

FED. SUPPLY CLASS

53GP

Scope:

The purpose of this standard is to establish symbols for screw threaded fastener descriptive factors that occur frequently during discussion of problems of design engineering changes, construction and maintenance of aircraft and aeronautical equipment, and also those used during the discussion of design, development, testing, evaluation and comparison of fastener designs.

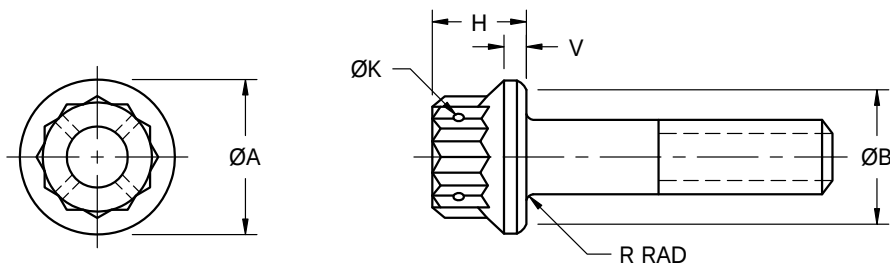
Application:

The following symbols and order of notes shall be used where applicable and practicable on engineering documents, such as drawings for screw threaded fasteners used in the design and construction of military aircraft and aeronautical equipment.

Fastener and Descriptive Factors:

I. Bolts, Screws and Studs

A. Protruding Head



Symbols

1. Thickness (Head Height) H
2. Largest Outside Dimensions or OD of Head Base Flange ØA
3. OD of Bearing Surface under Head ØB
4. Radius under Head (Between Head and Body) R RAD
5. Diameter of Holes for Locking Wire ØK
6. Flange Thickness V

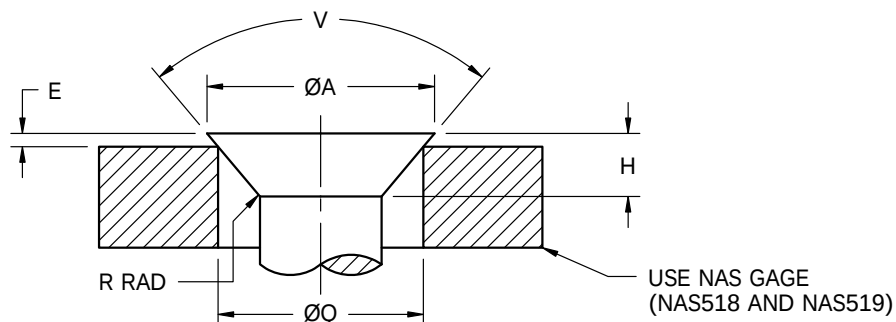
THIS IS A DESIGN STANDARD. NOT TO BE USED AS A PART NUMBER.

① COMPLETELY REVISED

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MS17855 REVISION A, NOTICE 1.

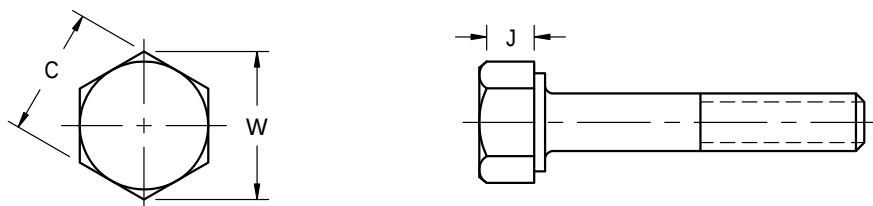
THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 1
PROCUREMENT SPECIFICATION NONE	TITLE FASTENERS, SCREW THREADED, DESCRIPTIVE FACTOR SYMBOLS AND ORDER OF NOTES FOR ENGINEERING DOCUMENTS FOR	CLASSIFICATION DESIGN STANDARD MS17855 SHEET 1 OF 11

B. Flush Head



1. Angle of Conical Frustum V
2. Thickness (Head Height) (Ref) H
3. Diameter of Top of Head ØA
4. Protrusion for Flushness Gage E
5. Gage Diameter for Flushness ØQ
6. Radius under Head between Head and Body R RAD

C. Wrenching Elements



1. External Wrenching
 - a. Width across Flats W
 - b. Width across Point of Corners (Min) C
 - c. Length of Corners J
2. 12 Point Wrenching Element
 - a. Use AS870
 - b. Length of Corners J

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 09-01

① COMPLETELY REVISED

REVISION

1

NAS17855

SHEET 2



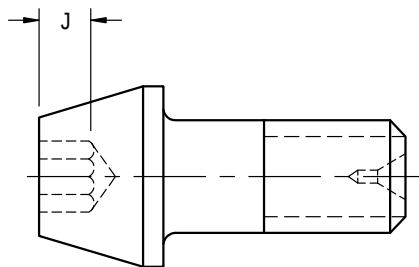
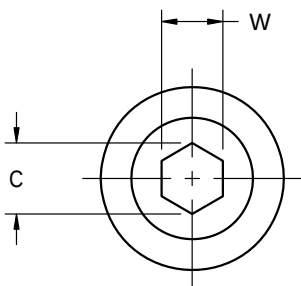
Document Sharing Hub

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY

Copyright Aerospace Industries Association of America Inc. MS PRODUCED UNDER NATIONAL AEROSPACE STANDARD: AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF
Provided by IHS under license with AIA/NAS Licensee: www.sepana.ir/5991803002, User=sam, albert
No reproduction or networking permitted without license from IHS Not for Resale, 01/04/2016 09:46:32 MST TRADEMARKS RIGHTS.

Full document details: AIA NASM17855 2012

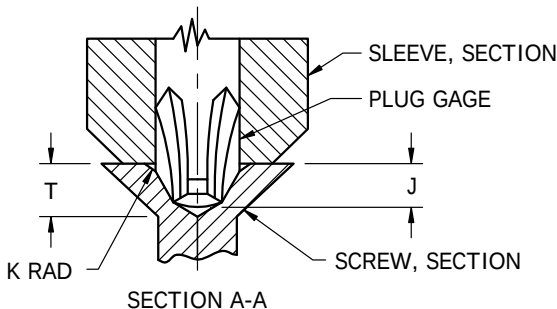
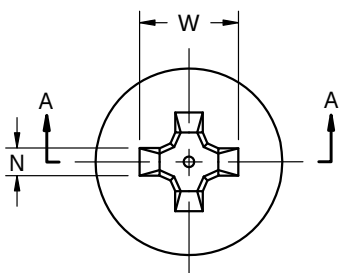
3. Internal Wrenching



a. Socket with Wrenching Corners

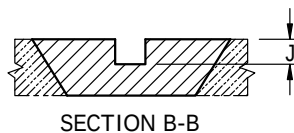
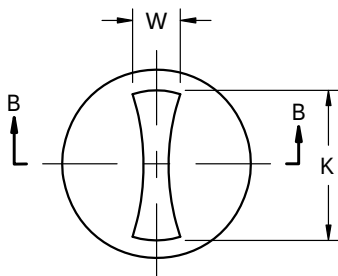
- (1) Width across Flats W
- (2) Width across Point or Corners (Min) C
- (3) Depth of Corners J

b. Cross Recess (NASM9006)



- (1) Length of Wing at Top Surface of Head W
- (2) Depth of Recess from Top of Head T
- (3) Width of Wing at Top Surface of Head N
- (4) Radius Connecting Top Surfaces of Head and End of Wings K RAD
- (5) Depth of Penetration for Recess Gage J

c. High Performance Recess (NASM33750)



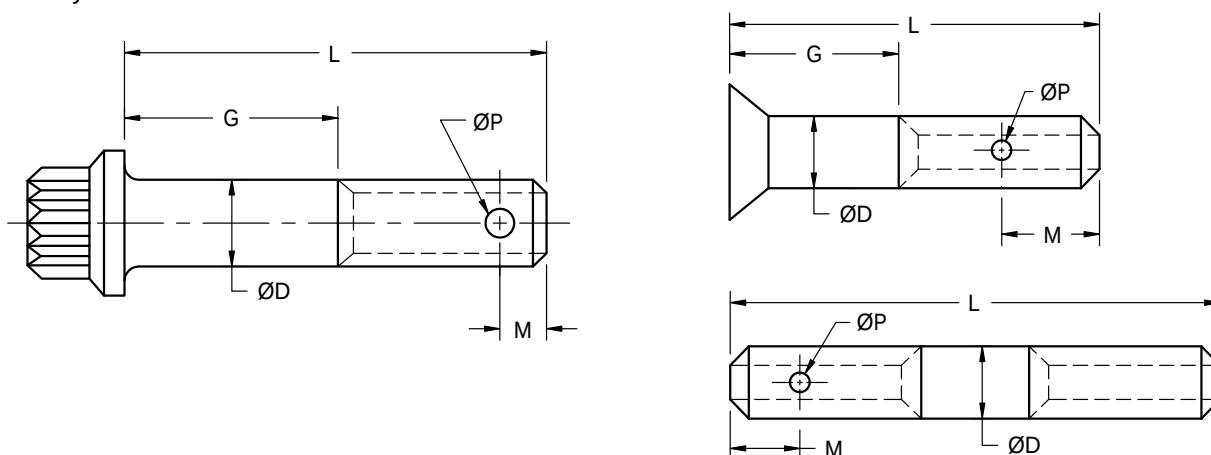
- (1) Length K
- (2) Width W
- (3) Depth J

d. Other drive elements shall use the letters N, W, J and P as symbols for dimensions.

REVISION
1
NASM17855
SHEET 3



D. Body Dimensions

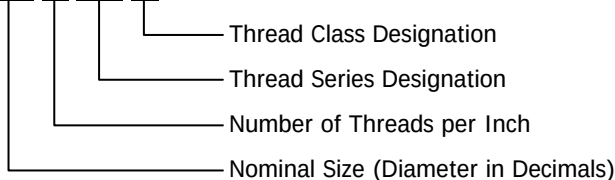


1. Body Diameter (Unthreaded Portion) ØD
2. Unthreaded Portion Length (Grip Length) G
3. Bolt, Screw, or Stud Length L
4. Diameter of Cotter Pin Hole in Threaded Portion ØP
5. Distance from Cotter Pin Hole Centerline to End of Bolt M

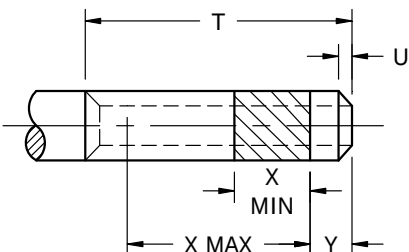
E. Screw Threads

1. Threads diameter size pitch, form, dimensions and tolerances. Use designations in accordance with the applicable threads specification or standard (AS8879, MIL-S-7742, FED-STD-H28 or other applicable documents).

Example: .2500-20 UNC-3A



2. Thread Length T
3. End Chamfer Depth U
4. Locking Element Dimensions (NASM15981)



- a. Length of Effective Engagement X
- b. Distance from Point End of Body to Effective Engagement Area for Locking Element Y