Premium Thread Mill for
The Heat Resistant Alloy

PRMLTI

Think threads with YAMAWA

Thread Mills optimum for processing The Heat Resistant Alloy

Z-PRO

Ultimate Machining Products Lineup

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PRML TI

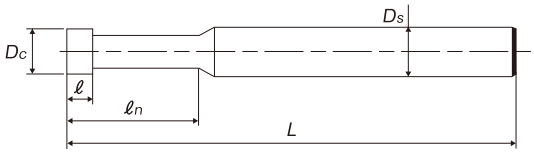
Coating HF

HF：Ultra fine cemented carbide

Shape and Dimensions

←Three threads

Left Hand Cut



Internal threading tool

※ For external lubrication

For Metric threads

Size	Metric Thread Size(Dmin)	Maximum machinable length	Code	Dc (mm)	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	Number of Flutes	MSRP
6.0P1.25	M8×1.25	16	MH6.0NNIWLM	6	70	3.8	18	6	4	20,200
6.0P1.0	M8×1	16	MH6.0MNIWLM	6	70	3.0	18	6	4	20,200
7.5P1.5	M10×1.5	20	MH7.5ONIWLM	7.5	80	4.5	22	8	4	21,100
7.5P1.25	M10×1.25	20	MH7.5NNIWLM	7.5	80	3.8	22	8	4	21,100
7.5P1.0	M10×1	20	MH7.5MNIWLM	7.5	80	3.0	22	8	4	21,100
9.0P1.75	M12×1.75	24	MH9.0PNIWLM	9	90	5.3	26	10	4	24,100
9.0P1.5	M12×1.5	24	MH9.0ONIWLM	9	90	4.5	26	10	4	24,100
9.0P1.25	M12×1.25	24	MH9.0NNIWLM	9	90	3.8	26	10	4	24,100

For Unified threads

Size	Unified Thread Size(Dmin)	Maximum machinable length	Code	Dc (mm)	L (mm)	ℓ (mm)	ℓn (mm)	Ds (mm)	Number of Flutes	MSRP
5.8U18	5/16-18UNC	15.9	MH5.8ONIWLU	5.8	70	4.2	17.9	6	4	20,200
5.8U24	5/16-24UNF	19.1	MH5.8MNIWLU	5.8	70	3.2	21.1	6	4	20,200
6.0U16	3/ 8-16UNC	19.1	MH6.0PNIWLU	6	70	4.8	21.1	6	4	20,200
8.0U14	7/16-14UNC	22.2	MH8.0QNIWLU	8	80	5.4	24.2	8	4	21,100
8.0U20	7/16-20UNF	25.4	MH8.0NNIWLU	8	80	3.8	27.4	8	4	21,100
9.0U13	1/ 2-13UNC	25.4	MH9.0RNIWLU	9	90	5.9	27.4	10	4	24,100

Applicable to Heat-resistant alloy processing

Recommended condition

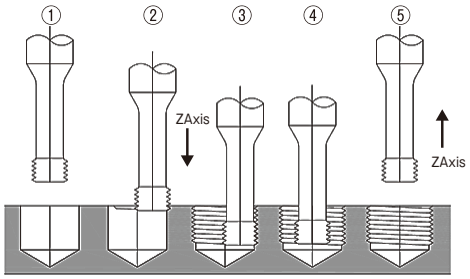
Work Matreial	Cutting Speed (m／min)	1Feed rate per flute fz (㎜／t)
Titanium alloys	40~60	0.02~0.06
Austenitic Stainless steel	60~80	0.06~0.08
Martensitic Stainless steel	40~60	0.02~0.06

1) The above conditions are exclusive to tapping with water soluble fluid.
2) The coolants effectiveness depends on the conditions of the cutting fluid. When applying the cutting fluid, be sure to direct the coolant nozzles position at an angle above the tool for the best lubrication.

speed;
Rotation speed (min - 1) = 1000 X Cutting speed / 3.14 / PRML TI diameter (Dc)
Feed rate (mm / min) = fz X Number of flutes X Rotational speed X (internal nominal diameter - PRML TI diameter (Dc)) / Thread nominal diameter.

How to Use

The PRML TI is a left hand cutter, please use a counterclockwise spindle rotation. Process the thread from top to the bottom like ② ~ ③. For programing, please visit our website.



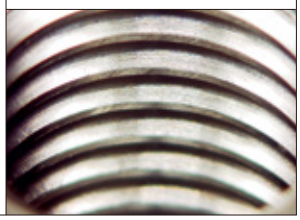
Process data Thread size:M8X1

Processing Condition 6.0 P1.0 (Code:MH6.0MNIWLM)

Workpiece Material	Ti-6Aℓ-4V
Cutting Speed	50m/min
Feed Per Flute fz	0.04㎜/t
Threading length	10㎜
Hole Size	Φ7.0
Number of Passes	1Pass
Machine	Machining center (BT 30)
Lubrication	Water Soluble oil 20 to 1 ratio

Excellent thread surface even after 100hole threaded !

Thread surface



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

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