

Intro

VUPO

Z-PRO Series

HSSP Spiral Pointed Taps, Coated



SP

SL



PO

DIN

ST

ROLL

CARBIDE

LONG

HAND TAPS

EG (STI)

SPECIAL THREADS, GAUGES

THREAD MILLS

DIES

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.

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

Recommended Tapping Speeds Depending On Materials

ISO	Vc (m/min)	★	ISO	Vc (m/min)	★	ISO	Vc (m/min)	☆	ISO	Vc (m/min)	★
P1	10÷30	★	M1	5÷15	★	K1	10÷20	☆	N1	10÷40	★
P2	10÷30	★	M2	5÷10	☆	K2	10÷20	☆	N2	10÷40	★
P3	10÷30	★							N3	10÷25	☆
P4	10÷25	★							N4	10÷20	☆
P7	5÷15	★									

★ 1st choice ☆ suitable



WATCH THE VIDEO

Product Features

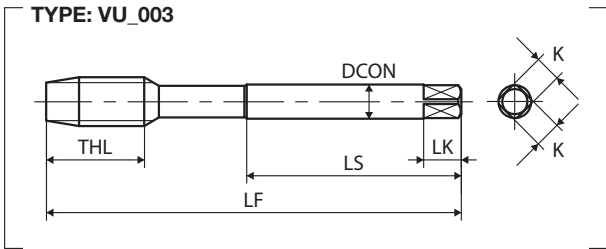
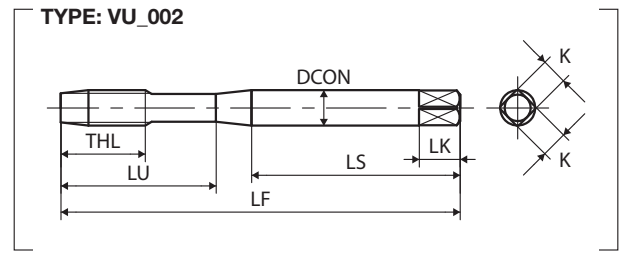
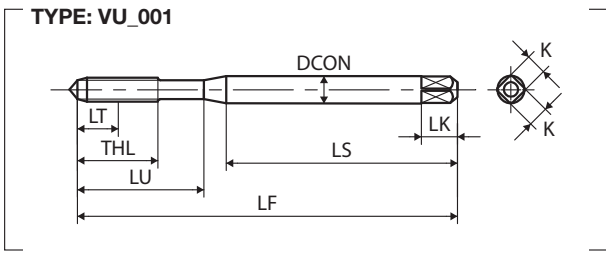
Lubricant	Hole shape	Hand tapping	Drilling machine	Low speed	Middle speed
Emulsion					VUSP
					VUPO Vc ≤ 30 m/min
Oil		HTset	ISP	SP	SP V
		IHT	IPO	PO	PO V
					AU+SP
					AU+SL

M10x1.5

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

Enlarged photo after 560 threads





M	TCTR (tolerance)	\varnothing (mm)	Hole \varnothing (mm)	Code	THCHT (chamfer)	LF (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	3102101021	5P	45	8	-	32	2.8	2.1	5	2	001	●
M2.2X0.45	ISO2X(6HX)	1.75	1.81	3102101024	5P	45	9	-	32	2.8	2.1	5	2	001	●
M2.3X0.4	ISO2X(6HX)	1.9	1.95	3102101026	5P	45	9	-	32	2.8	2.1	5	2	001	●
M2.5X0.45	ISO2X(6HX)	2.1	2.11	3102101029	5P	50	8	15	33	2.8	2.1	5	2	001	●
M2.6X0.45	ISO2X(6HX)	2.2	2.21	3102101032	5P	50	8	15	33	2.8	2.1	5	2	001	●
M3X0.5	ISO2X(6HX)	2.5	2.56	3102101035	5P	56	9	18	34	3.5	2.7	6	3	001	●
	ISO3X(6GX)	2.5	2.56	3102201035	5P	56	9	18	34	3.5	2.7	6	3	001	▲
	7GX	2.5	2.56	3102301035	5P	56	9	18	34	3.5	2.7	6	3	001	▲
M4X0.7	ISO2X(6HX)+100	2.5	2.56	3102501035	5P	56	9	18	34	3.5	2.7	6	3	001	▲
	ISO2X(6HX)	3.3	3.38	3102101042	5P	63	13	21	38	4.5	3.4	6	3	001	●
	ISO3X(6GX)	3.3	3.38	3102201042	5P	63	13	21	38	4.5	3.4	6	3	001	▲
M5X0.8	7GX	3.3	3.38	3102301042	5P	63	13	21	38	4.5	3.4	6	3	001	▲
	ISO2X(6HX)+100	3.3	3.38	3102501042	5P	63	13	21	38	4.5	3.4	6	3	001	▲
	ISO2X(6HX)	4.2	4.28	3102101049	5P	70	14	25	39	6	4.9	8	3	001	●
M6X1	ISO3X(6GX)	4.2	4.28	3102201049	5P	70	14	25	39	6	4.9	8	3	001	▲
	7GX	4.2	4.28	3102301049	5P	70	14	25	39	6	4.9	8	3	001	▲
	ISO2X(6HX)+100	4.2	4.28	3102501049	5P	70	14	25	39	6	4.9	8	3	001	▲
M8X1.25	ISO2X(6HX)	5	5.09	3102101055	5P	80	15	30	45	6	4.9	8	3	001	●
	ISO3X(6GX)	5	5.09	3102201055	5P	80	15	30	45	6	4.9	8	3	001	▲
	7GX	5	5.09	3102301055	5P	80	15	30	45	6	4.9	8	3	001	▲
	ISO2X(6HX)+100	5	5.09	3102501055	5P	80	15	30	45	6	4.9	8	3	001	▲
M10X1.5	ISO2X(6HX)	6.8	6.85	3102101064	5P	90	19	35	47	8	6.2	9	3	002	●
	ISO3X(6GX)	6.8	6.85	3102201064	5P	90	19	35	47	8	6.2	9	3	002	▲
	7GX	6.8	6.85	3102301064	5P	90	19	35	47	8	6.2	9	3	002	▲
	ISO2X(6HX)+100	6.8	6.85	3102501064	5P	90	19	35	47	8	6.2	9	3	002	▲
M10X1.5	ISO2X(6HX)	8.5	8.6	3102101078	5P	100	23	39	52.5	10	8	11	3	002	●
	ISO3X(6GX)	8.5	8.6	3102201078	5P	100	23	39	52.5	10	8	11	3	002	▲
	7GX	8.5	8.6	3102301078	5P	100	23	39	52.5	10	8	11	3	002	▲
	ISO2X(6HX)+100	8.5	8.6	3102501078	5P	100	23	39	52.5	10	8	11	3	002	▲


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ROLL
CARBIDE
LONG
HAND TAPS
EG (STI)
SPECIAL THREADS, GAUGES
THREAD MILLS
DIES
CENTER DRILLS


Technical info

Spiral Pointed Taps


Intro

M	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
DIN 376																
SP	M12X1.75	ISO2X(6HX)	10.3	10.36	3102101088	5P	110	26	-	56	9	7	10	3	003	●
		ISO3X(6GX)	10.3	10.36	3102201088	5P	110	26	-	56	9	7	10	3	003	▲
		7GX	10.3	10.36	3102301088	5P	110	26	-	56	9	7	10	3	003	▲
		ISO2X(6HX)+100	10.3	10.36	3102501088	5P	110	26	-	56	9	7	10	3	003	▲
SL	M14X2	ISO2X(6HX)	12	12.12	3102101100	5P	110	26	-	56	11	9	12	3	003	●
		ISO3X(6GX)	12	12.12	3102201100	5P	110	26	-	56	11	9	12	3	003	▲
		7GX	12	12.12	3102301100	5P	110	26	-	56	11	9	12	3	003	▲
		ISO2X(6HX)+100	12	12.12	3102501100	5P	110	26	-	56	11	9	12	3	003	▲
PO DIN	M16X2	ISO2X(6HX)	14	14.12	3102101114	5P	110	26	-	56	12	9	12	3	003	●
		ISO3X(6GX)	14	14.12	3102201114	5P	110	26	-	56	12	9	12	3	003	▲
		7GX	14	14.12	3102301114	5P	110	26	-	56	12	9	12	3	003	▲
		7GX	14	14.12	3102501114	5P	110	26	-	56	12	9	12	3	003	▲
ST	M18X2.5	ISO2X(6HX)	15.5	15.63	3102101128	5P	125	33	-	64	14	11	14	3	003	●
	M20X2.5	ISO2X(6HX)	17.5	17.63	3102101141	5P	140	33	-	71	16	12	15	3	003	●
	M22X2.5	ISO2X(6HX)	19.5	19.63	3102101156	5P	140	33	-	71	18	14.5	17	3	003	●
	M24X3	ISO2X(6HX)	21	21.13	3102101167	5P	160	37	-	82	18	14.5	17	3	003	●


ROLL

MF	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
DIN 371																
CARBIDE	M3X0.35	ISO2X(6HX)	2.65	2.7	3102101036	5P	56	6.5	18	34	3.5	2.7	6	3	001	●
	M4X0.5	ISO2X(6HX)	3.5	3.56	3102101043	5P	63	9	21	38	4.5	3.4	6	3	001	●
	M5X0.5	ISO2X(6HX)	4.5	4.56	3102101051	5P	70	9	25	39	6	4.9	8	3	001	●
	M6X0.75	ISO2X(6HX)	5.25	5.33	3102101056	5P	80	15	30	45	6	4.9	8	3	001	●
	M6X0.5	ISO2X(6HX)	5.5	5.56	3102101057	5P	80	9	30	45	6	4.9	8	3	001	●




LONG

MF	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
DIN 374																
HAND TAPS	M8X1	ISO2X(6HX)	7	7.09	3102101065	5P	90	19	-	46	6	4.9	8	3	003	●
	M10X1.25	ISO2X(6HX)	8.8	8.85	3102101079	5P	100	23	-	51	7	5.5	8	3	003	●
EG (STI)	M10X1	ISO2X(6HX)	9	9.09	3102101080	5P	90	19	-	46	7	5.5	8	3	003	●
	M12X1.5	ISO2X(6HX)	10.5	10.6	3102101089	5P	100	21	-	51	9	7	10	3	003	●
	M12X1.25	ISO2X(6HX)	10.8	10.85	3102101090	5P	100	21	-	51	9	7	10	3	003	●
	M14X1.5	ISO2X(6HX)	12.5	12.6	3102101102	5P	100	21	-	51	11	9	12	3	003	●
	M16X1.5	ISO2X(6HX)	14.5	14.6	3102101116	5P	100	21	-	51	12	9	12	3	003	●
SPECIAL THREADS, GAUGES	M18X1.5	ISO2X(6HX)	16.5	16.6	3102101130	5P	110	24	-	56	14	11	14	3	003	●
	M20X1.5	ISO2X(6HX)	18.5	18.6	3102101144	5P	125	24	-	64	16	12	15	3	003	●
	M22X1.5	ISO2X(6HX)	20.5	20.6	3102101158	5P	125	24	-	64	18	14.5	17	3	003	●
	M24X1.5	ISO2X(6HX)	22.5	22.6	3102101170	5P	140	27	-	71	18	14.5	17	3	003	●

THREAD
MILLS

UNC	TCTR (tolerance)	 Hole Ø (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock	
DIN 371																
DIES	No.5-40UNC	2BX	2.6	2.64	3102103021	5P	56	11	18	34	3.5	2.7	6	2	001	●
	No.6-32UNC	2BX	2.8	2.83	3102103023	5P	56	11	19	32	4	3	6	2	001	●
	No.8-32UNC	2BX	3.4	3.47	3102103029	5P	63	13	21	38	4.5	3.4	6	2	001	●
	No.10-24UNC	2BX	3.89	3.9	3102103039	5P	70	14	24	39	6	4.9	8	2	001	●
	No.12-24UNC	2BX	4.5	4.53	3102103047	5P	80	15	28	45	6	4.9	8	3	001	●
	1/4-20UNC	2BX	5.1	5.19	3102103058	5P	80	15	30	42	7	5.5	8	3	001	●
	5/16-18UNC	2BX	6.6	6.65	3102103071	5P	90	19	35	47	8	6.2	9	3	002	●
	3/8-16UNC	2BX	8	8.07	3102103082	5P	100	23	39	54	9	7	10	3	002	●

Technical
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UNC	TCTR (tolerance)	 (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (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	3102103098	5P	100	23	-	51	8	6.2	9	3	003	●
1/2-13UNC	2BX	10.9	10.91	3102103111	5P	110	26	-	56	9	7	10	3	003	●
9/16-12UNC	2BX	12.2	12.33	3102103126	5P	110	26	-	56	11	9	12	3	003	●
5/8-11UNC	2BX	13.6	13.75	3102103138	5P	110	26	-	56	12	9	12	3	003	●
3/4-10UNC	2BX	16.6	16.7	3102103161	5P	125	33	-	64	14	11	14	3	003	●
7/8-9UNC	2BX	19.6	19.61	3102103181	5P	140	33	-	71	18	14.5	17	3	003	●
UNF	TCTR (tolerance)	 (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (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	3102103022	5P	56	11	18	34	3.5	2.7	6	2	001	●
No.6-40UNF	2BX	2.9	2.97	3102103024	5P	56	11	19	32	4	3	6	2	001	●
No.8-36UNF	2BX	3.5	3.55	3102103030	5P	63	13	21	38	4.5	3.4	6	2	001	●
No.10-32UNF	2BX	4.1	4.12	3102103041	5P	70	14	24	39	6	4.9	8	2	001	●
No.12-28UNF	2BX	4.6	4.67	3102103048	5P	80	15	28	45	6	4.9	8	3	001	●
1/4-28UNF	2BX	5.5	5.53	3102103062	5P	80	15	30	42	7	5.5	8	3	001	●
UNF	TCTR (tolerance)	 (mm)	Hole Ø (mm)	Code	THCHT (chamfer)	LF (mm)	THL (mm)	LU (mm)	LS (mm)	DCON (mm)	K (mm)	LK (mm)	NOF	Type	Stock
DIN 374															
5/16-24UNF	2BX	6.9	6.97	3102103074	5P	90	19	-	46	6	4.9	8	3	003	●
3/8-24UNF	2BX	8.5	8.57	3102103085	5P	100	23	-	51	7	5.5	8	3	003	●
7/16-20UNF	2BX	9.9	9.96	3102103101	5P	100	23	-	51	8	6.2	9	3	003	●
1/2-20UNF	2BX	11.5	11.54	3102103115	5P	100	21	-	51	9	7	10	3	003	●
9/16-18UNF	2BX	12.9	13	3102103129	5P	100	21	-	51	11	9	12	3	003	●
5/8-18UNF	2BX	14.5	14.6	3102103142	5P	100	21	-	51	12	9	12	3	003	●
3/4-16UNF	2BX	17.5	17.59	3102103164	5P	110	24	-	56	14	11	14	3	003	●
7/8-14UNF	2BX	20.5	20.57	3102103184	5P	125	24	-	64	18	14.5	17	3	003	●

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