



Units: inches

Thread	Thread Size	Type			Thread Code	Length "L" ±0.015 (length in sixteenths of an inch)											Min. Sheet Thickness	Panel Hole Dimensions ±0.003 (-0.000)	Max. diameter of connecting holes	H ±0.15	S Max (2)	Minimum Edge Distance
		Steel	Stainless Steel	Aluminum		0.250	0.312	0.375	0.500	0.625	0.750	0.875	1.00	1.25	1.50							
Unified Thread	.086-56 (#2-56)	FH	FNS	NA	256	4	5	6	8	10	12	NA	NA	NA	NA	0.040	0.085	0.105	0.144	0.075	0.187	
	.112-40 (#4-40)	FH	FNS	FHA	440	4	5	6	8	10	12	14	16	20	NA	0.040	0.111	0.135	0.176	0.085	0.219	
	.138-32 (#6-32)	FH	FNS	FHA	632	4	5	6	8	10	12	14	16	20	24	0.040	0.127	0.189	0.206	0.090	0.250	
	.164-32 (#8-32)	FH	FNS	FHA	832	4	5	6	8	10	12	14	16	20	24	0.040	0.163	0.185	0.237	0.090	0.281	
	.190-24 (#10-24)	FH	FNS	FHA	024	NA	5	6	8	10	12	14	16	20	24	0.040	0.189	0.210	0.256	0.100	0.281	
	.190-32 (#10-32)	FH	FNS	FHA	032	NA	5	6	8	10	12	14	16	20	24	0.040	0.189	0.210	0.256	0.100	0.281	
	.250-20 (1/4-20)	FH	FNS	FHA	0420	NA	NA	6	8	10	12	14	16	20	24	0.062	0.249	0.270	0.337	0.135	0.312	
.313-18 (5/16-18)	FH	FNS	NA	0518	NA	NA	NA	8	10	12	14	16	20	24	0.093	0.311	0.333	0.376	0.160	0.375		

Units: mm

Thread	Thread Size × Pitch	Type			Thread Code	Length "L" ±0.04 (length specified in millimeters)											Min. Sheet Thickness	Panel Hole Dimensions ±0.08	Max. diameter of connecting holes	H ±0.4	S Max	Minimum Edge Distance				
		Steel	Stainless Steel	Aluminum		M2.5	M3	M3.5	M4	M5	M6	M8	M10	M12	M16	M20							M25	M30	M35	M40
Metric Thread	M2.5X0.45	FH	FNS	NA	M2.5	6	8	10	12	15	18	NA	NA	NA	NA	1	2.5	3.1	4.1	1.95	5.4					
	M3X0.5	FH	FNS	FHA	M3	6	8	10	12	15	18	20	25	30	NA	1	3	3.6	4.6	2.1	5.6					
	M3.5X0.6	FH	FNS	FHA	M3.5	6	8	10	12	15	18	20	25	30	NA	1	3.5	4.1	5.3	2.25	6.4					
	M4X0.7	FH	FNS	FHA	M4	6	8	10	12	15	18	20	25	30	35	1	4	4.6	5.9	2.4	7.2					
	M5X0.8	FH	FNS	FHA	M5	8	10	12	15	18	20	25	30	35	1	5	5.6	6.5	2.7	7.2						
	M6X1	FH	FNS	FHA	M6	NA	NA	10	12	15	18	20	25	30	35	1.6	6	6.6	8.2	3	7.9					
	M8X1.25	FH	FNS	NA	M8	NA	NA	NA	12	15	18	20	25	30	35	2.4	8	8.6	9.6	3.7	9.6					

Performance Data

Thread	Thread Code	Nut Tightening torque	Type	Thickness and Material of the Test Board	Sheet hardness (HBB)	Installation Force (kN)	Push-Out Force (N)	Torque-Out Resistance (N·m)	Pull-Out Force (N)
Unified Thread	256	2.3	FH	.062"Aluminum	29	2000	100	5	425
	256	2.3	FNS	.062"Aluminum	29	2000	100	4.5	300
	256	2.3	FH	.069"Steel	59	2500	180	5	425
	256	2.3	FNS	.069"Steel	59	2500	180	4.5	300
	440	5	FH	.062"Aluminum	29	3800	170	10	650
	440	5	FNS	.062"Aluminum	29	3200	170	8	500
	440	5	FH	.069"Steel	59	4300	275	10	650
	440	5	FNS	.069"Steel	59	4700	275	8	500
	632	9	FH	.062"Aluminum	29	3800	180	17	850
	632	9	FNS	.062"Aluminum	29	3500	180	16	775
	632	9	FH	.069"Steel	59	4700	300	20	850
	632	9	FNS	.069"Steel	59	5000	300	16	775
	832	17	FH	.062"Aluminum	29	4800	220	28	1000
	832	17	FNS	.062"Aluminum	29	4500	220	28	940
	832	17	FH	.069"Steel	59	6800	375	40	1270
	832	17	FNS	.069"Steel	59	5500	375	28	1130
	032	27	FH	.062"Aluminum	29	5500	270	30	1220
	032	27	FNS	.062"Aluminum	29	5500	270	30	1220
	024	24	FH	.062"Steel	59	7600	450	60	1410
	024	24	FNS	.062"Steel	59	6800	450	50	1410
	0420	58	FH	.093"Aluminum	28	6500	310	65	2300
	0420	58	FNS	.093"Aluminum	28	6500	310	65	2100
	0420	58	FH	.088"Steel	46	9500	575	100	2550
	0420	58	FNS	.088"Steel	46	10000	575	100	2550
	0518	120	FH	.093"Aluminum	28	6500	430	100	2260
	0518	120	FNS	.093"Aluminum	28	6700	430	100	2260
	0518	120	FH	.093"Steel	46	10000	650	175	3475
	0518	120	FNS	.093"Steel	46	11200	650	175	3120

Thread	Thread Code	Nut Tightening torque	Type	Thickness and Material of the Test Board	Sheet hardness (HBB)	Installation Force (kN)	Push-Out Force (N)	Torque-Out Resistance (N·m)	Pull-Out Force (N)
Metric Thread	M2.5	0.41	FH	1.6mmAluminum	29	8.9	465	1.0	2600
	M2.5	0.41	FNS	1.6mmAluminum	29	11.6	465	0.8	1820
	M2.5	0.41	FH	1.5mmSteel	59	11.1	740	1.0	2800
	M2.5	0.41	FNS	1.5mmSteel	59	13.8	740	0.8	1820
	M3	0.74	FH	1.6mmAluminum	29	12.9	600	1.7	3150
	M3	0.74	FNS	1.6mmAluminum	29	12.9	600	1.3	2570
	M3	0.74	FH	1.5mmSteel	59	14.7	820	1.7	3840
	M3	0.74	FNS	1.5mmSteel	59	14.7	820	1.3	2440
	M3.5	1.15	FH	1.6mmAluminum	29	15.6	800	1.7	3780
	M3.5	1.15	FNS	1.6mmAluminum	29	15.6	800	1.7	3445
	M3.5	1.15	FH	1.5mmSteel	59	22.3	1335	2.8	3780
	M3.5	1.15	FNS	1.5mmSteel	59	22.3	1335	2.0	3445
	M4	1.7	FH	1.6mmAluminum	29	20	975	2.9	4448
	M4	1.7	FNS	1.6mmAluminum	29	22.3	975	2.9	4180
	M4	1.7	FH	1.5mmSteel	59	28.9	1780	4.2	5650
	M4	1.7	FNS	1.5mmSteel	59	26.7	1780	2.9	4775
	M5	3.5	FH	1.6mmAluminum	29	24.5	1070	3.5	5170
	M5	3.5	FNS	1.6mmAluminum	29	24.5	1070	3.5	4760
	M5	3.5	FH	1.5mmSteel	59	33.4	2000	6.5	6270
	M5	3.5	FNS	1.5mmSteel	59	32.5	2000	6.5	6000
	M6	5.9	FH	2.4mmAluminum	28	28.9	1660	7.3	10020
	M6	5.9	FNS	2.4mmAluminum	28	28.9	1660	7.3	9090
	M6	5.9	FH	2.2mmSteel	46	44.5	2560	11.3	11030
	M6	5.9	FNS	2.2mmSteel	46	44.5	2560	10.1	10600
	M8	14.2	FH	2.4mmAluminum	28	29.8	1910	11.3	10500
	M8	14.2	FNS	2.4mmAluminum	28	29.8	1910	11.3	9540
	M8	14.2	FH	2.4mmSteel	46	44.5	2890	19.2	15450
	M8	14.2	FNS	2.4mmSteel	46	49.8	2890	17.5	13630