

6 Roll Tap Series

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

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

⑥-3

SURZ

Z-PRO
EHRZ

Z-PRO
Extra Hard Roll Taps

Specification



Tapping Speeds depending on Materials

Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	5~15 (m/min)
25~40HRC				

*For M14 or above, please aim to use a tapping speed that is 30% lower.



Product Features

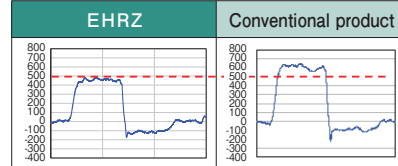
- An appropriate overall length enables reliable external lubrication. It also ensures good internal threading.
- The unique thread relief shape and surface treatment technology maximizes the effect of the coating to reduce torque and prevent welding.
- Wider flutes than the conventional model improve lubrication and cooling performance through a significantly improved lubricant supply.
- A special coating and appropriate base material makes EHRZ suitable for medium-hard steels (up to 40 HRC) and stainless steels.

Tapping Data

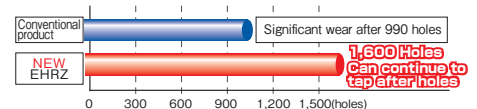
Tapping Conditions [EHRZ G8 M6 ×1 B]

Workpiece Material	SCM440 (40HRC)
Bored Hole Size	φ5.53mm
Tapping Length	12mm
Machinery Type	Vertical machining center
Tapping Speed	20m/min
F e e d	Synchronized feed
Tapping Fluid	Water soluble cutting fluid, 1:20 dilution

Diagram of torque at the time of initial machining (N·cm)



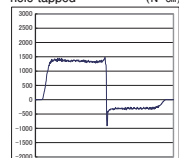
EHRZ shows approximately 20% lower torque compared to the conventional product!



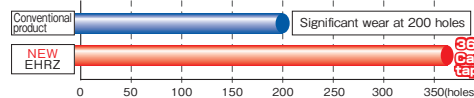
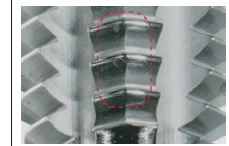
Tapping Conditions [EHRZ G8 M12 × 1.25 B]

Workpiece Material	SCM440 (40HRC)
Bored Hole Size	φ11.4mm
Tapping Length	24mm
Machinery Type	Vertical machining center
Tapping Speed	20m/min
F e e d	Synchronized feed
Tapping Fluid	Water soluble cutting fluid, 1:20 dilution

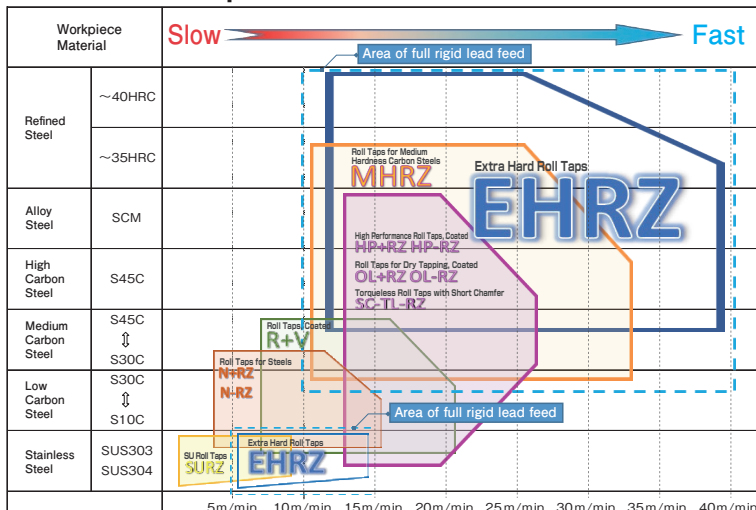
Diagram of torque at 360th hole tapped (N·cm)



Tap crest condition at 360th hole tapped



Recommended speed chart

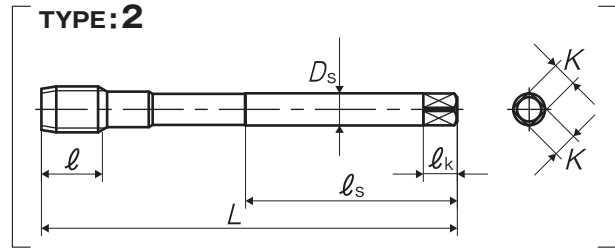
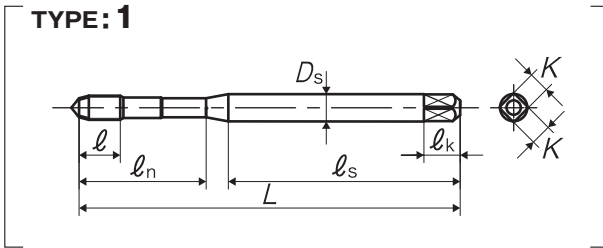


Think threads with
YAMAWA

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

6

JIS



Recommended class

Segment : 1J

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓ_n (mm)	ℓ_s (mm)	Ds (mm)	K (mm)	ℓ_k (mm)	Lobe	TYPE	MSRP
For Metric Threads													
M6 × 1	G8	1120101055	4P	80	11	30	45	6	4.5	7	5	1	¥ 4,950
M6 × 1	G8	1121101055	2P	80	11	30	45	6	4.5	7	5	1	¥ 4,950
M8 × 1.25	G8	1120101064	4P	90	12	-	46	6.2	5	8	6	2	¥ 6,690
M8 × 1.25	G8	1121101064	2P	90	12	-	46	6.2	5	8	6	2	¥ 6,690
M8 × 1	G8	1120101065	4P	90	12	-	46	6.2	5	8	6	2	¥ 7,360
M8 × 1	G8	1121101065	2P	90	12	-	46	6.2	5	8	6	2	¥ 7,360
M10 × 1.5	G8	1120101078	4P	100	13	-	51	7	5.5	8	8	2	¥ 8,300
M10 × 1.5	G8	1121101078	2P	100	13	-	51	7	5.5	8	8	2	¥ 8,300
M10 × 1.25	G8	1120101079	4P	100	13	-	51	7	5.5	8	8	2	¥ 8,300
M10 × 1.25	G8	1121101079	2P	100	13	-	51	7	5.5	8	8	2	¥ 8,300
M10 × 1	G8	1120101080	4P	100	13	-	51	7	5.5	8	8	2	¥ 9,130
M10 × 1	G8	1121101080	2P	100	13	-	51	7	5.5	8	8	2	¥ 9,130
M12 × 1.75	G8	1120101088	4P	110	15	-	56	8.5	6.5	9	8	2	¥ 11,700
M12 × 1.75	G8	1121101088	2P	110	15	-	56	8.5	6.5	9	8	2	¥ 11,700
M12 × 1.5	G8	1120101089	4P	110	15	-	56	8.5	6.5	9	8	2	¥ 11,700
M12 × 1.5	G8	1121101089	2P	110	15	-	56	8.5	6.5	9	8	2	¥ 11,700
M12 × 1.25	G8	1120101090	4P	110	15	-	56	8.5	6.5	9	8	2	¥ 11,700
M12 × 1.25	G8	1121101090	2P	110	15	-	56	8.5	6.5	9	8	2	¥ 11,700
M12 × 1	G8	1120101091	4P	110	15	-	56	8.5	6.5	9	8	2	¥ 13,500
M12 × 1	G8	1121101091	2P	110	15	-	56	8.5	6.5	9	8	2	¥ 13,500
M14 × 2	G10	1120101100	4P	110	18	-	56	10.5	8	11	8	2	¥ 16,500
M14 × 2	G10	1121101100	2P	110	18	-	56	10.5	8	11	8	2	¥ 16,500
M14 × 1.5	G9	1120101102	4P	110	18	-	56	10.5	8	11	8	2	¥ 16,500
M14 × 1.5	G9	1121101102	2P	110	18	-	56	10.5	8	11	8	2	¥ 16,500
M14 × 1.25	G9	1120101103	4P	110	18	-	56	10.5	8	11	8	2	¥ 19,800
M14 × 1.25	G9	1121101103	2P	110	18	-	56	10.5	8	11	8	2	¥ 19,800
M16 × 2	G10	1120101114	4P	110	18	-	56	12.5	10	13	8	2	¥ 20,400
M16 × 2	G10	1121101114	2P	110	18	-	56	12.5	10	13	8	2	¥ 20,400
M16 × 1.5	G9	1120101116	4P	110	18	-	56	12.5	10	13	8	2	¥ 20,400
M16 × 1.5	G9	1121101116	2P	110	18	-	56	12.5	10	13	8	2	¥ 20,400

Number of oil grooves: M6 = 5, M8 = 6, M10 and larger = 8

For M6 and smaller, external centers of 2 thread chamfer taps are removed.

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JIS ⑥-4