

ねじの下穴径は、JIS B 1004でひっかり率60%以上として規定されていますが、一方のJIS B 2009「一般用メートルねじ公差」によってめねじの内径寸法で規定されており、この場合のひっかり率は80%~90%の範囲となります。ひっかり率が100%に近くなると、下穴径が小さくなるために、切削トルクの増大やタップ折損などの原因になりますので、下穴の設定にはご注意ください。

Hole diameters of threads are provided in JIS B1004 as 60% or more of percentage of thread engagement. However, in "JIS B 2009 metric threads for general use-tolerance", are provided by the minor diameters of internal threads; in this case the percentage of thread engagement is within the range of 80~90%. If the percentage of thread engagement is close to 100%, the hole diameter becomes small, which lead to higher cutting torque and can cause tap breakage. Care is therefore needed when setting a hole.

### 切削タップの下穴径計算式

$$\text{下穴径 } D_k = \text{おねじの外径} - (2 \times h \times (\text{ひっかり率} / 100))$$

h: ひっかりりの高さ (各ねじの種類は下記のようになってます)

- 0.541266 × ピッチ……メートル M・ユニファイ U
- 0.6403 × ピッチ……ウイト W
- 0.6495 × ピッチ……ミシンねじ SM
- 0.640327 × ピッチ……管用平行ねじ G (PF)

### ひっかり率の計算式

$$\text{ひっかり率} = \frac{(\text{おねじの外径} - \text{下穴径})}{2 \times \text{ひっかりりの高さ}} \times 100 (\%)$$

Formula for calculating hole diameters of cutting taps:

$$\text{Hole dia. (Dk)} = \text{major dia. of external thread} - (2 \times h \times (\text{percentage of thread engagement} / 100))$$

h: Height of thread engagement (types of each thread are as follows)

- 0.541266 × pitch……metric M, unified U
- 0.6403 × pitch……Whitworth W
- 0.6495 × pitch……screw threads for sewing machine SM
- 0.640327 × pitch……parallel pipe threads G (PF)

Formula for calculating percentage of thread engagement:

$$\text{Percentage of thread engagement} = \frac{(\text{major dia. of external thread} - \text{hole diameter})}{2 \times \text{height of thread engagement}} \times 100 (\%)$$

### 一般用メートルねじ M用下穴径表

Hole size for general application Metric threads

単位 (Unit): mm

単位 (Unit): mm

呼び Nominal size	ピッチ Pitch	ひっかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
M1	0.25	0.73	0.76	0.78	0.81	0.729~0.785
	0.2	0.78	0.81	0.83	0.85	0.783~0.821
M1.1	0.25	0.83	0.86	0.88	0.91	0.829~0.885
	0.2	0.88	0.91	0.93	0.95	0.883~0.921
M1.2	0.25	0.93	0.96	0.98	1.01	0.929~0.985
	0.2	0.98	1.01	1.03	1.05	0.983~1.021
M1.4	0.3	1.08	1.11	1.14	1.17	1.075~1.142
	0.2	1.18	1.21	1.23	1.25	1.183~1.221
M1.6	0.35	1.22	1.26	1.3	1.33	1.221~1.321
	0.2	1.38	1.41	1.43	1.45	1.383~1.421
M1.7	0.35	1.32	1.36	1.4	1.43	1.321~1.421
	0.2	1.48	1.51	1.53	1.55	1.483~1.521
M1.8	0.35	1.42	1.46	1.5	1.53	1.421~1.521
	0.2	1.58	1.61	1.63	1.65	1.583~1.621
M2	0.4	1.57	1.61	1.65	1.7	1.567~1.679
	0.25	1.73	1.76	1.78	1.81	1.729~1.785
M2.2	0.45	1.71	1.76	1.81	1.86	1.713~1.838
	0.25	1.93	1.96	1.98	2.01	1.929~1.985

呼び Nominal size	ピッチ Pitch	ひっかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
M2.3	0.4	1.87	1.91	1.95	2	1.867~1.979
	0.25	2.03	2.06	2.08	2.11	2.029~2.085
M2.5	0.45	2.01	2.06	2.11	2.16	2.013~2.138
	0.35	2.12	2.16	2.2	2.23	2.121~2.221
M2.6	0.45	2.11	2.16	2.21	2.26	2.113~2.238
	0.35	2.22	2.26	2.3	2.33	2.221~2.321
M3	0.6	2.35	2.42	2.48	2.55	2.350~2.540
	0.5	2.46	2.51	2.57	2.62	2.459~2.599
	0.35	2.62	2.66	2.7	2.73	2.621~2.721
M3.5	0.6	2.85	2.92	2.98	3.05	2.850~3.010
	0.35	3.12	3.16	3.2	3.23	3.121~3.221
M4	0.75	3.19	3.27	3.35	3.43	3.188~3.378
	0.7	3.24	3.32	3.39	3.47	3.242~3.422
	0.5	3.46	3.51	3.57	3.62	3.459~3.599
M4.5	0.75	3.69	3.77	3.85	3.93	3.688~3.878
	0.5	3.96	4.01	4.07	4.12	3.959~4.099
M5	0.9	4.03	4.12	4.22	4.32	4.026~4.266
	0.8	4.13	4.22	4.31	4.39	4.134~4.334
	0.5	4.46	4.51	4.57	4.62	4.459~4.599

# 切削タップの下穴径

## Hole Diameter of Cutting Taps

### 一般用メートルねじ M用下穴径表

Hole size for general Metric threads

単位 (Unit) : mm

呼び Nominal size	ピッチ Pitch	ひっかかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
M5.5	0.9	4.53	4.62	4.72	4.82	4.526~ 4.866
	0.5	4.96	5.01	5.07	5.12	4.959~ 5.099
M6	1	4.92	5.03	5.13	5.24	4.917~ 5.153
	0.75	5.19	5.27	5.35	5.43	5.188~ 5.378
	0.5	5.46	5.51	5.57	5.62	5.459~ 5.599
M7	1	5.92	6.03	6.13	6.24	5.917~ 6.153
	0.75	6.19	6.27	6.35	6.43	6.188~ 6.378
	0.5	6.46	6.51	6.57	6.62	6.459~ 6.599
M8	1.25	6.65	6.78	6.92	7.05	6.647~ 6.912
	1	6.92	7.03	7.13	7.24	6.917~ 7.153
	0.75	7.19	7.27	7.35	7.43	7.188~ 7.378
	0.5	7.46	7.51	7.57	7.62	7.459~ 7.599
M9	1.25	7.65	7.78	7.92	8.05	7.647~ 7.912
	1	7.92	8.03	8.13	8.24	7.917~ 8.153
	0.75	8.19	8.27	8.35	8.43	8.188~ 8.378
	0.5	8.46	8.51	8.57	8.62	8.459~ 8.599
M10	1.5	8.38	8.54	8.7	8.86	8.376~ 8.676
	1.25	8.65	8.78	8.92	9.05	8.647~ 8.912
	1	8.92	9.03	9.13	9.24	8.917~ 9.153
	0.75	9.19	9.27	9.35	9.43	9.188~ 9.378
	0.5	9.46	9.51	9.57	9.62	9.459~ 9.599
M11	1.5	9.38	9.54	9.7	9.86	9.376~ 9.676
	1	9.92	10.03	10.13	10.24	9.917~10.153
	0.75	10.19	10.27	10.35	10.43	10.188~10.378
M12	1.75	10.11	10.3	10.48	10.67	10.106~10.441
	1.5	10.38	10.54	10.7	10.86	10.376~10.676
	1.25	10.65	10.78	10.92	11.05	10.647~10.912
	1	10.92	11.03	11.13	11.24	10.917~11.153
M14	2	11.8	12.1	12.3	12.5	11.835~12.210
	1.5	12.38	12.54	12.7	12.86	12.376~12.676
	1.25	12.65	12.78	12.92	13.05	12.647~12.912
	1	12.92	13.03	13.13	13.24	12.917~13.153
M15	1.5	13.38	13.54	13.7	13.86	13.376~13.612
	1	13.92	14.03	14.13	14.24	13.917~14.153
M16	2	13.8	14.1	14.3	14.5	13.835~14.210
	1.5	14.38	14.54	14.7	14.86	14.376~14.676
	1	14.92	15.03	15.13	15.24	14.917~15.153
M17	1.5	15.38	15.54	15.7	15.86	15.376~15.676
	1	15.92	16.03	16.13	16.24	15.917~16.153
M18	2.5	15.3	15.6	15.8	16.1	15.294~15.744
	2	15.8	16.1	16.3	16.5	15.835~16.210
	1.5	16.38	16.54	16.7	16.86	16.376~16.676
	1	16.92	17.03	17.13	17.24	16.917~17.153
M20	2.5	17.3	17.6	17.8	18.1	17.294~17.744
	2	17.8	18.1	18.3	18.5	17.835~18.210
	1.5	18.38	18.54	18.7	18.86	18.376~18.676
	1	18.92	19.03	19.13	19.24	18.917~19.153

単位 (Unit) : mm

呼び Nominal size	ピッチ Pitch	ひっかかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
M22	2.5	19.3	19.6	19.8	20.1	19.294~19.744
	2	19.8	20.1	20.3	20.5	19.835~20.210
	1.5	20.38	20.54	20.7	20.86	20.376~20.676
M24	3	20.92	21.03	21.13	21.24	20.917~21.153
	2	20.8	21.1	21.4	21.7	20.752~21.252
	1.5	21.8	22.1	22.3	22.5	21.835~22.210
M25	1	22.38	22.54	22.7	22.86	22.376~22.676
	1	22.92	23.03	23.13	23.24	22.917~23.153
	2	22.8	23.1	23.3	23.5	22.835~23.210
M26	1.5	23.38	23.54	23.7	23.86	23.376~23.676
	1	23.92	24.03	24.13	24.24	23.917~24.153
	1.5	24.38	24.54	24.7	24.86	24.376~24.676
M27	3	24.38	24.54	24.7	24.86	24.376~24.676
	2	23.8	24.1	24.4	24.7	23.752~24.252
	1.5	24.8	25.1	25.3	25.5	24.835~25.210
	1	25.38	25.54	25.7	25.86	25.376~25.676
M28	1	25.92	26.03	26.13	26.24	25.917~26.153
	2	25.8	26.1	26.3	26.5	25.835~26.210
	1.5	26.38	26.54	26.7	26.86	26.376~26.676
	1	26.92	27.03	27.13	27.24	26.917~27.153
M30	3.5	26.2	26.6	27.0	27.4	26.211~26.771
	3	26.8	27.1	27.4	27.7	26.752~27.252
	2	27.8	28.1	28.3	28.5	27.835~28.210
M32	1.5	28.38	28.54	28.7	28.86	28.376~28.676
	1	28.92	29.03	29.13	29.24	28.917~29.153
	2	29.8	30.1	30.3	30.5	29.835~30.210
M33	1.5	30.38	30.54	30.7	30.86	30.376~30.676
	3.5	29.2	29.6	30.0	30.4	29.211~29.771
	3	29.8	30.1	30.4	30.7	29.752~30.252
M35	2	30.8	31.1	31.3	31.5	30.835~31.210
	1.5	31.38	31.54	31.7	31.86	31.376~31.676
	1.5	33.38	33.54	33.7	33.86	33.376~33.676
M36	4	31.7	32.1	32.5	33.0	31.670~32.270
	3	32.8	33.1	33.4	33.7	32.752~33.252
	2	33.8	34.1	34.3	34.5	33.835~34.210
M38	1.5	34.38	34.54	34.7	34.86	34.376~34.676
	1.5	36.38	36.54	36.7	36.86	36.376~36.676
	4	34.7	35.1	35.5	36.0	34.670~35.270
M39	3	35.8	36.1	36.4	36.7	35.752~36.252
	2	36.8	37.1	37.3	37.5	36.835~37.210
	1.5	37.38	37.54	37.7	37.86	37.376~37.676
M40	3	36.8	37.1	37.4	37.7	36.752~37.252
	2	37.8	38.1	38.3	38.5	37.835~38.210
	1.5	38.38	38.54	38.7	38.86	38.376~38.676
M42	4.5	37.1	37.6	38.1	38.6	37.129~37.799
	4	37.7	38.1	38.5	39.0	37.670~38.270
	3	38.8	39.1	39.4	39.7	38.752~39.252
	2	39.8	40.1	40.3	40.5	39.835~40.210
	1.5	40.38	40.54	40.7	40.86	40.376~40.676

### 一般用メートルねじ M用下穴径表

Hole size for general Metric threads

単位 (Unit) : mm

呼び Nominal size	ピッチ Pitch	ひっかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
M45	4.5	40.1	40.6	41.1	41.6	40.129~40.799
	4	40.7	41.1	41.5	42.0	40.670~41.270
	3	41.8	42.1	42.4	42.7	41.752~42.252
	2	42.8	43.1	43.3	43.5	42.835~43.210
	1.5	43.38	43.54	43.7	43.86	43.376~43.676
M48	5	42.6	43.1	43.7	44.2	42.587~43.297
	4	43.7	44.1	44.5	45.0	43.670~44.270
	3	44.8	45.1	45.4	45.7	44.752~45.252
	2	45.8	46.1	46.3	46.5	45.835~46.210
	1.5	46.38	46.54	46.7	46.86	46.376~46.676

単位 (Unit) : mm

呼び Nominal size	ピッチ Pitch	ひっかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
M50	3	46.8	47.1	47.4	47.7	46.752~47.252
	2	47.8	48.1	48.3	48.5	47.835~48.210
	1.5	48.38	48.54	48.7	48.86	48.376~48.676

注1)

めねじ内径の許容寸法は最小寸法から6Hまでの寸法を表示しました。

但し、M1.8×0.2以下の細目ねじは4H、M2×0.25以下の細目ねじは5Hとなります。

Note 1)

The allowable minor diameter indicates sizes from minimum to 6H, but the fine threads smaller than M1.8×0.2 are 4H and that of smaller than M2×0.25 are 5H.

### ユニファイねじ U用下穴径表

Hole size for U application Unified threads

単位 (Unit) : mm

呼び Nominal size	山数 No. of threads	ひっかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
No. 0	80	1.18	1.21	1.25	1.28	1.182~ 1.305
	64	1.42	1.47	1.51	1.55	1.425~ 1.582
No. 1	72	1.47	1.51	1.55	1.59	1.474~ 1.612
	56	1.69	1.74	1.79	1.84	1.695~ 1.871
No. 2	64	1.75	1.8	1.84	1.88	1.756~ 1.912
	48	1.94	2	2.06	2.11	1.941~ 2.146
No. 3	56	2.02	2.07	2.12	2.17	2.025~ 2.197
	40	2.16	2.23	2.3	2.36	2.157~ 2.385
No. 4	48	2.27	2.33	2.39	2.44	2.271~ 2.458
	40	2.49	2.56	2.63	2.69	2.487~ 2.697
No. 5	44	2.55	2.61	2.68	2.74	2.551~ 2.740
	32	2.65	2.73	2.82	2.90	2.642~ 2.895
No. 6	40	2.82	2.89	2.96	3.02	2.820~ 3.022
	32	3.31	3.39	3.48	3.56	3.302~ 3.530
No. 8	36	3.4	3.48	3.55	3.63	3.404~ 3.606
	24	3.68	3.79	3.91	4.02	3.683~ 3.962
No.10	32	3.97	4.05	4.14	4.22	3.963~ 4.165
	24	4.34	4.45	4.57	4.68	4.344~ 4.597
No.12	28	4.5	4.6	4.7	4.8	4.496~ 4.724
	U 1/4	20	4.98	5.11	5.25	5.39
U 5/16	28	5.37	5.47	5.56	5.66	5.360~ 5.588
	18	6.41	6.56	6.72	6.87	6.401~ 6.731
U 3/8	24	6.79	6.91	7.02	7.14	6.782~ 7.035
	16	7.81	7.98	8.15	8.32	7.798~ 8.153
U 7/16	24	8.38	8.49	8.61	8.72	8.382~ 8.636
	14	9.2	9.3	9.5	9.7	9.144~ 9.550
U 1 1/8	20	9.74	9.87	10.01	10.15	9.729~10.033

単位 (Unit) : mm

呼び Nominal size	山数 No. of threads	ひっかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)				めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	70%	
U 1/2	13	10.6	10.8	11.0	11.2	10.592~11.023
	20	11.33	11.46	11.6	11.74	11.329~11.607
U 9/16	12	12.0	12.2	12.5	12.7	11.989~12.446
	18	12.76	12.91	13.07	13.22	12.751~13.081
U 5/8	11	13.4	13.6	13.9	14.1	13.386~13.868
	18	14.35	14.5	14.65	14.81	14.351~14.681
U 3/4	10	16.3	16.6	16.9	17.1	16.307~16.840
	16	17.33	17.5	17.68	17.85	17.323~17.678
U 7/8	9	19.2	19.5	19.8	20.1	19.177~19.761
	14	20.3	20.5	20.7	20.9	20.270~20.675
U 1	8	22.0	22.3	22.7	23.0	21.971~22.606
	12	23.1	23.3	23.6	23.8	23.114~23.571
U 1 1/8	7	24.7	25.0	25.4	25.8	24.638~25.349
	12	26.3	26.5	26.7	27.0	26.289~26.746
U 1 1/4	7	27.8	28.2	28.6	29.0	27.813~28.524
	12	29.5	29.7	29.9	30.2	29.464~29.921
U 1 3/8	6	30.3	30.8	31.3	31.7	30.353~31.115
	12	32.6	32.9	33.1	33.3	32.639~33.096
U 1 1/2	6	33.5	34.0	34.4	34.9	33.528~34.290
	12	35.8	36.0	36.3	36.5	35.814~36.271
U 1 3/4	5	39.0	39.5	40.1	40.6	38.964~39.827
	U 2	4 1/2	44.7	45.3	45.9	46.5

注1)

めねじ内径の許容寸法は最小寸法から2Bまでの寸法を表示しました。

Note 1)

The allowable minor diameter indicates sizes from minimum to 2B.

# 切削タップの下穴径

## Hole Diameter of Cutting Taps

### ウィット並目ねじ W 用下穴径表

Hole size for W application Whitwors threads

単位 (Unit) : mm

呼び Nominal size	山数 No. of threads	ひっかかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)			めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	
W 1/8	40	-	2.44	2.52	2.61 (2.362~ 2.591)
W 3/16	24	-	3.54	3.68	3.81 (3.406~ 3.744)
W 1/4	20	-	4.89	5.05	5.21 4.914~ 5.204
W 5/16	18	-	6.31	6.49	6.67 6.340~ 6.670
W 3/8	16	-	7.7	7.9	8.1 7.733~ 8.113
W 7/16	14	-	9.0	9.3	9.5 9.048~ 9.508
W 1/2	12	-	10.3	10.5	10.8 10.310~10.830
W 5/8	12	-	11.9	12.1	12.4 11.898~12.418
W 3/4	11	-	13.2	13.5	13.8 13.257~13.817
W 7/8	10	-	16.1	16.5	16.8 16.178~16.778
W 1	9	-	19.0	19.3	19.7 19.031~19.691
W 1 1/8	8	-	21.7	22.2	22.6 21.814~22.514
W 1 1/4	7	-	24.4	24.9	25.3 24.469~25.229
W 1 1/2	7	-	27.6	28.0	28.5 27.644~28.404
W 1 3/8	6	-	30.1	30.6	31.1 30.123~30.923
W 1 1/2	6	-	33.2	33.8	34.3 33.298~34.098
W 1 5/8	5	-	35.4	36.1	36.7 35.529~36.409
W 1 3/4	5	-	38.6	39.3	39.9 38.704~39.584
W 1 7/8	4 1/2	-	41.1	41.8	42.6 41.237~42.227
W 2	4 1/2	-	44.3	45.0	45.7 44.412~45.402

注1)  
旧JISにより、内径の許容寸法は最小寸法から2級・3級・4級までの寸法を表示しました。  
注2)  
表中( )内数値はBSWに準じています。

Note 1)  
By the former JIS, the allowable minor diameter indicates sizes from minimum to class 2, 3 and 4.  
Note 2)  
W 3/32 or smaller is converted from the former JIS.

### ミシンねじ SM 用下穴径表

Hole size for SM application sewing machine threads

単位 (Unit) : mm

呼び Nominal size	山数 No. of threads	ひっかかり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)			めねじの内径寸法 Minor dia of internal thread
		100%	90%	80%	
SM 3/32	56	-	1.85	1.91	1.97 1.841~ 1.936
SM 1/8	48	-	2.56	2.63	2.69 2.547~ 2.657
	44	-	2.5	2.58	2.65 2.485~ 2.605
	40	-	2.43	2.52	2.6 2.421~ 2.551
SM 9/64	40	-	2.83	2.91	2.99 2.818~ 2.948
SM 1/16	40	-	3.62	3.71	3.79 3.612~ 3.742
	32	-	3.44	3.54	3.64 3.424~ 3.584
SM 3/16	40	-	4.02	4.1	4.18 4.008~ 4.138
	32	-	3.83	3.94	4.04 3.820~ 3.980
	28	-	3.7	3.82	3.94 3.684~ 3.844
	24	-	3.52	3.66	3.8 3.498~ 3.658
SM 13/64	32	-	4.23	4.33	4.44 4.217~ 4.377
SM 7/32	32	-	4.63	4.73	4.83 4.614~ 4.774
SM 15/64	28	-	4.89	5.01	5.13 4.875~ 5.055
SM 1/4	40	-	5.61	5.69	5.77 5.596~ 5.726
	28	-	5.29	5.41	5.53 5.272~ 5.452
	24	-	5.11	5.25	5.39 5.086~ 5.266
	SM 9/32	28	-	6.08	6.2
SM 5/16	20	-	5.66	5.82	5.99 5.634~ 5.824
	28	-	6.88	7.0	7.11 6.860~ 7.050
	24	-	6.7	6.84	6.98 6.674~ 6.864
SM 11/32	18	-	6.29	6.47	6.65 6.254~ 6.444
	SM 11/32	28	-	7.67	7.79
SM 3/8	28	-	8.46	8.58	8.7 8.447~ 8.637
	18	-	7.88	8.06	8.24 7.843~ 8.053
SM 7/16	28	-	10.05	10.17	10.29 10.034~10.224
	16	-	9.26	9.46	9.67 9.220~ 9.440
SM 1/2	28	-	11.64	11.76	11.88 11.622~11.812
	20	-	11.22	11.38	11.55 11.190~11.410
	12	-	10.23	10.5	10.78 10.180~10.420
SM 9/16	20	-	12.8	12.97	13.13 12.778~13.018

注1)  
旧JISにより、内径の許容寸法は最小寸法から2級までの寸法を表示しました。

Note 1)  
By the former JIS, the allowable minor diameter indicates sizes from minimum to class 2.

## JIS管用平行ねじ G (PF) 用下穴径表

Hole size for JIS parallel pipe threads (G:PF)

単位 (Unit): mm

呼び Nominal size	外径 O.D	ひっかけり率別下穴径 (mm) Percentage of thread engagement hole diameter (mm)							めねじの内径寸法 Minor dia of internal thread
		100%	95%	90%	85%	80%	75%	70%	
1/16	7.723	6.56	6.62	6.68	6.74	6.79	6.85	6.91	6.561~ 6.843
1/8	9.728	8.57	8.62	8.68	8.74	8.8	8.86	8.91	8.566~ 8.848
1/4	13.157	11.45	11.53	11.62	11.7	11.79	11.87	11.96	11.445~11.890
3/8	16.662	14.95	15.04	15.12	15.21	15.29	15.38	15.46	14.950~15.395
1/2	20.955	18.6	18.8	18.9	19.0	19.1	19.2	19.3	18.631~19.172
5/8	22.911	20.6	20.7	20.8	20.9	21.1	21.2	21.3	20.589~21.130
3/4	26.441	24.1	24.2	24.4	24.5	24.6	24.7	24.8	24.117~24.658
7/8	30.201	27.9	28.0	28.1	28.2	28.3	28.5	28.6	27.877~28.418
1	33.249	30.3	30.4	30.6	30.7	30.9	31.0	31.2	30.291~30.931
1 1/8	37.897	34.9	35.1	35.2	35.4	35.5	35.7	35.8	34.939~35.579
1 1/4	41.91	39.0	39.1	39.3	39.4	39.5	39.7	39.8	38.952~39.592
1 3/8	44.323	41.4	41.5	41.7	41.8	42.0	42.1	42.3	41.365~42.005
1 1/2	47.803	44.9	45.0	45.1	45.3	45.4	45.6	45.7	44.845~45.485
1 3/4	53.746	50.8	50.9	51.1	51.2	51.4	51.5	51.7	50.788~51.428
2	59.614	56.7	56.8	57.0	57.1	57.3	57.4	57.5	56.656~57.296

注1)

旧JISにより、内径の許容寸法は最小寸法からA級・B級までの寸法を表示しました。

Note 1)

By the former JIS, the allowable minor diameter indicates sizes from minimum to class A and B.

## JIS管用テーパねじ Rc (PT)・Rp (PS) 用下穴径表

Hole size for JIS taper pipe threads (Rp:PS)

単位 (Unit): mm

呼び Nominal size	外径 O.D	テーパねじ Rc (PT) Taper threads Rc (PT)		平行ねじ Rp (PS) Parallel threads Rp (PS)
		下穴径 (ストレート穴) Hole Dia. (Straight hole)	下穴径 (テーパ穴) Hole Dia. (Taper hole)	下穴径 Hole Dia.
1/16	7.723	6.17	6.49	6.49
1/8	9.728	8.18	8.50	8.50
1/4	13.157	10.86	11.34	11.34
3/8	16.662	14.34	14.85	14.85
1/2	20.955	17.84	18.49	18.49
3/4	26.441	23.24	23.98	23.98
1	33.249	29.28	30.11	30.11
1 1/4	41.91	37.80	38.77	38.77
1 1/2	47.803	43.69	44.66	44.66
2	59.614	55.23	56.48	56.48

注1)

テーパ穴の下穴径は、基準位置の大径側を表示してあります。

Note 1)

The diameters of tapered hole is indicated large side diameters of basic point.

# 切削タップの下穴径

## Hole Diameter of Cutting Taps

### アメリカ管用ねじ NPT・NPS用下穴径表

Hole size for American pipe threads NPT・NPS

単位 (Unit) : inch(mm)

呼び Nominal size	テーパねじ NPT Taper threads NPT		平行ねじ NPS Parallel threads NPS
	リーマを使用した場合 When reamer is applied	リーマを使用しない場合 When no reamer is applied	ドリル径 Drill dia.
1/16	0.234( 5.94)	0.242( 6.15)	0.250( 6.35)
1/8	0.328( 8.33)	0.332( 8.43)	0.344( 8.74)
1/4	0.422(10.72)	0.438(11.13)	0.438(11.13)
3/8	0.562(14.27)	0.562(14.27)	0.578(14.68)
1/2	0.688(17.48)	0.703(17.86)	0.719(18.26)
3/4	0.891(22.63)	0.906(23.01)	0.922(23.42)
1	1.125(28.58)	1.141(28.98)	1.156(29.36)
1 1/4	1.469(37.31)	1.484(37.96)	1.500(38.10)
1 1/2	1.703(43.26)	1.719(43.66)	1.750(44.45)
2	2.172(55.17)	2.188(55.58)	2.219(56.36)

注)  
この表は、アメリカ管用ねじANSI/ASME B1.20.1-1983 Pipe Thread : Suggested Twist Drill Diameters for Drill Hole Sizes for Pipe threadsより抜粋したものです。

Note)  
The table shown data of American Pipe Threads extracted from [ANSI B1. 20.1-1983 Pipe Thread : Suggested Twist Drill Diameters for Drill Hole Sizes for Pipe threads]

### アメリカドライシール管用ねじ NPTF・NPSF/NPSI 用下穴径表

Hole size for American pipe threads for dry-seal NPTF・NPSF/NPSI

単位 (Unit) : inch(mm)

呼び Nominal size	テーパねじ NPTF Taper threads NPTF		平行ねじ NPSF NPSI Parallel threads NPSF NPSI		
			内径 Minor Dia.		ドリル径 Drill dia.
	リーマを使用した場合 When reamer is applied	リーマを使用しない場合 When no reamer is applied	NPSF	NPSI	
1/16	0.234( 5.94)	0.242( 6.15)	0.2482	0.2505	0.246( 6.25)
1/8	0.328( 8.33)	0.332( 8.43)	0.3406	0.3429	0.339( 8.61)
1/4	0.422(10.72)	0.438(11.13)	0.4422	0.4457	0.438(11.13)
3/8	0.563(14.30)	0.562(14.28)	0.5776	0.5811	0.578(14.68)
1/2	0.688(17.48)	0.703(17.86)	0.7133	0.7180	0.703(17.86)
3/4	0.891(22.63)	0.906(23.01)	0.9238	0.9283	0.922(23.42)
1	1.125(28.58)	1.141(28.98)	1.1600	1.1655	1.156(29.36)
1 1/4	1.469(37.31)	1.484(37.69)	-	-	-
1 1/2	1.703(43.26)	1.719(43.66)	-	-	-
2	2.372(60.25)	2.188(55.58)	-	-	-

注)  
この表は、アメリカ管用ねじANSI B1.20.3-1976 Pipe Thread : Suggested Tap Drill Sizes for Internal Dryseal Pipe threadsより抜粋したものです。

Note)  
The table shown data of American Pipe Threads extracted from [ANSI B1. 20.3-1976 Pipe Thread : Suggested Tap Drill Sizes for internal Dryseal Pipe threads]