Pitch Diameter Chart

Unified Thread Plug Gages

NOMINAL SIZE	GO BASIC ALL CLASSES ALL SERIES	UNIFIED PITCH DIAMETERS: NOT GO CL.2B	NOT GO CL.3B	X TOL. GO=+ NO GO=-	X LEAD TOL.	X± HALF ANGLE TOL.
(.060) #0-80 UNF	.0519	.0542	.0536	.0002	.0002	0°30'
(.073) #1-64 UNC	.0629	.0655	.0648	.0002	.0002	0°30'
(.073) #1-72 UNF	.0640	.0665	.0659	.0002	.0002	0°30'
(.086) #2-56 UNC	.0744	.0772	.0765	.0002	.0002	0°30'
(.086) #2-64 UNF	.0759	.0786	.0779	.0002	.0002	0°30'
(.099) #3-48 UNC	.0855	.0885	.0877	.0002	.0002	0°30'
(.099) #3-56 UNF	.0874	.0902	.0895	.0002	.0002	0°30'
(.112) #4-40 UNC	.0958	.0991	.0982	.0002	.0002	0°20'
(.112) #4-48 UNF	.0985	.1016	.1008	.0002	.0002	0°30'
(.125) #5-40 UNC	.1088	.1121	.1113	.0002	.0002	0°20'
(.125) #5-44 UNF	.1102	.1134	.1126	.0002	.0002	0°20'
(.138) #6-32 UNC	.1177	.1214	.1204	.0003	.0003	0°15'
(.138) #6-40 UNF	.1218	.1252	.1243	.0002	.0002	0°20'
(.164) #8-32 UNC	.1437	.1475	.1465	.0003	.0003	0°15'
(.164) #8-36 UNF	.1460	.1496	.1487	.0002	.0002	0°20'
(.190) #10-24 UNC	.1629	.1672	.1661	.0003	.0003	0°15'
(.190) #10-32 UNF	.1697	.1736	.1726	.0003	.0003	0°15'
(.216) #12-24 UNC	.1889	.1933	.1922	.0003	.0003	0°15'
(.216) #12-28 UNF	.1928	.1970	.1959	.0003	.0003	0°15'
(.216) #12-32 UNEF	.1957	.1998	.1988	.0003	.0003	0°15'
¼-20 UNC	.2175	.2224	.2211	.0003	.0003	0°15'
¼-28 UNF	.2268	.2311	.2300	.0003	.0003	0°15'
¼-32 UNEF	.2297	.2339	.2328	.0003	.0003	0°15'
5/16-18 UNC	.2764	.2817	.2803	.0003	.0003	0°10'
5/16-24 UNF	.2854	.2902	.2890	.0003	.0003	0°15'
5/16-32 UNEF	.2922	.2964	.2953	.0003	.0003	0°15'
⅜-16 UNC	.3344	.3401	.3387	.0003	.0003	0°10'
⅜-24 UNF	.3479	.3528	.3516	.0003	.0003	0°15'
⅜-32 UNEF	.3547	.3591	.3580	.0003	.0003	0°15'
7/16-14 UNC	.3911	.3972	.3957	.0003	.0003	0°10'
7/16-20 UNF	.4050	.4104	.4091	.0003	.0003	0°15'
7/16-28 UNEF	.4143	.4189	.4178	.0003	.0003	0°15'
½-13 UNC	.4500	.4565	.4548	.0003	.0003	0°10'
½-20 UNF	.4675	.4731	.4717	.0003	.0003	0°15'
½-28 UNEF	.4768	.4816	.4804	.0003	.0003	0°15'
9/16-12 UNC	.5084	.5152	.5135	.0003	.0003	0°10'
9/16-18 UNF	.5264	.5323	.5308	.0003	.0003	0°10'

NOMINAL SIZE	GO BASIC ALL CLASSES ALL SERIES	UNIFIED PITCH DIAMETERS: NOT GO CL.2B	NOT GO CL.3B	X TOL. GO=+ NO GO=-	X LEAD TOL.	X± HALF ANGLE TOL.
9/16-24 UNEF	.5354	.5405	.5392	.0003	.0003	0°15'
⅝-11 UNC	.5660	.5732	.5714	.0003	.0003	0°10'
⅝-18 UNF	.5889	.5949	.5934	.0003	.0003	0°10'
⅝-24 UNEF	.5979	.6031	.6018	.0003	.0003	0°15'
11/16-24 UNEF	.6604	.6656	.6643	.0003	.0003	0°15'
¾-10 UNC	.6850	.6927	.6907	.0003	.0003	0°10'
¾-16 UNF	.7094	.7159	.7143	.0003	.0003	0°10'
¾-20 UNEF	.7175	.7232	.7218	.0003	.0003	0°15'
13/16-20 UNEF	.7800	.7857	.7843	.0003	.0003	0°15'
⅞-9 UNC	.8028	.8110	.8089	.0003	.0003	0°10'
⅞-14 UNF	.8286	.8356	.8339	.0003	.0003	0°10'
⅞-20 UNEF	.8425	.8482	.8468	.0003	.0003	0°15'
15/16-20 UNEF	.9050	.9109	.9094	.0003	.0003	0°15'
1"-8 UNC	.9188	.9276	.9254	.0004	.0004	0°05'
1"-12 UNF	.9459	.9535	.9516	.0003	.0003	0°10'
1"-14 UNS	.9536	.9609	.9590	.0003	.0003	0°10'
1"-20 UNEF	.9675	.9734	.9719	.0003	.0003	0°15'
1 1/16-12 UN	1.0084	1.0158	1.0139	.0003	.0003	0°10'
1 1/16-18 UNEF	1.0264	1.0326	1.0310	.0003	.0003	0°10'
1⅛-7 UNC	1.0322	1.0416	1.0393	.0004	.0004	0°05'
1⅛-12 UNF	1.0709	1.0787	1.0768	.0003	.0003	0°10'
1⅛-18 UNEF	1.0889	1.0951	1.0935	.0003	.0003	0°10'
1 3/16-12 UN	1.1334	1.1409	1.1390	.0003	.0003	0°10'
1 3/16-18 UNEF	1.1514	1.1577	1.1561	.0003	.0003	0°10'
1¼-7 UNC	1.1572	1.1668	1.1644	.0004	.0004	0°05'
1¼-12 UNF	1.1959	1.2039	1.2019	.0003	.0003	0°10'
1¼-18 UNEF	1.2139	1.2202	1.2186	.0003	.0003	0°10'
1 5/16-12 UN	1.2584	1.2659	1.2640	.0003	.0003	0°10'
1 5/16-18 UNEF	1.2764	1.2827	1.2811	.0003	.0003	0°10'
1⅜-6 UNC	1.2667	1.2771	1.2745	.0004	.0004	0°05'
1⅜-12 UNF	1.3209	1.3291	1.3270	.0003	.0003	0°10'
1⅜-18 UNEF	1.3389	1.3452	1.3436	.0003	.0003	0°10'
1 7/16-12 UN	1.3834	1.3910	1.3891	.0003	.0003	0°10'
1 7/16-18 UNEF	1.4014	1.4079	1.4062	.0003	.0003	0°10'
1½-6 UNC	1.3917	1.4022	1.3996	.0004	.0004	0°05'
1½-12 UNF	1.4459	1.4542	1.4522	.0003	.0003	0°10'
1½-18 UNEF	1.4639	1.4704	1.4687	.0003	.0003	0°10'

Unified Thread Ring & Setting Plug Gages

NOMINAL SIZE	UNIFIED PITCH DIAMETERS: CLASS 2A GO	CLASS 2A NOT GO	CLASS 3A GO	CLASS 3A NOT GO	X TOL. GO=+ NO GO=-
(.060) #0-80 UNF	.0514	.0496	.0519	.0506	.0002
(.073) #1-64 UNC	.0623	.0603	.0629	.0614	.0002
(.073) #1-72 UNF	.0634	.0615	.0640	.0626	.0002
(.086) #2-56 UNC	.0738	.0717	.0744	.0728	.0002
(.086) #2-64 UNF	.0753	.0733	.0759	.0744	.0002
(.099) #3-48 UNC	.0848	.0825	.0855	.0838	.0002
(.099) #3-56 UNF	.0867	.0845	.0874	.0858	.0002
(.112) #4-40 UNC	.0950	.0925	.0958	.0939	.0002
(.112) #4-48 UNF	.0978	.0954	.0985	.0967	.0002
(.125) #5-40 UNC	.1080	.1054	.1088	.1069	.0002
(.125) #5-44 UNF	.1095	.1070	.1102	.1083	.0002
(.138) #6-32 UNC	.1169	.1141	.1177	.1156	.0003
(.138) #6-40 UNF	.1210	.1184	.1218	.1198	.0002
(.164) #8-32 UNC	.1428	.1399	.1437	.1415	.0003
(.164) #8-36 UNF	.1452	.1424	.1460	.1439	.0002
(.190) #10-24 UNC	.1619	.1586	.1629	.1604	.0003
(.190) #10-32 UNF	.1688	.1658	.1697	.1674	.0003
(.216) #12-24 UNC	.1879	.1845	.1889	.1863	.0003
(.216) #12-28 UNF	.1918	.1886	.1928	.1904	.0003
(.216) #12-32 UNEF	.1948	.1917	.1957	.1933	.0003
¼-20 UNC	.2164	.2127	.2175	.2147	.0003
¼-28 UNF	.2258	.2225	.2268	.2243	.0003
¼-32 UNEF	.2287	.2255	.2297	.2273	.0003
5/16-18 UNC	.2752	.2712	.2764	.2734	.0003
5/16-24 UNF	.2843	.2806	.2854	.2827	.0003
5/16-32 UNEF	.2912	.2880	.2922	.2898	.0003
⅜-16 UNC	.3331	.3287	.3344	.3311	.0003
⅜-24 UNF	.3468	.3430	.3479	.3450	.0003
⅜-32 UNEF	.3537	.3503	.3547	.3522	.0003
7/16-14 UNC	.3897	.3850	.3911	.3876	.0003
7/16-20 UNF	.4037	.3995	.4050	.4019	.0003
7/16-28 UNEF	.4132	.4096	.4143	.4116	.0003
½-13 UNC	.4485	.4435	.4500	.4463	.0003
½-20 UNF	.4662	.4619	.4675	.4643	.0003
½-28 UNEF	.4757	.4720	.4768	.4740	.0003
9/16-12 UNC	.5068	.5016	.5084	.5045	.0003
9/16-18 UNF	.5250	.5205	.5264	.5230	.0003

NOMINAL SIZE	UNIFIED PITCH DIAMETERS: CLASS 2A GO	CLASS 2A NOT GO	CLASS 3A GO	CLASS 3A NOT GO	X TOL. GO=+ NO GO=-
9/16-24 UNEF	.5342	.5303	.5354	.5325	.0003
⅝-11 UNC	.5644	.5589	.5660	.5619	.0003
⅝-18 UNF	.5875	.5828	.5889	.5854	.0003
⅝-24 UNEF	.5967	.5927	.5979	.5949	.0003
11/16-24 UNEF	.6592	.6552	.6604	.6574	.0003
¾-10 UNC	.6832	.6773	.6850	.6806	.0003
¾-16 UNF	.7079	.7029	.7094	.7056	.0003
¾-20 UNEF	.7162	.7118	.7175	.7142	.0003
13/16-20 UNEF	.7787	.7743	.7800	.7767	.0003
⅞-9 UNC	.8009	.7946	.8028	.7981	.0003
⅞-14 UNF	.8270	.8216	.8286	.8245	.0003
⅞-20 UNEF	.8412	.8368	.8425	.8392	.0003
15/16-20 UNEF	.9036	.8991	.9050	.9016	.0003
1"-8 UNC	.9168	.9100	.9188	.9137	.0004
1"-12 UNF	.9441	.9382	.9459	.9415	.0003
1"-14 UNS	.9519	.9463	.9536	.9494	.0003
1"-20 UNEF	.9661	.9616	.9675	.9641	.0003
1 1/16-12 UN	1.0067	1.0010	1.0084	1.0042	.0003
1 1/16-18 UNEF	1.0250	1.0203	1.0264	1.0228	.0003
1⅛-7 UNC	1.0300	1.0228	1.0322	1.0268	.0004
1⅛-12 UNF	1.0691	1.0631	1.0709	1.0664	.0003
1⅛-18 UNEF	1.0875	1.0828	1.0889	1.0853	.0003
1 3/16-12 UN	1.1317	1.1259	1.1334	1.1291	.0003
1 3/16-18 UNEF	1.1499	1.1450	1.1514	1.1478	.0003
1¼-7 UNC	1.1550	1.1476	1.1572	1.1517	.0004
1¼-12 UNF	1.1941	1.1879	1.1959	1.1913	.0003
1¼-18 UNEF	1.2124	1.2075	1.2139	1.2103	.0003
1 5/16-12 UN	1.2567	1.2509	1.2584	1.2541	.0003
1 5/16-18 UNEF	1.2749	1.2700	1.2764	1.2728	.0003
1⅜-6 UNC	1.2643	1.2563	1.2667	1.2607	.0004
1⅜-12 UNF	1.3190	1.3127	1.3209	1.3162	.0003
1⅜-18 UNEF	1.3374	1.3325	1.3389	1.3353	.0003
1 7/16-12 UN	1.3816	1.3757	1.3834	1.3790	.0003
1 7/16-18 UNEF	1.3999	1.3949	1.4014	1.3977	.0003
1½-6 UNC	1.3893	1.3812	1.3917	1.3856	.0004
1½-12 UNF	1.4440	1.4376	1.4459	1.4411	.0003
1½-18 UNEF	1.4624	1.4574	1.4639	1.4602	.0003

Metric Thread Gages

NOMINAL SIZE & PITCH	FOR EXTERNAL THREAD: PITCH DIAMETER GO RING GAGE 6g TOLERANCE MM	IN. (REF)	PITCH DIAMETER NOT GO RING GAGE 6g TOLERANCE MM	IN. (REF)	FOR INTERNAL THREAD: PITCH DIAMETER GO PLUG GAGE 6H TOLERANCE MM	IN. (REF)	PITCH DIAMETER NOT GO PLUG GAGE 6H TOLERANCE MM	IN. (REF)
M 1.6 X 0.35	1.354	.05331	1.291	.05083	1.373	.05406	1.458	.05740
M 2 X 0.4	1.721	.06776	1.654	.06512	1.740	.06850	1.830	.07205
M 2.5 X 0.45	2.188	.08614	2.117	.08335	2.208	.08693	2.303	.09067
M 3 X 0.5	2.655	.10453	2.580	.10157	2.675	.10531	2.775	.10925
M 3.5 X 0.6	3.089	.12161	3.004	.11827	3.110	.12244	3.222	.12685
M 4 X 0.7	3.523	.13870	3.433	.13516	3.545	.13957	3.663	.14421
M 5 X 0.8	4.456	.17543	4.361	.17169	4.480	.17638	4.605	.18130
M 6 X 1.0	5.324	.20961	5.212	.20520	5.350	.21063	5.500	.21654
M 8 X 1.25	7.160	.28189	7.042	.27724	7.188	.28299	7.348	.28929
M 8 X 1.0	7.324	.28835	7.212	.28394	7.350	.28937	7.500	.29528
M 10 X 1.5	8.994	.35409	8.862	.34890	9.026	.35535	9.206	.36244
M 10 X 1.25	9.160	.36063	9.042	.35598	9.188	.36173	9.348	.36803
M 10 X 1.0	9.324	.36709	9.212	.36268	9.350	.36811	9.500	.37402
M 10 X 0.75	9.491	.37366	9.391	.36972	9.513	.37453	9.645	.37972
M 12 X 1.75	10.829	.42634	10.679	.42043	10.863	.42768	11.063	.43555
M 12 X 1.5	10.994	.43283	10.854	.42732	11.026	.43409	11.216	.44157
M 12 X 1.25	11.160	.43937	11.028	.43417	11.188	.44047	11.368	.44756
M 12 X 1.0	11.324	.44583	11.206	.44118	11.350	.44685	11.510	.45315
M 14 X 2.0	12.663	.49854	12.503	.49224	12.701	.50004	12.913	.50839
M 14 X 1.5	12.994	.51157	12.854	.50606	13.026	.51283	13.216	.52031
M 15 X 1.0	14.324	.56394	14.206	.55929	14.350	.56496	14.510	.57126
M 16 X 2.0	14.663	.57728	14.503	.57098	14.701	.57878	14.913	.58713
M 16 X 1.5	14.994	.59031	14.854	.58480	15.026	.59157	15.216	.59906
M 17 X 1.0	16.324	.64268	16.206	.63803	16.350	.64370	16.510	.65000
M 18 X 1.5	16.994	.66906	16.854	.66354	17.026	.67031	17.216	.67780
M 20 X 2.5	18.334	.72181	18.164	.71512	18.376	.72346	18.600	.73228
M 20 X 1.5	18.994	.74780	18.854	.74228	19.026	.74906	19.216	.75654
M 20 X 1.0	19.324	.76079	19.206	.75614	19.350	.76181	19.510	.76811
M 22 X 2.5	20.334	.80055	20.164	.79386	20.376	.80220	20.600	.81102
M 22 X 1.5	20.994	.82654	20.854	.82102	21.026	.82780	21.216	.83528
M 24 X 3.0	22.003	.86626	21.803	.85839	22.051	.86815	22.316	.87858
M 24 X 2.0	22.663	.89224	22.493	.88555	22.701	.89374	22.925	.90256
M 25 X 1.5	23.994	.94465	23.844	.93874	24.026	.94591	24.226	.95378
M 27 X 3.0	25.003	.98437	24.803	.97650	25.051	.98626	25.316	.99669
M 27 X 2.0	25.663	1.01035	25.493	1.00366	25.701	1.01185	25.925	1.02067
M 30 X 3.5	27.674	1.08953	27.462	1.08118	27.727	1.09161	28.007	1.10264
M 30 X 2.0	28.663	1.12846	28.493	1.12177	28.701	1.12996	28.925	1.13878
M 30 X 1.5	28.994	1.14150	28.844	1.13559	29.026	1.14276	29.226	1.15063
M 33 X 2.0	31.663	1.24657	31.493	1.23988	31.701	1.24807	31.925	1.25689
M 35 X 1.5	33.994	1.33835	33.844	1.33244	34.026	1.33961	34.226	1.34748
M 36 X 4.0	33.342	1.31268	33.118	1.30386	33.402	1.31504	33.702	1.32685
M 36 X 2.0	34.663	1.36469	34.493	1.35799	34.701	1.36618	34.925	1.37500
M 39 X 2.0	37.663	1.48280	37.493	1.47610	37.701	1.48429	37.925	1.49311

Helical Coil Plug Gages

NOMINAL SIZE	PITCH DIAMETERS: GO	2B NOT GO	3B NOT GO	X TOL. GO=+ NO GO=-
(.086) #2-56 UNC	.0976	.0996	.0989	.0002
(.086) #2-64 UNF	.0962	.0981	.0974	.0002
(.099) #3-48 UNC	.1126	.1148	.1140	.0002
(.099) #3-56 UNF	.1106	.1126	.1119	.0002
(.112) #4-40 UNC	.1283	.1308	.1299	.0002
(.112) #4-48 UNF	.1256	.1279	.1271	.0002
(.125) #5-40 UNC	.1413	.1438	.1430	.0002
(.138) #6-32 UNC	.1583	.1611	.1601	.0003
(.138) #6-40 UNF	.1543	.1569	.1560	.0002
(.164) #8-32 UNC	.1843	.1872	.1862	.0003
(.164) #8-36 UNF	.1821	.1849	.1840	.0002
(.190) #10-24 UNC	.2170	.2203	.2192	.0003
(.190) #10-32 UNF	.2103	.2133	.2123	.0003
(.216) #12-24 UNC	.2430	.2464	.2453	.0003
¼-20 UNC	.2825	.2864	.2851	.0003
¼-28 UNF	.2732	.2765	.2754	.0003
5/16-18 UNC	.3486	.3529	.3515	.0003
5/16-24 UNF	.3395	.3433	.3421	.0003
⅜-16 UNC	.4156	.4203	.4189	.0003
⅜-24 UNF	.4020	.4059	.4047	.0003
7/16-14 UNC	.4839	.4890	.4875	.0003
7/16-20 UNF	.4700	.4744	.4731	.0003
½-13 UNC	.5499	.5554	.5537	.0003
½-20 UNF	.5325	.5371	.5357	.0003
9/16-12 UNC	.6167	.6225	.6208	.0003
9/16-18 UNF	.5986	.6035	.6020	.0003
⅝-11 UNC	.6841	.6903	.6885	.0003
⅝-18 UNF	.6611	.6661	.6646	.0003
¾-10 UNC	.8149	.8216	.8196	.0003
¾-16 UNF	.7906	.7961	.7945	.0003

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