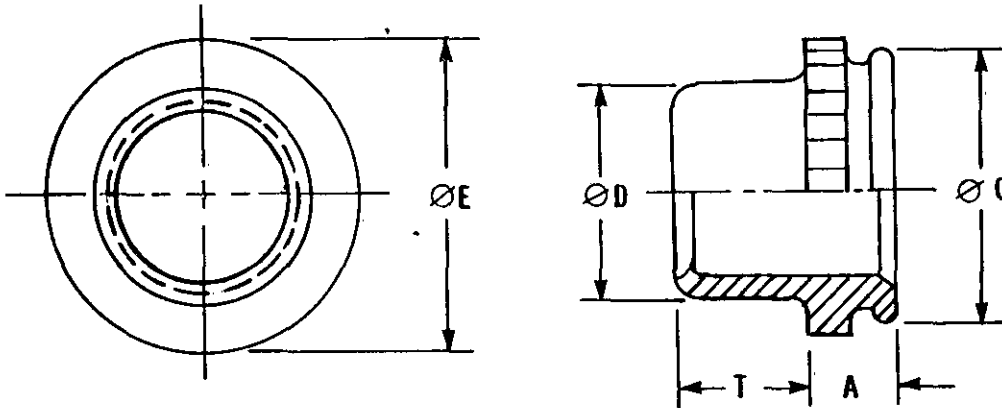


TABLE I.

Material -----							CRES
Protective Finish -----							Passivate
Thread (-3B)	Sheet Thickness	A Max	ØC Max	ØD Max	ØE Nom	T Min	M45938/7 + Dash No.
.086-56UNJC	.019-.022 .030-.036	.020 .031	.143	.104	.160	.065	-01 -02
.112-40UNJC	.040 Min .060 Min	.040 .060	.171	.145	.192	.065	-1 -2
.138-32UNJC	.040 Min .060 Min	.040 .060	.212	.175	.244	.075	-3 -4
.164-32UNJC	.040 Min .060 Min	.040 .060	.289	.215	.322	.090	-5 -6
.190-32UNJF	.040 Min .060 Min	.040 .060	.289	.245	.322	.110	-7 -8
.250-28UNJF .250-20UNJC	.060 Min	.060	.343	.318	.384	.120	-9 -10

## MIL-STD-1903

## SECTION 1908

## NUT, SELF-LOCKING, CLINCH (KNURLED SHANK, 250°F)

APPLICABLE DOCUMENT: MIL-N-45938/8

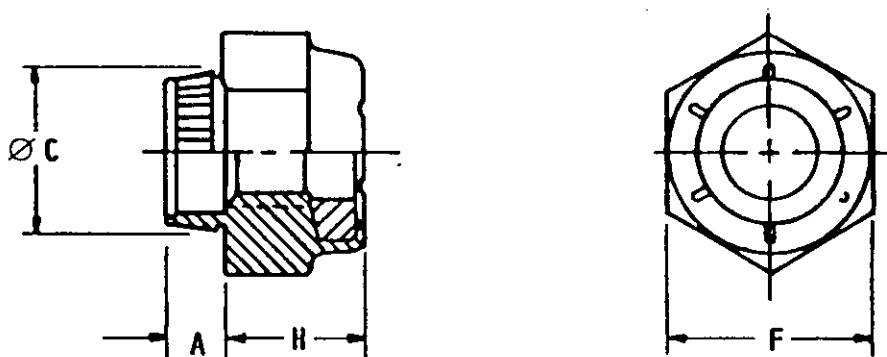


TABLE I

Material -----						Carbon Steel	Aluminum Alloy	CRES
Protective Finish -----						Cadmium Plate	Anodize	Passivate
Thread (-3B)	Sheet Thickness	A Nom	Ø C Nom	F Nom	H Nom	M45938/8 + Dash No.		
.112-40 UNJC	.020-.031	.063	.189	.250	.141	-10	-10A	-10C
	.032-.053	.085				-1	-1A	-1C
	.054-.073	.105				-11	-11A	-11C
.138-32 UNJC	.020-.031	.063	.222	.312	.188	-20	-20A	-20C
	.032-.053	.085				-21	-21A	-21C
	.054-.073	.105				-2	-2A	-2C
	.074-.103	.135				-3	-3A	-3C
	.104-.133	.165				-30	-30A	-30C
.164-32 UNJC	.134-.163	.195	.275	.375	.250	-31	-31A	-31C
	.032-.053	.085				-32	-32A	-32C
	.054-.073	.105				-33	-33A	-33C
	.074-.103	.135				-34	-34A	-34C
	.104-.133	.165				-35	-35A	-35C
.190-24 UNJC	.134-.163	.195	.275	.375	.250	-36	-36A	-36C
	.074-.103	.135				-4	-4A	-4C
	.104-.133	.165				-5	-5A	-5C
.250-20 UNJC	.134-.163	.195	.359	.438	.313	-50	-50A	-50C
	.104-.133	.165				-6	-6A	-6C
	.134-.163	.195				-7	-7A	-7C



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SECTION 1909

# NUT, SELF-LOCKING, CLINCH (KNURLED SHANK, MINIATURE, 2500F)

APPLICABLE DOCUMENT: MIL-N-45938/5

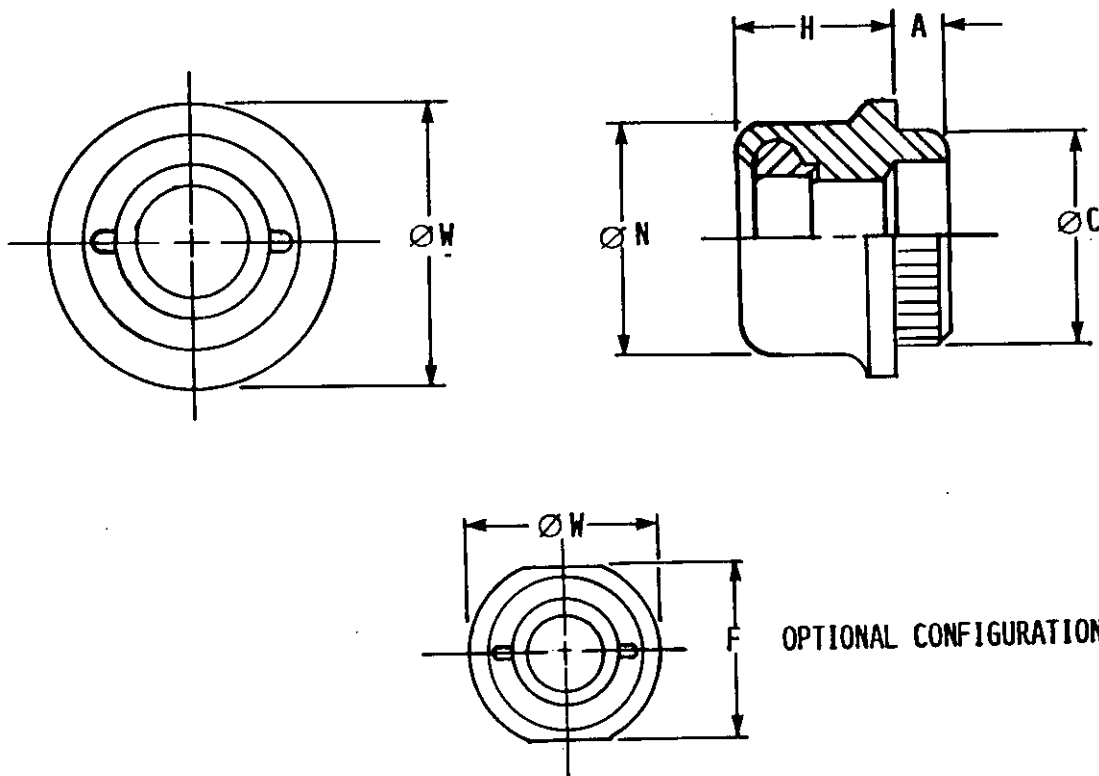


TABLE 1

Material -----								Carbon Steel	CRES
Protective Finish -----								Cadmium Plate	Passivate
Thread (-3B)	Sheet Thickness	A Nom	$\varnothing C$ Nom	F Nom	H Nom	$\varnothing H$ Max	$\varnothing W$ Nom	M45938/5 + Dash no.	
.086-56UNC	$\frac{.030}{.046} - \frac{.045}{UP}$	$\frac{.040}{.060}$	.129	.156	.075	.150	.172	$\frac{-1}{-2}$	$\frac{-1C}{-2C}$
.112-40UNC	$\frac{.030}{.046} - \frac{.045}{UP}$	$\frac{.040}{.060}$	.160	.187	.090	.182	.203	$\frac{-3}{-4}$	$\frac{-3C}{-4C}$
.138-32UNC	$\frac{.030}{.046} - \frac{.045}{UP}$	$\frac{.040}{.060}$	.192	.238	.130	.242	.281	$\frac{-5}{-6}$	$\frac{-5C}{-6C}$
.164-32UNC	.046 - UP	.060	.223	.281	.160	.268	.312	-7	-7C
.190-32UNF	.046 - UP	.060	.254	.328	.179	.287	.344	-8	-8C

1909.1

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## SECTION 1910

NUT, SELF-LOCKING, CLINCH (KNURLED SHANK,  
MINIATURE, 450°F)

APPLICABLE DOCUMENT: MIL-N-45938/6

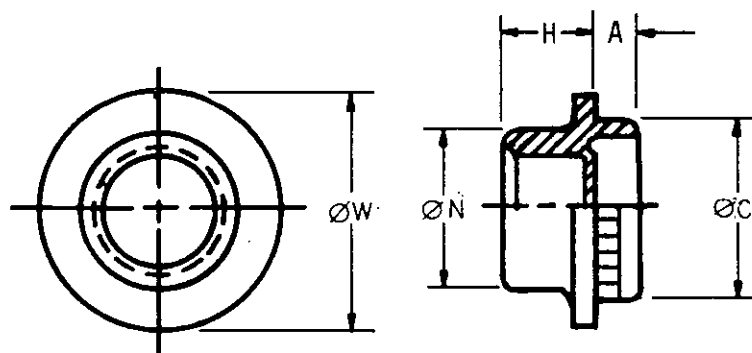


TABLE I

Material -----							Carbon steel	CRES
Protective finish -----							Cadmium plate	Passivate
Thread (-3B)	Sheet thickness	A Nom	Ø C Nom	H Nom	Ø N Nom	Ø W Nom	M45938/6 + Dash no.	
.086-56UNC	.030-.049	.040	.129	.085	.099	.156	-1	-1C
	.050-UP	.060					-2	-2C
.112-40UNC	.030-.049	.040	.160	.112	.133	.203	-3	-3C
	.050-UP	.060					-4	-4C
.138-32UNC	.030-.049	.040	.192	.120	.163	.234	-5	-5C
	.050-UP	.060					-6	-6C
.164-32UNC	.030-.049	.040	.223	.120	.188	.281	-7	-7C
	.050-UP	.060					-8	-8C
.190-32UNF	.030-.049	.040	.254	.120	.212	.328	-9	-9C
	.050-UP	.060					-10	-10C
.250-28UNF	.030-.049	.040	.316	.214	.287	.391	-11	-11C
	.050-UP	.060					-12	-12C

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SECTION 1911  
 NUT, SELF-LOCKING, CLINCH (KNURLED SHANK,  
 SWAGE-CLINCHING 250 OF UNJF-3B)

APPLICABLE DOCUMENT: MIL-N-45938/9

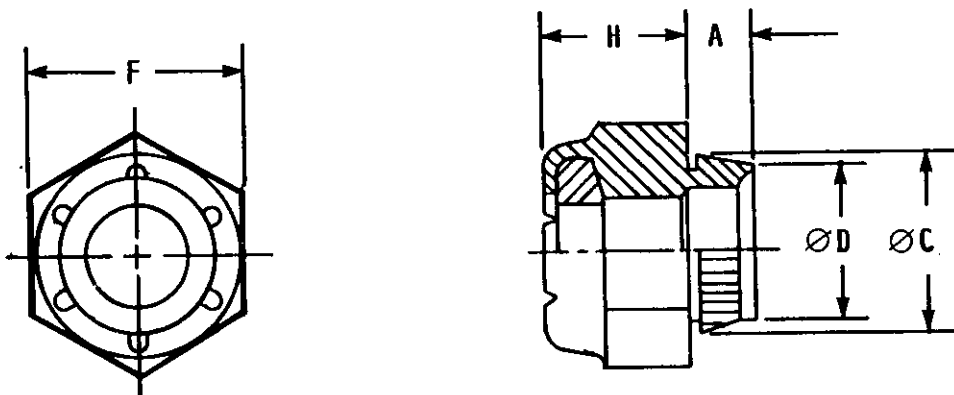


TABLE 1

Material - - - - -							CRES	Al Alloy	Steel
Protective Finish - - - - -							Passivate	Anodize	Cadmium Plate
Thread (-3B)	Sheet Thickness	A Nom	ØC Nom	ØD Max	F Nom	H Nom	M45938/9 + Dash no.		
.164-36UNJF	.032-.053	.085	.275	.267	.375	.250	-1	-1A	1G
.190-32UNJF	.032-.053	.085					-20	-20A	-20G
	.054-.073	.105					-2	-2A	-2G
	.074-.103	.135	.275	.267	.375	.250	-21	-21A	-21G
	.104-.133	.165					-22	-22A	-22G
	.134-.163	.195					-23	-23A	-23G
.250-28UNJF	.074-.103	.135					-3	-3A	-3G
	.104-.133	.165	.359	.351	.438	.313	-4	-4A	-4G
	.134-.163	.195					-5	-5A	-5G
.3125-24UNJF	.074-.103	.135					-6	-6A	-6G
	.104-.133	.165	.416	.407	.500	.344	-7	-7A	-7G
	.134-.163	.195					-8	-8A	-8G

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# SECTION 1912

## NUT, SELF-LOCKING, CLINCH, ROUND

APPLICABLE DOCUMENT: MIL-N-45938/10

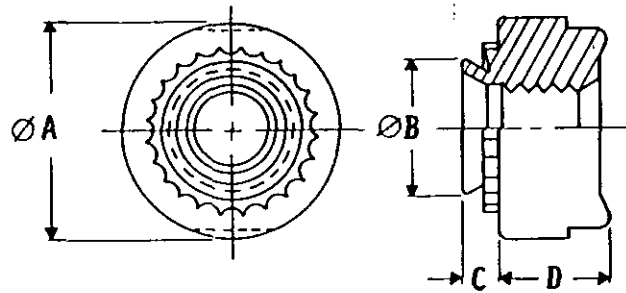


TABLE I

Material -----					Carbon Steel
Protective Finish -----					Cadmium Plate
Thread (-2B)	ØA Nom	ØB Max	C Max	D Nom	M45938/10 + Dash No.
.250-20UNC	.500	.343	.058	.189	-1L
.3125-18UNC	.575	.412	.058	.240	-2L
.375-16UNC	.650	.449	.058	.300	-3L

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## SECTION 2001

## NUT, SELF—LOCKING, DOUBLE HEXAGON

APPLICABLE DOCUMENT: MS9767

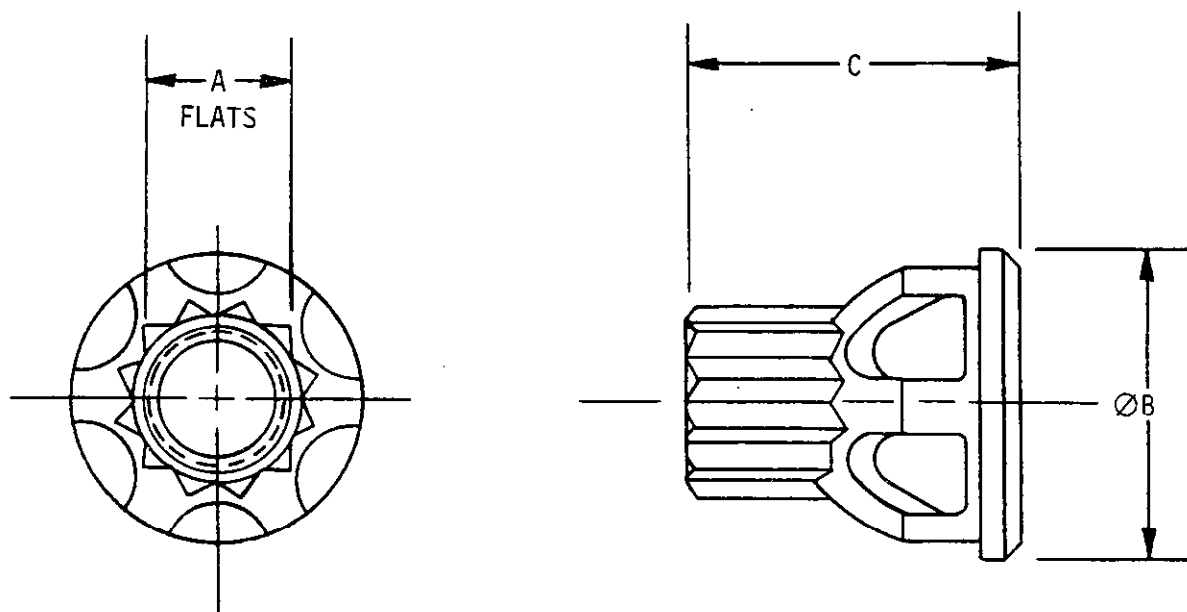


TABLE I

Material -----				Steel
Protective finish -----				Cadmium plate
Rockwell hardness -----				C26-32
Thread	A Nom	ØB Max	C Nom	MS9767 + Dash no.
.190-32UNJF-3B	.2500	.375	.277	-09
.250-28UNJF-3B	.3125	.438	.329	-10
.3125-24UNJF-3B	.3750	.500	.352	-11
.3750-24UNJF-3B	.4375	.562	.384	-12

NOTE: To be used with MS9880 Cupwashers

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## SECTION 2101

NUT, SELF-LOCKING, EXTENDED WASHER, HEXAGON  
450°F AND 800°F

APPLICABLE DOCUMENTS: MS21042, MS21043, MS51988, NAS1291

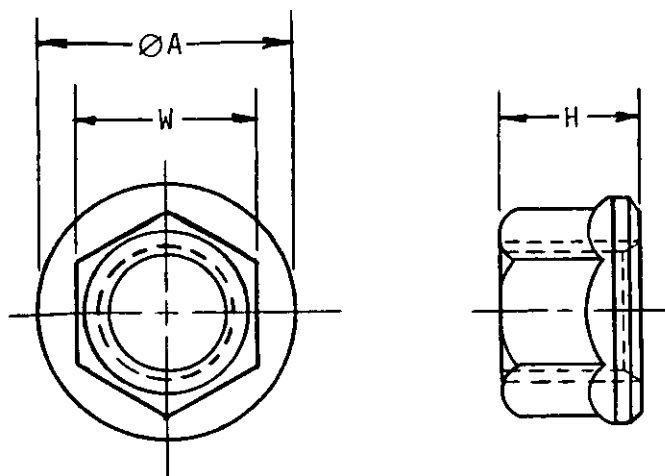


TABLE I

Material -----				Steel 1/		CRES
Protective finish -----				Cadmium plate		Silver plate
Lubricant -----				Non-dry	Dry	Non-dry
Performance: Temperature -----				450°F		800°F
Thread (-3B)	ØA Max	H Max	W Nom	MS21042 + Dash no.		MS21043 + Dash no.
.086-56UNJC	.167	.100	.125	-02	L02	--
.112-40UNJC	.206	.125	.156	-04	L04	-04
.138-32UNJC	.244	.141	.188	-06	L06	-06
.164-32UNJC	.290	.188	.219	-08	L08	-08
.190-32UNJF	.330	.219	.250	-3	L3	-3
.250-28UNJF	.420	.219	.312	-4	L4	-4
.3125-24UNJF	.520	.266	.375	-5	L5	-5
.375-24UNJF	.620	.282	.438	-6	L6	-6

1/ Hardness: Rockwell C49 Maximum

## MIL-STD-1903

TABLE II

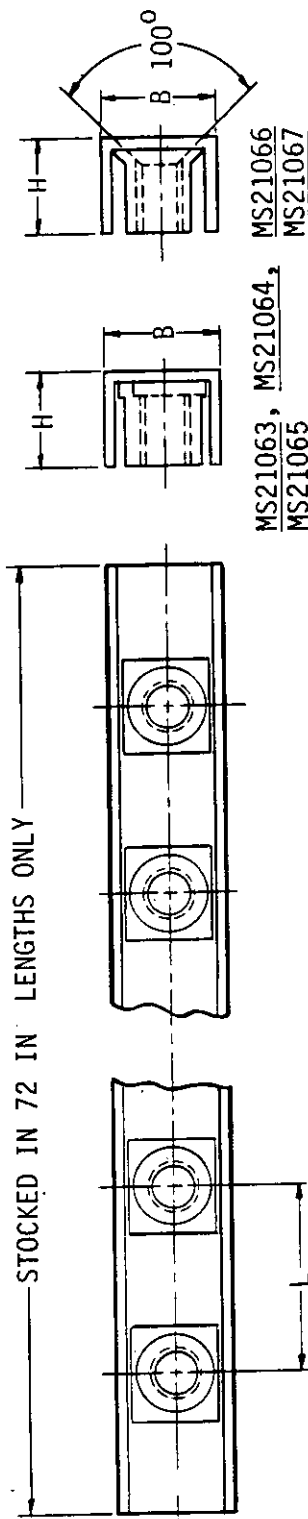
Material -----		Steel			
Protective finish ---		Cadmium plate			
Thread (-2B)		Ø A Max	H Max	W Nom	MS51988 + Dash no.
.190	24UNC 32UNF	.500	.244	.375	-1 -2
.250	20UNF 28UNF	.560	.300	.438	-3 -4
.3125	18UNC 24UNF	.680	.365	.500	-5 -6
.375	16UNC 24UNF	.810	.425	.562	-7 -8
.4375	14UNC 20UNF	.930	.495	.688	-9 -10
.500	13UNC 20UNF	1.070	.555	.750	-11 -12

TABLE III

Material -----				Steel		CRES	
Protective finish -----				Cadmium Plate Dry Film		Dry Film	Silver Plate
Performance: Temperature				450°F		450°F	800°F
Thread:	Ø A Max	H Max	W Nom	NAS 1291 + Dash no.			
.0860-56 UNJC-3B	.167	.100	.125	-	-	C02M	C02
.1120-40 UNJC-3B	.206	.125	.156	-	-	C04M	-
.1380-32 UNJC-3B	.244	.141	.188	-	-	C06M	-
.1640-32 UNJC-3B	.290	.188	.219	-	-	C08M	-
.1900-32 UNJF-3B	.330	.188	.250	-	-	C3M	-
.2500-28 UNJF-3B	.420	.219	.312	-	-	C4M	-
.3125-24 UNJF-3B	.520	.266	.375	-	-	C5M	-
.3750-24 UNJF-3B	.620	.282	.438	-	-	C6M	-
.4375-20 UNJF-3B	.708	.328	.500	-7	X7	C7M	-
.5000-20 UNJF-3B	.814	.410	.562	-8	X8	C8M	-
.5625-18 UNJF-3B	.912	.480	.688	-9	X9	C9M	-
.6250-18 UNJF-3B	1.014	.550	.750	-10	X10	C10M	C10

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**SECTION 2201**  
**NUT, SELF-LOCKING, GANG CHANNEL, FLOATING,**  
**250°F, 450°F, 800°F**  
 APPLICABLE DOCUMENTS: MS21063, MS21064, MS21065, MS21066,  
 MS21067, MS21068, MS21079



MS21063, MS21064,  
 MS21065  
 MS21066  
 MS21067  
 MS21068  
 MS21079

TABLE I

Material: Nuts	Steel		CRS		Steel		Al alloy	
	Aluminum alloy		Cadmium plate		Passivate		Silverplate	
Material: Channel	None specified		None specified		None specified		None specified	
Protective finish: Nut element	Dry		Dry		Dry		Dry	
Protective finish: Channel	None		None		None		None	
Lubricant: Film	None		None		None		None	
Performance: Temperature	250°F		450°F		800°F		450°F	
Rockwell hardness (max): Nut element	C49		C49		C49		C49	
Thread Class (-3B)	B	H	L	Min	MS21063 + Dash no.	MS21066 + Dash no.	MS21067 + Dash no.	MS21068 + Dash no.
.164-32UNJC	.416	.250	.625	.750	L08 -08	L08 -08	L08 -08	L08 -08
.190-32UNJF	.416	.250	.625	.750	L3 -3	L3 -3	L3 -3	L3 -3
.250-28UNJF	.416	.250	.625	.750	L4 -4	L4 -4	L4 -4	L4 -4
.3125-24UNJF	.416	.250	.625	.750	L5 -5	L5 -5	L5 -5	L5 -5
.375-24UNJF	.416	.250	.625	.750	L6 -6	L6 -6	L6 -6	L6 -6

NOTE: Nut element; steel with non-metallic insert (nylon or equivalent)

TABLE II

"L", Nut element spacing	Nut element spacing Dash no.	Max No. of nut elements
.625	-5 1/	115
.750	-6	96
.875	-7	82
1.000	-8	72
1.125	-9	64
1.250	-10	57
1.375	-11	52
1.500	-12	48
1.625	-13	44
1.750	-14	41
1.875	-15	38
2.000	-16	36
2.250	-18	32
2.500	-20	28
3.000	-24	24

1/ Not available for MS21066, MS21067, and MS21068.



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## SECTION 2301

## NUT, SELF-LOCKING, HEXAGON

APPLICABLE DOCUMENTS: MS16228, MS17828, MS17829, MS17830, MS20500,

MS21044, MS21045, MS21046, MS21083, MS21245, MS51922, MS51943

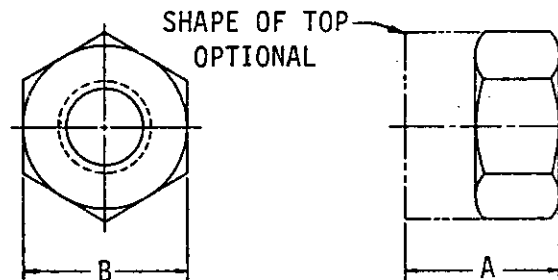


TABLE I

Material -----			Aluminum alloy 1/	Steel 1/	Copper 1/ base alloy	CRES 1/	Steel			CRES	
Protective -----			Anodize	Cadmium plate		Passivate	Cadmium plate		Passivate	Silver plate	
Lubricant -----			--	--	--	--	Soluble	Dry	--	--	
Thread (-38)	A Max	B Nom	MS21044 + Dash no.				MS21045 + Dash no.			MS20500 + Dash no.	
.112-40UNJC	.157	.250	D04	N04	B04	C04	-04	L04	C04	--	--
.138-32UNJC	.188	.312	D06	N06	B06	C06	-06	L06	C06	--	--
.164-32UNJC	.250	.344	--	--	--	--	-08	L08	C08	--	--
.190-32UNJF	.281	.375	D08	N08	B08	C08	--	--	--	--	--
.250-28UNJF	.250	.328	D3	N3	B3	C3	-3	L3	C3	-1032	--
.250-28UNJF	.281	.375	--	--	--	--	-4	L4	C4	--	-428
.3125-24UNJF	.360	.500	D4	N4	B4	C4	--	--	--	--	--
.375-24UNJF	.469	.562	D5	N5	B5	C5	-5	L5	C5	-524	--
.4375-20UNJF	.469	.688	D6	N6	B6	C6	-6	L6	C6	-624	--
.500-20UNJF	.610	.750	D7	N7	B7	C7	-7	L7	C7	--	-720
.625-18UNJF	.766	.938	--	--	--	--	--	--	--	--	--
.750-16UNJF	.891	1.062	D8	N8	B8	C8	-8	L8	C8	-820	--
.875-14UNJF	1.016	1.250	D10	N10	B10	C10	-10	L10	C10	--	--
1.00-12UNJF	1.141	1.438	--	--	--	--	--	--	--	--	--
1.125-12UNJF	1.266	1.625	D12	N12	B12	C12	-12	L12	C12	-1216	--
1.25-12UNJF	1.454	1.812	D14	N14	B14	C14	-14	L14	C14	-1414	--
			D16	N16	B16	C16	-16	L16	C16	-1612	--
			D18	N18	B18	C18	-18	L18	C18	--	--
			--	--	--	--	-20	L20	C20	--	--
			D20	N20	B20	C20	--	--	--	--	--

1/ Non-metallic insert

TABLE II. Shear applications.

Material -----			Aluminum alloy 1/	Copper base alloy 1/	CRES 1/	Steel 1/		
Protective finish -----			Anodize	Cadmium plate	None specified	Cadmium plate		
Rockwell hardness -----			None specified			C35 Max	C46 Max	
Lubricant -----			--	--	--	--	Non-dry	Dry
Thread size (-38)	A Max	B Nom	MS21083 + Dash no.				MS21245 + Dash no.	
.112-40UNJC	.125	.250	D04	B04	C04	N04	--	--
.138-32UNJC	.141	.312	D06	B06	C06	N06	--	--
.164-32UNJC	.188	.344	D08	B08	C08	N08	--	--
.190-32UNJF	.219	.375	D3	B3	C3	N3	--	--
.250-28UNJF	.250	.438	D4	B4	C4	N4	--	--
.3125-24UNJF	.266	.500	D5	B5	C5	N5	--	--
.375-24UNJF	.282	.562	D6	B6	C6	N6	--	--
.4375-20UNJF	.328	.688	D7	B7	C7	N7	-7	-L7
.500-20UNJF	.407	.750	D8	B8	C8	N8	-8	-L8
.625-18UNJF	.422	.938	D10	B10	C10	N10	-10	-L10
.750-16UNJF	.485	1.062	D12	B12	C12	N12	-12	-L12
.875-14UNJF	.578	1.250	D14	B14	C14	N14	-14	-L14
1.000-12UNJF	.672	1.438	D16	B16	C16	N16	-16	-L16
1.125-12UNJF	.766	1.625	D18	B18	C18	N18	-18	-L18
1.250-12UNJF	.884	1.812	--	--	--	--	-20	-L20
			D20	B20	C20	N20	--	--
1.375-12UNJF	.821	2.000	--	--	--	--	-22	-L22
			D22	B22	C22	N22	--	--
1.500-12UNJF	.828	2.188	--	--	--	--	--	--
			D24	B24	C24	N24	--	--
			--	--	--	--	-24	-L24

1/ Non-metallic insert

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TABLE III

Material -----			Steel 1/	CRES 1/		CRES	Nickel-Copper alloy 1/
Protective finish -----			None specified	Passivate		Silver plate	None specified
Tensile strength (ultimate) ----			None specified			125 ksi	
Performance: Temp -----			250°F			800°F	250°F
Thread size (-3B)	A Max	B Nom	MS17829 + Dash no.	MS17830 + Dash no.	MS16228 + Dash no.	MS21046 + Dash no.	MS17828 + Dash no.
.112-40UNC	.157	.250	--	-04C	--	C04	-04C
.138-32UNC	.188	.312	--	-06C	--	C06	-06C
.164-32UNC	.250	.344	--	--	--	C08	--
.190-24UNC	.281		--	-08C	--	--	-08C
.190-32UNF	.281	.375	-3C	-3C	--	--	-3C
.250-20UNC	.250		--	--	--	C3	-3F
.250-20UNC	.360	.438	-4C	-4C	--	--	-4C
.250-20UNC	.296	.500	--	--	-4C	--	--
.250-28UNF	.360	.438	-4F	--	--	--	-4F
.250-28UNF	.328		--	--	--	C4	--
.3125-18UNC	.328	.562	--	--	-5C	--	--
.3125-18UNC	.360	.500	-5C	-5C	--	--	-5C
.3125-24UNF	.360	.500	-5F	--	--	C5	-5F
.375-16UNC	.469	.562	-6C	-6C	--	--	-6C
.375-16UNC	.421	.688	--	--	-6C	--	--
.375-24UNF	.469	.562	-6F	--	--	C6	-6F
.4375-14UNC	.469	.688	-7C	-7C	--	--	-7C
.4375-14UNC	.453	.750	--	--	-7C	--	--
.4375-20UNF	.469	.688	-7F	--	--	C7	-7F
.500-13UNC	.610	.750	-8C	-8C	--	--	-8C
.500-13UNC	.546	.875	--	--	-8C	--	--
.500-20UNF	.610	.750	-8F	--	--	C8	-8F
.625-11UNC	.766	.938	-10C	-10C	--	--	-10C
.625-11UNC	.624	1.062	--	--	-10C	--	--
.625-18UNF	.766	.938	-10F	--	--	C10	-10F
.750-10UNC	.891	1.062	-12C	-12C	--	--	-12C
.750-10UNC	.718	1.250	--	--	-12C	--	--
.750-16UNF	.891	1.062	-12F	--	--	C12	-12F
.875-9UNC	1.016		-14C	-14C	--	--	-14C
.875-14UNF	1.016	1.250	-14F	--	--	C14	-14F
1.000-8UNC	1.141	1.438	-16C	-16C	--	--	-16C
1.000-8UNC	.922	1.625	--	--	-16C	--	--
1.000-12UNF	1.141	1.438	--	--	--	C16	-16F
1.125-7UNC	1.266		-18C	-18C	--	--	-18C
1.125-12UNF	1.266	1.625	-18F	--	--	--	-18F
1.250-7UNC	1.454		-20C	-20C	--	--	-20C
1.250-12UNF	1.454	1.812	--	--	--	C20	-20F
1.375-6UNC	1.609		-22C	-22C	--	--	-22C
1.375-12UNF	1.609	2.000	-22F	-22F	--	--	-22F
1.500-6UNC	1.640		-24C	-24C	--	--	-24C
1.500-12UNF	1.640	2.188	-24F	-24F	--	--	-24F
1.750-5UNC	2.376	2.766	-28C	-28C	--	--	-28C
2.000-4.5UNC	2.469	3.141	-32C	-32C	--	--	-32C
2.250-4.5UNC	2.876	3.516	-36C	-36C	--	--	-36C
2.500-4UNC	3.204	4.016	-40C	-40C	--	--	-40C

1/ Non-metallic insert

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TABLE IV

Material -----			Carbon Steel	CRES	Brass	Aluminum alloy	
Protective finish -----			Cadmium plate	Passivate	Uncoated	Anodize	
Thread (-2B)		A Max	B Nom	MS51922 + Dash no.			
.250	20UNC	.328	.438	-1	-2	--	-
	28UNF			-5	-6	-7	-8
.3125	18UNC	.359	.500	-9	--	-11	--
	24UNF			-13	-14	-15	-16
.375	16UNC	.469	.562	-17	-18	-19	--
	24UNF			-21	-22	-23	-24
.500	13UNC	.609	.750	-33	--	--	--
	20UNF			-37	-38	-39	-40
.625	11UNC	.765	.938	-49	--	-51	--
	18UNF			-53	-54	-55	-56
.750	10UNC	.890	1.125	-57	--	-59	--
	16UNF			-61	-62	-63	-64
1.000	8UNC	1.124	1.500	-72	--	-74	--
	12UNF			-76	-77	-78	-79
1.125	7UNC	1.281	1.688	-80	--	--	--
	12UNF			-81	--	--	--
1.250	7UNC	1.422	1.875	-82	--	--	--
	12UNF			-83	--	--	--
1.500	6UNC	1.671	2.250	-85	--	--	--
	12UNF			-86	--	--	--

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TABLE V

Material -----				Steel	
Protective finish -----				Cadmium plate	Phosphate coat
Thread (-3B)		A Max	B Nom	MS51943 + Dash no.	
.250	20UNC	.328	.438	-31	-1
	28UNF			-32	-2
.3125	18UNC	.359	.500	-33	-3
	24UNF			-34	-4
.375	16UNC	.469	.562	-35	-5
	24UNF			-36	-6
.500	13UNC	.609	.750	-39	-9
	20UNF			-40	-10
.625	11UNC	.765	.938	-43	-13
	18UNF			-44	-14
.750	10UNC	.890	1.125	-45	-15
	16UNF			-46	-16
1.000	8UNC	1.124	1.500	-49	-19
	12UNF			-50	-20
1.125	7UNC	1.281	1.688	-51	--
	12UNF			-52	--
1.250	7UNC	1.422	1.875	-53	--
	12UNF			-54	--
1.500	6UNC	1.671	2.250	-56	--
	12UNF			-57	--

## MIL-STD-1903

## SECTION 2401

NUT, SELF-LOCKING, PLATE, CORNER, 125 ksi F<sub>tu</sub>

APPLICABLE DOCUMENTS: MS21055, MS21056, MS21057,

MS21058, MS21073, MS21074

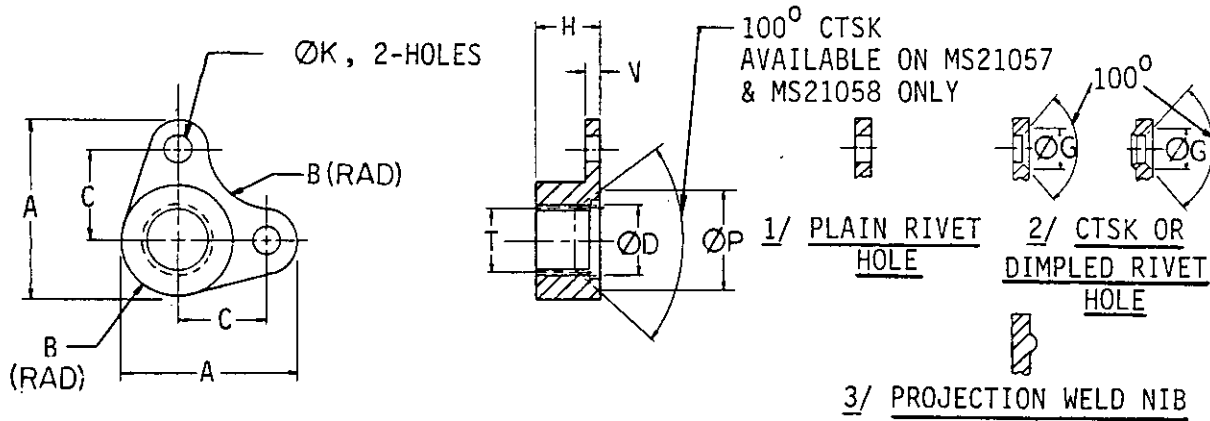


TABLE I

Material -----										Steel alloy								Steel			
Protective finish -----										Cadmium plate											
Performance: Temperature -----										450°F											
Mounting configuration -----										1/		2/		1/		2/		1/		2/	
Lubricant -----										Non dry	Dry	Non dry	Dry	Non dry	Dry	Non dry	Dry	Non dry	Dry	Non dry	Dry
T Thread	A Max	B Min	C	ØD Min	ØG	H Max	ØK Min	ØP Max	V Max	MS21055 + Dash no.				MS21057 + Dash no.				MS21073 + Dash no.			
.086-56UNJC-3B	.288	.081	.125	--	--	.110	.066	.130	.035	--	--	--	--	--	--	--	--	-02	L02	--	--
.112-40UNJC-3B	.448	.096	.203	--	.200	.143	.098	.166	.040	--	--	--	--	--	--	--	--	-04	L04	-04K	L04K
.138-32UNJC-3B	.463	.121	.218	--	.200	.171	.098	.206	.047	--	--	--	--	--	--	--	--	-06	L06	-06K	L06K
	.637	.108	.344	--	--	--	--	--	--	-06	L06	-06K	L06K	--	--	--	--	--	--	--	--
.164-32UNJF-3B	.497	--	.234	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-08	L08	-08K	L08K
	.637	.125	.344	.168	.200	.250	.098	.248	.047	-08	L08	-08K	L08K	--	--	--	--	--	--	--	--
	.700	.180	.344	--	--	.272	--	.370	--	--	--	--	--	-08	L08	-08K	L08K	--	--	--	--
.190-32UNJF-3B	.526	.156	.250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-3	L3	-3K	L3K
	.653	.145	.344	.194	.200	.250	.098	.274	.047	-3	L3	-3K	L3K	--	--	--	--	--	--	--	--
	.716	.203	.344	--	--	.291	--	.416	--	--	--	--	--	-3	L3	-3K	L3K	--	--	--	--
.250-28UNJF-3B	.603	.200	.281	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-4	L4	-4K	L4K
	.852	.185	.500	.254	.200	.291	.098	.344	.055	-4	L4	-4K	L4K	--	--	--	--	--	--	--	--
	.955	.267	.500	--	--	.340	--	.545	--	--	--	--	--	-4	L4	-4K	L4K	--	--	--	--
.3125-24UNJF-3B	.757	.250	.353	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-5	L5	-5K	L5K
	.914	.216	.500	.317	.230	.328	.130	.417	.065	-5	L5	-5K	L5K	--	--	--	--	--	--	--	--
	1.044	.340	.500	--	--	.422	--	.691	--	--	--	--	--	-5	L5	-5K	L5K	--	--	--	--
.375-24UNJF-3B	.870	.305	.414	.379	--	.344	.130	.505	.075	--	--	--	--	--	--	--	--	-6	L6	--	--
	.968	.290	.500	--	--	--	--	--	--	-6	L6	--	--	--	--	--	--	--	--	--	--
.4375-20UNJF-3B	1.101	.340	.562	.442	--	.390	.161	.602	.085	-7	L7	--	--	--	--	--	--	--	--	--	--

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TABLE II

Material	Corrosion resisting steel											
	None specified			Silver plate			None specified			Silver plate		
	None specified	Silver plate	800°F	None specified	Silver plate	900°F	None specified	Silver plate	450°F	None specified	Silver plate	800°F
Protective finish	1/	2/	3/	1/	2/	3/	1/	2/	3/	1/	2/	3/
Performance; Temperature												
Mounting configuration												
Lubricant	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
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	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
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	Dry			Non dry			Dry			Non dry		
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	Dry			Non dry			Dry			Non dry		
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	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry			Dry			Non dry		
	Dry			Non dry								

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## SECTION 2402

NUT, SELF-LOCKING, PLATE, CORNER  
125 ksi, F<sub>tu</sub>, 250°F (NON-METALLIC INSERT)

APPLICABLE DOCUMENT: MS21081

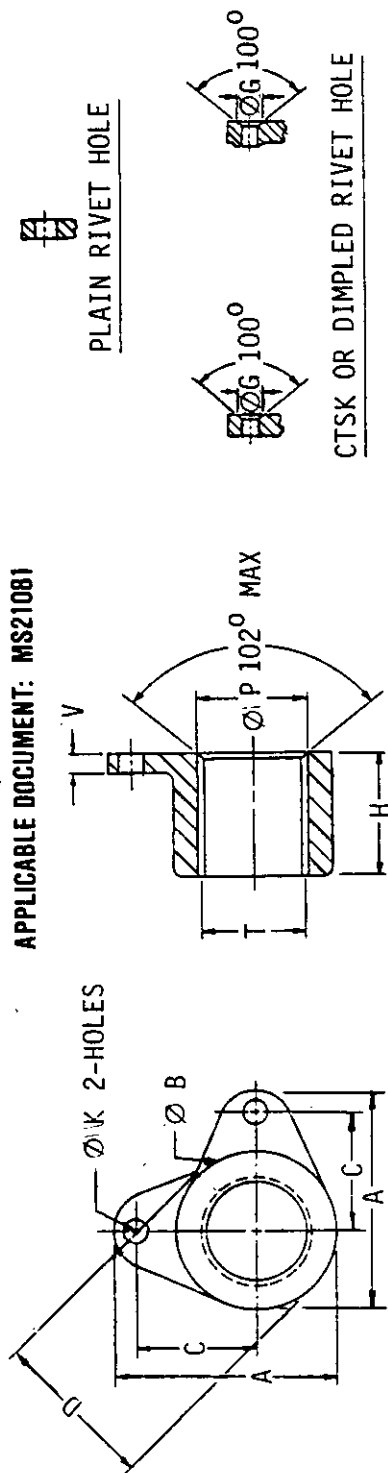


TABLE I

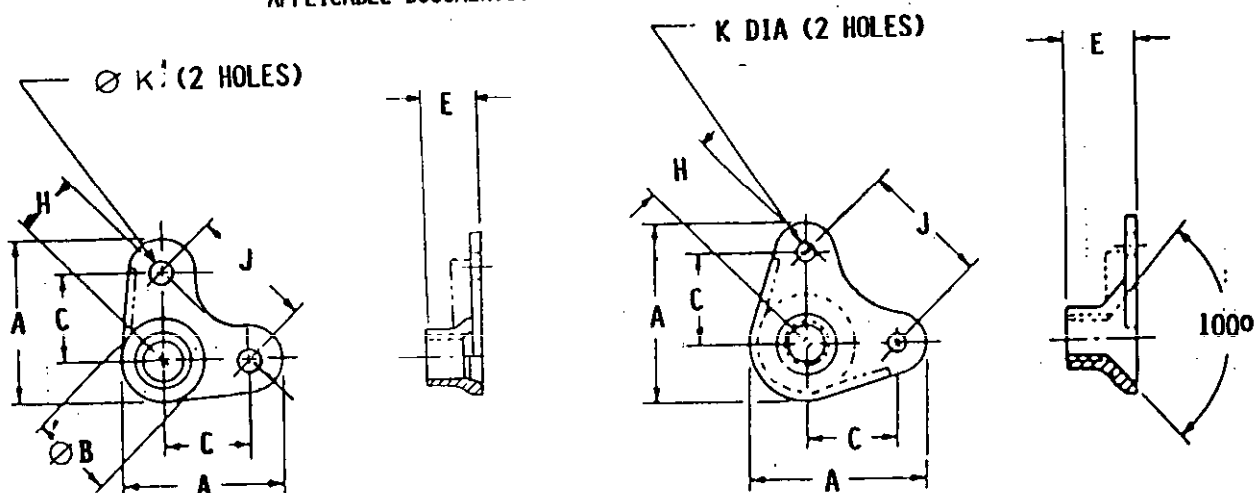
Material	Steel with non-metallic insert									
Protective finish	---									
Rockwell hardness	---									
Mounting configuration	---									
T Thread	A Max	ØB Min	C	D Max	ØG	H Max	ØK Min	ØP Max	V Max	MS21081 + Dash no.
.138 - 32UNJC-3B	.703	.375	.344	.531	.200	.234	.098	.177	.075	-06 -08 -3
.164 - 32UNJC-3B	.703	.375	.344	.531	.200	.297	.098	.230	.075	
.190 - 32UNJF-3B	.703	.375	.344	.531	.200	.312	.098	.230	.075	
.250 - 28UNJF-3B	.906	.484	.500	.600	.200	.375	.098	.293	.075	-4 -5 -6
.3125-24UNJF-3B	.937	.500	.500	.625	.230	.375	.130	.356	.075	
.375 - 24UNJF-3B	1.008	.609	.500	.718	.230	.453	.130	.418	.075	
.4375-20UNJF-3B	1.125	.672	.562	.782	--	.469	.161	.487	.115	-7 -8 -10
.500-20UNJF-3B	1.234	.796	.625	.874	--	.609	.161	.550	.115	
.625-18UNJF-3B	1.437	.964	.750	1.010	--	.765	.161	.676	.115	

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SECTION 2403

## NUT, SELF-LOCKING, PLATE, CORNER, 160 KSI FTU

APPLICABLE DOCUMENTS: NAS 1772, NAS 1777, NAS 1782



NAS 1772

NAS 1777

NAS 1782

MOUNTING  
CONFIGURATION CODES

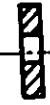


	PLAIN RIVET HOLE		DIMPLED RIVET HOLE		PROJECTION NIB (SPOT-WELD)
	NO SUFFIX		K-SUFFIX		CRES SILVER-PLATE ONLY
					W-SUFFIX

TABLE I

DOCUMENT	Material								Steel		CRES	
	Protective Finish								Cadmium Plate + Dry Film		Silver Plate	Dry Film
	Performance Temperature								450° F		800° F	450° F
	Thread (-38)	A Max	ØB Max	C Nom	E Max	H Max	J Nom	ØK Min	Dash Numbers			
NAS 1772	.1380-32UNJC	.637	.265	.344	.171	.270	.486	.098	-06	X06	C06	C06M
	.1640-32UNJC	.637	.297	.344	.250	.270	.486	.098	-08	X08	C08	C08M
	.1900-32UNJF	.653	.328	.344	.250	.270	.486	.098	-3	X3	C3	C3M
	.2500-28UNJF	.852	.414	.500	.281	.383	.707	.098	-4	X4	C4	C4M
	.3125-24UNJF	.914	.505	.500	.328	.383	.707	.130	-5	X5	C5	C5M
	.3750-24UNJF	.968	.614	.500	.344	.383	.707	.130	-6	X6	C6	C6M
	.4375-20UNJF	1.101	.726	.562	.390	.427	.795	.161	-7	X7	C7	C7M
	.1120-40UNJC	.448	.260	.203	.143	.170	.287	.098	-04	X04	C04	C04M
NAS 1777	.1380-32UNJC	.462	.265	.218	.171	.186	.308	.098	-06	X06	C06	C06M
	.1640-32UNJC	.497	.297	.234	.250	.210	.331	.098	-08	X08	C08	C08M
	.1900-32UNJF	.526	.328	.250	.250	.215	.354	.098	-3	X3	C3	C3M
	.2500-28UNJF	.603	.414	.281	.281	.233	.398	.098	-4	X4	C4	C4M
	.3125-24UNJF	.757	.505	.359	.328	.280	.508	.130	-5	X5	C5	C5M
	.3750-24UNJF	.870	.614	.414	.344	.303	.585	.130	-6	X6	C6	C6M
	.1640-32UNJC	.700	----	.344	.272	.270	.486	.098	-08	X08	C08	C08M
	.1900-32UNJF	.716	----	.344	.281	.270	.486	.098	-3	X3	C3	C3M
NAS 1782	.2500-28UNJF	.955	----	.500	.340	.383	.707	.098	-4	X4	C4	C4M
	.3125-24UNJF	1.044	----	.500	.422	.383	.707	.130	-5	X5	C5	C5M



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## SECTION 2404

NUT, SELF-LOCKING, PLATE, CORNER  
FLOATING, 125 KSI FTU

APPLICABLE DOCUMENT: NAS 1766

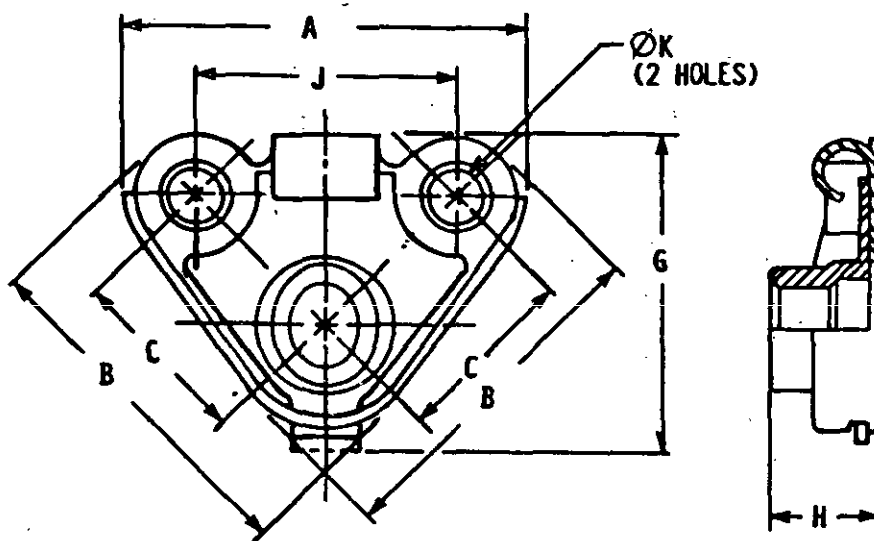


TABLE I

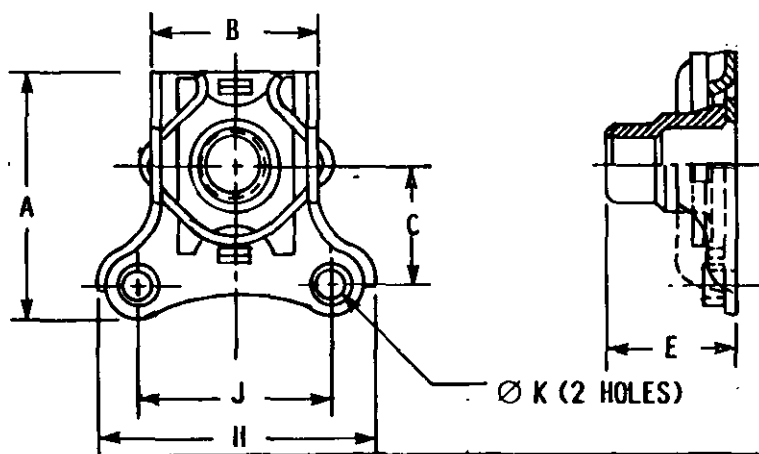
Material - - - - -								Steel	CRES	
Protective Finish - - - - -								Cadmium Plate + Dry Film	Silver Plate	Dry Film
Performance Temperature - - - - -								450°F	800°F	450°F
Thread (-3B)	A Max	B Max	C Nom	G Max	H Max	J Nom	ØK Min	NAS 1766 + Dash No.		
.164-32UNJC	.786	.680	.344	.680	.205	.486	.098	-08	C08	CL08
.190-32UNJF	.786	.680	.344	.680	.205	.486	.098	-3	C3	CL3
.250-28UNJF	1.007	.889	.500	.875	.282	.707	.098	-4	C4	CL4
.3125-24UNJF	1.094	1.058	.500	.875	.325	.707	.130	-5	C5	CL5

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## SECTION 2405

NUT, SELF-LOCKING, PLATE, CORNER, FLOATING,  
REPLACEABLE NUT ELEMENT, 125 KSI, FTU

APPLICABLE DOCUMENT: NAS 1793

MOUNTING CONFIGURATION  
CODES

PLAIN RIVET HOLE	DIMPLED RIVET HOLE	PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY
NO SUFFIX	K-SUFFIX	N-SUFFIX

TABLE I

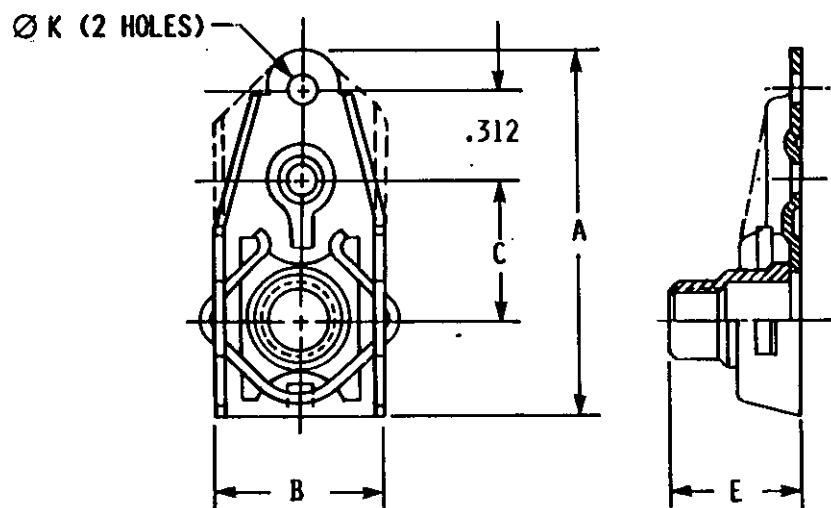
Material -----								Steel	CRES	
Protective Finish -----								Cadmium Plate	Passivate	Silver Plate
Performance Temperature -----								4500F	4500F	8000F
Thread (-3B)	A Max	B Max	C Nom	E Max	H Max	J Nom	Ø K Min	NAS 1793 + Dash No.		
.1900-32UNJF	.750	.445	.335	.250	.830	.486	.098	A3-1	C3-1	C3-1P
				.312				A3-2	C3-2	C3-2P
				.375				A3-3	C3-3	C3-3P
				.438				A3-4	C3-4	C3-4P
				.500				A3-5	C3-5	C3-5P
				.562				A3-6	C3-6	C3-6P
.2500-28UNJF	.900	.547	.375	.295	1.050	.707	.098	A4-1	C4-1	C4-1P
				.357				A4-2	C4-2	C4-2P
				.419				A4-3	C4-3	C4-3P
				.481				A4-4	C4-4	C4-4P
				.543				A4-5	C4-5	C4-5P
				.605				A4-6	C4-6	C4-6P
.3125-24UNJF	1.050	.643	.480	.344	1.100	.707	.130	A5-1	C5-1	C5-1P
				.400				A5-2	C5-2	C5-2P
				.461				A5-3	C5-3	C5-3P
				.524				A5-4	C5-4	C5-4P
				.586				A5-5	C5-5	C5-5P
				.649				A5-6	C5-6	C5-6P

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## SECTION 2406

NUT, SELF-LOCKING, PLATE, ONE-LUG, FLOATING,  
REPLACEABLE NUT ELEMENT, 125 KSI FTU

APPLICABLE DOCUMENT: NAS 1792



NOTE: "N" SUFFIXED TO  
DASH NUMBER  
INDICATES WITHOUT  
DRY FILM  
LUBRICANT.

## MOUNTING CONFIGURATION CODES

PLAIN RIVET HOLE	DIMPLED RIVET HOLE	PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY
NO SUFFIX	K-SUFFIX	W-SUFFIX

TABLE I

Material -----						Steel	CRES	
Protective Finish -----						Cadmium Plate	Pass- ivate	Silver Plate
Performance Temperature -----						450°F	450°F	800°F
Thread (-3B)	A Max	B Max	C Nom	E Max	ØK Min	NAS 1792 + Dash no.		
.1900-32UNJF	1.051	.445	.344	.250	.098	A3-1	C3-1	C3-1P
				.312		A3-2	C3-2	C3-2P
				.375		A3-3	C3-3	C3-3P
				.438		A3-4	C3-4	C3-4P
				.500		A3-5	C3-5	C3-5P
				.562		A3-6	C3-6	C3-6P
.2500-28UNJF	1.306	.547	.500	.295	.098	A4-1	C4-1	C4-1P
				.357		A4-2	C4-2	C4-2P
				.419		A4-3	C4-3	C4-3P
				.481		A4-4	C4-4	C4-4P
				.543		A4-5	C4-5	C4-5P
				.605		A4-6	C4-6	C4-6P
.3125-24UNJF	1.396	.643	.500	.344	.130	A5-1	C5-1	C5-1P
				.400		A5-2	C5-2	C5-2P
				.461		A5-3	C5-3	C5-3P
				.524		A5-4	C5-4	C5-4P
				.586		A5-5	C5-5	C5-5P
				.649		A5-6	C5-6	C5-6P

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## SECTION 2407

## NUT, SELF-LOCKING, PLATE, ONE LUG, FLOATING, 125 KSI FTU

APPLICABLE DOCUMENTS MS21051, MS21052, MS21053

MS21054 MS21071 MS21072

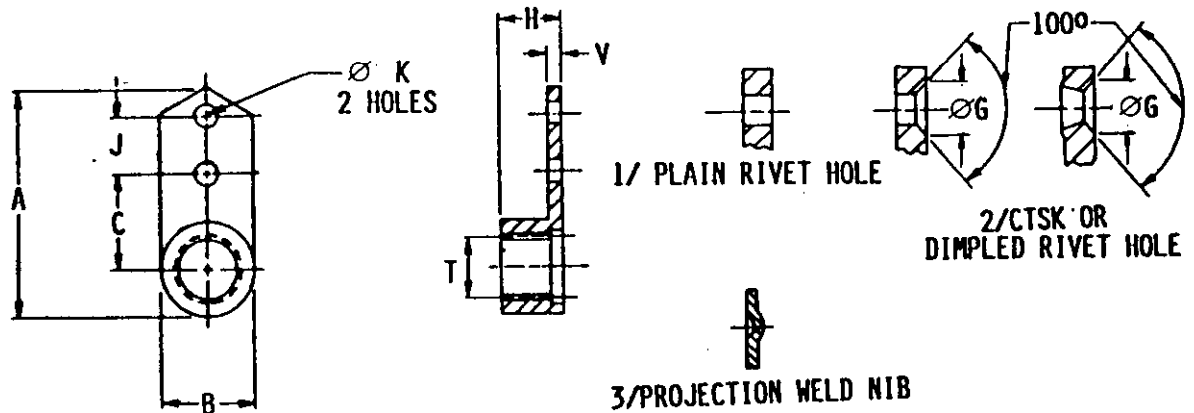


TABLE I

Material .....										Corrosion resistant steel														
Protective finish .....										Silver plate			None specified			Silver plate			None specified			Silver plate		
Performance: temperature .....										800°F			450°F			800°F			450°F			800°F		
Mounting configuration .....										1/	2/	3/	1/	2/	3/	1/	2/	3/	1/	2/	3/	1/	2/	3/
Lubricant: film .....										Soluble			Dry			Soluble			Dry			Soluble		
T Thread	A Max	B Min	C	ØG	J	H Max	ØK Min	V Max	MS21052 + Dash no.			MS21054 + Dash no.						MS21072 + Dash no.						
086-56UNJC-3B	.507	.140	.125	--	.219	.110	.066	.035	--	--	--	--	--	--	--	--	--	L02	--	L02W	-02	--	-02W	
086-56UNJC-3B	.935	.239	.344	.200	.312	.171	.098	.047	-02	-02K	-02W	--	--	--	--	--	--	--	--	--	--	--	--	
.112-40UNJC-3B	.667	.140	.203	.200	.219	.143	.098	.040	--	--	--	--	--	--	--	--	--	L04	L04K	L04W	-04	-04K	-04W	
.112-40UNJC-3B	.935	.239	.344	.200	.312	.171	.098	.047	-04	-04K	-04W	--	--	--	--	--	--	--	--	--	--	--	--	
.138-32UNJC-3B	.684	.195	.218	.200	.219	.171	.098	.047	--	--	--	--	--	--	--	--	--	L06	L06K	L06W	-06	-06K	-06W	
.138-32UNJC-3B	.935	.239	.344	.200	.312	.171	.098	.047	-06	-06K	-06W	--	--	--	--	--	--	--	--	--	--	--	--	
.164-32UNJF-3B	.716	.235	.234	.200	.219	.250	.098	--	--	--	--	--	--	--	--	--	--	L08	L08K	L08W	-08	-08K	-08W	
.164-32UNJF-3B	.935	.277	.344	.200	.312	.250	.098	.047	-08	-08K	-08W	--	--	--	--	--	--	--	--	--	--	--	--	
.164-32UNJF-3B	.997	.360	.344	.200	.312	.272	.098	--	--	--	--	L08	L08K	L08W	-08	-08K	-08W	--	--	--	--	--	--	
.190-32UNJF-3B	.745	.298	.250	.200	.219	.250	.098	--	--	--	--	--	--	--	--	--	--	L3	L3K	L3W	-3	-3K	-3W	
.190-32UNJF-3B	.950	.308	.344	.200	.312	.250	.098	.047	-3	-3K	-3W	--	--	--	--	--	--	--	--	--	--	--	--	
.190-32UNJF-3B	1.013	.406	.344	.200	.312	.281	.098	--	--	--	--	L3	L3K	L3W	-3	-3K	-3W	--	--	--	--	--	--	
.250-28UNJF-3B	.822	.380	.281	.200	.219	.281	.098	--	--	--	--	--	--	--	--	--	--	L4	L4K	L4W	-4	-4K	-4W	
.250-28UNJF-3B	.993	.375	.344	.200	.312	.281	.098	.055	-4	-4K	-4W	--	--	--	--	--	--	--	--	--	--	--	--	
.250-28UNJF-3B	1.252	.535	.500	.200	.312	.340	.098	--	--	--	--	L4	L4K	L4W	-4	-4K	-4W	--	--	--	--	--	--	
.3125-24UNJF-3B	1.026	.475	.359	.230	.269	.328	.130	--	--	--	--	--	--	--	--	--	--	L5	L5K	L5W	-5	-5K	-5W	
.3125-24UNJF-3B	1.210	.485	.500	.230	.312	.328	.130	.065	-5	-5K	-5W	--	--	--	--	--	--	--	--	--	--	--	--	
.3125-24UNJF-3B	1.340	.681	.500	.230	.312	.422	.130	--	--	--	--	L5	L5K	L5W	-5	-5K	-5W	--	--	--	--	--	--	
.375-24UNJF-3B	1.139	.580	.414	--	.269	.344	.130	.075	--	--	--	--	--	--	--	--	--	L6	--	-6W	-6	--	-6W	
.375-24UNJF-3B	1.264	.594	.500	--	.312	.344	.130	.075	-6	--	-6W	--	--	--	--	--	--	--	--	--	--	--	--	
.4375-20UNJF-3B	1.446	.697	.562	--	.344	.390	.161	.085	-7	--	-7W	--	--	--	--	--	--	--	--	--	--	--	--	

## MIL-STD-1903

TABLE I - Continued

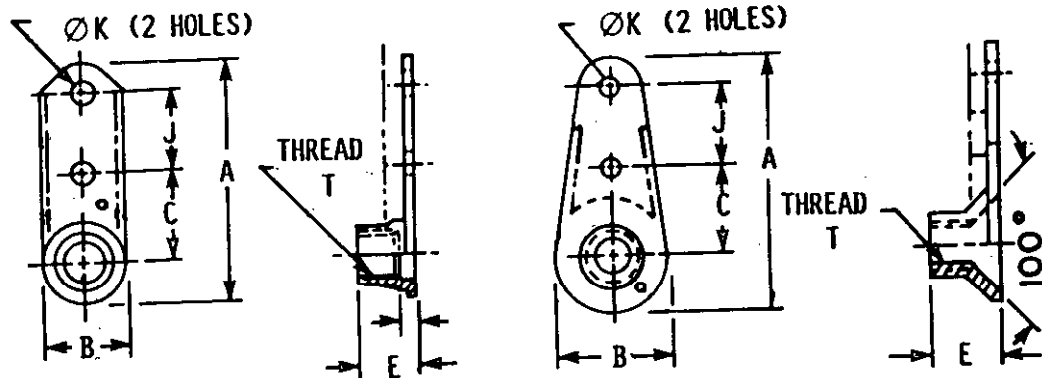
TABLE 1 - Continued																												
Steel Alloy														Steel														
Cadmium Plate														None Specified														
450°F																												
Performance: Temperature														Mounting Configuration														
Lubricant: Film																												
T Thread	A Max	B Max	C	Ø G	J	H Max	Ø K Min	V Max	MS21054 + Dash No.				MS21053 + Dash No.				MS21051 + Dash No.				MS21071 + Dash No.				MS21052 + Dash No.			
									Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry	Sol- uble	Dry
.086-56UNC-3B	.507	.140	.125	--	.219	.110	.066	.035	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.086-56UNC-3B	.935	.239	.344	.200	.312	.171	.098	.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.112-40UNC-3B	.667	.140	.203	.200	.219	.143	.098	.040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.112-40UNC-3B	.935	.239	.344	.200	.312	.171	.098	.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.138-32UNC-3B	.684	.195	.218	.200	.219	.171	.098	.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.138-32UNC-3B	.935	.239	.344	.200	.312	.171	.098	.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.164-32UNC-3B	.716	.235	.234	.200	.219	.250	.098	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.164-32UNC-3B	.935	.277	.344	.200	.312	.250	.098	.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.164-32UNC-3B	.997	.360	.344	.200	.312	.272	.098	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.190-32UNC-3B	.745	.298	.250	.200	.219	.250	.098	.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.190-32UNC-3B	.950	.308	.344	.200	.312	.250	.098	.047	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.190-32UNC-3B	1.013	.406	.344	.200	.312	.281	.098	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.250-28UNC-3B	.822	.380	.281	.200	.219	.281	.098	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.250-28UNC-3B	.993	.375	.344	.200	.312	.281	.098	.055	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.250-28UNC-3B	1.252	.535	.500	.200	.312	.340	.098	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.3125-24UNC-3B	1.026	.475	.359	.230	.269	.328	.130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.3125-24UNC-3B	1.210	.485	.500	.230	.312	.328	.130	.065	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.3125-24UNC-3B	1.340	.681	.500	.230	.312	.422	.130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.375-24UNC-3B	1.139	.580	.414	--	.269	.344	.130	.075	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.375-24UNC-3B	1.264	.594	.500	--	.312	.344	.130	.075	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
.4375-20UNC-3B	1.446	.697	.562	--	.344	.390	.161	.085	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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## SECTION 2408

## NUT, SELF-LOCKING, PLATE, ONE-LUG, 160 KSI FTU

APPLICABLE DOCUMENTS: NAS 1771, NAS 1776, NAS 1781



NAS 1771, NAS 1776

NAS 1781

MOUNTING  
CONFIGURATION  
CODES

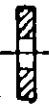

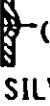
	PLAIN RIVET HOLE		DIMPLED RIVET HOLE		PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY
	NO SUFFIX		K-SUFFIX		W-SUFFIX

TABLE I

DOCUMENT

Material -----								Steel		CRES	
Protective Finish -----								Cadmium Plate + Dry Film    w/o Dry Film		Silver Plate	Dry Film
Performance Temperature -----								450°F		800°F	450°F
Thread T (-38)		A Max	B Max	C Nom	E Max	J Nom	ØK Min	Dash Numbers			
NAS 1771	.1380-32UNJC	.935	.265	.344	.171	.312	.098	-06	X06	C06	C06M
	.1640-32UNJC	.935	.297	.344	.250	.312	.098	-08	X08	C08	C08M
	.1900-32UNJF	.950	.328	.344	.250	.312	.098	-3	X3	C3	C3M
	.2500-28UNJF	.993	.414	.344	.281	.312	.098	-4	X4	C4	C4M
	.3125-24UNJF	1.210	.505	.500	.328	.312	.130	-5	X5	C5	C5M
	.3750-24UNJF	1.264	.614	.500	.344	.312	.130	-6	X6	C6	C6M
	.4375-20UNJF	1.446	.726	.562	.390	.344	.161	-7	X7	C7	C7M
NAS 1776	.1120-40UNJC	.667	.260	.203	.143	.219	.098	-04	X04	C04	C04M
	.1380-32UNJC	.684	.265	.218	.171	.219	.098	-06	X06	C06	C06M
	.1640-32UNJC	.716	.297	.234	.250	.219	.098	-08	X08	C08	C08M
	.1900-32UNJC	.745	.328	.250	.250	.219	.098	-3	X3	C3	C3M
	.2500-28UNJF	.822	.414	.281	.281	.219	.098	-4	X4	C4	C4M
	.3125-24UNJF	1.026	.505	.359	.328	.269	.130	-5	X5	C5	C5M
	.3750-24UNJF	1.139	.614	.414	.344	.269	.130	-6	X6	C6	C6M
NAS 1781	.1640-32UNJC	.997	.422	.344	.272	.312	.098	-08	X08	C08	C08M
	.1900-32UNJF	1.013	.453	.344	.281	.312	.098	-3	X3	C3	C3M
	.2500-28UNJF	1.252	.619	.500	.340	.312	.098	-4	X4	C4	C4M
	.3125-24UNJF	1.340	.766	.500	.422	.312	.130	-5	X5	C5	C5M

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## SECTION 2409

NUT, SELF-LOCKING, PLATE, ONE LUG,  
FLOATING, 125 KSI FTU, 160 KSI FTU

APPLICABLE DOCUMENTS MS21061, MS21062, MS21082, NAS 1774

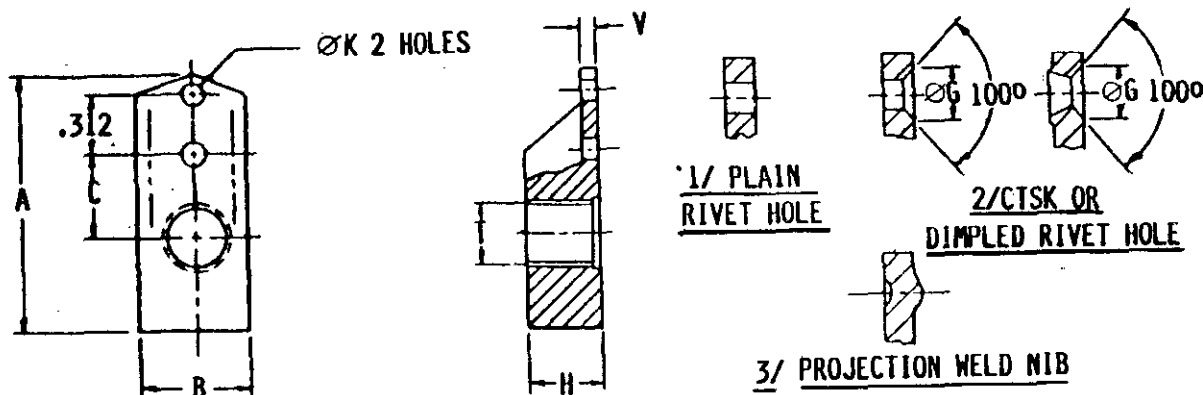


TABLE 1

125 KSI FTU

Material -----	Alloy Steel							Steel with non-metallic insert		CRES									
Performance: Temperature -----	450°F							250°F		450°F			800°F						
Protective Finish -----	Cadmium Plate							None Specified			Silver Plate								
Mounting Configuration -----	1/		2/		1/ 2/		1/ 2/ 3/		1/ 2/ 3/		1/ 2/ 3/								
Lubricant: Film -----	Dry		Soluble		Dry		Dry		Soluble										
Thread	A Max	B Min	C	ØS	H Max	ØK Min	V Max	MS21061 + Dash No.		MS21082 + Dash No.		MS21062 + Dash No.							
.112-40UNJC-3B	1.051	.290	.344	.200	.175	.098	.032	-.04	L04	-.04K	L04K	--	--	L04	L04K	L04W	-.04	-.04K	-.04W
.138-32UNJC-3B	1.051	.290	.344	.200	.203	.098	.032	-.06	L06	-.06K	L06K	--	--	L06	L06K	L06W	-.06	-.06K	-.06W
.164-32UNJC-3B	.651	.190	.344	.200	.250	.098	.032	-.08	L08	-.08K	L08K	--	--	--	--	--	--	--	--
	1.051	.290					.032	--	--	--	--	L08	L08K	L08W	-.08	-.08K	-.08W		
.190-32UNJC-3B	.094	.328	.344	.200	.250	.098	.075	--	--	--	--	--	--	--	--	--	--	--	--
	.051	.290					.032	-.3	L3	-.3K	L3K	--	--	--	--	--	--	--	
250-28UNJF-3B	.051	.290	.500	.200	.281	.098	.032	--	--	--	--	--	--	L3	L3K	L3W	-.3	-.3K	-.3W
	.094	.328					.075	--	--	--	--	-.3	-.3K	--	--	--			
	.306	.350					.032	-.4	L4	-.4K	L4K	--	--	--	--	--	--		
.3125-24UNJF-3B	.306	.350	.500	.230	.281	.130	.032	--	--	--	--	--	--	L4	L4K	L4W	-.4	-.4K	-.4W
	.316	.406					.075	--	--	--	--	--	--	--	--	--			
	.396	.412					.045	-.5	L5	-.5K	--	--	--	--	--	--	--		
	.378	.484			.387		.075	--	--	--	--	--	--	L5	L5K	L5W	-.5	-.5K	-.5W
								--	--	--	--	--	--	--	--	--	--	--	--

TABLE II

160 KSI FTU

Material -----								Steel				CRES							
Performance Temperature -----								450°F				800°F				450°F			
Protective Finish -----								Cadmium Plate + Dry Film		w/o Dry Film		Silver Plate				Dry Film			
Mounting Configuration -----								1/	2/	1/	2/	1/	2/	3/	1/	2/			
Thread-T (-3B)	A Max	B Min	C Nom	Ø G Nom	H Max	Ø K Min	V Max	NAS 1774 + Dash No.											
.1120-40UNJC	1.051	.290	.344	.200	.175	.098	.032	-.04	-.04K	X04	X04K	C04	C04K	C04W	C04M	C04MS			
.1380-32UNJC	1.051	.290	.344	.200	.203	.098	.032	-.06	-.06K	X06	X06K	C06	C06K	C06W	C06M	C06MS			
.1640-32UNJC	1.051	.290	.344	.200	.250	.098	.032	-.08	-.08K	X08	X08K	C08	C08K	C08W	C08M	C08MS			
.1900-32UNJF	1.051	.290	.344	.200	.250	.098	.032	-.3	-.3K	X3	X3K	C3	C3K	C3W	C3M	C3MS			
.2500-28UNJF	1.306	.350	.500	.200	.281	.098	.032	-.4	-.4K	X4	X4K	C4	C4K	C4W	C4M	C4MS			
.3125-24UNJF	1.396	.412	.500	.230	.328	.130	.045	-.5	-.5K	X5	X5K	C5	C5K	C5W	C5M	C5MS			
.3750-24UNJF	1.441	.455	.500	.230	.344	.130	.055	-.6	-.6K	X6	X6K	C6	C6K	C6W	C6M	C6MS			

## MIL-STD-1903

**SECTION 2410**  
**NUT, SELF-LOCKING PLATE, ONE LUG, 125 ksi,**  
**F<sub>tu</sub> (NON-METALLIC INSERT), 250°F**

APPLICABLE DOCUMENT: MS21080

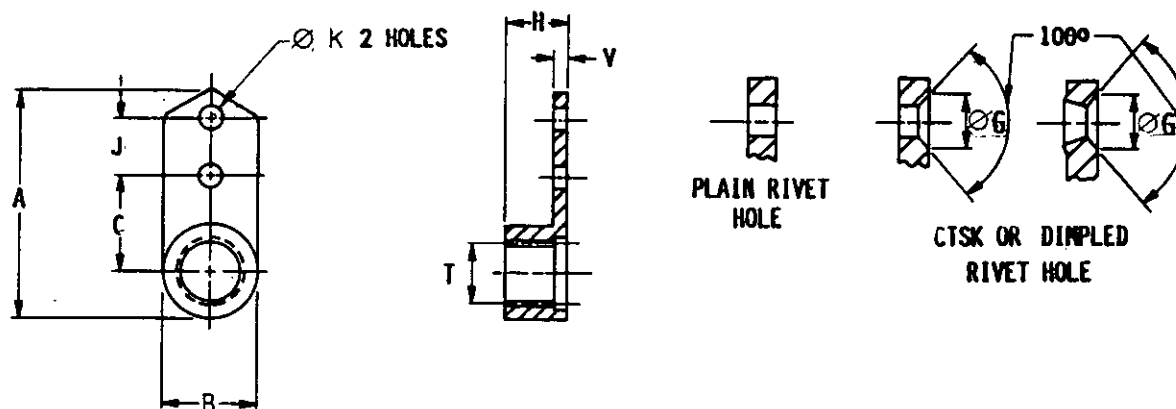


TABLE I

Material -----									Steel	
Protective finish -----									Cadmium plate	
Rockwell hardness -----									C32	
Mounting configuration -----									Plain holes	CTSK or Dimpled holes
T Thread	A Max	B Min	C	Ø G	J	H Max	Ø K Min	V Max	MS21080 + Dash no.	
.138-32UNJC-3B	1.031	.375	.344	.200	.312	.297	.098	.075	-06	-06K
.164-32UNJC-3B	1.031	.375	.344	.200	.312	.297	.098	.075	-08	-08K
.190-32UNJF-3B	1.031	.375	.344	.200	.312	.312	.098	.075	-3	-3K
.250-28UNJF-3B	1.062	.438	.344	.200	.312	.375	.098	.075	-4	-4K
.3125-24UNJF-3B	1.250	.500	.500	.230	.312	.375	.130	.075	-5	-5K
.375-24UNJF-3B	1.344	.609	.500	.230	.312	.453	.130	.075	-6	-6K



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## SECTION 2411

## NUT, SELF-LOCKING, PLATE, RIGHT ANGLE

APPLICABLE DOCUMENT: AN256

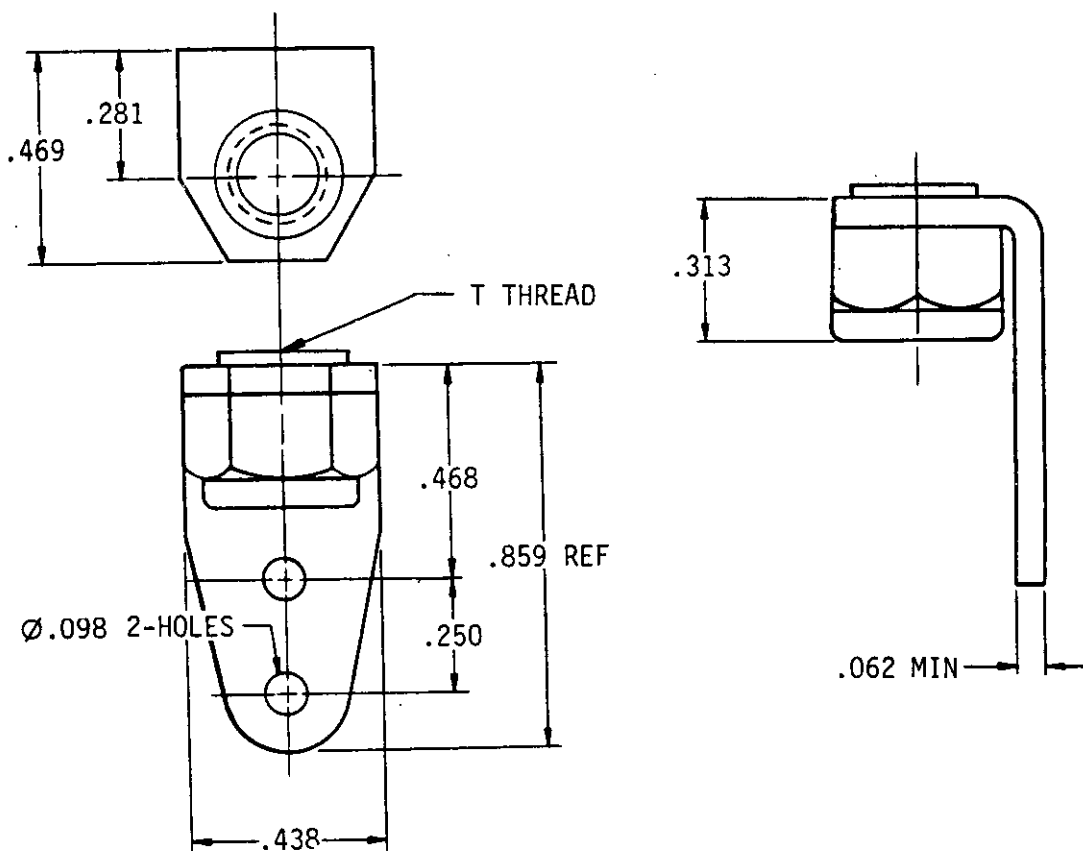


TABLE I

Material ---	Aluminum alloy	Steel
T Thread	AN256 +Dash no.	
.138-32UNC-3B	-6	F6
.164-32UNC-3B	-8	F8
.190-32UNF-3B	-10	F10

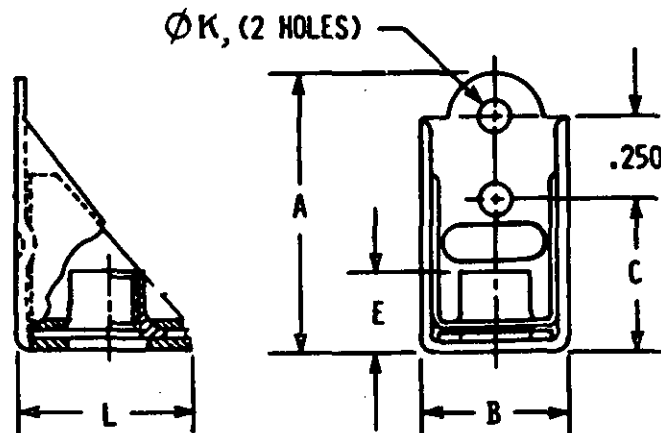
MIL-STD-1903

# SECTION 2412

## NUT, SELF-LOCKING, PLATE

### RIGHT-ANGLE, FLOATING

APPLICABLE DOCUMENT: NAS 1033



DASH NUMBER CODES



 <p>PLAIN RIVET HOLE</p> <p>NO SUFFIX</p>	 <p>COUNTERSUNK OR DIMPLED RIVET HOLE</p> <p>K SUFFIX</p>	<p>WITHOUT DRY FILM LUBRICANT FOR "A" AND "P" CODED PLATED STEEL NUT</p> <p>X-INTERFIX</p>
---	---	--

TABLE 1

Material -----							Nylon Insert		All Metal		
							Alum Nut	Steel Nut	Steel Nut	Steel Assy	CRES Assy
							Alum or Steel		Housing		
Protective Finish -----							Steel - Code X or Cadmium Plate Alum-Anodize or Chemical Film		Cadmium Plate & Dry Film	Silver Plate	
Performance Temperature -----							250° F		450°	800°F	
Thread (-3B)	A Max	B Max	C Nom	E Max	ØK Min	L Max	NAS 1033 & Dash No.				
.1380-32UNJC	.906	.619	.484	.343	.098	.531	D06	N06	P06	A06	C06
.1640-32UNJC	.906	.619	.484	.343	.098	.531	D08	N08	P08	A08	C08
.1900-32UNJF	.906	.619	.484	.343	.098	.531	D3	N3	P3	A3	C3
.2500-28UNJF	.906	.687	.484	.375	.098	.585	D4	N4	P4	A4	C4
.3125-24UNJF	1.000	.750	.578	.437	.130	.645	D5	N5	P5	A5	C5

2412.1

MIL-STD-1903

# SECTION 2413

## NUT, SELF - LOCKING, PLATE, SIDE BY SIDE,

125 ksi,  $F_{tu}$ 

APPLICABLE DOCUMENTS: MS21086, MS21087

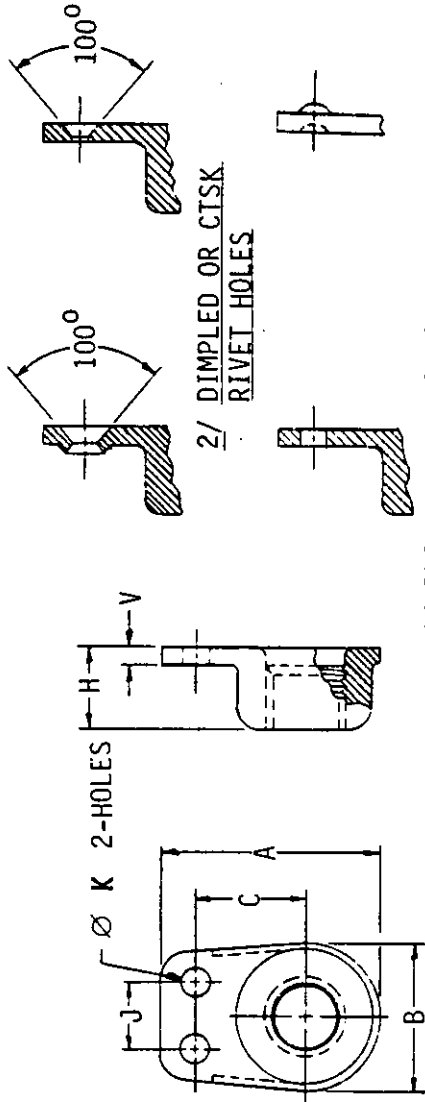


TABLE I

1/ PLAIN RIVET HOLES 3/ PROJECTION WELD NIBS

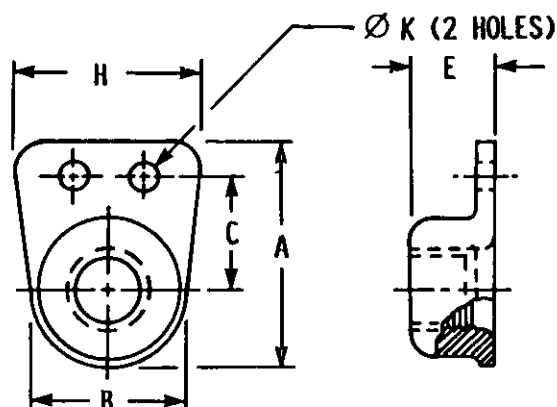
Material -----		Steel		CRES									
Protective finish -----		Cadmium plate		Silver plate									
Performance: Temperature -----		450°F		800°F									
Mounting configuration -----		1/		2/		1/		2/		3/			
Lubricant -----		MS21086 + Dash no.		MS21087 + Dash no.									
Thread		A Max	B Min	C	H Max	J	ØK Min	V Max	Non-dry	Dry	Non-dry	Dry	Non-dry
.164-32UNC-3B		.486	.235	.234	.250	.219	.098	.047	-08	L08	-08K	L08K	-08K
.190-32UNF-3B		.521	.298	.250	.250	.219	.098	.047	-3	L3	-3K	L3K	-3K
.250-28UNF-3B		.591	.380	.281	.281	.219	.098	.055	-4	L4	-4K	L4K	-4K
.3125-24UNF-3B		.747	.475	.359	.328	.269	.130	.065	-5	L5	-5K	L5K	-5K
.375-24UNF-3B		.856	.580	.414	.344	.269	.130	.075	-6	L6	--	L6W	-6W

MIL-STD-1903

SECTION 2414

# NUT, SELF-LOCKING, PLATE, SIDE BY SIDE 160 KSI F<sub>TU</sub>

APPLICABLE DOCUMENT: NAS 1778



MOUNTING  
CONFIGURATION  
CODES




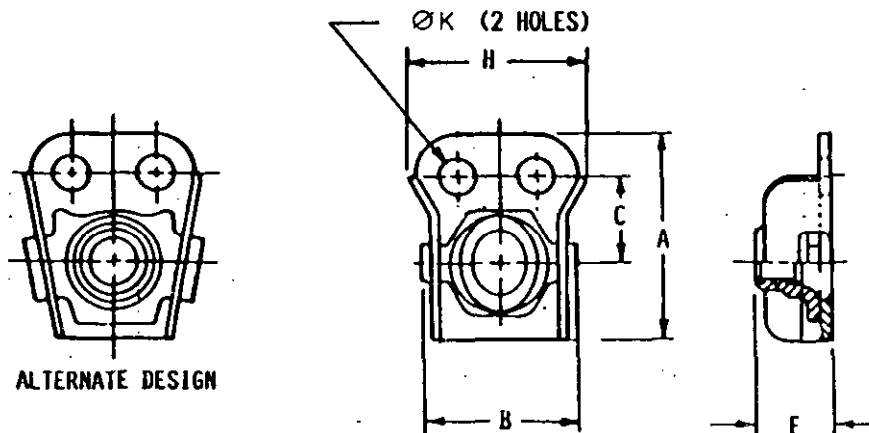
 PLAIN RIVET HOLE  NO SUFFIX	 DIMPLED RIVET HOLE  K-SUFFIX	 PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY M-SUFFIX
--	---	--

TABLE I

Material - - - - -							Steel		CRES	
Protective Finish - - - - -							Cadmium Plate + Dry Film	Plate w/o Dry Film	Silver Plate	Dry Film
Performance Temperature - - - - -							450°F		800°F	450°F
Thread (-38)	A Max	B Max	C Nom	E Max	H Max	Ø K Min	NAS 1778 + Dash No.			
.1640-32UNJC	.486	.297	.234	.250	.437	.098	-08	X08	C08	C08M
.1900-32UNJF	.521	.328	.250	.250	.437	.098	-3	X3	C3	C3M
.2500-28UNJF	.591	.414	.281	.281	.437	.098	-4	X4	C4	C4M
.3125-24UNJF	.747	.505	.359	.328	.537	.130	-5	X5	C5	C5M
.3750-24UNJF	.856	.614	.414	.344	.537	.130	-6	X6	C6	C6M

MIL-STD-1903

SECTION 2415  
 NUT, SELF-LOCKING, PLATE, SIDE BY SIDE  
 FLOATING, LOW HEIGHT, 160 KSI F<sub>TU</sub>  
 APPLICABLE DOCUMENT: NAS 1789



MOUNTING  
 CONFIGURATION  
 CODES

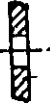


 PLAIN RIVET HOLE NO SUFFIX	 DIMPLED RIVET HOLE K-SUFFIX	 PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY W-SUFFIX
--	---	--

TABLE I

Material -----							Steel		CRES	
Protective Finish -----							Cadmium Plate + Dry Film		Silver Plate	
Performance Temperature -----							450°F		800°F	450°F
Thread (-38)	A Max	B Max	C Nom	E Max	H Max	ØK Min	NAS 1789 + Dash No.			
.1380-32UNJC	.525	.440	.250	.203	.490	.098	-06	X06	C06	C06M
.1640-32UNJC	.525	.440	.250	.250	.490	.098	-08	X08	C08	C08M
.1900-32UNJF	.525	.440	.250	.250	.490	.098	-3	X3	C3	C3M
.2500-28UNJF	.617	.557	.281	.281	.502	.098	-4	X4	C4	C4M
.3125-24UNJF	.767	.619	.359	.328	.609	.130	-5	X5	C5	C5M
.3750-24UNJF	.876	.682	.414	.344	.629	.130	-6	X6	C6	C6M

2415.1

## MIL-STD-1903

## SECTION 2416

## NUT, SELF-LOCKING, PLATE, TWO LUG, 125 KSI FTU

APPLICABLE DOCUMENTS: MS20501, MS21047, MS21048,  
MS21049, MS21050, MS21069, MS21070, MS21078

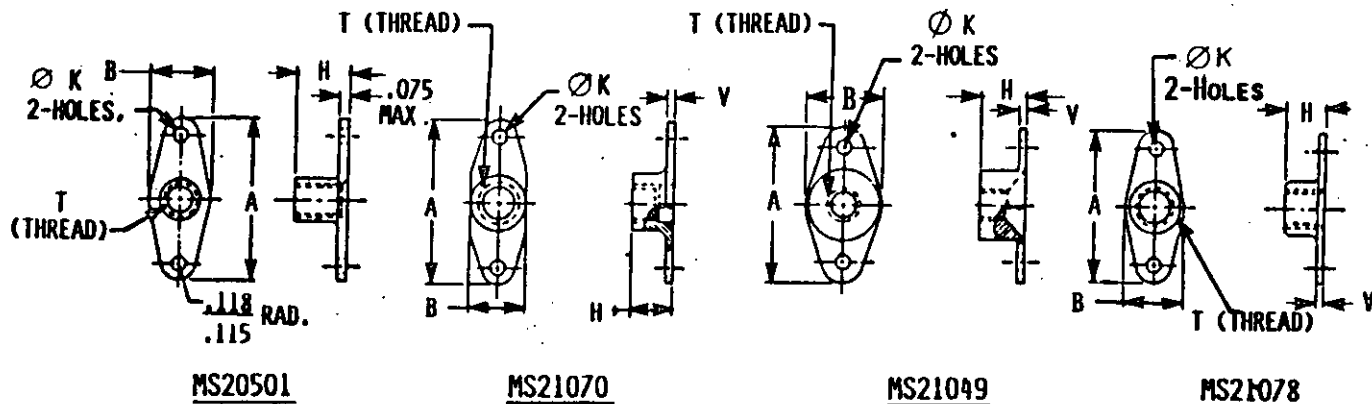


TABLE I

Material -----							CRES									
Protective Finish -----							Silver Plate									
Performance Temperature -----							1200°F		800°F $\sqrt{}$							
Rockwell Hardness -----							None Specified		C49 Max					None Specified		
T Thread		A Max	B Max	Ø K Max	H Max	V Max	MS20501 + Dash No.	MS21048 + Dash No.			MS21050 + Dash No.			MS21070 + Dash No.		
								Plain Holes	CYSK Holes	Welding Projection	Plain Holes	CYSK Holes	Welding Projection	Plain Holes	CYSK Holes	Welding Projection
.086	-56UNJC-38	.410	.162	.071	.110	.035	--	--	--	--	--	--	--	-02	--	02W
.099	-48UNJC-38	.425	.184	.071	.125	.085	--	--	--	--	--	--	--	-03	--	-03W
.112	-40UNJC-38	.630	.260	.103	.143	.040	--	--	--	--	--	--	--	-04	-04K	-04W
		.948	.260		.143	.047	--	--	--	--	--	--	--	--		
		.984	.406		.218	.075	--	-04	-04K	-04W	--	--	--	--	--	--
		.661	.265		.171	.047	--	--	--	--	--	--	--	--	--	
.138	-32UNJC-38	.948	.265	.103	.171	.047	--	-06	-06K	-06W	--	--	--	-06	-06K	-06W
		.984	.406		.234	.075	--	--	--	--	--	--	--	--		
		.986	.407		.234	.075	-632	--	--	--	--	--	--	--	--	--
		.692	.297		.250	.047	--	--	--	--	--	--	--	-08	-08K	-08W
.164	-32UNJC-38	.948	.297	.103	.250	.047	--	-08	-08K	-08W	--	--	--	--	--	--
		.948	.422		.272	.047	--	--	--	-08	-08K	-08W	--	--	--	
		.984	.406		.297	.075	--	--	--	--	--	--	--	--	--	--
		.986	.407		.251	.075	-832	--	--	--	--	--	--	--	--	--
		.724	.328	.103	.250	.047	--	--	--	--	--	--	--	-3	-3K	-3W
		.948	.328		.250	.047	--	-3	-3K	-3W	--	--	--	--	--	
.190	-32UNJF-38	.948	.453	.103	.281	.047	--	--	--	--	-3	-3K	-3W	--	--	--
		.984	.406		.312	.075	--	--	--	--	--	--	--	--		
		.986	.407		.251	.075	-1032	--	--	--	--	--	--	--	--	--
		.786	.414	.103	.281	.055	--	--	--	--	--	--	--	-4	-4K	-4W
		1.260	.414		.281	.055	--	-4	-4K	-4W	--	--	--	--		
.250	-28UNJF-38	1.260	.619		.340	.055	--	--	--	--	-4	-4K	-4W	--	--	--
		1.296	.516		.375	.075	--	--	--	--	--	--	--	--	--	
		1.298	.516		.329	.075	-428	--	--	--	--	--	--	--	--	--
		1.006	.505	.135	.328	.065	--	--	--	--	--	--	--	-5	-5K	-5W
		1.292	.505		.328	.065	--	-5	-5K	-5W	--	--	--	--		
.3125	-24UNJF-38	1.292	.766		.422	.065	--	--	--	--	-5	-5K	-5W	--	--	--
		1.296	.531		.375	.075	--	--	--	--	--	--	--	--	--	
		1.298	.532		.360	.075	-524	--	--	--	--	--	--	--	--	--
		1.116	.614	.135	.344	.075	--	--	--	--	--	--	--	-6	--	-6W
		1.292	.614		.344	.075	--	-6	-6K	-6W	--	--	--	--		
.375	-24UNJF-38	1.296	.641		.453	.115	--	--	--	--	--	--	--	--	--	--
		1.298	.541		.469	.075	-624	--	--	--	--	--	--	--	--	--
	-20UNJF-38	1.477	.719	.166	.469	.115	--	--	--	--	--	--	--	--	--	--
		1.477	.726		.390	.085	--	--	--	--	--	--	--	--		
.4375	-20UNJF-38	1.477	.725		.390	.085	--	--	--	--	--	--	--	--	--	--
		1.602	.859	.166	.609	.115	--	-7	--	-7W	--	--	--	--	--	
.500	-20UNJF-38	1.602	.859	.166	.609	.115	--	-8	--	-8W	--	--	--	--	--	--
.5625	-18UNJF-38	1.727	.953	.166	.656	.115	--	-9	--	-9W	--	--	--	--	--	--
.625	-18UNJF-38	1.852	1.016	.166	.765	.115	--	-10	--	-10W	--	--	--	--	--	--

1/ PREFIX "L" FOR 450°F + DRY FILM LUBRICANT.

## MIL-STD-1903

TABLE I (Continued)

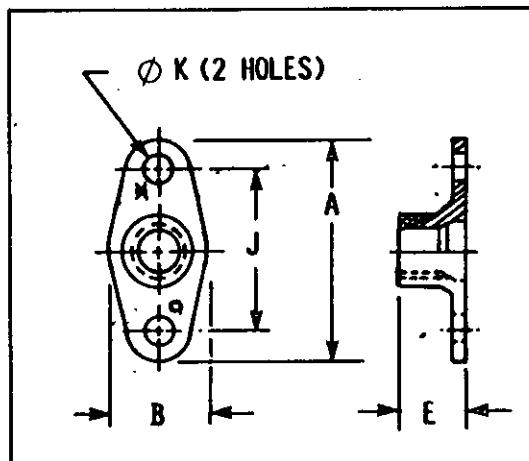
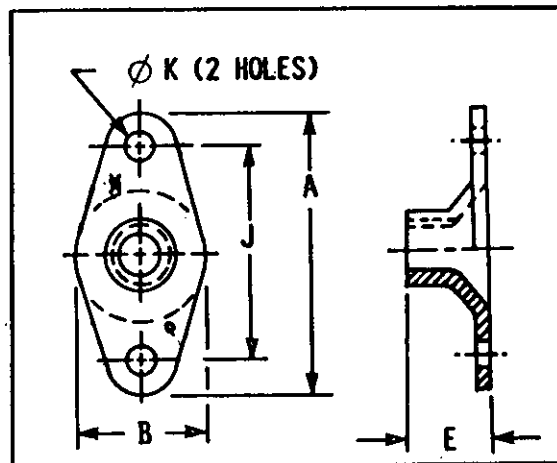
Material		Steel										Steel w/non-metallic insert					
Protective Finish		Cadmium Plate										Cadmium Plate					
Performance: Temperature		450°F										250°F					
Rockwell Hardness		C49 Max										C32 Max					
T Thread	A Max	B Max	ØK Max	H Max	V Max	MS21047 + Dash No.			MS21049+Dash No.			MS21069+Dash No.			MS21078 + Dash No.		
						Plain Holes	CTSK Holes	Plain Holes	CTSK Holes	Plain Holes	CTSK Holes	Plain Holes	CTSK Holes	Plain Holes	CTSK Holes	Plain Holes	CTSK Holes
.086 .099	-56UNJC-3B -048UNJF-3B	.410	.162	.110	.035	--	--	--	--	-02	--	--	--	--	--	--	--
		.425	.184	.125	.035	--	--	--	--	-03	--	-04K	--	--	--	--	--
.112	-40UNJC-3B	.630	.260	.143	.040	--	--	--	--	-04	--	--	--	--	--	--	--
		.948	.260	.143	.047	-04	-04K	--	--	--	--	--	-04	-04K	--	--	-04K
.138	-32UNJC-3B	.984	.406	.218	.075	--	--	--	--	--	--	--	-06	-06K	--	--	--
		.661	.265	.171	.047	--	--	--	--	--	--	--	--	--	--	--	--
.164	-32UNJC-3B	.948	.265	.171	.047	-06	-06K	--	--	--	--	--	--	--	-06	-06K	--
		.984	.406	.234	.075	--	--	--	--	--	--	--	--	--	--	--	--
.190	-32UNJF-3B	.986	.407	.234	.075	--	--	--	--	--	--	--	--	--	--	--	--
		.692	.297	.250	.047	--	--	--	--	-08	-08K	--	-08	-08K	--	--	--
.250	-28UNJF-3B	.948	.328	.250	.047	-08	-08K	--	-08	--	--	--	--	--	--	--	--
		.948	.422	.250	.047	--	--	--	--	--	--	--	--	--	--	-08	-08K
.3125	-24UNJF-3B	.984	.406	.297	.075	--	--	--	--	--	--	--	--	--	--	--	--
		.986	.407	.251	.075	--	--	--	--	--	--	--	-3	-3K	--	--	--
.375	-24UNJF-3B	.724	.328	.250	.047	--	--	--	--	--	--	--	-3	-3K	--	-3	-3K
		.948	.328	.250	.047	-3	-3K	--	-3	--	--	--	--	--	--	--	--
.4375	-20UNJF-3B	.948	.453	.281	.047	--	--	--	-3	-3K	--	--	--	--	--	--	--
		.984	.406	.312	.075	--	--	--	--	--	--	--	--	--	--	--	--
.500	-18UNJF-3B	.986	.407	.251	.075	--	--	--	--	--	--	--	--	--	--	--	--
		.786	.414	.281	.055	--	--	--	--	-4	-4K	--	-4	-4K	--	--	--
.5625	-18UNJF-3B	1.260	.619	.281	.055	-4	-4K	--	-4	-4K	--	-4	-4K	--	--	-4	-4K
		1.260	.516	.340	.055	--	--	--	--	--	--	--	--	--	--	--	--
.625	-18UNJF-3B	1.296	.516	.375	.075	--	--	--	--	--	--	--	--	--	--	--	--
		1.298	.516	.329	.075	--	--	--	--	--	--	--	-5	-5K	--	--	--
.625	-18UNJF-3B	1.005	.505	.328	.065	--	--	--	--	--	--	-5	-5K	--	--	--	--
		1.292	.505	.328	.065	-5	-5K	--	-5	-5K	--	-5	-5K	--	--	-5	-5K
.625	-18UNJF-3B	1.292	.766	.422	.065	--	--	--	-5	-5K	--	-5	-5K	--	--	-5	-5K
		1.296	.531	.375	.075	--	--	--	--	--	--	--	--	--	--	--	--
.625	-18UNJF-3B	1.298	.532	.360	.075	--	--	--	--	--	--	--	--	--	--	--	--
		1.116	.614	.344	.075	--	--	--	--	--	--	-6	--	--	--	--	--
.625	-18UNJF-3B	1.292	.614	.344	.075	-6	--	--	--	--	--	--	--	--	--	-6	-6K
		1.296	.641	.453	.115	--	--	--	--	--	--	--	--	--	--	-6	-6K
.625	-18UNJF-3B	1.298	.641	.469	.075	--	--	--	--	--	--	--	--	--	--	--	--
		1.477	.719	.469	.115	--	--	--	--	--	--	--	-7	--	--	-7	--
.625	-18UNJF-3B	1.477	.726	.390	.085	-7	--	--	--	--	--	--	--	--	--	--	--
		1.477	.726	.390	.085	--	--	--	--	--	--	--	--	--	--	--	--
.625	-18UNJF-3B	1.602	.859	.609	.115	-8	--	--	--	--	--	--	--	--	-8	--	--
		1.727	.953	.656	.115	-9	--	--	--	--	--	--	--	--	--	-9	--
.625	-18UNJF-3B	1.852	1.016	.765	.115	-10	--	--	--	--	--	--	--	--	-10	--	--
		1.852	1.016	.765	.115	-10	--	--	--	--	--	--	--	--	--	-10	--

## MIL-STD-1903

## SECTION 2417

## NUT, SELF-LOCKING, PLATE, TWO LUG, 160 KSI FTU

APPLICABLE DOCUMENTS: NAS 1770, NAS 1775, NAS 1780

NAS 1770  
NAS 1775

NAS 1780

MOUNTING  
CONFIGURATION  
CODES

PLAIN RIVET HOLE	DIMPLED RIVET HOLE	PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY
NO SUFFIX	K-SUFFIX	W-SUFFIX

TABLE I

DOCUMENT	Material -----						Steel		CRES	
	Protective Finish -----						Cadmium Plate + Dry Film		Silver Plate	Dry Film
	Performance Temperature -----						450°F		800°F	450°F
	Thread (-3B)	A Max	B Max	E Max	J Nom	Ø K Min	Dash Numbers			
NAS 1770	.1120-40UNJC	.948	.260	.143	.688	.098	-04	X04	C04	C04M
	.1380-32UNJC	.948	.265	.171	.688	.098	-06	X06	C06	C06M
	.1640-32UNJC	.948	.297	.250	.688	.098	-08	X08	C08	C08M
	.1900-32UNJF	.948	.328	.250	.688	.098	-3	X3	C3	C3M
	.2500-28UNJF	1.260	.414	.281	1.000	.098	-4	X4	C4	C4M
	.3125-24UNJF	1.292	.505	.328	1.000	.130	-5	X5	C5	C5M
	.3750-24UNJF	1.292	.614	.344	1.000	.130	-6	X6	C6	C6M
NAS 1775	.4375-20UNJF	1.477	.726	.390	1.125	.161	-7	X7	C7	C7M
	.1120-40UNJC	.630	.260	.143	.406	.098	-04	X04	C04	C04M
	.1380-32UNJC	.661	.265	.171	.437	.098	-06	X06	C06	C06M
	.1640-32UNJC	.692	.297	.250	.468	.098	-08	X08	C08	C08M
	.1900-32UNJF	.724	.328	.250	.500	.098	-3	X3	C3	C3M
	.2500-28UNJF	.786	.414	.281	.562	.098	-4	X4	C4	C4M
	.3125-24UNJF	1.006	.505	.328	.718	.130	-5	X5	C5	C5M
NAS 1780	.3750-24UNJF	1.116	.614	.344	.828	.130	-6	X6	C6	C6M
	.1640-32UNJC	.948	.422	.272	.688	.098	-08	X08	C08	C08M
	.1900-32UNJF	.948	.453	.281	.688	.098	-3	X3	C3	C3M
	.2500-28UNJF	1.260	.619	.340	1.000	.098	-4	X4	C4	C4M
	.3125-24UNJF	1.292	.766	.422	1.000	.130	-5	X5	C5	C5M



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SECTION 2418  
NUT, SELF-LOCKING, PLATE, TWO-LUG, CAP, FLOATING

APPLICABLE DOCUMENTS: NAS 1473, NAS 1474

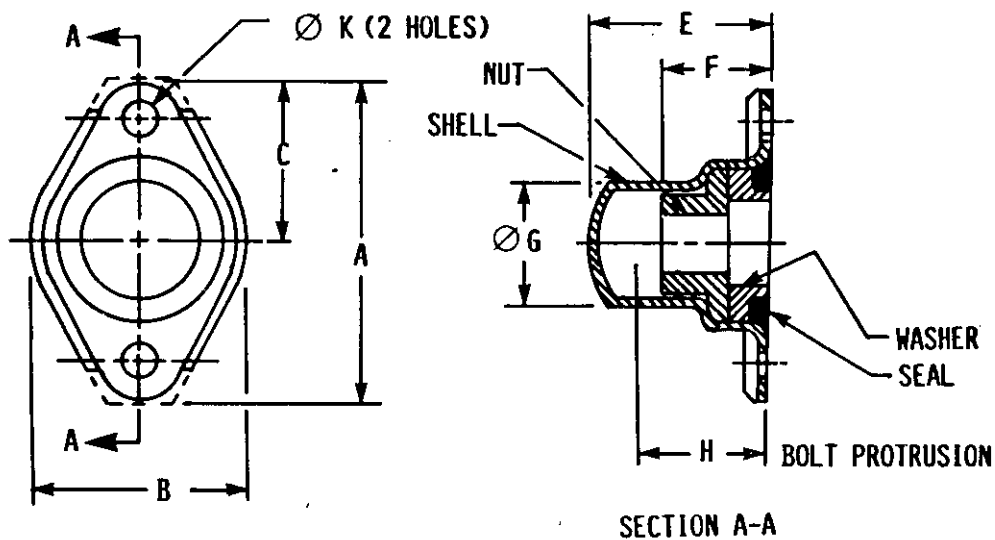


TABLE I

Material -----	Nut		Steel		Steel		GRES									
	Shell		Steel		Steel		GRES									
	Washer		Aluminum or Steel		Steel		GRES									
	Seal		Fuel Resist		Fuel Resist		Non Fuel Resist	Fuel Resist	Fuel Resist							
Protective Finish -----	Steel		Cadmium Plate				-----									
	Aluminum		Anodize or Chem. Film				-----									
	GRES		-----				Silicon Plating	Clean and Passivate								
	Dry Film Lubricant		with	without	with	without	without	with	with							
Performance Temperature			225°F		350°F		450°F		350°F	225°F						
Thread (-38)	A Max	B Max	C Nom	E Max	F Max	ØG Max	H Max	ØK Min	NAS 1473 + Dash No.							
.1640-32UNJC	.989	.568	.344	.640	.313	.352	.568	.098	A08	X08	S08	Y08	C08	F08	R08	
.1900-32UNJF	.989	.568	.344	.640	.313	.352	.568	.098	A3	X3	S3	Y3	C3	F3	R3	
.2500-28UNJF	1.296	.668	.500	.755	.372	.419	.687	.098	A4	X4	S4	Y4	C4	F4	R4	
.3125-24UNJF	1.296	.762	.500	.823	.410	.520	.728	.130	A5	X5	S5	Y5	C5	F5	R5	
Reduced River Spacing			NAS 1474 + Dash No.													
.1120-40UNJC	.840	.443	.295	.405	.204	.352	.340	.098	A04	X04	S04	Y04	C04	F04	R04	
.1380-32UNJC	.840	.443	.295	.405	.221	.352	.340	.098	A06	X06	S06	Y06	C06	F06	R06	
.1640-32UNJC	.840	.443	.295	.405	.268	.352	.340	.098	A08	X08	S08	Y08	C08	F08	R08	
.1900-32UNJF	.840	.443	.295	.405	.268	.352	.340	.098	A3	X3	S3	Y3	C3	F3	R3	
.2500-28UNJF	1.000	.635	.376	.560	.350	.419	.490	.098	A4	X4	S4	Y4	C4	F4	R4	

**SECTION 2419**

**NUT, SELF-LOCKING, PLATE, TWO LUG, FLOATING, 125 KSI FTU**

APPLICABLE DOCUMENTS: MS21059, MS21060,  
MS21075, MS21076, MS21077

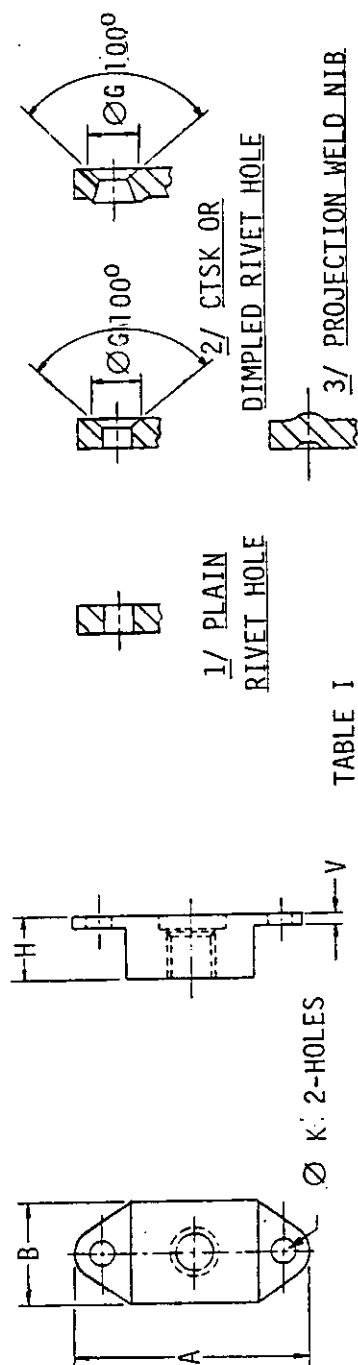


TABLE I

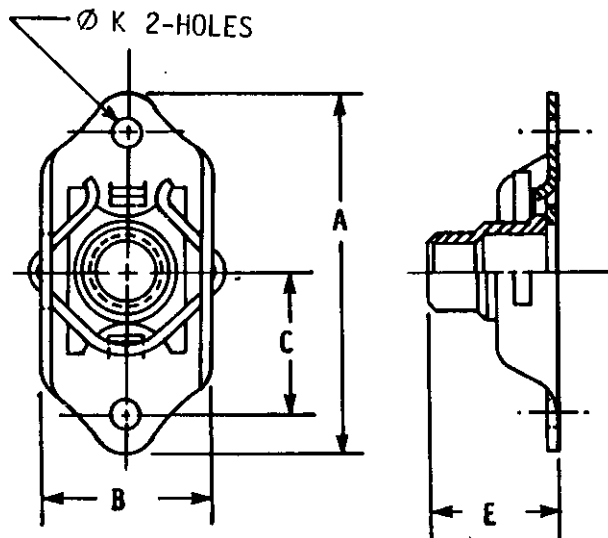
Material	Alloy steel		Steel	Steel/Aluminum	CRES					
Protective finish	Cadmium plate			Cadmium/Anodize	Silver plate					
Rockwell hardness	C49 Max			C36 Max	C49 Max					
Performance: Temperature	450°F			250°F	800°F					
Mounting configuration										
Thread	A Max	B Max	ØG	ØK Min	H Max	V Max	MS21059 + Dash no.	MS21075 + Dash no.	MS21060 + Dash no.	MS21076 + Dash no.
.112 -40UNJ-3B	.651 .948 .687	.315 .416 .257	200	.098 .098 .098	.153 .175 .171	.140 .032 .140	-- -04 -04K	-04 -06	-- -04 -06	-- -04H -06
.138 -32UNJ-3B	.687 .948 .707	.316 .416 .367	200	.098 .098 .098	.203 .234 .250	.032 .075 .140	-06 -06K	--	-- -06 -06K	-- -06K -08
.164 -32UNJ-3B	.948 .719 .948	.416 .416 .416	200	.098 .098 .098	.250 .312 .250	.032 .075 .140	-08 -08K	--	-- -08 -08K	-- -08H -08
.190 -32UNJF-3B	.948 .984 .801	.416 .416 .500	200	.098 .098 .098	.250 .312 .281	.032 .075 .140	-3 -3K	-1 --	-- -3 -3K	-- -3H -4
.250 -28UNJF-3B	1.292 1.296 1.010	.516 .516 .581	200	.098 .098 .098	.281 .387 .328	.032 .075 .160	-4 -4K	-4 -5	-4 -4K	-4 -5H -5
.3125 -28UNJF-3B	1.292 1.296 1.292	.609 .609 .609	230	.130 .130 .130	.328 .387 .344	.045 .075 .055	-- -5K	--	-- -5 -6	-- -5H -6H
.375 -24UNJF-3B	1.296 1.292	.641 .641	230	.130 .130	.479 .479	.075 .075	--	--	--	--

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## SECTION 2420

# NUT, SELF-LOCKING, PLATE-TWO LUG, FLOATING REPLACEABLE NUT ELEMENT, 125 KSI FTU

APPLICABLE DOCUMENT: NAS 1791



## NOTE:

"N" SUFFIXED TO  
DASH NUMBER  
INDICATES WITHOUT  
DRY FILM LUBRICANT.

## MOUNTING CONFIGURATION CODES


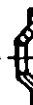

 PLAIN RIVET HOLE  NO SUFFIX	 DIMPLED RIVET HOLE  K-SUFFIX	 PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY  W-SUFFIX
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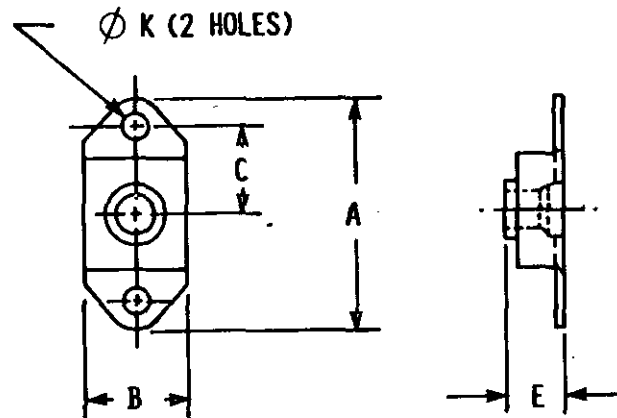
TABLE 1

Material -----						Steel	CRES	
Protective Finish -----						Cadmium Plate	Passivate	Silver Plate
Performance Temperature -----						450°F	450°F	800°F
Thread (3-B)	A Max	B Max	C Nom	E Max	Ø K Min	NAS 1791 + Dash no.		
.1900-32UNJF	.948	.445	.344	.250	.098	A3-1	C3-1	C3-1P
				.312		A3-2	C3-2	C3-2P
				.375		A3-3	C3-3	C3-3P
				.438		A3-4	C3-4	C3-4P
				.500		A3-5	C3-5	C3-5P
				.562		A3-6	C3-6	C3-6P
.2500-28UNJF	1.292	.547	.500	.295	.098	A4-1	C4-1	C4-1P
				.357		A4-2	C4-2	C4-2P
				.419		A4-3	C4-3	C4-3P
				.481		A4-4	C4-4	C4-4P
				.543		A4-5	C4-5	C4-5P
				.605		A4-6	C4-6	C4-6P
.3125-24UNJF	1.292	.643	.500	.344	.130	A5-1	C5-1	C5-1P
				.400		A5-2	C5-2	C5-2P
				.461		A5-3	C5-3	C5-3P
				.524		A5-4	C5-4	C5-4P
				.586		A5-5	C5-5	C5-5P
				.649		A5-6	C5-6	C5-6P

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SECTION 2421  
 NUT, SELF-LOCKING, PLATE, TWO LUG  
 LOW HEIGHT, FLOATING, 160 KSI FTU

APPLICABLE DOCUMENT: NAS 1773



MOUNTING  
 CONFIGURATION  
 CODES

 PLAIN RIVET HOLE NO SUFFIX	 DIMPLED RIVET HOLE K-SUFFIX	 PROJECTION NIB (SPOT-WELD) CRES SILVER-PLATE ONLY W-SUFFIX
--------------------------------------	---------------------------------------	--

TABLE I

Material -----						Steel		CRES	
Protective Finish -----						Cadmium + Dry Film	Plate w/o Dry Film	Silver Plate	Dry Film
Performance Temperature -----						150°F	450°F	800°F	450°F
Thread (-3B)	A Max	B Max	C Nom	E Max	ØK Min	NAS 1773 + Dash No.			
.1120-40UNJC	.948	.416	.344	.175	.098	-04	X04	C04	C04M
.1380-32UNJC	.948	.416	.344	.203	.098	-06	X06	C06	C06M
.1640-32UNJC	.948	.416	.344	.250	.098	-08	X08	C08	C08M
.1900-32UNJF	.948	.416	.344	.250	.098	-3	X3	C3	C3M
.2500-28UNJF	1.292	.516	.500	.281	.098	-4	X4	C4	C4M
.3125-24UNJF	1.292	.609	.500	.328	.130	-5	X5	C5	C5M
.3750-24UNJF	1.292	.680	.500	.344	.130	-6	X6	C6	C6M

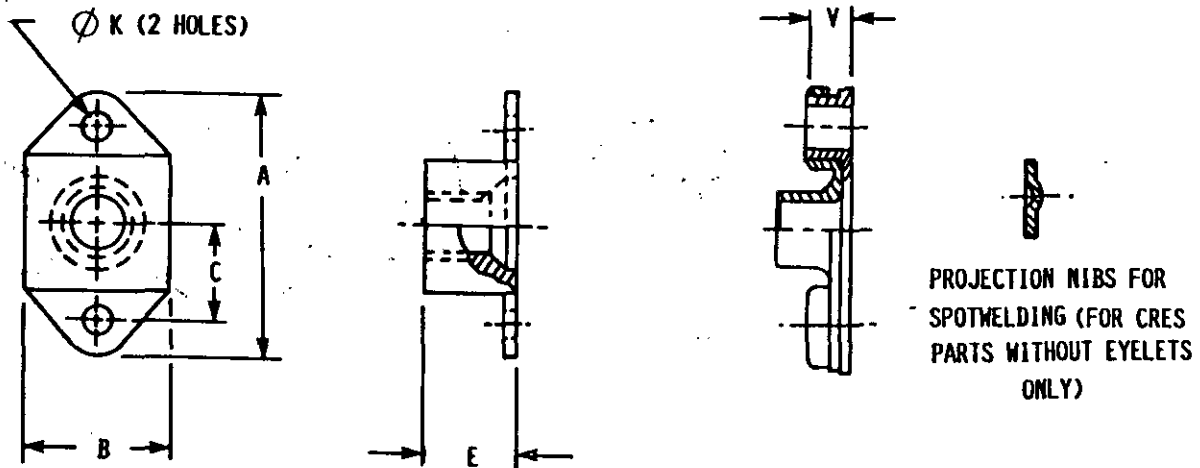
2421.1

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## SECTION 2422

NUT, SELF-LOCKING, PLATE, TWO LUG, LOW HEIGHT  
FLOATING, REDUCED RIVET SPACING, 160 KSI FTU

APPLICABLE DOCUMENT: NAS 1779



CODE: "--" STEEL, CADMIUM PLATED WITH DRY FILM LUBRICANT AND NUTS  
WITH OR WITHOUT EYELET  
"C" IN PLACE OF DASH INDICATES CRES NUTS WITH SILVER  
PLATE, WITH OR WITHOUT EYELET  
"M" SUFFIXED TO THE DASH NUMBER INDICATES CRES NUTS,  
WITHOUT SILVER PLATE, WITH DRY FILM LUBRICANT.  
"R" IN PLACE OF DASH OR BEFORE "C" OR "X" INDICATES NUT TYPES  
WITHOUT EYELET.  
"W" SUFFIXED TO THE DASH NUMBER SPECIFIES PROJECTION WELD NIBS  
FOR CRES SILVER PLATED PARTS CODED "R" ONLY.  
NO SILVER PLATE ON WELD NIBS.  
"X" IN PLACE OF DASH INDICATES CADMIUM PLATED NUTS WITHOUT DRY  
FILM LUBRICANT.

TABLE I

Material - - - - -							Steel		CRES	
Protective Finish - - - - -							Cadmium + Dry Film	Plate w/o Dry Film	Silver Plate	Dry Film
Performance Temperature - - - - -							450°F		800°F	450°F
Thread (-3B)	A Max	B Max	C Nom	E Max	Ø K Min	V Max	NAS 1779 + Dash No.			
.1120-40UNJC	.651	.315	.203	.153	.098	.140	-04	X04	C04	C04M
.1380-32UNJC	.682	.357	.218	.171	.098	.140	-06	X06	C06	C06M
.1640-32UNJC	.707	.367	.234	.250	.098	.140	-08	X08	C08	C08M
.1900-32UNJF	.739	.416	.250	.250	.098	.140	-3	X3	C3	C3M
.2500-28UNJF	.801	.500	.281	.281	.098	.140	-4	X4	C4	C4M
.3125-24UNJF	1.010	.581	.359	.328	.130	.140	-5	X5	C5	C5M

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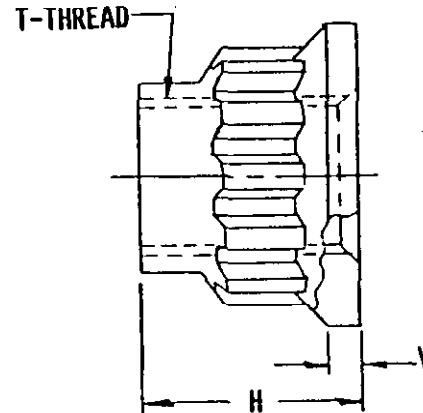
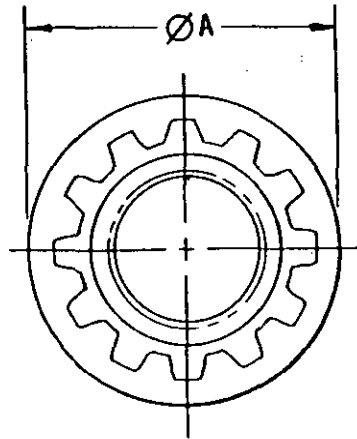
SECTION 2501  
NUT, SELF-LOCKING, ROUND, FLANGEDAPPLICABLE DOCUMENTS: MS14156, MS14164, MS14182, MS21084  
MS21085, MS21133

TABLE I (180 KSI, 4500F)

Material				Steel, Alloy		
Protective Finish				Cadmium Plate		
Lubricant				Non-Dry	Dry	Non-Dry
T-Thread (-38)	Ø A Max	H Max	V Min	MS21133 + Dash No.		MS14156 + Dash No.
.190-32UNJF	.346	.190	.021	-03	L03	--
.250-28UNJF	.439 .444	.250 .290	.028 .033	-04	L04	-- -04
.3125-24UNJF	.534 .547	.312 .363	.034 .038	-05	L05	-- -05
.375-24UNJF	.634 .654	.375 .430	.041 .045	-06	L06	-- -06
.4375-20UNJF	.733 .753	.438 .506	.046 .053	-07	L07	-- -07
.500-20UNJF	.833 .863	.500 .549	.055 .060	-08	L08	-- -08
.625-18UNJF	1.030 1.050	.625 .650	.069 .075	-10	L10	-- -10
.750-16UNJF	1.224 1.230	.750 .750	.083 .090	-12	L12	-- -12
.875-14UNJF	1.419 1.438	.875 .875	.096 .105	-14	L14	-- -14
1.000-12UNJF	1.620 1.625	1.000 1.000	.110 .120	-16	L16	-- -16
1.250-12UNJF	2.022	1.250	.138	-20	L20	--
1.375-12UNJF	2.221	1.375	.151	-22	L22	--
1.500-12UNJF	2.423	1.500	.166	-24	L24	--

TABLE II (220 KSI, 4500F)

Material				Steel, Alloy		
Protective Finish				Cadmium Plate		
Lubricant				Non-Dry	Dry	Non-Dry
T-Thread (-38)	Ø A Max	H Max	V Min	MS21084 + Dash No.		MS14164 + Dash No.
.190-32UNJF	.362	.220	.023	-03	L03	--
.250-28UNJF	.438 .460	.300 .290	.030 .033	-- -04	-- L04	-- -04
.3125-24UNJF	.531 .563	.385 .360	.045 .038	-- -05	-- L05	-- -05
.375-24UNJF	.649 .669	.455 .430	.070 .045	-- -06	-- L06	-- -06
.4375-20UNJF	.750 .778	.520 .500	.085 .053	-- -07	-- L07	-- -07
.500-20UNJF	.828 .879	.600 .575	.105 .060	-- -08	-- L08	-- -08
.625-18UNJF	1.050 1.088	.740 .720	.105 .075	-- -10	-- L10	-- -10
.750-16UNJF	1.230 1.296	.900 .860	.130 .090	-- -12	-- L12	-- -12
.875-14UNJF	1.438 1.505	1.060 1.000	.155 .105	-- -14	-- L14	-- -14
1.000-12UNJF	1.625 1.720	1.210 1.150	.185 .120	-- -16	-- L16	-- -16
1.250-12UNJF	2.144	1.440	.150	-20	L20	--
1.500-12UNJF	2.571	1.720	.180	-24	L24	--

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TABLE III. (260KSI, 450°F)

Material -----				Steel, Alloy	
Protective Finish -----				Cadmium Plate	
Lubricant -----				Non-Dry	Dry
T-Thread (-3B)	ØA Max	H Max	V Min	MS21085 + Dash No.	
.190-32UNJF .250-28UNJF .3125-24UNJF	.377 .481 .588	.250 .315 .405	.025 .033 .041	-03 -04 -05	L03 L04 L05
.375-UNJF .4375-20UNJF .500-20UNJF .5625-18UNJF	.701 .821 .933 1.041	.490 .570 .650 .730	.049 .057 .065 .073	-06 -07 -08 -09	L06 L07 L08 L09
.625-18UNJF .750-16UNJF .875-14UNJF 1.000-12UNJF	1.514 1.375 1.592 1.810	.810 .980 1.140 1.300	.081 .098 .114 .130	-10 -12 -14 -16	L10 L12 L14 L16

TABLE IV. (220KSI, 800°F)

Material -----				Inconel 718	
Protective Finish -----				Nickel Undercoat	
Lubricant -----				Dry Film	
T-Thread (-3B)	ØA Max	H Max	V Min	MS14182 + Dash No.	
.190-32UNJF	.362	.220	.023	-L03	
.250-28UNJF	.460	.290	.033	-L04	
.3125-24UNJF	.563	.360	.038	-L05	
.375-24UNJF	.669	.430	.045	-L06	
.4375-20UNJF	.778	.500	.053	-L07	
.500-20UNJF	.879	.575	.060	-L08	
.5625-18UNJF	.982	.650	.068	-L09	
.625-18UNJF	1.088	.720	.075	-L10	

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**SECTION 2601**  
**NUT, SELF-LOCKING, SLOTTED HEXAGON**  
 APPLICABLE DOCUMENTS: MS17825, MS17826, MS21225

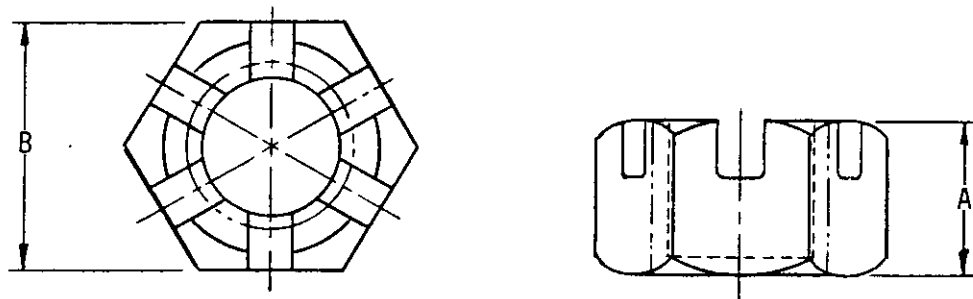


TABLE I

Material -----			Steel		CRES
Performance: Temperature -----			250°F		800°F
Protective finish -----			Cadmium plate		Silver plate
Thread (-3B)	A Max	B Nom	MS17826 + Dash no.	MS17825 + Dash no.	MS21225 + Dash no.
.190-32UNJF	.203	.375	-3	--	--
	.265		--	-3	-3
.250-28UNJF	.203	.438	-4	--	--
	.296		--	-4	-4
.3125-24UNJF	.203	.500	-5	--	--
	.343		--	-5	-5
.375-24UNJF	.234	.562	-6	--	--
	.421		--	-6	-6
.4375-20UNJF	.234	.688	-7	--	--
	.468		--	-7	-7
.500-20UNJF	.265	.750	-8	--	--
	.578		--	-8	-8
.625-18UNJF	.328	.938	-10	--	--
	.734		--	-10	--
.750-16UNJF	.390	1.062	-12	--	--
	.828		--	-12	--
.875-14UNJF	.453	1.250	-14	--	--
	.921		--	-14	--
1.000-12UNJF	.515	1.438	-16	--	--
	1.015		--	-16	--
1.125-12UNJF	.578	1.625	-18	--	--
	1.171		--	-18	--
1.250-12UNJF	.640	1.812	-20	--	--
	1.265		--	-20	--

Note: MS17825 & MS17826 have non-metallic insert (nylon or equal) as locking feature.



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## SECTION 2602

NUT, SELF-LOCKING, SLOTTED,  
HEXAGON (LIGHTWEIGHT), 450°F

APPLICABLE DOCUMENTS: MS14144, MS14145

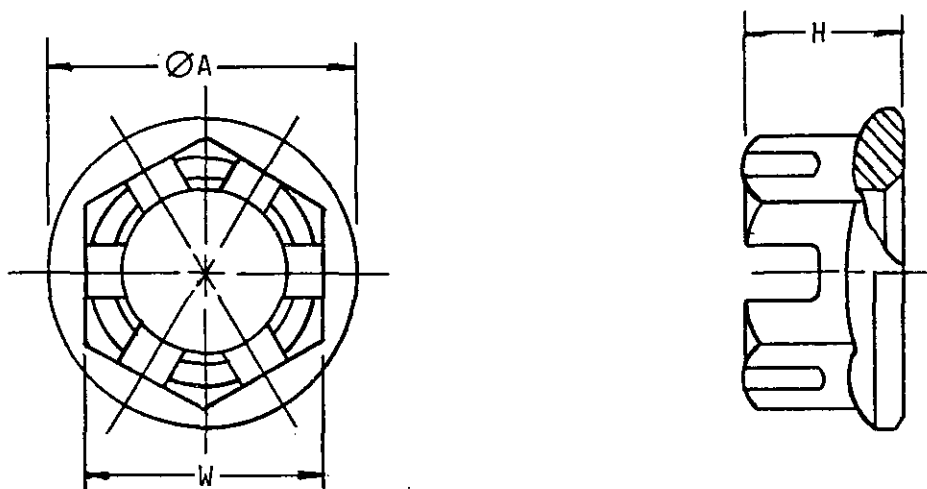


TABLE I

Material -----				Steel				Cotter pin size (Ref)
Protective finish -----				Cadmium plate				
Lubricant -----				Non-dry	Dry	Non-dry	Dry	
Thread size (-3B)	Ø A Max	H Max	W Nom	MS14145 (thin) + Dash no.		MS14144 (reg.) + Dash no.		
.190-32UNJF	.325	.203	.250	-3	-L3	--	--	3/64
		.265		--	--	-3	-3L	
.250-28UNJF	.420	.203	.312	-4	-L4	--	--	1/16
		.296		--	--	-4	-4L	
.3125-24UNJF	.520	.203	.375	-5	-L5	--	--	1/16
		.343		--	--	-5	-5L	
.375-24UNJF	.579	.234	.438	-6	-L6	--	--	3/32
		.421		--	--	-6	-6L	
.4375-20UNJF	.645	.234	.500	-7	-L7	--	--	3/32
		.468		--	--	-7	-7L	
.500-20UNJF	.770	.265	.562	-8	-L8	--	--	3/32
		.578		--	--	-8	-8L	
.625-18UNJF	.910	.328	.750	-10	-L10	--	--	1/8
		.734		--	--	-10	-10L	
.750-16UNJF	1.130	.390	.875	-12	-L12	--	--	1/8
		.828		--	--	-12	-12L	
.875-14UNJF	1.345	.452	1.000	-14	-L14	--	--	1/3
		.921		--	--	-14	-14L	
1.000-12UNJF	1.545	.515	1.125	-16	-L16	--	--	1/2
		1.015		--	--	-16	-16L	
1.125-12UNJF	1.745	.578	1.250	-18	-L18	--	--	1/3
		1.171		--	--	-18	-18L	
1.250-12UNJF	1.915	.640	1.375	-20	-L20	--	--	1/8
		1.265		--	--	-20	-20L	

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# SECTION 2701

## NUT, SELF-LOCKING, SPLINE

APPLICABLE DOCUMENT: MS51866

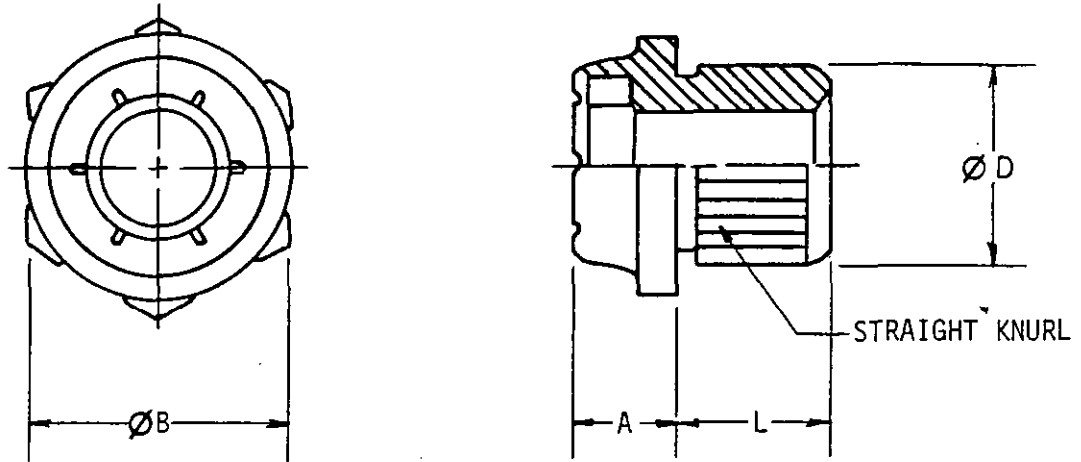


TABLE I

Material -----					Carbon Steel	Aluminum Alloy	Brass	CRES
Protective finish -----					Cadmium plate	Anodize	Uncoated	Passivate
Thread	A Nom	ØB Nom	ØD Max	L Nom	MS51866 + Dash no.			
.164-32UNC-3B	.172	.438	.325	.125	-1	-1A	-1B	-1C
				.188	-3	-3A	-3B	-3C
.190-32UNF-3B	.172	.438	.325	.125	-8	-8A	-8B	-8C
				.188	-10	-10A	-10B	-10C
				.313	-14	-14A	-14B	-14C
.250-28UNF-3B	.188	.563	.388	.188	-18	-18A	-18B	-18C
				.250	-20	-20A	-20B	-20C
				.375	-23	-23A	-23B	-23C
.3125-24UNF-3B	.234	.625	.450	.188	-27	-27A	-27B	-27C
				.250	-29	-29A	-29B	-29C
				.375	-32	-32A	-32B	-32C
.375-24UNF-3B	.281	.688	.513	.188	-35	-35A	-35B	-35C
				.250	-37	-37A	-37B	-37C
				.375	-39	-39A	-39B	-39C
.500-20UNF-3B	.375	.875	.700	.375	-47	-47A	-47B	-47C
				.438	-48	-48A	-48B	-48C

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# SECTION 2801

## NUT, SHEET SPRING (CLIP-IN TYPE)

APPLICABLE DOCUMENT: MS33737

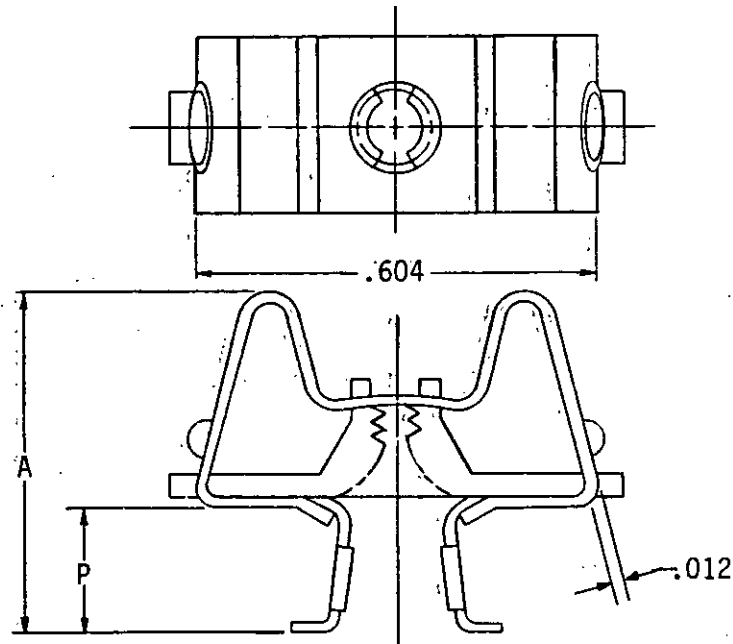


TABLE I

Material -----	Cage -----		Phosphor bronze
	Nut -----		Brass
Thread	A Nom	P Nom	MS33737 + Dash no.
.112-40UNC-2B	.438	.062	-1
	.469	.093	-2
	.500	.125	-3
	.562	.187	-4
	.625	.250	-5
	.688	.312	-6
	.750	.375	-7
		Over .375	-8
.138-32UNC-2B	.438	.062	-9
	.469	.093	-10
	.500	.125	-11
	.562	.187	-12
	.625	.250	-13
	.688	.312	-14
	.750	.375	-15
		Over .375	-16

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# SECTION 2802

## NUT, SHEET, SPRING - FLAT TYPE

APPLICABLE DOCUMENT: NAS 446

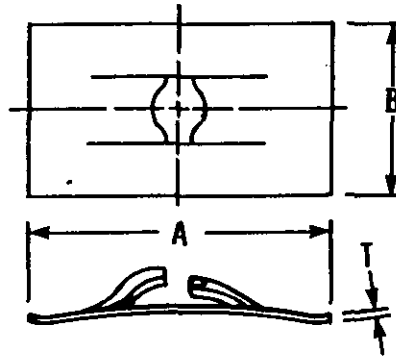


TABLE I

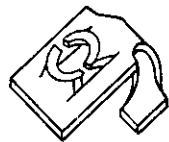
Material -----				Steel, Tempered	
Protective Finish -----				Zinc Chromate Primer Suffix (-1)	Zinc Metal Spray Suffix (-3)
For Screw Size	A Nom	B Nom	T Nom	NAS 446 + Dash No.	
4Z	.500	.312	.022	-1	
6Z	.515	.312	.025	-2	
8Z	.625	.437	.028	-4	
10Z	.875	.500	.031	-5	

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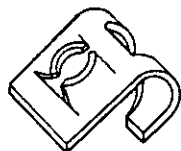
## SECTION 2803

## NUT, SHEET SPRING, "J" TYPE

APPLICABLE DOCUMENT: MS90723



AF



AEH

STYLES

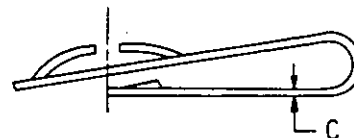
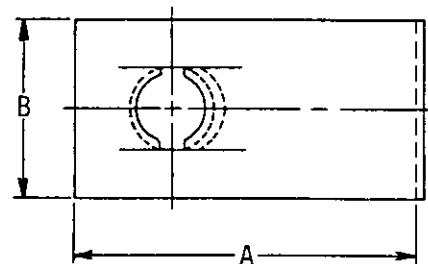
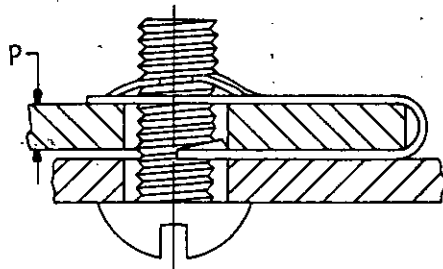


TABLE I

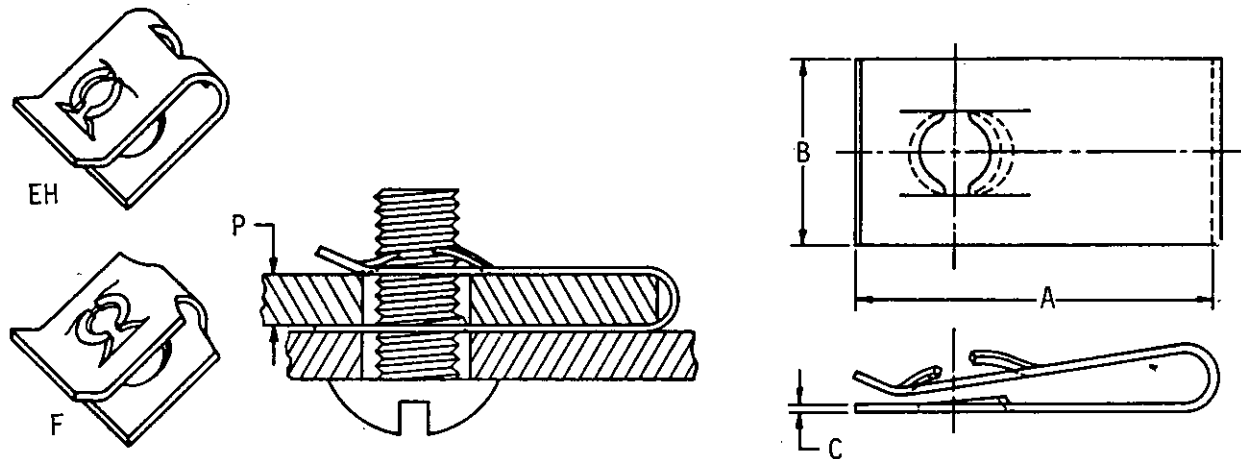
Material -----					Spring steel	
Protective finish -----					Cadmium plate	
Screw size	Style	A Nom	B Nom	C Nom	P .025 - .040	P .045 - .062
					MS90723 + Dash no.	
.138-32	AEH	.469	.500	.017	-1	-23
	AF	.625	.312		-2	-24
	AF	.812	.312		-3	-25
.164-32	AEH	.531	.500	.017	-7	-29
	AF	.688	.406		-8	-30
	AF	.875	.406		-9	-31
.190-24	AEH	.594	.625	.022	-13	-36
	AF	.781	.375		-14	-37
	AF	.969	.375		-15	-38

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# SECTION 2804

## NUT, SHEET SPRING, "U" TYPE

APPLICABLE DOCUMENT: MS90724



STYLES

TABLE I

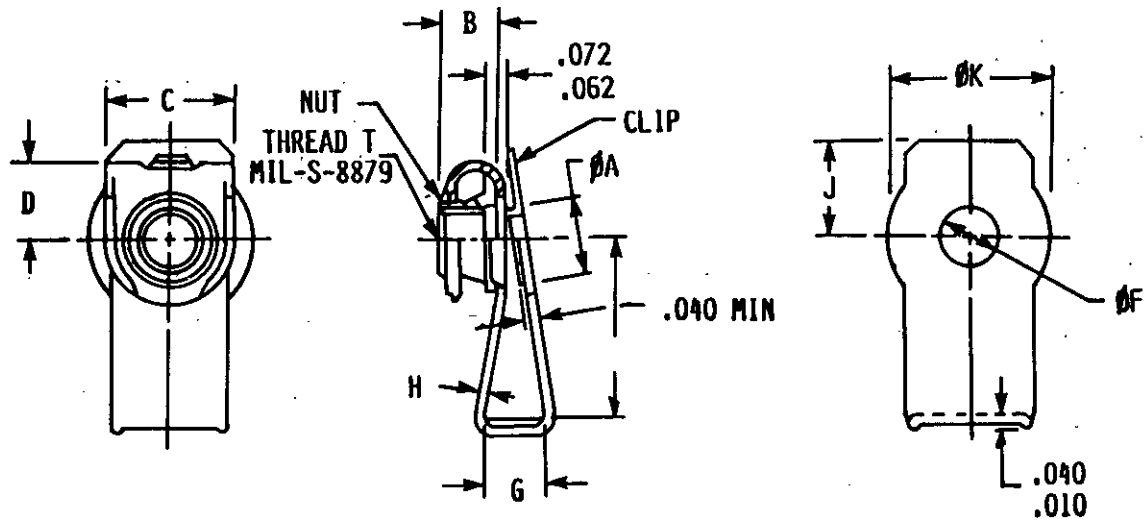
Material -----					Spring steel	
Protective finish -----					Cadmium plate	
Screw size	Style	A Nom	B Nom	C Nom	P .025-.040	P .045-.062
					MS90724 + Dash no.	
.138-32	EH	.484	.500	.017	-1	-23
	F	.656	.312		-2	-24
	F	.828	.312		-3	-25
.164-32	EH	.531	.500	.017	-7	-29
	F	.688	.406		-8	-30
	F	.875	.406		-9	-31
.190-24	EH	.578	.625	.022	-13	-35
	F	.766	.375		-14	-36
	F	.969	.375		-15	-37

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## SECTION 2805

## NUT, SHEET SPRING, "U" TYPE, SELF-LOCKING

APPLICABLE DOCUMENT: AS3261



NOTE: REFERENCE MOUNTING SHEET THICKNESS .030-.090

TABLE I

Material - - - - -																CRES	
Protective Finish - - - - -																Silver Plate	
T Thread	ØA Max	B		C		D		ØF Min	G		H		J		ØK		AS3261 + Dash No.
		Max	Min	Max	Min	Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
.190-32UNJF-3B	.218	.184	.169	.380	.360	.225	.205	.193	.120	.090	.023	.017	.285	.265	.505	.475	-01
.250-28UNJF-3B	.305	.251	.236	.500	.480	.336	.285	.255	.120	.090	.028	.022	.370	.370	.715	.685	-02

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## SECTION 2901

## NUT, STAMPED

APPLICABLE DOCUMENT: MS27151

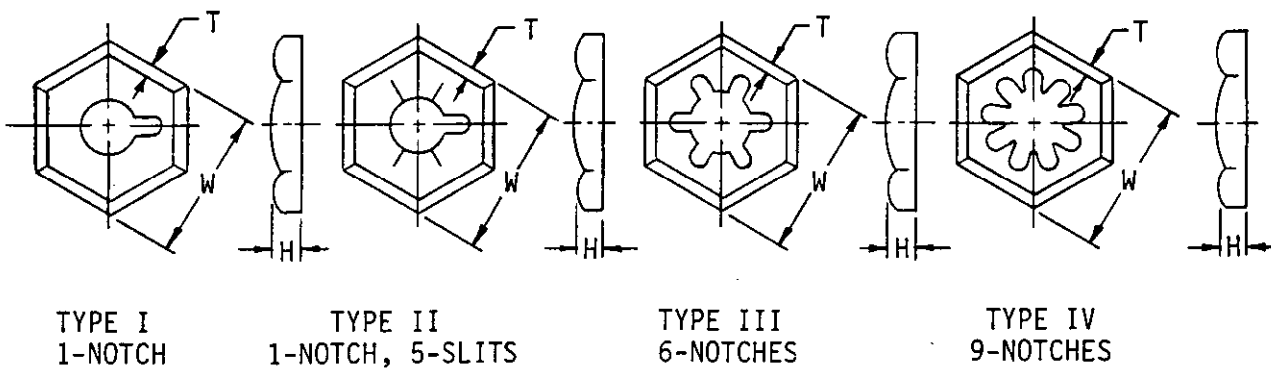


TABLE I

Material -----							Carbon steel
Protective finish -----							Cadmium plate
Rockwell hardness -----							30N-56-66
Thread	Thread designation	Series	Type	W Max	H Nom	T Nom	MS27151 + Dash no.
.112	40UNC	Mach screw	I	.250	.076	.011	-2
.138	32UNC	Mach screw	II	.312	.092	.013	-5
.164	32UNC	Mach screw	II	.344	.099	.013	-6
.190	32UNC	Mach screw	II	.375	.105	.013	-7
	24UNF	Mach screw	II	.375	.105	.017	-8
.250	20UNC	Regular	III	.438	.123	.021	-12
	28UNF	Regular	III	.438	.118	.016	-13
.3125	18UNC	Regular	III	.500	.134	.021	-15
	24UNF	Regular	IV	.500	.129	.019	-16
.375	16UNC	Regular	III	.562	.145	.021	-18
	24UNF	Regular	IV	.562	.140	.019	-19
.500	13UNC	Regular	III	.750	.179	.027	-23
	20UNF	Regular	IV	.750	.172	.023	-24
.625	11UNC	Regular	III	1.000	.224	.035	-27
	18UNF	Regular	IV	.938	.203	.024	-28
.750	10UNC	Regular	III	1.125	.246	.038	-30
	16UNF	Light	IV	1.062	.225	.027	-31
.875	9UNC	Regular	III	1.312	.280	.042	-33
	14UNF	Light	IV	1.250	.256	.030	-34
1.000	8UNC	Heavy	III	1.625	.336	.049	-35
	12UNF	Light	III	1.438	.280	.030	-37



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## SECTION 3001

## PUSH ON NUT

APPLICABLE DOCUMENT: MS51857

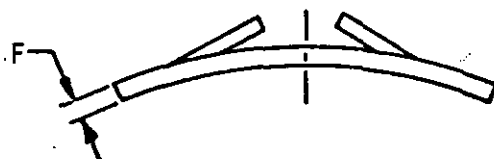
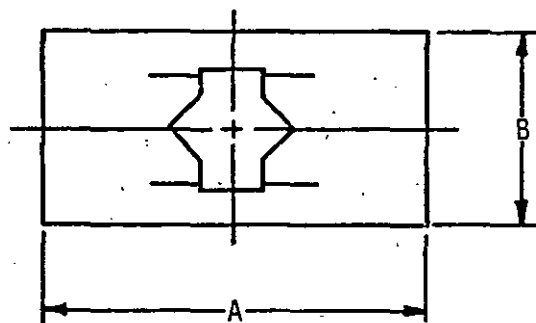


TABLE I

Material -----					Spring steel
Protective finish -----					Cadmium plate
Rockwell hardness -----					C44-50
Stud size	Series <sup>1/</sup>	A Nom	B Nom	F Nom <sub>i</sub>	MS51857 + Dash no.
.125	Light	.58	.31	.012	-1
	Medium			.014	-2
	Heavy			.017	-3
.1875	Light	.62	.38	.012	-4
	Medium			.017	-5
	Heavy			.020	-6
.250	Light	.62	.44	.012	-7
	Medium			.017	-8
	Heavy			.020	-9
.3125	Light	.69	.50	.014	-10
	Medium			.020	-11
.375	Light	.75	.56	.014	-12
	Medium			.020	-13

<sup>1/</sup> Light series nuts are for use on plastic studs; Medium series on soft metal studs and heavy series on hardened studs.

3001.1

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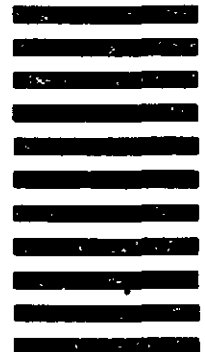


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