

FED. SUPPLY CLASS

5305

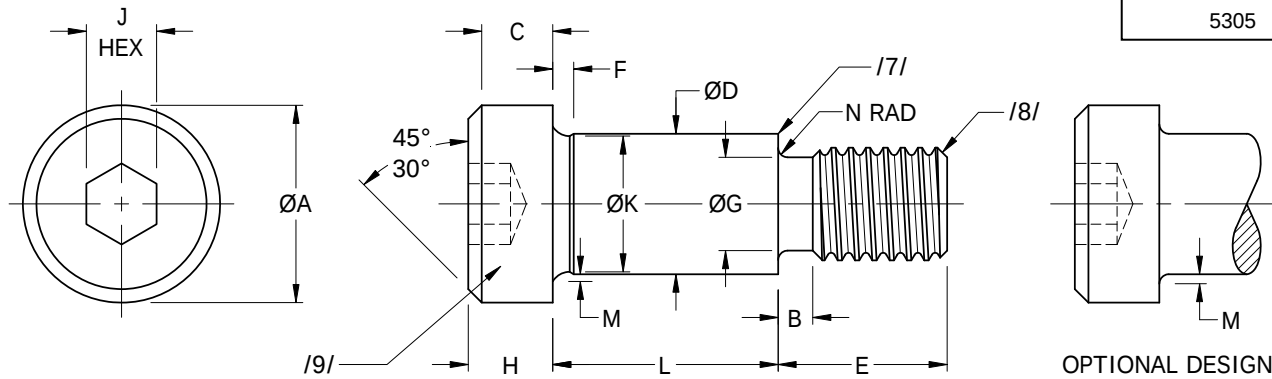


TABLE I – DIMENSIONS

NOMINAL SIZE		.250	.3125	.375	.500	.625	.750	1.000	1.250
THREADS (UNC-3A)		.1900-24	.2500-20	.3125-18	.3750-16	.5000-13	.6250-11	.7500-10	.8750-9
ØA HEAD	MAX	.375	.438	.562	.750	.875	1.000	1.312	1.750
	MIN	.357	.419	.543	.729	.853	.977	1.267	1.723
B THREAD NECK WIDTH	MAX	.083	.100	.111	.125	.154	.182	.200	.222
C HEAD SIDE HEIGHT	MIN	.157	.183	.209	.262	.315	.421	.527	.633
ØD SHOULDER	MAX	.2480	.3105	.3730	.4980	.6230	.7480	.9980	1.2480
	MIN	.2460	.3085	.3710	.4960	.6210	.7460	.9960	1.2460
E THREAD LENGTH	MAX	.375	.438	.500	.625	.750	.875	1.000	1.125
	MIN	.355	.418	.480	.595	.720	.845	.970	1.095
F SHOULDER NECK WIDTH	MAX	.093	.093	.093	.093	.093	.093	.125	.125
ØG THREAD NECK	MAX	.142	.193	.249	.304	.414	.521	.638	.750
	MIN	.133	.182	.237	.291	.397	.502	.616	.726
H HEAD HEIGHT	MAX	.188	.219	.250	.312	.375	.500	.625	.750
	MIN	.177	.209	.240	.302	.365	.490	.610	.735
J SOCKET WIDTH ACROSS FLATS	NOM	.125	.156	.188	.250	.312	.375	.500	.625
ØK SHOULDER NECK	MIN	.227	.289	.352	.477	.602	.727	.977	1.227
M HEAD FILLET	MAX	.014	.017	.020	.026	.032	.039	.050	.060
	MIN	.009	.012	.015	.020	.024	.030	.040	.050
N THREAD NECK FILLET RADIUS	MAX	.023	.028	.031	.035	.042	.051	.055	.062
	MIN	.017	.022	.025	.029	.036	.045	.049	.056
/11/ STEEL ALY DOUBLE SHEAR STRENGTH	LBF MIN	7,980	12,550	18,150	32,450	50,900	73,400	130,900	204,850
/11/ NI-CU ALY DBL SHEAR STRENGTH	LBF MIN	4,750	7,470	10,800	19,300	30,300	43,700	77,900	121,900
/11/ NI-CU-AL ALY DBL SHEAR STRENGTH	LBF MIN	6,790	10,690	15,455	27,630	43,320	62,500	111,400	174,400
/11/ ALBRZ ALY DBL SHEAR STRENGTH	LBF MIN	4,700	7,405	10,700	19,120	30,000	43,270	77,130	120,700
/11/ NAVAL BRS ALY DBL SHEAR STRENGTH	LBF MIN	3,135	4,935	7,130	12,750	19,990	28,850	51,420	77,800
/12/ STEEL ALY TENSILE STRENGTH	LBF MIN	1,950	3,640	6,170	9,310	17,300	27,700	41,700	58,000
/12/ NI-CU ALY TENSILE STRENGTH	LBF MIN	1,110	2,080	3,530	5,320	9,900	15,830	23,840	33,120
/12/ NI-CU-AL ALY TENSILE STRENGTH	LBF MIN	1,805	3,380	5,730	8,650	16,100	25,720	38,740	53,820
/12/ ALBRZ ALY TENSILE STRENGTH	LBF MIN	1,250	2,340	3,970	5,985	11,140	17,810	26,820	37,260
/12/ NAVAL BRS ALY TENSILE STRENGTH	LBF MIN	835	1,560	2,645	3,990	7,430	11,870	17,880	24,000

④ COMPLETELY REVISED

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MS51975, REVISION E. PART NUMBERS REMAIN MS51975.

THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 4
PROCUREMENT SPECIFICATION NASM21472	TITLE SCREW, SHOULDER, SOCKET HEAD, HEXAGON ALLOY STEEL OR NICKEL-COPPER ALLOY, UNC-3A	CLASSIFICATION PART STANDARD NASM51975

USE OF OR REFERENCE TO THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY THE QUALITY OF THE MATERIALS PRODUCED UNDER NATIONAL AEROSPACE STANDARD. AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF THE MATERIALS FOR ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLICABLE LAWS, REGULATIONS, ORDINANCES, OR OTHER REQUIREMENTS. Licensee: www.sepana.ir/5991803002, User: sam, albert. Not for Resale, 01/04/2016 05:47:21 MST TRADEMARK RIGHTS.

MATERIAL:

ALLOY STEEL IN ACCORDANCE WITH NASM21472 OR NICKEL-COPPER ALLOY (UNS N04400) PER QQ-N-281, CLASS A OR NICKEL-COPPER-ALUMINUM ALLOY (UNS N05500) PER QQ-N-286 SOLUTION ANNEALED AND AGE HARDENED OR ALUMINUM BRONZE ALLOY (UNS C63200) PER ASTM B 150 TEMPER TQ50 (QUENCH HARDENED, TEMPER ANNEALED) OR NAVAL BRASS ALLOY (UNSC46400) PER ASTM B 21 TEMPER H02 (TEMPER HALF HARD) IN ACCORDANCE WITH NASM21472.

NICKEL-COPPER-ALUMINUM MANUFACTURE: MATERIAL THAT HAS BEEN HEADED OR THREADED SHALL NOT BE AGE HARDENED UNLESS IT HAS BEEN SOLUTION ANNEALED SUBSEQUENT TO THE HEADING AND THREADING OPERATIONS. THREADS FORMED AFTER THE FINAL AGE HARDENING SHALL BE CUT OR GROUND ONLY.

NICKEL-COPPER-ALUMINUM NONDESTRUCTIVE INSPECTION: SCREWS SHALL BE SELECTED FOR INSPECTION IN ACCORDANCE WITH ASTM F 788 AND INSPECTED BY LIQUID PENETRANT METHOD IN ACCORDANCE WITH NAVSEA T9074-AS-GIB-010/271. ACCEPTANCE CRITERIA SHALL BE AS REQUIRED IN ASTM F 788.

FINISH:

ALLOY STEEL – UNCOATED OR CADMIUM PLATE (INACTIVE FOR NEW DESIGN) IN ACCORDANCE WITH AMS-QQ-P-416. TYPE II, CLASS 2 OR ZINC PLATE PER ASTM B 633, TYPE II, CLASS FE/ZN 5.

NICKEL-COPPER ALLOY, NICKEL-COPPER-ALUMINUM ALLOY, ALUMINUM BRONZE ALLOY OR NAVAL BRASS ALLOY – NONE

CODE:

THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER, THE MATERIAL CODE, A DASH NUMBER TAKEN FROM TABLE II AND A FINISH CODE.

MS 5 1 9 7 5 - 1 P

FINISH: NO SUFFIX FOR CADMIUM PLATE (ALLOY STEEL ONLY),
"P" SUFFIX FOR ZINC PLATE (ALLOY STEEL ONLY),
"X" SUFFIX FOR NO COATING (ALLOY STEEL ONLY).
(NO SUFFIX FOR NON-FERROUS ALLOYS (NICKEL-COPPER,
NICKEL-COPPER-ALUMINUM, ALUMINUM BRONZE OR NAVAL
BRASS))

DASH NUMBER FROM TABLE 2.

MATERIAL: "-" FOR ALLOY STEEL,
"M" FOR NICKEL-COPPER ALLOY,
"K" FOR NICKEL-COPPER-ALUMINUM,
"A" FOR ALUMINUM BRONZE ALLOY, OR
"N" FOR NAVAL BRASS ALLOY.

BASIC MS NUMBER.

EXAMPLE OF PART NUMBER:

- MS51975-1 = SCREW, SHOULDER, SOCKET HEAD, HEXAGON, ALLOY STEEL, .250 NOMINAL SHOULDER SIZE, .375 SHOULDER LENGTH, .1900-24 UNC-3A THREAD SIZE, CADMIUM PLATED.
MS51975-1P = SCREW, SHOULDER, SOCKET HEAD, HEXAGON, ALLOY STEEL, .250 NOMINAL SHOULDER SIZE, .375 SHOULDER LENGTH, .1900-24 UNC-3A THREAD SIZE, ZINC PLATED.
MS51975M1 = SCREW, SHOULDER, SOCKET HEAD, HEXAGON, NICKEL-COPPER ALLOY, .250 NOMINAL SHOULDER SIZE, .375 SHOULDER LENGTH, .1900-24 UNC-3A THREAD SIZE, NO FINISH.

REVISION

4

NASM51975

SHEET 2

4 COMPLETELY REVISED