INCH - POUND

NOTICE OF CHANGE

MIL-STD-1373
NOTICE 3
13 October 1988

MILITARY STANDARD

SCREW-THREAD, MODIFIED, 60° STUB, DOUBLE

TO ALL HOLDERS OF MIL-STD-1373:

1. THE FOLLOWING PAGES OF MIL-STD-1373 HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
Cover	8 April 1971	Reprinted without change	
ii	13 October 1988	ii	8 April 1971
1	13 October 1988	1	8 April 1971
2	8 April 1971	Reprinted without change	
3	13 October 1988	3	27 November 1972
4	27 November 1972	Reprinted without change	
7	13 October 1988	7	8 April 1971
8	8 April 1971	Reprinted without change	

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

3. Holders of MIL-STD-1373 will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the military standard is completely revised or canceled.

Custodians:
Army - ER
Navy - EC

Review activities:
Army - SC
DLA- IS

User activities:
Navy - AS, SH, YD

Preparing activity:
Navy - EC

Agent:
DLA-IS

(Project THDS-0072)

AMSC N/A

AREA THDS

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MIL-STD-1373
8 April 1971
SUPERSEDING
MIL-S-23747B(SHIPS)
15 October 1965

MILITARY STANDARD

SCREW-THREAD, MODIFIED, 60° STUB, DOUBLE

FSC MISC

DEPARTMENT OF DEFENSE
WASHINGTON, DC 20301

Screw-Thread, Modified, 60° Stub, Double

1. This standard is approved for use by all Departments and Agencies of the Department of Defense.

2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Space and Naval Warfare Systems Command (SPAWAR 003-1212), Washington, DC 20363-5100.

Supersedes page ii of MIL-STD-1373 (8 April 1971)

SCREW-THREAD, MODIFIED, 60° STUB, DOUBLE

1. SCOPE

1.1 This standard covers the requirements for the double stub, 60° modified screw-thread series, classes and sizes for quick disconnect use.

1.2 Classification. Screw-threads covered by this standard shall be of the following series and classes, as specified.

Double Stub Thread Series

Class 2A	Symbols DS-2A	.05 pitch	Table I
		0.1 pitch	Table II
		.1428 pitch	Table III
Class 2B	Symbols DS-2B	.05 pitch	Table IV
		0.1 pitch	Table V
		.1428 pitch	Table VI

1.3 Designation

Class 2A	X.XXXX (size)	- 0.05P-0.1L-DS-2A
	X.XXXX (size)	- 0.1P-0.2L-DS-2A
	X.XXXX (size)	- .1428P-.2857L-DS-2A
Class 2B	X.XXXX (size)	- 0.05P-0.1L-DS-2B
	X.XXXX (size)	- 0.1P-0.2L-DS-2B
	X.XXXX (size)	- .1428P-.2857L-DS-2B

2. REFERENCED DOCUMENTS

2.1 Government documents. Unless otherwise specified, the following specifications, standards, and handbooks of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this standard to the extent specified herein.

STANDARDS

FEDERAL

FED-STD-H28/1 - Screw-Thread Standards for Federal Services Section 1; Nomenclature, Definitions and Letter Symbols for Screw Threads

(Copies of specifications, standards, handbooks, drawings, and publications required by contractors in connection with specific acquisition functions should be obtained from the contracting 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 specified, the issues of the documents which are DoD adopted shall be those listed in the issue of the DoDISS specified in the solicitation. The issues of documents which have not been adopted shall be those in effect on the date of the cited DoDISS.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI/ASME B46.1 - Surface Texture (Surface Roughness, Waviness, and Lay)
ANSI B47.1 - Gage Blanks
ANSI Y14.36 - Surface Texture Symbols

TABLE I. Class 2A
.05 Pitch
Modified 60° Stub External Double Thread Series
Symbol DS-2A

Designation			Allowance	External Thread—Limits of Size								
				Major Diameter			Pitch Diameter			Minor Diameter		
				Limits		Tolerance	Limits		Tolerance	Limits		
Thread Size	Pitch	Lead		Max	Min		Max	Min		Max	Min	
.2500	.05	.1	.0015	.2485	.2425	.0060	.2305	.2245	.0060	.2105	.2005	
.3750	↓	↓	↓	.3735	.3675	↓	.3555	.3495	↓	.3355	.3255	
.5000	↓	↓	↓	.4985	.4925	↓	.4805	.4745	↓	.4605	.4505	
.5625	↓	↓	↓	.5610	.5550	↓	.5430	.5370	↓	.5230	.5130	
.6250	↓	↓	↓	.6235	.6175	↓	.6055	.5995	↓	.5855	.5755	

Note: Formulas for these values are given in table VII.

TABLE II. Class 2A
0.1 Pitch
Modified 60° Stub External Double Thread Series
Symbol DS-2A

Designation			Allowance	External Thread—Limits of Size								
				Major Diameter			Pitch Diameter			Minor Diameter		
				Limits		Tolerance	Limits		Tolerance	Limits		
Thread Size	Pitch	Lead		Max	Min		Max	Min		Max	Min	
.6875	.1	.2	.0015	.6860	.6780	.0080	.6600	.6520	.0080	.6300	.6160	
.7500	↓	↓	↓	.7485	.7405	↓	.7225	.7145	↓	.6925	.6785	
.8750	↓	↓	↓	.8735	.8655	↓	.8475	.8395	↓	.8175	.8035	
1.0000	↓	↓	↓	.9985	.9905	↓	.9725	.9645	↓	.9425	.9285	
1.1250	↓	↓	.0020	1.1230	1.1110	.0120	1.0890	1.0790	.0100	1.0510	1.0330	
1.2500	↓	↓	↓	1.2480	1.2360	↓	1.2140	1.2040	↓	1.1760	1.1580	
1.3750	↓	↓	↓	1.3730	1.3610	↓	1.3390	1.3290	↓	1.3010	1.2830	
1.5000	↓	↓	↓	1.4980	1.4860	↓	1.4640	1.4540	↓	1.4260	1.4080	
1.7500	↓	↓	↓	1.7480	1.7360	↓	1.7140	1.7040	↓	1.6760	1.6580	
2.0000	↓	↓	↓	1.9980	1.9860	↓	1.9640	1.9540	↓	1.9260	1.9080	
2.2500	↓	↓	↓	2.2480	2.2360	↓	2.2140	2.2040	↓	2.1760	2.1580	
2.5000	↓	↓	↓	2.4980	2.4860	↓	2.4640	2.4540	↓	2.4260	2.4080	
2.6250	↓	↓	↓	2.6230	2.6110	↓	2.5890	2.5790	↓	2.5510	2.5330	
2.7500	↓	↓	↓	2.7480	2.7360	↓	2.7140	2.7040	↓	2.6760	2.6580	
3.0000	↓	↓	↓	2.9980	2.9860	↓	2.9640	2.9540	↓	2.9260	2.9080	
3.2500	↓	↓	↓	3.2480	3.2360	↓	3.2140	3.2040	↓	3.1760	3.1580	

Note: Formulas for these values are given in table VII.

TABLE III. Class 2A
.1428 Pitch
Modified 60° Stub External Double Thread Series
Symbol DS-2A

Designation			Allow-ance	External Thread-Limits of Size							
				Major Diameter			Pitch Diameter			Minor Diameter	
				Limits		Toler-ance	Limits		Toler-ance	Limits	
Thread Size	Pitch	Lead		Max	Min		Max	Min		Max	Min
2.0000	.1428	.2857	.0020	1.9980	1.9860	.0120	1.9360	1.9260	.0100	1.8685	1.8505
2.2500	↓	↓	↓	2.2480	2.2360	↓	2.1860	2.1760	↓	2.1185	2.1005
2.7500				2.7480	2.7360		2.6860	2.6760		2.6185	2.6005
3.0000				2.9980	2.9860		2.9360	2.9260		2.8685	2.8505
3.2500				3.2480	3.2360		3.1860	3.1760		3.1185	3.1005
3.5000				3.4980	3.4860		3.4360	3.4260		3.3685	3.3505

Note: Formulas for these values are given in table VII.

TABLE IV. Class 2B
.05 Pitch
Modified 60° Stub Internal Double Thread Series
Symbols DS-2B

Designation			Internal Thread-Limits of Size							
			Minor Diameter			Pitch Diameter			Major Diameter	
			Limits		Toler-ance	Limits		Toler-ance	Limits	
Thread Size	Pitch	Lead	Min	Max		Min	Max		Min	Max
.2500	.05	.1	.2183	.2263	.0080	.2320	.2400	.0080	.2520	.2640
.3750	↓	↓	.3433	.3513	↓	.3570	.3650	↓	.3770	.3890
.5000			.4683	.4763		.4820	.4900		.5020	.5140
.5625			.5308	.5388		.5445	.5525		.5645	.5765
.6250			.5933	.6013		.6070	.6150		.6270	.6390

Note: Formulas for these values are given in table VII.

TABLE V. Class 2B
0.1 Pitch
Modified 60° Stub Internal Double Thread Series
Symbol DS-2B

Designation			Internal Thread-Limits of Size							
			Minor Diameter			Pitch Diameter			Major Diameter	
			Limits		Toler-ance	Limits		Toler-ance	Limits	
Thread Size	Pitch	Lead	Min	Max		Min	Max		Min	Max
.6875	.1	.2	.6417	.6517	.0100	.6615	.6715	.0100	.6915	.7075
.7500	↓	↓	.7042	.7142	↓	.7240	.7340	↓	.7540	.7700
.8750			.8292	.8392		.8490	.8590		.8790	.8950
1.0000			.9542	.9642		.9740	.9840		1.0040	1.0200

Supersedes page 3 of Notice 2 (27 November 1972)

TABLE V. Class 2B
0.1 Pitch
Modified 60° Stub Internal Double Thread Series
Symbol DS-2B (Continued)

Designation			Internal Thread-Limits of Size							
			Minor Diameter			Pitch Diameter			Major Diameter	
Thread Size	Pitch	Lead	Limits		Tolerance	Limits		Tolerance	Limits	
			Min	Max		Min	Max		Min	Max
1.1250	.1	.2	1.0650	1.0770	.0120	1.0910	1.1030	.0120	1.1290	1.1490
1.2500			1.1900	1.2020		1.2160	1.2280		1.2540	1.2740
1.3750			1.3150	1.3270		1.3410	1.3530		1.3790	1.3990
1.5000			1.4400	1.4520		1.4660	1.4780		1.5040	1.5240
1.7500			1.6900	1.7020		1.7160	1.7280		1.7540	1.7740
2.0000			1.9400	1.9520		1.9660	1.9780		2.0040	2.0240
2.2500			2.1900	2.2020		2.2160	2.2280		2.2540	2.2740
2.5000			2.4400	2.4520		2.4660	2.4780		2.5040	2.5240
2.6250			2.5650	2.5770		2.5910	2.6030		2.6290	2.6490
2.7500			2.6900	2.7020		2.7160	2.7280		2.7540	2.7740
3.0000			2.9400	2.9520		2.9660	2.9780		3.0040	3.0240
3.2500			3.1900	3.2020		3.2160	3.2280		3.2540	3.2740

Note: Formulas for these values are given in table VII.

TABLE VI. Class 2B
.1428 Pitch
Modified 60° Stub Internal Double Thread Series
Symbol DS-2B

Designation			Internal Thread-Limits of Size							
			Minor Diameter			Pitch Diameter			Major Diameter	
Thread Size	Pitch	Lead	Limits		Tolerance	Limits		Tolerance	Limits	
			Min	Max		Min	Max		Min	Max
2.0000	.1428	.2857	1.8908	1.9028	.0120	1.9380	1.9500	.0120	2.0055	2.0255
2.2500			2.1408	2.1528		2.1880	2.2000		2.2555	2.2755
2.7500			2.6408	2.6528		2.6880	2.7000		2.7555	2.7755
3.0000			2.8908	2.9028		2.9380	2.9500		3.0055	3.0255
3.2500			3.1408	3.1528		3.1880	3.2000		3.2555	3.2755
3.5000			3.3908	3.4028		3.4380	3.4500		3.5055	3.5255

Note: Formulas for these values are given in table VII.

Supersedes page 4 of 8 April 1971

3. DEFINITIONS

The terms applicable to this standard are defined in FED-STD-H28/1 and as specified herein.

4. GENERAL REQUIREMENTS

Not applicable.

5. DETAILED REQUIREMENTS

5.1 Form of thread. The double stub 60° modified screw-thread form, as shown in figures 1 and 2, shall be used for all screw-threads covered by this standard.

5.2 Basic thread data. Thread size limits for the double stub 60° modified screw-thread are given in tables I through VI inclusive. Widths of flats derived from these limits are given in tables VIII, IX and X.

5.3 Thread series. Series of threads are classified and distinguished from each other by (1) the number of threads per inch (pitch) applied to specific diameters and by (2) the relationship of lead to pitch, i.e., lead equal to double, or triple the pitch. For double stub threads in this standard, lead is double the pitch.

5.4 Thread classes. Classes of threads are distinguished from each other by the amount of tolerance and allowance specified. Threads specified herein are for Class 2A/2B double stub 60° modified screw-threads. Figure 2 shows the thread engagement for this class. Class 2A applies to external threads. Class 2B applies to internal threads.

5.5 Thread start. The thread start shall be full width. Full thread depth shall be attained by an increase from root to crest through a maximum arc of 120° (see figure 3).

5.6 Surface roughness. When the requirements of design or application make control of the surface roughness of screw-threads absolutely necessary, the allowable average roughness, R_a shall be specified in microinches in accordance with ANSI/ASME B46.1 and ANSI Y14.36.

5.7 Gages. Gaging limits are specified in tables VIII, IX and X. GO gages are based upon maximum material limits and NOT GO (No Go) gages are based upon minimum material limits. Tolerances and their application shall be in accordance with table VII. The gage design shall be in accordance with ANSI B47.1.

5.7.1 Gages for plated external threads. Unless otherwise specified, maximum gaging limits of plated Class 2A products are increased by the amount of the product allowance which are then equivalent to Class 3A GO gage limits.

5.7.2 Gage wear. Gages shall not be permitted to wear beyond such a point that the product being gaged will be outside the limits specified. Gages shall be reset or replaced when these limits are exceeded.

5.7.3 "No Go" gaging. No go ring or plug gages may engage the product not more than one half turn when the gage shall be restricted to encounter a snug fit for the remainder of the full thread of the product.

5.8 Workmanship. Workmanship shall be consistent with the tolerances specified therein. Threads shall have a smooth finish, free from flaws, abrupt terminations, and other defects which would make them unsuitable for the purpose intended. When the surface roughness is specified, the smoothness of the thread shall be within the limit or limits specified.

6. NOTE

This thread is recommended for electrical connectors and other devices requiring fast coupling action and strong, shallow thread.

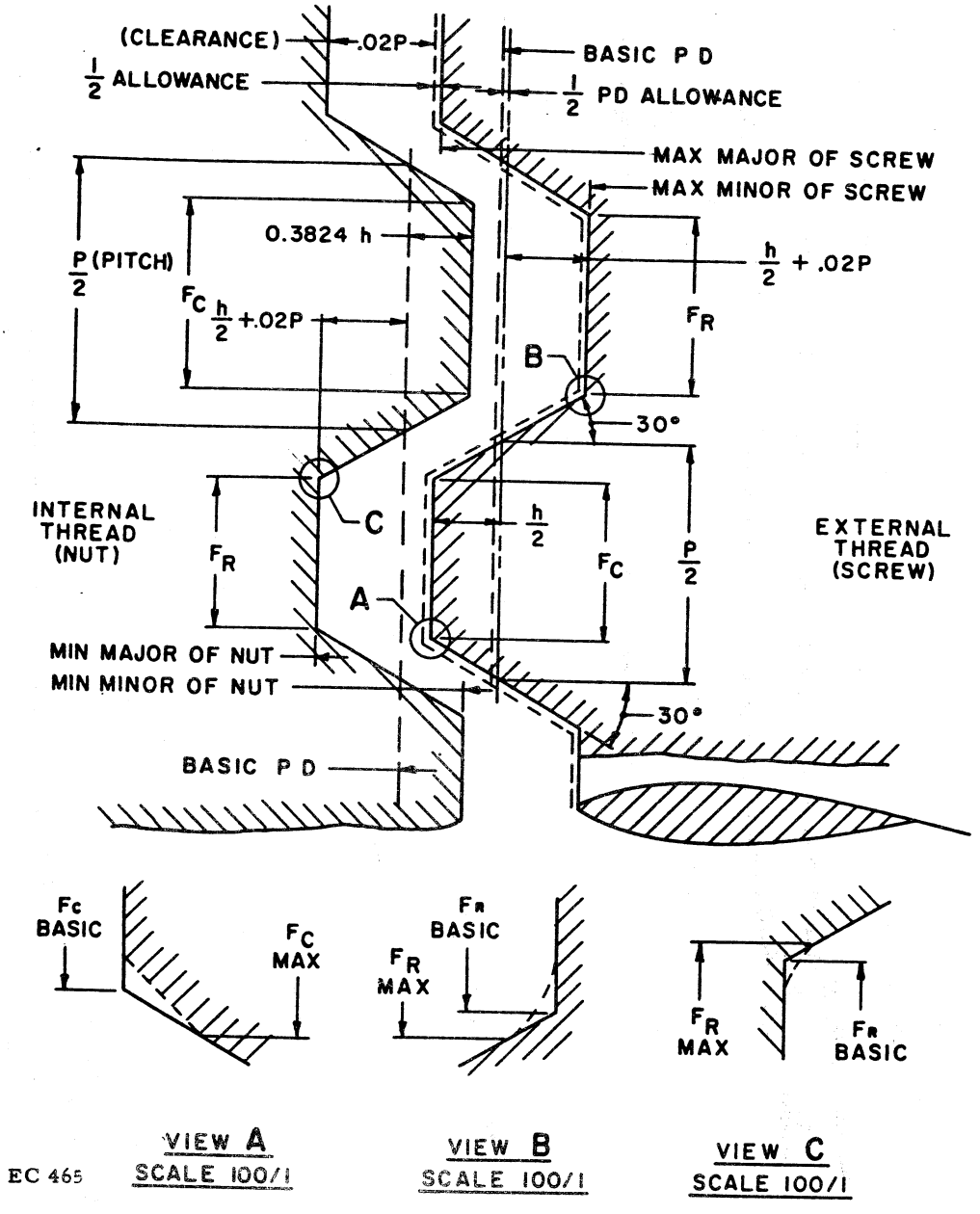

FIGURE 1. Basic dimensions - Class 2A and 2B threads. The dashed line indicates an allowance. Nut and screw threads have been separated for clarity.