Think threads with YAMAWA

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

DIN

DIN

Z-PRO
Ultimate Machining Taps

Extra-Hard Roll tap

EHRZ M3~M16

Specifications

HSS-Co | Coating | 2·4 | <2D

Tapping speed depending on materials

Medium carbon steels	High carbon steels	Alloy steels	Thermal refined steels	Stainless steels
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~20 (m/min)	5~15 (m/min)
			25~40HRC	

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

Product Features

1 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.

2 Optimized flute shape!

A slightly wider oil groove means a higher volume of lubricant can be applied, resulting in improved lubricity and cooling abilities.

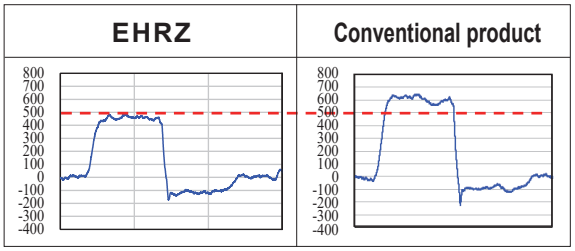
3 Optimized for medium-hard steels!

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

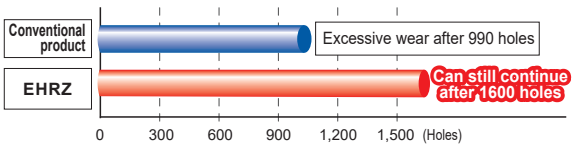
Tapping conditions: EHRZ M6X1 C(2P)

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!

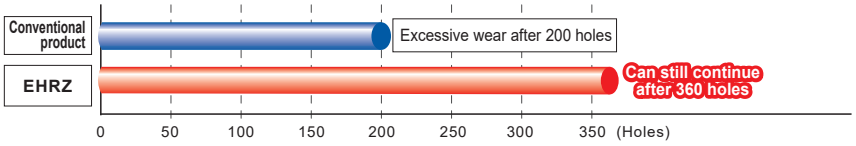


DIN

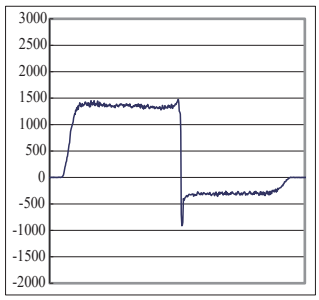
Tapping Data

Tapping conditions: EHRZ M12X1.25 C(2P)

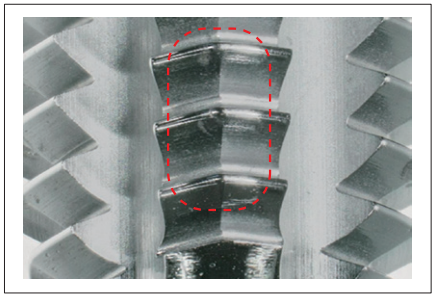
Workpiece material	SCM440(40HRC)
Bored hole size	Φ11.4mm
Tapping length	24mm
Machine	Vertical Machining Center
Tapping speed	20m/min
Feed	Fully synchronous feed
Tapping fluid	Water soluble tapping fluid (1:20 diluted solution)



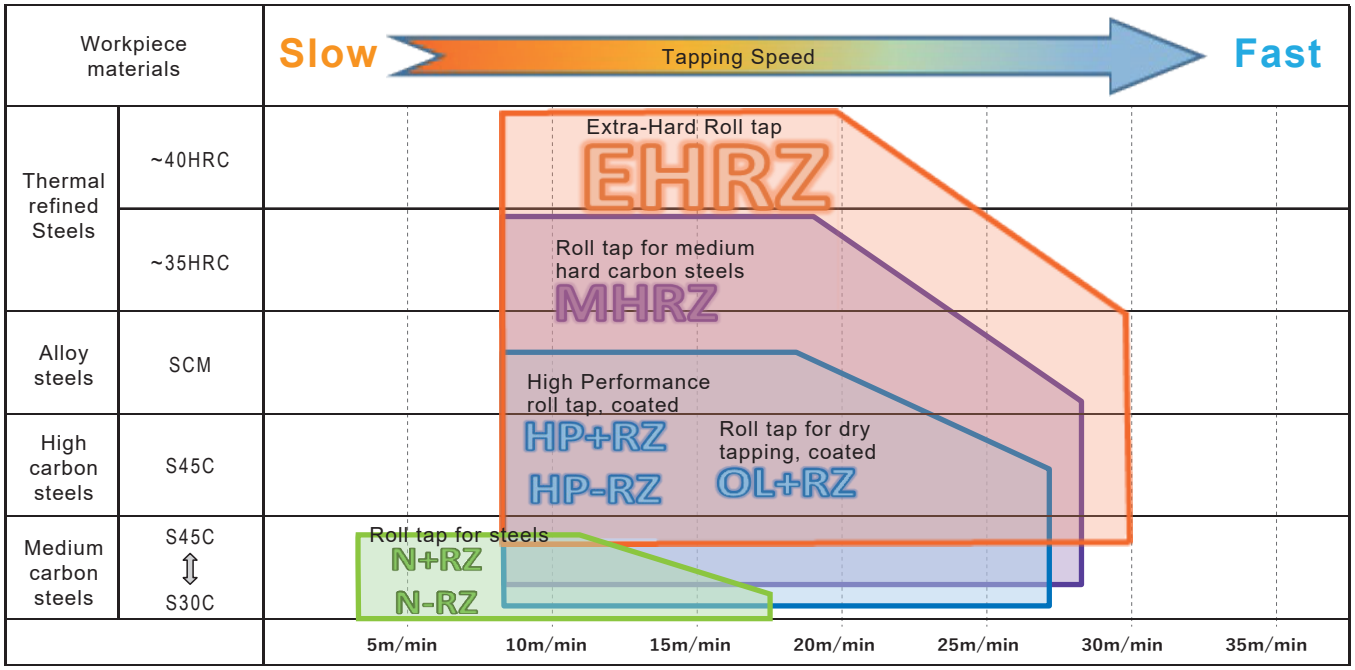
Torque data after 360 holes tapped (N·cm)

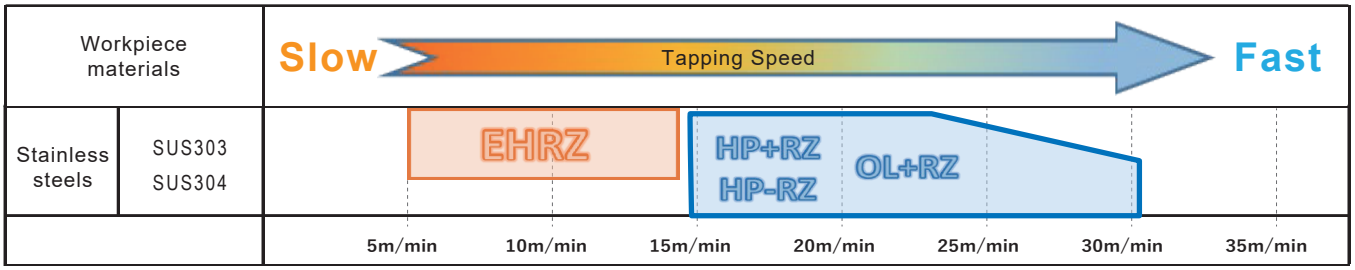


Wear after 360 holes tapped



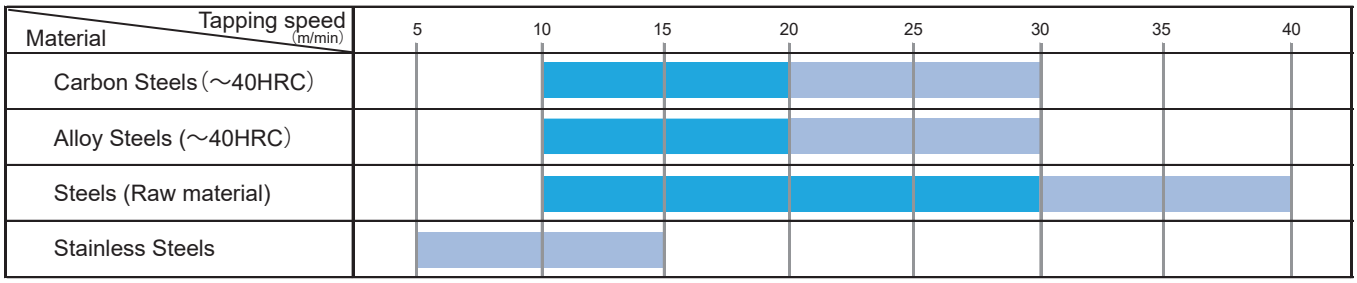
Tapping Range





Tapping Conditions (Fully synchronous feed)

Recommended Range Processable Range

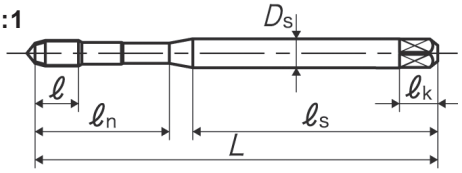


*For stainless steels, insoluble tapping fluid is recommended. For sizes M14 and larger, please use a tapping speed 30% lower than pictured above.

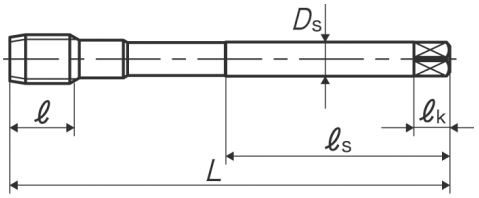
DIN

Shape and dimensions

TYPE:1



TYPE:2



Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	ℓs (mm)	ℓk (mm)	TYPE
M3×0.5	ISO2X	3120101035	D(4P)	56	5	18	3.5	34	6	1
		3121101035	C(2P)							
M4×0.7	ISO2X	3120101042	D(4P)	63	7	21	4.5	38	6	1
		3121101042	C(2P)							
M5×0.8	ISO2X	3120101049	D(4P)	70	9	25	6	39	8	1
		3121101049	C(2P)							
M6×1	ISO2X	3120101055	D(4P)	80	11	30	6	45	8	1
		3121101055	C(2P)							
M8×1.25	ISO2X	3120101064	D(4P)	90	12	35	8	47	9	1
		3121101064	C(2P)							
M8×1	ISO2X	3120101065	D(4P)	90	19	-	8	46	8	2
		3121101065	C(2P)							
M10×1.5	ISO2X	3120101078	D(4P)	100	13	39	10	52	11	1
		3121101078	C(2P)							
M10×1.25	ISO2X	3120101079	D(4P)	100	13	-	7	51	8	2
		3121101079	C(2P)							
M10×1	ISO2X	3120101080	D(4P)	90	13	-	7	46	8	2
		3121101080	C(2P)							
M12×1.75	ISO2X	3120101088	D(4P)	110	15	-	9	56	10	2
		3121101088	C(2P)							
M12×1.5	ISO2X	3120101089	D(4P)	100	15	-	9	51	10	2
		3121101089	C(2P)							
M12×1.25	ISO2X	3120101090	D(4P)	100	15	-	9	51	10	2
		3121101090	C(2P)							
M12×1	ISO2X	3120101091	D(4P)	100	15	-	9	51	10	2
		3121101091	C(2P)							
M14×2	ISO2X	3120101100	D(4P)	110	18	-	11	56	12	2
		3121101100	C(2P)							
M14×1.5	ISO2X	3120101102	D(4P)	100	18	-	11	51	12	2
		3121101102	C(2P)							
M14×1.25	ISO2X	3120101103	D(4P)	100	18	-	11	51	12	2
		3121101103	C(2P)							
M16×2	ISO2X	3120101114	D(4P)	110	18	-	12	56	12	2
		3121101114	C(2P)							
M16×1.5	ISO2X	3120101116	D(4P)	100	18	-	12	51	12	2
		3121101116	C(2P)							

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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YAMAWA group for Overseas

YAMAWA International Co., Ltd.

ISO 9001 JQA-QMA14664

ISO 14001 JQA-EM3465

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