

EHRZ

Extra-Hard
Roll Tap

Evolved Roll tap for medium hard carbon steels and alloy steels (~40HRC)!!

▪ Extra-Hard Roll Tap ▪

EHRZ

Z-PRO

Ultimate Machining Taps

JIS

Added sizes

M3×0.5/M4×0.7/M5×0.8 !





Tapping speed depending on materials

Medium carbon steels
10~30
(m/min)

High carbon steels
10~30
(m/min)

Alloy steels
10~30
(m/min)

Thermal refined steels
10~20
(m/min)

Stainless steels
5~15
(m/min)

25~40HRC

For sizes M14 and larger, please use a tapping speed 30% lower than pictured above.

Product Features

1 A little longer is better!
A semi-long shape allows for more efficient external lubrication and achieves excellent machining results.

2 Improved torque reduction!

The combination of a unique thread relief and a coating that maximizes the benefits of surface treatments results in reduced torque and improved welding-resistance.

3 Optimized flute shape!
A slightly wider flute means a higher volume of lubricant can be applied, resulting in improved lubricity and cooling abilities.

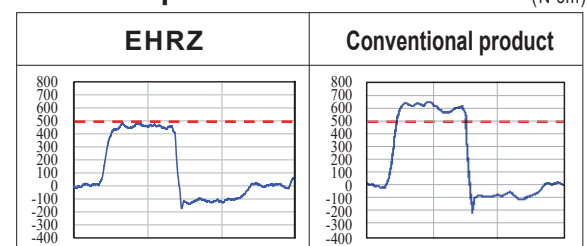
4 Optimized for medium-hard steels!
Adopting a tool material suitable for the work materials in combination with a special coating means EHRZ is suitable for medium-hard steels up to 40HRC as well as stainless steels.

Tapping conditions: EHRZ G8 M6X1 B

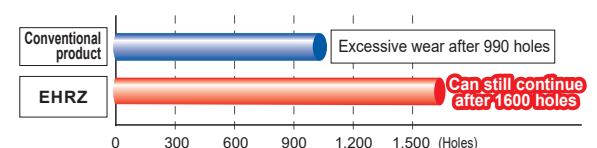
Workpiece material	SCM440(40HRC)
Bored hole size	Φ5.53mm
Tapping length	12mm
Machine	Vertical Machining Center
Tapping speed	20m/min
Feed	Fully synchronous feed
Tapping fluid	Water soluble tapping fluid (1:20 diluted solution)

Initial torque data

(N·cm)



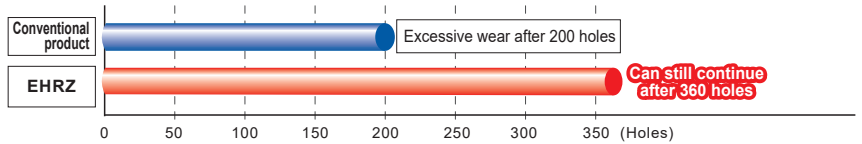
EHRZ has a 20% lower torque compared to conventional products!



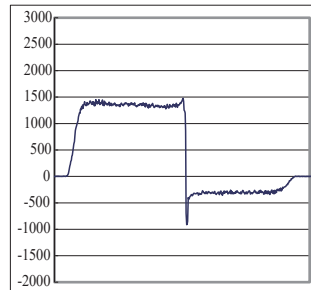
Tapping Data

Tapping conditions: EHRZ G8 M12X1.25 B

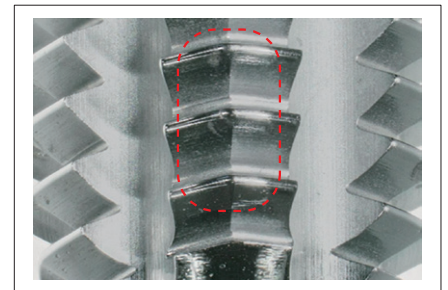
Workpiece material	SCM440(40HRC)
Bored hole size	Φ11.4mm
Tapping length	24mm
Machine	Vertical Machining Center
Tapping speed	20m/min
Feed	Fully synchronous feed
Tapping fluid	Water soluble tapping fluid (1:20 diluted solution)



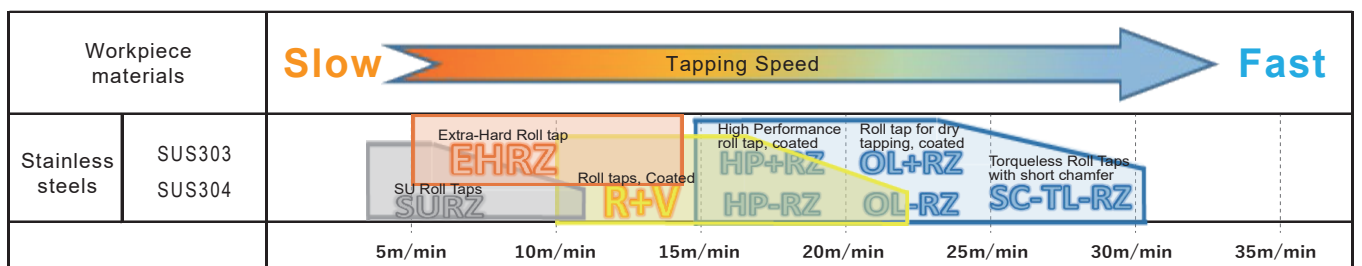
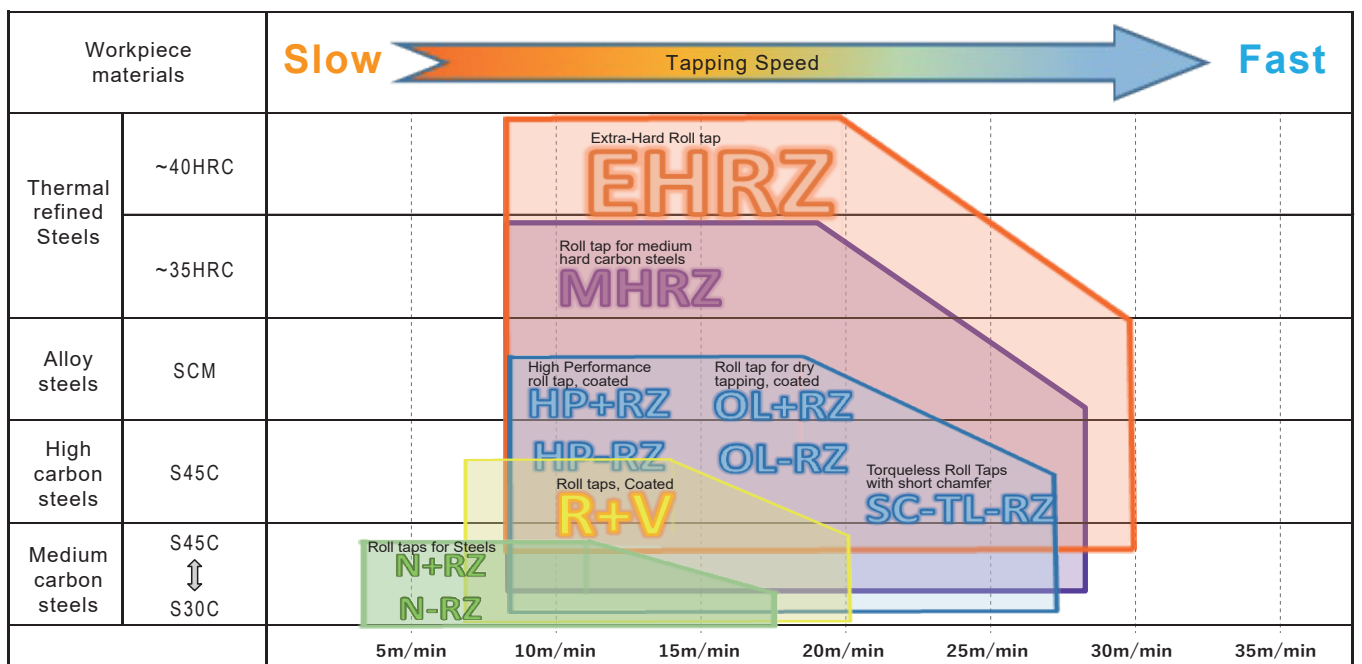
Torque data after 360 holes tapped (N·cm)



Wear after 360 holes tapped



Tapping Range



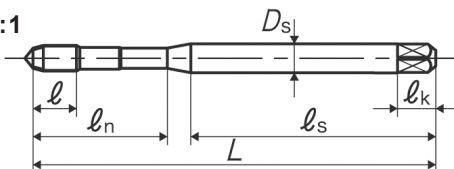
Tapping conditions (Fully synchronous feed)

Material	Tapping speed (m/min)	5	10	15	20	25	30	35	40
Carbon steels (40HRC)									
Alloy steels (40HRC)									
Unhardened steels									
Stainless steels									

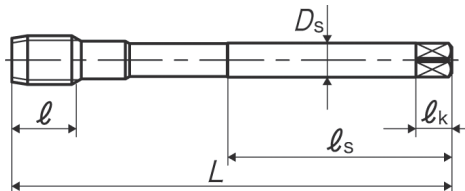
*For stainless steels, insoluble tapping fluid is recommended. For sizes M14 and larger, please use a tapping speed 30% lower than pictured above.

Shape and dimensions

TYPE:1



TYPE:2



Size	Class	Code	Chamfer	L (mm)	l (mm)	l _n (mm)	D _s (mm)	l _s (mm)	TYPE	MSRP(JPY)
M3×0.5	G6	1120101035	4P	56	5	18	4	32	1	4,230
		1121101035	2P							4,230
M4×0.7	G7	1120101042	4P	63	7	21	5	36	1	4,350
		1121101042	2P							4,350
M5×0.8	G7	1120101049	4P	70	9	25	5.5	40	1	4,620
		1121101049	2P							4,620
M6×1	G8	1120101055	4P	80	11	30	6	45	1	4,950
		1121101055	2P							4,950
M8×1.25	G8	1120101064	4P	90	12	-	6.2	46	2	6,690
		1121101064	2P							6,690
M8×1	G8	1120101065	4P	90	12	-	6.2	46	2	7,360
		1121101065	2P							7,360
M10×1.5	G8	1120101078	4P	100	13	-	7	51	2	8,300
		1121101078	2P							8,300
M10×1.25	G8	1120101079	4P	100	13	-	7	51	2	8,300
		1121101079	2P							8,300
M10×1	G8	1120101080	4P	100	13	-	7	51	2	9,130
		1121101080	2P							9,130
M12×1.75	G8	1120101088	4P	110	15	-	8.5	56	2	11,700
		1121101088	2P							11,700
M12×1.5	G8	1120101089	4P	110	15	-	8.5	56	2	11,700
		1121101089	2P							11,700
M12×1.25	G8	1120101090	4P	110	15	-	8.5	56	2	11,700
		1121101090	2P							11,700
M12×1	G8	1120101091	4P	110	15	-	8.5	56	2	13,500
		1121101091	2P							13,500
M14×2	G10	1120101100	4P	110	18	-	10.5	56	2	16,500
		1121101100	2P							16,500
M14×1.5	G9	1120101102	4P	110	18	-	10.5	56	2	16,500
		1121101102	2P							16,500
M14×1.25	G9	1120101103	4P	110	18	-	10.5	56	2	19,800
		1121101103	2P							19,800
M16×2	G10	1120101114	4P	110	18	-	12.5	56	2	20,400
		1121101114	2P							20,400
M16×1.5	G9	1120101116	4P	110	18	-	12.5	56	2	20,400
		1121101116	2P							20,400

⊙... New

Number of oil grooves : M3~M6=5, M8=6, M10 and larger=8
For M6 and smaller, external centers of 2 thread chamfer taps are removed.

Warning

- ◆Tools may shatter during use. Wear safety eye cover or eye glasses to avoid injury during tapping.
- ◆Use tools under the proper tapping condition.
- ◆Never wear gloves during turning operations as the gloves may get caught in the tools.
- ◆Wear safety shoes to avoid foot injury by the falling tools.
- ◆When attaching tools to the machine, fasten firmly to avoid chatter and run-out.
- ◆Fasten the workpiece firmly so it never moves during the tapping operation. Never use worn tools or damaged tools.
- ◆Take a special care to prevent fire during machining. High temperature during tapping can cause a fire.

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