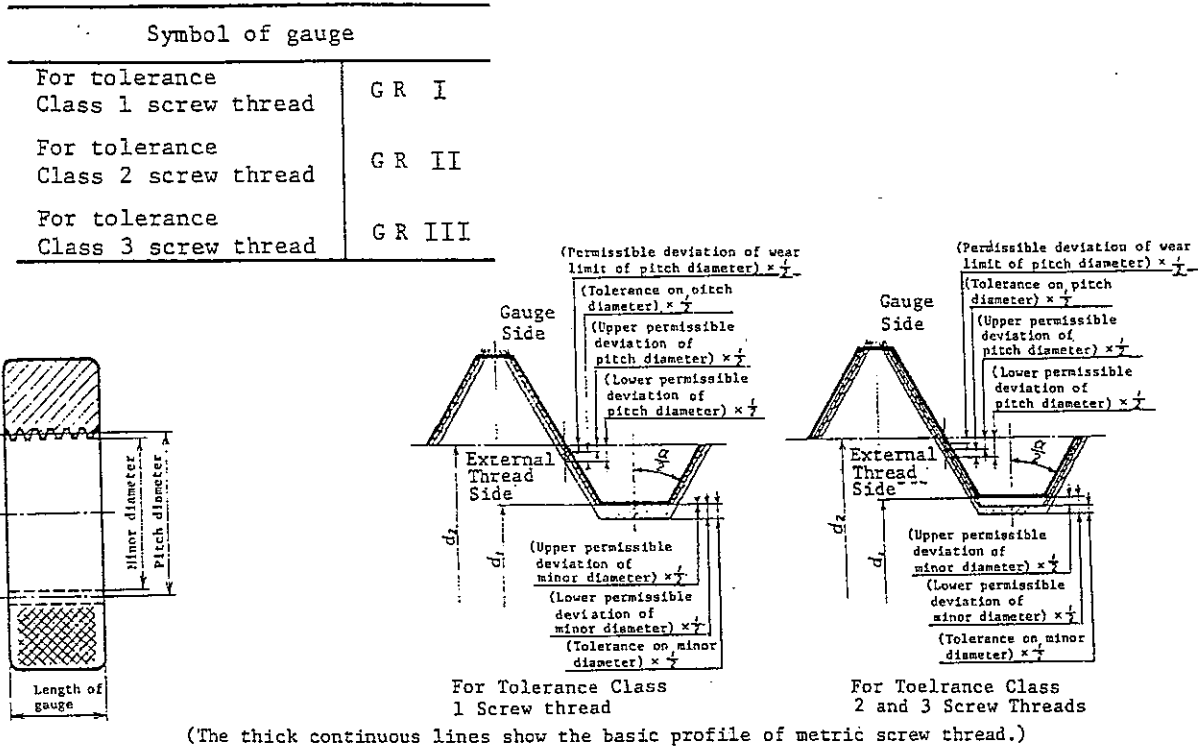


Appendix Table 3. Shape, Dimensions, Permissible Deviations and Tolerance of Go-Thread Ring Gauge (Common Use for Machine Work and Inspection) (GR)

(Metric Coarse Screw Thread)



Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch $P$ (mm)	Pitch diameter <sup>(3)</sup>											Minor diameter						Pitch tolerance $\pm$	Permissible deviations on half angle $\frac{1}{2}$ of thread $\pm$	Standard value of gauge length (mm)			
		Basic dimension $d_2$ (mm)	For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread			Basic dimension $d_1$ (mm)	For Tolerance class 1 screw thread		For Tolerance classes 2 and 3 screw thread		Tolerance							
			Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation of wear limit	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance		Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation		Upper permissible deviation				Tolerance		
																							In the case of newly manufactured gauge	In the case of newly manufactured gauge
M 1	0.25	0.838	9	3	6	0	27	19	8	15	—	—	—	—	0.729	12	0	12	27	15	12	4	41	2
M 1.1*	0.25	0.938	9	3	6	0	12	4	8	0	—	—	—	—	0.829	12	0	12	12	0	12	4	41	2
M 1.2	0.25	1.038	9	3	6	0	27	19	8	15	—	—	—	—	0.929	12	0	12	27	15	12	4	41	2
M 1.4	0.3	1.205	9	3	6	0	32	24	8	20	—	—	—	—	1.075	12	0	12	32	20	12	4	35	2
M 1.6*	0.35	1.373	9	3	6	0	31	23	8	19	—	—	—	—	1.221	12	0	12	31	19	12	4	31	3
M 1.7	0.35	1.473	—	—	—	—	32	24	8	20	—	—	—	—	1.321	—	—	—	32	20	12	4	31	3
M 1.8*	0.35	1.573	9	3	6	0	31	23	8	19	—	—	—	—	1.421	12	0	12	31	19	12	4	31	3
M 2	0.4	1.740	9	3	6	0	32	24	8	20	—	—	—	—	1.567	12	0	12	32	20	12	4	28	3
M 2.2*	0.45	1.908	9	3	6	0	32	24	8	20	—	—	—	—	1.713	12	0	12	32	20	12	4	25	3
M 2.3	0.4	2.040	—	—	—	—	32	24	8	20	—	—	—	—	1.867	—	—	—	32	20	12	4	28	3
M 2.5*	0.45	2.208	9	3	6	0	32	24	8	20	—	—	—	—	2.013	12	0	12	32	20	12	4	25	3
M 2.6	0.45	2.308	—	—	—	—	32	24	8	20	—	—	—	—	2.113	—	—	—	32	20	12	4	25	3
M3×0.5*	0.5	2.675	9	3	6	0	32	24	8	20	—	—	—	—	2.459	12	0	12	32	20	12	4	23	4
M 3.5	0.6	3.110	9	3	6	0	42	34	8	30	—	—	—	—	2.850	12	0	12	42	30	12	4	20	4
M4×0.7*	0.7	3.545	9	3	6	0	34	26	8	22	—	—	—	—	3.242	12	0	12	34	22	12	4	18	6
M 4.5	0.75	4.013	9	3	6	0	42	34	8	30	—	—	—	—	3.688	12	0	12	42	30	12	4	18	6
M5×0.8*	0.8	4.480	9	3	6	0	36	28	8	24	42	30	12	24	4.134	12	0	12	36	24	12	4	17	6
M 6	1	5.350	9	3	6	0	42	34	8	30	48	36	12	30	4.917	12	0	12	42	30	12	4	15	8
M 7	1	6.350	9	3	6	0	42	34	8	30	48	36	12	30	5.917	12	0	12	42	30	12	4	15	8
M 8	1.25	7.188	9	3	6	0	52	44	8	40	58	46	12	40	6.647	12	0	12	52	40	12	4	13	8

Appendix Table 3. GR. (Cont'd)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch $P$ (mm)	Pitch diameter (3)												Minor diameter						Pitch tolerance ( $\mu\text{m}$ )	Permissible deviations on half angle of thread ( $\mu\text{m}$ )	Standard value of gauge length (mm)		
		Basic dimension $d_2$ (mm)	For tolerance class 1 screw thread				For tolerance class 2 screw thread				For tolerance class 3 screw thread				Basic dimension $d_1$ (mm)	For Tolerance class 1 screw thread			For Tolerance classes 2 and 3 screw thread					
			In the case of newly manufactured gauge		Permissible deviation of wear limit		In the case of newly manufactured gauge		Permissible deviation of wear limit		In the case of newly manufactured gauge		Permissible deviation of wear limit			Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation				Upper permissible deviation	Tolerance
			Lower permissible deviation	Upper permissible deviation	Lower permissible deviation	Upper permissible deviation	Lower permissible deviation	Upper permissible deviation	Lower permissible deviation	Upper permissible deviation	Lower permissible deviation	Upper permissible deviation												
M 9	1.25	8.188	9	3	6	0	52	44	8	40	58	46	12	40	7.647	12	0	12	52	40	12	4	13	8
M 10	1.5	9.026	9	3	6	0	52	44	8	40	58	46	12	40	8.376	12	0	12	52	40	12	4	12	10
M 11*	1.5	10.026	9	3	6	0	44	36	8	32	50	38	12	32	9.376	12	0	12	44	32	12	4	12	10
M 12	1.75	10.863	9	3	6	0	62	54	8	50	68	56	12	50	10.106	12	0	12	62	50	12	4	11	15
M 14	2	12.701	9	3	6	0	62	54	8	50	68	56	12	50	11.835	12	0	12	62	50	12	4	10	15
M 16	2	14.701	9	3	6	0	62	54	8	50	68	56	12	50	13.835	12	0	12	62	50	12	4	10	15
M 18	2.5	16.376	12	4	8	0	66	56	10	50	74	58	16	50	15.294	16	0	16	66	50	16	5	9	22
M 20	2.5	18.376	12	4	8	0	66	56	10	50	74	58	16	50	17.294	16	0	16	66	50	16	5	9	22
M 22	2.5	20.376	12	4	8	0	66	56	10	50	74	58	16	50	19.294	16	0	16	66	50	16	5	9	22
M 24	3	22.051	12	4	8	0	76	66	10	60	84	68	16	60	20.752	16	0	16	76	60	16	5	9	28
M 27	3	25.051	12	4	8	0	76	66	10	60	84	68	16	60	23.752	16	0	16	76	60	16	5	9	28
M 30	3.5	27.727	12	4	8	0	76	66	10	60	84	68	16	60	26.211	16	0	16	76	60	16	5	9	28
M 33	3.5	30.727	12	4	8	0	76	66	10	60	84	68	16	60	29.211	16	0	16	76	60	16	5	9	28
M 36	4	33.402	12	4	8	0	86	76	10	70	94	78	16	70	31.670	16	0	16	86	70	16	5	8	38
M 39	4	36.402	12	4	8	0	86	76	10	70	94	78	16	70	34.670	16	0	16	86	70	16	5	8	38
M 42	4.5	39.077	12	4	8	0	86	76	10	70	94	78	16	70	37.129	16	0	16	86	70	16	5	8	38
M 45	4.5	42.077	12	4	8	0	86	76	10	70	94	78	16	70	40.129	16	0	16	86	70	16	5	8	38
M 48	5	44.752	12	4	8	0	86	76	10	70	94	78	16	70	42.587	16	0	16	86	70	16	5	8	40
M 52*	5	48.752	12	4	8	0	86	76	10	71	95	79	16	71	46.587	16	0	16	87	71	16	5	8	40
M 56*	5.5	52.428	15	5	10	0	93	81	12	75	102	84	18	75	50.046	18	0	18	93	75	18	5	8	45
M 60*	5.5	56.428	15	5	10	0	93	81	12	75	102	84	18	75	54.046	18	0	18	93	75	18	5	8	45
M 64*	6	60.103	15	5	10	0	98	86	12	80	107	89	18	80	57.505	18	0	18	98	80	18	5	7	50
M 68*	6	64.103	15	5	10	0	98	86	12	80	107	89	18	80	61.505	18	0	18	98	80	18	5	7	50

Notes (3) This shall be a simple pitch diameter in this standard.

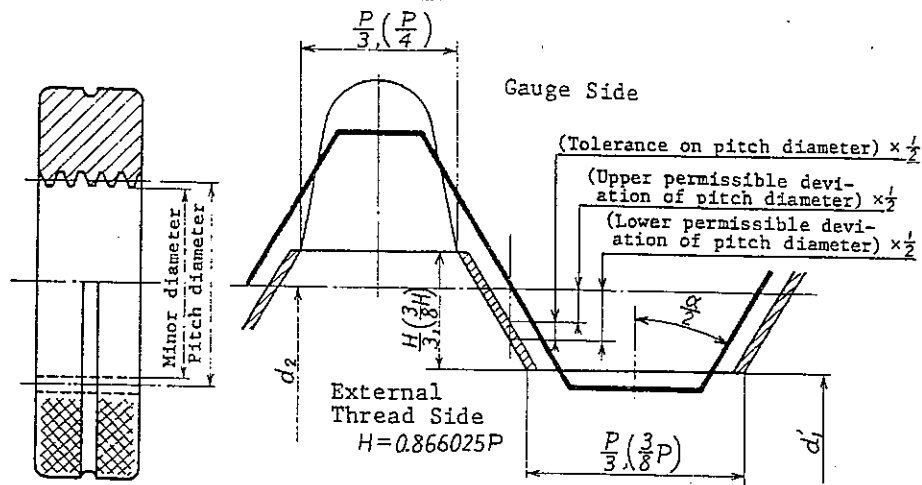
(4) This agrees with the numerical values of the basic dimension of pitch diameter ( $d_2$ ) and minor diameter ( $d_1$ ) of external thread which are specified in JIS B 0205 respectively.

- Remarks 1. An appropriate relief shall be prepared for the shape of root so that a space may be formed between the root and the maximum dimension of major diameter of the external thread to be inspected as shown in Figure.
2. In measurement of pitch diameter, pitch tolerance and permissible deviation on half angle of thread, when the thread plug gauge for checking fit of go-side specified in Appendix Table 13 is screwed in smoothly and without play, they shall be judged to be acceptable, as a rule, regardless of the numerical values of Table.
3. In measurement of wear of the pitch diameter, when the thread plug gauge for checking wear specified in Appendix Table 16 does not go through, that pitch diameter shall be judged to be within the wear limit, regardless of the numerical values of Table.
4. The pitch tolerance includes the stagger of lead, too.
5. The go-inspection for the tolerance Class 3 screw thread may be carried out by the go-thread ring gauge for the tolerance class 2 screw thread.
6. The shape and dimensions of this gauge shall be in accordance with JIS B 3102.

Appendix Table 4. Shape, Dimensions, Permissible Deviations and Tolerance of Not-Go Thread Ring Gauge for Machine Work (WR)

(Metric Coarse Screw Thread)

Symbol of gauge	
For tolerance class 1 screw thread	W R I
For tolerance class 2 screw thread	W R II
For tolerance class 3 screw thread	W R III



(The thick continuous line shows the basic profile of metric screw thread.)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch P (mm)	Basic dimension $d_2$ (mm)	Pitch diameter (3)									Pitch tolerance $\pm$	Permissible deviations on half angle of thread $\pm$ (minute)	Standard value of minor diameter of gauge $d_1'$ (mm)		
			For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread					For tolerance class 1 screw thread	For tolerance class 2 screw thread	For tolerance class 3 screw thread
			Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance					
			35	29	6	60	52	8	—	—	—					
M 1.1*	0.25	0.938	34	28	6	53	45	8	—	—	—	4	78	0.85	0.83	—
M 1.2	0.25	1.038	35	29	6	60	52	8	—	—	—	4	78	0.93	0.92	—
M 1.4	0.3	1.205	35	29	6	70	62	8	—	—	—	4	66	1.08	1.06	—
M 1.6*	0.35	1.373	40	34	6	82	74	8	—	—	—	4	57	1.26	1.22	—
M 1.7	0.35	1.473	—	—	—	80	72	8	—	—	—	4	57	—	1.31	—
M 1.8*	0.35	1.573	40	34	6	82	74	8	—	—	—	4	57	1.46	1.42	—
M 2	0.4	1.740	40	34	6	80	72	8	—	—	—	4	51	1.59	1.55	—
M 2.2*	0.45	1.908	45	39	6	91	83	8	—	—	—	4	46	1.77	1.72	—
M 2.3	0.4	2.040	—	—	—	80	72	8	—	—	—	4	51	—	1.85	—
M 2.5*	0.45	2.208	45	39	6	91	83	8	—	—	—	4	46	2.07	2.02	—
M 2.6	0.45	2.308	—	—	—	90	82	8	—	—	—	4	46	—	2.10	—
M3×0.5*	0.5	2.675	48	42	6	95	87	8	—	—	—	4	42	2.52	2.47	—
M 3.5	0.6	3.110	50	44	6	100	92	8	—	—	—	4	36	2.89	2.84	—
M4×0.7*	0.7	3.545	56	50	6	112	104	8	—	—	—	4	32	3.34	3.28	—
M 4.5	0.75	4.013	60	54	6	120	112	8	—	—	—	4	30	3.74	3.68	—
M5×0.8*	0.8	4.480	60	54	6	119	111	8	174	162	12	4	29	4.25	4.19	4.14
M 6	1	5.350	70	64	6	130	122	8	170	158	12	4	24	4.99	4.93	4.89
M 7	1	6.350	70	64	6	130	122	8	170	158	12	4	24	5.99	5.93	5.89
M 8	1.25	7.188	80	74	6	150	142	8	190	178	12	4	20	6.75	6.68	6.64

Appendix Table 4. WR (Cont'd)

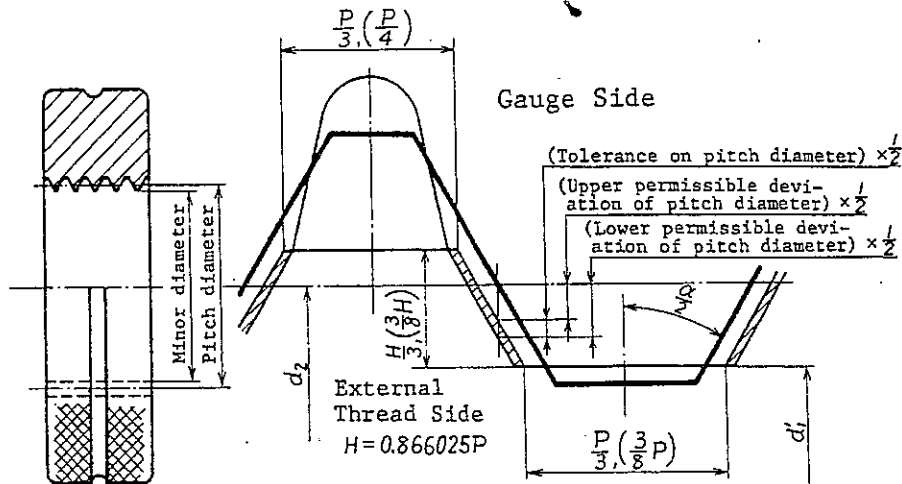
Nominal designation of screw thread to be inspected	Pitch P (mm)	Pitch diameter (3)											Unit: $\mu\text{m}$			
		Basic dimension $d_2$ (mm) (4)	For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread			Pitch tolerance	Permissible deviations on half angle of thread (minutes)	Standard value of minor diameter of gauge $d_1'$ (mm)		
			Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance			For tolerance class 1 screw thread	For tolerance class 2 screw thread	For tolerance class 3 screw thread
M 9	1.25	8.188	80	74	6	150	142	8	190	178	12	4	20	7.75	7.68	7.64
M 10	1.5	9.026	80	74	6	160	152	8	210	198	12	4	18	8.51	8.43	8.38
M 11*	1.5	10.026	85	79	6	164	156	8	244	232	12	4	18	9.62	9.54	9.46
M 12	1.75	10.863	90	84	6	180	172	8	220	208	12	4	16	10.27	10.18	10.14
M 14	2	12.701	100	94	6	190	182	8	240	228	12	4	15	12.03	11.94	11.89
M 16	2	14.701	100	94	6	190	182	8	240	228	12	4	15	14.03	13.94	13.89
M 18	2.5	16.376	110	102	8	210	200	10	270	254	16	5	13	15.54	15.44	15.38
M 20	2.5	18.376	110	102	8	210	200	10	270	254	16	5	13	17.54	17.44	17.38
M 22	2.5	20.376	110	102	8	210	200	10	270	254	16	5	13	19.54	19.44	19.38
M 24	3	22.051	120	112	8	230	220	10	280	264	16	5	12	21.07	20.96	20.91
M 27	3	25.051	120	112	8	230	220	10	280	264	16	5	12	24.07	23.96	23.91
M 30	3.5	27.727	130	122	8	250	240	10	310	294	16	5	11	26.59	26.47	26.41
M 33	3.5	30.727	130	122	8	250	240	10	310	294	16	5	11	29.59	29.47	29.41
M 36	4	33.402	130	122	8	270	260	10	340	324	16	5	11	32.12	31.98	31.91
M 39	4	36.402	130	122	8	270	260	10	340	324	16	5	11	35.12	34.98	34.91
M 42	4.5	39.077	140	132	8	280	270	10	360	344	16	5	10	37.64	37.50	37.42
M 45	4.5	42.077	140	132	8	280	270	10	360	344	16	5	10	40.64	40.50	40.42
M 48	5	44.752	150	142	8	300	290	10	380	364	16	5	10	43.16	43.01	42.93
M 52*	5	48.752	160	152	8	321	311	10	471	455	16	5	10	47.51	47.35	47.20
M 56*	5.5	52.428	170	160	10	340	328	12	500	482	18	5	9	51.07	50.90	50.74
M 60*	5.5	56.428	170	160	10	340	328	12	500	482	18	5	9	55.07	54.90	54.74
M 64*	6	60.103	180	170	10	360	348	12	530	512	18	5	9	58.62	58.44	58.27
M 68*	6	64.103	180	170	10	360	348	12	530	512	18	5	9	62.62	62.44	62.27

- Notes (3) This shall be a simple pitch diameter in this standard.  
 (4) This agrees with the numerical value of basic dimension of the pitch diameter ( $d_2$ ) of external thread specified in JIS B 0205. The numerical values given in ( ) in Figure apply to the gauges having nominal designation with \* mark.

- Remarks 1. For the shape of root, an appropriate relief shall be prepared so that the part excepting the shortened flank may not contact with the external thread to be inspected as shown in Figure. However, the flank may be extended to the vicinity of root as shown in the right Figure of Appendix Table 3 in the case of the gauge to be used for the screw thread of not more than 1 mm in pitch.
2. In measurement of pitch diameter, pitch tolerance and permissible deviations on half angle of thread, when the thread plug gauge for checking fit of not-go side which is specified in Appendix Table 14, is screwed smoothly and without play, they shall be judged to be acceptable regardless of the numerical values of Table.
3. The pitch tolerance includes the stagger of lead, too.
4. The shape and dimensions of this gauge shall be in accordance with JIS B 3102.

Appendix Table 5. Shape, Dimensions, Permissible Deviations and Tolerance of Not-Go Thread Ring Gauge for Inspection (I R)  
(Metric Coarse Screw Thread)

Symbol of gauge	
For tolerance class 1 screw thread	I R I
For tolerance class 2 screw thread	I R II
For tolerance class 3 screw thread	I R III



(The thick continuous line shows the basic profile of metric screw thread.)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch P (mm)	Pitch diameter (3)									Pitch tolerance	Permissible deviations on half angle of thread $\alpha/2$ (minute)	Standard value of minor diameter of gauge $d_1'$ (mm)			
		Basic dimension $d_2$ (mm)	For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread				For tolerance class 1 screw thread	For tolerance class 2 screw thread	For tolerance class 3 screw thread	
			Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation						Tolerance
M 1	0.25	0.838	41	35	6	68	60	8	—	—	—	4	78	0.73	0.72	—
M 1.1*	0.25	0.938	40	34	6	61	53	8	—	—	—	4	78	0.85	0.83	—
M 1.2	0.25	1.038	41	35	6	68	60	8	—	—	—	4	78	0.93	0.92	—
M 1.4	0.3	1.205	41	35	6	78	70	8	—	—	—	4	66	1.08	1.06	—
M 1.6*	0.35	1.373	46	40	6	90	82	8	—	—	—	4	57	1.26	1.22	—
M 1.7	0.35	1.473	—	—	—	88	80	8	—	—	—	4	57	—	1.31	—
M 1.8*	0.35	1.573	46	40	6	90	82	8	—	—	—	4	57	1.46	1.42	—
M 2	0.4	1.740	46	40	6	88	80	8	—	—	—	4	51	1.59	1.55	—
M 2.2*	0.45	1.908	51	45	6	99	91	8	—	—	—	4	46	1.77	1.72	—
M 2.3	0.4	2.040	—	—	—	88	80	8	—	—	—	4	51	—	1.85	—
M 2.5*	0.45	2.208	51	45	6	99	91	8	—	—	—	4	46	2.07	2.02	—
M 2.6	0.45	2.308	—	—	—	98	90	8	—	—	—	4	46	—	2.10	—
M3×0.5*	0.5	2.675	54	48	6	103	95	8	—	—	—	4	42	2.52	2.47	—
M 3.5	0.6	3.110	56	50	6	108	100	8	—	—	—	4	36	2.89	2.84	—
M4×0.7*	0.7	3.545	62	56	6	120	112	8	—	—	—	4	32	3.34	3.28	—
M 4.5	0.75	4.013	66	60	6	128	120	8	—	—	—	4	30	3.74	3.68	—
M5×0.8*	0.8	4.480	66	60	6	127	119	8	186	174	12	4	29	4.25	4.19	4.14
M 6	1	5.350	76	70	6	138	130	8	182	170	12	4	24	4.99	4.93	4.89
M 7	1	6.350	76	70	6	138	130	8	182	170	12	4	24	5.99	5.93	5.89
M 8	1.25	7.188	86	80	6	158	150	8	202	190	12	4	20	6.75	6.68	6.64

Appendix Table 5. IR. (Cont'd)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch $P$ (mm)	Pitch diameter <sup>(3)</sup>										Pitch tolerance $\pm$	Permissible deviations on half angle of thread $\pm$ (minute)	Standard value of minor diameter of gauge $d_1'$ (mm)		
		Basic dimension $d_2$ (mm) <sup>(4)</sup>	For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread					For tolerance class I screw thread	For tolerance class 2 screw thread	For tolerance class J screw thread
			Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance	Lower permissible deviation	Upper permissible deviation	Tolerance					
M 9	1.25	8.188	86	80	6	158	150	8	202	190	12	4	20	7.75	7.68	7.64
M 10	1.5	9.026	86	80	6	168	160	8	222	210	12	4	18	8.51	8.43	8.38
M 11*	1.5	10.026	91	85	6	172	164	8	256	244	12	4	18	9.62	9.54	9.46
M 12	1.75	10.863	96	90	6	188	180	8	232	220	12	4	16	10.27	10.18	10.14
M 14	2	12.701	106	100	6	198	190	8	252	240	12	4	15	12.03	11.94	11.89
M 16	2	14.701	106	100	6	198	190	8	252	240	12	4	15	14.03	13.94	13.89
M 18	2.5	16.376	118	110	8	220	210	10	286	270	16	5	13	15.54	15.44	15.38
M 20	2.5	18.376	118	110	8	220	210	10	286	270	16	5	13	17.54	17.44	17.38
M 22	2.5	20.376	118	110	8	220	210	10	286	270	16	5	13	19.54	19.44	19.38
M 24	3	22.051	128	120	8	240	230	10	296	280	16	5	12	21.07	20.96	20.91
M 27	3	25.051	128	120	8	240	230	10	296	280	16	5	12	24.07	23.96	23.91
M 30	3.5	27.727	138	130	8	260	250	10	326	310	16	5	11	26.59	26.47	26.41
M 33	3.3	30.727	138	130	8	260	250	10	326	310	16	5	11	29.59	29.47	29.41
M 36	4	33.402	138	130	8	280	270	10	356	340	16	5	11	32.12	31.98	31.91
M 39	4	36.402	138	130	8	280	270	10	356	340	16	5	11	35.12	34.98	34.91
M 42	4.5	39.077	148	140	8	290	280	10	376	360	16	5	10	37.64	37.50	37.42
M 45	4.5	42.077	148	140	8	290	280	10	376	360	16	5	10	40.64	40.50	40.42
M 48	5	44.752	158	150	8	310	300	10	396	380	16	5	10	43.16	43.01	42.93
M 52*	5	48.752	168	160	8	331	321	10	487	471	16	5	10	47.51	47.35	47.20
M 56*	5.5	52.428	180	170	10	352	340	12	518	500	18	5	9	51.07	50.90	50.74
M 60*	5.5	56.428	180	170	10	352	340	12	518	500	18	5	9	55.07	54.90	54.74
M 64*	6	60.103	190	180	10	372	360	12	548	530	18	5	9	58.62	58.44	58.27
M 68*	6	64.103	190	180	10	372	360	12	548	530	18	5	9	62.62	62.44	62.27

Notes (3) This is a simple pitch diameter in this standard.

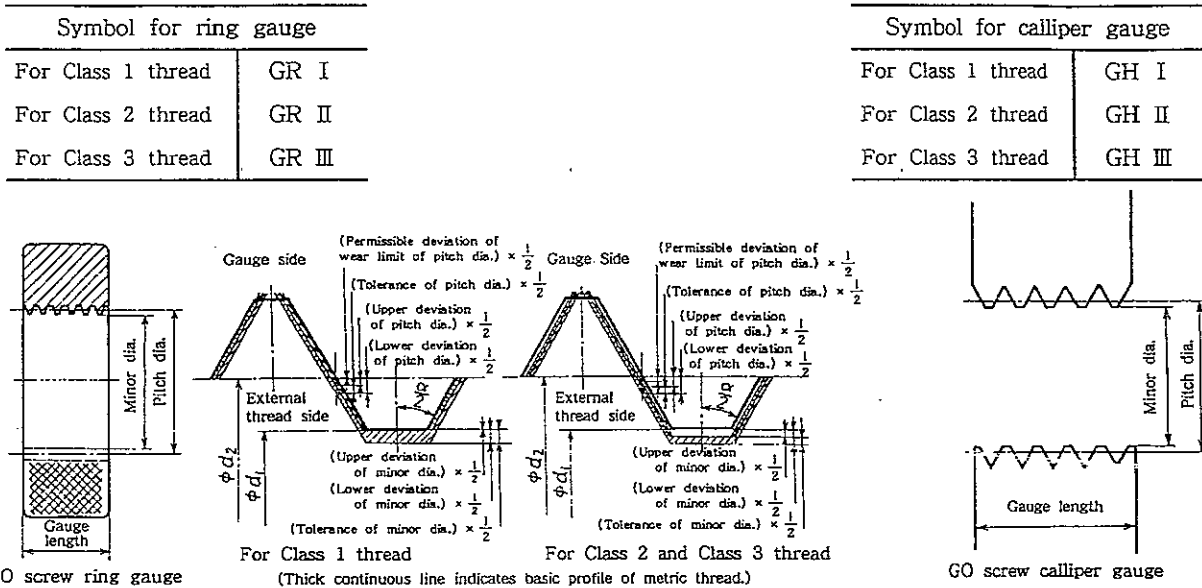
(4) This agrees with the numerical value of basic dimension of the pitch diameter ( $d_2$ ) of external thread specified in JIS B 0205.

The numerical values given in ( ) in Figure apply to the gauges having nominal designation with \* mark.

- Remarks 1. For the shape of root, an appropriate relief shall be prepared so that the part excepting the shortened flank may not contact with the external thread to be inspected as shown in Figure. However, the flank may be extended to the vicinity of root as shown in right side Figure of Appendix Table 3 in the case of the gauge to be used for the screw thread of not more than 1 mm in pitch.
2. In measurement of pitch diameter, pitch tolerance and permissible deviations on half angle of thread, when the thread plug gauge for checking fit of not-go side which is specified in Appendix Table 15 is screwed smoothly and without play, they shall be judged to be acceptable regardless of the numerical values of Table.
3. The pitch tolerance includes the stagger of lead, too.
4. The shape and dimensions of this gauge shall be in accordance with JIS B 3102.

# Fine Screw

Annex Table 3. Shape, dimension, permissible deviation, and tolerance for GO screw ring gauge (GR) and GO screw calliper gauge (Common use for working and inspection) (GH) (Metric fine screw thread)



Unit: μm

Designation of thread to be inspected	Pitch diameter <sup>(*)</sup>											Minor diameter						Standard gauge length (mm)					
	Basic size <sup>(*)</sup> d <sub>2</sub> (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread					Basic size <sup>(*)</sup> d <sub>1</sub> (mm)	For Class 1 thread			For Class 2 and Class 3 threads						
		For new gauge		Tolerance	Wear limit	For new gauge		Tolerance	Wear limit	For new gauge		Tolerance		Wear limit	Lower deviation	Upper deviation	Tolerance		Lower deviation	Upper deviation	Tolerance		
		Lower deviation	Upper deviation			Lower deviation	Upper deviation			Lower deviation	Upper deviation												
M 1 × 0.2	0.870	9	3	6	0	32	24	8	20	—	—	—	—	0.783	12	0	12	32	20	12	4	49	2
M 1.1 × 0.2*	0.970	9	3	6	0	12	4	8	0	—	—	—	—	0.883	12	0	12	12	0	12	4	49	2
M 1.2 × 0.2	1.070	9	3	6	0	32	24	8	20	—	—	—	—	0.983	12	0	12	32	20	12	4	49	2
M 1.4 × 0.2	1.270	9	3	6	0	32	24	8	20	—	—	—	—	1.183	12	0	12	32	20	12	4	49	2
M 1.6 × 0.2*	1.470	9	3	6	0	29	21	8	17	—	—	—	—	1.383	12	0	12	29	17	12	4	49	2
M 1.8 × 0.2*	1.670	9	3	6	0	29	21	8	17	—	—	—	—	1.583	12	0	12	29	17	12	4	49	2
M 2 × 0.25	1.838	9	3	6	0	32	24	8	20	—	—	—	—	1.729	12	0	12	32	20	12	4	41	3
M 2.2 × 0.25*	2.038	9	3	6	0	30	22	8	18	—	—	—	—	1.929	12	0	12	30	18	12	4	41	3
M 2.5 × 0.35*	2.273	9	3	6	0	31	23	8	19	—	—	—	—	2.121	12	0	12	31	19	12	4	31	3
M 3 × 0.35	2.773	9	3	6	0	32	24	8	20	—	—	—	—	2.621	12	0	12	32	20	12	4	31	3
M 3.5 × 0.35	3.273	9	3	6	0	32	24	8	20	—	—	—	—	3.121	12	0	12	32	20	12	4	31	3
M 4 × 0.5	3.675	9	3	6	0	12	34	8	30	—	—	—	—	3.459	12	0	12	42	30	12	4	23	4
M 4.5 × 0.5	4.175	9	3	6	0	42	34	8	30	—	—	—	—	3.959	12	0	12	42	30	12	4	23	4
M 5 × 0.5	4.675	9	3	6	0	42	34	8	30	—	—	—	—	4.459	12	0	12	42	30	12	4	23	4
M 5.5 × 0.5	5.175	9	3	6	0	42	34	8	30	—	—	—	—	4.959	12	0	12	42	30	12	4	23	4
M 6 × 0.75	5.513	9	3	6	0	42	34	8	30	—	—	—	—	5.188	12	0	12	42	30	12	4	18	6
M 7 × 0.75	6.513	9	3	6	0	42	34	8	30	—	—	—	—	6.188	12	0	12	42	30	12	4	18	6
M 8 × 1	7.350	9	3	6	0	12	34	8	30	38	36	12	30	6.917	12	0	12	42	30	12	4	15	8
M 8 × 0.75	7.513	9	3	6	0	42	34	8	30	—	—	—	—	7.188	12	0	12	42	30	12	4	18	6
M 9 × 1	8.350	9	3	6	0	42	34	8	30	48	36	12	30	7.917	12	0	12	42	30	12	4	15	8
M 9 × 0.75	8.513	9	3	6	0	42	34	8	30	—	—	—	—	8.188	12	0	12	42	30	12	4	18	6
M 10 × 1.25	9.188	9	3	6	0	52	44	8	40	58	46	12	40	8.647	12	0	12	52	40	12	4	13	8
M 10 × 1	9.350	9	3	6	0	42	34	8	30	48	36	12	30	8.917	12	0	12	42	30	12	4	15	8
M 10 × 0.75*	9.513	9	3	6	0	34	26	8	23	—	—	—	—	9.188	12	0	12	34	22	12	4	18	6
M 11 × 1	10.350	9	3	6	0	42	34	8	30	48	36	12	30	9.917	12	0	12	42	30	12	4	15	8
M 11 × 0.75*	10.513	9	3	6	0	34	26	8	23	—	—	—	—	10.188	12	0	12	34	22	12	4	18	6
M 12 × 1.5	11.026	12	4	8	0	55	45	10	40	64	48	16	40	10.376	16	0	16	56	40	16	4	12	10
M 12 × 1.25*	11.188	12	4	8	0	43	33	10	28	52	36	16	28	10.647	16	0	16	44	28	16	4	13	10
M 12 × 1	11.350	12	4	8	0	55	45	10	40	64	48	16	40	10.917	16	0	16	56	40	16	4	15	10





Annex Table 3. GR, GH (continued) (2)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter <sup>(3)</sup>													Minor diameter						Pitch tolerance	Tolerance on half angle $\alpha/2$ (min)	Standard gauge length (mm)	
	Basic size $d_2$ (mm)	For Class 1 thread				For Class 2 thread				For Class 3 thread				Basic size $d_1$ (mm)	For Class 1 thread			For Class 2 and Class 3 threads					
		For new gauge			Wear limit	For new gauge			Wear limit	For new gauge			Wear limit		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation				Tolerance
		Lower deviation	Upper deviation	Tolerance		Lower deviation	Upper deviation	Tolerance		Lower deviation	Upper deviation	Tolerance											
M 45×4*	42.402	12	4	8	0	75	65	10	60	84	68	16	60	40.670	16	0	16	76	60	16	5	8	28
M 45×3*	43.051	12	4	8	0	63	53	10	48	72	56	16	48	41.752	16	0	16	64	48	16	5	9	28
M 45×2	43.701	12	4	8	0	75	65	10	60	84	68	16	60	42.835	16	0	16	76	60	16	5	10	22
M 45×1.5	44.026	12	4	8	0	65	55	10	50	74	58	16	50	43.376	16	0	16	66	50	16	4	12	15
M 48×4*	45.402	12	4	8	0	75	65	10	60	84	68	16	60	43.670	16	0	16	76	60	16	5	8	28
M 48×3*	46.051	12	4	8	0	63	53	10	48	72	56	16	48	44.752	16	0	16	64	48	16	5	9	28
M 48×2	46.701	12	4	8	0	75	65	10	60	84	68	16	60	45.835	16	0	16	76	60	16	5	10	22
M 48×1.5	47.026	12	4	8	0	65	55	10	50	74	58	16	50	46.376	16	0	16	66	50	16	4	12	15
M 50×3*	48.051	12	4	8	0	63	53	10	48	72	56	16	48	46.752	16	0	16	64	48	16	5	9	28
M 50×2	48.701	12	4	8	0	75	65	10	60	84	68	16	60	47.835	16	0	16	76	60	16	5	10	22
M 50×1.5	49.026	12	4	8	0	65	55	10	50	74	58	16	50	48.376	16	0	16	66	50	16	4	12	15
M 52×4*	49.402	15	5	10	0	78	66	12	60	87	69	18	60	47.670	18	0	18	78	60	18	5	8	28
M 52×3*	50.051	15	5	10	0	66	54	12	48	75	57	18	48	48.752	18	0	18	66	48	18	5	9	28
M 52×2	50.701	15	5	10	0	78	66	12	60	87	69	18	60	49.835	18	0	18	78	60	18	5	10	22
M 52×1.5	51.026	15	5	10	0	68	56	12	50	77	59	18	50	50.376	18	0	18	68	50	18	4	12	15
M 55×4*	52.402	15	5	10	0	78	66	12	60	87	69	18	60	50.670	18	0	18	78	60	18	5	8	38
M 55×3*	53.051	15	5	10	0	66	54	12	48	75	57	18	48	51.752	18	0	18	66	48	18	5	9	28
M 55×2	53.701	15	5	10	0	78	66	12	60	87	69	18	60	52.835	18	0	18	78	60	18	5	10	22
M 55×1.5	54.026	15	5	10	0	68	56	12	50	77	59	18	50	53.376	18	0	18	68	50	18	4	12	15
M 56×4*	53.402	15	5	10	0	78	66	12	60	87	69	18	60	51.670	18	0	18	78	60	18	5	8	38
M 56×3*	54.051	15	5	10	0	66	54	12	48	75	57	18	48	52.752	18	0	18	66	48	18	5	9	28
M 56×2	54.701	15	5	10	0	78	66	12	60	87	69	18	60	53.835	18	0	18	78	60	18	5	10	22
M 56×1.5*	55.026	15	5	10	0	50	38	12	32	59	41	18	32	54.376	18	0	18	50	32	18	4	12	15
M 58×4*	55.402	15	5	10	0	78	66	12	60	87	69	18	60	53.670	18	0	18	78	60	18	5	8	38
M 58×3*	56.051	15	5	10	0	66	54	12	48	75	57	18	48	54.752	18	0	18	66	48	18	5	9	28
M 58×2	56.701	15	5	10	0	78	66	12	60	87	69	18	60	55.835	18	0	18	78	60	18	5	10	22
M 58×1.5	57.026	15	5	10	0	68	56	12	50	77	59	18	50	56.376	18	0	18	68	50	18	4	12	15
M 60×4*	57.402	15	5	10	0	78	66	12	60	87	69	18	60	55.670	18	0	18	78	60	18	5	8	38
M 60×3*	58.051	15	5	10	0	66	54	12	48	75	57	18	48	56.752	18	0	18	66	48	18	5	9	28
M 60×2	58.701	15	5	10	0	78	66	12	60	87	69	18	60	57.835	18	0	18	78	60	18	5	10	22
M 60×1.5	59.026	15	5	10	0	68	56	12	50	77	59	18	50	58.376	18	0	18	68	50	18	4	12	15
M 62×4*	59.402	15	5	10	0	78	66	12	60	87	69	18	60	57.670	18	0	18	78	60	18	5	8	38
M 62×3*	60.051	15	5	10	0	66	54	12	48	75	57	18	48	58.752	18	0	18	66	48	18	5	9	28
M 62×2	60.701	15	5	10	0	78	66	12	60	87	69	18	60	59.835	18	0	18	78	60	18	5	10	22
M 62×1.5	61.026	15	5	10	0	68	56	12	50	77	59	18	50	60.376	18	0	18	68	50	18	4	12	15
M 64×4*	61.402	15	5	10	0	78	66	12	60	87	69	18	60	59.670	18	0	18	78	60	18	5	8	38
M 64×3*	62.051	15	5	10	0	66	54	12	48	75	57	18	48	60.752	18	0	18	66	48	18	5	9	28
M 64×2*	62.701	15	5	10	0	78	66	12	60	87	69	18	60	61.835	18	0	18	78	60	18	5	10	22
M 64×1.5*	63.026	15	5	10	0	50	38	12	32	59	41	18	32	62.376	18	0	18	50	32	18	4	12	15
M 65×4*	62.402	15	5	10	0	78	66	12	60	87	69	18	60	60.670	18	0	18	78	60	18	5	8	38
M 65×3*	63.051	15	5	10	0	66	54	12	48	75	57	18	48	61.752	18	0	18	66	48	18	5	9	28
M 65×2	63.701	15	5	10	0	78	66	12	60	87	69	18	60	62.835	18	0	18	78	60	18	5	10	22
M 65×1.5	64.026	15	5	10	0	68	56	12	50	77	59	18	50	63.376	18	0	18	68	50	18	4	12	15
M 68×4*	65.402	15	5	10	0	78	66	12	60	87	69	18	60	63.670	18	0	18	78	60	18	5	8	38
M 68×3*	66.051	15	5	10	0	66	54	12	48	75	57	18	48	64.752	18	0	18	66	48	18	5	9	28
M 68×2	66.701	15	5	10	0	78	66	12	60	87	69	18	60	65.835	18	0	18	78	60	18	5	10	22
M 68×1.5	67.026	15	5	10	0	68	56	12	50	77	59	18	50	66.376	18	0	18	68	50	18	4	12	15
M 70×6*	66.103	15	5	10	0	98	86	12	80	107	89	18	80	63.505	18	0	18	98	80	18	6	7	50
M 70×4*	67.402	15	5	10	0	78	66	12	60	87	69	18	60	65.670	18	0	18	78	60	18	5	8	38
M 70×3*	68.051	15	5	10	0	66	54	12	48	75	57	18	48	66.752	18	0	18	66	48	18	5	9	28
M 70×2	68.701	15	5	10	0	78	66	12	60	87	69	18	60	67.835	18	0	18	78	60	18	5	10	22
M 70×1.5	69.026	15	5	10	0	68	56	12	50	77	59	18	50	68.376	18	0	18	68	50	18	4	12	15
M 72×6*	68.103	15	5	10	0	98	86	12	80	107	89	18	80	65.505	18	0	18	98	80	18	6	7	50
M 72×4*	69.402	15	5	10	0	78	66	12	60	87	69	18	60	67.670	18	0	18	78	60	18	5	8	38
M 72×3*	70.051	15	5	10	0	66	54	12	48	75	57	18	48	68.752	18	0	18	66	48	18	5	9	28
M 72×2	70.701	15	5	10	0	78	66	12	60	87	69	18	60	69.835	18	0	18	78	60	18	5	10	22
M 72×1.5	71.026	15	5	10	0	68	56	12	50	77	59	18	50	70.376	18	0	18	68	50	18	4	11	15
M 75×4*	72.402	15	5	10	0	78	66	12	60	87	69	18	60	70.670	18	0	18	78	60	18	5	8	38
M 75×3*	73.051	15	5	10	0	66	54	12	48	75	57	18	48	71.752	18	0	18	66	48	18	5	9	28
M 75×2	73.701	15	5	10	0	78	66	12	60	87	69	18	60	72.835	18	0	18	78	60	18	5	10	22
M 75×1.5	74.026	15	5	10	0	68	56	12	50	77	59	18	50	73.376	18	0	18	68	50	18	4	12	15

Annex Table 3. GR, GH (continued) (3)

Designation of thread to be inspected	Pitch diameter <sup>(3)</sup>																		Minor diameter						Unit: μm			Desig of thr be ins		
	Basic size <sup>(4)</sup> d <sub>2</sub> (mm)	For Class 1 thread						For Class 2 thread						For Class 3 thread						Basic size <sup>(4)</sup> d <sub>1</sub> (mm)	For Class 1 thread			For Class 2 and Class 3 threads			Pitch tolerance		Tolerance on half angle α/2 (min)	Standard gauge length (mm)
		For new gauge			Wear limit	For new gauge			Wear limit	For new gauge			Wear limit	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance											
		Lower deviation	Upper deviation	Tolerance		Lower deviation	Upper deviation	Tolerance		Lower deviation	Upper deviation	Tolerance																		
M 76×6*	72.103	15	5	10	0	98	86	12	80	107	89	18	80	69.505	18	0	18	98	80	18	6	7	50	M 145						
M 76×4*	73.402	15	5	10	0	78	66	12	60	87	69	18	60	71.670	18	0	18	78	60	18	5	8	38	M 145						
M 76×3*	74.051	15	5	10	0	66	54	12	48	75	57	18	48	72.752	18	0	18	66	48	18	5	9	28	M 145						
M 76×2*	74.701	15	5	10	0	56	44	12	38	65	47	18	38	73.835	18	0	18	56	38	18	5	10	22	M 145						
M 76×1.5*	75.026	15	5	10	0	50	38	12	32	59	41	18	32	74.376	18	0	18	50	32	18	4	12	15	M 145						
M 78×2	76.701	15	5	10	0	78	66	12	60	87	69	18	60	75.835	18	0	18	78	60	18	5	10	22	M 150						
M 80×6*	76.103	15	5	10	0	98	86	12	80	107	89	18	80	73.505	18	0	18	98	80	18	6	7	50	M 150						
M 80×4*	77.402	15	5	10	0	78	66	12	60	87	69	18	60	75.670	18	0	18	78	60	18	5	8	38	M 150						
M 80×3*	78.051	15	5	10	0	66	54	12	48	75	57	18	48	76.752	18	0	18	66	48	18	5	9	28	M 150						
M 80×2	78.701	15	5	10	0	78	66	12	60	87	69	18	60	77.835	18	0	18	78	60	18	5	10	22	M 150						
M 80×1.5	79.026	15	5	10	0	68	56	12	50	77	59	18	50	78.376	18	0	18	68	50	18	4	12	15	M 150						
M 82×2	80.701	18	6	12	0	81	67	14	60	93	71	22	60	79.835	22	0	22	82	60	22	5	10	22	M 150						
M 85×6*	81.103	18	6	12	0	101	87	14	80	113	91	22	80	78.505	22	0	22	102	80	22	6	7	60	M 150						
M 85×4*	82.402	18	6	12	0	81	67	14	60	93	71	22	60	80.670	22	0	22	82	60	22	5	8	38	M 150						
M 85×3*	83.051	18	6	12	0	69	55	14	48	81	59	22	48	81.752	22	0	22	70	48	22	5	9	28	M 150						
M 85×2	83.701	18	6	12	0	81	67	14	60	93	71	22	60	82.835	22	0	22	82	60	22	5	10	22	M 150						
M 90×6*	86.103	18	6	12	0	101	87	14	80	113	91	22	80	83.505	22	0	22	102	80	22	6	7	60	M 150						
M 90×4*	87.402	18	6	12	0	81	67	14	60	93	71	22	60	85.670	22	0	22	82	60	22	5	8	38	M 150						
M 90×3*	88.051	18	6	12	0	69	55	14	48	81	59	22	48	86.752	22	0	22	70	48	22	5	9	28	M 150						
M 90×2	88.701	18	6	12	0	81	67	14	60	93	71	22	60	87.835	22	0	22	82	60	22	5	10	22	M 150						
M 95×6*	91.103	18	6	12	0	101	87	14	80	113	91	22	80	88.505	22	0	22	102	80	22	6	7	60	M 150						
M 95×4*	92.402	18	6	12	0	81	67	14	60	93	71	22	60	90.670	22	0	22	82	60	22	5	8	38	M 150						
M 95×3*	93.051	18	6	12	0	69	55	14	48	81	59	22	48	91.752	22	0	22	70	48	22	5	9	28	M 150						
M 95×2	93.701	18	6	12	0	81	67	14	60	93	71	22	60	92.835	22	0	22	82	60	22	5	10	22	M 150						
M 100×6*	96.103	18	6	12	0	101	87	14	80	113	91	22	80	93.505	22	0	22	102	80	22	6	7	60	M 150						
M 100×4*	97.402	18	6	12	0	81	67	14	60	93	71	22	60	95.670	22	0	22	82	60	22	5	8	38	M 150						
M 100×3*	98.051	18	6	12	0	69	55	14	48	81	59	22	48	96.752	22	0	22	70	48	22	5	9	28	M 150						
M 100×2	98.701	18	6	12	0	81	67	14	60	93	71	22	60	97.835	22	0	22	82	60	22	5	10	22	M 150						
M 105×6*	101.103	18	6	12	0	101	87	14	80	113	91	22	80	98.505	22	0	22	102	80	22	6	7	60	M 150						
M 105×4*	102.402	18	6	12	0	81	67	14	60	93	71	22	60	100.670	22	0	22	82	60	22	5	8	38	M 150						
M 105×3*	103.051	18	6	12	0	69	55	14	48	81	59	22	48	101.752	22	0	22	70	48	22	5	9	28	M 150						
M 105×2	103.701	18	6	12	0	81	67	14	60	93	71	22	60	102.835	22	0	22	82	60	22	5	10	22	M 150						
M 110×6*	106.103	18	6	12	0	101	87	14	80	113	91	22	80	103.505	22	0	22	102	80	22	6	7	60	M 150						
M 110×4*	107.402	18	6	12	0	81	67	14	60	93	71	22	60	105.670	22	0	22	82	60	22	5	8	38	M 150						
M 110×3*	108.051	18	6	12	0	69	55	14	48	81	59	22	48	106.752	22	0	22	70	48	22	5	9	28	M 150						
M 110×2	108.701	18	6	12	0	81	67	14	60	93	71	22	60	107.835	22	0	22	82	60	22	5	10	22	M 150						
M 115×6*	111.103	18	6	12	0	101	87	14	80	113	91	22	80	108.505	22	0	22	102	80	22	6	7	60	M 150						
M 115×4*	112.402	18	6	12	0	81	67	14	60	93	71	22	60	110.670	22	0	22	82	60	22	5	8	38	M 150						
M 115×3*	113.051	18	6	12	0	69	55	14	48	81	59	22	48	111.752	22	0	22	70	48	22	5	9	28	M 150						
M 115×2	113.701	18	6	12	0	81	67	14	60	93	71	22	60	112.835	22	0	22	82	60	22	5	10	22	M 150						
M 120×6*	116.103	18	6	12	0	101	87	14	80	113	91	22	80	113.505	22	0	22	102	80	22	6	7	60	M 150						
M 120×4*	117.402	18	6	12	0	81	67	14	60	93	71	22	60	115.670	22	0	22	82	60	22	5	8	38	M 150						
M 120×3*	118.051	18	6	12	0	69	55	14	48	81	59	22	48	116.752	22	0	22	70	48	22	5	9	28	M 150						
M 120×2	118.701	18	6	12	0	81	67	14	60	93	71	22	60	117.835	22	0	22	82	60	22	5	10	22	M 150						
M 125×6*	121.103	21	7	14	0	104	88	16	80	116	92	24	80	118.505	24	0	24	104	80	24	6	7	60	M 150						
M 125×4*	122.402	21	7	14	0	84	68	16	60	96	72	24	60	120.670	24	0	24	84	60	24	5	8	38	M 150						
M 125×3*	123.051	21	7	14	0	72	56	16	48	84	60	24	48	121.752	24	0	24	72	48	24	5	9	28	M 150						
M 125×2	123.701	21	7	14	0	94	78	16	70	106	82	24	70	122.835	24	0	24	94	70	24	5	10	28	M 150						
M 130×6*	126.103	21	7	14	0	104	88	16	80	116	92	24	80	123.505	24	0	24	104	80	24	6	7	60	M 150						
M 130×4*	127.402	21	7	14	0	84	68	16	60	96	72	24	60	125.670	24	0	24	84	60	24	5	8	38	M 150						
M 130×3*	128.051	21	7	14	0	72	56	16	48	84	60	24	48	126.752	24	0	24	72	48	24	5	9	28	M 150						
M 130×2	128.701	21	7	14	0	94	78	16	70	106	82	24	70	127.835	24	0	24	94	70	24	5	10	28	M 150						
M 135×6*	131.103	21	7	14	0	104	88	16	80	116	92	24	80	128.505	24	0	24	104	80	24	6	7	60	M 150						
M 135×4*	132.402	21	7	14	0	84	68	16	60	96	72	24	60	130.670	24	0	24	84	60	24	5	8	38	M 150						
M 135×3*	133.051	21	7	14	0	72	56	16	48	84	60	24	48	131.752	24	0	24	72	48	24	5	9	28	M 150						
M 135×2	133.701	21	7	14	0	94	78	16	70	106	82	24	70	132.835	24	0	24	94	70	24	5	10	28	M 150						
M 140×6*	136.103	21	7	14	0	104	88	16	80	116	92	24	80	133.505	24	0	24	104	80	24	6	7	60	M 150						
M 140×4*	137.402	21	7	14	0	84	68	16	60	96	72	24	60	135.670	24	0	24	84	60	24	5	8	38	M 150						
M 140×3*	138.051	21	7	14	0	72	56	16	48	84	60	24	48	136.752	24	0	24	72	48	24	5	9	28	M 150						
M 140×2	138.701	21	7	14	0	94	78	16	70	106	82	24	70	137.835	24	0	24	94	70	24	5	10	28	M 150						

Annex Table 3. GR, GH (continued) (4)

Unit:  $\mu\text{m}$ 

Designation of thread to be inspected	Pitch diameter <sup>(3)</sup>												Minor diameter							Standard gauge length (mm)			
	Basic size $d_2$ (mm)	For Class 1 thread				For Class 2 thread				For Class 3 thread				Basic size $d_1$ (mm)	For Class 1 thread			For Class 2 and Class 3 threads					
		For new gauge				For new gauge				For new gauge					Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation		Tolerance		
		Lower deviation	Upper deviation	Tolerance	Wear limit	Lower deviation	Upper deviation	Tolerance	Wear limit	Lower deviation	Upper deviation	Tolerance	Wear limit										
M 145 × 6*	141.103	21	7	14	0	104	88	16	80	116	92	24	80	138.505	24	0	24	104	80	24	6	7	60
M 145 × 4*	142.402	21	7	14	0	84	68	16	60	96	72	24	60	140.670	24	0	24	84	60	24	5	8	38
M 145 × 3*	143.051	21	7	14	0	72	56	16	48	84	60	24	48	141.752	24	0	24	72	48	24	5	9	28
M 145 × 2	143.701	21	7	14	0	94	78	16	70	106	82	24	70	142.835	24	0	24	94	70	24	5	10	28
M 150 × 6*	146.103	21	7	14	0	104	88	16	80	116	92	24	80	143.505	24	0	24	104	80	24	6	7	60
M 150 × 4*	147.402	21	7	14	0	84	68	16	60	96	72	24	60	145.670	24	0	24	84	60	24	5	8	38
M 150 × 3*	148.051	21	7	14	0	72	56	16	48	84	60	24	48	146.752	24	0	24	72	48	24	5	9	28
M 150 × 2	148.701	21	7	14	0	94	78	16	70	106	82	24	70	147.835	24	0	24	94	70	24	5	10	28

Notes <sup>(3)</sup> This diameter means simple pitch diameter in this Standard.

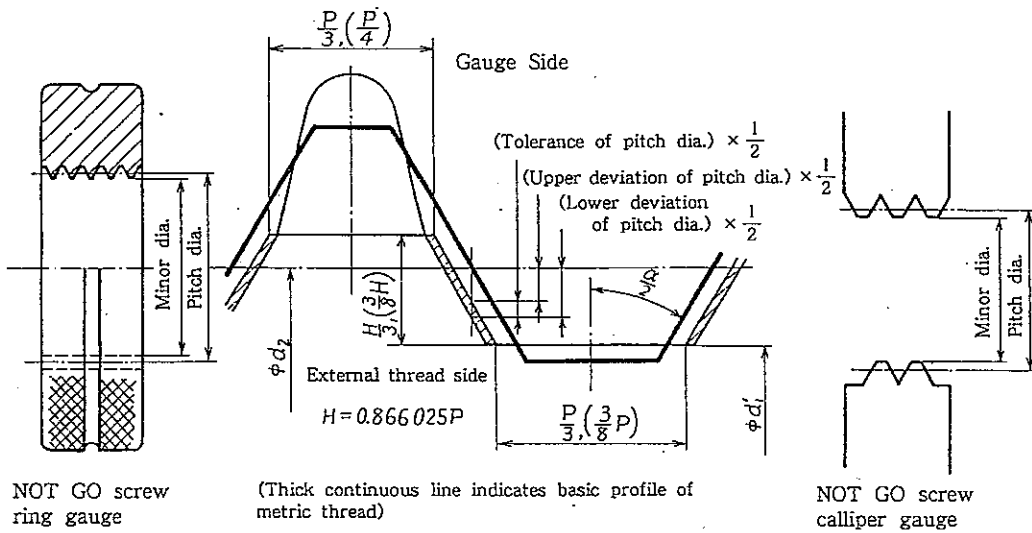
<sup>(4)</sup> The numerical values,  $d_2$  and  $d_1$ , are the same as the basic sizes of the pitch diameter ( $d_2$ ) and the minor diameter ( $d_1$ ) of external threads specified in JIS B 0207, respectively.

- Remarks
1. Permissible deviations given in this Table are commonly applicable to screw ring gauges and screw calliper gauges and either gauges may be properly used for inspection depending on their respective usage.
  2. The root profile of gauge threads shall be formed so that a suitable clearance is provided between the root and the maximum size for the major diameter of the external thread to be inspected as shown in the figure of this Table.
  3. Whether or not actual sizes of the pitch diameter, the pitch, and the half angle of thread are within their respective tolerances specified shall be determined as follows irrespective of their numerical values given in the Table: For the GO screw ring gauge, if the GO side fit check screw plug gauge specified in Annex Table 13 is screwed in by hand, without excessive force and play; and for the GO screw calliper gauge, if the GO side setting screw plug gauge specified in the same Table passes through without excessive force and play; the respective gauges shall be determined to conform to the specifications, as a rule.
  4. With regard to the wear limit of pitch diameter of gauges, if the wear check screw plug gauge specified in Annex Table 16 does not pass through the gauges, they shall be determined to be within the limits irrespective of the numerical values given in the Table.
  5. The pitch tolerance of thread includes the lead drunkenness.
  6. The GO screw ring gauge for Class 2 threads may be used for the GO side inspection of Class 3 threads.
  7. Shapes and dimensions of the gauges given in the Table shall be as specified in JIS B 3102.

Annex Table 4. Shape, dimension, permissible deviation, and tolerance for NOT GO screw ring gauge (WR) and NOT GO screw calliper gauge (WH) for working (Metric fine screw thread)

Symbol for ring gauge	
For Class 1 thread	WR I
For Class 2 thread	WR II
For Class 3 thread	WR III

Symbol for calliper gauge	
For Class 1 thread	WH I
For Class 2 thread	WH II
For Class 3 thread	WH III



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- M 42

Designation of thread to be inspected	Pitch diameter (°)										Pitch tolerance	Tolerance on $\frac{1}{2}$ half angle $\alpha/2$ (min)	Standard size of gauge minor diameter $d_1$ (mm)		
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread					For Class 1 thread	For Class 2 thread	For Class 3 thread
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance					
M 1 x 0.2	0.870	45	39	6	70	62	8	—	—	—	4	96	0.79	0.77	—
M 1.1 x 0.2*	0.970	30	24	6	48	40	8	—	—	—	4	96	0.90	0.89	—
M 1.2 x 0.2	1.070	45	39	6	70	62	8	—	—	—	4	96	0.99	0.97	—
M 1.4 x 0.2	1.270	45	39	6	70	62	8	—	—	—	4	96	1.19	1.17	—
M 1.6 x 0.2*	1.470	32	26	6	67	59	8	—	—	—	4	96	1.40	1.37	—
M 1.8 x 0.2*	1.670	32	26	6	67	59	8	—	—	—	4	96	1.60	1.57	—
M 2 x 0.25	1.838	45	39	6	70	62	8	—	—	—	4	78	1.73	1.71	—
M 2.2 x 0.25*	2.038	36	30	6	74	66	8	—	—	—	4	78	1.95	1.92	—
M 2.5 x 0.35*	2.273	40	34	6	82	74	8	—	—	—	4	57	2.16	2.12	—
M 3 x 0.35	2.773	50	44	6	100	92	8	—	—	—	4	57	2.62	2.61	—
M 3.5 x 0.35	3.273	50	44	6	100	92	8	—	—	—	4	57	3.12	3.11	—
M 4 x 0.5	3.675	60	54	6	120	112	8	—	—	—	4	42	3.48	3.43	—
M 4.5 x 0.5	4.175	60	54	6	120	112	8	—	—	—	4	42	3.98	3.93	—
M 5 x 0.5	4.675	60	54	6	120	112	8	—	—	—	4	42	4.48	4.43	—
M 5.5 x 0.5	5.175	60	54	6	120	112	8	—	—	—	4	42	4.98	4.93	—
M 6 x 0.75	5.513	60	54	6	120	112	8	—	—	—	4	36	5.24	5.18	—
M 7 x 0.75	6.513	60	54	6	120	112	8	—	—	—	4	30	6.24	6.18	—
M 8 x 1	7.350	70	64	6	130	122	8	170	158	12	4	24	6.99	6.93	6.89
M 8 x 0.75	7.513	70	64	6	130	122	8	—	—	—	4	30	7.23	7.17	—
M 9 x 1	8.350	70	64	6	130	122	8	170	158	12	4	24	7.99	7.93	7.89
M 9 x 0.75	8.513	70	64	6	130	122	8	—	—	—	4	30	8.23	8.17	—
M 10 x 1.25	9.188	80	74	6	150	142	8	190	178	12	4	20	8.75	8.68	8.64
M 10 x 1	9.350	70	64	6	140	132	8	180	168	12	4	24	8.99	8.92	8.89
M 10 x 0.75*	9.513	63	57	6	122	114	8	—	—	—	4	30	9.29	9.23	—
M 11 x 1	10.350	70	64	6	140	132	8	180	168	12	4	24	9.99	9.92	9.89
M 11 x 0.75*	10.513	63	57	6	122	114	8	—	—	—	4	30	10.29	10.23	—

Unit:  $\mu\text{m}$

Annex Table 4. WR, WH (continued) (1)

Unit:  $\mu\text{m}$ 

Designation of thread to be inspected	Pitch diameter ( $d_2$ )										Pitch tolerance $\pm$	Tolerance on $\pm$ half angle $\alpha/2$ (min)	Standard size of gauge minor diameter $d'_1$ (mm)		
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread					For Class 1 thread	For Class 2 thread	For Class 3 thread
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance					
M 12 $\times$ 1.5	11.026	90	82	8	170	160	10	210	194	16	4	18	10.50	10.42	10.38
M 12 $\times$ 1.25*	11.188	85	77	8	160	150	10	240	224	16	4	20	10.83	10.76	10.68
M 12 $\times$ 1	11.350	80	72	8	160	150	10	200	184	16	4	24	10.98	10.90	10.88
M 14 $\times$ 1.5	13.026	90	82	8	170	160	10	210	194	16	4	18	12.50	12.42	12.38
M 14 $\times$ 1	13.350	80	72	8	160	150	10	200	184	16	4	24	12.98	12.90	12.88
M 15 $\times$ 1.5	14.026	90	82	8	170	160	10	210	194	16	4	18	13.50	13.42	13.38
M 15 $\times$ 1	14.350	80	72	8	160	150	10	200	184	16	4	24	13.98	13.90	13.88
M 16 $\times$ 1.5	15.026	90	82	8	170	160	10	210	194	16	4	18	14.50	14.42	14.38
M 16 $\times$ 1	15.350	80	72	8	160	150	10	200	184	16	4	24	14.98	14.90	14.88
M 17 $\times$ 1.5*	16.026	90	82	8	172	162	10	256	240	16	4	18	15.61	15.53	15.45
M 17 $\times$ 1*	16.350	75	67	8	144	134	10	216	200	16	4	24	16.06	15.99	15.92
M 18 $\times$ 2	16.701	100	92	8	210	200	10	270	254	16	5	15	16.02	15.91	15.85
M 18 $\times$ 1.5	17.026	100	92	8	200	190	10	250	234	16	4	18	16.49	16.39	16.34
M 18 $\times$ 1	17.350	90	82	8	170	160	10	210	194	16	4	24	16.97	16.89	16.88
M 20 $\times$ 2	18.701	100	92	8	210	200	10	270	254	16	5	15	18.02	17.91	17.85
M 20 $\times$ 1.5	19.026	100	92	8	200	190	10	250	234	16	4	18	18.49	18.39	18.34
M 20 $\times$ 1	19.350	90	82	8	170	160	10	210	194	16	4	24	18.97	18.89	18.88
M 22 $\times$ 2	20.701	100	92	8	210	200	10	270	254	16	5	15	20.02	19.91	19.85
M 22 $\times$ 1.5	21.026	100	92	8	200	190	10	250	234	16	4	18	20.49	20.39	20.34
M 22 $\times$ 1	21.350	90	82	8	170	160	10	210	194	16	4	24	20.97	20.89	20.88
M 24 $\times$ 2	22.701	110	102	8	220	210	10	280	264	16	5	15	22.01	21.90	21.84
M 24 $\times$ 1.5	23.026	100	92	8	200	190	10	250	234	16	4	18	22.49	22.39	22.34
M 24 $\times$ 1	23.350	90	82	8	170	160	10	210	194	16	4	24	22.97	22.89	22.88
M 25 $\times$ 2	23.701	110	102	8	220	210	10	280	264	16	5	15	23.01	22.90	22.84
M 25 $\times$ 1.5	24.026	100	92	8	200	190	10	250	234	16	4	18	23.49	23.39	23.34
M 25 $\times$ 1	24.350	90	82	8	170	160	10	210	194	16	4	24	23.97	23.89	23.88
M 26 $\times$ 1.5	25.026	100	92	8	200	190	10	250	234	16	4	18	24.49	24.39	24.34
M 27 $\times$ 2*	25.701	106	98	8	208	198	10	303	287	16	5	15	25.16	25.06	24.96
M 27 $\times$ 1.5	26.026	100	92	8	200	190	10	250	234	16	4	18	25.49	25.39	25.34
M 27 $\times$ 1*	26.350	80	72	8	151	141	10	226	210	16	4	24	26.05	25.98	25.92
M 28 $\times$ 2	26.701	110	102	8	220	210	10	280	264	16	5	15	26.01	25.90	25.84
M 28 $\times$ 1.5	27.026	100	92	8	200	190	10	250	234	16	4	18	26.49	26.39	26.34
M 28 $\times$ 1	27.350	90	82	8	170	160	10	210	194	16	4	24	26.97	26.89	26.88
M 30 $\times$ 3*	28.051	125	117	8	248	238	10	363	347	16	5	12	27.28	27.15	27.04
M 30 $\times$ 2	28.701	110	102	8	220	210	10	280	264	16	5	15	28.01	27.90	27.84
M 30 $\times$ 1.5	29.026	100	92	8	200	190	10	250	234	16	4	18	28.49	28.39	28.34
M 30 $\times$ 1	29.350	90	82	8	170	160	10	210	194	16	4	24	28.97	28.89	28.88
M 32 $\times$ 2	30.701	110	102	8	230	220	10	290	274	16	5	15	30.01	29.89	29.83
M 32 $\times$ 1.5	31.026	100	92	8	200	190	10	260	244	16	4	18	30.49	30.39	30.33
M 33 $\times$ 3*	31.051	125	117	8	248	238	10	363	347	16	5	12	30.28	30.15	30.04
M 33 $\times$ 2*	31.701	106	98	8	208	198	10	303	287	16	5	15	31.16	31.06	30.96
M 33 $\times$ 1.5	32.026	100	92	8	200	190	10	260	244	16	4	18	31.49	31.39	31.33
M 35 $\times$ 1.5	34.026	100	92	8	200	190	10	260	244	16	4	18	33.49	33.39	33.33
M 36 $\times$ 3*	34.051	125	117	8	248	238	10	363	347	16	5	12	33.28	33.15	33.04
M 36 $\times$ 2	34.701	110	102	8	230	220	10	290	274	16	5	15	34.01	33.89	33.83
M 36 $\times$ 1.5	35.026	100	92	8	200	190	10	260	244	16	4	18	34.49	34.39	34.33
M 38 $\times$ 1.5	37.026	100	92	8	200	190	10	260	244	16	4	18	36.49	36.39	36.33
M 39 $\times$ 3*	37.051	125	117	8	248	238	10	363	347	16	5	12	36.28	36.15	36.04
M 39 $\times$ 2*	37.701	106	98	8	208	198	10	303	287	16	5	15	37.16	37.06	36.96
M 39 $\times$ 1.5*	38.026	95	87	8	182	172	10	268	252	16	4	18	37.61	37.52	37.43
M 40 $\times$ 3*	38.051	125	117	8	248	238	10	363	347	16	5	12	37.28	37.15	37.04
M 40 $\times$ 2	38.701	110	102	8	230	220	10	290	274	16	5	15	38.01	37.89	37.83
M 40 $\times$ 1.5	39.026	100	92	8	200	190	10	260	244	16	4	18	38.49	38.39	38.33
M 42 $\times$ 4*	39.402	140	132	8	284	274	10	415	399	16	5	11	38.40	38.25	38.12
M 42 $\times$ 3*	40.051	125	117	8	248	238	10	363	347	16	5	12	39.28	39.15	39.04
M 42 $\times$ 2	40.701	110	102	8	230	220	10	290	274	16	5	15	40.01	39.89	39.83
M 42 $\times$ 1.5	41.026	100	92	8	200	190	10	260	244	16	4	18	40.49	40.39	40.33

Annex Table 4. WR, WH (continued) (2)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter <sup>(3)</sup>									Pitch tolerance $\pm$	Tolerance on $\pm$ half angle $\alpha/2$ (min)	Standard size of gauge minor diameter $d'_1$ (mm)			Des of the	
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread		
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation							Tolerance
M 45x4*	42.402	140	132	8	284	274	10	415	399	16	5	11	41.40	41.25	41.12	M 7t
M 45x3*	43.051	125	117	8	248	238	10	363	347	16	5	12	42.28	42.15	42.04	M 7t
M 45x2	43.701	110	102	8	230	220	10	290	274	16	5	15	43.01	42.89	42.83	M 7t
M 45x1.5	44.026	100	92	8	200	190	10	260	244	16	4	18	43.49	43.39	43.33	M 7t
M 48x4*	45.402	150	142	8	296	286	10	435	419	16	5	11	44.39	44.24	44.10	M 7t
M 48x3*	46.051	132	124	8	260	250	10	383	367	16	5	12	45.27	45.14	45.02	M 7t
M 48x2	46.701	110	102	8	230	220	10	290	274	16	5	15	46.01	45.89	45.83	M 8C
M 48x1.5	47.026	100	92	8	200	190	10	260	244	16	4	18	46.49	46.39	46.33	M 8C
M 50x3*	48.051	132	124	8	260	250	10	383	367	16	5	12	47.27	47.14	47.02	M 8C
M 50x2	48.701	110	102	8	230	220	10	290	274	16	5	15	48.01	47.89	47.83	M 8C
M 50x1.5	49.026	100	92	8	200	190	10	260	244	16	4	18	48.49	48.39	48.33	M 8C
M 52x4*	49.402	150	140	10	296	284	12	435	417	18	5	11	48.39	48.24	48.10	M 82
M 52x3*	50.051	132	122	10	260	248	12	383	365	18	5	12	49.27	49.14	49.02	M 85
M 52x2	50.701	120	110	10	240	228	12	300	282	18	5	15	50.00	49.88	49.82	M 85
M 52x1.5	51.026	110	100	10	210	198	12	270	252	18	4	18	50.48	50.38	50.33	M 85
M 55x4*	52.402	150	140	10	296	284	12	435	417	18	5	11	51.39	51.24	51.10	M 85
M 55x3*	53.051	132	122	10	260	248	12	383	365	18	5	12	52.27	52.14	52.02	M 85
M 55x2	53.701	120	110	10	240	228	12	300	282	18	5	15	53.00	52.88	52.82	M 90
M 55x1.5	54.026	110	100	10	210	198	12	270	252	18	4	18	53.48	53.38	53.33	M 90
M 56x4*	53.402	150	140	10	296	284	12	435	417	18	5	11	52.39	52.24	52.10	M 90
M 56x3*	54.051	132	122	10	260	248	12	383	365	18	5	12	53.27	53.14	53.02	M 95
M 56x2	54.701	112	102	10	218	206	12	318	300	18	5	15	54.16	54.05	53.95	M 95
M 56x1.5*	55.026	100	90	10	192	180	12	282	264	18	4	18	54.60	54.51	54.42	M 95
M 58x4*	55.402	150	140	10	296	284	12	435	417	18	5	11	54.39	54.24	54.10	M 95
M 58x3*	56.051	132	122	10	260	248	12	383	365	18	5	12	55.27	55.14	55.02	M 100
M 58x2	56.701	120	110	10	240	228	12	300	282	18	5	15	56.00	55.88	55.82	M 100
M 58x1.5	57.026	110	100	10	210	198	12	270	252	18	4	18	56.48	56.38	56.33	M 100
M 60x4*	57.402	150	140	10	296	284	12	435	417	18	5	11	56.39	56.24	56.10	M 100
M 60x3*	58.051	132	122	10	260	248	12	383	365	18	5	12	57.27	57.14	57.02	M 105
M 60x2	58.701	120	110	10	240	228	12	300	282	18	5	15	58.00	57.88	57.82	M 105
M 60x1.5	59.026	110	100	10	210	198	12	270	252	18	4	18	58.48	58.38	58.33	M 105
M 62x4*	59.402	150	140	10	296	284	12	435	417	18	5	11	58.39	58.24	58.10	M 105
M 62x3*	60.051	132	122	10	260	248	12	383	365	18	5	12	59.27	59.14	59.02	M 110
M 62x2	60.701	120	110	10	240	228	12	300	282	18	5	15	60.00	59.88	59.82	M 110
M 62x1.5	61.026	110	100	10	210	198	12	270	252	18	4	18	60.48	60.38	60.33	M 110
M 64x4*	61.402	150	140	10	296	284	12	435	417	18	5	11	60.39	60.24	60.10	M 110
M 64x3*	62.051	132	122	10	260	248	12	383	365	18	5	12	61.27	61.14	61.02	M 115
M 64x2*	62.701	112	102	10	218	206	12	318	300	18	5	15	62.16	62.05	61.95	M 115
M 64x1.5*	63.026	100	90	10	192	180	12	282	264	18	4	18	62.60	62.51	62.42	M 115
M 65x4*	62.402	150	140	10	296	284	12	435	417	18	5	11	61.39	61.24	61.10	M 115
M 65x3*	63.051	132	122	10	260	248	12	383	365	18	5	12	62.27	62.14	62.02	M 120
M 65x2	63.701	120	110	10	240	228	12	300	282	18	5	15	63.00	62.88	62.82	M 120
M 65x1.5	64.026	110	100	10	210	198	12	270	252	18	4	18	63.48	63.38	63.33	M 120
M 68x4*	65.402	150	140	10	296	284	12	435	417	18	5	11	64.39	64.24	64.10	M 125
M 68x3*	66.051	132	122	10	260	248	12	383	365	18	5	12	65.27	65.14	65.02	M 125
M 68x2	66.701	120	110	10	240	228	12	300	282	18	5	15	66.00	65.88	65.82	M 125
M 68x1.5	67.026	110	100	10	210	198	12	270	252	18	4	18	66.48	66.38	66.33	M 125
M 70x6*	66.103	180	170	10	360	348	12	530	512	18	6	9	64.62	64.44	64.27	M 125>
M 70x4*	67.402	150	140	10	296	284	12	435	417	18	5	11	66.39	66.24	66.10	M 130>
M 70x3*	68.051	132	122	10	260	248	12	383	365	18	5	12	67.27	67.14	67.02	M 130>
M 70x2	68.701	120	110	10	240	228	12	300	282	18	5	15	68.00	67.88	67.82	M 130>
M 70x1.5	69.026	110	100	10	210	198	12	270	252	18	4	18	68.48	68.38	68.33	M 130>
M 72x6*	68.103	180	170	10	360	348	12	530	512	18	6	9	66.62	66.44	66.27	M 135>
M 72x4*	69.402	150	140	10	296	284	12	435	417	18	5	11	68.39	68.24	68.10	M 135>
M 72x3*	70.051	132	122	10	260	248	12	383	365	18	5	12	69.27	69.14	69.02	M 135>
M 72x2	70.701	120	110	10	240	228	12	300	282	18	5	15	70.00	69.88	69.82	M 135>
M 72x1.5	71.026	110	100	10	210	198	12	270	252	18	4	18	70.48	70.38	70.33	M 135>
M 75x4*	72.402	150	140	10	296	284	12	435	417	18	5	11	71.39	71.24	71.10	M 140>
M 75x3*	73.051	132	122	10	260	248	12	383	365	18	5	12	72.27	72.14	72.02	M 140x
M 75x2	73.701	120	110	10	240	228	12	300	282	18	5	15	73.00	72.88	72.82	M 140x
M 75x1.5	74.026	110	100	10	210	198	12	270	252	18	4	18	73.48	73.38	73.33	M 140x

Annex Table 4. WR, WH (continued) (3)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter ( $d_2$ )										Pitch tolerance	Tolerance on $\frac{1}{2}$ half angle $\alpha/2$ (min)	Standard size of gauge minor diameter $d'_1$ (mm)		
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread					For Class 1 thread	For Class 2 thread	For Class 3 thread
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance					
M 76x6*	72.103	180	170	10	360	348	12	530	512	18	6	9	70.62	70.44	70.27
M 76x4*	73.402	150	140	10	296	284	12	435	417	18	5	11	72.39	72.24	72.10
M 76x3*	74.051	132	122	10	260	248	12	383	365	18	5	12	73.27	73.14	73.02
M 76x2*	74.701	112	102	10	218	206	12	318	300	18	5	15	74.16	74.05	73.95
M 76x1.5*	75.026	100	90	10	192	180	12	282	264	18	4	18	74.60	74.51	74.42
M 78x2	76.701	120	110	10	240	228	12	300	282	18	5	15	76.00	75.88	75.82
M 80x6*	76.103	180	170	10	360	348	12	530	512	18	6	9	74.62	74.44	74.27
M 80x4*	77.402	150	140	10	296	284	12	435	417	18	5	11	76.39	76.24	76.10
M 80x3*	78.051	132	122	10	260	248	12	383	365	18	5	12	77.27	77.14	77.02
M 80x2	78.701	120	110	10	240	228	12	300	282	18	5	15	78.00	77.88	77.82
M 80x1.5	79.026	110	100	10	210	198	12	270	252	18	4	18	78.48	78.38	78.33
M 82x2	80.701	130	118	12	250	236	14	320	298	22	5	15	79.99	79.87	79.80
M 85x6*	81.103	180	168	12	360	346	14	530	508	22	6	9	79.62	79.44	79.27
M 85x4*	82.402	150	138	12	296	282	14	435	413	22	5	11	81.39	81.24	81.10
M 85x3*	83.051	132	120	12	260	246	14	383	361	22	5	12	82.27	82.14	82.02
M 85x2	83.701	130	118	12	250	236	14	320	298	22	5	15	82.99	82.87	82.80
M 90x6*	86.103	180	168	12	360	346	14	530	508	22	6	9	84.62	84.44	84.27
M 90x4*	87.402	150	138	12	296	282	14	435	413	22	5	11	86.39	86.24	86.10
M 90x3*	88.051	132	120	12	260	246	14	383	361	22	5	12	87.27	87.14	87.02
M 90x2	88.701	130	118	12	250	236	14	320	298	22	5	15	87.99	87.87	87.80
M 95x6*	91.103	190	178	12	380	366	14	555	533	22	6	9	89.61	89.42	89.25
M 95x4*	92.402	160	148	12	310	296	14	460	438	22	5	11	91.38	91.23	91.08
M 95x3*	93.051	140	128	12	272	258	14	403	381	22	5	12	92.26	92.13	92.00
M 95x2	93.701	130	118	12	250	236	14	320	298	22	5	15	92.99	92.87	92.80
M 100x6*	96.103	190	178	12	380	366	14	555	533	22	6	9	94.61	94.42	94.25
M 100x4*	97.402	160	148	12	310	296	14	460	438	22	5	11	96.38	96.23	96.08
M 100x3*	98.051	140	128	12	272	258	14	403	381	22	5	12	97.26	97.13	97.00
M 100x2	98.701	130	118	12	250	236	14	320	298	22	5	15	97.99	97.87	97.80
M 105x6*	101.103	190	178	12	380	366	14	555	533	22	6	9	99.61	99.42	99.25
M 105x4*	102.402	160	148	12	310	296	14	460	438	22	5	11	101.38	101.23	101.08
M 105x3*	103.051	140	128	12	272	258	14	403	381	22	5	12	102.26	102.13	102.00
M 105x2	103.701	130	118	12	250	236	14	320	298	22	5	15	102.99	102.87	102.80
M 110x6*	106.103	190	178	12	380	366	14	555	533	22	6	9	104.61	104.42	104.25
M 110x4*	107.402	160	148	12	310	296	14	460	438	22	5	11	106.38	106.23	106.08
M 110x3*	108.051	140	128	12	272	258	14	403	381	22	5	12	107.26	107.13	107.00
M 110x2	108.701	130	118	12	250	236	14	320	298	22	5	15	107.99	107.87	107.80
M 115x6*	111.103	190	178	12	380	366	14	555	533	22	6	9	109.61	109.42	109.25
M 115x4*	112.402	160	148	12	310	296	14	460	438	22	5	11	111.38	111.23	111.08
M 115x3*	113.051	140	128	12	272	258	14	403	381	22	5	12	112.26	112.13	112.00
M 115x2	113.701	130	118	12	250	236	14	320	298	22	5	15	112.99	112.87	112.80
M 120x6*	116.103	190	178	12	380	366	14	555	533	22	6	9	114.61	114.42	114.25
M 120x4*	117.402	160	148	12	310	296	14	460	438	22	5	11	116.38	116.23	116.08
M 120x3*	118.051	140	128	12	272	258	14	403	381	22	5	12	117.26	117.13	117.00
M 120x2	118.701	130	118	12	250	236	14	320	298	22	5	15	117.99	117.87	117.80
M 125x6*	121.103	190	176	14	380	364	16	555	531	24	6	9	119.61	119.42	119.25
M 125x4*	122.402	160	146	14	310	294	16	460	436	24	5	11	121.38	121.23	121.08
M 125x3*	123.051	140	126	14	272	256	16	403	379	24	5	12	122.26	122.13	122.00
M 125x2	123.701	140	126	14	280	264	16	350	326	24	5	15	122.98	122.84	122.77
M 130x6*	126.103	190	176	14	380	364	16	555	531	24	6	9	124.61	124.42	124.25
M 130x4*	127.402	160	146	14	310	294	16	460	436	24	5	11	126.38	126.23	126.08
M 130x3*	128.051	140	126	14	272	256	16	403	379	24	5	12	127.26	127.13	127.00
M 130x2	128.701	140	126	14	280	264	16	350	326	24	5	15	127.98	127.84	127.77
M 135x6*	131.103	190	176	14	380	364	16	555	531	24	6	9	129.61	129.42	129.25
M 135x4*	132.402	160	146	14	310	294	16	460	436	24	5	11	131.38	131.23	131.08
M 135x3*	133.051	140	126	14	272	256	16	403	379	24	5	12	132.26	132.13	132.00
M 135x2	133.701	140	126	14	280	264	16	350	326	24	5	15	132.98	132.84	132.77
M 140x6*	136.103	190	176	14	380	364	16	555	531	24	6	9	134.61	134.42	134.25
M 140x4*	137.402	160	146	14	310	294	16	460	436	24	5	11	136.38	136.23	136.08
M 140x3*	138.051	140	126	14	272	256	16	403	379	24	5	12	137.26	137.13	137.00
M 140x2	138.701	140	126	14	280	264	16	350	326	24	5	15	137.98	137.84	137.77

Annex Table 4. WR, WH (continued) (4)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter <sup>(3)</sup>									Pitch tolerance	Tolerance on $\frac{1}{2}$ half angle $\alpha/2$ (min)	Standard size of gauge minor diameter $d'_1$ (mm)			
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread	
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation						Tolerance
M 145 $\times$ 6*	141.103	190	176	14	380	364	16	555	531	24	6	9	139.61	139.42	139.25
M 145 $\times$ 4*	142.402	160	146	14	310	294	16	460	436	24	5	11	141.38	141.23	141.08
M 145 $\times$ 3*	143.051	140	126	14	272	256	16	403	379	24	5	12	142.26	142.13	142.00
M 145 $\times$ 2	143.701	140	126	14	280	264	16	350	326	24	5	15	142.98	142.84	142.77
M 150 $\times$ 6*	146.103	190	176	14	380	364	16	555	531	24	6	9	144.61	144.42	144.25
M 150 $\times$ 4*	147.402	160	146	14	310	294	16	460	436	24	5	11	146.38	146.23	146.08
M 150 $\times$ 3*	148.051	140	126	14	272	256	16	403	379	24	5	12	147.26	147.13	147.00
M 150 $\times$ 2	148.701	140	126	14	280	264	16	350	326	24	5	15	147.98	147.84	147.77

Notes <sup>(3)</sup> This diameter means the simple pitch diameter in this Standard.

<sup>(4)</sup> The numerical value  $d_2$  is the same as the basic size  $d_2$  of the pitch diameter of external threads specified in JIS B 0207.

To the gauges with asterisk \*, the numerical values in parentheses in the figure shall be applied.

Remarks 1. Permissible deviations in the Table can be commonly applied to screw ring gauges and screw calliper gauges and inspection may be carried out with either gauge appropriate to the case.

2. The root profile of thread shall be made with a clearance groove as shown in the figure, appropriately so that the part other than the truncated flanks should not contact the external thread to be inspected. In the case of the gauge used for screw threads the pitch of which is 1 mm or less, the flanks of gauge may approach to the root as shown in the figure in Annex Table 3.

3. Whether or not actual sizes of the pitch diameter, the pitch, and the half angle of thread are within their respective tolerances shall be determined as follows irrespective of their numerical values given in the Table: For the NOT GO screw ring gauge, if the NOT GO side fit check screw plug gauge specified in Annex Table 14 is screwed in without excessive force and play; and for the NOT GO screw calliper gauge, if the NOT GO side setting screw plug gauge specified in the same Table passes through without excessive force and play; the gauges shall be determined to conform to the specifications.

4. The pitch tolerance includes the lead drunkenness.

5. Shapes and dimensions of NOT GO screw ring gauges shall be in accordance with JIS B 3102.

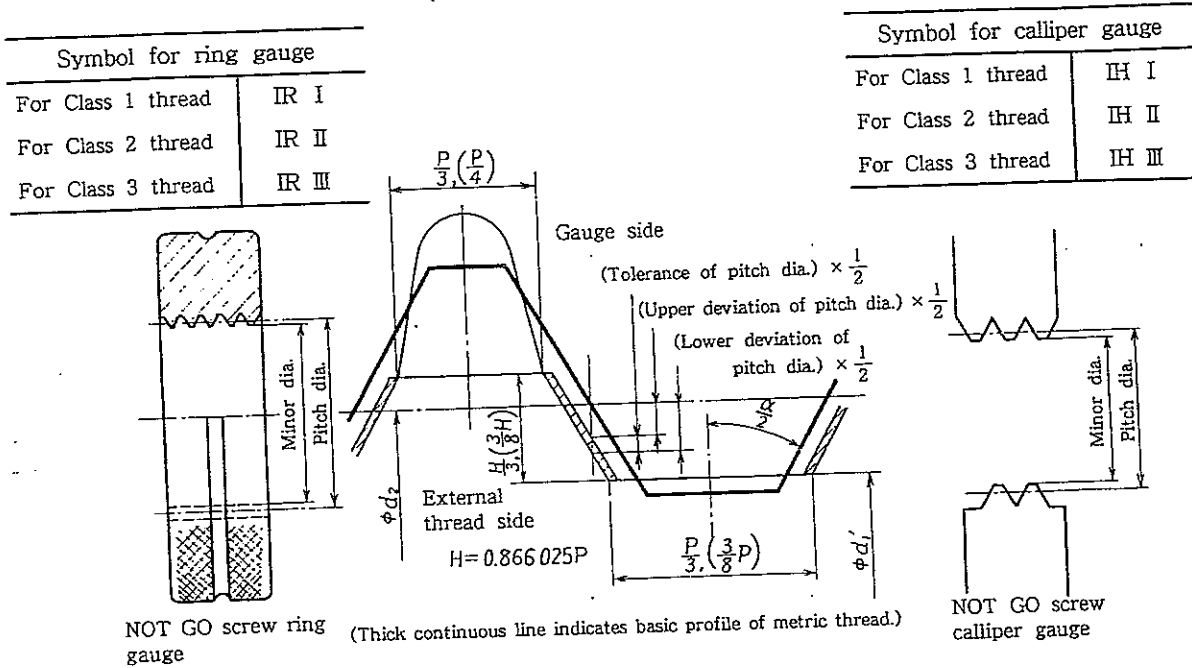
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Annex Table 5. Shape, dimension, permissible deviation, and tolerance for NOT GO screw ring gauge (IR) and NOT GO screw calliper gauge (IH) for inspection (Metric fine screw thread)



Symbol for ring gauge	
For Class 1 thread	IR I
For Class 2 thread	IR II
For Class 3 thread	IR III

Symbol for calliper gauge	
For Class 1 thread	IH I
For Class 2 thread	IH II
For Class 3 thread	IH III

Designation of thread to be inspected	Pitch diameter (°)									Pitch tolerance	Tolerance on half angle α/2 (min)	Standard size of gauge minor diameter d'₁ (mm)			
	Basic size d₂ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread	
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation						Tolerance
		-	-	-	-	-	-	-	-						-
M 1 × 0.2	0.870	51	45	6	78	70	8	-	-	-	4	96	0.79	0.77	-
M 1.1 × 0.2*	0.970	36	30	6	56	48	8	-	-	-	4	96	0.90	0.89	-
M 1.2 × 0.2	1.070	51	45	6	78	70	8	-	-	-	4	96	1.19	1.17	-
M 1.4 × 0.2	1.270	51	45	6	78	70	8	-	-	-	4	96	1.40	1.37	-
M 1.6 × 0.2*	1.470	38	32	6	75	67	8	-	-	-	4	96	1.60	1.57	-
M 1.8 × 0.2*	1.670	38	32	6	75	67	8	-	-	-	4	96	1.60	1.57	-
M 2 × 0.25	1.838	51	45	6	78	70	8	-	-	-	4	78	1.73	1.71	-
M 2.2 × 0.25*	2.038	42	36	6	82	74	8	-	-	-	4	78	1.95	1.92	-
M 2.5 × 0.35*	2.273	46	40	6	90	82	8	-	-	-	4	57	2.16	2.12	-
M 3 × 0.35	2.773	56	50	6	108	100	8	-	-	-	4	57	2.62	2.61	-
M 3.5 × 0.35	3.273	56	50	6	108	100	8	-	-	-	4	57	3.12	3.11	-
M 4 × 0.5	3.675	66	60	6	128	120	8	-	-	-	4	42	3.48	3.43	-
M 4.5 × 0.5	4.175	66	60	6	128	120	8	-	-	-	4	42	3.98	3.93	-
M 5 × 0.5	4.675	66	60	6	128	120	8	-	-	-	4	42	4.48	4.43	-
M 5.5 × 0.5	5.175	66	60	6	128	120	8	-	-	-	4	42	4.98	4.93	-
M 6 × 0.75	5.513	66	60	6	128	120	8	-	-	-	4	30	5.24	5.18	-
M 7 × 0.75	6.513	66	60	6	128	120	8	-	-	-	4	30	6.24	6.18	-
M 8 × 1	7.350	76	70	6	138	130	8	182	170	12	4	24	6.99	6.93	6.89
M 8 × 0.75	7.513	76	70	6	138	130	8	-	-	-	4	30	7.23	7.17	-
M 9 × 1	8.350	76	70	6	138	130	8	182	170	12	4	24	7.99	7.93	7.89
M 9 × 0.75	8.513	76	70	6	138	130	8	-	-	-	4	30	8.23	8.17	-
M 10 × 1.25	9.188	86	80	6	158	150	8	202	190	12	4	20	8.75	8.68	8.64
M 10 × 1	9.350	76	70	6	148	140	8	192	180	12	4	24	8.99	8.92	8.89
M 10 × 0.75*	9.513	69	63	6	130	122	8	-	-	-	4	30	9.29	9.23	-
M 11 × 1	10.350	76	70	6	148	140	8	192	180	12	4	24	9.99	9.92	9.89
M 11 × 0.75*	10.513	69	63	6	130	122	8	-	-	-	4	30	10.29	10.23	-
M 12 × 1.5	11.026	98	90	8	180	170	10	226	210	16	4	18	10.50	10.42	10.38
M 12 × 1.25*	11.188	93	85	8	170	160	10	256	240	16	4	20	10.83	10.76	10.68
M 12 × 1	11.350	88	80	8	170	160	10	216	200	16	4	24	10.98	10.90	10.88

Unit: μm

Annex Table 5. IR, IH (continued) (1)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter $(d_2)$									Pitch tolerance $\pm$	Tolerance on half angle $\alpha/2$ $\pm$ (min)	Standard size of gauge minor diameter $d'_1$ (mm)			Design of the in:	
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread		
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation							Tolerance
M 14x1.5	13.026	98	90	8	180	170	10	226	210	16	4	18	12.50	12.42	12.38	M 45
M 14x1	13.350	88	80	8	170	160	10	216	200	16	4	24	12.98	12.90	12.88	M 45
M 15x1.5	14.026	98	90	8	180	170	10	226	210	16	4	18	13.50	13.42	13.38	M 45
M 15x1	14.350	88	80	8	170	160	10	216	200	16	4	24	13.98	13.90	13.88	M 45
M 16x1.5	15.026	98	90	8	180	170	10	226	210	16	4	18	14.50	14.42	14.38	M 45
M 16x1	15.350	88	80	8	170	160	10	216	200	16	4	24	14.98	14.90	14.88	M 45
M 17x1.5*	16.026	98	90	8	182	172	10	272	256	16	4	18	15.61	15.53	15.45	M 45
M 17x1*	16.350	83	75	8	154	144	10	232	216	16	4	24	16.06	15.99	15.92	M 45
M 18x2	16.701	108	100	8	220	210	10	286	270	16	5	15	16.02	15.91	15.85	M 50
M 18x1.5	17.026	108	100	8	210	200	10	266	250	16	4	18	16.49	16.39	16.34	M 50
M 18x1	17.350	98	90	8	180	170	10	226	210	16	4	24	16.97	16.89	16.88	M 50
M 20x2	18.701	108	100	8	220	210	10	286	270	16	5	15	18.02	17.91	17.85	M 52
M 20x1.5	19.026	108	100	8	210	200	10	266	250	16	4	18	18.49	18.39	18.34	M 52
M 20x1	19.350	98	90	8	180	170	10	226	210	16	4	24	18.97	18.89	18.88	M 52
M 22x2	20.701	108	100	8	220	210	10	286	270	16	5	15	20.02	19.91	19.85	M 55
M 22x1.5	21.026	108	100	8	210	200	10	266	250	16	4	18	20.49	20.39	20.34	M 55
M 22x1	21.350	98	90	8	180	170	10	226	210	16	4	24	20.97	20.89	20.88	M 55
M 24x2	22.701	118	110	8	230	220	10	296	280	16	5	15	22.01	21.90	21.84	M 55
M 24x1.5	23.026	108	100	8	210	200	10	266	250	16	4	18	22.49	22.39	22.34	M 56
M 24x1	23.350	98	90	8	180	170	10	226	210	16	4	24	22.97	22.89	22.88	M 56
M 25x2	23.701	118	110	8	230	220	10	296	280	16	5	15	23.01	22.90	22.84	M 56
M 25x1.5	24.026	108	100	8	210	200	10	266	250	16	4	18	23.49	23.39	23.34	M 56
M 25x1	24.350	98	90	8	180	170	10	226	210	16	4	24	23.97	23.89	23.88	M 56
M 26x1.5	25.026	108	100	8	210	200	10	266	250	16	4	18	24.49	24.39	24.34	M 58
M 27x2*	25.701	114	106	8	218	208	10	319	303	16	5	15	25.16	25.06	24.96	M 58
M 27x1.5	26.026	108	100	8	210	200	10	266	250	16	4	18	25.49	25.39	25.34	M 58
M 27x1*	26.350	88	80	8	161	151	10	242	226	16	4	24	26.05	25.98	25.92	M 60
M 28x2	26.701	118	110	8	230	220	10	296	280	16	5	15	26.01	25.90	25.84	M 60
M 28x1.5	27.026	108	100	8	210	200	10	266	250	16	4	18	26.49	26.39	26.34	M 60
M 28x1	27.350	98	90	8	180	170	10	226	210	16	4	24	26.97	26.89	26.88	M 60
M 30x3*	28.051	133	125	8	258	248	10	379	363	16	5	12	27.28	27.15	27.04	M 62
M 30x2	28.701	118	110	8	230	220	10	296	280	16	5	15	28.01	27.90	27.84	M 62
M 30x1.5	29.026	108	100	8	210	200	10	266	250	16	4	18	28.49	28.39	28.34	M 62
M 30x1	29.350	98	90	8	180	170	10	226	210	16	4	24	28.97	28.89	28.88	M 62
M 32x2	30.701	118	110	8	240	230	10	306	290	16	5	15	30.01	29.89	29.83	M 64
M 32x1.5	31.026	108	100	8	210	200	10	276	260	16	4	18	30.49	30.39	30.33	M 64
M 33x3*	31.051	133	125	8	258	248	10	379	363	16	5	12	30.28	30.15	30.04	M 64
M 33x2*	31.701	114	106	8	218	208	10	319	303	16	5	15	31.16	31.06	30.96	M 65
M 33x1.5	32.026	108	100	8	210	200	10	276	260	16	4	18	31.49	31.39	31.33	M 65
M 35x1.5	34.026	108	100	8	210	200	10	276	260	16	4	18	33.49	33.39	33.33	M 65
M 36x3*	34.051	133	125	8	258	248	10	379	363	16	5	12	33.28	33.15	33.04	M 68
M 36x2	34.701	118	110	8	240	230	10	306	290	16	5	15	34.01	33.89	33.83	M 68
M 36x1.5	35.026	108	100	8	210	200	10	276	260	16	4	18	34.49	34.39	34.33	M 68
M 38x1.5	37.026	108	100	8	210	200	10	276	260	16	4	18	36.49	36.39	36.33	M 68
M 39x3*	37.051	133	125	8	258	248	10	379	363	16	5	12	36.28	36.15	36.04	M 70
M 39x2*	37.701	114	106	8	218	208	10	319	303	16	5	15	37.16	37.06	36.96	M 70
M 39x1.5*	38.026	103	95	8	192	182	10	284	268	16	4	18	37.61	37.52	37.43	M 70
M 40x3*	38.051	133	125	8	258	248	10	379	363	16	5	12	37.28	37.15	37.04	M 70
M 40x2	38.701	118	110	8	240	230	10	306	290	16	5	15	38.01	37.89	37.83	M 72
M 40x1.5	39.026	108	100	8	210	200	10	276	260	16	4	18	38.49	38.39	38.33	M 72
M 42x4*	39.402	148	140	8	294	284	10	431	415	16	5	11	38.40	38.25	38.12	M 72
M 42x3*	40.051	133	125	8	258	248	10	379	363	16	5	12	39.28	39.15	39.04	M 72
M 42x2	40.701	118	110	8	240	230	10	306	290	16	5	15	40.01	39.89	39.83	M 72
M 42x1.5	41.026	108	100	8	210	200	10	276	260	16	4	18	40.49	40.39	40.33	M 75

Annex Table 5. IR, IH (continued) (2)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter <sup>(*)</sup>									Pitch tolerance	Tolerance on $\pm$ half angle $\alpha/2$ (mm)	Standard size of gauge minor diameter $d'_1$ (mm)			
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread	
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation						Tolerance
M 45x4*	42.402	148	140	8	294	284	10	431	415	16	5	11	41.40	41.25	41.12
M 45x3*	43.051	133	125	8	258	248	10	379	363	16	5	12	42.28	42.15	42.04
M 45x2	43.701	118	110	8	240	230	10	306	290	16	5	15	43.01	42.89	42.83
M 45x1.5	44.026	108	100	8	210	200	10	276	260	16	4	18	43.49	43.39	43.33
M 48x4*	45.402	158	150	8	306	296	10	451	435	16	5	11	44.39	44.24	44.10
M 48x3*	46.051	140	132	8	270	260	10	399	383	16	5	12	45.27	45.14	45.02
M 48x2	46.701	118	110	8	240	230	10	306	290	16	5	15	46.01	45.89	45.83
M 48x1.5	47.026	108	100	8	210	200	10	276	260	16	4	18	46.49	46.39	46.33
M 50x3*	48.051	140	132	8	270	260	10	399	383	16	5	12	47.27	47.14	47.02
M 50x2	48.701	118	110	8	240	230	10	306	290	16	5	15	48.01	47.89	47.83
M 50x1.5	49.026	108	100	8	210	200	10	276	260	16	4	18	48.49	48.39	48.33
M 52x4*	49.402	160	150	10	308	296	12	453	435	18	5	11	48.39	48.24	48.10
M 52x3*	50.051	142	132	10	272	260	12	401	383	18	5	12	49.27	49.14	49.02
M 52x2	50.701	130	120	10	252	240	12	318	300	18	5	15	50.00	49.88	49.82
M 52x1.5	51.026	120	110	10	222	210	12	288	270	18	4	18	50.48	50.38	50.33
M 55x4*	52.402	160	150	10	308	296	12	453	435	18	5	11	51.39	51.24	51.10
M 55x3*	53.051	142	132	10	272	260	12	401	383	18	5	12	52.27	52.14	52.02
M 55x2	53.701	130	120	10	252	240	12	318	300	18	5	15	53.00	52.88	52.82
M 55x1.5	54.026	120	110	10	222	210	12	288	270	18	4	18	53.48	53.38	53.33
M 56x4*	53.402	160	150	10	308	296	12	453	435	18	5	11	52.39	52.24	52.10
M 56x3*	54.051	142	132	10	272	260	12	401	383	18	5	12	53.27	53.14	53.02
M 56x2*	54.701	122	112	10	230	218	12	336	318	18	5	15	54.16	54.05	53.95
M 56x1.5*	55.026	110	100	10	204	192	12	300	282	18	4	18	54.60	54.51	54.42
M 58x4*	55.402	160	150	10	308	296	12	453	435	18	5	11	54.39	54.24	54.10
M 58x3*	56.051	142	132	10	272	260	12	401	383	18	5	12	55.27	55.14	55.02
M 58x2	56.701	130	120	10	252	240	12	318	300	18	5	15	56.00	55.88	55.82
M 58x1.5	57.026	120	110	10	222	210	12	288	270	18	4	18	56.48	56.38	56.33
M 60x4*	57.402	160	150	10	308	296	12	453	435	18	5	11	56.39	56.24	56.10
M 60x3*	58.051	142	132	10	272	260	12	401	383	18	5	12	57.27	57.14	57.02
M 60x2	58.701	130	120	10	252	240	12	318	300	18	5	15	58.00	57.88	57.82
M 60x1.5	59.026	120	110	10	222	210	12	288	270	18	4	18	58.48	58.38	58.33
M 62x4*	59.402	160	150	10	308	296	12	453	435	18	5	11	58.39	58.24	58.10
M 62x3*	60.051	142	132	10	272	260	12	401	383	18	5	12	59.27	59.14	59.02
M 62x2	60.701	130	120	10	252	240	12	318	300	18	5	15	60.00	59.88	59.82
M 62x1.5	61.026	120	110	10	222	210	12	288	270	18	4	18	60.48	60.38	60.33
M 64x4*	61.402	160	150	10	308	296	12	453	435	18	5	11	60.39	60.24	60.10
M 64x3*	62.051	142	132	10	272	260	12	401	383	18	5	12	61.27	61.14	61.02
M 64x2*	62.701	122	112	10	230	218	12	336	318	18	5	15	62.16	62.05	61.95
M 64x1.5*	63.026	110	100	10	204	192	12	300	282	18	4	18	62.60	62.51	62.42
M 65x4*	62.402	160	150	10	308	296	12	453	435	18	5	11	61.39	61.24	61.10
M 65x3*	63.051	142	132	10	272	260	12	401	383	18	5	12	62.27	62.14	62.02
M 65x2	63.701	130	120	10	252	240	12	318	300	18	5	15	63.00	62.88	62.82
M 65x1.5	64.026	120	110	10	222	210	12	288	270	18	4	18	63.48	63.38	63.33
M 68x4*	65.402	160	150	10	308	296	12	453	435	18	5	11	64.39	64.24	64.10
M 68x3*	66.051	142	132	10	272	260	12	401	383	18	5	12	65.27	65.14	65.02
M 68x2	66.701	130	120	10	252	240	12	318	300	18	5	15	66.00	65.88	65.82
M 68x1.5	67.026	120	110	10	222	210	12	288	270	18	4	18	66.48	66.38	66.33
M 70x6*	66.103	190	180	10	372	360	12	548	530	18	6	9	64.62	64.44	64.27
M 70x4*	67.402	160	150	10	308	296	12	453	435	18	5	11	66.39	66.24	66.10
M 70x3*	68.051	142	132	10	272	260	12	401	383	18	5	12	67.27	67.14	67.02
M 70x2	68.701	130	120	10	252	240	12	318	300	18	5	15	68.00	67.88	67.82
M 70x1.5	69.026	120	110	10	222	210	12	288	270	18	4	18	68.48	68.38	68.33
M 72x6*	68.103	190	180	10	372	360	12	548	530	18	6	9	66.62	66.44	66.27
M 72x4*	69.402	160	150	10	308	296	12	453	435	18	5	11	68.39	68.24	68.10
M 72x3*	70.051	142	132	10	272	260	12	401	383	18	5	12	69.27	69.14	69.02
M 72x2	70.701	130	120	10	252	240	12	318	300	18	5	15	70.00	69.88	69.82
M 72x1.5	71.026	120	110	10	222	210	12	288	270	18	4	18	70.48	70.38	70.33
M 75x4*	72.402	160	150	10	308	296	12	453	435	18	5	11	71.39	71.24	71.10
M 75x3*	73.051	142	132	10	272	260	12	401	383	18	5	12	72.27	72.14	72.02
M 75x2	73.701	130	120	10	252	240	12	318	300	18	5	15	73.00	72.88	72.82
M 75x1.5	74.026	120	110	10	222	210	12	288	270	18	4	18	73.48	73.38	73.33

Annex Table 5. IR, IH (continued) (3)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter ( $d_2$ )									Pitch tolerance	Tolerance on $\pm$ half angle $\alpha/2$ (min)	Standard size of gauge minor diameter $d'_1$ (mm)			
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread	
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation						Tolerance
M 76x6*	72.103	190	180	10	372	360	12	548	530	18	6	9	70.62	70.44	70.27
M 76x4*	73.402	160	150	10	308	296	12	453	435	18	5	11	72.39	72.24	72.10
M 76x3*	74.051	142	132	10	272	260	12	401	383	18	5	12	73.27	73.14	73.02
M 76x2*	74.701	122	112	10	230	218	12	336	318	18	5	15	74.16	74.05	73.95
M 76x1.5*	75.026	110	100	10	204	192	12	300	282	18	4	18	74.60	74.51	74.42
M 78x2	76.701	130	120	10	252	240	12	318	300	18	5	15	76.00	75.88	75.82
M 80x6*	76.103	190	180	10	372	360	12	548	530	18	6	9	74.62	74.44	74.27
M 80x4*	77.402	160	150	10	308	296	12	453	435	18	5	11	76.39	76.24	76.10
M 80x3*	78.051	142	132	10	272	260	12	401	383	18	5	12	77.27	77.14	77.02
M 80x2	78.701	130	120	10	252	240	12	318	300	18	5	15	78.00	77.88	77.82
M 80x1.5	79.026	120	110	10	222	210	12	288	270	18	4	18	78.48	78.38	78.33
M 82x2	80.701	142	130	12	264	250	14	342	320	22	5	15	79.99	79.87	79.80
M 85x6*	81.103	192	180	12	374	360	14	552	530	22	6	9	79.62	79.44	79.27
M 85x4*	82.402	162	150	12	310	296	14	457	435	22	5	11	81.39	81.24	81.10
M 85x3*	83.051	144	132	12	274	260	14	405	383	22	5	12	82.27	82.14	82.02
M 85x2	83.701	142	130	12	264	250	14	342	320	22	5	15	82.99	82.87	82.80
M 90x6*	86.103	192	180	12	374	360	14	552	530	22	6	9	84.62	84.44	84.27
M 90x4*	87.402	162	150	12	310	296	14	457	435	22	5	11	86.39	86.24	86.10
M 90x3*	88.051	144	132	12	274	260	14	405	383	22	5	12	87.27	87.14	87.02
M 90x2	88.701	142	130	12	264	250	14	342	320	22	5	15	87.99	87.87	87.80
M 95x6*	91.103	202	190	12	394	380	14	577	555	22	6	9	89.61	89.42	89.25
M 95x4*	92.402	172	160	12	324	310	14	482	460	22	5	11	91.38	91.23	91.08
M 95x3*	93.051	152	140	12	286	272	14	425	403	22	5	12	92.26	92.13	92.00
M 95x2	93.701	142	130	12	264	250	14	342	320	22	5	15	92.99	92.87	92.80
M 100x6*	96.103	202	190	12	394	380	14	577	555	22	6	9	94.61	94.42	94.25
M 100x4*	97.402	172	160	12	324	310	14	482	460	22	5	11	96.38	96.23	96.08
M 100x3*	98.051	152	140	12	286	272	14	425	403	22	5	12	97.26	97.13	97.00
M 100x2	98.701	142	130	12	264	250	14	342	320	22	5	15	97.99	97.87	97.80
M 105x6*	101.103	202	190	12	394	380	14	577	555	22	6	9	99.61	99.42	99.25
M 105x4*	102.402	172	160	12	324	310	14	482	460	22	5	11	101.38	101.23	101.08
M 105x3*	103.051	152	140	12	286	272	14	425	403	22	5	12	102.26	102.13	102.00
M 105x2	103.701	142	130	12	264	250	14	342	320	22	5	15	102.99	102.87	102.80
M 110x6*	106.103	202	190	12	394	380	14	577	555	22	6	9	104.61	104.42	104.25
M 110x4*	107.402	172	160	12	324	310	14	482	460	22	5	11	106.38	106.23	106.08
M 110x3*	108.051	152	140	12	286	272	14	425	403	22	5	12	107.26	107.13	107.00
M 110x2	108.701	142	130	12	264	250	14	342	320	22	5	15	107.99	107.87	107.80
M 115x6*	111.103	202	190	12	394	380	14	577	555	22	6	9	109.61	109.42	109.25
M 115x4*	112.402	172	160	12	324	310	14	482	460	22	5	11	111.38	111.23	111.08
M 115x3*	113.051	152	140	12	286	272	14	425	403	22	5	12	112.26	112.13	112.00
M 115x2	113.701	142	130	12	264	250	14	342	320	22	5	15	112.99	112.87	112.80
M 120x6*	116.103	202	190	12	394	380	14	577	555	22	6	9	114.61	114.42	114.25
M 120x4*	117.402	172	160	12	324	310	14	482	460	22	5	11	116.38	116.23	116.08
M 120x3*	118.051	152	140	12	286	272	14	425	403	22	5	12	117.26	117.13	117.00
M 120x2	118.701	142	130	12	264	250	14	342	320	22	5	15	117.99	117.87	117.80
M 125x6*	121.103	204	190	14	396	380	16	579	555	24	6	9	119.61	119.42	119.25
M 125x4*	122.402	174	160	14	326	310	16	484	460	24	5	11	121.38	121.23	121.08
M 125x3*	123.051	154	140	14	288	272	16	427	403	24	5	12	122.26	122.13	122.00
M 125x2	123.701	154	140	14	296	280	16	374	350	24	5	15	122.98	122.84	122.77
M 130x6*	126.103	204	190	14	396	380	16	579	555	24	6	9	124.61	124.42	124.25
M 130x4*	127.402	174	160	14	326	310	16	484	460	24	5	11	126.38	126.23	126.08
M 130x3*	128.051	154	140	14	288	272	16	427	403	24	5	12	127.26	127.13	127.00
M 130x2	128.701	154	140	14	296	280	16	374	350	24	5	15	127.98	127.84	127.77
M 135x6*	131.103	204	190	14	396	380	16	579	555	24	6	9	129.61	129.42	129.25
M 135x4*	132.402	174	160	14	326	310	16	484	460	24	5	11	131.38	131.23	131.08
M 135x3*	133.051	154	140	14	288	272	16	427	403	24	5	12	132.26	132.13	132.00
M 135x2	133.701	154	140	14	296	280	16	374	350	24	5	15	132.98	132.84	132.77
M 140x6*	136.103	204	190	14	396	380	16	579	555	24	6	9	134.61	134.42	134.25
M 140x4*	137.402	174	160	14	326	310	16	484	460	24	5	11	136.38	136.23	136.08
M 140x3*	138.051	154	140	14	288	272	16	427	403	24	5	12	137.26	137.13	137.00
M 140x2	138.701	154	140	14	296	280	16	374	350	24	5	15	137.98	137.84	137.77

Desi. of th be in  
M 14  
M 14'  
M 14'  
M 14'  
M 15  
M 15  
M 15  
M 15

Annex Table 5. IR, IH (continued) (4)

Unit:  $\mu\text{m}$ 

Designation of thread to be inspected	Pitch diameter <sup>(3)</sup>									Pitch tolerance	Tolerance on $\pm$ half angle $\alpha/2$ (min)	Standard size of gauge minor diameter $d_1$ (mm)			
	Basic size $d_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread	
		Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation	Tolerance	Lower deviation	Upper deviation						Tolerance
M 145 $\times$ 6*	141.103	204	190	14	396	380	16	579	555	24	6	9	139.61	139.42	139.25
M 145 $\times$ 4*	142.402	174	160	14	326	310	16	484	460	24	5	11	141.38	141.23	141.08
M 145 $\times$ 3*	143.051	154	140	14	288	272	16	427	403	24	5	12	142.26	142.13	142.00
M 145 $\times$ 2	143.701	154	140	14	296	280	16	374	350	24	5	15	142.98	142.84	142.77
M 150 $\times$ 6*	146.103	204	190	14	396	380	16	579	555	24	6	9	144.61	144.42	144.25
M 150 $\times$ 4*	147.402	174	160	14	326	310	16	484	460	24	5	11	146.38	146.23	146.08
M 150 $\times$ 3*	148.051	154	140	14	288	272	16	427	403	24	5	12	147.26	147.13	147.00
M 150 $\times$ 2	148.701	154	140	14	296	280	16	374	350	24	5	15	147.98	147.84	147.77

Notes <sup>(3)</sup> This diameter means simple pitch diameter in this Standard.

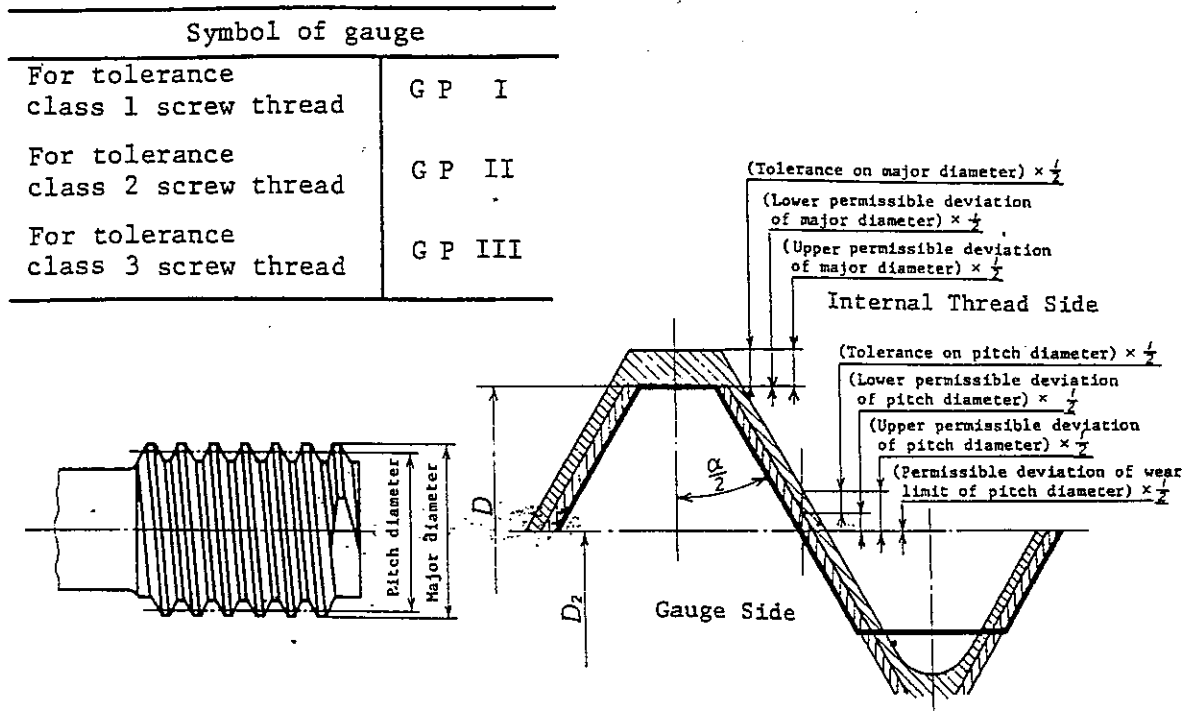
<sup>(4)</sup> The numerical value  $d_2$  is the same as the basic size  $d_2$  of the pitch diameter of external threads specified in JIS B 0207.

To the gauges with asterisk \*, the numerical values in parentheses in the figure shall be applied.

- Remarks
1. Permissible deviations in the Table can be commonly applied to screw ring gauges and screw calliper gauges and inspection may be carried out with either gauge appropriate to the case.
  2. The root profile of thread shall be made with a clearance groove as shown in the figure, appropriately so that the part other than the truncated flanks should not contact the external thread to be inspected. In the case of the gauge used for screw threads the pitch of which is 1 mm or less, the flanks of gauge may approach to the root as shown in the figure in Annex Table 3.
  3. Whether or not actual sizes of the pitch diameter, the pitch, and the half angle of thread are within their respective tolerances shall be determined as follows irrespective of their numerical values given in the Table: For the NOT GO screw ring gauge, if the NOT GO side fit check screw plug gauge specified in Annex Table 15 is screwed in without excessive force and play; and for the NOT GO screw calliper gauge, if the NOT GO side setting screw plug gauge specified in the same Table passes through without excessive force and play; the gauges shall be determined to conform to the specifications.
  4. The pitch tolerance includes the lead drunkenness.
  5. Shapes and dimensions of NOT GO screw ring gauges shall be in accordance with JIS B 3102.

Appendix Table 8. Shape, Dimensions, Permissible Deviations and Tolerance of Go-Thread Plug Gauge. (Common Use for Machine Work and Inspection) (GP)

(Metric Coarse Screw Thread)



(The thick continuous lines show the basic profile of metric screw thread.)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch $P$ (mm)	Pitch diameter <sup>(3)</sup>										Major diameter						Pitch tolerance $\pm$	Permissible deviations on half angle $\frac{1}{2}$ of thread (mm)		
		Basic dimension $D_2$ (mm)	For tolerance class 1 screw thread		For tolerance class 2 screw thread		For tolerance class 3 screw thread		Basic dimension $D$ (mm)	For common use of tolerance classes 1, 2 and 3 screw threads		Pitch tolerance $\pm$	Permissible deviations on half angle $\frac{1}{2}$ of thread (mm)								
			In the case of newly manufactured gauge		In the case of newly manufactured gauge		In the case of newly manufactured gauge			In the case of newly manufactured gauge											
			Upper permissible deviation $+ \dots$	Lower permissible deviation $+ \dots$	Tolerance	Permissible deviation of wear limit $+ \dots$	Upper permissible deviation $+ \dots$	Lower permissible deviation $+ \dots$		Tolerance	Permissible deviation of wear limit $+ \dots$			Upper permissible deviation $+ \dots$	Lower permissible deviation $+ \dots$	Tolerance	Permissible deviation of wear limit $+ \dots$				
M 1	0.25	0.838	9	3	6	0	12	4	8	0	—	—	—	—	1.000	18	6	12	0	4	41
M 1.1*	0.25	0.938	9	3	6	0	12	4	8	0	—	—	—	—	1.100	18	6	12	0	4	41
M 1.2	0.25	1.038	9	3	6	0	12	4	8	0	—	—	—	—	1.200	18	6	12	0	4	41
M 1.4	0.3	1.205	9	3	6	0	12	4	8	0	—	—	—	—	1.400	18	6	12	0	4	35
M 1.6*	0.35	1.373	9	3	6	0	12	4	8	0	—	—	—	—	1.600	18	6	12	0	4	31
M 1.7	0.35	1.473	—	—	—	—	12	4	8	0	—	—	—	—	1.700	18	6	12	0	4	31
M 1.8*	0.35	1.573	9	3	6	0	12	4	8	0	—	—	—	—	1.800	18	6	12	0	4	31
M 2	0.4	1.740	9	3	6	0	12	4	8	0	—	—	—	—	2.000	18	6	12	0	4	28
M 2.2*	0.45	1.908	9	3	6	0	12	4	8	0	—	—	—	—	2.200	18	6	12	0	4	25
M 2.3	0.4	2.040	—	—	—	—	12	4	8	0	—	—	—	—	2.300	18	6	12	0	4	28
M 2.5*	0.45	2.208	9	3	6	0	12	4	8	0	—	—	—	—	2.500	18	6	12	0	4	25
M 2.6	0.45	2.308	—	—	—	—	12	4	8	0	—	—	—	—	2.600	18	6	12	0	4	25
M3×0.5*	0.5	2.675	9	3	6	0	12	4	8	0	18	6	12	0	3.000	18	6	12	0	4	23
M 3.5	0.6	3.110	9	3	6	0	12	4	8	0	18	6	12	0	3.500	18	6	12	0	4	20
M4×0.7*	0.7	3.545	9	3	6	0	12	4	8	0	18	6	12	0	4.000	18	6	12	0	4	18
M 4.5	0.75	4.013	9	3	6	0	12	4	8	0	18	6	12	0	4.500	18	6	12	0	4	18
M5×0.8*	0.8	4.480	9	3	6	0	12	4	8	0	18	6	12	0	5.000	18	6	12	0	4	17
M 6	1	5.350	9	3	6	0	12	4	8	0	18	6	12	0	6.000	18	6	12	0	4	15
M 7	1	6.350	9	3	6	0	12	4	8	0	18	6	12	0	7.000	18	6	12	0	4	15
M 8	1.25	7.188	9	3	6	0	12	4	8	0	18	6	12	0	8.000	18	6	12	0	4	13

Appendix Table 8. GP (Cont'd)

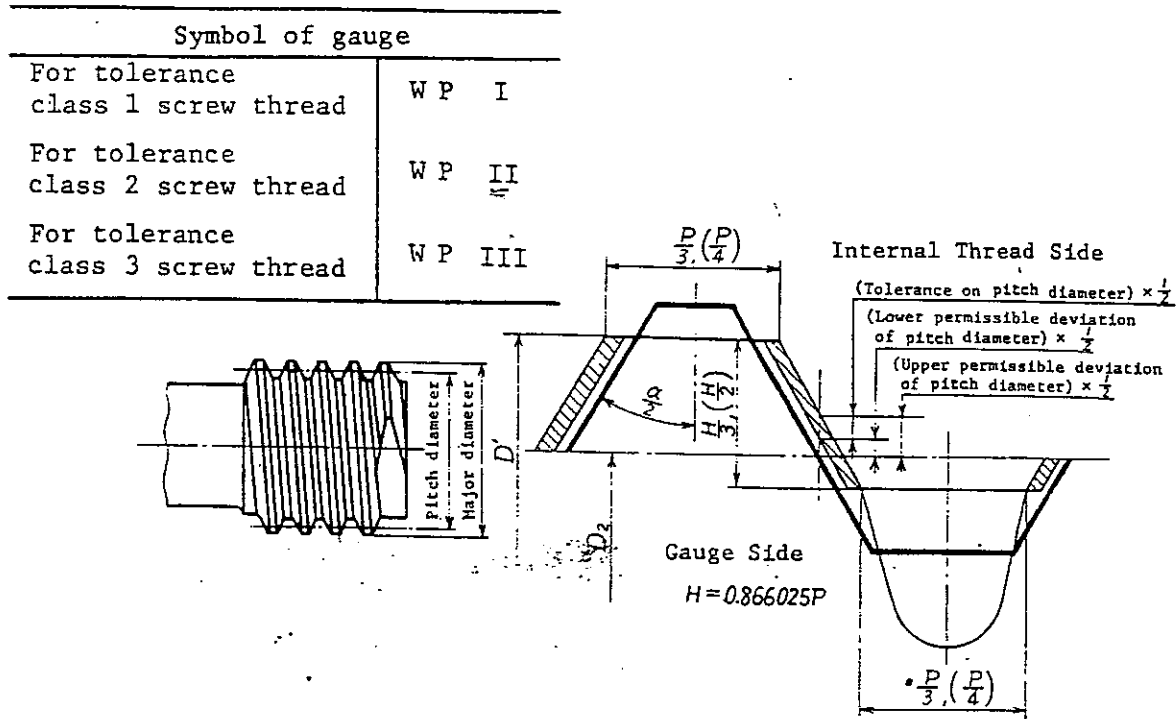
Nominal designation of screw thread to be inspected	Pitch <i>P</i> (mm)	Pitch diameter <sup>(3)</sup>											Major diameter					Unit: μm			
		Basic dimension <i>D<sub>2</sub></i> (mm)	For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread			Basic dimension <i>D</i> (mm)	For common use of tolerance classes 1, 2 and 3 screw threads				Pitch tolerance H	Permissible deviations on half deviations on half angle $\alpha/2$ of thread H			
			In the case of newly manufactured gauge			In the case of newly manufactured gauge			In the case of newly manufactured gauge				In the case of newly manufactured gauge								
			Upper permissible deviation +	Lower permissible deviation +	Tolerance	Permissible deviation of wear limit +	Upper permissible deviation +	Lower permissible deviation +	Tolerance	Permissible deviation of wear limit +	Upper permissible deviation +		Lower permissible deviation +	Tolerance	Permissible deviation of wear limit +	Upper permissible deviation +			Lower permissible deviation +	Tolerance	Permissible deviation of wear limit +
M 9	1.25	8.188	9	3	6	0	12	4	8	0	18	6	12	0	9.000	18	6	12	0	4	13
M 10	1.5	9.026	9	3	6	0	12	4	8	0	18	6	12	0	10.000	18	6	12	0	4	12
M 11*	1.5	10.026	9	3	6	0	12	4	8	0	18	6	12	0	11.000	18	6	12	0	4	12
M 12	1.75	10.863	9	3	6	0	12	4	8	0	18	6	12	0	12.000	18	6	12	0	4	11
M 14	2	12.701	9	3	6	0	12	4	8	0	18	6	12	0	14.000	18	6	12	0	4	10
M 16	2	14.701	9	3	6	0	12	4	8	0	18	6	12	0	16.000	18	6	12	0	4	10
M 18	2.5	16.376	12	4	8	0	16	6	10	0	24	8	16	0	18.000	24	8	16	0	5	9
M 20	2.5	18.376	12	4	8	0	16	6	10	0	24	8	16	0	20.000	24	8	16	0	5	9
M 22	2.5	20.376	12	4	8	0	16	6	10	0	24	8	16	0	22.000	24	8	16	0	5	9
M 24	3	22.051	12	4	8	0	16	6	10	0	24	8	16	0	24.000	24	8	16	0	5	9
M 27	3	25.051	12	4	8	0	16	6	10	0	24	8	16	0	27.000	24	8	16	0	5	9
M 30	3.5	27.727	12	4	8	0	16	6	10	0	24	8	16	0	30.000	24	8	16	0	5	9
M 33	3.5	30.727	12	4	8	0	16	6	10	0	24	8	16	0	33.000	24	8	16	0	5	9
M 36	4	33.402	12	4	8	0	16	6	10	0	24	8	16	0	36.000	24	8	16	0	5	8
M 39	4	36.402	12	4	8	0	16	6	10	0	24	8	16	0	39.000	24	8	16	0	5	8
M 42	4.5	39.077	12	4	8	0	16	6	10	0	24	8	16	0	42.000	24	8	16	0	5	8
M 45	4.5	42.077	12	4	8	0	16	6	10	0	24	8	16	0	45.000	24	8	16	0	5	8
M 48	5	44.752	12	4	8	0	16	6	10	0	24	8	16	0	48.000	24	8	16	0	5	8
M 52*	5	48.752	12	4	8	0	16	6	10	0	24	8	16	0	52.000	24	8	16	0	5	8
M 56*	5.5	52.428	15	5	10	0	18	6	12	0	27	9	18	0	56.000	27	9	18	0	5	8
M 60*	5.5	56.428	15	5	10	0	18	6	12	0	27	9	18	0	60.000	27	9	18	0	5	8
M 64*	6	60.103	15	5	10	0	18	6	12	0	27	9	18	0	64.000	27	9	18	0	5	7
M 68*	6	64.103	15	5	10	0	18	6	12	0	27	9	18	0	68.000	27	9	18	0	5	7

- Notes <sup>(3)</sup> The pitch diameter in this standard shall be the simple pitch diameter.
- <sup>(4)</sup> This agrees with the numerical values of the major diameter (*D*) and basic size of pitch diameter (*D<sub>2</sub>*) of internal thread specified in JIS B 0205, respectively.

- Remarks 1. The shape of root shall have an appropriate relief to produce a space between the root and the minimum dimension of minor diameter of internal thread to be inspected as shown in Figure.
2. The pitch tolerance includes the stagger of lead, too.
3. The go-inspection for the tolerance classes 2 and 3 may be carried out by the go-thread plug gauge for tolerance class 1 screw thread, and the go-inspection for tolerance class 3 may be carried out by the go-thread plug gauge for tolerance class 2 screw thread.
4. The shape and dimensions of this gauge shall be in accordance with JIS B 3102.

Appendix Table 9. Shape, Dimensions, Permissible Deviations and Tolerance of Not-Go Thread Plug Gauge for Machine Work (WP)

(Metric Coarse Screw Thread)



(The thick continuous line shows the basic profile of metric screw thread.)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch $P$ (mm)	Basic dimension $D_2$ (mm)	Pitch diameter (3)									Pitch tolerance $\pm$	Permissible deviations on thread half angle $\frac{\alpha}{2}$ (minute)	Standard values of major diameter of gauge $D'$ (mm)		
			For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread					For tolerance class 1 screw thread	For tolerance class 2 screw thread	For tolerance class 3 screw thread
			Upper permissible deviation	Lower permissible deviation	Tolerance	Upper permissible deviation	Lower permissible deviation	Tolerance	Upper permissible deviation	Lower permissible deviation	Tolerance					
M 1	0.25	0.838	35	29	6	60	52	8	—	—	—	4	78	0.95	0.97	—
M 1.1*	0.25	0.938	45	39	6	56	48	8	—	—	—	4	78	1.09	1.10	—
M 1.2	0.25	1.038	35	29	6	60	52	8	—	—	—	4	78	1.15	1.17	—
M 1.4	0.3	1.205	35	29	6	60	52	8	—	—	—	4	66	1.33	1.36	—
M 1.6*	0.35	1.373	67	61	6	85	77	8	—	—	—	4	57	1.59	1.60	—
M 1.7	0.35	1.473	—	—	—	70	62	8	—	—	—	4	57	—	1.64	—
M 1.8*	0.35	1.573	67	61	6	85	77	8	—	—	—	4	57	1.79	1.80	—
M 2	0.4	1.740	40	34	6	70	62	8	—	—	—	4	51	1.90	1.93	—
M 2.2*	0.45	1.908	75	69	6	95	87	8	—	—	—	4	46	2.18	2.20	—
M 2.3	0.4	2.040	—	—	—	70	62	8	—	—	—	4	51	—	2.23	—
M 2.5*	0.45	2.203	75	69	6	95	87	8	—	—	—	4	46	2.48	2.50	—
M 2.6	0.45	2.308	—	—	—	80	72	8	—	—	—	4	46	—	2.52	—
M3 $\times$ 0.5*	0.5	2.675	80	74	6	100	92	8	125	113	12	4	42	2.97	2.99	2.99
M 3.5	0.6	3.110	50	44	6	90	82	8	130	118	12	4	36	3.33	3.37	3.41
M4 $\times$ 0.7*	0.7	3.545	95	89	6	118	110	8	150	138	12	4	32	3.94	3.97	3.98
M 4.5	0.75	4.013	60	54	6	100	92	8	150	138	12	4	30	4.29	4.33	4.38
M5 $\times$ 0.8*	0.8	4.480	100	94	6	125	117	8	160	148	12	4	29	4.93	4.95	4.98
M 6	1	5.350	70	64	6	120	112	8	170	158	12	4	24	5.71	5.76	5.81
M 7	1	6.350	70	64	6	120	112	8	170	158	12	4	24	6.71	6.76	6.81
M 8	1.25	7.188	80	74	6	130	122	8	190	178	12	4	20	7.63	7.68	7.74



Appendix Table 9. WP (Cont'd)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch $P$ (mm)	Pitch diameter <sup>(3)</sup>											Pitch tolerance $\pm$	Permissible deviations on half angle of thread $\pm$	Standard values of major diameter of gauge $D'$ (mm)		
		<sup>(4)</sup> Basic dimension $D_2$ (mm)	For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread			For tolerance class 1 screw thread			For tolerance class 2 screw thread	For tolerance class 3 screw thread	
			Upper permissible deviation	Lower permissible deviation	Tolerance	Upper permissible deviation	Lower permissible deviation	Tolerance	Upper permissible deviation	Lower permissible deviation	Tolerance						
			+	+		+	+		+	+							
M 9	1.25	8.188	80	74	6	130	122	8	190	178	12	4	20	8.63	8.68	8.74	
M 10	1.5	9.026	80	74	6	140	132	8	210	198	12	4	18	9.54	9.60	9.67	
M 11*	1.5	10.026	140	134	6	180	172	8	224	212	12	4	18	10.82	10.86	10.90	
M 12	1.75	10.863	90	84	6	160	152	8	220	208	12	4	16	11.46	11.53	11.59	
M 14	2	12.701	100	94	6	170	162	8	240	228	12	4	15	13.38	13.45	13.52	
M 16	2	14.701	100	94	6	170	162	8	240	228	12	4	15	15.38	15.45	15.52	
M 18	2.5	16.376	110	102	8	190	180	10	270	254	16	5	13	17.21	17.29	17.37	
M 20	2.5	18.376	110	102	8	190	180	10	270	254	16	5	13	19.21	19.29	19.37	
M 22	2.5	20.376	110	102	8	190	180	10	270	254	16	5	13	21.21	21.29	21.37	
M 24	3	22.051	120	112	8	200	190	10	280	264	16	5	12	23.04	23.12	23.20	
M 27	3	25.051	120	112	8	200	190	10	280	264	16	5	12	26.04	26.12	26.20	
M 30	3.5	27.727	130	122	8	220	210	10	310	294	16	5	11	28.87	28.96	29.05	
M 33	3.5	30.727	130	122	8	220	210	10	310	294	16	5	11	31.87	31.96	32.05	
M 36	4	33.402	130	122	8	230	220	10	340	324	16	5	11	34.69	34.79	34.90	
M 39	4	36.402	130	122	8	230	220	10	340	324	16	5	11	37.69	37.79	37.90	
M 42	4.5	39.077	140	132	8	250	240	10	360	344	16	5	10	40.52	40.63	40.74	
M 45	4.5	42.077	140	132	8	250	240	10	360	344	16	5	10	53.52	43.63	43.74	
M 48	5	44.752	150	142	8	260	250	10	380	364	16	5	10	46.35	46.46	46.58	
M 52*	5	48.752	265	257	8	335	325	10	425	409	16	5	10	51.18	51.25	51.34	
M 56*	5.5	52.428	280	270	10	355	343	12	450	432	18	5	9	55.09	55.16	55.26	
M 60*	5.5	56.428	280	270	10	355	343	12	450	432	18	5	9	59.09	59.16	59.26	
M 64*	6	60.103	300	290	10	375	363	12	475	457	18	5	9	63.00	63.08	63.18	
M 68*	6	64.103	300	290	10	375	363	12	475	457	18	5	9	67.00	67.08	67.18	

Notes <sup>(3)</sup> The pitch diameter of this standard shall be the simple pitch diameter.

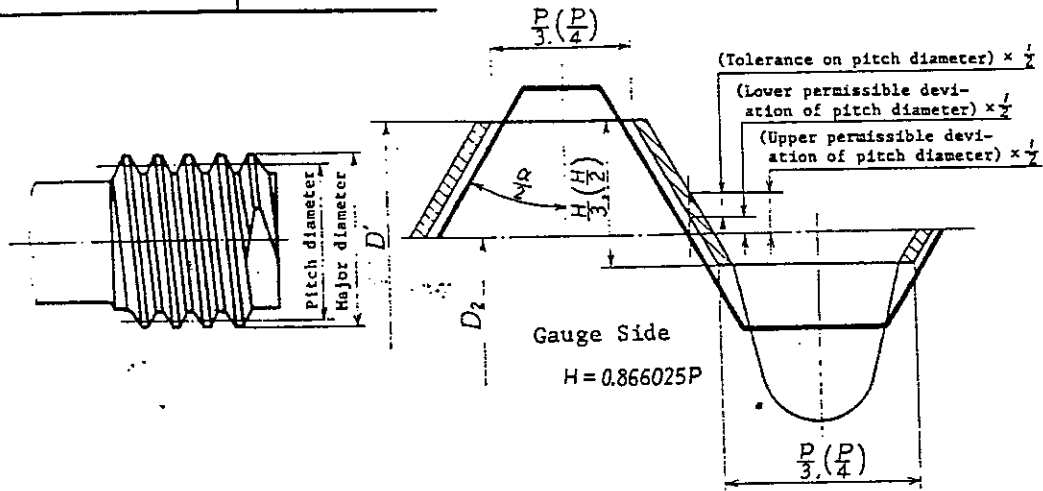
<sup>(4)</sup> This agrees with the numerical values of the basic dimension of pitch diameter ( $D_2$ ) of internal thread specified in JIS B 0205. The numerical values given in ( ) in Figure apply to the gauges having nominal designation with \* mark.

- Remarks 1. For the shape of root, an appropriate relief shall be prepared so that the part excepting the shortened flank may not contact with the internal thread to be inspected as shown in Figure. However, the flank may be extended to the vicinity of root as shown in the right side Figure of Appendix Table 8 in the case of the gauge to be used for the screw thread of not more than 1 mm in pitch.
2. The pitch tolerance includes the stagger of lead, too.
3. The shape and dimensions of this gauge shall be in accordance with JIS B 3102.

Appendix Table 10. Shape, Dimensions, Permissible Deviations and Tolerance of Not-Go Thread Plug Gauge for Inspection (IP)  
(Metric Coarse Screw Thread)

Symbol of gauge	
For tolerance class 1 screw thread	IP I
For tolerance class 2 screw thread	IP II
For tolerance class 3 screw thread	IP III

Internal Thread Side



(The thick continuous line shows the basic profile of metric screw thread.)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch P (mm)	Basic dimension $D_2$ (mm)	Pitch diameter <sup>(2)</sup>									Pitch tolerance $\pm$	Permissible deviations on half angle $\frac{1}{2}$ of thread (minute) $\pm$	Standard values of major diameter of gauge $D'$ (mm)		
			For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread					For tolerance class 1 screw thread	For tolerance class 2 screw thread	For tolerance class 3 screw thread
			Upper per-missible deviation +	Lower per-missible deviation +	Tolerance	Upper per-missible deviation +	Lower per-missible deviation +	Tolerance	Upper per-missible deviation +	Lower per-missible deviation +	Tolerance					
M 1	0.25	0.838	41	35	6	68	60	8	—	—	—	4	78	0.95	0.97	—
M 1.1*	0.25	0.938	51	45	6	64	56	8	—	—	—	4	78	1.09	1.10	—
M 1.2	0.25	1.038	41	35	6	68	60	8	—	—	—	4	78	1.15	1.17	—
M 1.4	0.3	1.205	41	35	6	68	60	8	—	—	—	4	66	1.33	1.36	—
M 1.6*	0.35	1.373	73	67	6	93	85	8	—	—	—	4	57	1.59	1.60	—
M 1.7	0.35	1.473	—	—	—	78	70	8	—	—	—	4	57	—	1.64	—
M 1.8*	0.35	1.573	73	67	6	93	85	8	—	—	—	4	57	1.79	1.80	—
M 2	0.4	1.740	46	40	6	78	70	8	—	—	—	4	51	1.90	1.93	—
M 2.2*	0.45	1.908	81	75	6	103	95	8	—	—	—	4	46	2.18	2.20	—
M 2.3	0.4	2.040	—	—	—	78	70	8	—	—	—	4	51	—	2.23	—
M 2.5*	0.45	2.208	81	75	6	103	95	8	—	—	—	4	46	2.48	2.50	—
M 2.6	0.45	2.308	—	—	—	88	80	8	—	—	—	4	46	—	2.52	—
M3x0.5*	0.5	2.675	86	80	6	108	100	8	137	125	12	4	42	2.97	2.99	2.99
M 3.5	0.6	3.110	56	50	6	98	90	8	142	130	12	4	36	3.33	3.37	3.41
M4x0.7*	0.7	3.545	101	95	6	126	118	8	162	150	12	4	32	3.94	3.97	3.98
M 4.5	0.75	4.013	66	60	6	108	100	8	162	150	12	4	30	4.29	4.33	4.38
M5x0.8*	0.8	4.480	106	100	6	133	125	8	172	160	12	4	29	4.93	4.95	4.98
M 6	1	5.350	76	70	6	128	120	8	182	170	12	4	24	5.71	5.76	5.81
M 7	1	6.350	76	70	6	128	120	8	182	170	12	4	24	6.71	6.76	6.81
M 8	1.25	7.188	86	80	6	138	130	8	202	190	12	4	20	7.63	7.68	7.74

Appendix Table 10. IP (Cont'd)

Unit:  $\mu\text{m}$

Nominal designation of screw thread to be inspected	Pitch $P$ (mm)	Pitch diameter <sup>(3)</sup>										Pitch tolerance $\pm$	Permissible deviations on half angle $\theta/2$ of thread $\pm$	Standard values of major diameter of gauge $D'$ (mm)		
		Basic size $D_2$ (mm)	For tolerance class 1 screw thread			For tolerance class 2 screw thread			For tolerance class 3 screw thread					For tolerance class 1 screw thread	For tolerance class 2 screw thread	For tolerance class 3 screw thread
			Upper per-missible + deviation	Lower per-missible + deviation	Tolerance	Upper per-missible + deviation	Lower per-missible + deviation	Tolerance	Upper per-missible + deviation	Lower per-missible + deviation	Tolerance					
M 9	1.25	8.188	86	80	6	138	130	8	202	190	12	4	20	8.63	8.68	8.74
M 10	1.5	9.026	86	80	6	148	140	8	222	210	12	4	18	9.54	9.60	9.67
M 11*	1.5	10.026	146	140	6	188	180	8	236	224	12	4	18	10.82	10.86	10.90
M 12	1.75	10.863	96	90	6	168	160	8	232	220	12	4	16	11.46	11.53	11.59
M 14	2	12.701	106	100	6	178	170	8	252	240	12	4	15	13.38	13.45	13.52
M 16	2	14.701	106	100	6	178	170	8	252	240	12	4	15	15.38	15.45	15.52
M 18	2.5	16.376	118	110	8	200	190	10	286	270	16	5	13	17.21	17.29	17.37
M 20	2.5	18.376	118	110	8	200	190	10	286	270	16	5	13	19.21	19.29	19.37
M 22	2.5	20.376	118	110	8	200	190	10	286	270	16	5	13	21.21	21.29	21.37
M 24	3	22.051	128	120	8	210	200	10	296	280	16	5	12	23.04	23.12	23.20
M 27	3	25.051	128	120	8	210	200	10	296	280	16	5	12	26.04	26.12	26.20
M 30	3.5	27.727	138	130	8	230	220	10	326	310	16	5	11	28.87	28.96	29.05
M 33	3.5	30.727	138	130	8	230	220	10	326	310	16	5	11	31.87	31.96	32.05
M 36	4	33.402	138	130	8	240	230	10	356	340	16	5	11	34.69	34.79	34.90
M 39	4	36.402	138	130	8	240	230	10	356	340	16	5	11	37.69	37.79	37.90
M 42	4.5	39.077	148	140	8	260	250	10	376	360	16	5	10	40.52	40.63	40.74
M 45	4.5	42.077	148	140	8	260	250	10	376	360	16	5	10	43.52	43.63	43.74
M 48	5	44.752	158	150	8	270	260	10	396	380	16	5	10	46.35	46.46	46.58
M 52*	5	48.752	273	265	8	345	335	10	441	425	16	5	10	51.18	51.25	51.34
M 56*	5.5	52.428	290	280	10	367	355	12	468	450	18	5	9	55.09	55.16	55.26
M 60*	5.5	56.428	290	280	10	367	355	12	468	450	18	5	9	59.09	59.16	59.26
M 64*	6	60.103	310	300	10	387	375	12	493	475	18	5	9	63.00	63.08	63.18
M 68*	6	64.103	310	300	10	387	375	12	493	475	18	5	9	67.00	67.08	67.18

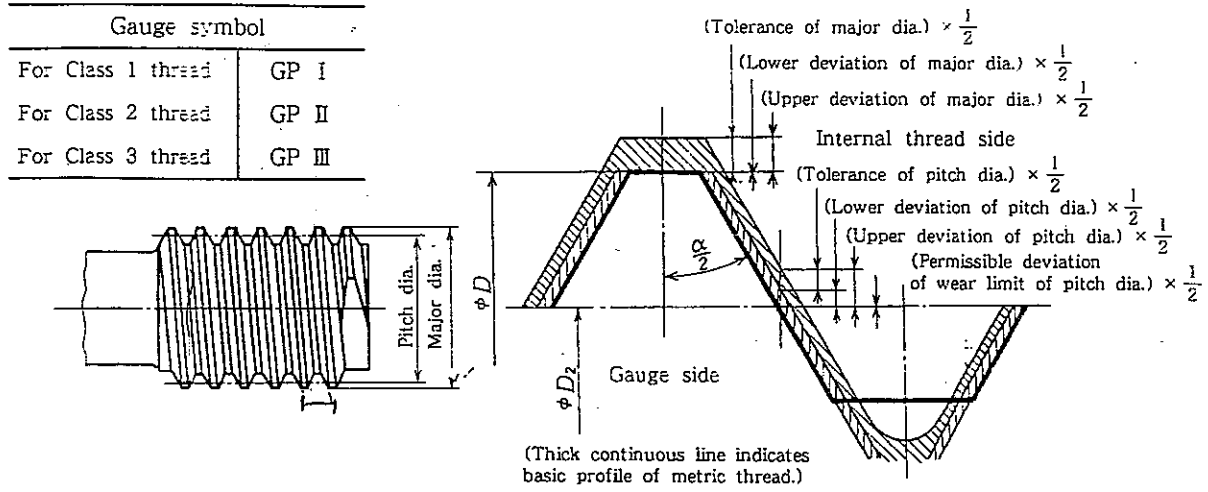
Notes <sup>(3)</sup> The pitch diameter in this standard shall be the simple pitch diameter.

<sup>(4)</sup> This agrees with the numerical values of the basic dimension of pitch diameter ( $D_2$ ) of internal thread specified in JIS B 0205.

The numerical values given in ( ) in Figure apply to the gauges having nominal designation with \* mark.

- Remarks-1. For the shape of root, an appropriate relief shall be prepared so that the part excepting the shortened flank may not contact with the internal thread to be inspected as shown in Figure. However, the flank may be extended to the vicinity of root as shown in the right side Figure of Appendix Table 8 in the case of the gauge to be used for the screw thread of not more than 1 mm in pitch.
2. The pitch tolerance includes the stagger of lead, too.
  3. The shape and dimensions of this gauge shall be in accordance with JIS B 3102.

Annex Table 8. Shape, dimension, permissible deviation, and tolerance for GO screw plug gauge (Common use for working and inspection) (GP)  
(Metric fine screw thread)



Unit: μm

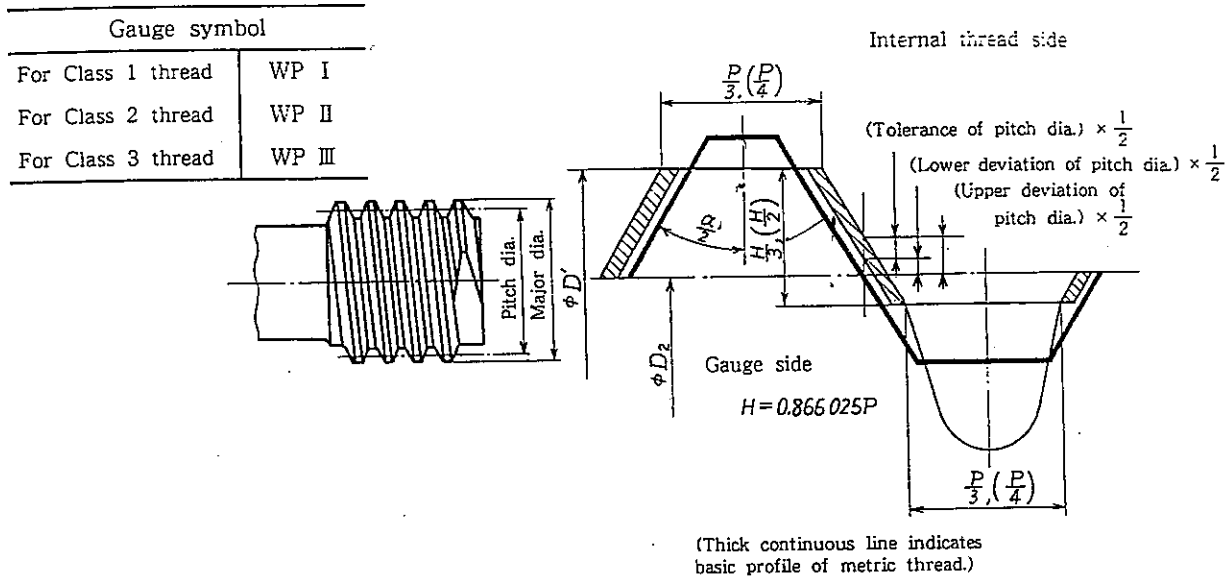
Designation of thread to be inspected	Pitch diameter (φ <sup>(2)</sup> )											Major diameter					Pitch tolerance μm (1/2 ball up, 1/2 ball down)			
	Basic size D <sub>2</sub> (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread			Basic size D (mm)	For Class 1, Class 2 and Class 3 threads								
		For new gauge			For new gauge			For new gauge				For new gauge								
		Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation	Tolerance		Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation		Tolerance		
M 1 × 0.2	0.370	9	3	6	0	—	—	—	—	—	—	1,000	18	6	12	0	4	48		
M 1.1 × 0.2*	0.970	9	3	6	0	—	—	—	—	—	—	1,100	18	6	12	0	4	48		
M 1.2 × 0.2	1.070	9	3	6	0	—	—	—	—	—	—	1,200	18	6	12	0	4	49		
M 1.4 × 0.2	1.270	9	3	6	0	—	—	—	—	—	—	1,400	18	6	12	0	4	49		
M 1.6 × 0.2*	1.470	9	3	6	0	—	—	—	—	—	—	1,600	18	6	12	0	4	49		
M 1.8 × 0.2*	1.670	9	3	6	0	—	—	—	—	—	—	1,800	18	6	12	0	4	49		
M 2 × 0.25	1.338	9	3	6	0	—	—	—	—	—	—	2,000	18	6	12	0	4	49		
M 2.2 × 0.25*	1.338	9	3	6	0	—	—	—	—	—	—	2,200	18	6	12	0	4	49		
M 2.5 × 0.35*	2.273	9	3	6	0	12	4	8	0	—	—	2,500	18	6	12	0	4	50		
M 3 × 0.35	2.773	9	3	6	0	12	4	8	0	—	—	3,000	18	6	12	0	4	50		
M 3.5 × 0.35	3.273	9	3	6	0	12	4	8	0	—	—	3,500	18	6	12	0	4	51		
M 4 × 0.5	4.675	9	3	6	0	12	4	8	0	18	6	12	0	4,000	18	6	12	0	4	52
M 4.5 × 0.5	4.175	9	3	6	0	12	4	8	0	18	6	12	0	4,500	18	6	12	0	4	52
M 5 × 0.5	4.675	9	3	6	0	12	4	8	0	18	6	12	0	5,000	18	6	12	0	4	52
M 5.5 × 0.5	5.175	9	3	6	0	12	4	8	0	18	6	12	0	5,500	18	6	12	0	4	52
M 6 × 0.75	5.513	9	3	6	0	12	4	8	0	18	6	12	0	6,000	18	6	12	0	4	52
M 7 × 0.75	5.513	9	3	6	0	12	4	8	0	18	6	12	0	7,000	18	6	12	0	4	52
M 8 × 1	7.350	9	3	6	0	12	4	8	0	18	6	12	0	8,000	18	6	12	0	4	52
M 8 × 0.75	7.513	9	3	6	0	12	4	8	0	18	6	12	0	8,000	18	6	12	0	4	52
M 9 × 1	8.350	9	3	6	0	12	4	8	0	18	6	12	0	9,000	18	6	12	0	4	52
M 9 × 0.75	8.513	9	3	6	0	12	4	8	0	18	6	12	0	9,000	18	6	12	0	4	52
M 10 × 1.25	9.188	9	3	6	0	12	4	8	0	18	6	12	0	10,000	18	6	12	0	4	52
M 10 × 1	9.350	9	3	6	0	12	4	8	0	18	6	12	0	10,000	18	6	12	0	4	52
M 10 × 0.75*	9.513	9	3	6	0	12	4	8	0	18	6	12	0	10,000	18	6	12	0	4	52
M 11 × 1	10.350	9	3	6	0	12	4	8	0	18	6	12	0	11,000	18	6	12	0	4	52
M 11 × 0.75*	10.513	9	3	6	0	12	4	8	0	18	6	12	0	11,000	18	6	12	0	4	52
M 12 × 1.5	11.026	12	4	8	0	15	5	10	0	24	8	16	0	12,000	24	8	16	0	4	52
M 12 × 1.25*	11.188	12	4	8	0	15	5	10	0	24	8	16	0	12,000	24	8	16	0	4	52
M 12 × 1	11.350	12	4	8	0	15	5	10	0	24	8	16	0	12,000	24	8	16	0	4	52
M 14 × 1.5	13.026	12	4	8	0	15	5	10	0	24	8	16	0	14,000	24	8	16	0	4	52
M 14 × 1	13.350	12	4	8	0	15	5	10	0	24	8	16	0	14,000	24	8	16	0	4	52

Annex Table 8. GP (continued) (1)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter <sup>(3)</sup>												Major diameter							
	Basic size $D_2$ (mm)	For Class 1 thread				For Class 2 thread				For Class 3 thread				Basic size $D$ (mm)	For Class 1, Class 2 and Class 3 threads				Pitch tolerance $\pm$ (mm)	Tolerance in half angle $\alpha/2$ (min)
		For new gauge			Wear limit	For new gauge			Wear limit	For new gauge			Wear limit		For new gauge			Wear limit		
		Upper deviation	Lower deviation	Tolerance		Upper deviation	Lower deviation	Tolerance		Upper deviation	Lower deviation	Tolerance			Upper deviation	Lower deviation	Tolerance			
+	-		+	+	+		+	+	+		+	+	+		+	+	+			
M 15x1.5	14.026	12	4	8	0	15	5	10	0	24	8	16	0	15.000	24	8	16	0	4	12
M 15x1	14.350	12	4	8	0	15	5	10	0	24	8	16	0	15.000	24	8	16	0	4	15
M 16x1.5	15.026	12	4	8	0	15	5	10	0	24	8	16	0	16.000	24	8	16	0	4	12
M 16x1	15.350	12	4	8	0	15	5	10	0	24	8	16	0	16.000	24	8	16	0	4	15
M 17x1.5*	16.026	12	4	8	0	15	5	10	0	24	8	16	0	17.000	24	8	16	0	4	12
M 17x1*	16.350	12	4	8	0	15	5	10	0	24	8	16	0	17.000	24	8	16	0	4	15
M 18x2	16.701	12	4	8	0	15	5	10	0	24	8	16	0	18.000	24	8	16	0	5	10
M 18x1.5	17.026	12	4	8	0	15	5	10	0	24	8	16	0	18.000	24	8	16	0	4	12
M 18x1	17.350	12	4	8	0	15	5	10	0	24	8	16	0	18.000	24	8	16	0	4	15
M 20x2	18.701	12	4	8	0	15	5	10	0	24	8	16	0	20.000	24	8	16	0	5	10
M 20x1.5	19.026	12	4	8	0	15	5	10	0	24	8	16	0	20.000	24	8	16	0	4	12
M 20x1	19.350	12	4	8	0	15	5	10	0	24	8	16	0	20.000	24	8	16	0	4	15
M 22x2	20.701	12	4	8	0	15	5	10	0	24	8	16	0	22.000	24	8	16	0	5	10
M 22x1.5	21.026	12	4	8	0	15	5	10	0	24	8	16	0	22.000	24	8	16	0	4	12
M 22x1	21.350	12	4	8	0	15	5	10	0	24	8	16	0	22.000	24	8	16	0	4	15
M 24x2	22.701	12	4	8	0	15	5	10	0	24	8	16	0	24.000	24	8	16	0	5	10
M 24x1.5	23.026	12	4	8	0	15	5	10	0	24	8	16	0	24.000	24	8	16	0	4	12
M 24x1	23.350	12	4	8	0	15	5	10	0	24	8	16	0	24.000	24	8	16	0	4	15
M 25x2	23.701	12	4	8	0	15	5	10	0	24	8	16	0	25.000	24	8	16	0	5	10
M 25x1.5	24.026	12	4	8	0	15	5	10	0	24	8	16	0	25.000	24	8	16	0	4	12
M 25x1	24.350	12	4	8	0	15	5	10	0	24	8	16	0	25.000	24	8	16	0	4	15
M 26x1.5	25.026	12	4	8	0	15	5	10	0	24	8	16	0	26.000	24	8	16	0	4	12
M 27x2*	25.701	12	4	8	0	15	5	10	0	24	8	16	0	27.000	24	8	16	0	5	10
M 27x1.5	26.026	12	4	8	0	15	5	10	0	24	8	16	0	27.000	24	8	16	0	4	12
M 27x1*	26.350	12	4	8	0	15	5	10	0	24	8	16	0	27.000	24	8	16	0	4	15
M 28x2	26.701	12	4	8	0	15	5	10	0	24	8	16	0	28.000	24	8	16	0	5	10
M 28x1.5	27.026	12	4	8	0	15	5	10	0	24	8	16	0	28.000	24	8	16	0	4	12
M 28x1	27.350	12	4	8	0	15	5	10	0	24	8	16	0	28.000	24	8	16	0	4	15
M 30x3*	28.051	12	4	8	0	15	5	10	0	24	8	16	0	30.000	24	8	16	0	5	9
M 30x2	28.701	12	4	8	0	15	5	10	0	24	8	16	0	30.000	24	8	16	0	5	10
M 30x1.5	29.026	12	4	8	0	15	5	10	0	24	8	16	0	30.000	24	8	16	0	4	12
M 30x1	29.350	12	4	8	0	15	5	10	0	24	8	16	0	30.000	24	8	16	0	4	15
M 32x2	30.701	12	4	8	0	15	5	10	0	24	8	16	0	32.000	24	8	16	0	5	10
M 32x1.5	31.026	12	4	8	0	15	5	10	0	24	8	16	0	32.000	24	8	16	0	4	12
M 33x3*	31.051	12	4	8	0	15	5	10	0	24	8	16	0	33.000	24	8	16	0	5	9
M 33x2*	31.701	12	4	8	0	15	5	10	0	24	8	16	0	33.000	24	8	16	0	5	10
M 33x1.5	32.026	12	4	8	0	15	5	10	0	24	8	16	0	33.000	24	8	16	0	4	12
M 35x1.5	34.026	12	4	8	0	15	5	10	0	24	8	16	0	35.000	24	8	16	0	4	12
M 36x3*	34.051	12	4	8	0	15	5	10	0	24	8	16	0	36.000	24	8	16	0	5	9
M 36x2	34.701	12	4	8	0	15	5	10	0	24	8	16	0	36.000	24	8	16	0	5	10
M 36x1.5	35.026	12	4	8	0	15	5	10	0	24	8	16	0	36.000	24	8	16	0	4	12
M 38x1.5	37.026	12	4	8	0	15	5	10	0	24	8	16	0	38.000	24	8	16	0	4	12
M 39x3*	37.051	12	4	8	0	15	5	10	0	24	8	16	0	39.000	24	8	16	0	5	9
M 39x2*	37.701	12	4	8	0	15	5	10	0	24	8	16	0	39.000	24	8	16	0	5	10
M 39x1.5*	38.026	12	4	8	0	15	5	10	0	24	8	16	0	39.000	24	8	16	0	4	12
M 40x3*	38.051	12	4	8	0	15	5	10	0	24	8	16	0	40.000	24	8	16	0	5	9
M 40x2	38.701	12	4	8	0	15	5	10	0	24	8	16	0	40.000	24	8	16	0	5	10
M 40x1.5	39.026	12	4	8	0	15	5	10	0	24	8	16	0	40.000	24	8	16	0	4	12
M 42x4*	39.402	12	4	8	0	15	5	10	0	24	8	16	0	42.000	24	8	16	0	5	8
M 42x3*	40.051	12	4	8	0	15	5	10	0	24	8	16	0	42.000	24	8	16	0	5	9
M 42x2	40.701	12	4	8	0	15	5	10	0	24	8	16	0	42.000	24	8	16	0	5	10
M 42x1.5	41.026	12	4	8	0	15	5	10	0	24	8	16	0	42.000	24	8	16	0	4	12

Annex Table 9. Shape, dimension, permissible deviation, and tolerance for NOT GO screw plug gauge for working (WP) (Metric fine screw thread)



Unit: μm

Designation of thread to be inspected	Pitch diameter (2)										Pitch tolerance	Tolerance on 1/2 angle α/2 (mm)	Standard size of gauge major diameter D' (mm)		
	Basic size D <sub>2</sub> (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread					For Class 1 thread	For Class 2 thread	For Class 3 thread
		Upper deviation +	Lower deviation +	Tolerance	Upper deviation +	Lower deviation +	Tolerance	Upper deviation +	Lower deviation +	Tolerance					
M 1 × 0.2	0.870	45	39	6	—	—	—	—	—	—	4	96	0.97	—	—
M 1.1 × 0.2*	0.970	40	34	6	—	—	—	—	—	—	4	96	1.10	—	—
M 1.2 × 0.2	1.070	45	39	6	—	—	—	—	—	—	4	96	1.17	—	—
M 1.4 × 0.2	1.270	45	39	6	—	—	—	—	—	—	4	96	1.37	—	—
M 1.6 × 0.2*	1.470	42	36	6	—	—	—	—	—	—	4	96	1.60	—	—
M 1.8 × 0.2*	1.670	42	36	6	—	—	—	—	—	—	4	96	1.80	—	—
M 2 × 0.25	1.838	45	39	6	—	—	—	—	—	—	4	78	1.96	—	—
M 2.2 × 0.25*	2.038	60	54	6	—	—	—	—	—	—	4	78	2.20	—	—
M 2.5 × 0.35*	2.273	67	61	6	85	77	8	—	—	—	4	57	2.49	2.50	—
M 3 × 0.35	2.773	50	44	6	90	82	8	—	—	—	4	57	2.92	2.96	—
M 3.5 × 0.35	3.273	50	44	6	90	82	8	—	—	—	4	57	3.42	3.46	—
M 4 × 0.5	3.675	60	54	6	100	92	8	140	128	12	4	42	3.88	3.92	3.96
M 4.5 × 0.5	4.175	60	54	6	100	92	8	140	128	12	4	42	4.38	4.42	4.46
M 5 × 0.5	4.675	60	54	6	100	92	8	140	128	12	4	42	4.88	4.92	4.96
M 5.5 × 0.5	5.175	60	54	6	100	92	8	140	128	12	4	42	5.38	5.42	5.46
M 6 × 0.75	5.513	60	54	6	100	92	8	150	138	12	4	30	5.79	5.83	5.88
M 7 × 0.75	6.513	60	54	6	100	92	8	150	138	12	4	30	6.79	6.83	6.88
M 8 × 1	7.350	70	64	6	120	112	8	170	158	12	4	24	7.71	7.76	7.81
M 8 × 0.75	7.513	70	64	6	120	112	8	170	158	12	4	30	7.80	7.85	7.91
M 9 × 1	8.350	70	64	6	120	112	8	170	158	12	4	24	8.71	8.76	8.81
M 9 × 0.75	8.513	70	64	6	120	112	8	170	158	12	4	30	8.80	8.85	8.91
M 10 × 1.25	9.188	70	64	6	130	122	8	190	178	12	4	20	9.63	9.68	9.74
M 10 × 1	9.350	70	64	6	130	122	8	180	168	12	4	24	9.71	9.77	9.82
M 10 × 0.75*	9.513	106	100	6	132	124	8	170	158	12	4	30	9.94	9.97	9.98
M 11 × 1	10.350	70	64	6	130	122	8	180	168	12	4	24	10.71	10.77	10.82
M 11 × 0.75*	10.513	106	100	6	132	124	8	170	158	12	4	30	10.94	10.97	10.98
M 12 × 1.5	11.026	90	82	8	150	140	10	210	194	16	4	18	11.55	11.61	11.67
M 12 × 1.25*	11.188	140	132	8	180	170	10	224	208	16	4	20	11.87	11.91	11.95
M 12 × 1	11.350	80	72	8	140	130	10	200	184	16	4	24	11.72	11.78	11.84
M 14 × 1.5	13.026	90	82	8	150	140	10	210	194	16	4	18	13.55	13.61	13.67
M 14 × 1	13.350	80	72	8	140	130	10	200	184	16	4	24	13.72	13.78	13.84

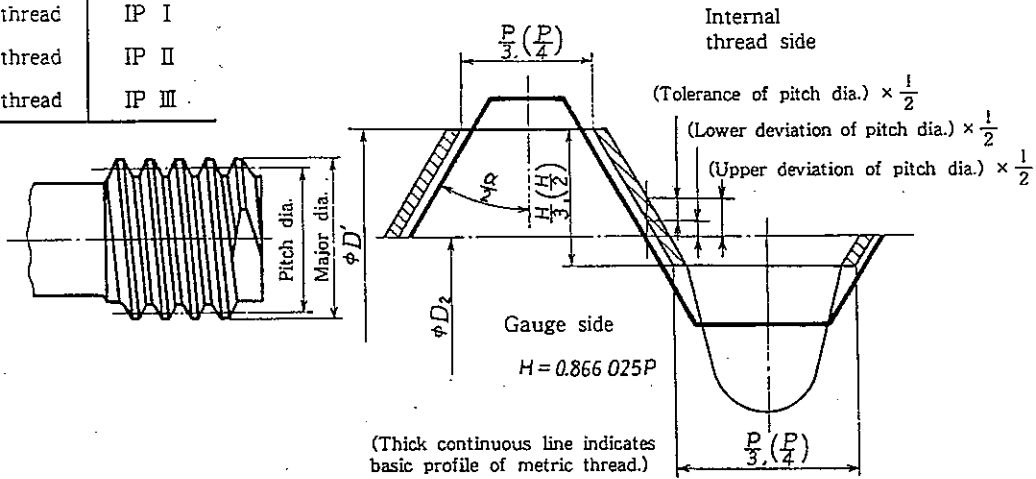
Annex Table 9. WP (continued) (1)

Unit:  $\mu\text{m}$

Designation of thread to be inspected	Pitch diameter $(d_2)$										Pitch tolerance	Tolerance on $\frac{1}{2}$ thread angle $\alpha/2$ (mm)	Standard size of gauge major diameter $D'$ (mm)		
	Basic size $D_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread					For Class 1 thread	For Class 2 thread	For Class 3 thread
		Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation	Tolerance					
M 15x1.5	14.026	90	82	8	150	140	10	210	194	16	4	18	14.55	14.61	14.67
M 15x1	14.350	80	72	8	140	130	10	200	184	16	4	24	14.72	14.78	14.84
M 16x1.5	15.026	90	82	8	150	140	10	210	194	16	4	18	15.55	15.61	15.67
M 16x1	15.350	80	72	8	140	130	10	200	184	16	4	24	15.72	15.78	15.84
M 17x1.5*	16.026	150	142	8	190	180	10	236	220	16	4	18	16.83	16.87	16.91
M 17x1*	16.350	125	117	8	160	150	10	200	184	16	4	24	16.91	16.94	16.98
M 18x2	16.701	100	92	8	180	170	10	270	254	16	5	15	17.38	17.46	17.55
M 18x1.5	17.026	100	92	8	170	160	10	250	234	16	4	18	17.56	17.63	17.71
M 18x1	17.350	90	82	8	150	140	10	210	194	16	4	24	17.73	17.79	17.85
M 20x2	18.701	100	92	8	180	170	10	270	254	16	5	15	19.38	19.46	19.55
M 20x1.5	19.026	100	92	8	170	160	10	250	234	16	4	18	19.56	19.63	19.71
M 20x1	19.350	90	82	8	150	140	10	210	194	16	4	24	19.73	19.79	19.85
M 22x2	20.701	100	92	8	180	170	10	270	254	16	5	15	21.38	21.46	21.55
M 22x1.5	21.026	100	92	8	170	160	10	250	234	16	4	18	21.56	21.63	21.71
M 22x1	21.350	90	82	8	150	140	10	210	194	16	4	24	21.73	21.79	21.85
M 24x2	22.701	110	102	8	190	180	10	280	264	16	5	15	23.39	23.47	23.56
M 24x1.5	23.026	100	92	8	170	160	10	250	234	16	4	18	23.56	23.63	23.71
M 24x1	23.350	90	82	8	150	140	10	210	194	16	4	24	23.73	23.79	23.85
M 25x2	23.701	110	102	8	190	180	10	280	264	16	5	15	24.39	24.47	24.56
M 25x1.5	24.026	100	92	8	170	160	10	250	234	16	4	18	24.56	24.63	24.71
M 25x1	24.350	90	82	8	150	140	10	210	194	16	4	24	24.73	24.79	24.85
M 26x1.5	25.026	100	92	8	170	160	10	250	234	16	4	18	25.56	25.63	25.71
M 27x2*	25.701	180	172	8	224	214	10	280	264	16	5	15	26.75	26.79	26.83
M 27x1.5	26.026	100	92	8	170	160	10	250	234	16	4	18	26.56	26.63	26.71
M 27x1*	26.350	132	124	8	170	160	10	212	196	16	4	24	26.92	26.95	27.00
M 28x2	26.701	110	102	8	190	180	10	280	264	16	5	15	27.39	27.47	27.56
M 28x1.5	27.026	100	92	8	170	160	10	250	234	16	4	18	27.56	27.63	27.71
M 28x1	27.350	90	82	8	150	140	10	210	194	16	4	24	27.73	27.79	27.85
M 30x3*	28.051	212	204	8	265	255	10	335	319	16	5	12	29.56	29.62	29.68
M 30x2	28.701	110	102	8	190	180	10	280	264	16	5	15	29.39	29.47	29.54
M 30x1.5	29.026	100	92	8	170	160	10	250	234	16	4	18	29.56	29.63	29.71
M 30x1	29.350	90	82	8	150	140	10	210	194	16	4	24	29.73	29.79	29.85
M 32x2	30.701	110	102	8	200	190	10	290	274	16	5	15	31.39	31.48	31.57
M 32x1.5	31.026	100	92	8	180	170	10	260	244	16	4	18	31.56	31.64	31.72
M 33x3*	31.051	212	204	8	265	255	10	335	319	16	5	12	32.56	32.62	32.68
M 33x2*	31.701	180	172	8	224	214	10	280	264	16	5	15	32.75	32.79	32.83
M 33x1.5	32.026	100	92	8	180	170	10	260	244	16	4	18	32.56	32.64	32.71
M 35x1.5	34.026	100	92	8	180	170	10	260	244	16	4	18	34.56	34.64	34.72
M 36x3*	34.051	212	204	8	265	255	10	335	319	16	5	12	35.56	35.62	35.68
M 36x2	34.701	110	102	8	200	190	10	290	274	16	5	15	35.39	35.48	35.57
M 36x1.5	35.026	100	92	8	180	170	10	260	244	16	4	18	35.56	35.64	35.72
M 38x1.5	37.026	100	92	8	180	170	10	260	244	16	4	18	37.56	37.64	37.72
M 39x3*	37.051	212	204	8	265	255	10	335	319	16	5	12	38.56	38.62	38.68
M 39x2*	37.701	180	172	8	224	214	10	280	264	16	5	15	38.75	38.79	38.83
M 39x1.5*	38.026	160	152	8	200	190	10	250	234	16	4	18	38.84	38.88	38.93
M 40x3*	38.051	212	204	8	265	255	10	335	319	16	5	12	39.56	39.62	39.68
M 40x2	38.701	110	102	8	200	190	10	290	274	16	5	15	39.39	39.48	39.57
M 40x1.5	39.026	100	92	8	180	170	10	260	244	16	4	18	39.56	39.64	39.72
M 42x4*	39.402	236	228	8	300	290	10	375	359	16	5	11	41.37	41.43	41.51
M 42x3*	40.051	212	204	8	265	255	10	335	319	16	5	12	41.56	41.62	41.69
M 42x2	40.701	110	102	8	200	190	10	290	274	16	5	15	41.39	41.48	41.57
M 42x1.5	41.026	100	92	8	180	170	10	260	244	16	4	18	41.56	41.64	41.71
M 45x4*	42.402	236	228	8	300	290	10	375	359	16	5	11	44.37	44.43	44.51
M 45x3*	43.051	212	204	8	265	255	10	335	319	16	5	12	44.56	44.62	44.70
M 45x2	43.701	110	102	8	200	190	10	290	274	16	5	15	44.39	44.48	44.57
M 45x1.5	44.026	100	92	8	180	170	10	260	244	16	4	18	44.56	44.64	44.71
M 48x4*	45.402	250	242	8	315	305	10	400	384	16	5	11	47.38	47.45	47.53
M 48x3*	46.051	224	216	8	280	270	10	355	339	16	5	12	47.57	47.63	47.71
M 48x2	46.701	110	102	8	200	190	10	290	274	16	5	15	47.39	47.48	47.57
M 48x1.5	47.026	100	92	8	180	170	10	260	244	16	4	18	47.56	47.64	47.71

Annex Table 10. Shape, dimension, permissible deviation, and tolerance for NOT GO screw plug gauge for inspection (IP) (Metric Fine Screw Thread)

Gauge symbol	
For Class 1 thread	IP I
For Class 2 thread	IP II
For Class 3 thread	IP III



Unit: μm

Designation of thread to be inspected	Pitch diameter (φ)									Pitch tolerance	Tolerance on half angle α/2 (mm)	Standard size of gauge major diameter D' (mm)			
	Basic size D <sub>2</sub> (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread				For Class 1 thread	For Class 2 thread	For Class 3 thread	
		Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation						Tolerance
M 1 × 0.2	0.870	51	45	6	—	—	—	—	—	—	4	96	0.97	—	—
M 1.1 × 0.2*	0.970	46	40	6	—	—	—	—	—	—	4	96	1.10	—	—
M 1.2 × 0.2	1.070	51	45	6	—	—	—	—	—	—	4	96	1.17	—	—
M 1.4 × 0.2	1.270	51	45	6	—	—	—	—	—	—	4	96	1.37	—	—
M 1.6 × 0.2*	1.470	48	42	6	—	—	—	—	—	—	4	96	1.60	—	—
M 1.8 × 0.2*	1.670	48	42	6	—	—	—	—	—	—	4	96	1.80	—	—
M 2 × 0.25	1.838	51	45	6	—	—	—	—	—	—	4	78	1.96	—	—
M 2.2 × 0.25*	2.038	66	60	6	—	—	—	—	—	—	4	78	2.20	—	—
M 2.5 × 0.35*	2.273	73	67	6	93	85	8	—	—	—	4	57	2.49	2.50	—
M 3 × 0.35	2.773	56	50	6	98	90	8	—	—	—	4	57	2.92	2.96	—
M 3.5 × 0.35	3.273	56	50	6	98	90	8	—	—	—	4	57	3.42	3.46	—
M 4 × 0.5	3.675	66	60	6	108	100	8	152	140	12	4	42	3.88	3.92	4.0
M 4.5 × 0.5	4.175	66	60	6	108	100	8	152	140	12	4	42	4.38	4.42	4.5
M 5 × 0.5	4.675	66	60	6	108	100	8	152	140	12	4	42	4.88	4.92	5.0
M 5.5 × 0.5	5.175	66	60	6	108	100	8	152	140	12	4	42	5.38	5.42	5.5
M 6 × 0.75	5.513	66	60	6	108	100	8	162	150	12	4	30	5.79	5.83	6.0
M 7 × 0.75	6.513	66	60	6	108	100	8	162	150	12	4	30	6.79	6.83	7.0
M 8 × 1	7.350	76	70	6	128	120	8	182	170	12	4	24	7.71	7.76	8.0
M 8 × 0.75	7.513	76	70	6	128	120	8	182	170	12	4	30	7.80	7.85	8.0
M 9 × 1	8.350	76	70	6	128	120	8	182	170	12	4	24	8.71	8.76	9.0
M 9 × 0.75	8.513	76	70	6	128	120	8	182	170	12	4	30	8.80	8.85	9.0
M 10 × 1.25	9.188	86	80	6	138	130	8	202	190	12	4	20	9.63	9.68	10.0
M 10 × 1	9.350	76	70	6	138	130	8	192	180	12	4	24	9.71	9.76	10.0
M 16 × 0.75*	9.513	112	106	6	140	132	8	182	170	12	4	30	9.94	9.99	10.0
M 11 × 1	10.350	76	70	6	138	130	8	192	180	12	4	24	10.71	10.76	11.0
M 11 × 0.75*	10.513	112	106	6	140	132	8	182	170	12	4	30	10.94	10.99	11.0
M 12 × 1.5	11.026	98	90	8	160	150	10	226	210	16	4	18	11.55	11.61	12.0
M 12 × 1.25*	11.188	148	140	8	190	180	10	240	224	16	4	20	11.87	11.91	12.0
M 12 × 1	11.350	88	80	8	150	140	10	216	200	16	4	24	11.72	11.78	12.0
M 14 × 1.5	13.026	98	90	8	160	150	10	226	210	16	4	18	13.55	13.61	14.0
M 14 × 1	13.350	88	80	8	150	140	10	216	200	16	4	24	13.72	13.78	14.0



Annex Table 10. IP (continued) (1)

Unit: μm

Designation of thread to be inspected	Pitch diameter (3)										Pitch tolerance	Tolerance on half angle $\alpha/2$ (min)	Standard size of gauge major diameter $D'$ (mm)		
	Basic size $D_2$ (mm)	For Class 1 thread			For Class 2 thread			For Class 3 thread					For Class 1 thread	For Class 2 thread	For Class 3 thread
		Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation	Tolerance	Upper deviation	Lower deviation	Tolerance					
		-	+		+	+		+	+						
M 15×1.5	14.026	98	90	8	160	150	10	226	210	16	4	18	14.55	14.61	14.67
M 15×1	14.350	88	80	8	150	140	10	216	200	16	4	24	14.72	14.78	14.84
M 16×1.5	15.026	98	90	8	160	150	10	226	210	16	4	18	15.55	15.61	15.67
M 16×1	15.350	88	80	8	150	140	10	216	200	16	4	24	15.72	15.78	15.84
M 17×1.5*	16.026	158	150	8	200	190	10	252	236	16	4	18	16.83	16.87	16.91
M 17×1*	16.350	133	125	8	170	160	10	216	200	16	4	24	16.91	16.94	16.98
M 18×2	16.701	108	100	8	190	180	10	286	270	16	5	15	17.38	17.46	17.55
M 18×1.5	17.026	108	100	8	180	170	10	266	250	16	4	18	17.56	17.63	17.71
M 18×1	17.350	98	90	8	160	150	10	226	210	16	4	24	17.73	17.79	17.85
M 20×2	18.701	108	100	8	190	180	10	286	270	16	5	15	19.38	19.46	19.55
M 20×1.5	19.026	108	100	8	180	170	10	266	250	16	4	18	19.56	19.63	19.71
M 20×1	19.350	98	90	8	160	150	10	226	210	16	4	24	19.73	19.79	19.85
M 22×2	20.701	108	100	8	190	180	10	286	270	16	5	15	21.38	21.46	21.55
M 22×1.5	21.026	108	100	8	180	170	10	266	250	16	4	18	21.56	21.63	21.71
M 22×1	21.350	98	90	8	160	150	10	226	210	16	4	24	21.73	21.79	21.85
M 24×2	22.701	118	110	8	200	190	10	296	280	16	5	15	23.39	23.47	23.56
M 24×1.5	23.026	108	100	8	180	170	10	266	250	16	4	18	23.56	23.63	23.71
M 24×1	23.350	98	90	8	160	150	10	226	210	16	4	24	23.73	23.79	23.85
M 25×2	23.701	118	110	8	200	190	10	296	280	16	5	15	24.39	24.47	24.56
M 25×1.5	24.026	108	100	8	180	170	10	266	250	16	4	18	24.56	24.63	24.71
M 25×1	24.350	98	90	8	160	150	10	226	210	16	4	24	24.73	24.79	24.85
M 26×1.5	25.026	108	100	8	180	170	10	266	250	16	4	18	25.56	25.63	25.71
M 27×2*	25.701	138	130	8	234	224	10	296	280	16	5	15	26.75	26.79	26.85
M 27×1.5	26.026	108	100	8	180	170	10	266	250	16	4	18	26.56	26.63	26.71
M 27×1*	26.350	140	132	8	180	170	10	226	210	16	4	24	26.92	26.95	26.98
M 28×2	26.701	118	110	8	200	190	10	296	280	16	5	15	27.39	27.47	27.56
M 28×1.5	27.026	108	100	8	180	170	10	266	250	16	4	18	27.56	27.63	27.71
M 28×1	27.350	98	90	8	160	150	10	226	210	16	4	24	27.73	27.79	27.85
M 30×3*	28.051	220	212	8	275	265	10	351	335	16	5	12	29.56	29.62	29.69
M 30×2	28.701	118	110	8	200	190	10	296	280	16	5	15	29.39	29.47	29.56
M 30×1.5	29.026	108	100	8	180	170	10	266	250	16	4	18	29.56	29.63	29.71
M 30×1	29.350	98	90	8	160	150	10	226	210	16	4	24	29.73	29.79	29.85
M 32×2	30.701	118	110	8	210	200	10	306	290	16	5	15	31.39	31.48	31.57
M 32×1.5	31.026	108	100	8	190	180	10	276	260	16	4	18	31.56	31.64	31.72
M 33×3*	31.051	220	212	8	275	265	10	351	335	16	5	12	32.56	32.62	32.69
M 33×2*	31.701	188	180	8	234	224	10	296	280	16	5	15	32.75	32.79	32.85
M 33×1.5	32.026	108	100	8	190	180	10	276	260	16	4	18	32.56	32.64	32.72
M 35×1.5	34.026	108	100	8	190	180	10	276	260	16	4	18	34.56	34.64	34.72
M 36×3*	34.051	220	212	8	275	265	10	351	335	16	5	12	35.56	35.62	35.69
M 36×2	34.701	118	110	8	210	200	10	306	290	16	5	15	35.39	35.48	35.57
M 36×1.5	35.026	108	100	8	190	180	10	276	260	16	4	18	35.56	35.64	35.72
M 38×1.5	37.026	108	100	8	190	180	10	276	260	16	4	18	37.56	37.64	37.72
M 39×3*	37.051	220	212	8	275	265	10	351	335	16	5	12	38.56	38.62	38.69
M 39×2*	37.701	188	180	8	234	224	10	296	280	16	5	15	38.75	38.79	38.85
M 39×1.5*	38.026	168	160	8	210	200	10	266	250	16	4	18	38.84	38.88	38.93
M 40×3*	38.051	220	212	8	275	265	10	351	335	16	5	12	39.56	39.62	39.69
M 40×2	38.701	118	110	8	210	200	10	306	290	16	5	15	39.39	39.48	39.57
M 40×1.5	39.026	108	100	8	190	180	10	276	260	16	4	18	39.56	39.64	39.72
M 42×4*	39.402	244	236	8	310	300	10	391	375	16	5	11	41.37	41.43	41.51
M 42×3*	40.051	220	212	8	275	265	10	351	335	16	5	12	41.56	41.62	41.69
M 42×2	40.701	118	110	8	210	200	10	306	290	16	5	15	41.39	41.48	41.57
M 42×1.5	41.026	108	100	8	190	180	10	276	260	16	4	18	41.56	41.64	41.72
M 45×4*	42.402	244	236	8	310	300	10	391	375	16	5	11	44.37	44.43	44.51
M 45×3*	43.051	220	212	8	275	265	10	351	335	16	5	12	44.56	44.62	44.69
M 45×2	43.701	118	110	8	210	200	10	306	290	16	5	15	44.39	44.48	44.57
M 45×1.5	44.026	108	100	8	190	180	10	276	260	16	4	18	44.56	44.64	44.72
M 48×4*	45.402	258	250	8	325	315	10	416	400	16	5	11	47.38	47.45	47.53
M 48×3*	46.051	232	224	8	290	280	10	371	355	16	5	12	47.57	47.63	47.71
M 48×2	46.701	118	110	8	210	200	10	306	290	16	5	15	47.39	47.48	47.57
M 48×1.5	47.026	108	100	8	190	180	10	276	260	16	4	18	47.56	47.64	47.72