

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	AU+SP
		IHT	IPO	PO	PO V	AU+SL

CARBIDE

LONG

HAND TAPS

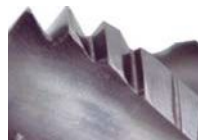
EG (STI)

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

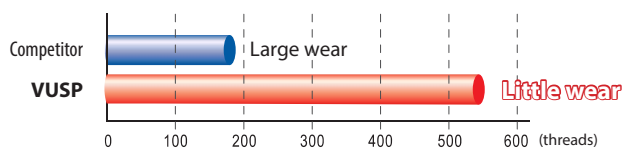
No wear after 250 threads with VUSP



SPECIAL THREADS, GAUGES

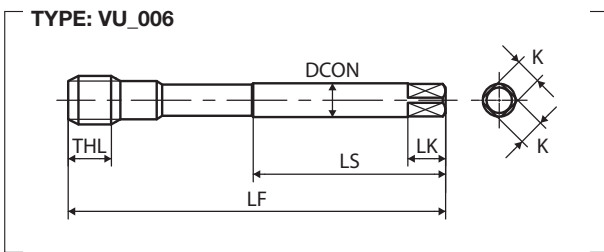
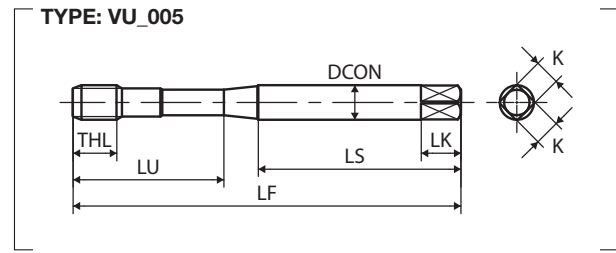
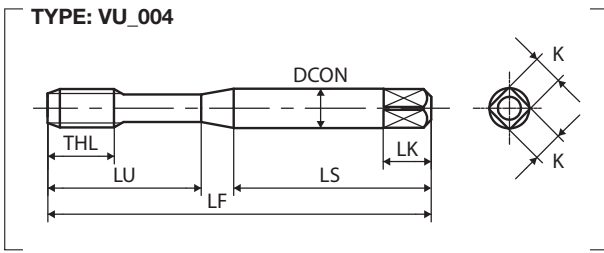
THREAD MILLS

DIES



CENTER DRILLS

Technical info



M	TCTR (tolerance)	∅ (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 371																
M2X0.4	ISO2X(6HX)	1.6	1.65	3101101021	2.5P	45	-	4	10	32	2.8	2.1	5	2	004	●
M2.2X0.45	ISO2X(6HX)	1.75	1.81	3101101024	2.5P	45	-	4	11	32	2.8	2.1	5	2	004	●
M2.3X0.4	ISO2X(6HX)	1.9	1.95	3101101026	2.5P	45	-	4	11	32	2.8	2.1	5	2	004	●
M2.5X0.45	ISO2X(6HX)	2.1	2.11	3101101029	2.5P	50	-	4	15	32	2.8	2.1	5	2	004	●
M2.6X0.45	ISO2X(6HX)	2.2	2.21	3101101032	2.5P	50	-	4	15	32	2.8	2.1	5	2	004	●
M3X0.5	ISO2X(6HX)	2.5	2.56	3101101035	2.5P	56	-	5	18	34	3.5	2.7	6	3	004	●
	ISO3X(6GX)	2.5	2.56	3101201035	2.5P	56	-	5	18	34	3.5	2.7	6	3	004	▲
	7GX	2.5	2.56	3101301035	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	●
	ISO3X(6GX)	3.3	3.38	3101201042	2.5P	63	-	7	21	38	4.5	3.4	6	3	004	▲
	7GX	3.3	3.38	3101301042	2.5P	63	-	7	21	38	4.5	3.4	6	3	004	▲
	ISO2X(6HX)+100	3.3	3.38	3101501042	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	●
	ISO3X(6GX)	4.2	4.28	3101201049	2.5P	70	-	9	25	39	6	4.9	8	3	004	▲
	7GX	4.2	4.28	3101301049	2.5P	70	-	9	25	39	6	4.9	8	3	004	▲
	ISO2X(6HX)+100	4.2	4.28	3101501049	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	●
	ISO3X(6GX)	5	5.09	3101201055	2.5P	80	-	11	30	45	6	4.9	8	3	004	▲
	7GX	5	5.09	3101301055	2.5P	80	-	11	30	45	6	4.9	8	3	004	▲
	ISO2X(6HX)+100	5	5.09	3101501055	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	●
	ISO3X(6GX)	6.8	6.85	3101201064	2.5P	90	-	12	35	47	8	6.2	9	3	005	▲
	7GX	6.8	6.85	3101301064	2.5P	90	-	12	35	47	8	6.2	9	3	005	▲
	ISO2X(6HX)+100	6.8	6.85	3101501064	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	●
	ISO3X(6GX)	8.5	8.6	3101201078	2.5P	100	-	13	39	52.5	10	8	11	3	005	▲
	7GX	8.5	8.6	3101301078	2.5P	100	-	13	39	52.5	10	8	11	3	005	▲
	ISO2X(6HX)+100	8.5	8.6	3101501078	2.5P	100	-	13	39	52.5	10	8	11	3	005	▲

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HAND
TAPS

EG (STI)

SPECIAL
THREADS,
GAUGESTHREAD
MILLS

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CENTER
DRILLSTechnical
info

Spiral Fluted Taps

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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 376																
M12X1.75	ISO2X(6HX)	10.3	10.36	3101101088	2.5P	110	-	15	-	56	9	7	10	3	006	●
	ISO3X(6GX)	10.3	10.36	3101201088	2.5P	110	-	15	-	56	9	7	10	3	006	▲
	7GX	10.3	10.36	3101301088	2.5P	110	-	15	-	56	9	7	10	3	006	▲
	ISO2X(6HX)+100	10.3	10.36	3101501088	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	●
	ISO3X(6GX)	12	12.12	3101201100	2.5P	110	-	18	-	56	11	9	12	3	006	▲
	7GX	12	12.12	3101301100	2.5P	110	-	18	-	56	11	9	12	3	006	▲
	ISO2X(6HX)+100	12	12.12	3101501100	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	●
	ISO3X(6GX)	14	14.12	3101201114	2.5P	110	-	18	-	56	12	9	12	3	006	▲
	7GX	14	14.12	3101301114	2.5P	110	-	18	-	56	12	9	12	3	006	▲
	ISO2X(6HX)+100	14	14.12	3101501114	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)	\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																
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)	\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																
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	●
UNC	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																
No.5-40UNC	2BX	2.6	2.64	3101103021	2.5P	56	-	5	18	34	3.5	2.7	6	2	004	●
No.6-32UNC	2BX	2.8	2.83	3101103023	2.5P	56	-	7	19	32	4	3	6	2	004	●
No.8-32UNC	2BX	3.4	3.47	3101103029	2.5P	63	-	7	21	38	4.5	3.4	6	2	004	●
No.10-24UNC	2BX	3.89	3.9	3101103039	2.5P	70	-	9	24	39	6	4.9	8	2	004	●
No.12-24UNC	2BX	4.5	4.53	3101103047	2.5P	80	-	9	28	45	6	4.9	8	2	004	●
1/4-20UNC	2BX	5.1	5.19	3101103058	2.5P	80	-	11	30	42	7	5.5	8	2	004	●
5/16-18UNC	2BX	6.6	6.65	3101103071	2.5P	90	-	12	35	47	8	6.2	9	3	005	●
3/8-16UNC	2BX	8	8.07	3101103082	2.5P	100	-	13	39	54	9	7	10	3	005	●

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																
7/16-14UNC	2BX	9.4	9.45	3101103098	2.5P	100	-	13	-	51	8	6.2	9	3	006	●
1/2-13UNC	2BX	10.9	10.91	3101103111	2.5P	110	-	15	-	56	9	7	10	3	006	●
9/16-12UNC	2BX	12.2	12.33	3101103126	2.5P	110	-	18	-	56	11	9	12	3	006	●
5/8-11UNC	2BX	13.6	13.75	3101103138	2.5P	110	-	18	-	56	12	9	12	3	006	●
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 371																
No.5-44UNF	2BX	2.7	2.69	3101103022	2.5P	56	-	5	18	34	3.5	2.7	6	2	004	●
No.6-40UNF	2BX	2.9	2.97	3101103024	2.5P	56	-	7	19	32	4	3	6	2	004	●
No.8-36UNF	2BX	3.5	3.55	3101103030	2.5P	63	-	7	21	38	4.5	3.4	6	2	004	●
No.10-32UNF	2BX	4.1	4.12	3101103041	2.5P	70	-	9	24	39	6	4.9	8	2	004	●
No.12-28UNF	2BX	4.6	4.67	3101103048	2.5P	80	-	9	28	45	6	4.9	8	2	004	●
1/4-28UNF	2BX	5.5	5.53	3101103062	2.5P	80	-	11	30	42	7	5.5	8	2	004	●

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