

# MS+RS HPsRZ

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Further development in Yamawa's Roll Taps for Miniature Threads



Yamawa introduces more efficient and longer tool life Roll Taps for miniature threads on stainless steel parts.

## Features of Products

Standard type

**MS+RS**



High performance type

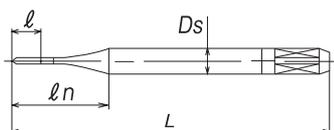
**HPsRZ**



### Features

- Using new blanks, Roll Taps improve their rigidity, bending strength and run-out tolerance.
- Marking position is moved to shank square portion to keep high shank concentricity.
- Adoption of new thread limits (GS classes) improves the thread accuracy of internal threads machined.

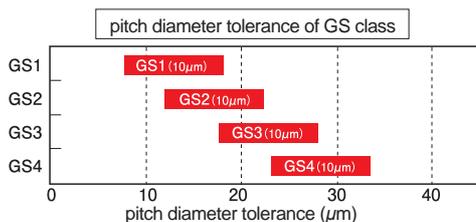
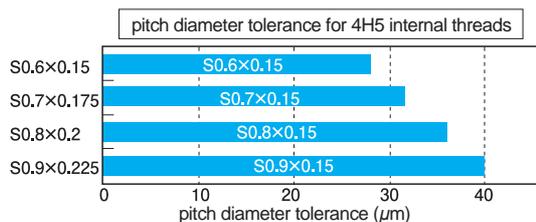
### Table of dimensions and sizes



size	class	L	l	ln	Ds	number of lobes	bored hole size for class 4H5		MS+RS code	HPsRZ code
							Max	Min		
S0.6X0.15	GS2	36	2.5	11	3	4	0.55	0.54	MSP20.6-B	HPS20.6-B
S0.7X0.175	GS3	36	2.5	11	3	4	0.64	0.62	MSP30.7-B	HPS30.7-B
S0.8X0.2	GS3	36	3.0	11	3	4	0.73	0.71	MSP30.8-B	HPS30.8-B
S0.9X0.225	GS4	36	3.0	11	3	4	0.82	0.80	MSP40.9-B	HPS40.9-B

- Above bored hole size is for reference. Please adjust the hole size depending on material, material hardness, parts' geometry. They can influence the deforming condition.
- Bent hole, machine vibration and misalignment can cause tapping troubles. Please pay attention to avoid such causes.

### New thread class=GS



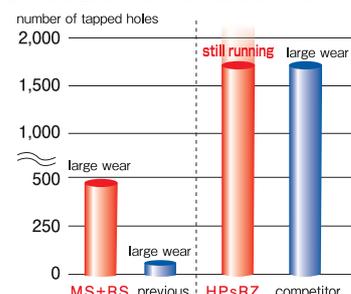
### Recommendations of tapping conditions

material	tool	tapping speed (m/min)
low carbon steels ~S25C	MS+RS	~10
	HPsRZ	~12
aluminum, cast aluminum AL·ADC	MS+RS	~12
	HPsRZ	~14
cold rolled steel SPCC·SPCE	MS+RS	~12
	HPsRZ	~14
stainless steel SUS304	MS+RS	~5
	HPsRZ	~10

### Tapping data

- Special design on thread lobes has realized the increase of tool life.

Tool size	S0.8X0.2	
tool	MS+RS previous	HPsRZ competitor
coating	—	TiCN
tapping speed	4m/min	8m/min
material	SUS304 (88HRB)	
bored hole size	φ0.73	
tapping length	1.2mm (1.5D)	
machine	CNC tapping center	
oil	water soluble	



※ Judgement of tool life  
Crest wear at the 1st full thread

### Warning

- ◆ Tools may shatter. Wear cover or eye glass to avoid injury during tapping.
- ◆ Tools may be shatter. Use tools under the proper tapping condition.
- ◆ Never wear gloves during turning operations as the gloves may get caught with the tools.
- ◆ Wear safety shoes to avoid injuring yourself by the falling tools.
- ◆ On attaching tools to the machine, fasten firmly to avoid chattering and run-out.
- ◆ Fasten the workpieces firmly so that they never move during operation. Never use worn tools or damaged tools with chipping.
- ◆ Take a special care to fire trouble. High temperature during machining may cause fire.

Please note that specification may change without advance notice.