

RATIONALE

AS3543 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

**SAE AS3543**

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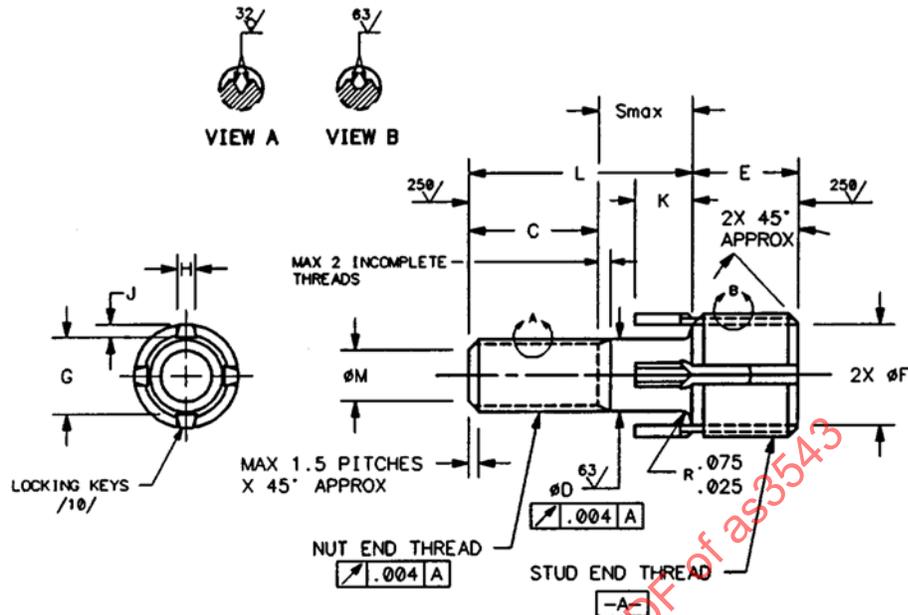


FIGURE 1 - STUD, FINE THREAD, NUT END

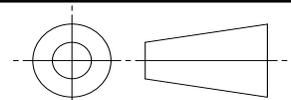
TABLE 1 - DIMENSIONS, STUD, FINE THREAD, NUT END

AS3543 DASH NO.	NUT END THREAD AS8879 UNJF-3A	STUD END THREAD FED-STD-H28/2 EXCEPT MODIFIED MINOR DIA SIZE	STUD END THREAD FED-STD-H28/2 EXCEPT MODIFIED MINOR DIA MINOR	C1 ±.030	ØD GRIP DIA +.002	E ±.010	ØF ±.010	G REF	KEY DIMENSIONS H REF	KEY DIMENSIONS J REF	KEY DIMENSIONS K REF	ØM ±.010
1	.1900-32	.3125-18UNC-2A	.256 249	.500	.187	.312	.250	.220	.068	.040	.160	.150
2	.2500-28	.3750-16UNC-2A	.320 312	.580	.247	.375	.310	.284	.068	.040	.190	.200
3	.3125-24	.4375-14UNC-2A	.383 375	.660	.310	.437	.375	.345	.068	.040	.190	.260
4	.3750-24	.5000-13UNC-2A	.440 432	.660	.372	.500	.430	.407	.068	.040	.190	.320
5	.4375-20	.5625-12UNC-2A	.503 495	.800	.435	.562	.495	.469	.068	.040	.190	.375
6	.5000-20	.6250-11UNC-2A	.565 551	.800	.497	.625	.550	.532	.068	.040	.190	.435

1 THIS DIMENSION DOES NOT APPLY TO DASH NUMBERS ABOVE THE HEAVY LINES IN TABLE 2.

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS3543>

THIRD ANGLE PROJECTION



CUSTODIAN: E-25

PROCUREMENT SPECIFICATION: NONE

**SAE Aerospace**  
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**AEROSPACE STANDARD**

STUD, LOCKED IN, KEY LOCKED, UNS S66286,  
140 ksi/1200 °F, LIGHTWEIGHT,  
SELF-BROACHING KEYS

**SAE AS3543**  
SHEET 1 OF 3

TABLE 2 - TABULATED LENGTHS, NUT END

L NUT END +.010	LENGTH DASH NO.	Smax NOMINAL DIAMETER .190	Smax NOMINAL DIAMETER .250	Smax NOMINAL DIAMETER .3125	Smax NOMINAL DIAMETER .375	Smax NOMINAL DIAMETER .4375	Smax NOMINAL DIAMETER .500
.438	7	.138	--	--	--	--	--
.500	8	.138	.146	--	--	--	--
.562	9	.138	.146	.158	--	--	--
.625	10	.138	.146	.158	.158	--	--
.688	11	.228	.146	.158	.158	.175	--
.750	12	.290	.230	.158	.158	.175	.175
.812	13	.352	.292	.158	.158	.175	.175
.875	14	.415	.355	.255	.255	.175	.175
.938	15	.478	.418	.318	.318	.175	.175
1.000	16	.540	.480	.380	.380	.240	.240
1.062	17	.602	.542	.442	.442	.302	.302
1.125	18	.665	.605	.505	.505	.365	.365
1.188	19	.728	.668	.568	.568	.428	.428
1.250	20	.790	.730	.630	.630	.490	.490
1.312	21	.852	.792	.692	.692	.552	.552
1.375	22	.915	.855	.755	.755	.615	.615
1.438	23	.978	.918	.818	.818	.678	.678
1.500	24	1.040	.980	.880	.880	.740	.740
1.562	25	1.102	1.042	.942	.942	.802	.802
1.625	26	1.165	1.105	1.005	1.005	.865	.865
1.688	27	1.228	1.168	1.068	1.068	.928	.928
1.750	28	1.290	1.230	1.130	1.130	.990	.990
1.812	29	1.352	1.292	1.192	1.192	1.052	1.052
1.875	30	1.415	1.355	1.255	1.255	1.115	1.115
1.938	31	1.478	1.418	1.318	1.318	1.178	1.178
2.000	32	1.540	1.480	1.380	1.380	1.240	1.240
2.125	34	1.665	1.605	1.505	1.505	1.365	1.365
2.250	36	1.790	1.730	1.630	1.630	1.490	1.490
2.375	38	1.915	1.855	1.755	1.755	1.615	1.615
2.500	40	2.040	1.980	1.880	1.880	1.740	1.740
2.625	42	2.165	2.105	2.005	2.005	1.865	1.865
2.750	44	2.290	2.230	2.130	2.130	1.990	1.990

DASH NUMBERED PARTS ABOVE THE HEAVY LINE ARE THREADED TO THE STUD END AS SPECIFIED HEREIN. THE MAXIMUM DISTANCE FROM THE STUD END TO THE FIRST FULL THREAD SHALL BE EQUAL TO THE SUM OF THE MAXIMUM FILLET RADIUS AND A MAXIMUM OF TWO COMPLETE THREADS. INCOMPLETE THREADS NOT TO ENTER FILLET AREA.

NOTES:

- MATERIAL: STEEL, CORROSION-RESISTANT, TYPE A286 (UNS S66286) IN ACCORDANCE WITH AMS 5731, AMS 5734, OR AMS 5737.  
LOCKING KEYS: STEEL, CORROSION-RESISTANT, TYPE 420 (UNS S42000) CHEMICAL COMPOSITION OF QQ-S-763
- HEAT TREATMENT: AMS 5731 AND AMS 5734 SHALL BE HEAT TREATED TO 140 ksi Ft<sub>u</sub> MINIMUM IAW AMS 2759/3.
- AS AND AMS ARE SAE PUBLICATIONS. ANSI IS AN AMERICAN STANDARDS INSTITUTE PUBLICATION.
- HARDNESS: 29 TO 38 HRC.
- SURFACE TREATMENT: PASSIVATED IN ACCORDANCE WITH AMS-QQ-P-35.
- DIMENSIONS AND TOLERANCING: ASME Y14.5M
- DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ±.005, ANGULAR DIMENSIONS ±5°.

 An SAE International Group	<b>AEROSPACE STANDARD</b>	<b>SAE AS3543</b> SHEET 2 OF 3
	STUD, LOCKED IN, KEY LOCKED, UNS S66286, 140 ksi/1200 °F, LIGHTWEIGHT, SELF-BROACHING KEYS	