

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓ_n	ℓ_s	Ds	K	ℓ_k

JIS

①

Spiral Fluted Taps
(for blind hole)

②

Spiral Fluted Taps
(for through hole)

③

Spiral Pointed Taps
(for through hole)

④

Hand Taps

⑤

Cemented
Carbide Taps

⑥

Roll Taps

⑦

Special Thread Taps
Simple Inspection Tools

⑧

Pipe Taps

⑨

Thread Mills
Premium Thread Mills

⑩

Dies

⑪

Center Drills
Centering Tools

⑫

Precision Machinery/
Medical Surgical Instruments

JIS

⑦-3

AL-HT STI

Hand Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)



Specification



Tapping Speeds depending on Materials

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)

■ This is used to cut a comparatively soft material, such as aluminum, and create an internal thread for accommodating a helical coil wire screw thread insert, in order to reinforce the internal thread and increase durability.

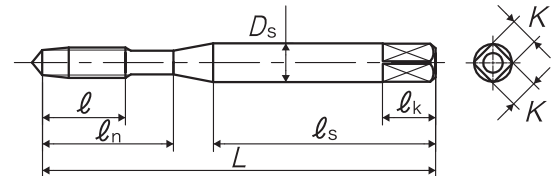
■ Diameter of the internal screw threads into which the insert coil is inserted, is larger than that of the corresponding external screw threads by the thickness of the coil. Therefore, the internal screw thread diameter of the insert coil thread tap is also larger than its nominal diameter.

■ The bored hole size needs to be also larger. Make sure to prepare an appropriate bored hole size before tapping.

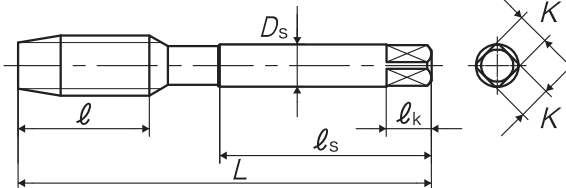
■ The shank diameter is also larger. Make sure to use an appropriate tap holder.

■ Oversize taps of Ib+30 are also available to allow for shrinkage of internal threads.

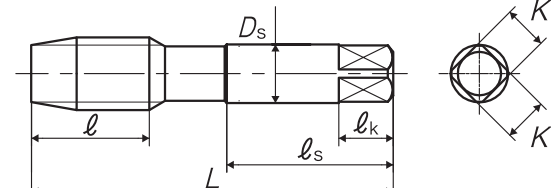
TYPE: 1



TYPE: 2



TYPE: 3



Oversize

Segment : 1A

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓ_n (mm)	ℓ_s (mm)	Ds (mm)	K (mm)	ℓ_k (mm)	No. of flutes	TYPE	MSRP
For Metric Threads														
M2 × 0.4	Ib	TW2.0E1LEB5	5P	2.520	46	8.1	14	29	3	2.5	5	3	1	¥ 3,540 ※
M2 × 0.4	Ib	TW2.0E1LEBA	1.5P	2.520	46	8.1	14	29	3	2.5	5	3	1	¥ 3,540 ※
M2.5 × 0.45	Ib	TW2.5F1LEB5	5P	3.085	52	6.8	16	28	5	4	7	3	1	¥ 2,700 ※
M2.5 × 0.45	Ib	TW2.5F1LEBA	1.5P	3.085	52	6.8	16	28	5	4	7	3	1	¥ 2,700 ※
M2.6 × 0.45	Ib	TW2.6F1LEB5	5P	3.185	52	6.8	16	29	5	4	7	3	1	¥ 2,700 ※
M2.6 × 0.45	Ib	TW2.6F1LEBA	1.5P	3.185	52	6.8	16	29	5	4	7	3	1	¥ 2,700 ※
M3 × 0.5	Ib	TW3.0G1LEB5	5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M3 × 0.5	Ib	TW3.0G1LEBA	1.5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M3 × 0.5	Ib+30	TW3.0G3LEB5	5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M3 × 0.5	Ib+30	TW3.0G3LEBA	1.5P	3.650	52	7.5	17	29	5	4	7	3	1	¥ 2,220
M4 × 0.7	Ib	TW4.0I1LEB5	5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M4 × 0.7	Ib	TW4.0I1LEBA	1.5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M4 × 0.7	Ib+30	TW4.0I3LEB5	5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M4 × 0.7	Ib+30	TW4.0I3LEBA	1.5P	4.909	60	13	22	33	5.5	4.5	7	4	1	¥ 2,110
M5 × 0.8	Ib	TW5.0K1LEB5	5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030
M5 × 0.8	Ib	TW5.0K1LEBA	1.5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

7

JIS

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M5 × 0.8	I b+30	TW5.0K3LEB5	5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030
M5 × 0.8	I b+30	TW5.0K3LEBA	1.5P	6.039	62	15	26	33	6	4.5	7	4	1	¥ 2,030
M6 × 1	I b	TW6.0M1LEB5	5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M6 × 1	I b	TW6.0M1LEBA	1.5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M6 × 1	I b+30	TW6.0M3LEB5	5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M6 × 1	I b+30	TW6.0M3LEBA	1.5P	7.299	70	19	-	36	6.2	5	8	4	2	¥ 2,080
M8 × 1.25	I b	TW8.0N1LEB5	5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M8 × 1.25	I b	TW8.0N1LEBA	1.5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M8 × 1.25	I b+30	TW8.0N3LEB5	5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M8 × 1.25	I b+30	TW8.0N3LEBA	1.5P	9.624	75	23	-	38	7	5.5	8	4	2	¥ 2,920
M10 × 1.5	I b	TW10.0O1LEB5	5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.5	I b	TW10.0O1LEBA	1.5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.5	I b+30	TW10.0O3LEB5	5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.5	I b+30	TW10.0O3LEBA	1.5P	11.948	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910
M10 × 1.25	I b	TW10.0N1LEB5	5P	11.624	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910 *
M10 × 1.25	I b	TW10.0N1LEBA	1.5P	11.624	82	26	-	42	8.5	6.5	9	4	2	¥ 3,910 *
M10 × 1	I b	TW10.0M1LEB5	5P	11.299	82	26	-	42	8.5	6.5	9	4	2	¥ 4,860 *
M10 × 1	I b	TW10.0M1LEBA	1.5P	11.299	82	26	-	42	8.5	6.5	9	4	2	¥ 4,860 *
M12 × 1.75	I b	TW12.0P1LEB5	5P	14.273	95	26	-	48	12.5	10	13	4	2	¥ 5,380
M12 × 1.75	I b	TW12.0P1LEBA	1.5P	14.273	95	26	-	48	12.5	10	13	4	2	¥ 5,380
M12 × 1.5	I b	TW12.0O1LEB5	5P	13.948	88	26	-	45	10.5	8	11	4	2	¥ 5,380 *
M12 × 1.5	I b	TW12.0O1LEBA	1.5P	13.948	88	26	-	45	10.5	8	11	4	2	¥ 5,380 *
M12 × 1.25	I b	TW12.0N1LEB5	5P	13.624	88	26	-	45	10.5	8	11	4	2	¥ 5,380 *
M12 × 1.25	I b	TW12.0N1LEBA	1.5P	13.624	88	26	-	45	10.5	8	11	4	2	¥ 5,380 *
M14 × 2	I b	TW14.0Q1LEB5	5P	16.598	100	33	-	51	14	11	14	4	2	¥ 7,080 *
M14 × 2	I b	TW14.0Q1LEBA	1.5P	16.598	100	33	-	51	14	11	14	4	2	¥ 7,080 *
M14 × 1.5	I b	TW14.0O1LEB5	5P	15.948	95	26	-	48	12.5	10	13	4	2	¥ 7,080 *
M14 × 1.5	I b	TW14.0O1LEBA	1.5P	15.948	95	26	-	48	12.5	10	13	4	2	¥ 7,080 *
M14 × 1.25	I b	TW14.0N1LEB5	5P	15.624	95	26	-	48	12.5	10	13	4	2	¥ 8,510 *
M14 × 1.25	I b	TW14.0N1LEBA	1.5P	15.624	95	26	-	48	12.5	10	13	4	2	¥ 8,510 *
M16 × 2	I b	TW16.0Q1LEB5	5P	18.598	105	33	-	50	15	12	15	4	3	¥ 10,200
M16 × 2	I b	TW16.0Q1LEBA	1.5P	18.598	105	33	-	50	15	12	15	4	3	¥ 10,200
M16 × 1.5	I b	TW16.0O1LEB5	5P	17.948	100	33	-	51	14	11	14	4	2	¥ 10,200 *
M16 × 1.5	I b	TW16.0O1LEBA	1.5P	17.948	100	33	-	51	14	11	14	4	2	¥ 10,200 *
M18 × 2.5	I b	TW18.0R1LEB5	5P	21.248	115	33	-	55	17	13	16	4	3	¥ 16,900 *
M18 × 2.5	I b	TW18.0R1LEBA	1.5P	21.248	115	33	-	55	17	13	16	4	3	¥ 16,900 *
M18 × 1.5	I b	TW18.0O1LEB5	5P	19.948	105	33	-	50	15	12	15	4	3	¥ 16,900 *
M18 × 1.5	I b	TW18.0O1LEBA	1.5P	19.948	105	33	-	50	15	12	15	4	3	¥ 16,900 *
M20 × 2.5	I b	TW20.0R1LEB5	5P	23.248	120	39	-	55	19	15	18	4	3	¥ 20,100
M20 × 2.5	I b	TW20.0R1LEBA	1.5P	23.248	120	39	-	55	19	15	18	4	3	¥ 20,100
M20 × 1.5	I b	TW20.0O1LEB5	5P	21.948	115	33	-	55	17	13	16	4	3	¥ 20,100 *
M20 × 1.5	I b	TW20.0O1LEBA	1.5P	21.948	115	33	-	55	17	13	16	4	3	¥ 20,100 *
M22 × 2.5	I b	TW22.0R1LEB5	5P	25.248	125	39	-	58	19	15	18	4	3	¥ 26,200 *
M22 × 2.5	I b	TW22.0R1LEBA	1.5P	25.248	125	39	-	58	19	15	18	4	3	¥ 26,200 *
M22 × 1.5	I b	TW22.0O1LEB5	5P	23.948	120	39	-	55	19	15	18	4	3	¥ 26,200 *
M22 × 1.5	I b	TW22.0O1LEBA	1.5P	23.948	120	39	-	55	19	15	18	4	3	¥ 26,200 *
M24 × 3	I b	TW24.0S1LEB5	5P	27.897	135	46	-	62	23	17	20	4	3	¥ 32,400
M24 × 3	I b	TW24.0S1LEBA	1.5P	27.897	135	46	-	62	23	17	20	4	3	¥ 32,400
M24 × 2	I b	TW24.0Q1LEB5	5P	26.598	130	39	-	60	20	15	18	4	3	¥ 32,400 *
M24 × 1.5	I b	TW24.0O1LEB5	5P	25.948	130	39	-	60	20	15	18	4	3	¥ 32,400 *

Spiral Fluted Taps
(for blind hole)

①

Spiral Fluted Taps
(for through hole)

②

Spiral Pointed Taps
(for through hole)

③

Hand Taps

④

Cemented
Carbide Taps

⑤

Roll Taps

⑥

Special Thread Taps
Simple inspection tools

⑦

Pipe Taps

⑧

Thread Mills
Premium Thread Mills

⑨

Dies

⑩

Center Drills
Centering Tools

⑪

Precision Machinery/
Metal Surgical Instruments

⑫

JIS

⑦-4

※ = Specified Distribution Items. Made to order products.

 Think threads with
YAMAWA

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

AL-HT STI Hand Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M24 × 1.5	I b	TW024O1LEBA	1.5P	25.948	130	39	-	60	20	15	18	4	3	¥ 32,400 ※
For Unified Threads														
No.4-40UNC	I b	TWUN4H1LEB5	5P	3.670	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.4-40UNC	I b	TWUN4H1LEBA	1.5P	3.670	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.4-48UNF	I b	TWUN4F1LEB5	5P	3.532	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.4-48UNF	I b	TWUN4F1LEBA	1.5P	3.532	52	11	17	29	5	4	7	3	1	¥ 2,380 ※
No.5-40UNC	I b	TWUN5H1LEB5	5P	4.000	52	11	17	29	5	4	7	3	1	¥ 2,300 ※
No.5-40UNC	I b	TWUN5H1LEBA	1.5P	4.000	52	11	17	29	5	4	7	3	1	¥ 2,300 ※
No.6-32UNC	I b	TWUN6J1LEB5	5P	4.536	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.6-32UNC	I b	TWUN6J1LEBA	1.5P	4.536	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.6-40UNF	I b	TWUN6H1LEB5	5P	4.330	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.6-40UNF	I b	TWUN6H1LEBA	1.5P	4.330	60	13	22	33	5.5	4.5	7	3	1	¥ 2,240 ※
No.8-32UNC	I b	TWUN8J1LEB5	5P	5.197	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.8-32UNC	I b	TWUN8J1LEBA	1.5P	5.197	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.8-36UNF	I b	TWUN8I1LEB5	5P	5.083	62	9.5	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.8-36UNF	I b	TWUN8I1LEBA	1.5P	5.083	62	9.5	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-24UNC	I b	TWUNAM1LEB5	5P	6.201	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-24UNC	I b	TWUNAM1LEBA	1.5P	6.201	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-32UNF	I b	TWUNAJ1LEB5	5P	5.857	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.10-32UNF	I b	TWUNAJ1LEBA	1.5P	5.857	62	15	26	33	6	4.5	7	4	1	¥ 2,190 ※
No.12-24UNC	I b	TWUNCM1LEB5	5P	6.861	70	19	-	36	6.2	5	8	4	2	¥ 2,380 ※
No.12-24UNC	I b	TWUNCM1LEBA	1.5P	6.861	70	19	-	36	6.2	5	8	4	2	¥ 2,380 ※
1/4-20UNC	I b	TWU04N1LEB5	5P	8.000	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
1/4-20UNC	I b	TWU04N1LEBA	1.5P	8.000	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
1/4-28UNF	I b	TWU04K1LEB5	5P	7.528	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
1/4-28UNF	I b	TWU04K1LEBA	1.5P	7.528	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
5/16-18UNC	I b	TWU05O1LEB5	5P	9.771	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
5/16-18UNC	I b	TWU05O1LEBA	1.5P	9.771	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
5/16-24UNF	I b	TWU05M1LEB5	5P	9.313	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
5/16-24UNF	I b	TWU05M1LEBA	1.5P	9.313	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
3/8-16UNC	I b	TWU06P1LEB5	5P	11.587	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
3/8-16UNC	I b	TWU06P1LEBA	1.5P	11.587	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
3/8-24UNF	I b	TWU06M1LEB5	5P	10.900	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
3/8-24UNF	I b	TWU06M1LEBA	1.5P	10.900	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
7/16-14UNC	I b	TWU07Q1LEB5	5P	13.469	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
7/16-14UNC	I b	TWU07Q1LEBA	1.5P	13.469	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
7/16-20UNF	I b	TWU07N1LEB5	5P	12.762	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
7/16-20UNF	I b	TWU07N1LEBA	1.5P	12.762	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
1/2-13UNC	I b	TWU08R1LEB5	5P	15.238	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
1/2-13UNC	I b	TWU08R1LEBA	1.5P	15.238	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
1/2-20UNF	I b	TWU08N1LEB5	5P	14.350	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
1/2-20UNF	I b	TWU08N1LEBA	1.5P	14.350	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
5/8-11UNC	I b	TWU10U1LEB5	5P	18.875	105	33	-	50	15	12	15	4	3	¥ 11,400 ※
5/8-11UNC	I b	TWU10U1LEBA	1.5P	18.875	105	33	-	50	15	12	15	4	3	¥ 11,400 ※
5/8-18UNF	I b	TWU10O1LEB5	5P	17.708	100	33	-	51	14	11	14	4	2	¥ 11,400 ※
5/8-18UNF	I b	TWU10O1LEBA	1.5P	17.708	100	33	-	51	14	11	14	4	2	¥ 11,400 ※
3/4-10UNC	I b	TWU12V1LEB5	5P	22.349	115	33	-	55	17	13	16	4	3	¥ 17,800 ※
3/4-10UNC	I b	TWU12V1LEBA	1.5P	22.349	115	33	-	55	17	13	16	4	3	¥ 17,800 ※
3/4-16UNF	I b	TWU12P1LEB5	5P	21.112	115	33	-	55	17	13	16	4	3	¥ 17,800 ※
3/4-16UNF	I b	TWU12P1LEBA	1.5P	21.112	115	33	-	55	17	13	16	4	3	¥ 17,800 ※

JIS



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Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

7

JIS

AL-HT STI Hand Taps for Aluminum Materials (for Helical Coil Wire Screw Thread Inserts)

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Unified Threads														
1/4W20	I b	TWW04N1LEB5	5P	7.976	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
1/4W20	I b	TWW04N1LEBA	1.5P	7.976	70	19	-	36	6.2	5	8	4	2	¥ 2,770 ※
5/16W18	I b	TWW05O1LEB5	5P	9.744	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
5/16W18	I b	TWW05O1LEBA	1.5P	9.744	75	23	-	38	7	5.5	8	4	2	¥ 3,700 ※
3/8W16	I b	TWW06P1LEB5	5P	11.558	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
3/8W16	I b	TWW06P1LEBA	1.5P	11.558	82	26	-	42	8.5	6.5	9	4	2	¥ 4,440 ※
7/16W14	I b	TWW07Q1LEB5	5P	13.434	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
7/16W14	I b	TWW07Q1LEBA	1.5P	13.434	88	26	-	45	10.5	8	11	4	2	¥ 6,010 ※
1/2W12	I b	TWW08S1LEB5	5P	15.409	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
1/2W12	I b	TWW08S1LEBA	1.5P	15.409	95	26	-	48	12.5	10	13	4	2	¥ 7,340 ※
5/8W11	I b	TWW10U1LEB5	5P	18.833	105	33	-	50	15	12	15	4	3	¥ 11,400 ※
5/8W11	I b	TWW10U1LEBA	1.5P	18.833	105	33	-	50	15	12	15	4	3	¥ 11,400 ※
3/4W10	I b	TWW12V1LEB5	5P	22.302	115	33	-	55	17	13	16	4	3	¥ 17,800 ※
3/4W10	I b	TWW12V1LEBA	1.5P	22.302	115	33	-	55	17	13	16	4	3	¥ 17,800 ※

Spiral Fluted Taps
(for blind hole)

①

Spiral Fluted Taps
(for through hole)

②

Spiral Pointed Taps
(for through hole)

③

Hand Taps

④

Cemented Carbide Taps

⑤

Roll Taps

⑥

Special Thread Taps
Simple Inspection Tools

⑦

Pipe Taps

⑧

Thread Mills
Premium Thread Mills

⑨

Dies

⑩

Center Drills
Centering Tools

⑪

Precision Machinery/
Metal Surgical Instruments

⑫

JIS

⑦-6

※ = Specified Distribution Items. Made to order products.

 Think threads with
YAMAWA