

Basic Profile of Screw Threads

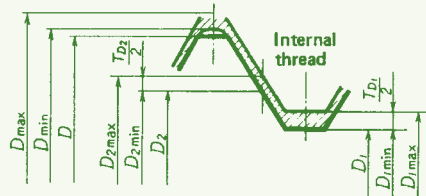
Tolerance Class 公差級別

Quality Level	Tolerance class specified in the body	
	internal thread (內徑)	external thread (外徑)
Quality 2	5 H (M 1.4 max.)	6 h (M 1.4 max.)
	6 H (M 1.6 min.)	6 g (M 1.6 min.)

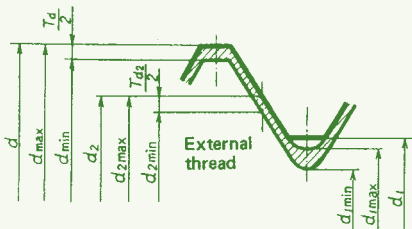
Example of application:

General purpose screw threads to be used for machines, devices and constructions.

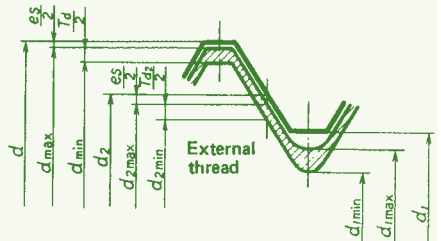
(1) In the Case of 6 H



(2) In the Case of 6 h



(3) In the Case of 6 g





Limits of Sizes and Tolerances for Metric Coarse Screw Thread (for Internal Threads)

Fitting quality : Medium

Tolerance class : 5 H (M 1.4 max.)

6 H (M1.6 min.)

Internal Thread 內螺紋牙

JIS B0209
unit : mm

Designation of screw thread	Pitch <i>P</i>	Tolerance class	Pitch diameter			Minor diameter		
			<i>D</i> _{2 max}	<i>D</i> _{2 min}	<i>T</i> _{D2}	<i>D</i> _{1 max}	<i>D</i> _{1 min}	<i>T</i> _{D1}
M 1	0.25	5 H	0.894	0.838	0.056	0.785	0.729	0.056
M 1.1	0.25	5 H	0.994	0.938	0.056	0.885	0.829	0.056
M 1.2	0.25	5 H	1.094	1.038	0.056	0.985	0.929	0.056
M1.4	0.3	5 H	1.265	1.205	0.060	1.142	1.075	0.067
M 1.6	0.35	6 H	1.458	1.373	0.085	1.321	1.221	0.100
M 1.8	0.35	6 H	1.658	1.573	0.085	1.521	1.421	0.100
M 2	0.4	6 H	1.830	1.74	0.090	1.679	1.567	0.112
M 2.2	0.45	6 H	2.003	1.908	0.095	1.838	1.713	0.125
M 2.5	0.45	6 H	2.303	2.208	0.095	2.138	2.013	0.125
M 3	0.5	6 H	2.775	2.675	0.100	2.599	2.459	0.140
M 3.5	0.6	6 H	3.222	3.110	0.112	3.010	2.850	0.160
M 4	0.7	6 H	3.663	3.545	0.118	3.422	3.242	0.180
M 4.5	0.75	6 H	4.131	4.013	0.118	3.878	3.688	0.190
M 5	0.8	6 H	4.605	4.480	0.125	4.334	4.134	0.200
M 6	1	6 H	5.500	5.350	0.150	5.153	4.917	0.236
M 7	1	6 H	6.500	6.350	0.150	6.153	5.917	0.236
M 8	1.25	6 H	7.348	7.188	0.160	6.912	6.647	0.265
M 9	1.25	6 H	8.348	8.188	0.160	7.912	7.647	0.265
M 10	1.5	6 H	9.206	9.026	0.180	8.676	8.376	0.300
M 11	1.5	6 H	10.206	10.026	0.180	9.676	9.376	0.300
M 12	1.75	6 H	11.063	10.863	0.200	10.441	10.106	0.335
M 14	2	6 H	12.913	12.701	0.212	12.210	11.835	0.375
M 16	2	6 H	14.913	14.701	0.212	14.210	13.835	0.375
M 18	2.5	6 H	16.600	16.376	0.224	15.744	15.294	0.450
M 20	2.5	6 H	18.600	18.376	0.224	17.744	17.294	0.450



Limits of Sizes and Tolerances for Metric Coarse Screw Threads (for External Threads)

Fitting quality : Medium

Tolerance class : 5 H (M 1.4 max.)

6 G (M1.6 min.)

External Thread 外螺紋牙

JIS B0209
unit : mm

Designation of screw thread	Pitch <i>P</i>	Tolerance class	Major diameter			Pitch diameter		
			<i>d</i> _{max}	<i>d</i> _{min}	<i>T</i> ₄	<i>d</i> _{2max}	<i>d</i> _{2min}	<i>T</i> _{d2}
M 1	0.25	6 h	1.000	0.933	0.067	0.838	0.785	0.053
M 1.1	0.25	6 h	1.100	1.033	0.067	0.938	0.885	0.053
M 1.2	0.25	6 h	1.200	1.133	0.067	1.038	0.985	0.053
M 1.4	0.3	6 h	1.400	1.325	0.075	1.205	1.149	0.056
M 1.6	0.35	6 g	1.581	1.496	0.085	1.354	1.291	0.063
M 1.8	0.35	6 g	1.781	1.696	0.085	1.554	1.491	0.063
M 2	0.4	6 g	1.981	1.886	0.095	1.721	1.654	0.067
M 2.2	0.45	6 g	2.180	2.080	0.100	1.888	1.817	0.071
M 2.5	0.45	6 g	2.480	2.380	0.100	2.188	2.117	0.071
M 3	0.5	6 g	2.980	2.874	0.106	2.655	2.580	0.075
M 3.5	0.6	6 g	3.479	3.354	0.125	3.089	3.004	0.085
M 4	0.7	6 g	3.978	3.838	0.140	3.523	3.433	0.090
M 4.5	0.75	6 g	4.478	4.338	0.140	3.991	3.901	0.090
M 5	0.8	6 g	4.976	4.826	0.150	4.456	4.361	0.095
M 6	1	6 g	5.974	5.794	0.180	5.324	5.212	0.112
M 7	1	6 g	6.974	6.794	0.180	6.324	6.212	0.112
M 8	1.25	6 g	7.972	7.760	0.212	7.160	7.042	0.118
M 9	1.25	6 g	8.972	8.760	0.212	8.160	8.042	0.118
M 10	1.5	6 g	9.968	9.732	0.236	8.994	8.862	0.132
M 11	1.5	6 g	10.968	10.732	0.236	9.994	9.862	0.132
M 12	1.75	6 g	11.966	11.701	0.265	10.829	10.679	0.150
M 14	2	6 g	13.962	13.682	0.280	12.663	12.503	0.160
M 16	2	6 g	15.962	15.682	0.280	14.663	14.503	0.160
M 18	2.5	6 g	17.958	17.623	0.335	16.334	16.164	0.170
M 20	2.5	6 g	19.958	19.623	0.335	18.334	18.164	0.170



Unified Coarse Internal Threads (for Class 2B Screw Threads)

內螺紋牙

JIS B0210
unit : mm

Designation of screw thread	Pitch diameter			Minor diameter		
	D_2 max.	D_2 min.	T_{D_2}	D_1 max.	D_1 min.	TD_1
No. 1-64 UNC	1.663	1.598	0.065	1.582	1.425	0.157
No. 2-56 UNC	1.960	1.890	0.070	1.871	1.695	0.176
No. 3-48 UNC	2.247	2.172	0.075	2.146	1.941	0.205
No. 4-40 UNC	2.517	2.434	0.083	2.385	2.157	0.228
No. 5-40 UNC	2.847	2.764	0.083	2.697	2.487	0.210
No. 6-32 UNC	3.083	2.990	0.093	2.895	2.642	0.253
No. 8-32 UNC	3.746	3.650	0.096	3.530	3.302	0.228
No. 10-24 UNC	4.246	4.138	0.108	3.962	3.683	0.279
No. 12-24 UNC	4.909	4.799	0.110	4.597	4.344	0.253
1/4 - 20 UNC	5.648	5.525	0.123	5.257	4.979	0.278
5/16 - 18 UNC	7.155	7.021	0.134	6.731	6.401	0.330
3/8 - 16 UNC	8.638	8.494	0.144	8.153	7.798	0.355
7/16 - 14 UNC	10.088	9.934	0.154	9.550	9.144	0.406
1/2 - 13 UNC	11.595	11.430	0.165	11.023	10.592	0.431
9/16 - 12 UNC	13.086	12.914	0.172	12.446	11.989	0.457
5/8 - 11 UNC	14.559	14.377	0.182	13.868	13.386	0.482
3/4 - 10 UNC	17.594	17.399	0.195	16.840	16.307	0.533
7/8 - 9 UNC	20.599	20.392	0.207	19.761	19.177	0.584
1 - 8 UNC	23.561	23.338	0.223	22.606	21.971	0.635
1 1/8 - 7 UNC	26.456	26.218	0.238	25.349	24.638	0.711
1 1/4 - 7 UNC	29.636	29.393	0.243	28.524	27.813	0.711
1 3/8 - 6 UNC	32.438	32.175	0.263	31.115	30.353	0.762
1 1/2 - 6 UNC	35.615	35.350	0.265	34.290	33.528	0.762
1 3/4 - 5 UNC	41.445	41.151	0.294	39.827	38.964	0.863



Unified Coarse External Threads
(for Class 2A Screw Threads)

內螺紋牙

JIS B0210
unit : mm

Designation of screw thread	Major diameter			Pitch diameter			Minor diameter
	d_{max}	d_{min}	Td	d_{2max}	d_{2min}	Td_2	(Ref.) d_{1max}
No. 1-64 UNC	1.838	1.743	0.095	1.582	1.532	0.050	1.351
No. 2-56 UNC	2.169	2.066	0.103	1.874	1.822	0.052	1.612
No. 3-48 UNC	2.496	2.383	0.113	2.153	2.096	0.057	1.846
No. 4-40 UNC	2.824	2.695	0.129	2.413	2.350	0.063	2.044
No. 5-40 UNC	3.154	3.026	0.128	2.743	2.678	0.065	2.374
No. 6-32 UNC	3.484	3.333	0.151	2.969	2.899	0.070	2.512
No. 8-32 UNC	4.142	3.991	0.151	3.627	3.554	0.073	3.169
No. 10-24 UNC	4.800	4.618	0.182	4.112	4.029	0.083	3.502
No. 12-24 UNC	5.461	5.279	0.182	4.772	4.687	0.085	4.163
1/4 - 20 UNC	6.322	6.117	0.205	5.496	5.403	0.093	4.765
5/16 - 18 UNC	7.907	7.687	0.220	6.990	6.889	0.101	6.174
3/8 - 16 UNC	9.491	9.254	0.237	8.460	8.349	0.111	7.543
7/16 - 14 UNC	11.076	10.816	0.260	9.898	9.779	0.119	8.851
1/2 - 13 UNC	12.661	12.386	0.275	11.392	11.265	0.127	10.264
9/16 - 12 UNC	14.246	13.958	0.288	12.873	12.741	0.132	11.650
5/8 - 11 UNC	15.834	15.528	0.306	14.335	14.197	0.138	13.002
3/4 - 10 UNC	19.004	18.677	0.327	17.353	17.204	0.149	15.887
7/8 - 9 UNC	22.176	21.824	0.352	20.342	20.183	0.159	18.714
1 - 8 UNC	25.349	24.969	0.380	23.286	23.114	0.172	21.452
1 1/8 - 7 UNC	28.519	28.103	0.416	26.162	25.980	0.182	24.066
1 1/4 - 7 UNC	31.694	31.278	0.416	29.337	29.150	0.187	27.241
1 3/8 - 6 UNC	34.864	34.402	0.462	32.113	31.911	0.202	29.669
1 1/2 - 6 UNC	38.039	37.577	0.462	35.288	35.083	0.205	32.844
1 3/4 - 5 UNC	44.381	43.861	0.520	41.082	40.856	0.225	38.148