

# AU SERIES

AU Series enables the tapping at medium to high speed for wide range of work materials.

AU Series

AU+SP

AU+SL

AUXSP

AUXSL



# AU+SP / AUXSP



## Features of AU+SP / AUXSP Series

● **AU+SP and AUXSP** are designed to have a few full threads only after the chamfer and half of height for the remaining threads.

● **Features of AU+SP and AUXSP** are as follows:

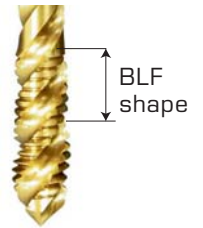
- Prevention of chipping trouble at full thread portion
- Reduction of tapping torque and tapping friction
- With good thread guiding feature
- With good chip ejection



chip ejection



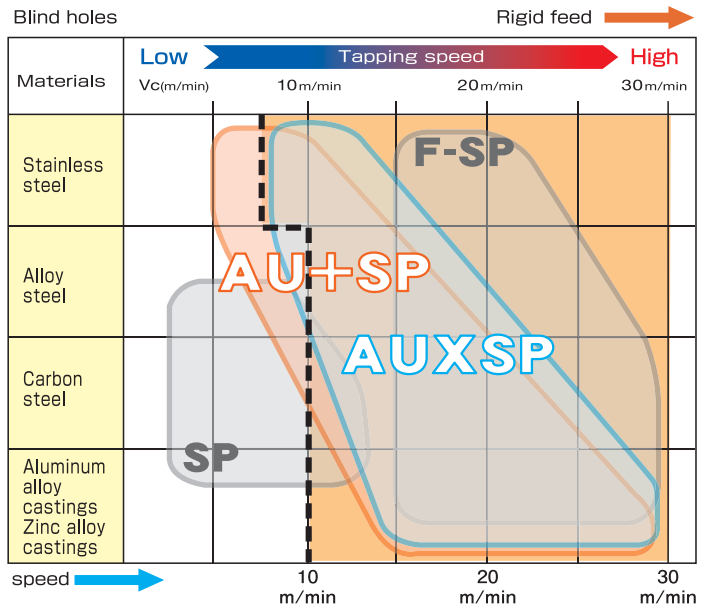
no trouble



## Work materials

Recommended tapping speed for AU+SP, AUXSP

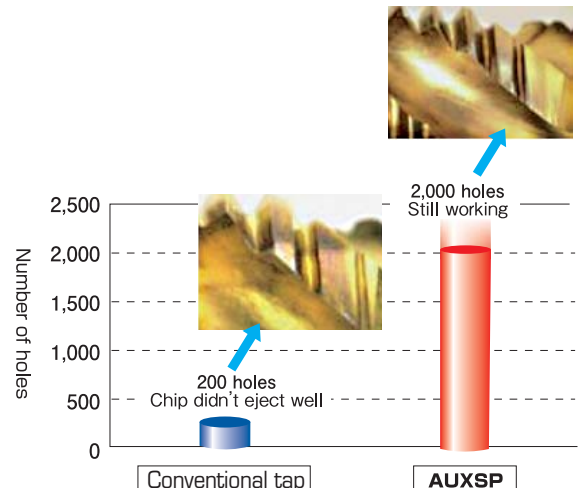
Work material	Recommended tapping speed (m/min)	
	AU+SP	AUXSP
Stainless steel	5~10	10~15
Alloy steel	10~20	10~25
Carbon steel	10~20	10~25
Aluminium alloy castings	20~30	20~30



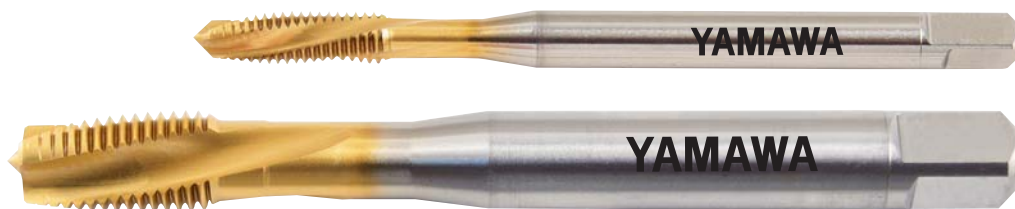
## Tool life

Tapping condition: AUXSP M6×1

Work material	SCM440
Cutting speed	15 m/min
Hole diameter	φ5.0
Tapping length	9 mm blind hole
Machine	Machining centers vertical type
Oil	water soluble oil (chlorine-free, 20 fold dilution)



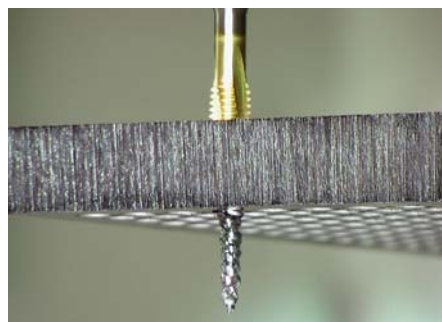
# AU+SL / AUXSL



## Features of AU+SL / AUXSL Series

● **AU+SL and AUXSL are designed to have a special left hand spiral flute that enables smooth chip ejection even by high speed tapping.**

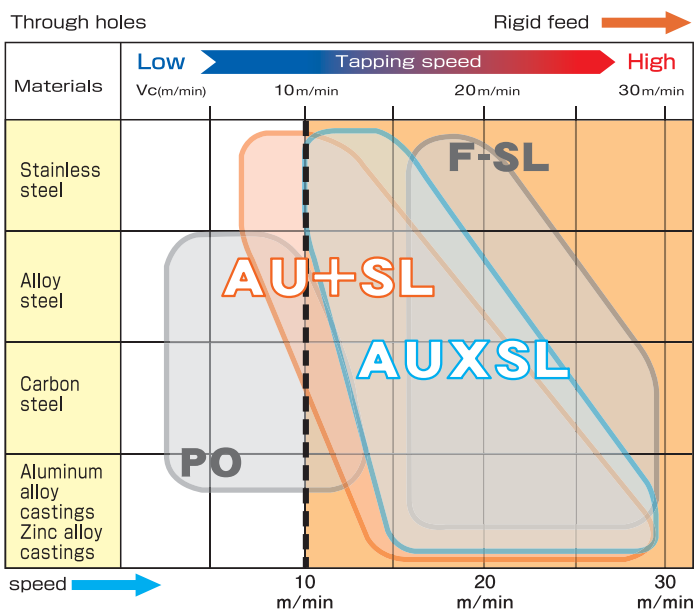
Excellent in chip ejection



## Work materials

Recommended tapping speed for AU+SL, AUXSL

Work material	Recommended tapping speed (m/min)	
	AU+SL	AUXSL
Stainless steel	5~10	10~15
Alloy steel	10~20	10~25
Carbon steel	10~20	10~25
Aluminium alloy castings	20~30	20~30



## Tool life

Tapping condition: AUXSL M6×1

Work material	SCM440
Cutting speed	15 m/min
Hole diameter	φ5.0
Tapping length	9 mm blind hole
Machine	Machining centers vertical type
Oil	water soluble oil (chlorine-free, 20 fold dilution)

Chamfer condition after 3.000 hole tapped

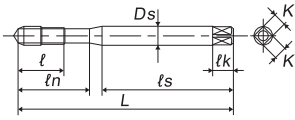


# Table of dimensions and sizes

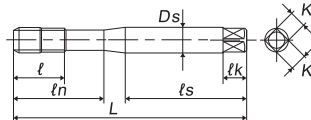
## AU+SP HSS Coating

## AU+SL HSS Coating

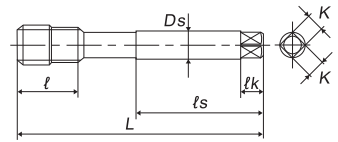
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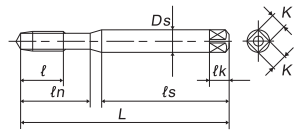
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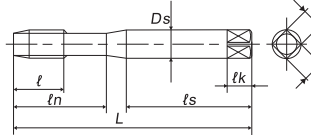
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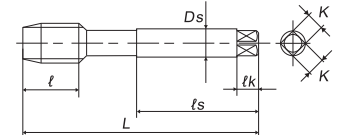
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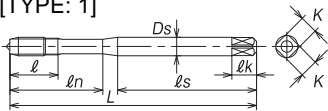
Size	L (mm)	l (mm)	ln (mm)	ls (mm)	Ds (mm)	K (mm)	lk (mm)	No. of flutes	AU+SP				AU+SL			
									Class	Chamfer	Type	Code	Class	Chamfer	Type	Code
M3X0.5	56	9	18	34	3.5	2.7	6	3	ISO2	2.5P	1	SE3.0GANEV	ISO2X	5P	4	LE3.0GBNEV
M4X0.7	63	13	21	38	4.5	3.4	6	3	ISO2	2.5P	1	SE4.0IANEV	ISO2X	5P	4	LE4.0JBNEV
M5X0.8	70	14	25	39	6	4.9	8	3	ISO2	2.5P	1	SE5.0KANEV	ISO2X	5P	4	LE5.0KBNEV
M6X1	80	15	30	45	6	4.9	8	3	ISO2	2.5P	1	SE6.0MANEV	ISO2X	5P	4	LE6.0MBNEV
M8X1.25	90	19	35	47	8	6.2	9	3	ISO2	2.5P	2	SE8.0NANEV	ISO2X	5P	5	LE8.0NBNEV
M8X1	90	19	-	46	6	4.9	8	3	ISO2	2.5P	3	SN8.0MANEV	ISO2X	5P	6	LN8.0MBNEV
M10X1.5	100	23	39	52	10	8	11	4	ISO2	2.5P	2	SE10.0OANEV	ISO2X	5P	5	LE10.0OBNEV
M10X1.25	100	23	-	51	7	5.5	8	4	ISO2	2.5P	3	SN10.0NANEV	ISO2X	5P	6	LN10.0NBNEV
M10X1	90	19	-	46	7	5.5	8	4	ISO2	2.5P	3	SN10.0MANEV	ISO2X	5P	6	LN10.0MBNEV
M12X1.75	110	26	-	56	9	7	10	4	ISO2	2.5P	3	SH12.0PANEV	ISO2X	5P	6	LH12.0PBNEV
M12X1.5	100	21	-	51	9	7	10	4	ISO2	2.5P	3	SN12.0OANEV	ISO2X	5P	6	LN12.0OBNEV
M12X1.25	100	21	-	51	9	7	10	4	ISO2	2.5P	3	SN12.0NANEV	ISO2X	5P	6	LN12.0NBNEV
M14X2	110	26	-	56	11	9	12	4	ISO2	2.5P	3	SH14.0QANEV	ISO2X	5P	6	LH14.0QBNEV
M14X1.5	100	21	-	51	11	9	12	4	ISO2	2.5P	3	SN14.0OANEV	ISO2X	5P	6	LN14.0OBNEV
M16X2	110	26	-	56	12	9	12	4	ISO2	2.5P	3	SH16.0QANEV	ISO2X	5P	6	LH16.0QBNEV
M16X1.5	100	21	-	51	12	9	12	4	ISO2	2.5P	3	SN16.0OANEV	ISO2X	5P	6	LN16.0OBNEV
M18X2.5	125	33	-	64	14	11	14	4	ISO2	2.5P	3	SH18.0RANEV	ISO2X	5P	6	LH18.0RBNEV
M18X1.5	110	24	-	56	14	11	14	4	ISO2	2.5P	3	SN18.0OANEV	ISO2X	5P	6	LN18.0OBNEV
M20X2.5	140	33	-	71	16	12	15	4	ISO2	2.5P	3	SH20.0RANEV	ISO2X	5P	6	LH20.0RBNEV
M20X1.5	125	24	-	64	16	12	15	4	ISO2	2.5P	3	SN20.0OANEV	ISO2X	5P	6	LN20.0OBNEV

\*Tap class is only the target for the limit of internal threads.

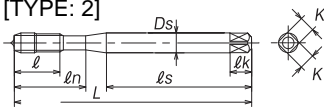
## AUXSP HSS Coating

## AUXSL HSS Coating

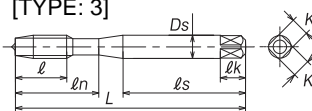
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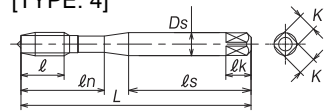
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[TYPE: 3]



[TYPE: 4]



Size	L (mm)	l (mm)	ln (mm)	ls (mm)	Ds (mm)	K (mm)	lk (mm)	No. of flutes	AUXSP				AUXSL			
									Class	Chamfer	Type	Code	Class	Chamfer	Type	Code
M 6X1	80	15	30	45	6	4.9	8	3	ISO2	2.5P	1	SX6.0MANEV	ISO2X	5P	3	LX6.0MBNEV
M 8X1.25	90	19	35	48	8	6.2	9	3	ISO2	2.5P	1	SX8.0MANEV	ISO2X	5P	3	LX8.0NBNEV
M 8X1	90	15	35	48	8	6.2	9	3	ISO2	2.5P	2	SX8.0NANEV	ISO2X	5P	4	LX8.0MBNEV
M10X1.5	100	23	39	53	10	8	11	4	ISO2	2.5P	1	SX10.0OANEV	ISO2X	5P	3	LX10.0OBNEV
M10X1.25	100	19	39	53	10	8	11	4	ISO2	2.5P	2	SX10.0NANEV	ISO2X	5P	4	LX10.0NBNEV
M10X1	100	15	39	53	10	8	11	4	ISO2	2.5P	2	SX10.0MANEV	ISO2X	5P	4	LX10.0MBNEV
M12X1.75	110	26	45	56	12	9	12	4	ISO2	2.5P	1	SX12.0PANEV	ISO2X	5P	3	LX12.0PBNEV
M12X1.5	110	23	45	56	12	9	12	4	ISO2	2.5P	2	SX12.0OANEV	ISO2X	5P	4	LX12.0OBNEV
M12X1.25	110	19	45	56	12	9	12	4	ISO2	2.5P	2	SX12.0NANEV	ISO2X	5P	4	LX12.0NBNEV

### Warning

- ◆ Tools may shatter. Wear cover or eye glasses 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.