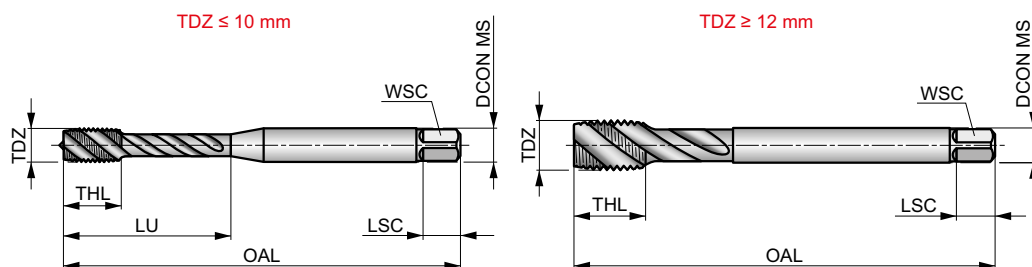


**EX006H****DORMER****HSS-E-PM 45° Spiral Flute Tap, Metric, DIN Standard**

Machine tap to produce normal fit threads within 6H tolerance. The spiral flute is suited for blind holes. Bright finish to produce more accurate and cleaner threads preventing the workpiece material from sticking to the cutting edges.

	DIN 371/376	6H
	2.5xD	HSS-E PM
		λ 45°
	Bright	



Workpiece material group suitability and starting values for cutting speed (m/min).

P1.1 ■ 21	P1.2 ■ 23	P1.3 ■ 24	P2.1 ■ 17	P2.2 ■ 15	P2.3 ■ 13	P3.1 ■ 12	P3.2 ■ 9	P4.1 ■ 7	N1.1 ■ 13	N1.2 ■ 9	N1.3 ■ 6	N2.1 ■ 27	N2.2 ■ 24
N2.3 ■ 17													

Products from this series are also available in set with drills. Please see L114 or L001.

Product	TDZ	TP	OAL	THL	DCON MS	WSC	LSC	NOF	PHD	LU
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]
EX00M2 ¹⁾	2	0.40	45.0	4	2.80	2.10	5	3	1.60	9.00
EX00M2.5 ¹⁾	2.5	0.45	50.0	4	2.80	2.10	5	3	2.05	12.50
EX00M3	3	0.50	56.0	6	3.50	2.70	6	3	2.50	18.00
EX00M3.5	3.5	0.60	56.0	7	4.00	3.00	6	3	2.90	20.00
EX00M4	4	0.70	63.0	7	4.50	3.40	6	3	3.30	21.00
EX00M5	5	0.80	70.0	8	6.00	4.90	8	3	4.20	25.00
EX00M6	6	1.00	80.0	10	6.00	4.90	8	3	5.00	31.00
EX00M6DIN376	6	1.00	80.0	10	4.50	3.40	6	3	5.00	31.00
EX00M7	7	1.00	80.0	10	7.00	5.50	8	3	6.00	31.00
EX00M8	8	1.25	90.0	12	8.00	6.20	9	3	6.80	35.00
EX00M8DIN376	8	1.25	90.0	13	6.00	4.90	8	3	6.80	35.00
EX00M10	10	1.50	100.0	15	10.00	8.00	11	3	8.50	39.00
EX00M10DIN376	10	1.50	100.0	15	7.00	5.50	8	3	8.50	39.00
EX00M12	12	1.75	110.0	16	9.00	7.00	10	3	10.30	—
EX00M14	14	2.00	110.0	20	11.00	9.00	12	3	12.00	—
EX00M16	16	2.00	110.0	20	12.00	9.00	12	4	14.00	—
EX00M18	18	2.50	125.0	25	14.00	11.00	14	4	15.50	—
EX00M20	20	2.50	140.0	25	16.00	12.00	15	4	17.50	—
EX00M22	22	2.50	140.0	25	18.00	14.50	17	4	19.50	—
EX00M24	24	3.00	160.0	30	18.00	14.50	17	4	21.00	—
EX00M27	27	3.00	160.0	30	20.00	16.00	19	4	24.00	—
EX00M30	30	3.50	180.0	36	22.00	18.00	21	4	26.50	—
EX00M33	33	3.50	180.0	36	25.00	20.00	23	4	29.50	—
EX00M36	36	4.00	200.0	40	28.00	22.00	25	4	32.00	—
EX00M39	39	4.00	200.0	40	32.00	24.00	27	4	35.00	—
EX00M42 ¹⁾	42	4.50	200.0	45	32.00	24.00	27	4	37.50	—
EX00M48 ¹⁾	48	5.00	250.0	50	36.00	29.00	32	4	43.00	—
EX00M52 ¹⁾	52	5.00	250.0	50	40.00	32.00	35	5	47.00	—
EX00M56 ¹⁾	56	5.50	250.0	55	40.00	32.00	35	5	50.50	—
EX00M64 ¹⁾	64	6.00	315.0	60	50.00	39.00	42	6	58.00	—

¹⁾ HSS-E.



WMG (WORK MATERIAL GROUP)

ISO group		WMG (Work Material Group)			Hardness (HB or HRC)	Ultimate Tensile Strength (MPa)
P	P1	P1.1	Free machining steel (carbon steels with increased machinability)	Sulfurized	< 240 HB	≤ 830
		P1.2		Sulfurized and phosphorized	< 180 HB	≤ 620
		P1.3		Sulfurized/phosphorized and leaded	< 180 HB	≤ 620
	P2	P2.1	Plain carbon steel (steels comprised of mainly iron and carbon)	Containing <0.25 % C	< 180 HB	≤ 620
		P2.2		Containing <0.55 % C	< 240 HB	≤ 830
		P2.3		Containing >0.55 % C	< 300 HB	≤ 1030
	P3	P3.1	Alloy steel (carbon steels with an alloying content ≤ 10%)	Annealed	< 180 HB	≤ 620
		P3.2		Hardened and tempered	180 – 260 HB	> 620 ≤ 900
		P3.3			260 – 360 HB	> 900 ≤ 1240
	P4	P4.1	Tool steel (special alloy steel for tools, dies and molds)	Annealed	< 26 HRC	≤ 900
		P4.2		Hardened and tempered	26 – 39 HRC	> 900 ≤ 1240
		P4.3			39 – 45 HRC	> 1240 ≤ 1450
M	M1	M1.1	Ferritic stainless steel (straight chromium non-hardenable alloys)		< 160 HB	≤ 520
		M1.2			160 – 220 HB	> 520 ≤ 700
	M2	M2.1	Martensitic stainless steel (straight chromium hardenable alloys)	Annealed	< 200 HB	≤ 670
		M2.2		Quenched and tempered	200 – 280 HB	> 670 ≤ 950
		M2.3		Precipitation-hardened	280 – 380 HB	> 950 ≤ 1300
	M3	M3.1	Austenitic stainless steel (chromium-nickel and chromium-nickel-manganese alloys)		< 200 HB	≤ 750
		M3.2			200 – 260 HB	> 750 ≤ 870
		M3.3			260 – 300 HB	> 870 ≤ 1040
	M4	M4.1	Austenitic-ferritic (DUPLEX) or super-austenitic stainless steel		< 300 HB	≤ 990
		M4.2			300 – 380 HB	≤ 1320
K	K1	K1.1	Gray iron or Automotive Gray iron (GG) (iron-carbon castings with a lamellar graphite microstructure)	Ferritic or ferritic-pearlitic	< 180 HB	≤ 190
		K1.2		Ferritic-pearlitic or pearlitic	180 – 240 HB	> 190 ≤ 310
		K1.3		Pearlitic	240 – 280 HB	> 310 ≤ 390
	K2	K2.1	Malleable iron (GTS/GTW) (iron-carbon castings with a graphite-free microstructure)	Ferritic	< 160 HB	≤ 400
		K2.2		Ferritic or pearlitic	160 – 200 HB	> 400 ≤ 550
		K2.3		Pearlitic	200 – 240 HB	> 550 ≤ 660
	K3	K3.1	Ductile iron (GGG) (iron-carbon castings with a nodular graphite microstructure)	Ferritic	< 180 HB	≤ 560
		K3.2		Ferritic or pearlitic	180 – 220 HB	> 560 ≤ 680
		K3.3		Pearlitic	220 – 260 HB	> 680 ≤ 800
	K4	K4.1	Austenitic gray iron (ASTM A436) (iron-carbon alloy castings with an austenitic lamellar graphite microstructure)		< 180 HB	≤ 190
		K4.2	Austenitic ductile iron (ASTM A439 or ASTM A571) (iron-carbon alloy castings with an austenitic nodular graphite microstructure)		< 240 HB	≤ 740
		K4.3	Austempered ductile iron (ASTM A897) (iron-carbon alloy castings with an ausferrite microstructure)		< 280 HB	> 840 ≤ 980
		K4.4			280 – 320 HB	> 980 ≤ 1130
		K4.5			320 – 360 HB	> 1130 ≤ 1280
	K5	K5.1	Compacted graphite iron CGI (ASTM A842) (iron-carbon castings with a vermicular graphite structure)	Ferritic	< 180 HB	≤ 400
		K5.2		Ferritic-pearlitic	180 – 220 HB	> 400 ≤ 450
		K5.3		Pearlitic	220 – 260 HB	> 450 ≤ 500
N	N1	N1.1	Commercially pure wrought aluminium		< 60 HB	≤ 240
		N1.2	Wrought aluminium alloys	Half hard tempered	60 – 100 HB	> 240 ≤ 400
		N1.3		Full hard tempered	100 – 150 HB	> 400 ≤ 590
	N2	N2.1	Cast aluminium alloys		< 75 HB	≤ 240
		N2.2			75 – 90 HB	> 240 ≤ 270
		N2.3			90 – 140 HB	> 270 ≤ 440
	N3	N3.1	Free-cutting copper-alloys materials with excellent machining properties		–	–
		N3.2	Short-chip copper-alloys with good to moderate machining properties		–	–
		N3.3	Electrolytic copper and long-chip copper-alloys with moderate to poor machining properties		–	–
	N4	N4.1	Thermoplastic polymers		–	–
		N4.2	Thermosetting polymers		–	–
N4.3		Reinforced polymers or composites		–	–	
N5	N5.1	Graphite		–	–	
S	S1	S1.1	Titanium or titanium alloys		< 200 HB	≤ 660
		S1.2			200 – 280 HB	> 660 ≤ 950
		S1.3			280 – 360 HB	> 950 ≤ 1200
	S2	S2.1	Fe-based high-temperature alloys		< 200 HB	≤ 690
		S2.2			200 – 280 HB	> 690 ≤ 970
	S3	S3.1	Ni-based high-temperature alloys		< 280 HB	≤ 940
		S3.2			280 – 360 HB	> 940 ≤ 1200
	S4	S4.1	Co-based high-temperature alloys		< 240 HB	≤ 800
		S4.2			240 – 320 HB	> 800 ≤ 1070
H	H1	H1.1	Chilled cast iron		< 440 HB	–
	H2	H2.1	Hardened cast iron		< 55 HRC	–
		H2.2			> 55 HRC	–
	H3	H3.1	Hardened steel <55 HRC		< 51 HRC	–
		H3.2			51 – 55 HRC	–
	H4	H4.1	Hardened steel >55 HRC		55 – 59 HRC	–
H4.2				> 59 HRC	–	