

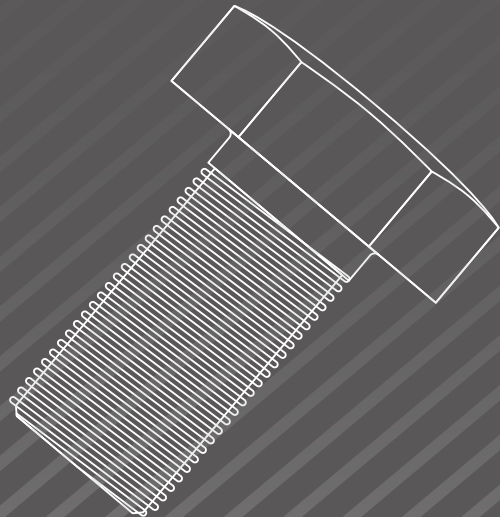
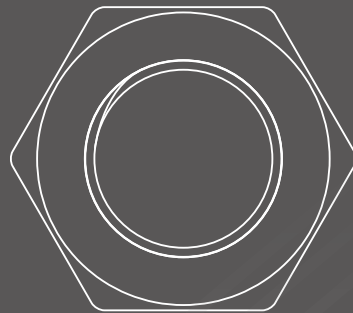


螺紋配合等級

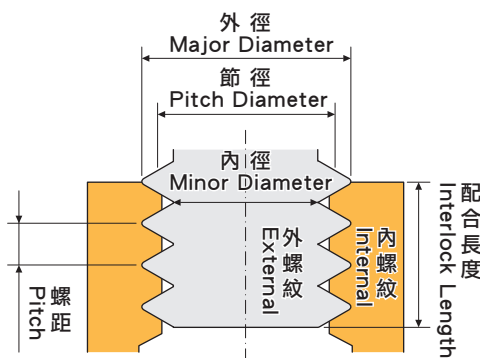
THREAD FIT CLASS

技術資料

Technical Data



配合長度 Interlock Length



配合長度代號 Interlock Length Code	說明 Instructions	配合長度公式 Formula	
S	短的配合長度 Short	$2.24 \times P \times d^{0.2}$ (含) 以下	P = 螺距 P = Pitch d = 螺紋外徑 d = Major Diameter
N	一般的配合長度 Normal	$2.24 \times P \times d^{0.2} \sim 6.7 \times P \times d^{0.2}$ (含)	
L	長的配合長度 Long	$6.7 \times P \times d^{0.2}$ 以上	

※ 配合長度：內、外螺紋有互鎖到的長度。

Interlock Length : Length of thread engagement.

範例 Ex.1 M10 × 1.5

M10 = 螺紋外徑 Major Diameter 10mm

1.5 = 螺距 Pitch 1.5mm

帶入公式 Formula : $2.24 \times P \times d^{0.2} = 2.24 \times 1.5 \times 10^{0.2} = 5.32\text{mm}$

帶入公式 Formula : $6.7 \times P \times d^{0.2} = 6.7 \times 1.5 \times 10^{0.2} = 15.92\text{mm}$

配合長度 Interlock Length :

S 短的長度 Short → $S \leq 5.0$

N 一般的長度 Normal → $5.0 < N \leq 15$

L 長的長度 Long → $15 < L$

範例 Ex.2 M20 × 2

M20 = 螺紋外徑 Major Diameter 20mm

2 = 螺距 Pitch 2mm

帶入公式 Formula : $2.24 \times P \times d^{0.2} = 2.24 \times 2 \times 20^{0.2} = 8.15\text{mm}$

帶入公式 Formula : $6.7 \times P \times d^{0.2} = 6.7 \times 2 \times 20^{0.2} = 24.39\text{mm}$

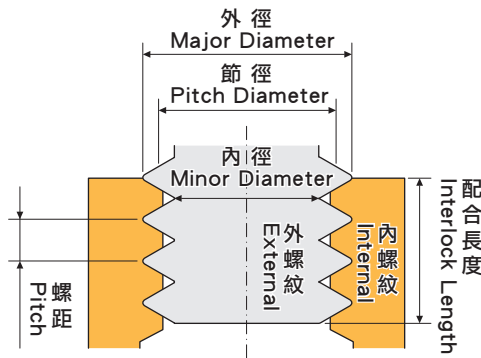
配合長度 Interlock Length :

S 短的長度 Short → $S \leq 8.0$

N 一般的長度 Normal → $8.0 < N \leq 24$

L 長的長度 Long → $24 < L$

配合長度 Interlock Length

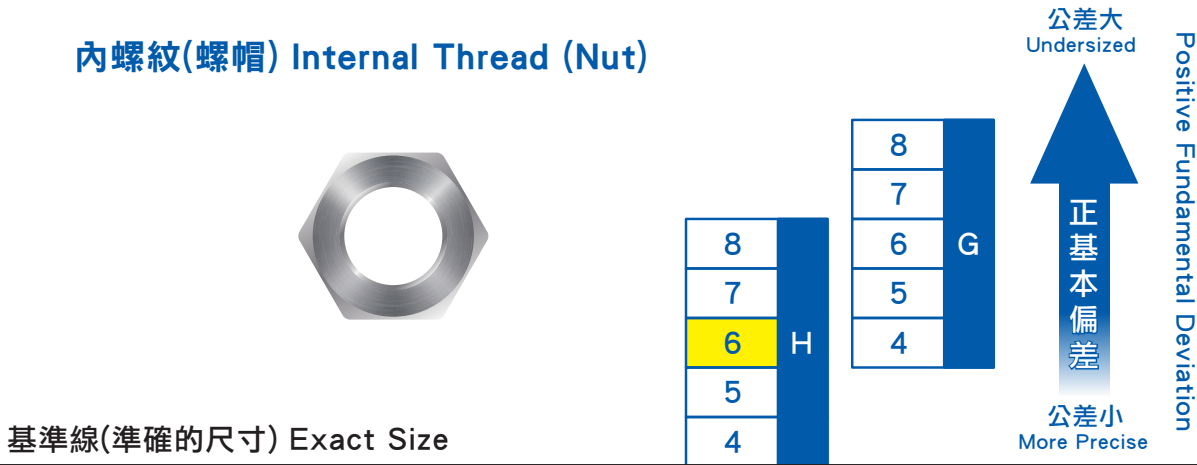


螺紋 Thread	螺距 Pitch	配合長度 Interlock Length (mm)		
		短的長度 Short	一般的長度 Normal	長的長度 Long
		S	N	L
M1.0	0.25	$S \leq 0.6$	$0.6 < N \leq 1.7$	$1.7 < L$
M1.0	0.20	$S \leq 0.5$	$0.5 < N \leq 1.4$	$1.4 < L$
M1.1	0.25	$S \leq 0.6$	$0.6 < N \leq 1.7$	$1.7 < L$
M1.1	0.20	$S \leq 0.5$	$0.5 < N \leq 1.4$	$1.4 < L$
M1.2	0.25	$S \leq 0.6$	$0.6 < N \leq 1.7$	$1.7 < L$
M1.2	0.20	$S \leq 0.5$	$0.5 < N \leq 1.4$	$1.4 < L$
M1.4	0.30	$S \leq 0.7$	$0.7 < N \leq 2.0$	$2.0 < L$
M1.4	0.20	$S \leq 0.5$	$0.5 < N \leq 1.4$	$1.4 < L$
M1.6	0.35	$S \leq 0.8$	$0.8 < N \leq 2.6$	$2.6 < L$
M1.6	0.20	$S \leq 0.5$	$0.5 < N \leq 1.5$	$1.5 < L$
M1.8	0.35	$S \leq 0.8$	$0.8 < N \leq 2.6$	$2.6 < L$
M1.8	0.20	$S \leq 0.5$	$0.5 < N \leq 1.5$	$1.5 < L$
M2.0	0.40	$S \leq 1.0$	$1.0 < N \leq 3.0$	$3.0 < L$
M2.0	0.25	$S \leq 0.6$	$0.6 < N \leq 1.9$	$1.9 < L$
M2.2	0.45	$S \leq 1.3$	$1.3 < N \leq 3.8$	$3.8 < L$
M2.2	0.25	$S \leq 0.6$	$0.6 < N \leq 1.9$	$1.9 < L$
M2.5	0.45	$S \leq 1.3$	$1.3 < N \leq 3.8$	$3.8 < L$
M2.5	0.35	$S \leq 0.8$	$0.8 < N \leq 2.6$	$2.6 < L$
M3.0	0.50	$S \leq 1.5$	$1.5 < N \leq 4.5$	$4.5 < L$
M3.0	0.35	$S \leq 1.0$	$1.0 < N \leq 3.0$	$3.0 < L$
M3.5	0.60	$S \leq 1.7$	$1.7 < N \leq 5.0$	$5.0 < L$
M3.5	0.35	$S \leq 1.0$	$1.0 < N \leq 3.0$	$3.0 < L$
M4.0	0.70	$S \leq 2.0$	$2.0 < N \leq 6.0$	$6.0 < L$
M4.0	0.50	$S \leq 1.5$	$1.5 < N \leq 4.5$	$4.5 < L$
M4.5	0.75	$S \leq 2.2$	$2.2 < N \leq 6.7$	$6.7 < L$
M4.5	0.50	$S \leq 1.5$	$1.5 < N \leq 4.5$	$4.5 < L$
M5.0	0.80	$S \leq 2.5$	$2.5 < N \leq 7.5$	$7.5 < L$
M5.0	0.50	$S \leq 1.5$	$1.5 < N \leq 4.5$	$4.5 < L$
M5.5	0.50	$S \leq 1.5$	$1.5 < N \leq 4.5$	$4.5 < L$
M6.0	1.00	$S \leq 3.0$	$3.0 < N \leq 9.0$	$9.0 < L$
M6.0	0.75	$S \leq 2.4$	$2.4 < N \leq 7.1$	$7.1 < L$
M7.0	1.00	$S \leq 3.0$	$3.0 < N \leq 9.0$	$9.0 < L$
M7.0	0.75	$S \leq 2.4$	$2.4 < N \leq 7.1$	$7.1 < L$
M8.0	1.25	$S \leq 4.0$	$4.0 < N \leq 12$	$12 < L$
M8.0	1.00	$S \leq 3.0$	$3.0 < N \leq 9.0$	$9.0 < L$
M8.0	0.75	$S \leq 2.4$	$2.4 < N \leq 7.1$	$7.1 < L$
M9.0	1.25	$S \leq 4.0$	$4.0 < N \leq 12$	$12 < L$
M9.0	1.00	$S \leq 3.0$	$3.0 < N \leq 9.0$	$9.0 < L$
M9.0	0.75	$S \leq 2.4$	$2.4 < N \leq 7.1$	$7.1 < L$

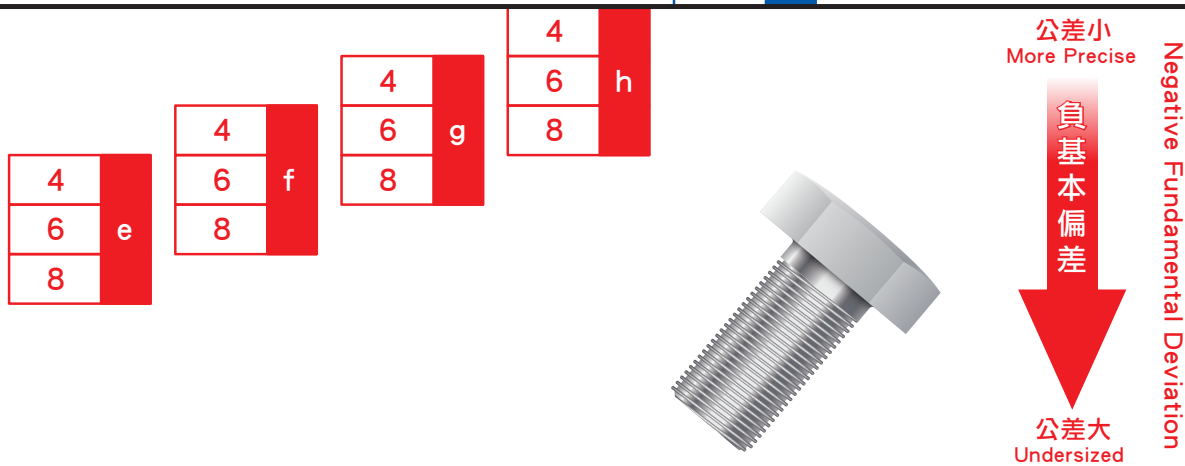
螺紋 Thread	螺距 Pitch	配合長度 Interlock Length (mm)		
		短的長度 Short	一般的長度 Normal	長的長度 Long
		S	N	L
M10	1.50	$S \leq 5.0$	$5.0 < N \leq 15$	$15 < L$
M10	1.25	$S \leq 4.0$	$4.0 < N \leq 12$	$12 < L$
M10	1.00	$S \leq 3.0$	$3.0 < N \leq 9.0$	$9.0 < L$
M10	0.75	$S \leq 2.4$	$2.4 < N \leq 7.1$	$7.1 < L$
M11	1.50	$S \leq 5.0$	$5.0 < N \leq 15$	$15 < L$
M11	1.00	$S \leq 3.0$	$3.0 < N \leq 9.0$	$9.0 < L$
M11	0.75	$S \leq 2.4$	$2.4 < N \leq 7.1$	$7.1 < L$
M12	1.75	$S \leq 6.0$	$6.0 < N \leq 18$	$18 < L$
M12	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M12	1.25	$S \leq 4.5$	$4.5 < N \leq 13$	$13 < L$
M12	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M14	2.00	$S \leq 8.0$	$8.0 < N \leq 24$	$24 < L$
M14	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M14	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M15	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M15	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M16	2.00	$S \leq 8.0$	$8.0 < N \leq 24$	$24 < L$
M16	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M16	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M17	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M17	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M18	2.50	$S \leq 10$	$10 < N \leq 30$	$30 < L$
M18	2.00	$S \leq 8.0$	$8.0 < N \leq 24$	$24 < L$
M18	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M18	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M20	2.50	$S \leq 10$	$10 < N \leq 30$	$30 < L$
M20	2.00	$S \leq 8.0$	$8.0 < N \leq 24$	$24 < L$
M20	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M20	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M22	2.50	$S \leq 10$	$10 < N \leq 30$	$30 < L$
M22	2.00	$S \leq 8.0$	$8.0 < N \leq 24$	$24 < L$
M22	1.50	$S \leq 5.6$	$5.6 < N \leq 16$	$16 < L$
M22	1.00	$S \leq 3.8$	$3.8 < N \leq 11$	$11 < L$
M24	3.00	$S \leq 12$	$12 < N \leq 36$	$36 < L$
M24	2.00	$S \leq 8.5$	$8.5 < N \leq 25$	$25 < L$
M24	1.50	$S \leq 6.3$	$6.3 < N \leq 19$	$19 < L$
M24	1.00	$S \leq 4.0$	$4.0 < N \leq 12$	$12 < L$

ISO公制螺紋配合等級表
ISO Metric Thread Class

內螺紋(螺帽) Internal Thread (Nut)



基準線(準確的尺寸) Exact Size



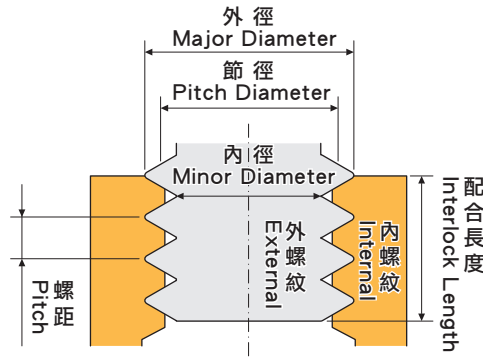
外螺紋(螺絲) External Thread (Screw)

配合等級 Thread Class	JIS B0209-1 日本規範- 外螺紋 External Thread											
	e			f			g			h		
配合長度 Interlock Length	S 短 Short	N 中 Normal	L 長 Long	S 短 Short	N 中 Normal	L 長 Long	S 短 Short	N 中 Normal	L 長 Long	S 短 Short	N 中 Normal	L 長 Long
精度 Precision												
精 Fine	—	—	—	—	—	—	—	(4g)	(5g4g)	(3h4h)	4h	(5h4h)
中 Medium	—	6e	(7e6e)	—	6f	—	(5g6g)	6g	(7g6g)	(5h6h)	6h	(7h6h)
粗 Coarse	—	(8e)	(9e8e)	—	—	—	—	8g	(9g8g)	—	—	—

配合等級 Thread Class	JIS B0209-1 日本規範- 內螺紋 Internal Thread					
	H			G		
配合長度 Interlock Length	S 短 Short	N 中 Normal	L 長 Long	S 短 Short	N 中 Normal	L 長 Long
精度 Precision						
精 Fine	4H	5H	6H	—	—	—
中 Medium	5H	6H	7H	(5G)	6G	(7G)
粗 Coarse	—	7H	8H	—	(7G)	(8G)

ISO公制螺紋尺寸規格說明

Specification of ISO Metric Thread



範例 Ex.1 M20 × 2 - 7H 6H / 6h 6g

M20 = 螺紋外徑 Major Diameter 20mm

2 = 螺距 Pitch 2mm

7H = 內螺紋的節徑配合等級 7H Thread Class Internal- Pitch Diameter

6H = 內螺紋的內徑配合等級 6H Thread Class Internal- Minor Diameter

6h = 外螺紋的節徑配合等級 6h Thread Class External- Pitch Diameter

6g = 外螺紋的外徑配合等級 6g Thread Class External- Major Diameter

範例 Ex.2 M6 × 1 - 7H / 7g 6g - L - LH

M6 = 螺紋外徑 Major Diameter 6mm

1 = 螺距 Pitch 1mm

7H = 內螺紋的節徑、內徑配合等級 7H Thread Class Internal- Pitch Diameter & Minor Diameter

7g = 外螺紋的節徑配合等級 7g Thread Class External- Pitch Diameter

6g = 外螺紋的外徑配合等級 6g Thread Class External- Major Diameter

L = 長的配合長度 Long Interlock Length

LH = 左螺紋 Left Thread

範例 Ex.3 M14 × Ph6 P2 - 7H - L

M14 = 螺紋外徑 Major Diameter 14mm

Ph6 = 導程 Screw Lead 6mm

P2 = 螺距 Pitch 2mm

7H = 內螺紋的節徑、內徑配合等級 7H Thread Class Internal- Pitch Diameter & Minor Diameter

L = 長的配合長度 Long Interlock Length

(※ 導程 Screw Lead ÷ 螺距 Pitch = 線數 Starts , $6 \div 2 = 3$ 線螺紋 Three Starts)

範例 Ex.4 L4N - M20 × 2 - 6H / 6h

L = 左螺紋 Left Thread

4N = 4線螺紋 Four Starts

M20 = 螺紋外徑 Major Diameter 20mm

2 = 螺距 Pitch 2mm

6H = 內螺紋的節徑、內徑配合等級 6H Thread Class Internal- Pitch Diameter & Minor Diameter Thread Class

6h = 外螺紋的節徑、外徑配合等級 6h Thread Class External- Pitch Diameter & Major Diameter Thread Class

ISO公制螺紋尺寸規格說明

Specification of ISO Metric Thread

內螺紋 Internal Thread Size

計算內螺紋的「節徑」尺寸：

Table6 表可查到節徑的最小尺寸，再查Table4 表可得到上限公差。

範例 Ex.1 M10×1.5 - 6H

M10 = 螺紋外徑 Major Diameter 10mm

1.5 = 螺距 Pitch 1.5mm

6H = 配合等級 6H Thread Class：

查Table6 表的 6H 配合等級、螺紋外徑和螺距，可得到節徑的最小尺寸 = 9.026mm

查Table4 表的 6 公差等級、螺紋外徑和螺距，可得到節徑的上限公差 = 0.18mm

節徑尺寸 Pitch Diameter = $9.026 \sim 9.026 + 0.18 = 9.026 \sim 9.206\text{mm}$

計算內螺紋的「內徑」尺寸：

Table6 表可查到內徑的最小尺寸，再查Table2 表可得到上限公差。

範例 Ex.2 M10×1.5 - 6H

M10 = 螺紋外徑 Major Diameter 10mm

1.5 = 螺距 Pitch 1.5mm

6H = 配合等級 6H Thread Class：

查Table6 表的 6H 配合等級、螺紋外徑和螺距，可得到內徑的最小尺寸 = 8.376mm

查Table2 表的 6 公差等級和螺距，可得到內徑的上限公差 = 0.3mm

內徑尺寸 Minor Diameter = $8.376 \sim 8.376 + 0.3 = 8.376 \sim 8.676\text{mm}$

外螺紋 External Thread Size

計算外螺紋的「外徑」尺寸：

Table1 表可查到外徑的基本偏差，再查Table3 表可得到下限公差。

範例 Ex.3 M10×1.5 - 6g

M10 = 螺紋外徑 Major Diameter 10mm

1.5 = 螺距 Pitch 1.5mm

6g = 配合等級 6g Thread Class：

查Table1 表的 g 配合等級和螺距，可得到外徑的基本偏差 = -0.032mm

查Table3 表的 6 公差等級和螺距，可得到外徑的下限公差 = -0.236mm

外徑尺寸 Major Diameter = $(10 - 0.032) - 0.236 \sim 10 - 0.032 = 9.732 \sim 9.968\text{mm}$

計算外螺紋的「節徑」尺寸：

Table7 表可查到節徑的最小尺寸，再查Table5 表可得到上限公差。

範例 Ex.4 M10×1.5 - 6g

M10 = 螺紋外徑 Major Diameter 10mm

1.5 = 螺距 Pitch 1.5mm

6g = 配合等級 6g Thread Class：

查Table7 表的 6g 配合等級、螺紋外徑和螺距，可得到節徑的最小尺寸 = 8.862mm

查Table5 表的 6 公差等級、螺紋外徑和螺距，可得到節徑的上限公差 = 0.132mm

節徑尺寸 Pitch Diameter = $8.862 \sim 8.862 + 0.132 = 8.862 \sim 8.994\text{mm}$

Technical Data

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Minor Diameter Tolerance of ISO Metric Internal Thread

[illegible]

Technical Data

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Table4. ISO公制內螺紋- 節徑公差表
Pitch Diameter Tolerance For ISO Metric Internal Thread

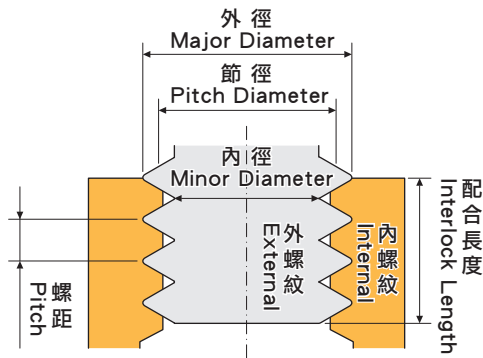
螺紋外徑尺寸範圍 Basic Major Diameter	螺距 Pitch	ISO 965-1 規範- 公差等級 Tolerance Class (mm)				
		內螺紋- 節徑 Internal Thread- Pitch Diameter				
		4	5	6	7	8
1.5 ~ 2.8 mm	0.20	0.042	—	—	—	—
	0.25	0.048	0.060	—	—	—
	0.35	0.053	0.067	0.085	—	—
	0.40	0.056	0.071	0.090	—	—
	0.45	0.060	0.075	0.095	—	—
2.8 ~ 5.6 mm	0.35	0.056	0.071	0.090	—	—
	0.50	0.063	0.080	0.100	0.125	—
	0.60	0.071	0.090	0.112	0.140	—
	0.70	0.075	0.095	0.118	0.150	—
	0.75	0.075	0.095	0.118	0.150	—
	0.80	0.080	0.100	0.125	0.160	0.200
5.6 ~ 11.2 mm	0.75	0.085	0.106	0.132	0.170	—
	1.00	0.095	0.118	0.150	0.190	0.236
	1.25	0.100	0.125	0.160	0.200	0.250
	1.50	0.112	0.140	0.180	0.224	0.280
11.2 ~ 22.4 mm	1.00	0.100	0.125	0.160	0.200	0.250
	1.25	0.112	0.140	0.180	0.224	0.280
	1.50	0.118	0.150	0.190	0.236	0.300
	1.75	0.125	0.160	0.200	0.250	0.315
	2.00	0.132	0.170	0.212	0.265	0.335
	2.50	0.140	0.180	0.224	0.280	0.355
22.4 ~ 45.0 mm	1.00	0.106	0.132	0.170	0.212	—
	1.50	0.125	0.160	0.200	0.250	0.315
	2.00	0.140	0.180	0.224	0.280	0.355
	3.00	0.170	0.212	0.265	0.335	0.425
	3.50	0.180	0.224	0.280	0.355	0.450
	4.00	0.190	0.236	0.300	0.375	0.475
	4.50	0.200	0.250	0.315	0.400	0.500
45 ~ 90 mm	1.50	0.132	0.170	0.212	0.265	0.335
	2.00	0.150	0.190	0.236	0.300	0.375
	3.00	0.180	0.224	0.280	0.355	0.450
	4.00	0.200	0.250	0.315	0.400	0.500
	5.00	0.212	0.265	0.335	0.425	0.530
	5.50	0.224	0.280	0.355	0.450	0.560
	6.00	0.236	0.300	0.375	0.475	0.600
90 ~ 180 mm	2.00	0.160	0.200	0.250	0.315	0.400
	3.00	0.190	0.236	0.300	0.375	0.475
	4.00	0.212	0.265	0.335	0.425	0.530
	6.00	0.250	0.315	0.400	0.500	0.630
180 ~ 355 mm	3.00	0.212	0.265	0.335	0.425	0.530
	4.00	0.236	0.300	0.375	0.475	0.600
	6.00	0.265	0.335	0.425	0.530	0.670

Table5. ISO公制外螺紋- 節徑公差表
Pitch Diameter Tolerance For ISO Metric External Thread

螺紋外徑尺寸範圍 Basic Major Diameter	螺距 Pitch	ISO 965-1 規範- 公差等級 Tolerance Class (mm)						
		外螺紋- 節徑 External Thread- Pitch Diameter						
		3	4	5	6	7	8	9
1.5 ~ 2.8 mm	0.20	0.025	0.032	0.040	0.050	—	—	—
	0.25	0.028	0.036	0.045	0.056	—	—	—
	0.35	0.032	0.040	0.050	0.063	0.080	—	—
	0.40	0.034	0.042	0.053	0.067	0.085	—	—
	0.45	0.036	0.045	0.056	0.071	0.090	—	—
2.8 ~ 5.6 mm	0.35	0.034	0.042	0.053	0.067	0.085	—	—
	0.50	0.038	0.048	0.060	0.075	0.095	—	—
	0.60	0.042	0.053	0.067	0.085	0.106	—	—
	0.70	0.045	0.056	0.071	0.090	0.112	—	—
	0.75	0.045	0.056	0.071	0.090	0.112	—	—
	0.80	0.048	0.060	0.075	0.095	0.118	0.150	0.190
5.6 ~ 11.2 mm	0.75	0.050	0.063	0.080	0.100	0.125	—	—
	1.00	0.056	0.071	0.090	0.112	0.140	0.180	0.224
	1.25	0.060	0.075	0.095	0.118	0.150	0.190	0.236
	1.50	0.067	0.085	0.106	0.132	0.170	0.212	0.265
11.2 ~ 22.4 mm	1.00	0.060	0.075	0.095	0.118	0.150	0.190	0.236
	1.25	0.067	0.085	0.106	0.132	0.170	0.212	0.265
	1.50	0.071	0.090	0.112	0.140	0.180	0.224	0.280
	1.75	0.075	0.095	0.118	0.150	0.190	0.236	0.300
	2.00	0.080	0.100	0.125	0.160	0.200	0.250	0.315
	2.50	0.085	0.106	0.132	0.170	0.212	0.265	0.335
22.4 ~ 45.0 mm	1.00	0.063	0.080	0.100	0.125	0.160	0.200	0.250
	1.50	0.075	0.095	0.118	0.150	0.190	0.236	0.300
	2.00	0.085	0.106	0.132	0.170	0.212	0.265	0.335
	3.00	0.100	0.125	0.160	0.200	0.250	0.315	0.400
	3.50	0.106	0.132	0.170	0.212	0.265	0.335	0.425
	4.00	0.112	0.140	0.180	0.224	0.280	0.355	0.450
	4.50	0.118	0.150	0.190	0.236	0.300	0.375	0.475
45 ~ 90 mm	1.50	0.080	0.100	0.125	0.160	0.200	0.250	0.315
	2.00	0.090	0.112	0.140	0.180	0.224	0.280	0.355
	3.00	0.106	0.132	0.170	0.212	0.265	0.335	0.425
	4.00	0.118	0.150	0.190	0.236	0.300	0.375	0.475
	5.00	0.125	0.160	0.200	0.250	0.315	0.400	0.500
	5.50	0.132	0.170	0.212	0.265	0.335	0.425	0.530
	6.00	0.140	0.180	0.224	0.280	0.355	0.450	0.560
90 ~ 180 mm	2.00	0.095	0.118	0.150	0.190	0.236	0.300	0.375
	3.00	0.112	0.140	0.180	0.224	0.280	0.355	0.450
	4.00	0.125	0.160	0.200	0.250	0.315	0.400	0.500
	6.00	0.150	0.190	0.236	0.300	0.375	0.475	0.600
180 ~ 355 mm	3.00	0.125	0.160	0.200	0.250	0.315	0.400	0.500
	4.00	0.140	0.180	0.224	0.280	0.355	0.450	0.560
	6.00	0.160	0.200	0.250	0.315	0.400	0.500	0.630

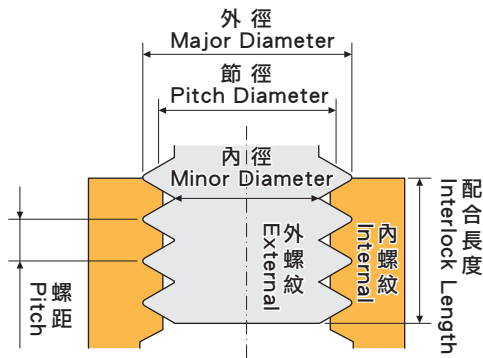
Table6. ISO公制內螺紋尺寸表

ISO Metric Internal Thread Size



螺紋 Thread	螺距 Pitch	內螺紋 Internal Thread (mm)						
		配合等級 Tolerance Class	外徑 Major Diameter		節徑 Pitch Diameter		內徑 Minor Diameter	
			最小 Min	最大 Max	最小 Min	最大 Max	最小 Min	最大 Max
M1.6	0.35	6H	1.600	1.736	1.373	1.458	1.221	1.321
M2.0	0.40	6H	2.000	2.148	1.740	1.830	1.567	1.679
M2.5	0.45	6H	2.500	2.660	2.208	2.303	2.013	2.138
M3.0	0.50	6H	3.000	3.172	2.675	2.775	2.459	2.599
M3.5	0.60	6H	3.500	3.698	3.110	3.222	2.850	3.010
M4.0	0.70	6H	4.000	4.219	3.545	3.663	3.242	3.422
M5.0	0.80	6H	5.000	5.240	4.480	4.605	4.134	4.334
M6.0	1.00	6H	6.000	6.294	5.350	5.500	4.917	5.153
M8.0	1.25	6H	8.000	8.340	7.188	7.348	6.647	6.912
M8.0	1.00	6H	8.000	8.294	7.350	7.500	6.917	7.153
M10	1.50	6H	10.000	10.397	9.026	9.206	8.376	8.676
M10	1.25	6H	10.000	10.340	9.188	9.348	8.647	8.912
M10	1.00	6H	10.000	10.294	9.350	9.500	8.917	9.153
M10	0.75	6H	10.000	10.240	9.513	9.645	9.188	9.378
M12	1.75	6H	12.000	12.452	10.863	11.063	10.106	10.441
M12	1.50	6H	12.000	12.407	11.026	11.216	10.376	10.676
M12	1.25	6H	12.000	12.360	11.188	11.368	10.647	10.912
M12	1.00	6H	12.000	12.304	11.350	11.510	10.917	11.153
M14	2.00	6H	14.000	14.501	12.701	12.913	11.835	12.210
M14	1.50	6H	14.000	14.407	13.026	13.216	12.376	12.676
M15	1.00	6H	15.000	15.304	14.350	14.510	13.917	14.153
M16	2.00	6H	16.000	16.501	14.701	14.913	13.835	14.210
M16	1.50	6H	16.000	16.407	15.026	15.216	14.376	14.676
M17	1.00	6H	17.000	17.304	16.350	16.510	15.917	16.153
M18	1.50	6H	18.000	18.407	17.026	17.216	16.376	16.676
M20	2.50	6H	20.000	20.585	18.376	18.600	17.294	17.744
M20	1.50	6H	20.000	20.407	19.026	19.216	18.376	18.676
M20	1.00	6H	20.000	20.304	19.350	19.510	18.917	19.153
M22	2.50	6H	22.000	22.585	20.376	20.600	19.294	19.744
M22	1.50	6H	22.000	22.407	21.026	21.216	20.376	20.676
M24	3.00	6H	24.000	24.698	22.051	22.316	20.752	21.252
M24	2.00	6H	24.000	24.513	22.701	22.925	21.835	22.210
M25	1.50	6H	25.000	25.417	24.026	24.226	23.376	23.676
M27	3.00	6H	27.000	27.698	25.051	25.316	23.752	24.252
M27	2.00	6H	27.000	27.513	25.701	25.925	24.835	25.210

Table6. ISO公制內螺紋尺寸表 ISO Metric Internal Thread Size



螺紋 Thread	螺距 Pitch	內螺紋 Internal Thread (mm)						
		配合等級 Tolerance Class	外徑 Major Diameter		節徑 Pitch Diameter		內徑 Minor Diameter	
			最小 Min	最大 Max	最小 Min	最大 Max	最小 Min	最大 Max
M30	3.50	6H	30.000	30.786	27.727	28.007	26.211	26.771
M30	2.00	6H	30.000	30.513	28.701	28.925	27.835	28.210
M30	1.50	6H	30.000	30.417	29.026	29.226	28.376	28.676
M33	2.00	6H	33.000	33.513	31.701	31.925	30.835	31.210
M35	1.50	6H	35.000	35.417	34.026	34.226	33.376	33.676
M36	4.00	6H	36.000	36.877	33.402	33.702	31.670	32.270
M36	2.00	6H	36.000	36.513	34.701	34.925	33.835	34.210
M39	2.00	6H	39.000	39.513	37.701	37.925	36.835	37.210
M40	1.50	6H	40.000	40.417	39.026	39.226	38.376	38.676
M42	4.50	6H	42.000	42.964	39.077	39.392	37.129	37.799
M42	2.00	6H	42.000	42.513	40.701	40.925	39.835	40.210
M45	1.50	6H	45.000	45.417	44.026	44.226	43.376	43.676
M48	5.00	6H	48.000	49.056	44.752	45.087	42.587	43.297
M48	2.00	6H	48.000	48.525	46.701	46.937	45.835	46.210
M50	1.50	6H	50.000	50.429	49.026	49.238	48.376	48.676
M55	1.50	6H	55.000	55.429	54.026	54.238	53.376	53.676
M56	5.50	6H	56.000	57.149	52.428	52.783	50.046	50.796
M56	2.00	6H	56.000	56.525	54.701	54.937	53.835	54.210
M60	1.50	6H	60.000	60.429	59.026	59.238	58.376	58.676
M64	6.00	6H	64.000	65.241	60.103	60.478	57.505	58.305
M64	2.00	6H	64.000	64.525	62.701	62.937	61.835	62.210
M65	1.50	6H	65.000	65.429	64.026	64.238	63.376	63.676
M70	1.50	6H	70.000	70.429	69.026	69.238	68.376	68.676
M72	6.00	6H	72.000	73.241	68.103	68.478	65.505	66.305
M72	2.00	6H	72.000	72.525	70.701	70.937	69.835	70.210
M75	1.50	6H	75.000	75.429	74.026	74.238	73.376	73.676
M80	6.00	6H	80.000	81.241	76.103	76.478	73.505	74.305
M80	2.00	6H	80.000	80.525	78.701	78.937	77.835	78.210
M80	1.50	6H	80.000	80.429	79.026	79.238	78.376	78.676
M85	2.00	6H	85.000	85.525	83.701	83.937	82.835	83.210
M90	6.00	6H	90.000	91.241	86.103	86.478	83.505	84.305
M90	2.00	6H	90.000	90.525	88.701	88.937	87.835	88.210
M95	2.00	6H	95.000	95.539	93.701	93.951	92.835	93.210
M100	6.00	6H	100.000	101.266	96.103	96.503	93.505	94.305
M100	2.00	6H	100.000	100.539	98.701	98.951	97.835	98.210

Table6. ISO公制內螺紋尺寸表 ISO Metric Internal Thread Size

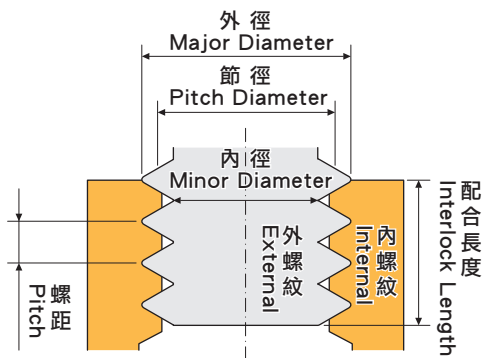
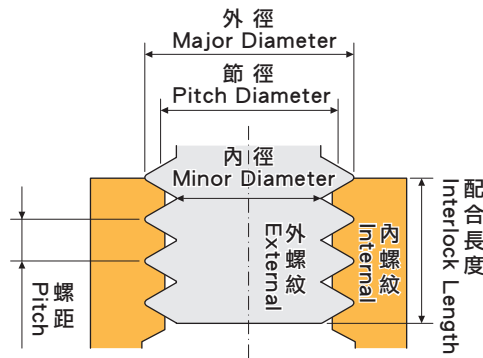
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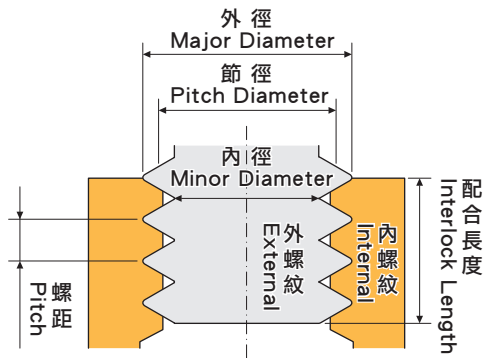
Table7. ISO公制外螺紋尺寸表

ISO Metric External Thread Size



螺紋 Thread	螺距 Pitch	外螺紋 External Thread (mm)							
		配合等級 Tolerance Class	外徑 Major Diameter		節徑 Pitch Diameter		內徑 Minor Diameter		
			最小 Min	最大 Max	最小 Min	最大 Max	(R角) 最小 Min	(R角) 最大 Max	(平面 Flat) 最大 Max
M1.6	0.35	6g	1.496	1.581	1.291	1.354	1.075	1.201	1.202
M1.6	0.35	6h	1.515	1.600	1.310	1.373	1.094	1.220	1.221
M1.6	0.35	4g6g	1.496	1.581	1.314	1.354	1.098	1.197	1.202
M2.0	0.40	6g	1.886	1.981	1.654	1.721	1.408	1.546	1.548
M2.0	0.40	6h	1.905	2.000	1.673	1.740	1.427	1.565	1.567
M2.0	0.40	4g6g	1.886	1.981	1.679	1.721	1.433	1.540	1.548
M2.5	0.45	6g	2.380	2.480	2.117	2.188	1.840	1.990	1.993
M2.5	0.45	6h	2.400	2.500	2.137	2.208	1.860	2.010	2.013
M2.5	0.45	4g6g	2.380	2.480	2.143	2.188	1.866	1.984	1.993
M3.0	0.50	6g	2.874	2.980	2.580	2.655	2.272	2.435	2.438
M3.0	0.50	6h	2.894	3.000	2.600	2.675	2.292	2.455	2.458
M3.0	0.50	4g6g	2.874	2.980	2.607	2.655	2.299	2.428	2.438
M3.5	0.60	6g	3.354	3.479	3.004	3.089	2.634	2.824	2.829
M3.5	0.60	6h	3.375	3.500	3.025	3.110	2.655	2.845	2.850
M3.5	0.60	4g6g	3.354	3.479	3.036	3.089	2.666	2.815	2.829
M4.0	0.70	6g	3.838	3.978	3.433	3.523	3.002	3.211	3.220
M4.0	0.70	6h	3.860	4.000	3.455	3.545	3.024	3.233	3.242
M4.0	0.70	4g6g	3.838	3.978	3.467	3.523	3.036	3.201	3.220
M5.0	0.80	6g	4.826	4.976	4.361	4.456	3.868	4.098	4.110
M5.0	0.80	6h	4.850	5.000	4.385	4.480	3.892	4.122	4.134
M5.0	0.80	4g6g	4.826	4.976	4.396	4.456	3.903	4.086	4.110
M6.0	1.00	6g	5.794	5.974	5.212	5.324	4.596	4.875	4.891
M6.0	1.00	6h	5.820	6.000	5.238	5.350	4.622	4.901	4.917
M6.0	1.00	4g6g	5.794	5.974	5.253	5.324	4.637	4.859	4.891
M8.0	1.25	6g	7.760	7.972	7.042	7.160	6.272	6.591	6.619
M8.0	1.25	6h	7.788	8.000	7.070	7.188	6.300	6.619	6.647
M8.0	1.25	4g6g	7.760	7.972	7.085	7.160	6.315	6.572	6.619
M8.0	1.00	6g	7.794	7.974	7.212	7.324	6.596	6.875	6.891
M8.0	1.00	6h	7.820	8.000	7.238	7.350	6.622	6.901	6.917
M8.0	1.00	4g6g	7.794	7.974	7.253	7.324	6.637	6.859	6.891
M10	1.50	6g	9.732	9.968	8.862	8.994	7.938	8.308	8.344
M10	1.50	6h	9.764	10.000	8.894	9.026	7.970	8.340	8.376
M10	1.50	4g6g	9.732	9.968	8.909	8.994	7.985	8.286	8.344
M10	1.25	6g	9.760	9.972	9.042	9.160	8.272	8.591	8.619
M10	1.25	6h	9.788	10.000	9.070	9.188	8.300	8.619	8.647

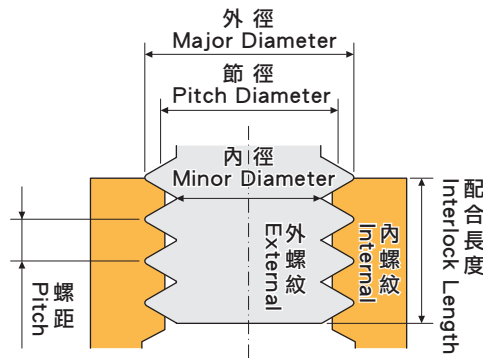
Table7. ISO公制外螺紋尺寸表
ISO Metric External Thread Size



螺紋 Thread	螺距 Pitch	外螺紋 External Thread (mm)							
		配合等級 Tolerance Class	外徑 Major Diameter		節徑 Pitch Diameter		內徑 Minor Diameter		
			最小 Min	最大 Max	最小 Min	最大 Max	(R角) 最小 Min	(R角) 最大 Max	(平面 Flat) 最大 Max
M10	1.25	4g6g	9.760	9.972	9.085	9.160	8.315	8.572	8.619
M10	1.00	6g	9.794	9.974	9.212	9.324	8.596	8.875	8.891
M10	1.00	6h	9.820	10.000	9.238	9.350	8.622	8.901	8.917
M10	1.00	4g6g	9.794	9.974	9.253	9.324	8.637	8.859	8.891
M10	0.75	6g	9.838	9.978	9.391	9.491	8.929	9.158	9.166
M10	0.75	6h	9.860	10.000	9.413	9.513	8.951	9.180	9.188
M10	0.75	4g6g	9.838	9.978	9.428	9.491	8.966	9.147	9.166
M12	1.75	6g	11.701	11.966	10.679	10.829	9.601	10.027	10.071
M12	1.75	6h	11.735	12.000	10.713	10.863	9.635	10.061	10.105
M12	1.75	4g6g	11.701	11.966	10.734	10.829	9.656	10.000	10.071
M12	1.50	6g	11.732	11.968	10.854	10.994	9.930	10.311	10.344
M12	1.50	6h	11.764	12.000	10.886	11.026	9.962	10.343	10.376
M12	1.50	4g6g	11.732	11.968	10.904	10.994	9.980	10.289	10.344
M12	1.25	6g	11.760	11.972	11.028	11.160	10.258	10.596	10.619
M12	1.25	6h	11.788	12.000	11.056	11.188	10.286	10.624	10.647
M12	1.25	4g6g	11.760	11.972	11.075	11.160	10.305	10.577	10.619
M12	1.00	6g	11.794	11.974	11.206	11.324	10.590	10.876	10.891
M12	1.00	6h	11.820	12.000	11.232	11.350	10.616	10.902	10.917
M12	1.00	4g6g	11.794	11.974	11.249	11.324	10.633	10.861	10.891
M14	2.00	6g	13.682	13.962	12.503	12.663	11.271	11.742	11.797
M14	2.00	6h	13.720	14.000	12.541	12.701	11.309	11.780	11.835
M14	2.00	4g6g	13.682	13.962	12.563	12.663	11.331	11.711	11.797
M14	1.50	6g	13.732	13.968	12.854	12.994	11.930	12.311	12.344
M14	1.50	6h	13.764	14.000	12.886	13.026	11.962	12.343	12.376
M14	1.50	4g6g	13.732	13.968	12.904	12.994	11.980	12.289	12.344
M15	1.00	6g	14.794	14.974	14.206	14.324	13.590	13.876	13.891
M15	1.00	6h	14.820	15.000	14.232	14.350	13.616	13.902	13.917
M15	1.00	4g6g	14.794	14.974	14.249	14.324	13.633	13.861	13.891
M16	2.00	6g	15.682	15.962	14.503	14.663	13.271	13.742	13.797
M16	2.00	6h	15.720	16.000	14.541	14.701	13.309	13.780	13.835
M16	2.00	4g6g	15.682	15.962	14.563	14.663	13.331	13.711	13.797
M16	1.50	6g	15.732	15.968	14.854	14.994	13.930	14.311	14.344
M16	1.50	6h	15.764	16.000	14.886	15.026	13.962	14.343	14.376
M16	1.50	4g6g	15.732	15.968	14.904	14.994	13.980	14.289	14.344
M17	1.00	6g	16.794	16.974	16.206	16.324	15.590	15.876	15.891

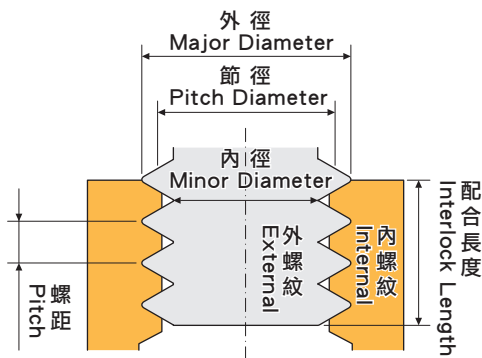
Table7. ISO公制外螺紋尺寸表

ISO Metric External Thread Size



螺紋 Thread	螺距 Pitch	外螺紋 External Thread (mm)							
		配合等級 Tolerance Class	外徑 Major Diameter		節徑 Pitch Diameter		內徑 Minor Diameter		
			最小 Min	最大 Max	最小 Min	最大 Max	(R角) 最小 Min	(R角) 最大 Max	(平面 Flat) 最大 Max
M17	1.00	6h	16.820	17.000	16.232	16.350	15.616	15.902	15.917
M17	1.00	4g6g	16.794	16.974	16.249	16.324	15.633	15.861	15.891
M18	1.50	6g	17.732	17.968	16.854	16.994	15.930	16.311	16.344
M18	1.50	6h	17.764	18.000	16.886	17.026	15.962	16.343	16.376
M18	1.50	4g6g	17.732	17.968	16.904	16.994	15.980	16.289	16.344
M20	2.50	6g	19.623	19.958	18.164	18.334	16.624	17.169	17.251
M20	2.50	6h	19.665	20.000	18.206	18.376	16.666	17.211	17.293
M20	2.50	4g6g	19.623	19.958	18.228	18.334	16.688	17.131	17.251
M20	1.50	6g	19.732	19.968	18.854	18.994	17.930	18.311	18.344
M20	1.50	6h	19.764	20.000	18.886	19.026	17.962	18.343	18.376
M20	1.50	4g6g	19.732	19.968	18.904	18.994	17.980	18.289	18.344
M20	1.00	6g	19.794	19.974	19.206	19.324	18.590	18.876	18.891
M20	1.00	6h	19.820	20.000	19.232	19.350	18.616	18.902	18.917
M20	1.00	4g6g	19.794	19.974	19.249	19.324	18.633	18.861	18.891
M22	2.50	6g	21.623	21.958	20.164	20.334	18.624	19.169	19.251
M22	2.50	6h	21.665	22.000	20.206	20.376	18.666	19.211	19.293
M22	1.50	6g	21.732	21.968	20.854	20.994	19.930	20.311	20.344
M22	1.50	6h	21.764	22.000	20.886	21.026	19.962	20.343	20.376
M22	1.50	4g6g	21.732	21.968	20.904	20.994	19.980	20.289	20.344
M24	3.00	6g	23.577	23.952	21.803	22.003	19.955	20.603	20.704
M24	3.00	6h	23.625	24.000	21.851	22.051	20.003	20.651	20.752
M24	3.00	4g6g	23.577	23.952	21.878	22.003	20.030	20.557	20.704
M24	2.00	6g	23.682	23.962	22.493	22.663	21.261	21.746	21.797
M24	2.00	6h	23.720	24.000	22.531	22.701	21.299	21.784	21.835
M24	2.00	4g6g	23.682	23.962	22.557	22.663	21.325	21.714	21.797
M25	1.50	6g	24.732	24.968	23.844	23.994	22.920	23.314	23.344
M25	1.50	6h	24.764	25.000	23.876	24.026	22.952	23.346	23.376
M25	1.50	4g6g	24.732	24.968	23.899	23.994	22.975	23.291	23.344
M27	3.00	6g	26.577	26.952	24.803	25.003	22.955	23.603	23.704
M27	3.00	6h	26.625	27.000	24.851	25.051	23.003	23.651	23.752
M27	2.00	6g	26.682	26.962	25.493	25.663	24.261	24.746	24.797
M27	2.00	6h	26.720	27.000	25.531	25.701	24.299	24.784	24.835
M27	2.00	4g6g	26.682	26.962	25.557	25.663	24.325	24.714	24.797
M30	3.50	6g	29.522	29.947	27.462	27.674	25.306	26.029	26.158
M30	3.50	6h	29.575	30.000	27.515	27.727	25.359	26.082	26.211

Table7. ISO公制外螺紋尺寸表 ISO Metric External Thread Size

[illegible]