

Intro

VUPO

Z-PRO Series

SP

HSSP Spiral Pointed Taps, Coated

SL



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.

PO

Recommended Tapping Speeds Depending On Materials

DIN

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

ST

ROLL

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

CARBIDE

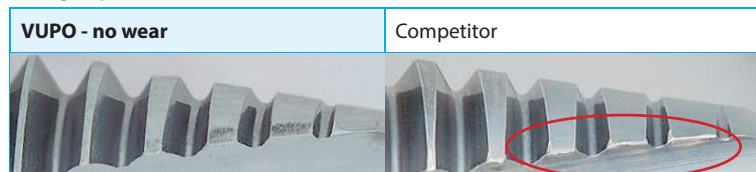
LONG

HAND TAPS

EG (STI)

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



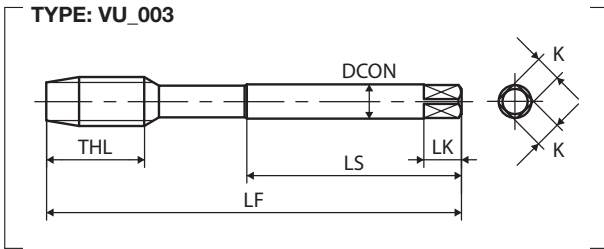
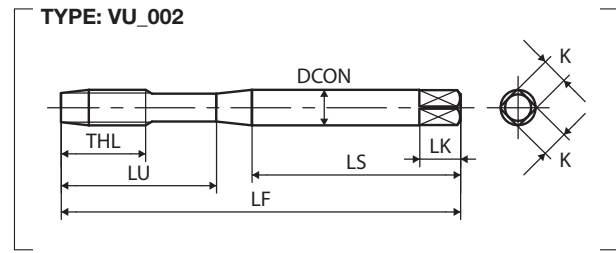
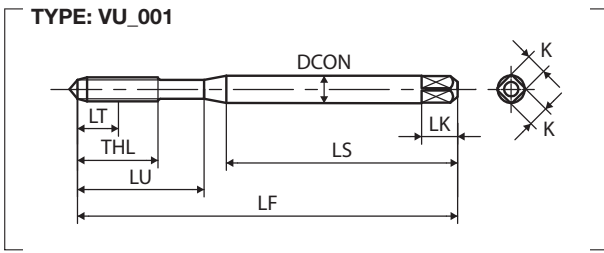
SPECIAL THREADS, GAUGES

THREAD MILLS

DIES

CENTER DRILLS

Technical info



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	▲
	7GX	3.3	3.38	3102301042	5P	63	13	21	38	4.5	3.4	6	3	001	▲
M5X0.8	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	●
	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	▲
M6X1	ISO2X(6HX)+100	4.2	4.28	3102501049	5P	70	14	25	39	6	4.9	8	3	001	▲
	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	▲
M8X1.25	ISO2X(6HX)+100	5	5.09	3102501055	5P	80	15	30	45	6	4.9	8	3	001	▲
	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	▲
M10X1.5	ISO2X(6HX)+100	6.8	6.85	3102501064	5P	90	19	35	47	8	6.2	9	3	002	▲
	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	▲
M10X1.5	ISO2X(6HX)+100	8.5	8.6	3102501078	5P	100	23	39	52.5	10	8	11	3	002	▲

Intro

SP

SL

PO

DIN

ST

ROLL

CARBIDE

LONG

HAND
TAPS

EG (STI)


SPECIAL
THREADS,
GAUGESTHREAD
MILLS

DIES


CENTER
DRILLSTechnical
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	●
CENTER DRILLS	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
info