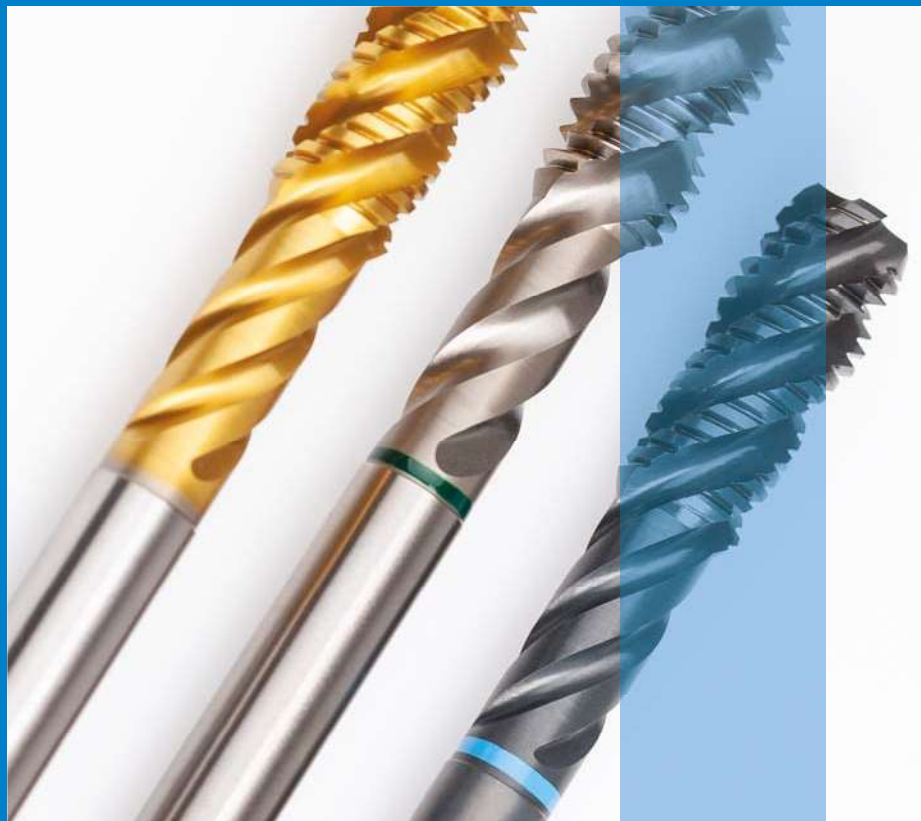


SPIRAL FLUTED TAPS



SP - DIN **080**
SP - JIS **154**
SP - ANSI **174**

Selection Chart

Intro

SP

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PO

ST

ROLL

CARBIDE

LONG

HAND TAPS

EG (STI)

SPECIAL THREADS, GAUGES

THREAD MILLS

DIES

CENTER DRILLS

Technical info

Z-PRO															
VUSP		VUSP E(1.5P)		VUSP CH		AUSP G		AUSP Rp		AUSP Rc		HVSP		MHSP	
HSS-P	COATING	HSS-P	COATING	HSS-P	COATING	HSS-E	COATING	HSS-E	COATING	HSS-E	COATING	HSS-E	OX	HSS-Co	COATING
DIN															
M	81	83	85									91	95		
MF	81	83	85									91	95		
UNC/UNF												92			
UNS, 8, 12, 20, 32UN												92			
UNEF															
G (BSP)						86									
Rp (BSPP)								87							
Rc (BSPT)										89					
NPT															
NPTF															
NPSC, NPSM, NPSF															
BSW															
EG(STI) M, MF, UNC/UNF															
Pg															
Tr															
S miniature															
Special threads															
Vc (m/min)															
P1	★	10÷25	★	10÷25	★	10÷25	★	5÷10	★	5÷10	★	≤7	★	3÷8	
P2	★	10÷25	★	10÷25	★	10÷25	★	5÷10	★	5÷10	★	≤7	★	3÷8	★
P3	★	10÷25	★	10÷25	★	10÷25	★	5÷10	★	5÷10	★	≤7	★	3÷8	★
P4	★	10÷20	★	10÷20	★	10÷20	☆	5÷10	☆	5÷10	☆	≤5	☆	3÷8	★
P5															☆
P6															
P7	★	5÷15	★	5÷15	★	5÷15	★	≤5	★	≤5	★	≤3	★	3÷8	
P8															
M1	★	5÷15	★	5÷15	★	5÷15	★	≤5	★	≤5	★	≤3	★	3÷8	
M2	☆	5÷10	☆	5÷10	☆	5÷10	★	≤5	★	≤5	★	≤3	★	3÷8	
M3															
K1															
K2	☆	10÷20	☆	10÷20	☆	10÷20	☆	≤5	☆	≤5	☆	≤5			
K3															
K4															
N1	★	10÷30	★	10÷30	★	10÷30	★	5÷15	★	5÷15	★	≤10			
N2	★	10÷30	★	10÷30	★	10÷30	★	5÷15	★	5÷15	★	≤10			
N3	☆	10÷25	☆	10÷25	☆	10÷25	☆	5÷15	☆	5÷15	☆	≤10			
N4	☆	10÷20	☆	10÷20	☆	10÷20	☆	≤5	☆	≤5	☆	≤5			
N5															
S1 (<25 HRC)															
S2 (<35 HRC)															
S3 (35 ÷ 45 HRC)															
S5															
H (45 ÷ 55 HRC)															
H (55 ÷ 63 HRC)															

★ 1st choice ☆ suitable

Intro

VUSP

Z-PRO Series

HSSP Spiral Fluted Taps, Coated



SP

DIN

SL



PO

Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)	★	ISO	Vc (m/min)	★	ISO	Vc (m/min)	☆	ISO	Vc (m/min)	★
P1	10÷25	★	M1	5÷15	★	K2	10÷20	☆	N1	10÷30	★
P2	10÷25	★	M2	5÷10	☆				N2	10÷30	★
P3	10÷25	★							N3	10÷25	☆
P4	10÷20	★							N4	10÷20	☆
P7	5÷15	★									

★ 1st choice ☆ suitable

FEATURES

Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

For wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.



WATCH THE VIDEO

ST

ROLL

Product Features

Lubricant	Hole shape	Hand tapping	Drilling machine	Low speed	Middle speed
Emulsion					VUSP Vc ≤ 25 m/min
					VUPO
Oil		HTset	ISP	SP	SP V
		IHT	IPO	PO	PO V
					AU+SP
					AU+SL

CARBIDE

LONG

HAND TAPS

EG (STI)

Process Data

M3×0.5

Work-material	Ck50 - 1.1213
Thread length	4.5 mm
Tapping speed	20 m/min
Machine	Vertical machining center
Lubricant	Water soluble oil

No wear after 250 threads with VUSP



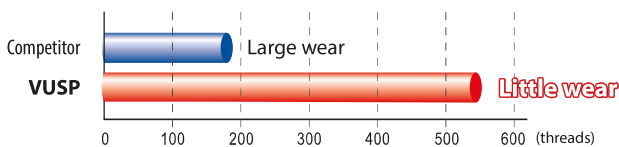
SPECIAL THREADS, GAUGES

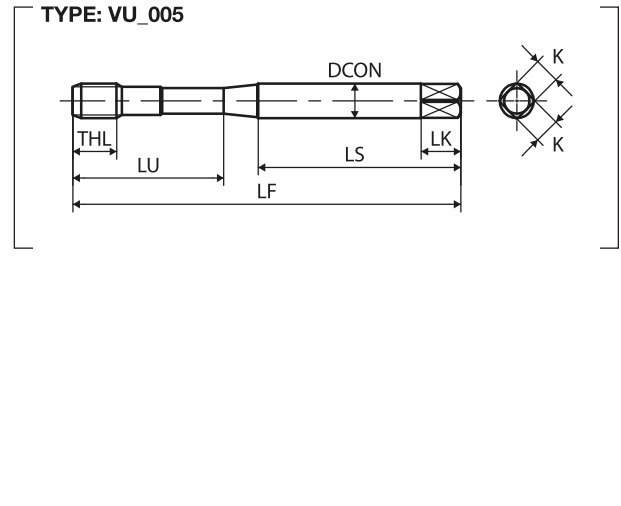
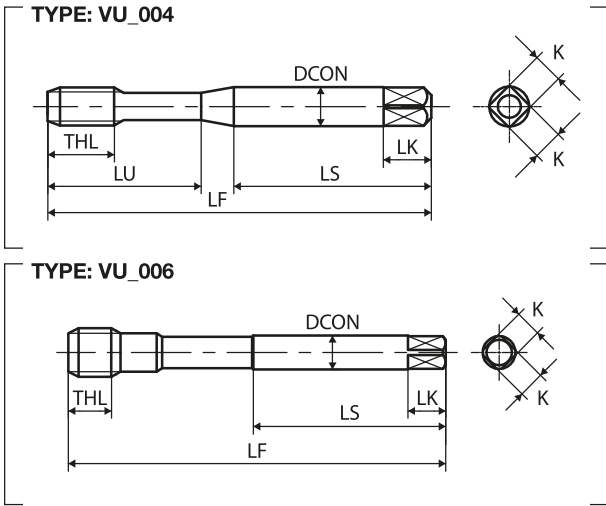
THREAD MILLS

DIES

CENTER DRILLS

Technical info





M	TCTR (tolerance)	Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 371																
M3X0.5	ISO2X(6HX)	2.5	2.56	3101101035	2.5P	56	-	5	18	34	3.5	2.7	6	3	004	●
M4X0.7	ISO2X(6HX)	3.3	3.38	3101101042	2.5P	63	-	7	21	38	4.5	3.4	6	3	004	●
M5X0.8	ISO2X(6HX)	4.2	4.28	3101101049	2.5P	70	-	9	25	39	6	4.9	8	3	004	●
M6X1	ISO2X(6HX)	5	5.09	3101101055	2.5P	80	-	11	30	45	6	4.9	8	3	004	●
M8X1.25	ISO2X(6HX)	6.8	6.85	3101101064	2.5P	90	-	12	35	47	8	6.2	9	3	005	●
M10X1.5	ISO2X(6HX)	8.5	8.6	3101101078	2.5P	100	-	13	39	52.5	10	8	11	3	005	●

M	TCTR (tolerance)	Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 376																
M12X1.75	ISO2X(6HX)	10.3	10.36	3101101088	2.5P	110	-	15	-	56	9	7	10	3	006	●
M14X2	ISO2X(6HX)	12	12.12	3101101100	2.5P	110	-	18	-	56	11	9	12	3	006	●
M16X2	ISO2X(6HX)	14	14.12	3101101114	2.5P	110	-	18	-	56	12	9	12	3	006	●
M18x2.5	ISO2X(6HX)	15.5	15.63	3101101128	2.5P	125	-	20	-	64	14	11	14	4	006	●
M20x2.5	ISO2X(6HX)	17.5	17.63	3101101141	2.5P	140	-	20	-	71	16	12	15	4	006	●
M22x2.5	ISO2X(6HX)	19.5	19.63	3101101156	2.5P	140	-	20	-	71	18	14.5	17	4	006	●
M24x3	ISO2X(6HX)	21	21.13	3101101167	2.5P	160	-	25	-	82	18	14.5	17	4	006	●

MF	TCTR (tolerance)	Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 371																
M3X0.35	ISO2X(6HX)	2.65	2.7	3101101036	2.5P	56	-	5	18	34	3.5	2.7	6	3	004	●
M4X0.5	ISO2X(6HX)	3.5	3.56	3101101043	2.5P	63	-	5	21	38	4.5	3.4	6	3	004	●
M5X0.5	ISO2X(6HX)	4.5	4.56	3101101051	2.5P	70	-	6	25	39	6	4.9	8	3	004	●
M6X0.75	ISO2X(6HX)	5.25	5.33	3101101056	2.5P	80	-	8	30	45	6	4.9	8	3	004	●
M6X0.5	ISO2X(6HX)	5.5	5.56	3101101057	2.5P	80	-	8	30	45	6	4.9	8	3	004	●

MF	TCTR (tolerance)	Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 374																
M8X1	ISO2X(6HX)	7	7.09	3101101065	2.5P	90	-	12	-	46	6	4.9	8	3	006	●
M10X1.25	ISO2X(6HX)	8.8	8.85	3101101079	2.5P	100	-	13	-	51	7	5.5	8	3	006	●
M10X1	ISO2X(6HX)	9	9.09	3101101080	2.5P	90	-	13	-	46	7	5.5	8	3	006	●
M12X1.5	ISO2X(6HX)	10.5	10.6	3101101089	2.5P	100	-	15	-	51	9	7	10	3	006	●
M12X1.25	ISO2X(6HX)	10.8	10.85	3101101090	2.5P	100	-	15	-	51	9	7	10	3	006	●
M14X1.5	ISO2X(6HX)	12.5	12.6	3101101102	2.5P	100	-	14	-	51	11	9	12	3	006	●
M16X1.5	ISO2X(6HX)	14.5	14.6	3101101116	2.5P	100	-	14	-	51	12	9	12	3	006	●
M18x1.5	ISO2X(6HX)	16.5	16.6	3101101130	2.5P	110	-	14	-	56	14	11	14	3	006	●
M20x1.5	ISO2X(6HX)	18.5	18.6	3101101144	2.5P	125	-	14	-	64	16	12	15	3	006	●
M22x1.5	ISO2X(6HX)	20.5	20.6	3101101158	2.5P	125	-	14	-	64	18	14.5	17	3	006	●
M24x1.5	ISO2X(6HX)	22.5	22.6	3101101170	2.5P	140	-	18	-	71	18	14.5	17	3	006	●

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EG (STI)

SPECIAL THREADS, GAUGES

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VUSP E(1.5P)

Z Z-PRO Series

HSSP Spiral Fluted Taps 1.5P, Coated

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EG (STI)

SPECIAL THREADS, GAUGES

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Technical info



Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)
P1	10÷25 ★	M1	5÷15 ★	K2	10÷20 ☆	N1	10÷30 ★
P2	10÷25 ★	M2	5÷10 ☆			N2	10÷30 ★
P3	10÷25 ★					N3	10÷25 ☆
P4	10÷20 ★					N4	10÷20 ☆
P7	5÷15 ★						

★ 1st choice ☆ suitable

FEATURES

Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.

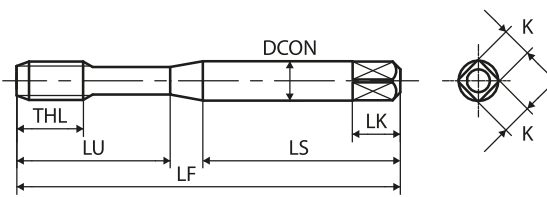
New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

1.5P spiral fluted tap for wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.

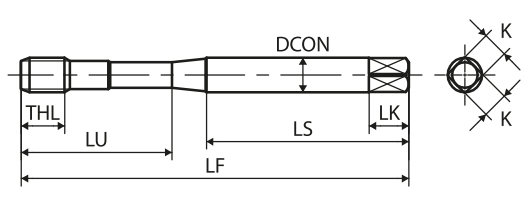


WATCH THE VIDEO

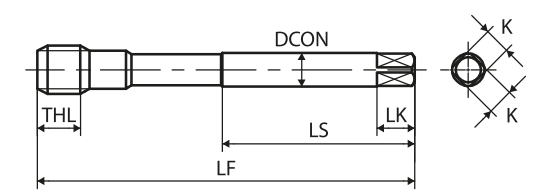
TYPE: VU_004




TYPE: VU_005



TYPE: VU_006



M	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 371																
M3X0.5	ISO2X(6HX)	2.5	2.56	3103101035	1.5P	56	-	5	18	34	3.5	2.7	6	3	004	●
M4X0.7	ISO2X(6HX)	3.3	3.38	3103101042	1.5P	63	-	7	21	38	4.5	3.4	6	3	004	●
M5X0.8	ISO2X(6HX)	4.2	4.28	3103101049	1.5P	70	-	9	25	39	6	4.9	8	3	004	●
M6X1	ISO2X(6HX)	5	5.09	3103101055	1.5P	80	-	11	30	45	6	4.9	8	3	004	●
M8X1.25	ISO2X(6HX)	6.8	6.85	3103101064	1.5P	90	-	12	35	47	8	6.2	9	3	005	●
M10X1.5	ISO2X(6HX)	8.5	8.6	3103101078	1.5P	100	-	13	39	52.5	10	8	11	3	005	●
DIN 376																
M12X1.75	ISO2X(6HX)	10.3	10.36	3103101088	1.5P	110	-	15	-	56	9	7	10	3	006	●
M14X2	ISO2X(6HX)	12	12.12	3103101100	1.5P	110	-	18	-	56	11	9	12	3	006	●
M16X2	ISO2X(6HX)	14	14.12	3103101114	1.5P	110	-	18	-	56	12	9	12	3	006	●
DIN 371																
M3X0.35	ISO2X(6HX)	2.65	2.7	3103101036	1.5P	56	-	5	18	34	3.5	2.7	6	3	004	○
M4X0.5	ISO2X(6HX)	3.5	3.56	3103101043	1.5P	63	-	5	21	38	4.5	3.4	6	3	004	○
M5X0.5	ISO2X(6HX)	4.5	4.56	3103101051	1.5P	70	-	6	25	39	6	4.9	8	3	004	○
M6X0.75	ISO2X(6HX)	5.25	5.33	3103101056	1.5P	80	-	8	30	45	6	4.9	8	3	004	○
M6X0.5	ISO2X(6HX)	5.5	5.56	3103101057	1.5P	80	-	8	30	45	6	4.9	8	3	004	○
DIN 374																
M8X1	ISO2X(6HX)	7	7.09	3103101065	1.5P	90	-	12	-	46	6	4.9	8	3	006	●
M10X1.25	ISO2X(6HX)	8.8	8.85	3103101079	1.5P	100	-	13	-	51	7	5.5	8	3	006	●
M10X1	ISO2X(6HX)	9	9.09	3103101080	1.5P	90	-	13	-	46	7	5.5	8	3	006	●
M12X1.5	ISO2X(6HX)	10.5	10.6	3103101089	1.5P	100	-	15	-	51	9	7	10	3	006	●
M12X1.25	ISO2X(6HX)	10.8	10.85	3103101090	1.5P	100	-	15	-	51	9	7	10	3	006	●
M14X1.5	ISO2X(6HX)	12.5	12.6	3103101102	1.5P	100	-	14	-	51	11	9	12	3	006	●
M16X1.5	ISO2X(6HX)	14.5	14.6	3103101116	1.5P	100	-	14	-	51	12	9	12	3	006	●

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- THREAD MILLS
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Intro

VUSP CH



SP

Z-PRO Series

HSSP Spiral Fluted with Axial Coolant Hole, Coated

DIN



SL

PO

Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)
P1	10÷25 ★	M1	5÷15 ★	K2	10÷20 ☆	N1	10÷30 ★
P2	10÷25 ★	M2	5÷10 ☆			N2	10÷30 ★
P3	10÷25 ★					N3	10÷25 ☆
P4	10÷20 ★					N4	10÷20 ☆
P7	5÷15 ★						

★ 1st choice ☆ suitable

ST

ROLL

CARBIDE

LONG

HAND TAPS

EG (STI)

SPECIAL THREADS, GAUGES

THREAD MILLS

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CENTER DRILLS

Technical info

FEATURES

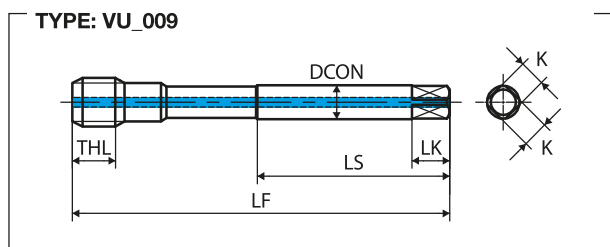
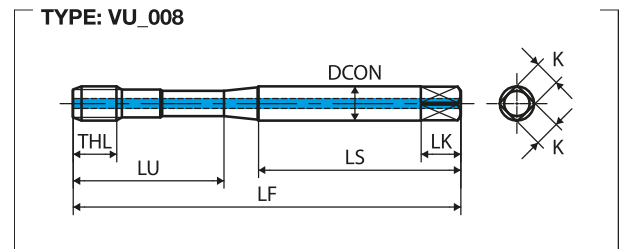
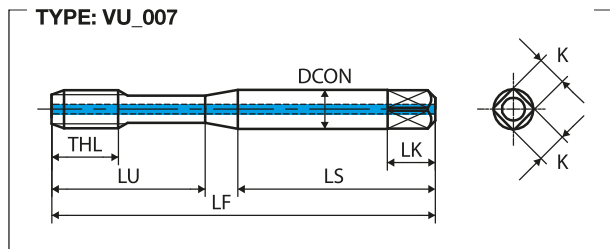
Longer Life - Great improvement thanks to the new premium grade of powder high speed steel and new special coating.




New Flute Shape - Improved chip ejection, reduced cutting resistance and excellent internal threads finishing thanks to unique flute shape.

Axial coolant hole for blind hole application on a wide range of workpiece materials: steel, alloy steel, stainless steel and aluminium.



WATCH THE VIDEO



M	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 371																
M6X1	IS02X(6HX)	5	5.09	3201101055	2.5P	80	-	11	30	45	6	4.9	8	3	007	●
M8X1.25	IS02X(6HX)	6.8	6.85	3201101064	2.5P	90	-	12	35	47	8	6.2	9	3	008	●
M10X1.5	IS02X(6HX)	8.5	8.6	3201101078	2.5P	100	-	13	39	52.5	10	8	11	3	008	●
M	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 376																
M12X1.75	IS02X(6HX)	10.3	10.36	3201101088	2.5P	110	-	15	-	56	9	7	10	3	009	●
M14X2	IS02X(6HX)	12	12.12	3201101100	2.5P	110	-	18	-	56	11	9	12	3	009	●
M16X2	IS02X(6HX)	14	14.12	3201101114	2.5P	110	-	18	-	56	12	9	12	3	009	●
MF	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 374																
M8X1	IS02X(6HX)	7	7.09	3201101065	2.5P	90	-	12	-	46	6	4.9	8	3	009	●
M10X1.25	IS02X(6HX)	8.8	8.85	3201101079	2.5P	100	-	13	-	51	7	5.5	8	3	009	●
M10X1	IS02X(6HX)	9	9.09	3201101080	2.5P	90	-	13	-	46	7	5.5	8	3	009	●
M12X1.5	IS02X(6HX)	10.5	10.6	3201101089	2.5P	100	-	15	-	51	9	7	10	3	009	●
M12X1.25	IS02X(6HX)	10.8	10.85	3201101090	2.5P	100	-	15	-	51	9	7	10	3	009	●
M14X1.5	IS02X(6HX)	12.5	12.6	3201101102	2.5P	100	-	14	-	51	11	9	12	3	009	●
M16X1.5	IS02X(6HX)	14.5	14.6	3201101116	2.5P	100	-	14	-	51	12	9	12	3	009	●

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Intro

AUSP G

Z-PRO Series

Spiral Fluted Taps for Parallel Pipe Threads, Coated



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FEATURES

Z-PRO Series for blind hole application on wide range of materials

A unique cutting edge geometry and special coating allow excellent surface finish and long life.

PO

Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)
P1	5÷10 ★	M1	≤5 ★	K2	≤5 ☆	N1	5÷15 ★
P2	5÷10 ★	M2	≤5 ★			N2	5÷15 ★
P3	5÷10 ★					N3	5÷15 ☆
P4	5÷10 ☆					N4	≤5 ☆
P7	≤5 ★						

★ 1st choice ☆ suitable



WATCH THE VIDEO

ROLL

Process Data

AUSP G 1/4-19

Work-material	St 44-3 - 1.0144
Tapping speed	5 m/min
Machine	Machining center
Holder	Rigid
Lubricant	Water soluble oil

Smooth chip ejection



Excellent surface finish



CARBIDE

LONG

HAND TAPS

EG (STI)

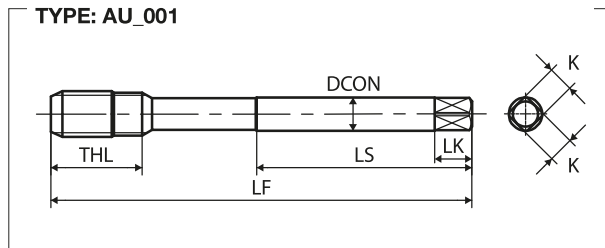
SPECIAL THREADS, GAUGES

THREAD MILLS

DIES

CENTER DRILLS

Technical info



G(BSP)	TCTR (tolerance)	∅ (mm)	Hole ∅ (mm)	Code	THCHT (chamfer)	Basic major ∅ (mm)	LF (mm)	THL (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN YMW															
1/8-28	P3	8.75	8.78	SJG0020FET	2.5P	9.728	90	15	46	8	6	9	3	001	●
1/4-19	P3.5	11.75	11.78	SJG0040FET	2.5P	13.157	100	19	51	11	9	12	3	001	●
3/8-19	P3.5	15.25	15.28	SJG0060FET	2.5P	16.662	100	21	51	14	11	14	3	001	●
1/2-14	P4	19	19.04	SJG0080FET	2.5P	20.955	125	26	64	18	14	17	4	001	●
3/4-14	P4	24.5	24.52	SJG0120FET	2.5P	26.441	140	28	71	23	17	20	4	001	●
1-11	P5	30.75	30.77	SJG0160FET	2.5P	33.249	160	33	82	26	21	24	4	001	●

AUSP Rp

Z-PRO Series

Spiral Fluted Taps for Parallel Pipe Threads, Coated



FEATURES

Z-PRO Series for blind hole application on wide range of materials

A unique cutting edge geometry and special coating allow excellent surface finish and long life.

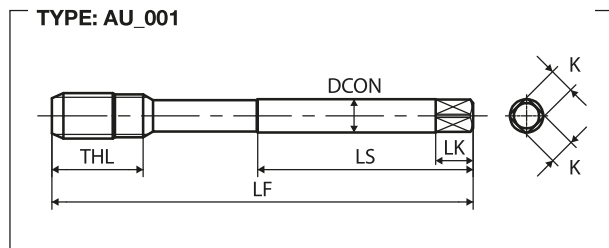
Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)	ISO	Vc (m/min)
P1	5÷10 ★	M1	≤5 ★	K2	≤5 ☆	N1	5÷15 ★
P2	5÷10 ★	M2	≤5 ★			N2	5÷15 ★
P3	5÷10 ★					N3	5÷15 ☆
P4	5÷10 ☆					N4	≤5 ☆
P7	≤5 ★						

★ 1st choice ☆ suitable



WATCH THE VIDEO



Rp(BSPP)	TCTR (tolerance)	Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	Basic major Ø (mm)	LF (mm)	THL (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN YMW															
1/8-28	-	8.5	8.55	SJRP020FET	2.5P	9.728	90	15	46	8	6	9	3	001	●
1/4-19	-	11.4	11.5	SJRP040FET	2.5P	13.157	100	19	51	11	9	12	3	001	●
3/8-19	-	14.8	14.9	SJRP060FET	2.5P	16.662	100	21	51	14	11	14	3	001	●
1/2-14	-	18.5	18.55	SJRP080FET	2.5P	20.955	125	26	64	18	14	17	4	001	●
3/4-14	-	24	24.1	SJRP120FET	2.5P	26.441	140	28	71	23	17	20	4	001	●
1-11	-	30.2	30.25	SJRP160FET	2.5P	33.249	160	33	82	26	21	24	4	001	●

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- Technical info

Intro

AUSP Rc

Z-PRO Series

Spiral Fluted Taps for Taper Pipe Threads, Coated



SP

DIN

SL



PO

Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)	★	ISO	Vc (m/min)	★	ISO	Vc (m/min)	☆	ISO	Vc (m/min)	★
P1	≤7	★	M1	≤3	★	K2	≤5	☆	N1	≤10	★
P2	≤7	★	M2	≤3	★				N2	≤10	★
P3	≤7	★							N3	≤10	☆
P4	≤5	☆							N4	≤5	☆
P7	≤3	★									

★ 1st choice ☆ suitable

ST

ROLL

FEATURES

Standard and Long shank Z-PRO Series for extended overhang on blind hole application on wide range of materials.

A unique cutting edge geometry and special coating allow excellent surface finish and long life.



WATCH THE VIDEO

Product Features

AUSP Rc (PT) 1/4-19

Work-material	St 44-3 - 1.0144
Tapping speed	5 m/min
Machine	Machining center
Holder	Tap holder with tension/compression
Lubricant	Water soluble oil

Excellent surface finish



Competitor's spiral fluted tap

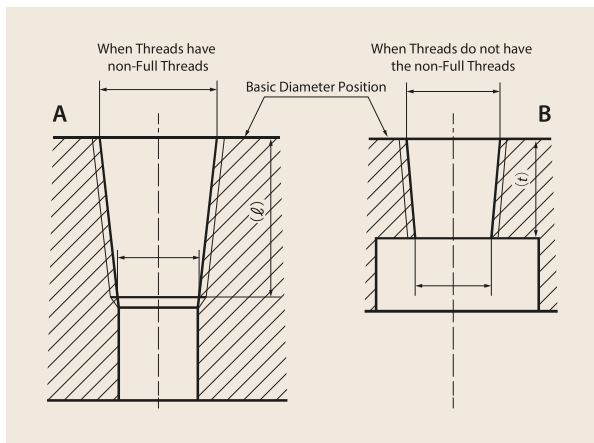


CARBIDE

LONG

HAND TAPS

Bored Hole Ø (mm) A - B



EG (STI)

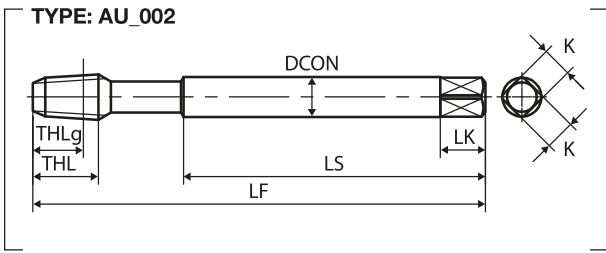
SPECIAL THREADS, GAUGES

THREAD MILLS

DIES

CENTER DRILLS

Technical info



Rc(BSPT)	TCTR (tolerance)	Bored Hole Ø (mm)		Code	THCHT (chamfer)	Basic major Ø (mm)	LF (mm)	THL (mm)	THLg (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
		A	B													
DIN YMW																
1/16-28	-	6.1	6.2	SJRC010FET	2.5P	7.723	90	14	10.1	60	8	6	9	3	002	○
1/8-28	-	8.1	8.2	SJRC020FET	2.5P	9.728	90	15	10.1	46	8	6	9	3	002	●
	-	8.1	8.2	SJRC020FETG	2.5P	9.728	150	15	10.1	40	8	6	9	3	002	○
	-	8.1	8.2	SJRC020FETK	2.5P	9.728	200	15	10.1	40	8	6	9	3	002	○
1/4-19	-	10.7	10.9	SJRC040FET	2.5P	13.157	100	19	15	51	11	9	12	3	002	●
	-	10.7	10.9	SJRC040FETG	2.5P	13.157	150	19	15	50	11	9	12	3	002	○
	-	10.7	10.9	SJRC040FETK	2.5P	13.157	200	19	15	50	11	9	12	3	002	○
3/8-19	-	14.2	14.4	SJRC060FET	2.5P	16.662	100	21	15.4	51	14	11	14	3	002	●
	-	14.2	14.4	SJRC060FETG	2.5P	16.662	150	21	15.4	50	14	11	14	3	002	○
	-	14.2	14.4	SJRC060FETK	2.5P	16.662	200	21	15.4	50	14	11	14	3	002	○
1/2-14	-	17.6	17.9	SJRC080FET	2.5P	20.955	125	26	20.5	64	18	14	17	4	002	●
	-	17.6	17.9	SJRC080FETK	2.5P	20.955	200	26	20.5	60	18	14	17	4	002	○
3/4-14	-	23	23.3	SJRC120FET	2.5P	26.441	140	28	21.8	71	23	17	20	4	002	●
	-	23	23.3	SJRC120FETK	2.5P	26.441	200	28	21.8	70	23	17	20	4	002	○
1-11	-	29	29.3	SJRC160FET	2.5P	33.249	160	33	26	82	26	21	24	4	002	●
	-	29	29.3	SJRC160FETK	2.5P	33.249	200	33	26	70	26	21	24	4	002	○

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THREAD
MILLS

DIES

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Intro

HVSP

Z-PRO Series

SP
DIN Spiral Fluted Taps for large forged parts in the heavy metalworking industry



SL



FEATURES

Z-PRO Series with BLF design for blind hole application.
Special geometry reduces cutting edge chipping resulting in stable and longer life on steel, alloy steel and stainless steel application.
OX treatment reduces welding troubles.

PO

Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)		ISO	Vc (m/min)	
P1	3÷8	★	M1	3÷8	★
P2	3÷8	★	M2	3÷8	★
P3	3÷8	★			
P4	3÷8	☆			
P7	3÷8	★			

★ 1st choice ☆ suitable

ST

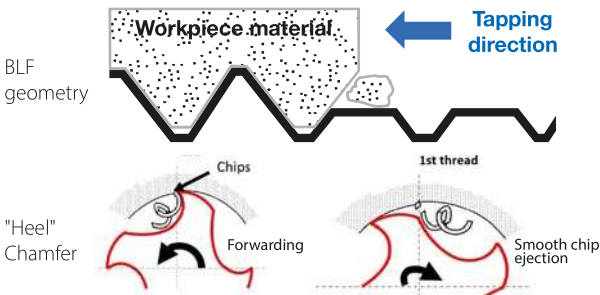


WATCH THE VIDEO

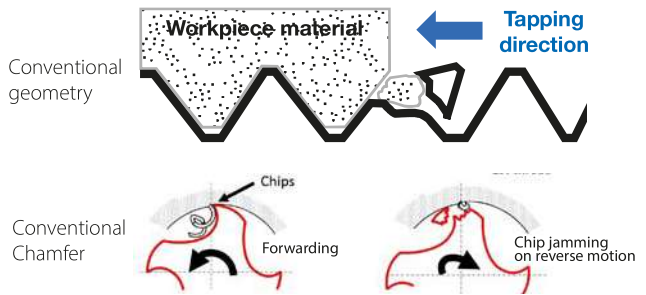
ROLL

Tapping with HVSP No chipping

CARBIDE



Tapping with conventional SP Chipping occurs on thread portion

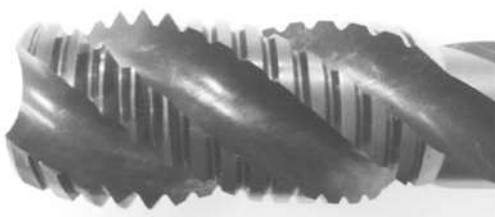


LONG

HAND TAPS

No chipping

EG (STI)



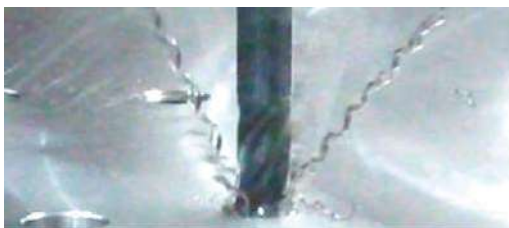
Chipping



SPECIAL THREADS, GAUGES

THREAD MILLS

Smooth chip ejection by HVSP



Entangled chips



DIES

CENTER DRILLS

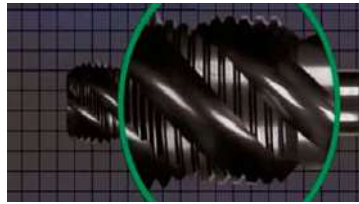
Technical info

Designed to avoid chipping problems



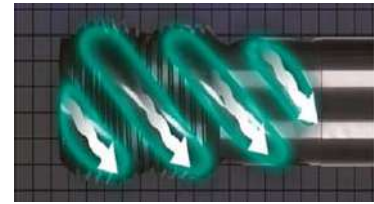
Advanced cutting edge

Special cutting edge geometry prevents chip incursion from the back side of chamfer thread portion during reverse motion



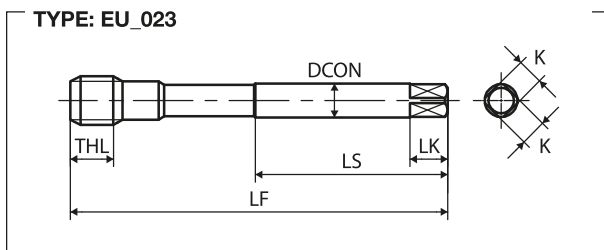
BLF shape on full thread portion

The BLF shape produces excellent cutting performances enabling the prevention of flute chipping problems



Unique flute design

Unique flute design for smooth chip ejection



M	TCTR (tolerance)	∅ (mm)	Hole ∅ (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 376																
M12X1.75	IS02X(6HX)	10.3	10.36	SG012PSEEXJ	2.5P	110	-	26	-	56	9	7	10	3	023	●
M14X2	IS02X(6HX)	12	12.12	SG014QSEEXJ	2.5P	110	-	26	-	56	11	9	12	3	023	●
M16X2	IS02X(6HX)	14	14.12	SG016QSEEXJ	2.5P	110	-	26	-	56	12	9	12	3	023	●
M18X2.5	IS02X(6HX)	15.5	15.63	SG018RTEEXJ	2.5P	125	-	33	-	64	14	11	14	4	023	●
M20X2.5	IS02X(6HX)	17.5	17.63	SG020RTEEXJ	2.5P	140	-	33	-	71	16	12	15	4	023	●
M22X2.5	IS02X(6HX)	19.5	19.63	SG022RTEEXJ	2.5P	140	-	33	-	71	18	14.5	17	4	023	●
M24X3	IS02X(6HX)	21	21.13	SG024STEEXJ	2.5P	160	-	37	-	82	18	14.5	17	4	023	●
M27X3	IS02X(6HX)	24	24.13	SG027STEEXJ	2.5P	160	-	37	-	82	20	16	19	4	023	●
M30X3.5	IS02X(6HX)	26.5	26.63	SG030TBEEEXJ	2.5P	180	-	44	-	92	22	18	21	4	023	●
M33X3.5	IS02X(6HX)	29.5	29.63	SG033TBEEEXJ	2.5P	180	-	46	-	92	25	20	23	4	023	●
M36X4	IS02X(6HX)	32	32.12	SG036UBEEXJ	2.5P	200	-	52	-	102	28	22	25	4	023	●
M39X4	IS02X(6HX)	35	35.12	SG039UBEEXJ	2.5P	200	-	52	-	102	32	24	27	4	023	●
M42X4.5	IS02X(6HX)	37.5	37.63	SG042VBEEEXJ	2.5P	200	-	59	-	102	32	24	27	4	023	●
M48X5	IS02X(6HX)	43	43.12	SG048WBEEEXJ	2.5P	250	-	65	-	128	36	29	32	4	023	●
MF	TCTR (tolerance)	∅ (mm)	Hole ∅ (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 374																
M30X3	IS02X(6HX)	27	27.13	SM030SUEEXJ	2.5P	180	-	44	-	92	22	18	21	4	023	●
M33X3	IS02X(6HX)	30	30.13	SM033SUEEXJ	2.5P	180	-	46	-	92	25	20	23	4	023	●
M36X3	IS02X(6HX)	33	33.13	SM036SUEEXJ	2.5P	200	-	52	-	102	28	22	25	4	023	●
M39X3	IS02X(6HX)	36	36.13	SM039SUEEXJ	2.5P	200	-	52	-	102	32	24	27	4	023	●
M42X3	IS02X(6HX)	39	39.13	SM042SUEEXJ	2.5P	200	-	59	-	102	32	24	27	4	023	●
M48X3	IS02X(6HX)	45	45.13	SM048SUEEXJ	2.5P	225	-	49	-	115	36	29	32	4	023	●

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HAND TAPS

EG (STI)

SPECIAL THREADS, GAUGES

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Technical info


Spiral Fluted Taps

Intro

	UNC	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
	DIN 376																	
SP DIN	1 -8UNC	2BX	22.3	22.45	SGU16XYEEXJ	2.5P	160	-	37	-	82	18	14.5	17	4	023	●	
	1 1/8-7UNC	2BX	25	25.17	SGU18YYEEXJ	2.5P	180	-	44	-	92	22	18	21	4	023	●	
	1 1/4-7UNC	2BX	28.2	28.35	SGU20YYEEXJ	2.5P	180	-	49	-	92	22	18	21	4	023	●	
	1 3/8-6UNC	2BX	30.8	30.92	SGU22ZYEEXJ	2.5P	200	-	55	-	102	28	22	25	4	023	●	
	1 1/2-6UNC	2BX	34	34.1	SGU24ZYEEXJ	2.5P	200	-	59	-	102	32	24	27	4	023	●	
	2 -4.5UNC	2BX	45.2	45.37	SGU329YEEXJ	2.5P	250	-	73	-	128	40	32	35	4	023	●	

SL


PO

	UNF	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
	DIN 374																	
ST	1 -12UNF	2BX	23.3	23.46	SMU16SYEEXJ	2.5P	140	-	27	-	71	18	14.5	17	4	023	●	
	1 1/8-12UNF	2BX	26.5	26.63	SMU18SYEEXJ	2.5P	150	-	27	-	77	22	18	21	4	023	●	
	1 1/4-12UNF	2BX	29.6	29.81	SMU20SYEEXJ	2.5P	150	-	27	-	77	22	18	21	4	023	●	
	1 3/8-12UNF	2BX	32.8	32.98	SMU22SYEEXJ	2.5P	170	-	29	-	87	28	22	25	4	023	●	
	1 1/2-12UNF	2BX	36	36.16	SMU24SYEEXJ	2.5P	170	-	29	-	87	32	24	27	4	023	●	


ROLL

CARBIDE

LONG

	8UN	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
	DIN 374																	
CARBIDE	1 1/8-8UN	2BX	25.5	25.62	SMU18XYEEXJ	2.5P	180	-	44	-	92	22	18	21	4	023	●	
	1 1/4-8UN	2BX	28.5	28.8	SMU20XYEEXJ	2.5P	180	-	49	-	92	22	18	21	4	023	●	
	1 3/8-8UN	2BX	31.8	31.97	SMU22XYEEXJ	2.5P	200	-	55	-	102	28	22	25	4	023	●	
	1 1/2-8UN	2BX	35	35.15	SMU24XYEEXJ	2.5P	200	-	59	-	102	32	24	27	4	023	●	
	1 3/4-8UN	2BX	41.3	41.5	SMU28XYEEXJ	2.5P	200	-	49	-	102	36	29	32	4	023	●	
2 -8UN	2BX	47.8	47.85	SMU32XYEEXJ	2.5P	225	-	49	-	115	40	32	35	4	023	●		

HAND
TAPS

	12UN	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
	DIN 374																	
HAND TAPS	1 3/4-12UN	2BX	42.3	42.51	SMU28SYEEXJ	2.5P	180	-	31	-	92	36	29	32	4	023	●	

EG (STI)

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MHSP



Z-PRO Series

SP
DIN Spiral Fluted Taps for Carbon Steel of Medium Hardness, Coated



FEATURES

Z-PRO Series for Medium Hardness workpiece materials. Most suitable for high carbon steel (C48 ÷ C55) and alloy steel 20 ÷ 30HRC. Long life thanks to HSSCo substrate and special coating. High spiral design allows smooth chip ejection at middle-high cutting speed.

Recommended Tapping Speeds Depending On Materials

ISO Vc (m/min)

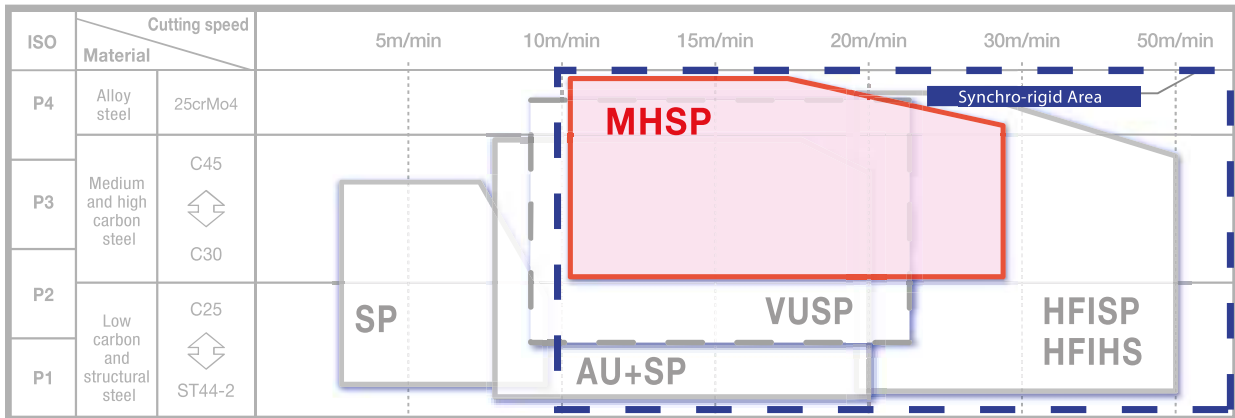
P2	10÷30	★
P3	10÷25	★
P4	10÷20	★
P5	10÷15	☆

★ 1st choice ☆ suitable

ROLL

CARBIDE

Product Features



LONG

HAND TAPS

EG (STI)

Process Data

Work-material	42CrMo4 - 1.7225 (35HRC)
Threading speed	12 mm
Tapping speed	15 m/min
Machine	Vertical machining center
Lubricant	Water soluble oil

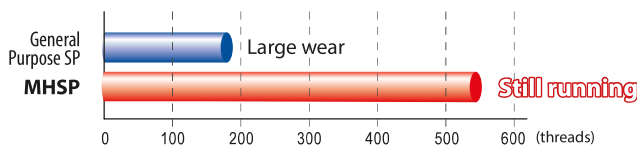
After 550 holes



SPECIAL THREADS, GAUGES

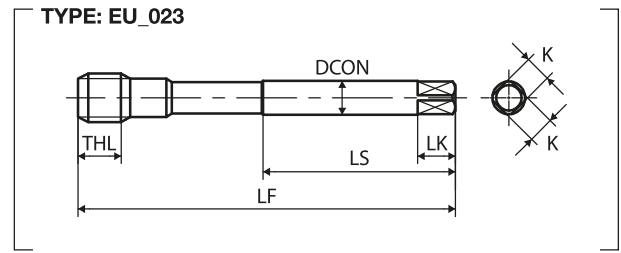
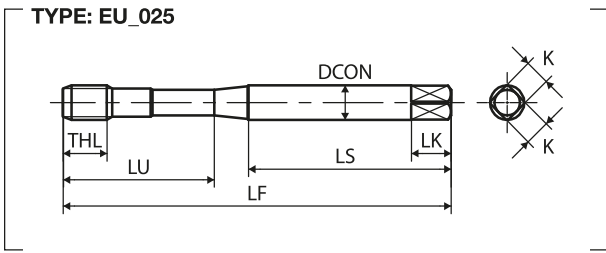
THREAD MILLS

DIES



CENTER DRILLS

Technical info



M	TCTR (tolerance)	\varnothing (mm)	Hole \varnothing (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 371																
M8X1.25	IS02X(6HX)	6.8	6.85	SD8.0NBOCLJ	2.5P	90	-	19	-	47	8	6.2	9	3	025	●
M10X1.5	IS02X(6HX)	8.5	8.6	SD0100BOCLJ	2.5P	100	-	23	-	52.5	10	8	11	3	025	●
M	TCTR (tolerance)	\varnothing (mm)	Hole \varnothing (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 376																
M12X1.75	IS02X(6HX)	10.3	10.36	SG012PBOCLJ	2.5P	110	-	26	-	56	9	7	10	4	023	●
M14X2	IS02X(6HX)	12	12.12	SG014QBOCLJ	2.5P	110	-	26	-	56	11	9	12	4	023	●
M16X2	IS02X(6HX)	14	14.12	SG016QBOCLJ	2.5P	110	-	26	-	56	12	9	12	4	023	●
MF	TCTR (tolerance)	\varnothing (mm)	Hole \varnothing (mm)	Code	THCHT (chamfer)	LF (mm)	LT (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 374																
M10X1.25	IS02X(6HX)	8.8	8.85	SM010NBOCLJ	2.5P	100	-	23	-	51	7	5.5	8	3	023	●
M10X1	IS02X(6HX)	9	9.09	SM010MBOCLJ	2.5P	90	-	19	-	46	7	5.5	8	3	023	●
M12X1.5	IS02X(6HX)	10.5	10.6	SM0120BOCLJ	2.5P	100	-	21	-	51	9	7	10	4	023	●
M12X1.25	IS02X(6HX)	10.8	10.85	SM012NBOCLJ	2.5P	100	-	21	-	51	9	7	10	4	023	●
M14X1.5	IS02X(6HX)	12.5	12.6	SM0140BOCLJ	2.5P	100	-	21	-	51	11	9	12	4	023	●
M16X1.5	IS02X(6HX)	14.5	14.6	SM0160BOCLJ	2.5P	100	-	21	-	51	12	9	12	4	023	●

Intro

SP
DIN

SL

PO

ST

ROLL

CARBIDE

LONG

HAND
TAPS

EG (STI)

SPECIAL
THREADS,
GAUGES

THREAD
MILLS

DIES

CENTER
DRILLS

Technical
info