



Internal Metric Thread - M Profile Limiting Dimensions

Basic Thread Designation	Toler. Class	Minor Diameter		Pitch Diameter			Major Diameter	
		Min	Max	Min	Max	Tol	Min	Max
M1.6 × 0.35	6H	1.221	1.321	1.373	1.458	0.085	1.600	1.736
M2 × 0.4	6H	1.567	1.679	1.740	1.830	0.090	2.000	2.148
M2.5 × 0.45	6H	2.013	2.138	2.208	2.303	0.095	2.500	2.660
M3 × 0.5	6H	2.459	2.599	2.675	2.775	0.100	3.000	3.172
M3.5 × 0.6	6H	2.850	3.010	3.110	3.222	0.112	3.500	3.699
M4 × 0.7	6H	3.242	3.422	3.545	3.663	0.118	4.000	4.219
M5 × 0.8	6H	4.134	4.334	4.480	4.605	0.125	5.000	5.240
M6 × 1	6H	4.917	5.153	5.350	5.500	0.150	6.000	6.294
M8 × 1.25	6H	6.647	6.912	7.188	7.348	0.160	8.000	8.340
M8 × 1	6H	6.917	7.153	7.350	7.500	0.150	8.000	8.294
M10 × 1.5	6H	8.376	8.676	9.026	9.206	0.180	10.000	10.396
M10 × 1.25	6H	8.647	8.912	9.188	9.348	0.160	10.000	10.340
M10 × 0.75	6H	9.188	9.378	9.513	9.645	0.132	10.000	10.240
M12 × 1.75	6H	10.106	10.441	10.863	11.063	0.200	12.000	12.453
M12 × 1.5	6H	10.376	10.676	11.026	11.216	0.190	12.000	12.406
M12 × 1.25	6H	10.647	10.912	11.188	11.368	0.180	12.000	12.360
M12 × 1	6H	10.917	11.153	11.350	11.510	0.160	12.000	12.304
M14 × 2	6H	11.835	12.210	12.701	12.913	0.212	14.000	14.501
M14 × 1.5	6H	12.376	12.676	13.026	13.216	0.190	14.000	14.406
M15 × 1	6H	13.917	14.153	14.350	14.510	0.160	15.000	15.304
M16 × 2	6H	13.835	14.210	14.701	14.913	0.212	16.000	16.501
M16 × 1.5	6H	14.376	14.676	15.026	15.216	0.190	16.000	16.406
M17 × 1	6H	15.917	16.153	16.350	16.510	0.160	17.000	17.304
M18 × 1.5	6H	16.376	16.676	17.026	17.216	0.190	18.000	18.406
M20 × 2.5	6H	17.294	17.744	18.376	18.600	0.224	20.000	20.585
M20 × 1.5	6H	18.376	18.676	19.026	19.216	0.190	20.000	20.406
M20 × 1	6H	18.917	19.153	19.350	19.510	0.160	20.000	20.304



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M22 × 2.5	6H	19.294	19.744	20.376	20.600	0.224	22.000	22.585
M22 × 1.5	6H	20.376	20.676	21.026	21.216	0.190	22.000	22.406
M24 × 3	6H	20.752	21.252	22.051	22.316	0.265	24.000	24.698
M24 × 2	6H	21.835	22.210	22.701	22.925	0.224	24.000	24.513
M25 × 1.5	6H	23.376	23.676	24.026	24.226	0.200	25.000	25.416
M27 × 3	6H	23.752	24.252	25.051	25.316	0.265	27.000	27.698
M27 × 2	6H	24.835	25.210	25.701	25.925	0.224	27.000	27.513
M30 × 3.5	6H	26.211	26.771	27.727	28.007	0.280	30.000	30.785
M30 × 2	6H	27.835	28.210	28.701	28.925	0.224	30.000	30.513
M30 × 1.5	6H	28.376	28.676	29.026	29.226	0.200	30.000	30.416
M33 × 2	6H	30.835	31.210	31.701	31.925	0.224	33.000	33.513
M35 × 1.5	6H	33.376	33.676	34.026	34.226	0.200	35.000	35.416
M36 × 4	6H	31.670	32.270	33.402	33.702	0.300	36.000	36.877
M36 × 2	6H	33.835	34.210	34.701	34.925	0.224	36.000	36.513
M39 × 2	6H	36.835	37.210	37.701	37.925	0.224	39.000	39.513
M40 × 1.5	6H	38.376	38.676	39.026	39.226	0.200	40.000	40.416
M42 × 4.5	6H	37.129	37.799	39.077	39.392	0.315	42.000	42.965
M42 × 2	6H	39.835	40.210	40.701	40.925	0.224	42.000	42.513
M45 × 1.5	6H	43.376	43.676	44.026	44.226	0.200	45.000	45.416
M48 × 5	6H	42.587	43.297	44.752	45.087	0.335	48.000	49.057
M48 × 2	6H	45.835	46.210	46.701	46.937	0.236	48.000	48.525
M50 × 1.5	6H	48.376	48.676	49.026	49.238	0.212	50.000	50.428
M55 × 1.5	6H	53.376	53.676	54.026	54.238	0.212	55.000	55.428
M56 × 5.5	6H	50.046	50.796	52.428	52.783	0.355	56.000	57.149
M56 × 2	6H	53.835	54.210	54.701	54.937	0.236	56.000	56.525
M60 × 1.5	6H	58.376	58.676	59.026	59.238	0.212	60.000	60.428

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		Min	Max	Min	Max	Tol	Min	Max
M64 × 6	6H	57.505	58.305	60.103	60.478	0.375	64.000	65.241
M64 × 2	6H	61.835	62.210	62.701	62.937	0.236	64.000	64.525
M65 × 1.5	6H	63.376	63.676	64.026	64.238	0.212	65.000	65.428
M70 × 1.5	6H	68.376	68.676	69.026	69.238	0.212	70.000	70.428
M72 × 6	6H	65.505	66.305	68.103	68.478	0.375	72.000	73.241
M72 × 2	6H	69.835	70.210	70.701	70.937	0.236	72.000	72.525
M75 × 1.5	6H	73.376	73.676	74.026	74.238	0.212	75.000	75.428
M80 × 6	6H	73.505	74.305	76.103	76.478	0.375	80.000	81.241
M80 × 2	6H	77.835	78.210	78.701	78.937	0.236	80.000	80.525
M80 × 1.5	6H	78.376	78.676	79.026	79.238	0.212	80.000	80.428
M85 × 2	6H	82.835	83.210	83.701	83.937	0.236	85.000	85.525
M90 × 6	6H	83.505	84.305	86.103	86.478	0.375	90.000	91.241
M90 × 2	6H	87.835	88.210	88.701	88.937	0.236	90.000	90.525
M95 × 2	6H	92.835	93.210	93.701	93.951	0.250	95.000	95.539
M100 × 6	6H	93.505	94.305	96.103	96.503	0.400	100.000	101.266
M100 × 2	6H	97.835	98.210	98.701	98.951	0.250	100.000	100.539
M105 × 2	6H	102.835	103.210	103.701	103.951	0.250	105.000	105.539
M110 × 2	6H	107.835	108.210	108.701	108.951	0.250	110.000	110.539
M120 × 2	6H	117.835	118.210	118.701	118.951	0.250	120.000	120.539
M130 × 2	6H	127.835	128.210	128.701	128.951	0.250	130.000	130.539
M140 × 2	6H	137.835	138.210	138.701	138.951	0.250	140.000	140.539
M150 × 2	6H	147.835	148.210	148.701	148.951	0.250	150.000	150.539
M160 × 3	6H	156.752	157.252	158.051	158.351	0.300	160.000	160.733
M170 × 3	6H	166.752	167.252	168.051	168.351	0.300	170.000	170.733
M180 × 3	6H	176.752	177.252	178.051	178.351	0.300	180.000	180.733
M190 × 3	6H	186.752	187.252	188.051	188.386	0.335	190.000	190.768
M200 × 3	6H	196.752	197.252	198.051	198.386	0.335	200.000	200.768

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		Max	Min	Max	Min	Tol	Max	Min
M1.6 × 0.35	6g	1.581	1.496	1.354	1.291	0.063	1.202	1.075
M1.6 × 0.35	4g6g	1.581	1.496	1.354	1.314	0.040	1.202	1.098
M2 × 0.4	6g	1.981	1.886	1.721	1.654	0.067	1.548	1.408
M2 × 0.4	4g6g	1.981	1.886	1.721	1.679	0.042	1.548	1.433
M2.5 × 0.45	6g	2.480	2.380	2.188	2.117	0.071	1.993	1.840
M2.5 × 0.45	4g6g	2.480	2.380	2.188	2.143	0.045	1.993	1.866
M3 × 0.5	6g	2.980	2.874	2.655	2.580	0.075	2.439	2.272
M3 × 0.5	4g6g	2.980	2.874	2.655	2.607	0.048	2.439	2.299
M3.5 × 0.6	6g	3.479	3.354	3.089	3.004	0.085	2.829	2.635
M3.5 × 0.6	4g6g	3.479	3.354	3.089	3.036	0.053	2.829	2.667
M4 × 0.7	6g	3.978	3.838	3.523	3.433	0.090	3.220	3.002
M4 × 0.7	4g6g	3.978	3.838	3.523	3.467	0.056	3.220	3.036
M5 × 0.8	6g	4.976	4.826	4.456	4.361	0.095	4.110	3.869
M5 × 0.8	4g6g	4.976	4.826	4.456	4.396	0.060	4.110	3.904
M6 × 1	6g	5.974	5.794	5.324	5.212	0.112	4.891	4.596
M6 × 1	4g6g	5.974	5.794	5.324	5.253	0.071	4.891	4.637
M8 × 1.25	6g	7.972	7.760	7.160	7.042	0.118	6.619	6.272
M8 × 1.25	4g6g	7.972	7.760	7.160	7.085	0.075	6.619	6.315
M8 × 1	6g	7.974	7.794	7.324	7.212	0.112	6.891	6.596
M8 × 1	4g6g	7.974	7.794	7.324	7.253	0.071	6.891	6.637
M10 × 1.5	6g	9.968	9.732	8.994	8.862	0.132	8.344	7.938
M10 × 1.5	4g6g	9.968	9.732	8.994	8.909	0.085	8.344	7.985
M10 × 1.25	6g	9.972	9.760	9.160	9.042	0.118	8.619	8.272
M10 × 1.25	4g6g	9.972	9.760	9.160	9.085	0.075	8.619	8.315
M10 × 0.75	6g	9.978	9.838	9.491	9.391	0.100	9.166	8.929
M10 × 0.75	4g6g	9.978	9.838	9.491	9.428	0.063	9.166	8.966

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Basic Thread Designation	Toler. Class	Major Diameter		Pitch Diameter			Minor Diameter	
		Max	Min	Max	Min	Tol	Max	Min
M12 × 1.75	6g	11.966	11.701	10.829	10.679	0.150	10.072	9.601
M12 × 1.75	4g6g	11.966	11.701	10.829	10.734	0.095	10.072	9.656
M12 × 1.5	6g	11.968	11.732	10.994	10.854	0.140	10.344	9.930
M12 × 1.25	6g	11.972	11.760	11.160	11.028	0.132	10.619	10.258
M12 × 1.25	4g6g	11.972	11.760	11.160	11.075	0.085	10.619	10.305
M12 × 1	6g	11.974	11.794	11.324	11.206	0.118	10.891	10.590
M12 × 1	4g6g	11.974	11.794	11.324	11.249	0.075	10.891	10.633
M14 × 2	6g	13.962	13.682	12.663	12.503	0.160	11.797	11.271
M14 × 2	4g6g	13.962	13.682	12.663	12.563	0.100	11.797	11.331
M14 × 1.5	6g	13.968	13.732	12.994	12.854	0.140	12.344	11.930
M14 × 1.5	4g6g	13.968	13.732	12.994	12.904	0.090	12.344	11.980
M15 × 1	6g	14.974	14.794	14.324	14.206	0.118	13.891	13.590
M15 × 1	4g6g	14.974	14.794	14.324	14.249	0.075	13.891	13.633
M16 × 2	6g	15.962	15.682	14.663	14.503	0.160	13.797	13.271
M16 × 2	4g6g	15.962	15.682	14.663	14.563	0.100	13.797	13.331
M16 × 1.5	6g	15.968	15.732	14.994	14.854	0.140	14.344	13.930
M16 × 1.5	4g6g	15.968	15.732	14.994	14.904	0.090	14.344	13.980
M17 × 1	6g	16.974	16.794	16.324	16.206	0.118	15.891	15.590
M17 × 1	4g6g	16.974	16.794	16.324	16.249	0.075	15.891	15.633
M18 × 1.5	6g	17.968	17.732	16.994	16.854	0.140	16.344	15.930
M18 × 1.5	4g6g	17.968	17.732	16.994	16.904	0.090	16.344	15.980
M20 × 2.5	6g	19.958	19.623	18.334	18.164	0.170	17.252	16.624
M20 × 2.5	4g6g	19.958	19.623	18.334	18.228	0.106	17.252	16.688
M20 × 1.5	6g	19.968	19.732	18.994	18.854	0.140	18.344	17.930
M20 × 1.5	4g6g	19.968	19.732	18.994	18.904	0.090	18.344	17.980
M20 × 1	6g	19.974	19.794	19.324	19.206	0.118	18.891	18.590
M20 × 1	4g6g	19.974	19.794	19.324	19.249	0.075	18.891	18.633

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		Max	Min	Max	Min	Tol	Max	Min
M22 × 2.5	6g	21.9587	21.623	20.334	20.164	0.170	19.252	18.624
M22 × 1.5	6g	21.968	21.732	20.994	20.854	0.140	20.344	19.930
M22 × 1.5	4g6g	21.968	21.732	20.994	20.904	0.090	20.344	19.980
M24 × 3	6g	23.952	23.577	22.003	21.803	0.200	20.704	19.955
M24 × 3	4g6g	23.952	23.557	22.003	21.878	0.125	20.704	20.030
M24 × 2	6g	23.962	23.682	22.663	22.493	0.170	21.797	21.261
M24 × 2	4g6g	23.962	23.682	22.663	22.557	0.106	21.797	21.325
M25 × 1.5	6g	24.968	24.732	23.994	23.844	0.150	23.344	22.920
M25 × 1.5	4g6g	24.968	24.732	23.994	23.899	0.095	23.344	22.975
M27 × 3	6g	26.952	26.577	25.003	24.803	0.200	23.704	22.955
M27 × 2	6g	26.962	26.682	25.663	25.493	0.170	24.797	24.261
M27 × 2	4g6g	26.962	26.682	25.663	25.557	0.106	24.797	24.325
M30 × 3.5	6g	29.947	29.522	27.674	27.462	0.212	26.158	25.306
M30 × 3.5	4g6g	29.947	29.522	27.674	27.542	0.132	26.158	25.386
M30 × 2	6g	29.962	29.682	28.663	28.493	0.170	27.797	27.261
M30 × 2	4g6g	29.962	29.682	28.663	28.557	0.106	27.797	27.325
M30 × 1.5	6g	29.968	29.732	28.994	28.844	0.150	28.344	27.920
M30 × 1.5	4g6g	29.968	29.732	28.994	28.899	0.095	28.344	27.975
M33 × 2	6g	32.962	32.682	31.663	31.493	0.170	30.797	30.261
M33 × 2	4g6g	32.962	32.682	31.663	31.557	0.106	30.797	30.325
M35 × 1.5	6g	34.968	34.732	33.994	33.844	0.150	33.344	33.920
M36 × 4	6g	35.940	35.465	33.342	33.118	0.224	31.610	30.654
M36 × 4	4g6g	35.940	35.465	33.342	33.202	0.140	31.610	30.738
M36 × 2	6g	35.962	35.682	34.663	34.493	0.170	33.797	33.261
M36 × 2	4g6g	35.962	35.682	34.663	34.557	0.106	33.797	33.325
M39 × 2	6g	38.962	38.682	37.663	37.493	0.170	36.797	36.261
M39 × 2	4g6g	38.962	38.682	37.663	37.557	0.106	36.797	36.325

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		Max	Min	Max	Min	Tol	Max	Min
M40 × 1.5	6g	39.968	39.732	38.994	38.844	0.150	38.344	37.920
M40 × 1.5	4g6g	39.968	39.732	38.994	38.899	0.095	38.344	37.975
M42 × 4.5	6g	41.937	41.437	39.014	38.778	0.236	37.066	36.006
M42 × 4.5	4g6g	41.937	41.437	39.014	38.864	0.150	37.066	36.092
M42 × 2	6g	41.962	41.682	40.663	40.493	0.170	39.797	39.261
M42 × 2	4g6g	41.962	41.682	40.663	40.557	0.106	39.797	39.325
M45 × 1.5	6g	44.968	44.732	43.994	43.844	0.150	43.344	42.920
M45 × 1.5	4g6g	44.968	44.732	43.994	43.899	0.095	43.344	42.975
M48 × 5	6g	47.929	47.399	44.681	44.431	0.250	42.516	41.351
M48 × 5	4g6g	47.929	47.399	44.681	44.521	0.160	42.516	41.441
M48 × 2	6g	47.962	47.682	46.663	46.483	0.180	45.797	45.251
M48 × 2	4g6g	47.962	47.682	46.663	46.551	0.112	45.797	45.319
M50 × 1.5	6g	49.968	49.732	48.994	48.834	0.160	48.344	47.910
M50 × 1.5	4g6g	49.968	49.732	48.994	48.894	0.100	48.344	47.970
M55 × 1.5	6g	54.968	54.732	53.994	53.834	0.160	53.344	52.910
M55 × 1.5	4g6g	54.968	54.732	53.994	53.894	0.100	53.344	52.970
M56 × 5.5	6g	55.925	55.365	52.353	52.088	0.265	49.971	48.700
M56 × 5.5	4g6g	55.925	55.365	52.353	52.183	0.170	49.971	48.795
M56 × 2	6g	55.962	55.682	54.663	54.483	0.180	53.797	53.251
M56 × 2	4g6g	55.962	55.682	54.663	54.551	0.112	53.797	53.319
M60 × 1.5	6g	59.968	59.732	58.994	58.834	0.160	58.344	57.910
M60 × 1.5	4g6g	59.968	59.732	58.994	58.894	0.100	58.344	57.970
M64 × 6	6g	63.920	63.320	60.023	59.743	0.280	57.425	56.047
M64 × 6	4g6g	63.920	63.320	60.023	59.843	0.180	57.425	56.147
M64 × 2	6g	63.962	63.682	62.663	62.483	0.180	61.797	61.251
M64 × 2	4g6g	63.962	63.682	62.663	62.551	0.112	61.797	61.319

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M65 × 1.5	6g	64.968	64.732	63.994	63.834	0.160	63.344	62.910
M65 × 1.5	4g6g	64.968	64.732	63.994	63.894	0.100	63.344	62.970
M70 × 1.5	6g	69.968	69.732	68.994	68.834	0.160	68.344	67.910
M70 × 1.5	4g6g	69.968	69.732	68.994	68.894	0.100	68.344	67.970
M72 × 6	6g	71.920	71.320	68.023	67.743	0.280	65.425	64.047
M72 × 6	4g6g	71.920	71.320	68.023	67.843	0.180	65.425	64.147
M72 × 2	6g	71.962	71.682	70.663	70.483	0.180	69.797	69.251
M72 × 2	4g6g	71.962	71.682	70.663	70.551	0.112	69.797	69.319
M75 × 1.5	6g	74.968	74.732	73.994	73.834	0.160	73.344	72.910
M75 × 1.5	4g6g	74.968	74.732	73.994	73.894	0.100	73.344	72.970
M80 × 6	6g	79.920	79.320	76.023	75.743	0.280	73.425	72.047
M80 × 6	4g6g	79.920	79.320	76.023	75.843	0.180	73.425	72.147
M80 × 2	6g	79.962	79.682	78.663	78.483	0.180	77.797	77.251
M80 × 2	4g6g	79.962	79.682	78.663	78.551	0.112	77.797	77.319
M80 × 1.5	6g	79.968	79.732	78.994	78.834	0.160	78.344	77.910
M80 × 1.5	4g6g	79.968	79.732	78.994	78.894	0.100	78.334	77.970
M85 × 2	6g	84.962	84.682	83.663	83.483	0.180	82.797	82.251
M85 × 2	4g6g	84.962	84.682	83.663	83.551	0.112	82.797	82.319
M90 × 6	6g	89.920	89.320	86.023	85.743	0.280	83.425	82.047
M90 × 6	4g6g	89.920	89.320	86.023	85.843	0.180	83.425	82.147
M90 × 2	6g	89.962	89.682	88.663	88.483	0.180	87.797	87.251
M90 × 2	4g6g	89.962	89.682	88.663	88.551	0.112	87.797	87.319
M95 × 2	6g	94.962	94.682	93.663	93.473	0.190	92.797	92.241
M95 × 2	4g6g	94.962	94.682	93.663	93.545	0.118	92.797	92.313
M100 × 6	6g	99.920	99.320	96.023	95.723	0.300	93.425	92.027
M100 × 6	4g6g	99.920	99.320	96.023	95.833	0.190	93.425	92.137
M100 × 2	6g	99.962	99.682	98.663	98.473	0.190	97.797	97.241
M100 × 2	4g6g	99.962	99.682	98.663	98.545	0.118	97.797	97.313

External Metric Thread - M Profile Limiting Dimensions

Basic Thread Designation	Toler. Class	Major Diameter		Pitch Diameter			Minor Diameter	
		Max	Min	Max	Min	Tol	Max	Min
M105 × 2	6g	104.962	104.682	103.663	103.473	0.190	102.797	102.241
M105 × 2	4g6g	104.962	104.682	103.663	103.545	0.118	102.797	102.313
M110 × 2	6g	109.962	109.682	108.663	108.473	0.190	107.797	107.241
M110 × 2	4g6g	109.962	109.682	108.663	108.545	0.118	107.797	107.313
M120 × 2	6g	119.962	119.682	118.663	118.473	0.190	117.797	117.241
M120 × 2	4g6g	119.962	119.682	118.663	118.545	0.118	117.797	117.313
M130 × 2	6g	129.962	129.682	128.663	128.473	0.190	127.797	127.241
M130 × 2	4g6g	139.962	139.682	138.663	138.545	0.118	137.797	137.313
M140 × 2	6g	139.962	139.682	138.663	138.473	0.190	137.797	137.241
M140 × 2	4g6g	139.962	139.682	138.663	138.545	0.118	137.797	137.313
M150 × 2	6g	149.962	149.682	148.663	148.473	0.190	147.797	147.241
M150 × 2	4g6g	149.962	149.682	148.663	148.545	0.118	147.797	147.313
M160 × 3	6g	159.952	159.577	158.003	157.779	0.224	156.704	155.931
M160 × 3	4g6g	159.952	159.577	158.003	157.863	0.140	156.704	156.015
M170 × 3	6g	169.952	169.577	168.003	167.779	0.224	166.704	165.931
M170 × 3	4g6g	169.952	169.577	168.003	167.863	0.140	166.704	166.015
M180 × 3	6g	179.952	179.577	178.003	177.779	0.224	176.704	175.931
M180 × 3	4g6g	179.952	179.577	178.003	177.863	0.140	176.704	176.015
M190 × 3	6g	189.952	189.577	188.003	187.753	0.250	186.704	185.905
M190 × 3	4g6g	189.952	189.577	188.003	187.843	0.160	186.704	185.995
M200 × 3	6g	199.952	199.577	198.003	197.753	0.250	196.704	195.905
M200 × 3	4g6g	199.952	199.577	198.003	197.843	0.160	196.704	195.995