

CPC-S CPC-T CPR-S CPR-T

Check Pins
(Straight Type)

Check Pins
(Taper Type)

Check Pins for Forming Taps
(Straight Type)

Check Pins for Forming Taps
(Taper Type)

Accurate pre-tapped hole sizes are the key to high-quality threads.
You can easily and accurately check pre-tapped hole sizes.

Check Pin Series



Important

Are you checking pre-tapped hole sizes?

CPC-S

Check Pins (Straight Type)
CPC-S (5 pcs/set)

HSS



CPC-T

Check Pins (Taper Type)
CPC-T (1 pc)

HSS



CPR-S

Check Pins for Forming Taps (Straight Type)
CPR-S

HSS



CPR-T

Check Pins for Forming Taps (Taper Type)
CPR-T

HSS



General process for tapping



This single tool enables simultaneous inspection of the pre-tapped hole size and condition.

Check the finished threads.
<https://www.yamawa.com/en/download/leaflet.html?itemid=505&dispmid=693>

◀ CPS-S straight type

Step. 5

Simple thread inspection tool

Step. 1

Positioning & Chamfering

Point drill PE-Q-V



Step. 2

Drilling



Step. 3

Reaming



Step. 4

Tapping



SIT



Key point



Appropriate pre-tapped hole sizes

- Longer tap tool life
- Improve the quality of internal threads

Total cost savings



■ Check the pre-tapped hole conditions before tapping!



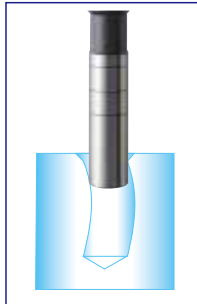
In some cases, the pre-tapped hole may not be machined to the required accuracy.



Case 1

— Bending —

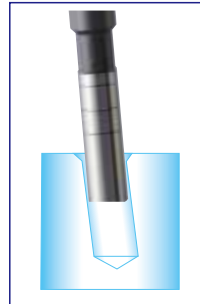
The check pin does not pass through and becomes stuck partway.



Case 2

— Inclination —

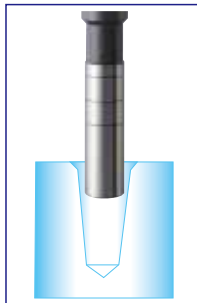
The pre-tapped hole is not perpendicular to the end surface of the workpiece.



Case 3

— Enlargement at the pre-tapped hole entrance —

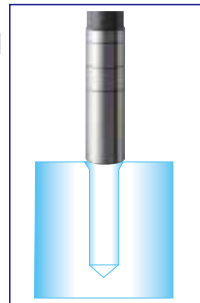
The entrance diameter is too large.



Case 4

— Undersized pre-tapped hole diameter —

The pre-tapped hole diameter is smaller than the specified minimum value.



■ Problems caused by defects in the pre-tapped hole

- 1) Bended pre-tapped hole
- 2) Inclined pre-tapped hole
- 3) Enlargement at the pre-tapped hole entrance
- 4) Undersized pre-tapped hole etc.



Proper pre-tapped hole machining and optimal sizing help reduce tapping issues and extend tool life. Let's check pre-tapped hole size and condition before tapping.

CPC-S (For Metric Threads)

Check Pins (Straight Type) (5 pcs/set)

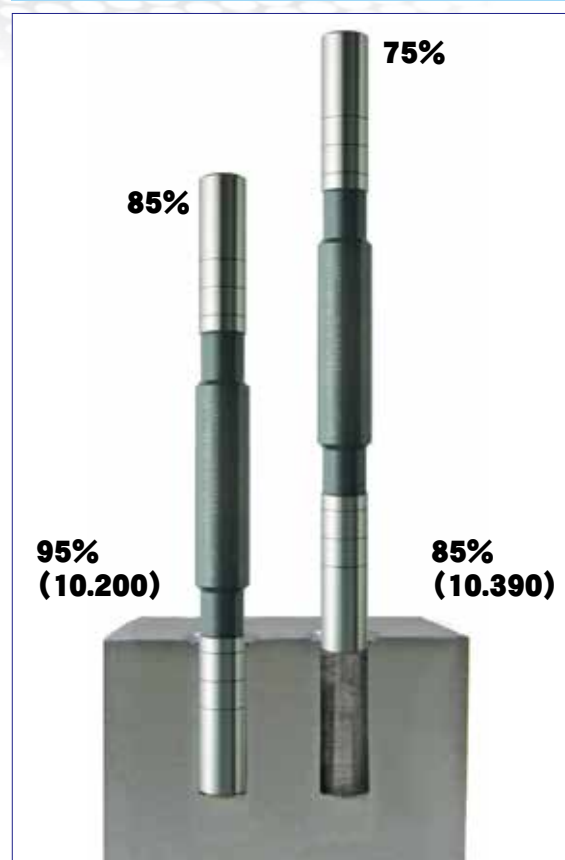
HSS



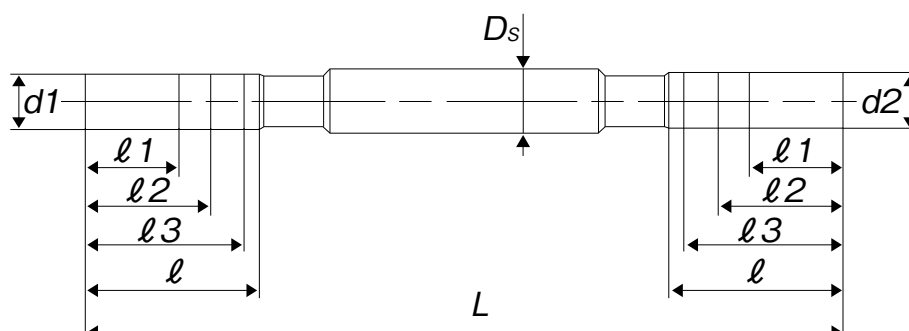
■ Example: M12X1.75 (Hole size $\phi 10.37$)

Features

1. This 5-piece set enables checking various pre-tapped hole diameters and depths.
2. Manufactured from wear-resistant high-speed steel.
3. Applicable to both through and blind holes.



■ Dimensions



Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
M2 ×0.4	CPCS2.0EA	41.5	5.5	1.567 (100%)	1.610 (90%)	3.0	4.0	5.0	3.0
	CPCS2.0EB			1.589 (95%)	1.632 (85%)				
	CPCS2.0EC			1.610 (90%)	1.654 (80%)				
	CPCS2.0ED			1.632 (85%)	1.675 (75%)				
	CPCS2.0EE			1.654 (80%)	1.697 (70%)				
	CPCS2.0EF			1.675 (75%)	1.719 (65%)				
	CPCS2.0EM	*5 pcs/set CPCS2.0EB ~ CPCS2.0EF							
	CPCS2.0ES	*5 pcs/set CPCS2.0EA ~ CPCS2.0EE							
M2.5×0.45	CPCS2.5FA	45	7.5	2.013 (100%)	2.062 (90%)	3.8	5.0	6.3	3.0
	CPCS2.5FB			2.037 (95%)	2.086 (85%)				
	CPCS2.5FC			2.062 (90%)	2.110 (80%)				
	CPCS2.5FD			2.086 (85%)	2.135 (75%)				
	CPCS2.5FE			2.110 (80%)	2.159 (70%)				
	CPCS2.5FF			2.135 (75%)	2.183 (65%)				
	CPCS2.5FM	*5 pcs/set CPCS2.5FB ~ CPCS2.5FF							
	CPCS2.5FS	*5 pcs/set CPCS2.5FA ~ CPCS2.5FE							
M2.5×0.35	CPCS2.5DA	45	7.5	2.121 (100%)	2.159 (90%)	3.8	5.0	6.3	3.0
	CPCS2.5DB			2.140 (95%)	2.178 (85%)				
	CPCS2.5DC			2.159 (90%)	2.197 (80%)				
	CPCS2.5DD			2.178 (85%)	2.216 (75%)				
	CPCS2.5DE			2.197 (80%)	2.235 (70%)				
	CPCS2.5DF			2.216 (75%)	2.254 (65%)				
	CPCS2.5DM	*5 pcs/set CPCS2.5DB ~ CPCS2.5DF							
	CPCS2.5DS	*5 pcs/set CPCS2.5DA ~ CPCS2.5DE							
M3 ×0.5	CPCS3.0GA	49	9.0	2.459 (100%)	2.513 (90%)	4.5	6.0	7.5	4.0
	CPCS3.0GB			2.486 (95%)	2.540 (85%)				
	CPCS3.0GC			2.513 (90%)	2.567 (80%)				
	CPCS3.0GD			2.540 (85%)	2.594 (75%)				
	CPCS3.0GE			2.567 (80%)	2.621 (70%)				
	CPCS3.0GF			2.594 (75%)	2.648 (65%)				
	CPCS3.0GM	*5 pcs/set CPCS3.0GB ~ CPCS3.0GF							
	CPCS3.0GS	*5 pcs/set CPCS3.0GA ~ CPCS3.0GE							
M3 ×0.35	CPCS3.0DA	49	9.0	2.621 (100%)	2.659 (90%)	4.5	6.0	7.5	4.0
	CPCS3.0DB			2.640 (95%)	2.678 (85%)				
	CPCS3.0DC			2.659 (90%)	2.697 (80%)				
	CPCS3.0DD			2.678 (85%)	2.716 (75%)				
	CPCS3.0DE			2.697 (80%)	2.735 (70%)				
	CPCS3.0DF			2.716 (75%)	2.754 (65%)				
	CPCS3.0DM	*5 pcs/set CPCS3.0DB ~ CPCS3.0DF							
	CPCS3.0DS	*5 pcs/set CPCS3.0DA ~ CPCS3.0DE							
M3.5×0.6	CPCS3.5HA	57	11.0	2.850 (100%)	2.915 (90%)	5.3	7.0	8.8	5.0
	CPCS3.5HB			2.883 (95%)	2.948 (85%)				
	CPCS3.5HC			2.915 (90%)	2.980 (80%)				
	CPCS3.5HD			2.948 (85%)	3.013 (75%)				
	CPCS3.5HE			2.980 (80%)	3.045 (70%)				
	CPCS3.5HF			3.013 (75%)	3.078 (65%)				
	CPCS3.5HM	*5 pcs/set CPCS3.5HB ~ CPCS3.5HF							
	CPCS3.5HS	*5 pcs/set CPCS3.5HA ~ CPCS3.5HE							
M3.5×0.35	CPCS3.5DA	57	11.0	3.121 (100%)	3.159 (90%)	5.3	7.0	8.8	5.0
	CPCS3.5DB			3.140 (95%)	3.178 (85%)				
	CPCS3.5DC			3.159 (90%)	3.197 (80%)				
	CPCS3.5DD			3.178 (85%)	3.216 (75%)				
	CPCS3.5DE			3.197 (80%)	3.235 (70%)				
	CPCS3.5DF			3.216 (75%)	3.254 (65%)				
	CPCS3.5DM	*5 pcs/set CPCS3.5DB ~ CPCS3.5DF							
	CPCS3.5DS	*5 pcs/set CPCS3.5DA ~ CPCS3.5DE							

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
M4×0.7	CPCS4.0IA	57	11.0	3.242 (100%)	3.318 (90%)	6.0	8.0	10.0	5.0
	CPCS4.0IB			3.280 (95%)	3.356 (85%)				
	CPCS4.0IC			3.318 (90%)	3.394 (80%)				
	CPCS4.0ID			3.356 (85%)	3.432 (75%)				
	CPCS4.0IE			3.394 (80%)	3.470 (70%)				
	CPCS4.0IF			3.432 (75%)	3.507 (65%)				
	CPCS4.0IM	*5 pcs/set CPCS4.0IB ~ CPCS4.0IF							
	CPCS4.0IS	*5 pcs/set CPCS4.0IA ~ CPCS4.0IE							
M4 ×0.5	CPCS4.0GA	57	11.0	3.459 (100%)	3.513 (90%)	6.0	8.0	10.0	5.0
	CPCS4.0GB			3.486 (95%)	3.540 (85%)				
	CPCS4.0GC			3.513 (90%)	3.567 (80%)				
	CPCS4.0GD			3.540 (85%)	3.594 (75%)				
	CPCS4.0GE			3.567 (80%)	3.621 (70%)				
	CPCS4.0GF			3.594 (75%)	3.648 (65%)				
	CPCS4.0GM	*5 pcs/set CPCS4.0GB ~ CPCS4.0GF							
	CPCS4.0GS	*5 pcs/set CPCS4.0GA ~ CPCS4.0GE							
M4.5×0.75	CPCS4.5JA	65	14.0	3.688 (100%)	3.769 (90%)	6.8	9.0	11.3	5.5
	CPCS4.5JB			3.729 (95%)	3.810 (85%)				
	CPCS4.5JC			3.769 (90%)	3.850 (80%)				
	CPCS4.5JD			3.810 (85%)	3.891 (75%)				
	CPCS4.5JE			3.850 (80%)	3.932 (70%)				
	CPCS4.5JF			3.891 (75%)	3.972 (65%)				
	CPCS4.5JM	*5 pcs/set CPCS4.5JB ~ CPCS4.5JF							
	CPCS4.5JS	*5 pcs/set CPCS4.5JA ~ CPCS4.5JE							
M4.5×0.5	CPCS4.5GA	65	14.0	3.959 (100%)	4.013 (90%)	6.8	9.0	11.3	5.5
	CPCS4.5GB			3.986 (95%)	4.040 (85%)				
	CPCS4.5GC			4.013 (90%)	4.067 (80%)				
	CPCS4.5GD			4.040 (85%)	4.094 (75%)				
	CPCS4.5GE			4.067 (80%)	4.121 (70%)				
	CPCS4.5GF			4.094 (75%)	4.148 (65%)				
	CPCS4.5GM	*5 pcs/set CPCS4.5GB ~ CPCS4.5GF							
	CPCS4.5GS	*5 pcs/set CPCS4.5GA ~ CPCS4.5GE							
M5×0.8	CPCS5.0KA	65	14.0	4.134 (100%)	4.221 (90%)	7.5	10.0	12.5	5.5
	CPCS5.0KB			4.177 (95%)	4.264 (85%)				
	CPCS5.0KC			4.221 (90%)	4.307 (80%)				
	CPCS5.0KD			4.264 (85%)	4.350 (75%)				
	CPCS5.0KE			4.307 (80%)	4.394 (70%)				
	CPCS5.0KF			4.350 (75%)	4.437 (65%)				
	CPCS5.0KM	*5 pcs/set CPCS5.0KB ~ CPCS5.0KF							
	CPCS5.0KS	*5 pcs/set CPCS5.0KA ~ CPCS5.0KE							
M5×0.5	CPCS5.0GA	65	14.0	4.459 (100%)	4.513 (90%)	7.5	10.0	12.5	5.5
	CPCS5.0GB			4.486 (95%)	4.540 (85%)				
	CPCS5.0GC			4.513 (90%)	4.567 (80%)				
	CPCS5.0GD			4.540 (85%)	4.594 (75%)				
	CPCS5.0GE			4.567 (80%)	4.621 (70%)				
	CPCS5.0GF			4.594 (75%)	4.648 (65%)				
	CPCS5.0GM	*5 pcs/set CPCS5.0GB ~ CPCS5.0GF							
	CPCS5.0GS	*5 pcs/set CPCS5.0GA ~ CPCS5.0GE							
M6×1	CPCS6.0MA	73	16.5	4.917 (100%)	5.026 (90%)	9.0	12.0	15.0	6.0
	CPCS6.0MB			4.972 (95%)	5.080 (85%)				
	CPCS6.0MC			5.026 (90%)	5.134 (80%)				
	CPCS6.0MD			5.080 (85%)	5.188 (75%)				
	CPCS6.0ME			5.134 (80%)	5.242 (70%)				
	CPCS6.0MF			5.188 (75%)	5.296 (65%)				
	CPCS6.0MM	*5 pcs/set CPCS6.0MB ~ CPCS6.0MF							
	CPCS6.0MS	*5 pcs/set CPCS6.0MA ~ CPCS6.0ME							

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
M6×0.75	CPCS6.0JA	73	16.5	5.188 (100%)	5.269 (90%)	9.0	12.0	15.0	6.0
	CPCS6.0JB			5.229 (95%)	5.310 (85%)				
	CPCS6.0JC			5.269 (90%)	5.350 (80%)				
	CPCS6.0JD			5.310 (85%)	5.391 (75%)				
	CPCS6.0JE			5.350 (80%)	5.432 (70%)				
	CPCS6.0JF			5.391 (75%)	5.472 (65%)				
	CPCS6.0JM	*5 pcs/set CPCS6.0JB ~ CPCS6.0JF							
	CPCS6.0JS	*5 pcs/set CPCS6.0JA ~ CPCS6.0JE							
M7×1	CPCS7.0MA	99	22.0	5.917 (100%)	6.026 (90%)	10.5	14.0	17.5	8.0
	CPCS7.0MB			5.972 (95%)	6.080 (85%)				
	CPCS7.0MC			6.026 (90%)	6.134 (80%)				
	CPCS7.0MD			6.080 (85%)	6.188 (75%)				
	CPCS7.0ME			6.134 (80%)	6.242 (70%)				
	CPCS7.0MF			6.188 (75%)	6.296 (65%)				
	CPCS7.0MM	*5 pcs/set CPCS7.0MB ~ CPCS7.0MF							
	CPCS7.0MS	*5 pcs/set CPCS7.0MA ~ CPCS7.0ME							
M7×0.75	CPCS7.0JA	99	22.0	6.188 (100%)	6.269 (90%)	10.5	14.0	17.5	8.0
	CPCS7.0JB			6.229 (95%)	6.310 (85%)				
	CPCS7.0JC			6.269 (90%)	6.350 (80%)				
	CPCS7.0JD			6.310 (85%)	6.391 (75%)				
	CPCS7.0JE			6.350 (80%)	6.432 (70%)				
	CPCS7.0JF			6.391 (75%)	6.472 (65%)				
	CPCS7.0JM	*5 pcs/set CPCS7.0JB ~ CPCS7.0JF							
	CPCS7.0JS	*5 pcs/set CPCS7.0JA ~ CPCS7.0JE							
M8×1.25	CPCS8.0NA	99	22.0	6.647 (100%)	6.782 (90%)	12.0	16.0	20.0	8.0
	CPCS8.0NB			6.714 (95%)	6.850 (85%)				
	CPCS8.0NC			6.782 (90%)	6.917 (80%)				
	CPCS8.0ND			6.850 (85%)	6.985 (75%)				
	CPCS8.0NE			6.917 (80%)	7.053 (70%)				
	CPCS8.0NF			6.985 (75%)	7.120 (65%)				
	CPCS8.0NM	*5 pcs/set CPCS8.0NB ~ CPCS8.0NF							
	CPCS8.0NS	*5 pcs/set CPCS8.0NA ~ CPCS8.0NE							
M8×1	CPCS8.0MA	99	22.0	6.917 (100%)	7.026 (90%)	12.0	16.0	20.0	8.0
	CPCS8.0MB			6.972 (95%)	7.080 (85%)				
	CPCS8.0MC			7.026 (90%)	7.134 (80%)				
	CPCS8.0MD			7.080 (85%)	7.188 (75%)				
	CPCS8.0ME			7.134 (80%)	7.242 (70%)				
	CPCS8.0MF			7.188 (75%)	7.296 (65%)				
	CPCS8.0MM	*5 pcs/set CPCS8.0MB ~ CPCS8.0MF							
	CPCS8.0MS	*5 pcs/set CPCS8.0MA ~ CPCS8.0ME							
M8×0.75	CPCS8.0JA	99	22.0	7.188 (100%)	7.269 (90%)	12.0	16.0	20.0	8.0
	CPCS8.0JB			7.229 (95%)	7.310 (85%)				
	CPCS8.0JC			7.269 (90%)	7.350 (80%)				
	CPCS8.0JD			7.310 (85%)	7.391 (75%)				
	CPCS8.0JE			7.350 (80%)	7.432 (70%)				
	CPCS8.0JF			7.391 (75%)	7.472 (65%)				
	CPCS8.0JM	*5 pcs/set CPCS8.0JB ~ CPCS8.0JF							
	CPCS8.0JS	*5 pcs/set CPCS8.0JA ~ CPCS8.0JE							
M9×1.25	CPCS9.0NA	110	27.5	7.647 (100%)	7.782 (90%)	13.5	18.0	22.5	10.0
	CPCS9.0NB			7.714 (95%)	7.850 (85%)				
	CPCS9.0NC			7.782 (90%)	7.917 (80%)				
	CPCS9.0ND			7.850 (85%)	7.985 (75%)				
	CPCS9.0NE			7.917 (80%)	8.053 (70%)				
	CPCS9.0NF			7.985 (75%)	8.120 (65%)				
	CPCS9.0NM	*5 pcs/set CPCS9.0NB ~ CPCS9.0NF							
	CPCS9.0NS	*5 pcs/set CPCS9.0NA ~ CPCS9.0NE							

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
M9×1	CPCS9.0MA	110	27.5	7.917 (100%)	8.026 (90%)	13.5	18.0	22.5	10.0
	CPCS9.0MB			7.972 (95%)	8.080 (85%)				
	CPCS9.0MC			8.026 (90%)	8.134 (80%)				
	CPCS9.0MD			8.080 (85%)	8.188 (75%)				
	CPCS9.0ME			8.134 (80%)	8.242 (70%)				
	CPCS9.0MF			8.188 (75%)	8.296 (65%)				
	CPCS9.0MM			*5 pcs/set CPCS9.0MB ~ CPCS9.0MF					
	CPCS9.0MS	*5 pcs/set CPCS9.0MA ~ CPCS9.0ME							
M9×0.75	CPCS9.0JA	110	27.5	8.188 (100%)	8.269 (90%)	13.5	18.0	22.5	10.0
	CPCS9.0JB			8.229 (95%)	8.310 (85%)				
	CPCS9.0JC			8.269 (90%)	8.350 (80%)				
	CPCS9.0JD			8.310 (85%)	8.391 (75%)				
	CPCS9.0JE			8.350 (80%)	8.432 (70%)				
	CPCS9.0JF			8.391 (75%)	8.472 (65%)				
	CPCS9.0JM			*5 pcs/set CPCS9.0JB ~ CPCS9.0JF					
	CPCS9.0JS	*5 pcs/set CPCS9.0JA ~ CPCS9.0JE							
M10×1.5	CPCS0100A	110	27.5	8.376 (100%)	8.538 (90%)	15.0	20.0	25.0	10.0
	CPCS0100B			8.457 (95%)	8.620 (85%)				
	CPCS0100C			8.538 (90%)	8.701 (80%)				
	CPCS0100D			8.620 (85%)	8.782 (75%)				
	CPCS0100E			8.701 (80%)	8.863 (70%)				
	CPCS0100F			8.782 (75%)	8.944 (65%)				
	CPCS0100M			*5 pcs/set CPCS0100B ~ CPCS0100F					
	CPCS0100S	*5 pcs/set CPCS0100A ~ CPCS0100E							
M10×1.25	CPCS010NA	110	27.5	8.647 (100%)	8.782 (90%)	15.0	20.0	25.0	10.0
	CPCS010NB			8.714 (95%)	8.850 (85%)				
	CPCS010NC			8.782 (90%)	8.917 (80%)				
	CPCS010ND			8.850 (85%)	8.985 (75%)				
	CPCS010NE			8.917 (80%)	9.053 (70%)				
	CPCS010NF			8.985 (75%)	9.120 (65%)				
	CPCS010NM			*5 pcs/set CPCS010NB ~ CPCS010NF					
	CPCS010NS	*5 pcs/set CPCS010NA ~ CPCS010NE							
M10×1	CPCS010MA	110	27.5	8.917 (100%)	9.026 (90%)	15.0	20.0	25.0	10.0
	CPCS010MB			8.972 (95%)	9.080 (85%)				
	CPCS010MC			9.026 (90%)	9.134 (80%)				
	CPCS010MD			9.080 (85%)	9.188 (75%)				
	CPCS010ME			9.134 (80%)	9.242 (70%)				
	CPCS010MF			9.188 (75%)	9.296 (65%)				
	CPCS010MM			*5 pcs/set CPCS010MB ~ CPCS010MF					
	CPCS010MS	*5 pcs/set CPCS010MA ~ CPCS010ME							
M10×0.75	CPCS010JA	110	27.5	9.188 (100%)	9.269 (90%)	15.0	20.0	25.0	10.0
	CPCS010JB			9.229 (95%)	9.310 (85%)				
	CPCS010JC			9.269 (90%)	9.350 (80%)				
	CPCS010JD			9.310 (85%)	9.391 (75%)				
	CPCS010JE			9.350 (80%)	9.432 (70%)				
	CPCS010JF			9.391 (75%)	9.472 (65%)				
	CPCS010JM			*5 pcs/set CPCS010JB ~ CPCS010JF					
	CPCS010JS	*5 pcs/set CPCS010JA ~ CPCS010JE							
M11×1.5	CPCS0110A	121	33.0	9.376 (100%)	9.538 (90%)	16.5	22.0	27.5	12.0
	CPCS0110B			9.457 (95%)	9.620 (85%)				
	CPCS0110C			9.538 (90%)	9.701 (80%)				
	CPCS0110D			9.620 (85%)	9.782 (75%)				
	CPCS0110E			9.701 (80%)	9.863 (70%)				
	CPCS0110F			9.782 (75%)	9.944 (65%)				
	CPCS0110M			*5 pcs/set CPCS0110B ~ CPCS0110F					
	CPCS0110S	*5 pcs/set CPCS0110A ~ CPCS0110E							

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
M11×1	CPCS011MA	121	33.0	9.917 (100%)	10.026 (90%)	16.5	22.0	27.5	12.0
	CPCS011MB			9.972 (95%)	10.080 (85%)				
	CPCS011MC			10.026 (90%)	10.134 (80%)				
	CPCS011MD			10.080 (85%)	10.188 (75%)				
	CPCS011ME			10.134 (80%)	10.242 (70%)				
	CPCS011MF			10.188 (75%)	10.296 (65%)				
	CPCS011MM	*5 pcs/set CPCS011MB ~ CPCS011MF							
	CPCS011MS	*5 pcs/set CPCS011MA ~ CPCS011ME							
M11×0.75	CPCS011JA	121	33.0	10.188 (100%)	10.269 (90%)	16.5	22.0	27.5	12.0
	CPCS011JB			10.229 (95%)	10.310 (85%)				
	CPCS011JC			10.269 (90%)	10.350 (80%)				
	CPCS011JD			10.310 (85%)	10.391 (75%)				
	CPCS011JE			10.350 (80%)	10.432 (70%)				
	CPCS011JF			10.391 (75%)	10.472 (65%)				
	CPCS011JM	*5 pcs/set CPCS011JB ~ CPCS011JF							
	CPCS011JS	*5 pcs/set CPCS011JA ~ CPCS011JE							
M12×1.75	CPCS012PA	121	33.0	10.105 (100%)	10.295 (90%)	18.0	24.0	30.0	12.0
	CPCS012PB			10.200 (95%)	10.390 (85%)				
	CPCS012PC			10.295 (90%)	10.484 (80%)				
	CPCS012PD			10.390 (85%)	10.579 (75%)				
	CPCS012PE			10.484 (80%)	10.674 (70%)				
	CPCS012PF			10.579 (75%)	10.769 (65%)				
	CPCS012PM	*5 pcs/set CPCS012PB ~ CPCS012PF							
	CPCS012PS	*5 pcs/set CPCS012PA ~ CPCS012PE							
M12×1.5	CPCS012OA	121	33.0	10.376 (100%)	10.538 (90%)	18.0	24.0	30.0	12.0
	CPCS012OB			10.457 (95%)	10.620 (85%)				
	CPCS012OC			10.538 (90%)	10.701 (80%)				
	CPCS012OD			10.620 (85%)	10.782 (75%)				
	CPCS012OE			10.701 (80%)	10.863 (70%)				
	CPCS012OF			10.782 (75%)	10.944 (65%)				
	CPCS012OM	*5 pcs/set CPCS012OB ~ CPCS012OF							
	CPCS012OS	*5 pcs/set CPCS012OA ~ CPCS012OE							
M12×1.25	CPCS012NA	121	33.0	10.647 (100%)	10.782 (90%)	18.0	24.0	30.0	12.0
	CPCS012NB			10.714 (95%)	10.850 (85%)				
	CPCS012NC			10.782 (90%)	10.917 (80%)				
	CPCS012ND			10.850 (85%)	10.985 (75%)				
	CPCS012NE			10.917 (80%)	11.053 (70%)				
	CPCS012NF			10.985 (75%)	11.120 (65%)				
	CPCS012NM	*5 pcs/set CPCS012NB ~ CPCS012NF							
	CPCS012NS	*5 pcs/set CPCS012NA ~ CPCS012NE							
M12×1	CPCS012MA	121	33.0	10.917 (100%)	11.026 (90%)	18.0	24.0	30.0	12.0
	CPCS012MB			10.972 (95%)	11.080 (85%)				
	CPCS012MC			11.026 (90%)	11.134 (80%)				
	CPCS012MD			11.080 (85%)	11.188 (75%)				
	CPCS012ME			11.134 (80%)	11.242 (70%)				
	CPCS012MF			11.188 (75%)	11.296 (65%)				
	CPCS012MM	*5 pcs/set CPCS012MB ~ CPCS012MF							
	CPCS012MS	*5 pcs/set CPCS012MA ~ CPCS012ME							

CPC-S

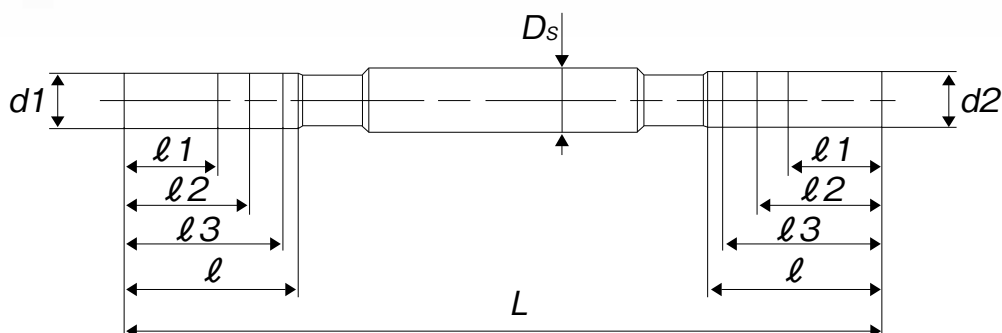
(For Unified Threads)

Check Pins (Straight Type)

HSS



Features



(unit:mm)

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
No.2-56UNC	CPCSUN2EA	41.5	5.5	1.695 (100%)	1.742 (90%)	3.3	4.4	5.5	3
	CPCSUN2EB			1.718 (95%)	1.767 (85%)				
	CPCSUN2EC			1.742 (90%)	1.791 (80%)				
	CPCSUN2ED			1.767 (85%)	1.816 (75%)				
	CPCSUN2EE			1.791 (80%)	1.840 (70%)				
	CPCSUN2EF			1.816 (75%)	1.865 (65%)				
	CPCSUN2EM	*5 pcs/set CPCSUN2EB ~ CPCSUN2EF							
	CPCSUN2ES	*5 pcs/set CPCSUN2EA ~ CPCSUN2EE							
No.2-64UNF	CPCSUN2DA	41.5	5.5	1.756 (100%)	1.797 (90%)	3.3	4.4	5.5	3
	CPCSUN2DB			1.776 (95%)	1.819 (85%)				
	CPCSUN2DC			1.797 (90%)	1.840 (80%)				
	CPCSUN2DD			1.819 (85%)	1.862 (75%)				
	CPCSUN2DE			1.840 (80%)	1.883 (70%)				
	CPCSUN2DF			1.862 (75%)	1.905 (65%)				
	CPCSUN2DM	*5 pcs/set CPCSUN2DB ~ CPCSUN2DF							
	CPCSUN2DS	*5 pcs/set CPCSUN2DA ~ CPCSUN2DE							
No.3-48UNC	CPCSUN3FA	45	7.5	1.941 (100%)	1.999 (90%)	3.8	5.0	6.3	3
	CPCSUN3FB			1.971 (95%)	2.028 (85%)				
	CPCSUN3FC			1.999 (90%)	2.057 (80%)				
	CPCSUN3FD			2.028 (85%)	2.085 (75%)				
	CPCSUN3FE			2.057 (80%)	2.114 (70%)				
	CPCSUN3FF			2.085 (75%)	2.143 (65%)				
	CPCSUN3FM	*5 pcs/set CPCSUN3FB ~ CPCSUN3FF							
	CPCSUN3FS	*5 pcs/set CPCSUN3FA ~ CPCSUN3FE							
No.3-56UNF	CPCSUN3EA	45	7.5	2.025 (100%)	2.073 (90%)	3.8	5.0	6.3	3
	CPCSUN3EB			2.049 (95%)	2.098 (85%)				
	CPCSUN3EC			2.073 (90%)	2.122 (80%)				
	CPCSUN3ED			2.098 (85%)	2.147 (75%)				
	CPCSUN3EE			2.122 (80%)	2.171 (70%)				
	CPCSUN3EF			2.147 (75%)	2.196 (65%)				
	CPCSUN3EM	*5 pcs/set CPCSUN3EB ~ CPCSUN3EF							
	CPCSUN3ES	*5 pcs/set CPCSUN3EA ~ CPCSUN3EE							

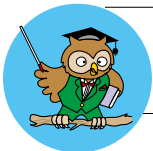
Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
No.4-40UNC	CPCSUN4HA	45	7.5	2.157 (100%)	2.226 (90%)	4.3	5.7	7.1	3
	CPCSUN4HB			2.192 (95%)	2.261 (85%)				
	CPCSUN4HC			2.226 (90%)	2.295 (80%)				
	CPCSUN4HD			2.261 (85%)	2.329 (75%)				
	CPCSUN4HE			2.295 (80%)	2.364 (70%)				
	CPCSUN4HF			2.329 (75%)	2.398 (65%)				
	CPCSUN4HM	*5 pcs/set CPCSUN4HB ~ CPCSUN4HF							
	CPCSUN4HS	*5 pcs/set CPCSUN4HA ~ CPCSUN4HE							
No.4-48UNF	CPCSUN4FA	45	7.5	2.271 (100%)	2.329 (90%)	4.3	5.7	7.1	3
	CPCSUN4FB			2.301 (95%)	2.358 (85%)				
	CPCSUN4FC			2.329 (90%)	2.387 (80%)				
	CPCSUN4FD			2.358 (85%)	2.415 (75%)				
	CPCSUN4FE			2.387 (80%)	2.444 (70%)				
	CPCSUN4FF	2.415 (75%)	2.473 (65%)						
	CPCSUN4FM	*5 pcs/set CPCSUN4FB ~ CPCSUN4FF							
CPCSUN4FS	*5 pcs/set CPCSUN4FA ~ CPCSUN4FE								
No.5-40UNC	CPCSUN5HA	49	9	2.487 (100%)	2.556 (90%)	4.8	6.4	7.9	4
	CPCSUN5HB			2.522 (95%)	2.591 (85%)				
	CPCSUN5HC			2.556 (90%)	2.625 (80%)				
	CPCSUN5HD			2.591 (85%)	2.659 (75%)				
	CPCSUN5HE			2.625 (80%)	2.694 (70%)				
	CPCSUN5HF			2.659 (75%)	2.728 (65%)				
	CPCSUN5HM	*5 pcs/set CPCSUN5HB ~ CPCSUN5HF							
	CPCSUN5HS	*5 pcs/set CPCSUN5HA ~ CPCSUN5HE							
No.5-44UNF	CPCSUN5GA	49	9	2.551 (100%)	2.613 (90%)	4.8	6.4	7.9	4
	CPCSUN5GB			2.581 (95%)	2.644 (85%)				
	CPCSUN5GC			2.613 (90%)	2.675 (80%)				
	CPCSUN5GD			2.644 (85%)	2.706 (75%)				
	CPCSUN5GE			2.675 (80%)	2.738 (70%)				
	CPCSUN5GF	2.706 (75%)	2.769 (65%)						
	CPCSUN5GM	*5 pcs/set CPCSUN5GB ~ CPCSUN5GF							
CPCSUN5GS	*5 pcs/set CPCSUN5GA ~ CPCSUN5GE								
No.6-32UNC	CPCSUN6JA	49	9	2.642 (100%)	2.732 (90%)	5.3	7.0	8.8	4
	CPCSUN6JB			2.689 (95%)	2.775 (85%)				
	CPCSUN6JC			2.732 (90%)	2.818 (80%)				
	CPCSUN6JD			2.775 (85%)	2.861 (75%)				
	CPCSUN6JE			2.818 (80%)	2.903 (70%)				
	CPCSUN6JF	2.861 (75%)	2.946 (65%)						
	CPCSUN6JM	*5 pcs/set CPCSUN6JB ~ CPCSUN6JF							
CPCSUN6JS	*5 pcs/set CPCSUN6JA ~ CPCSUN6JE								
No.6-40UNF	CPCSUN6HA	49	9	2.820 (100%)	2.886 (90%)	5.3	7.0	8.8	4
	CPCSUN6HB			2.852 (95%)	2.921 (85%)				
	CPCSUN6HC			2.886 (90%)	2.955 (80%)				
	CPCSUN6HD			2.921 (85%)	2.989 (75%)				
	CPCSUN6HE			2.955 (80%)	3.024 (70%)				
	CPCSUN6HF	2.989 (75%)	3.058 (65%)						
	CPCSUN6HM	*5 pcs/set CPCSUN6HB ~ CPCSUN6HF							
CPCSUN6HS	*5 pcs/set CPCSUN6HA ~ CPCSUN6HE								
No.8-32UNC	CPCSUN8JA	57	11	3.302 (100%)	3.394 (90%)	6.3	8.3	10.4	5
	CPCSUN8JB			3.351 (95%)	3.437 (85%)				
	CPCSUN8JC			3.394 (90%)	3.480 (80%)				
	CPCSUN8JD			3.437 (85%)	3.523 (75%)				
	CPCSUN8JE			3.480 (80%)	3.565 (70%)				
	CPCSUN8JF	3.523 (75%)	3.608 (65%)						
	CPCSUN8JM	*5 pcs/set CPCSUN8JB ~ CPCSUN8JF							
CPCSUN8JS	*5 pcs/set CPCSUN8JA ~ CPCSUN8JE								
No.8-36UNF	CPCSUN8IA	57	11	3.404 (100%)	3.480 (90%)	6.3	8.3	10.4	5
	CPCSUN8IB			3.441 (95%)	3.518 (85%)				
	CPCSUN8IC			3.480 (90%)	3.556 (80%)				
	CPCSUN8ID			3.518 (85%)	3.594 (75%)				
	CPCSUN8IE			3.556 (80%)	3.632 (70%)				
	CPCSUN8IF	3.594 (75%)	3.671 (65%)						
	CPCSUN8IM	*5 pcs/set CPCSUN8IB ~ CPCSUN8IF							
CPCSUN8IS	*5 pcs/set CPCSUN8IA ~ CPCSUN8IE								
No.10-24UNC	CPCSUNAMA	65	14	3.683 (100%)	3.795 (90%)	7.2	9.7	12.1	5
	CPCSUNAMB			3.738 (95%)	3.852 (85%)				
	CPCSUNAMC			3.795 (90%)	3.909 (80%)				
	CPCSUNAMD			3.852 (85%)	3.967 (75%)				
	CPCSUNAME			3.909 (80%)	4.024 (70%)				
	CPCSUNAMF	3.967 (75%)	4.081 (65%)						
	CPCSUNAMM	*5 pcs/set CPCSUNAMB ~ CPCSUNAMF							
CPCSUNAMS	*5 pcs/set CPCSUNAMA ~ CPCSUNAME								

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
No.10-32UNF	CPCSUNAJA	65	14	3.963 (100%)	4.053 (90%)	7.2	9.7	12.1	5.5
	CPCSUNAJB			4.010 (95%)	4.096 (85%)				
	CPCSUNAJC			4.053 (90%)	4.139 (80%)				
	CPCSUNAJD			4.096 (85%)	4.182 (75%)				
	CPCSUNAJE			4.139 (80%)	4.224 (70%)				
	CPCSUNAJF			4.182 (75%)	4.267 (65%)				
	CPCSUNAJM	*5 pcs/set CPCSUNAJB ~ CPCSUNAJF							
	CPCSUNAJ S	*5 pcs/set CPCSUNAJA ~ CPCSUNAJE							
No.12-24UNC	CPCSUNCMA	65	14	4.344 (100%)	4.455 (90%)	8.2	11.0	13.7	5.5
	CPCSUNCMB			4.398 (95%)	4.512 (85%)				
	CPCSUNCMC			4.455 (90%)	4.569 (80%)				
	CPCSUNCMD			4.512 (85%)	4.627 (75%)				
	CPCSUNCME			4.569 (80%)	4.684 (70%)				
	CPCSUNCMF			4.627 (75%)	4.741 (65%)				
	CPCSUNCMM	*5 pcs/set CPCSUNCMB ~ CPCSUNCMF							
	CPCSUNCMS	*5 pcs/set CPCSUNCMA ~ CPCSUNCME							
No.12-28UNF	CPCSUNCKA	65	14	4.496 (100%)	4.602 (90%)	8.2	11.0	13.7	5.5
	CPCSUNCKB			4.553 (95%)	4.651 (85%)				
	CPCSUNCKC			4.602 (90%)	4.700 (80%)				
	CPCSUNCKD			4.651 (85%)	4.749 (75%)				
	CPCSUNCKE			4.700 (80%)	4.799 (70%)				
	CPCSUNCKF			4.749 (75%)	4.848 (65%)				
	CPCSUNCKM	*5 pcs/set CPCSUNCKB ~ CPCSUNCKF							
	CPCSUNCKS	*5 pcs/set CPCSUNCKA ~ CPCSUNCKE							
1/4-20UNC	CPCSU04NA	73	16.5	4.979 (100%)	5.113 (90%)	9.5	12.7	15.9	6
	CPCSU04NB			5.044 (95%)	5.181 (85%)				
	CPCSU04NC			5.113 (90%)	5.250 (80%)				
	CPCSU04ND			5.181 (85%)	5.319 (75%)				
	CPCSU04NE			5.250 (80%)	5.388 (70%)				
	CPCSU04NF			5.319 (75%)	5.456 (65%)				
	CPCSU04NM	*5 pcs/set CPCSU04NB ~ CPCSU04NF							
	CPCSU04NS	*5 pcs/set CPCSU04NA ~ CPCSU04NE							
1/4-28UNF	CPCSU04KA	73	16.5	5.360 (100%)	5.466 (90%)	9.5	12.7	15.9	6
	CPCSU04KB			5.417 (95%)	5.515 (85%)				
	CPCSU04KC			5.466 (90%)	5.564 (80%)				
	CPCSU04KD			5.515 (85%)	5.613 (75%)				
	CPCSU04KE			5.564 (80%)	5.663 (70%)				
	CPCSU04KF			5.613 (75%)	5.712 (65%)				
	CPCSU04KM	*5 pcs/set CPCSU04KB ~ CPCSU04KF							
	CPCSU04KS	*5 pcs/set CPCSU04KA ~ CPCSU04KE							
5/16-18UNC	CPCSU05OA	99	22	6.401 (100%)	6.563 (90%)	11.9	15.9	19.8	8
	CPCSU05OB			6.487 (95%)	6.639 (85%)				
	CPCSU05OC			6.563 (90%)	6.716 (80%)				
	CPCSU05OD			6.639 (85%)	6.792 (75%)				
	CPCSU05OE			6.716 (80%)	6.869 (70%)				
	CPCSU05OF			6.792 (75%)	6.945 (65%)				
	CPCSU05OM	*5 pcs/set CPCSU05OB ~ CPCSU05OF							
	CPCSU05OS	*5 pcs/set CPCSU05OA ~ CPCSU05OE							
5/16-24UNF	CPCSU05MA	99	22	6.782 (100%)	6.907 (90%)	11.9	15.9	19.8	8
	CPCSU05MB			6.850 (95%)	6.964 (85%)				
	CPCSU05MC			6.907 (90%)	7.021 (80%)				
	CPCSU05MD			6.964 (85%)	7.079 (75%)				
	CPCSU05ME			7.021 (80%)	7.136 (70%)				
	CPCSU05MF			7.079 (75%)	7.193 (65%)				
	CPCSU05MM	*5 pcs/set CPCSU05MB ~ CPCSU05MF							
	CPCSU05MS	*5 pcs/set CPCSU05MA ~ CPCSU05ME							
3/8-16UNC	CPCSU06PA	110	27.5	7.798 (100%)	7.978 (90%)	14.3	19.1	23.8	10
	CPCSU06PB			7.892 (95%)	8.064 (85%)				
	CPCSU06PC			7.978 (90%)	8.150 (80%)				
	CPCSU06PD			8.064 (85%)	8.236 (75%)				
	CPCSU06PE			8.150 (80%)	8.322 (70%)				
	CPCSU06PF			8.236 (75%)	8.408 (65%)				
	CPCSU06PM	*5 pcs/set CPCSU06PB ~ CPCSU06PF							
	CPCSU06PS	*5 pcs/set CPCSU06PA ~ CPCSU06PE							
3/8-24UNF	CPCSU06MA	110	27.5	8.382 (100%)	8.494 (90%)	14.3	19.1	23.8	10
	CPCSU06MB			8.437 (95%)	8.551 (85%)				
	CPCSU06MC			8.494 (90%)	8.608 (80%)				
	CPCSU06MD			8.551 (85%)	8.666 (75%)				
	CPCSU06ME			8.608 (80%)	8.723 (70%)				
	CPCSU06MF			8.666 (75%)	8.780 (65%)				
	CPCSU06MM	*5 pcs/set CPCSU06MB ~ CPCSU06MF							
	CPCSU06MS	*5 pcs/set CPCSU06MA ~ CPCSU06ME							

(unit:mm)

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1 (1.5D)	ℓ2 (2D)	ℓ3 (2.5D)	Ds
7/16-14UNC	CPCSU07QA	121	33	9.144 (100%)	9.345 (90%)	16.7	22.2	27.8	12
	CPCSU07QB			9.247 (95%)	9.443 (85%)				
	CPCSU07QC			9.345 (90%)	9.542 (80%)				
	CPCSU07QD			9.443 (85%)	9.640 (75%)				
	CPCSU07QE			9.542 (80%)	9.738 (70%)				
	CPCSU07QF			9.640 (75%)	9.836 (65%)				
	CPCSU07QM	*5 pcs/set CPCSU07QB ~ CPCSU07QF							
	CPCSU07QS	*5 pcs/set CPCSU07QA ~ CPCSU07QE							
7/16-20UNF	CPCSU07NA	121	33	9.729 (100%)	9.876 (90%)	16.7	22.2	27.8	12
	CPCSU07NB			9.807 (95%)	9.944 (85%)				
	CPCSU07NC			9.876 (90%)	10.013 (80%)				
	CPCSU07ND			9.944 (85%)	10.082 (75%)				
	CPCSU07NE			10.013 (80%)	10.151 (70%)				
	CPCSU07NF			10.082 (75%)	10.219 (65%)				
	CPCSU07NM	*5 pcs/set CPCSU07NB ~ CPCSU07NF							
	CPCSU07NS	*5 pcs/set CPCSU07NA ~ CPCSU07NE							
1/2-13UNC	CPCSU08RA	121	33	10.592 (100%)	10.796 (90%)	19.1	25.4	31.8	12
	CPCSU08RB			10.691 (95%)	10.902 (85%)				
	CPCSU08RC			10.796 (90%)	11.008 (80%)				
	CPCSU08RD			10.902 (85%)	11.114 (75%)				
	CPCSU08RE			11.008 (80%)	11.219 (70%)				
	CPCSU08RF			11.114 (75%)	11.325 (65%)				
	CPCSU08RM	*5 pcs/set CPCSU08RB ~ CPCSU08RF							
	CPCSU08RS	*5 pcs/set CPCSU08RA ~ CPCSU08RE							
1/2-20UNF	CPCSU08NA	121	33	11.329 (100%)	11.463 (90%)	19.1	25.4	31.8	12
	CPCSU08NB			11.394 (95%)	11.531 (85%)				
	CPCSU08NC			11.463 (90%)	11.600 (80%)				
	CPCSU08ND			11.531 (85%)	11.669 (75%)				
	CPCSU08NE			11.600 (80%)	11.738 (70%)				
	CPCSU08NF			11.669 (75%)	11.806 (65%)				
	CPCSU08NM	*5 pcs/set CPCSU08NB ~ CPCSU08NF							
	CPCSU08NS	*5 pcs/set CPCSU08NA ~ CPCSU08NE							

Check the pre-tapped hole size before tapping!



Use a check pin for cutting taps to check the pre-tapped hole size before tapping an M6X1 6H internal thread.

Application Example of the CPS-S (Straight Type)

Step. 1

Check the minor diameter of M6x1-6H internal thread.

Step. 2

Size of the check pins

Nominal size	OA L	ℓ	D_s	$d1$ (Percentage of thread engagement)	$d2$ (Percentage of thread engagement)
M6 x 1	73	16.5	6	4.917 (100%)	5.026 (90%)
				4.972 (95%)	5.080 (85%)
				5.026 (90%)	5.134 (80%)
				5.080 (85%)	5.188 (75%)
				5.134 (80%)	5.242 (70%)

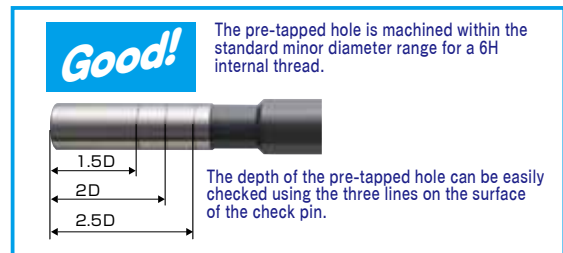
From the table on the left, select two check pins: one close to the maximum value and one close to the minimum value for the 6H tolerance class.

⇒ ① 4.917 (100%) & ② 5.134 (80%)

Before tapping, select the largest possible pre-tapped hole size within the tolerance range.

Step. 3

Insert the check pins ① and ② chosen in Step 2.



Please scan QR code to watch the detailed instruction video!



Check Pins (Taper Type) (1 pcs)

HSS



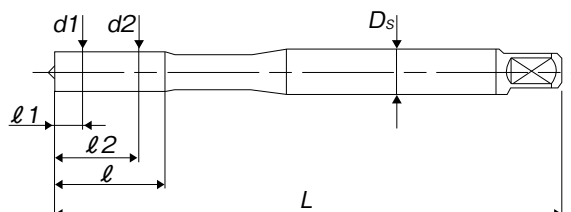
■ Example: M12X1.75
(Hole size $\phi 10.37$)

Features

1. A single tool enables quick checking of pre-tapped hole diameter.
2. Manufactured from wear-resistant high-speed steel.
3. Applicable to through holes and blind holes with sufficient depth to avoid interference between the pre-tapped hole bottom and the check pin.



■ Dimensions



(For Metric Threads)

(unit:mm)

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1	ℓ2	Ds
M2×0.4	CPCT2.0E	42	7	1.567 (100%)	1.679 (74%)	1	6	3
M2.5×0.45	CPCT2.5F	46	8	2.013 (100%)	2.138 (74%)	1.5	6.5	3
M2.5×0.35	CPCT2.5D	46	8	2.121 (100%)	2.221 (74%)	1.5	6.5	3
M3×0.5	CPCT3.0G	46	8.5	2.459 (100%)	2.599 (74%)	1.5	7	4
M3×0.35	CPCT3.0D	46	8.5	2.621 (100%)	2.721 (74%)	1.5	7	4
M3.5×0.6	CPCT3.5H	52	10.5	2.850 (100%)	3.010 (75%)	2.25	8.25	5
M3.5×0.35	CPCT3.5D	52	10.5	3.121 (100%)	3.221 (74%)	2.25	8.25	5
M4×0.7	CPCT4.0I	52	10.5	3.242 (100%)	3.422 (76%)	2.25	8.25	5
M4×0.5	CPCT4.0G	52	10.5	3.459 (100%)	3.599 (74%)	2.25	8.25	5
M4.5×0.75	CPCT4.5J	59.5	12.5	3.688 (100%)	3.878 (77%)	2.5	10	5.5
M4.5×0.5	CPCT4.5G	59.5	12.5	3.959 (100%)	4.099 (74%)	2.5	10	5.5
M5×0.8	CPCT5.0K	59.5	12.5	4.134 (100%)	4.334 (77%)	2.5	10	5.5
M5×0.5	CPCT5.0G	59.5	12.5	4.459 (100%)	4.599 (74%)	2.5	10	5.5
M6×1	CPCT6.0M	61.5	16.5	4.917 (100%)	5.153 (78%)	3.75	12.75	6
M6×0.75	CPCT6.0J	61.5	16.5	5.188 (100%)	5.378 (77%)	3.75	12.75	6
M7×1	CPCT7.0M	90	19.4	5.917 (100%)	6.153 (78%)	4.7	14.7	8
M7×0.75	CPCT7.0J	90	19.4	6.188 (100%)	6.378 (77%)	4.7	14.7	8
M8×1.25	CPCT8.0N	90	19.4	6.647 (100%)	6.912 (80%)	4.7	14.7	8
M8×1	CPCT8.0M	90	19.4	6.917 (100%)	7.153 (78%)	4.7	14.7	8
M8×0.75	CPCT8.0J	90	19.4	7.188 (100%)	7.378 (77%)	4.7	14.7	8
M9×1.25	CPCT9.0N	100	23.4	7.647 (100%)	7.912 (80%)	6.7	16.7	10
M9×1	CPCT9.0M	100	23.4	7.917 (100%)	8.153 (78%)	6.7	16.7	10
M9×0.75	CPCT9.0J	100	23.4	8.188 (100%)	8.378 (77%)	6.7	16.7	10
M10×1.5	CPCT010O	100	23.4	8.376 (100%)	8.676 (82%)	6.7	16.7	10
M10×1.25	CPCT010N	100	23.4	8.647 (100%)	8.912 (80%)	6.7	16.7	10
M10×1	CPCT010M	100	23.4	8.917 (100%)	9.153 (78%)	6.7	16.7	10
M10×0.75	CPCT010J	100	23.4	9.188 (100%)	9.378 (77%)	6.7	16.7	10
M11×1.5	CPCT011O	110	27.4	9.376 (100%)	9.676 (82%)	7.7	19.7	12
M11×1	CPCT011M	110	27.4	9.917 (100%)	10.153 (78%)	7.7	19.7	12
M11×0.75	CPCT011J	110	27.4	10.188 (100%)	10.378 (77%)	7.7	19.7	12
M12×1.75	CPCT012P	110	27.4	10.106 (100%)	10.441 (82%)	7.7	19.7	12
M12×1.5	CPCT012O	110	27.4	10.376 (100%)	10.676 (82%)	7.7	19.7	12
M12×1.25	CPCT012N	110	27.4	10.647 (100%)	10.912 (80%)	7.7	19.7	12
M12×1	CPCT012M	110	27.4	10.917 (100%)	11.153 (78%)	7.7	19.7	12

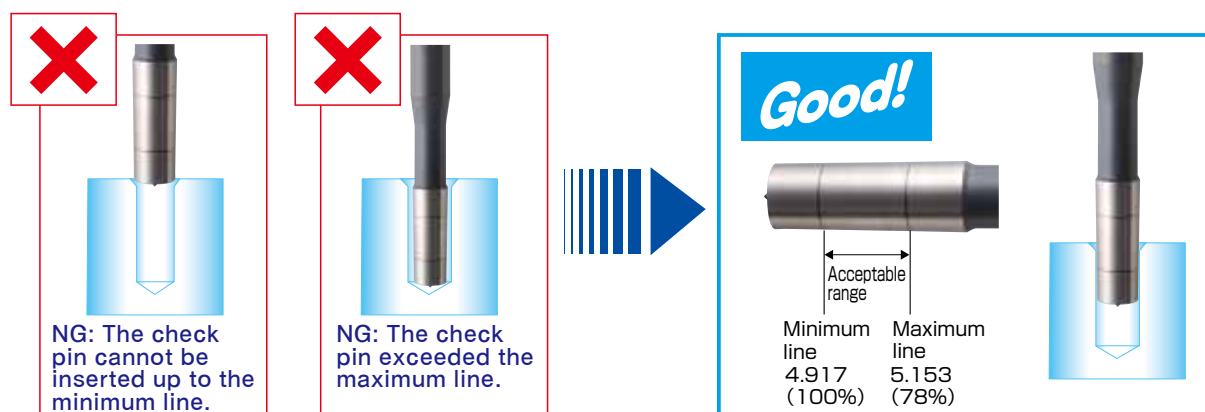
(For Unified Threads)

(unit:mm)

Nominal size	Product code	L	ℓ	$d1$ (Percentage of thread engagement)	$d2$ (Percentage of thread engagement)	$\ell 1$	$\ell 2$	D_s
No.2-56UNC	CPCTUN2E	42	7	1.695 (100%)	1.871 (64%)	1	6	3
No.2-64UNF	CPCTUN2D	42	7	1.756 (100%)	1.912 (63%)	1	6	3
No.3-48UNC	CPCTUN3F	46	8	1.941 (100%)	2.146 (64%)	1.5	6.5	3
No.3-56UNF	CPCTUN3E	46	8	2.025 (100%)	2.197 (65%)	1.5	6.5	3
No.4-40UNC	CPCTUN4H	46	8	2.157 (100%)	2.385 (67%)	1.5	6.5	3
No.4-48UNF	CPCTUN4F	46	8	2.271 (100%)	2.458 (68%)	1.5	6.5	3
No.5-40UNC	CPCTUN5H	46	8.5	2.487 (100%)	2.697 (70%)	1.5	7	4
No.5-44UNF	CPCTUN5G	46	8.5	2.551 (100%)	2.740 (70%)	1.5	7	4
No.6-32UNC	CPCTUN6J	46	8.5	2.642 (100%)	2.895 (70%)	1.5	7	4
No.6-40UNF	CPCTUN6H	46	8.5	2.820 (100%)	3.022 (70%)	1.5	7	4
No.8-32UNC	CPCTUN8J	52	10.5	3.302 (100%)	3.530 (74%)	2.25	8.25	5
No.8-36UNF	CPCTUN8I	52	10.5	3.404 (100%)	3.606 (73%)	2.25	8.25	5
No.10-24UNC	CPCTUNAM	59.5	12.5	3.683 (100%)	3.962 (75%)	2.5	10	5.5
No.10-32UNF	CPCTUNAJ	59.5	12.5	3.963 (100%)	4.165 (77%)	2.5	10	5.5
No.12-24UNC	CPCTUNCM	59.5	12.5	4.344 (100%)	4.597 (78%)	2.5	10	5.5
No.12-28UNF	CPCTUNCK	59.5	12.5	4.496 (100%)	4.724 (78%)	2.5	10	5.5
1/4-20UNC	CPCTU04N	61.5	16.5	4.979 (100%)	5.257 (80%)	3.75	12.75	6
1/4-28UNF	CPCTU04K	61.5	16.5	5.360 (100%)	5.588 (78%)	3.75	12.75	6
5/16-18UNC	CPCTU05O	90	19.4	6.401 (100%)	6.731 (80%)	4.7	14.7	8
5/16-24UNF	CPCTU05M	90	19.4	6.782 (100%)	7.035 (80%)	4.7	14.7	8
3/8-16UNC	CPCTU06P	100	23.4	7.798 (100%)	8.153 (80%)	6.7	16.7	10
3/8-24UNF	CPCTU06M	100	23.4	8.382 (100%)	8.636 (78%)	6.7	16.7	10
7/16-14UNC	CPCTU07Q	110	27.4	9.144 (100%)	9.550 (80%)	7.7	19.7	12
7/16-20UNF	CPCTU07N	110	27.4	9.729 (100%)	10.033 (80%)	7.7	19.7	12
1/2-13UNC	CPCTU08R	110	27.4	10.592 (100%)	11.023 (80%)	7.7	19.7	12
1/2-20UNF	CPCTU08N	110	27.4	11.329 (100%)	11.607 (80%)	7.7	19.7	12

Application Example of the CPS-T (Tapered Type)

Nominal size	OA L	ℓ	D_s	$d1$ (Percentage of thread engagement)	$d2$ (Percentage of thread engagement)	Product code	($\ell 1$)	($\ell 2$)
M6 × 1	61.5	17	6	4.917 (100%)	5.153 (78%)	CPCT6.0M	3.8	12.8



Please scan QR code to watch the detailed instruction video!

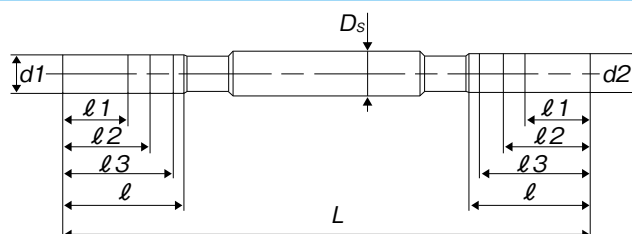




Features

1. Enables checking various pre-tapped hole diameters and depths.
2. Manufactured from wear-resistant high-speed steel.
3. Applicable to both through and blind holes.

■ Dimensions



(For Metric Threads)

(unit:mm)

Nominal size	Product code	L	ℓ	$d1$ (Percentage of thread engagement)	$d2$ (Percentage of thread engagement)	$\ell 1$	$\ell 2$	$\ell 3$	D_s
M2×0.4	CPRS2.0E	41.5	5.5	1.79	1.84	3	4	5	3
M2×0.25	CPRS2.0B	41.5	5.5	1.89	1.92	3	4	5	3
M2.5×0.45	CPRS2.5F	45	7.5	2.27	2.34	3.75	5	6.25	3
M2.5×0.35	CPRS2.5D	45	7.5	2.34	2.38	3.75	5	6.25	3
M2.6×0.45	CPRS2.6F	45	7.5	2.37	2.44	3.9	5.2	6.5	3
M3×0.5	CPRS3.0G	49	9	2.75	2.82	4.5	6	7.5	4
M3×0.35	CPRS3.0D	49	9	2.84	2.88	4.5	6	7.5	4
M3.5×0.6	CPRS3.5H	57	11	3.19	3.27	5.25	7	8.75	5
M3.5×0.35	CPRS3.5D	57	11	3.34	3.38	5.25	7	8.75	5
M4×0.7	CPRS4.0I	57	11	3.65	3.72	6	8	10	5
M4×0.5	CPRS4.0G	57	11	3.76	3.83	6	8	10	5
M5×0.8	CPRS5.0K	65	14	4.59	4.67	7.5	10	12.5	5.5
M5×0.5	CPRS5.0G	65	14	4.76	4.83	7.5	10	12.5	5.5
M6×1	CPRS6.0M	73	16.5	5.49	5.59	9	12	15	6
M6×0.75	CPRS6.0J	73	16.5	5.61	5.69	9	12	15	6
M7×1	CPRS7.0M	99	22	6.49	6.59	10.5	14	17.5	8
M7×0.75	CPRS7.0J	99	22	6.62	6.70	10.5	14	17.5	8
M8×1.25	CPRS8.0N	99	22	7.36	7.49	12	16	20	8
M8×1	CPRS8.0M	99	22	7.49	7.59	12	16	20	8
M8×0.75	CPRS8.0J	99	22	7.62	7.70	12	16	20	8
M10×1.5	CPRS0100	110	27.5	9.22	9.34	15	20	25	10
M10×1.25	CPRS010N	110	27.5	9.35	9.49	15	20	25	10
M10×1	CPRS010M	110	27.5	9.49	9.59	15	20	25	10
M12×1.75	CPRS012P	121	33	11.09	11.23	18	24	30	12
M12×1.5	CPRS012O	121	33	11.22	11.34	18	24	30	12
M12×1.25	CPRS012N	121	33	11.36	11.50	18	24	30	12
M12×1	CPRS012M	121	33	11.49	11.59	18	24	30	12

(For Unified Threads)

(unit:mm)

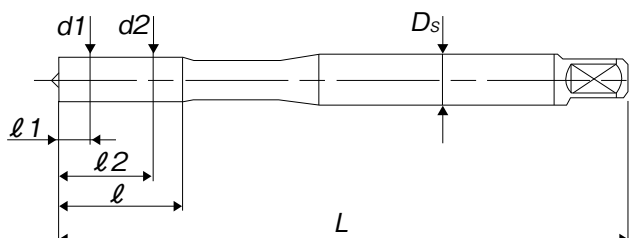
Nominal size	Product code	L	ℓ	$d1$ (Percentage of thread engagement)	$d2$ (Percentage of thread engagement)	$\ell1$	$\ell2$	$\ell3$	D_s
No.2-56UNC	CPRSUN2E	41.5	5.5	1.960	2.040	3.3	4.4	5.5	3
No.2-64UNF	CPRSUN2D	41.5	5.5	1.980	2.060	3.3	4.4	5.5	3
No.3-48UNC	CPRSUN3F	45	7.5	2.250	2.350	3.8	5.0	6.3	3
No.3-56UNF	CPRSUN3E	45	7.5	2.290	2.370	3.8	5.0	6.3	3
No.4-40UNC	CPRSUN4H	49	9	2.540	2.640	4.3	5.7	7.1	4
No.4-48UNF	CPRSUN4F	49	9	2.590	2.680	4.3	5.7	7.1	4
No.5-40UNC	CPRSUN5H	49	9	2.870	2.970	4.8	6.4	7.9	4
No.5-44UNF	CPRSUN5G	49	9	2.900	2.990	4.8	6.4	7.9	4
No.6-32UNC	CPRSUN6J	57	11	3.110	3.220	5.3	7.0	8.8	5
No.6-40UNF	CPRSUN6H	57	11	3.190	3.290	5.3	7.0	8.8	5
No.8-32UNC	CPRSUN8J	57	11	3.780	3.890	6.3	8.3	10.4	5
No.8-36UNF	CPRSUN8I	57	11	3.810	3.910	6.3	8.3	10.4	5
No.10-24UNC	CPRSUNAM	65	14	4.300	4.440	7.2	9.7	12.1	5.5
No.10-32UNF	CPRSUNAJ	65	14	4.440	4.530	7.2	9.7	12.1	5.5
No.12-24UNC	CPRSUNCM	73	16.5	4.960	5.070	8.2	11	13.7	6
No.12-28UNF	CPRSUNCK	73	16.5	5.030	5.130	8.2	11	13.7	6
1/4-20UNC	CPRSU04N	73	16.5	5.730	5.860	9.5	12.7	15.9	6
1/4-28UNF	CPRSU04K	73	16.5	5.910	6.000	9.5	12.7	15.9	6
5/16-18UNC	CPRSU05O	99	22	7.230	7.380	12	16	20	8
5/16-24UNF	CPRSU05M	99	22	7.420	7.530	12	16	20	8
3/8-16UNC	CPRSU06P	110	27.5	8.720	8.890	14.3	19.1	23.8	10
3/8-24UNF	CPRSU06M	110	27.5	8.990	9.100	14.3	19.1	23.8	10
7/16-14UNC	CPRSU07Q	121	33	10.200	10.400	16.7	22.2	27.8	12
7/16-20UNF	CPRSU07N	121	33	10.480	10.620	16.7	22.2	27.8	12
1/2-13UNC	CPRSU08R	121	33	11.700	11.920	19.1	25.4	31.8	12
1/2-20UNF	CPRSU08N	121	33	12.060	12.200	19.1	25.4	31.8	12



Features

1. A single tool enables quick checking of pre-tapped hole diameter.
2. Manufactured from wear-resistant high-speed steel.
3. Applicable to through holes and blind holes with sufficient depth to avoid interference between the pre-tapped hole bottom and the check pin.

Dimensions



(For Metric Threads)

(unit:mm)

Nominal size	Product code	L	l	$d1$ (Percentage of thread engagement)	$d2$ (Percentage of thread engagement)	$l1$	$l2$	D_s
M2×0.4	CPRT2.0E	42	7	1.79	1.84	1	6	3
M2×0.25	CPRT2.0B	42	7	1.89	1.92	1	6	3
M2.5×0.45	CPRT2.5F	46	8	2.27	2.34	1.5	6.5	3
M2.5×0.35	CPRT2.5D	46	8	2.34	2.38	1.5	6.5	3
M2.6×0.45	CPRT2.6F	46	8	2.37	2.44	1.5	6.5	3
M3×0.5	CPRT3.0G	46	8.5	2.75	2.82	1.5	7	4
M3×0.35	CPRT3.0D	46	8.5	2.84	2.88	1.5	7	4
M3.5×0.6	CPRT3.5H	52	10.5	3.19	3.27	2.25	8.25	5
M3.5×0.35	CPRT3.5D	52	10.5	3.34	3.38	2.25	8.25	5
M4×0.7	CPRT4.0I	52	10.5	3.65	3.72	2.25	8.25	5
M4×0.5	CPRT4.0G	52	10.5	3.76	3.83	2.25	8.25	5
M5×0.8	CPRT5.0K	59.5	12.5	4.59	4.67	2.5	10	5.5
M5×0.5	CPRT5.0G	59.5	12.5	4.76	4.83	2.5	10	5.5
M6×1	CPRT6.0M	61.5	16.5	5.49	5.59	3.75	12.75	6
M6×0.75	CPRT6.0J	61.5	16.5	5.61	5.69	3.75	12.75	6
M7×1	CPRT7.0M	90	19.4	6.49	6.59	4.7	14.7	8
M7×0.75	CPRT7.0J	90	19.4	6.62	6.70	4.7	14.7	8
M8×1.25	CPRT8.0N	90	19.4	7.36	7.49	4.7	14.7	8
M8×1	CPRT8.0M	90	19.4	7.49	7.59	4.7	14.7	8
M8×0.75	CPRT8.0J	90	19.4	7.62	7.70	4.7	14.7	8
M10×1.5	CPRT010O	100	23.4	9.22	9.34	6.7	16.7	10
M10×1.25	CPRT010N	100	23.4	9.35	9.49	6.7	16.7	10
M10×1	CPRT010M	100	23.4	9.49	9.59	6.7	16.7	10
M12×1.75	CPRT012P	110	27.4	11.09	11.23	7.7	19.7	12
M12×1.5	CPRT012O	110	27.4	11.22	11.34	7.7	19.7	12
M12×1.25	CPRT012N	110	27.4	11.36	11.50	7.7	19.7	12
M12×1	CPRT012M	110	27.4	11.49	11.59	7.7	19.7	12

(For Unified Threads)

(unit:mm)

Nominal size	Product code	L	ℓ	d1 (Percentage of thread engagement)	d2 (Percentage of thread engagement)	ℓ1	ℓ2	Ds
No.2-56UNC	CPRTUN2E	46	8	1.960	2.040	1.5	6.5	3
No.2-64UNF	CPRTUN2D	46	8	1.980	2.060	1.5	6.5	3
No.3-48UNC	CPRTUN3F	46	8	2.250	2.350	1.5	6.5	3
No.3-56UNF	CPRTUN3E	46	8	2.290	2.370	1.5	6.5	3
No.4-40UNC	CPRTUN4H	46	8.5	2.540	2.640	1.5	7	4
No.4-48UNF	CPRTUN4F	46	8.5	2.590	2.680	1.5	7	4
No.5-40UNC	CPRTUN5H	46	8.5	2.870	2.970	1.5	7	4
No.5-44UNF	CPRTUN5G	46	8.5	2.900	2.990	1.5	7	4
No.6-32UNC	CPRTUN6J	52	10.5	3.110	3.220	2.25	8.3	5
No.6-40UNF	CPRTUN6H	52	10.5	3.190	3.290	2.25	8.3	5
No.8-32UNC	CPRTUN8J	52	10.5	3.780	3.890	2.25	8.3	5
No.8-36UNF	CPRTUN8I	52	10.5	3.810	3.910	2.25	8.3	5
No.10-24UNC	CPRTUNAM	59.5	12.5	4.300	4.440	2.5	10	5.5
No.10-32UNF	CPRTUNAJ	59.5	12.5	4.440	4.530	2.5	10	5.5
No.12-24UNC	CPRTUNCM	61.5	16.5	4.960	5.070	3.75	12.8	6
No.12-28UNF	CPRTUNCK	61.5	16.5	5.030	5.130	3.75	12.8	6
1/4-20UNC	CPRTU04N	61.5	16.5	5.730	5.860	3.75	12.8	6
1/4-28UNF	CPRTU04K	61.5	16.5	5.910	6.000	3.75	12.8	6
5/16-18UNC	CPRTU05O	90	19.4	7.230	7.380	4.7	14.7	8
5/16-24UNF	CPRTU05M	90	19.4	7.420	7.530	4.7	14.7	8
3/8-16UNC	CPRTU06P	100	23.4	8.720	8.890	6.7	16.7	10
3/8-24UNF	CPRTU06M	100	23.4	8.990	9.100	6.7	16.7	10
7/16-14UNC	CPRTU07Q	110	27.4	10.200	10.400	7.7	19.7	12
7/16-20UNF	CPRTU07N	110	27.4	10.480	10.620	7.7	19.7	12
1/2-13UNC	CPRTU08R	110	27.4	11.700	11.920	7.7	19.7	12
1/2-20UNF	CPRTU08N	110	27.4	12.060	12.200	7.7	19.7	12

■ Reference

① Pre-tapped hole diameter and thread engagement rate

Relationship between pre-tapped hole diameter and engagement rate

(unit: mm)

Threads	Hole size ⁽²⁾							Minor dia of internal threads ⁽³⁾			
	Percentage of thread engagement (%)							Minimum	Maximum		
	100	95	90	85	80	75	70		5 H (M 1.6 and over) first class	6 H (M 1.6 and over) 2nd class	7 H 3rd class
M2X0.4	1.57	1.59	1.61	1.63	1.65	1.68	1.70	1.567	1.657	1.679	—
M2.5X0.45	2.01	2.04	2.06	2.09	2.11	2.13	2.16	2.013	2.113	2.138	—
M3X0.5	2.4	2.49	2.51	2.54	2.57	2.59	2.62	2.459	2.571	2.599	2.639
M4X0.7	3.24	3.28	3.32	3.36	3.39	3.43	3.47	3.242	3.382	3.422	3.466
M5X0.8	4.13	4.18	4.22	4.26	4.31	4.35	4.39	4.134	4.294	4.334	4.384
M6X1	4.92	4.97	5.03	5.08	5.13	5.19	5.24	4.917	5.107	5.153	5.217
M8X1.25	6.65	6.71	6.78	6.85	6.92	6.99	7.05	6.647	6.859	6.912	6.982
M10X1.5	8.38	8.46	8.54	8.62	8.70	8.78	8.86	8.376	8.612	8.676	8.751
M12X1.75	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.106	10.371	10.441	10.531

--- within 5H or JIS Grade 1

--- within 6H or JIS Grade 2

The numbers written in bold to the left of this line indicate dimensions that fall within the permissible limit dimensions for the minor diameter of a 7H or JIS Grade 3 internal thread.
(Excerpted from JIS B 1004:2009 Pre-tapped hole size)

② Percentage of thread engagement

Percentage of Thread Engagement

$$\frac{\text{Basic Major Dia. — Hole Size Before Tapping}}{2 \times (\text{Basic Thread Overlap})} \times 100$$

Basic Thread Overlap :

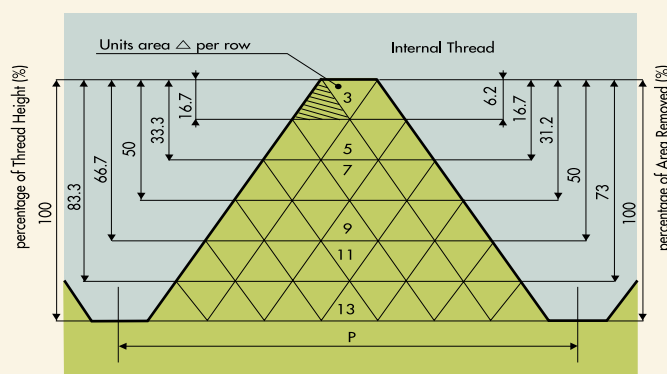
Metric & Unified Thread
Whitworth Thread
(Rc, Rp, G, PT, PS, PF) / Pipe Thread

0.5413P

0.5664P

0.6403P

P= Pitch



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Think threads with
YAMAWA



Characters

Isn't choosing the right tool kind of tricky?

We introduce YAMAWA's taps, dies, and center drills through a fun manga so you can enjoy learning about them. Please understand the features of our products and make full use of them for your tool selection and training!



Takumi

65, a local workshop owner. He's dedicated to his work but has a soft spot for his granddaughter Koharu.



Koharu

A second-grade elementary school student. Takumi's curious and inquisitive granddaughter.



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The guide to YAMAWA world
A friendly hero who makes learning about taps easy and fun!



Wakaba

YAMAWA's new employee who is passionate about manufacturing.



Makoto

Makoto Mukai
YAMAWA's sales person. He takes good care of his young colleagues and engages with customers in a sincere and dedicated manner.

Instructions and directions for use

- ◆Don't use the tools on machine to prevent accidents. Please use by hand.
- ◆Tools may fragment in use. Always wear safety equipment.
- ◆Clean the check pins before use

- ◆Prevent too much stress on the check pins
- ◆Rustproof the check pins after use

The specification might be changed to improve without notice.

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