



**SOLID CARBIDE
THREAD MILLS**

TMM
HIGH PERFORMANCE



TM Series

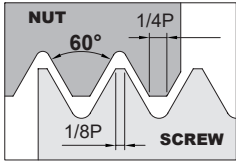
INDEX

Shape	Flute	Type	Mode	Photo	Coatin	Spec.	Cutting Condition
Thread	3~5	Thread Mill.ISO 2D	TM		<div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">ZrN-A</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">nACRo</div> </div>	132	165
Thread	3~5	Thread Mill.ISO. 2D Coolant	TMC			132	165
Thread	3~5	Thread Mill.ISO.1.5D	TMEL			133	165
Thread	3~5	Thread Mill.ISO.1.5D Coolant	TMCEL			133	165
Thread	3~4	Thread Mill.ISO. 1.5D/2D/2.5D Chamfer ISO.1.5D/2D/2.5D	TMCH			134	165
Thread	3~4	Thread Mill.ISO. 1.5D/2D/2.5D Chamfer Coolant ISO.1.5D/2D/2.5D	TMCHC			135	165
Thread	3~4	3 Pitch Thread Mill.ISO.	TM3ZT			136	166
Thread	3	1 Pitch Miniature Thread Mill.ISO.	TMSM1ZT			137	166
Thread	3~5	Internal / External Thread Mill	TMPA			137	166
Customized Thread Mill							
Thread	2	Thread Mill.ISO. Drill+ Chamfer	TMCHD		-	138	-
Thread	1~4	Full Profile Thread Mill.ISO	TMFP		-	139	-

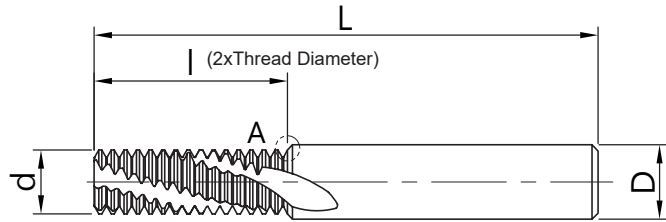
TM - Thread Mill.ISO 2D

ZrN-A nACRo

Cutting Condition
P165



ISO R262 (DIN13) /6H



Enlarged view of Part A

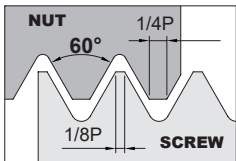


MODE	Thread Diameter	Pitch	Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Coating	
	M	mm	d	l	L	D	z	ZrN-A	nACRo
TM-M0305002303	M3	0.5	2.3	6.75	50	4	3	.03	.08
TM-M0407003103	M4	0.7	3.1	8.75	50	4	3	.03	.08
TM-M0508003803	M5	0.8	3.8	10.80	50	4	3	.03	.08
TM-M0610004503	M6	1	4.5	13.50	65	6	3	.03	.08
TM-M0812506004	M8	1.25	6	18.13	65	6	4	.03	.08
TM-M1015007504	M10	1.5	7.5	21.75	80	8	4	.03	.08
TM-M1217509504	M12	1.75	9.5	27.13	80	10	4	.03	.08
TM-M1420010004	M14	2	10	31.00	80	10	4	.03	.08
TM-M1620012005	M16	2	12	35.00	105	12	5	.03	.08
TM-M2025016005	M20	2.5	16	43.75	105	16	5	.03	.08
TM-M2430016005	M24	3	16	52.50	110	16	5	.03	.08

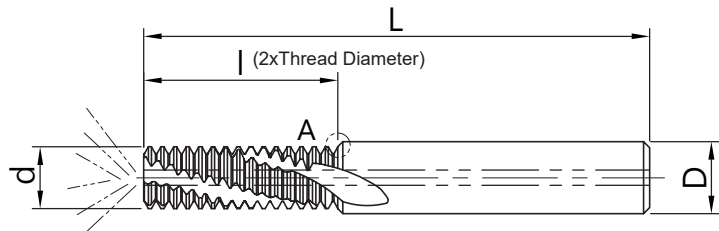
TMC - Thread Mill.ISO. 2D Coolant

ZrN-A nACRo

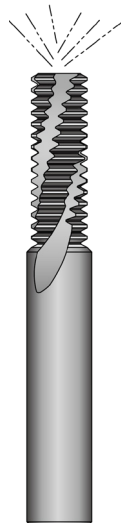
Cutting Condition
P165



ISO R262 (DIN13) /6H



Enlarged view of Part A

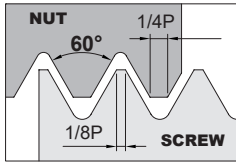


MODE	Thread Diameter	Pitch	Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Coating	
	M	mm	d	l	L	D	z	ZrN-A	nACRo
TMC-M0610004503	M6	1	4.5	13.50	65	6	3	.03	.08
TMC-M0812506004	M8	1.25	6	18.13	65	6	4	.03	.08
TMC-M1015007504	M10	1.5	7.5	21.75	80	8	4	.03	.08
TMC-M1217509504	M12	1.75	9.5	27.13	80	10	4	.03	.08
TMC-M1420010005	M14	2	10	31.00	80	10	4	.03	.08
TMC-M1620012005	M16	2	12	35.00	105	12	5	.03	.08
TMC-M2025016005	M20	2.5	16	43.75	105	16	5	.03	.08
TMC-M2430016005	M24	3	16	52.50	110	16	5	.03	.08

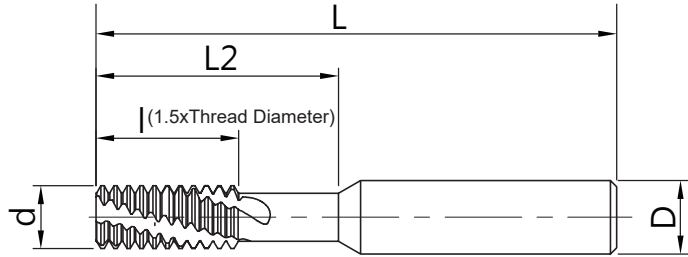
TMEL - Thread Mill.ISO.1.5D

ZrN-A nACRo

Cutting Condition
P165



ISO R262 (DIN13) /6H

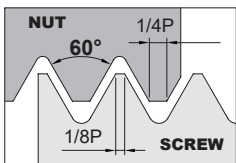


MODE	Thread Diameter	Pitch	Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Effective Length	Coating	
	M	mm	d	l	L	D	z	L2	ZrN-A	nACRo
TMEL-M0305002303	M3	0.5	2.3	5.0	50	4	3	9.0	.03	.08
TMEL-M0407003103	M4	0.7	3.1	7.0	50	4	3	12.0	.03	.08
TMEL-M0508003803	M5	0.8	3.8	8.0	50	4	3	15.0	.03	.08
TMEL-M0610004503	M6	1	4.5	10.0	65	6	3	18.0	.03	.08
TMEL-M0812506004	M8	1.25	6	13.8	65	6	4	24.0	.03	.08
TMEL-M1015007504	M10	1.5	7.5	16.5	80	8	4	30.0	.03	.08
TMEL-M1217509504	M12	1.75	9.5	19.3	105	10	4	36.0	.03	.08
TMEL-M1420010005	M14	2	10	24.0	105	10	5	42.0	.03	.08
TMEL-M1620012005	M16	2	12	26.0	105	12	5	48.0	.03	.08

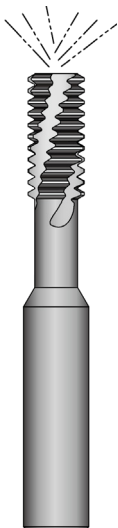
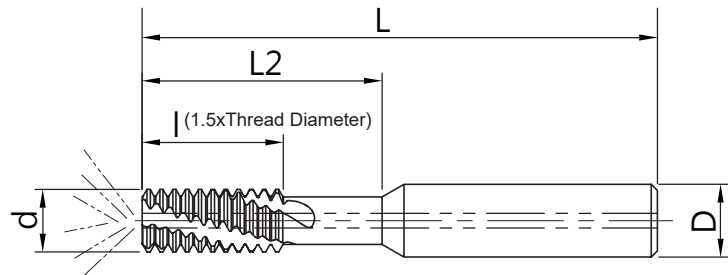
TMCEL - Thread Mill.ISO.1.5D Coolant

ZrN-A nACRo

Cutting Condition
P165



ISO R262 (DIN13) /6H

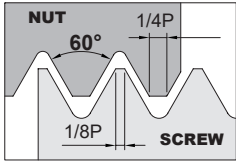


MODE	Thread Diameter	Pitch	Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Effective Length	Coating	
	M	mm	d	l	L	D	z	L2	ZrN-A	nACRo
TMCEL-M0610004503	M6	1	4.5	10.0	65	6	3	18.0	.03	.08
TMCEL-M0812506004	M8	1.25	6	13.8	65	8	4	24.0	.03	.08
TMCEL-M1015007504	M10	1.5	7.5	16.5	80	10	4	30.0	.03	.08
TMCEL-M1217509504	M12	1.75	9.5	19.3	105	12	4	36.0	.03	.08
TMCEL-M1420010004	M14	2	10	24.0	105	14	4	42.0	.03	.08
TMCEL-M1620012005	M16	2	12	26.0	105	16	5	48.0	.03	.08

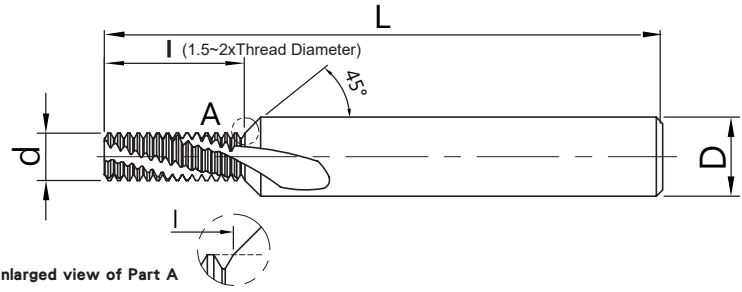
TMCH - Thread Mill.ISO.1.5D/2D Chamfer

ZrN-A nACRo

Cutting Condition
P165



ISO R262 (DIN13) /6H



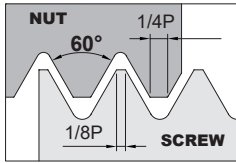
MODE	Thread Diameter	Pitch	Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Coating	
	M	mm	d	l	L	D		ZrN-A	nACRo
TMCH45-M0305002303(TL5.25)	M3 (1.5xD)	0.5	2.3	5.25	65	6	3	.03	.08
TMCH45-M0305002303(TL6.75)	M3 (2xD)	0.5	2.3	6.75	65	6	3	.03	.08
TMCH45-M0407003103(TL7.35)	M4 (1.5xD)	0.7	3.1	7.35	65	6	3	.03	.08
TMCH45-M0407003103(TL8.75)	M4 (2xD)	0.7	3.1	8.75	65	6	3	.03	.08
TMCH45-M0508003803(TL8.4)	M5 (1.5xD)	0.8	3.8	8.40	65	6	3	.03	.08
TMCH45-M0508003803(TL10.8)	M5 (2xD)	0.8	3.8	10.80	65	6	3	.03	.08
TMCH45-M0610004503(TL10.5)	M6 (1.5xD)	1	4.5	10.50	80	8	3	.03	.08
TMCH45-M0610004503(TL13.5)	M6 (2xD)	1	4.5	13.50	80	8	3	.03	.08
TMCH45-M0610004503(TL16.5)	M6 (2.5xD)	1	4.5	16.50	80	8	3	.03	.08
TMCH45-M0812506004(TL14.38)	M8 (1.5xD)	1.25	6	14.38	80	10	4	.03	.08
TMCH45-M0812506004(TL18.13)	M8 (2xD)	1.25	6	18.13	80	10	4	.03	.08
TMCH45-M0812506004(TL21.88)	M8 (2.5xD)	1.25	6	21.88	80	10	4	.03	.08
TMCH45-M1015007504(TL17.25)	M10 (1.5xD)	1.5	7.5	17.25	105	12	4	.03	.08
TMCH45-M1015007504(TL21.75)	M10 (2xD)	1.5	7.5	21.75	105	12	4	.03	.08
TMCH45-M1015007504(TL27.75)	M10 (2.5xD)	1.5	7.5	27.75	105	12	4	.03	.08
TMCH45-M1217509504(TL20.13)	M12 (1.5xD)	1.75	9.5	20.13	105	14	4	.03	.08
TMCH45-M1217509504(TL27.13)	M12 (2xD)	1.75	9.5	27.13	105	14	4	.03	.08
TMCH45-M1217509504(TL32.38)	M12 (2.5xD)	1.75	9.5	32.38	105	14	4	.03	.08

TMCHC - Thread Mill.ISO.1.5D/2D Chamfer Coolant

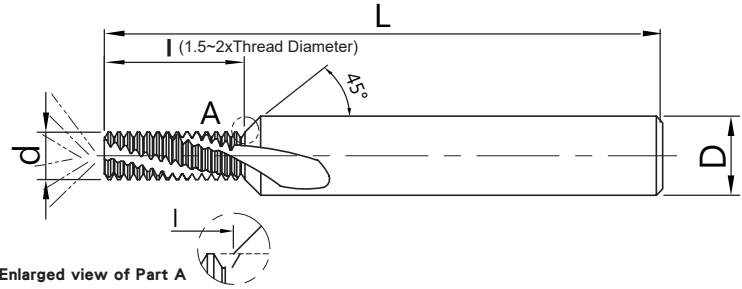
ZrN-A

nACRo

Cutting Condition
P165



ISO R262 (DIN13) /6H



Enlarged view of Part A

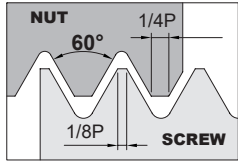


MODE	Thread Diameter	Pitch	Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Coating	
	M	mm	d	l	L	D	z	ZrN-A	nACRo
TMCHC45-M0508003803(TL8.4)	M5 (1.5xD)	0.8	3.8	8.40	65	6	3	.03	.08
TMCHC45-M0508003803(TL10.8)	M5 (2xD)	0.8	3.8	10.80	65	6	3	.03	.08
TMCHC45-M0610004503(TL10.5)	M6 (1.5xD)	1	4.5	10.50	80	8	3	.03	.08
TMCHC45-M0610004503(TL13.5)	M6 (2xD)	1	4.5	13.50	80	8	3	.03	.08
TMCHC45-M0610004503(TL16.5)	M6 (2.5xD)	1	4.5	16.50	80	8	3	.03	.08
TMCHC45-M0812506004(TL14.38)	M8 (1.5xD)	1.25	6	14.38	80	10	4	.03	.08
TMCHC45-M0812506004(TL18.13)	M8 (2xD)	1.25	6	18.13	80	10	4	.03	.08
TMCHC45-M0812506004(TL21.88)	M8 (2.5xD)	1.25	6	21.88	80	10	4	.03	.08
TMCHC45-M1015007504(TL17.25)	M10 (1.5xD)	1.5	7.5	17.25	105	12	4	.03	.08
TMCHC45-M1015007504(TL21.75)	M10 (2xD)	1.5	7.5	21.75	105	12	4	.03	.08
TMCHC45-M1015007504(TL27.75)	M10 (2.5xD)	1.5	7.5	27.75	105	12	4	.03	.08
TMCHC45-M1217509504(TL20.13)	M12 (1.5xD)	1.75	9.5	20.13	105	14	4	.03	.08
TMCHC45-M1217509504(TL27.13)	M12 (2xD)	1.75	9.5	27.13	105	14	4	.03	.08
TMCHC45-M1217509504(TL32.38)	M12 (2.5xD)	1.75	9.5	32.38	105	14	4	.03	.08

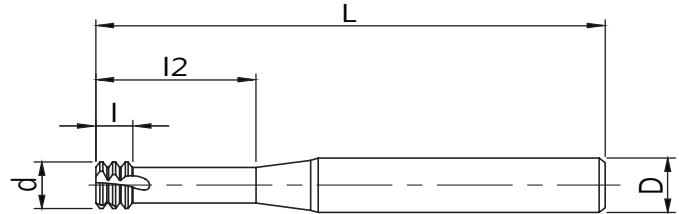
TM3ZT - 3 Pitch Thread Mill.ISO.

ZrN-A nACRo

Cutting Condition
P166



ISO R262 (DIN13) /6H

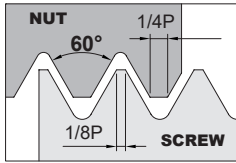


MODE	Thread Diameter	Pitch	Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Effective Length	Coating	
	M	mm	d	l	L	D	z	L2	ZrN-A	nACRo
TM3ZT-M01603501203(EL3.2)	M1.6	0.35	1.2	1.05	50	4	3	3.2	.03	.08
TM3ZT-M01603501203(EL4.8)	M1.6	0.35	1.2	1.05	50	4	3	4.8	.03	.08
TM3ZT-M02004001523(EL4)	M2	0.4	1.52	1.20	50	4	3	4.0	.03	.08
TM3ZT-M02004001523(EL6)	M2	0.4	1.52	1.20	50	4	3	6.0	.03	.08
TM3ZT-M02204501603(EL4.4)	M2.2	0.45	1.6	1.35	50	4	3	4.4	.03	.08
TM3ZT-M02204501603(EL6.6)	M2.2	0.45	1.6	1.35	50	4	3	6.6	.03	.08
TM3ZT-M02504501903(EL5)	M2.5	0.45	1.9	1.35	50	4	3	5.0	.03	.08
TM3ZT-M02504501903(EL7.5)	M2.5	0.45	1.9	1.35	50	4	3	7.5	.03	.08
TM3ZT-M03005002303(EL6)	M3	0.5	2.3	1.50	50	4	3	6.0	.03	.08
TM3ZT-M03005002303(EL9)	M3	0.5	2.3	1.50	50	4	3	9.0	.03	.08
TM3ZT-M04007003103(EL8)	M4	0.7	3.1	2.10	50	4	3	8.0	.03	.08
TM3ZT-M04007003103(EL12)	M4	0.7	3.1	2.10	50	4	3	12.0	.03	.08
TM3ZT-M05008003803(EL10)	M5	0.8	3.8	2.40	50	4	3	10.0	.03	.08
TM3ZT-M05008003803(EL15)	M5	0.8	3.8	2.40	50	4	3	15.0	.03	.08
TM3ZT-M06010004504(EL12)	M6	1	4.5	3.00	50	6	4	12.0	.03	.08
TM3ZT-M06010004504(EL18)	M6	1	4.5	3.00	60	6	4	18.0	.03	.08
TM3ZT-M08012506004(EL16)	M8	1.25	6	3.75	60	6	4	16.0	.03	.08
TM3ZT-M08012506004(EL24)	M8	1.25	6	3.75	60	6	4	24.0	.03	.08
TM3ZT-M10015007504(EL20)	M10	1.5	7.5	4.50	60	8	4	20.0	.03	.08
TM3ZT-M10015007504(EL30)	M10	1.5	7.5	4.50	75	8	4	30.0	.03	.08
TM3ZT-M12017509504(EL24)	M12	1.75	9.5	5.25	75	10	4	24.0	.03	.08
TM3ZT-M12017509504(EL36)	M12	1.75	9.5	5.25	100	10	4	36.0	.03	.08

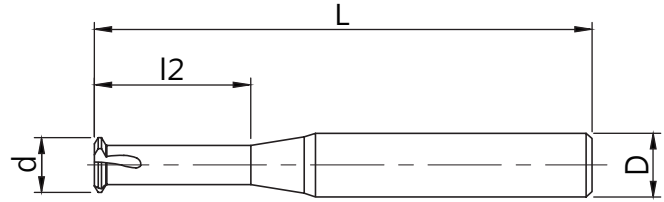
TMSM1ZT - 1 Pitch Miniature Thread Mill

ZrN-A nACRo

Cutting Condition
P166



ISO R262 (DIN13) /6H

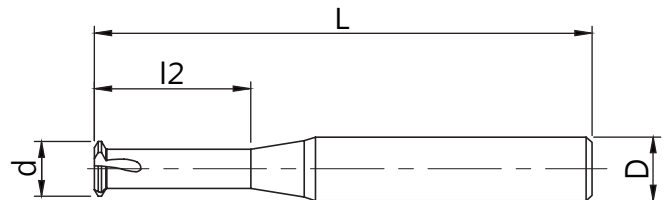
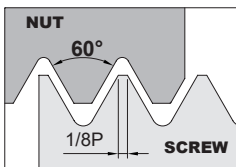


MODE	Thread Diameter	Pitch	Diameter	Full Length	Shank Diameter	No. of flutes	Effective Length	Coating	
	M	mm	d	L	D	z	L2	ZrN-A	nACRo
TMSM1ZT-M01002500723	M1	0.25	0.72	50	4	3	3.1	.03	.08
TMSM1ZT-M01202500903	M1.2	0.25	0.9	50	4	3	3.7	.03	.08
TMSM1ZT-M01403001053	M1.4	0.3	1.05	50	4	3	4.3	.03	.08
TMSM1ZT-M01603501203	M1.6	0.35	1.2	50	4	3	5.0	.03	.08
TMSM1ZT-M02004001523	M2	0.4	1.52	50	4	3	6.2	.03	.08
TMSM1ZT-M02204501603	M2.2	0.45	1.6	50	4	3	6.8	.03	.08
TMSM1ZT-M02504501903	M2.5	0.45	1.9	50	4	3	7.8	.03	.08
TMSM1ZT-M03005002303	M3	0.5	2.3	50	4	3	9.3	.03	.08

TMPA - Internal / External Thread Mill

ZrN-A nACRo

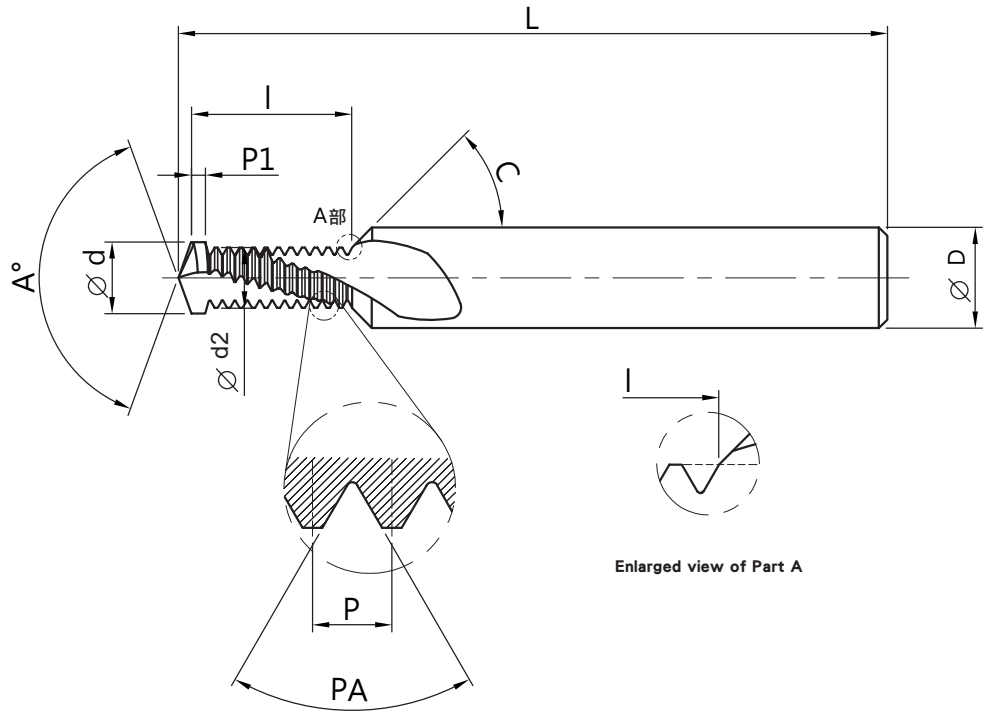
Cutting Condition
P166



MODE	Pitch		Diameter	Thread Length	Full Length	Shank Diameter	No. of flutes	Effective Length	Coating	
	mm	TPI	d	l	L	D	z	L2	ZrN-A	nACRo
TMPA60-035-0600195003	0.35-0.6	72-40	1.95	0.75	50	4	3	6.0	.03	.08
TMPA60-050-0770245003	0.5-0.8	48-32	2.45	0.75	50	4	3	7.7	.03	.08
TMPA60-050-1000315003	0.5-0.8	48-32	3.15	0.90	50	4	3	10.0	.03	.08
TMPA60-050-1200400003	0.5-1.0	48-24	4	1.05	50	4	3	12.0	.03	.08
TMPA60-050-1500470004	0.5-1.25	48-20	4.7	1.05	60	6	4	15.0	.03	.08
TMPA60-050-1800600004	0.5-1.25	48-20	6	1.20	60	6	4	18.0	.03	.08
TMPA60-075-2400800004	0.75-1.5	32-16	8	1.20	60	8	4	24.0	.03	.08
TMPA60-100-3001000005	1.0-2.5	24-10	10	1.35	75	10	5	30.0	.03	.08
TMPA60-100-3601200005	1.0-2.5	24-10	12	1.35	100	12	5	36.0	.03	.08

TMCHD - 2 Flutes Drill Thread Mill for Internal Threads

Customized



Enlarged view of Part A

D = _____

C = _____

L = _____

l = _____

P = _____

P1 = _____

d = _____

d2 = _____

A = _____

PA = _____

M = _____
(Thread size)

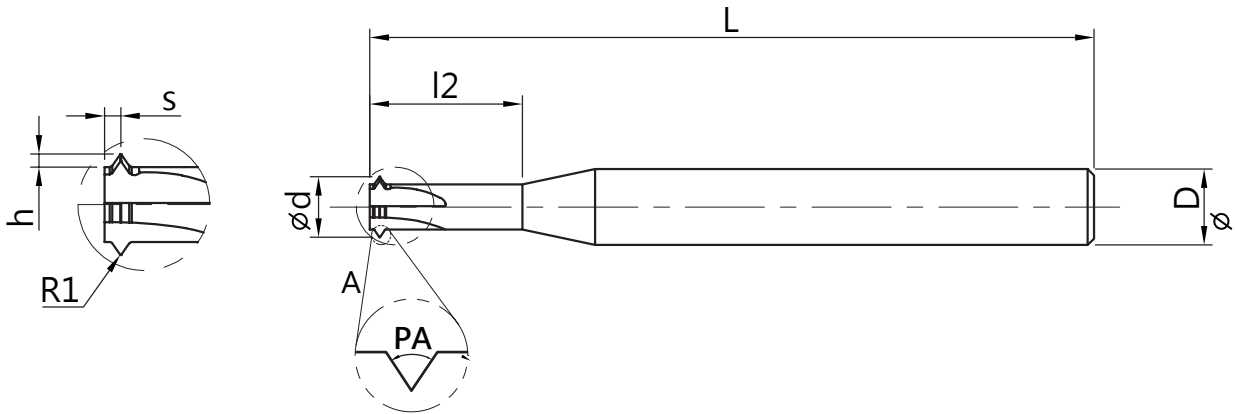
Application :

◎ Excellent ○ Good

Carbon steel, Alloy steel	Pre-hardened steel	High-hardened				Stainless steel	Cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Nickel/Inconel alloy
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC						
							○		◎		

TMFP - High Accuracy Full Profile Thread Mill

Customized



$D =$ _____ $l_2 =$ _____

$L =$ _____ $R1 =$ _____

$S =$ _____ $h =$ _____

$d =$ _____ Flutes = _____

$PA =$ _____ $M =$ _____
(Thread size)

Uncoating nACRo ZrN-A nACo

Application :

◎ Excellent ○ Good

Coating	Carbon steel, Alloy steel	Pre-harden steel	High-hardened				Stainless steel	Cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Nickel/Inconel alloy
		~45HRC	~50HRC	~55HRC	~60HRC	~65HRC						
nACRo	◎	◎	○				○	◎			○	○
ZrN-A	○	○					◎		○	○	○	○
nACo		◎	◎	◎	◎	○						

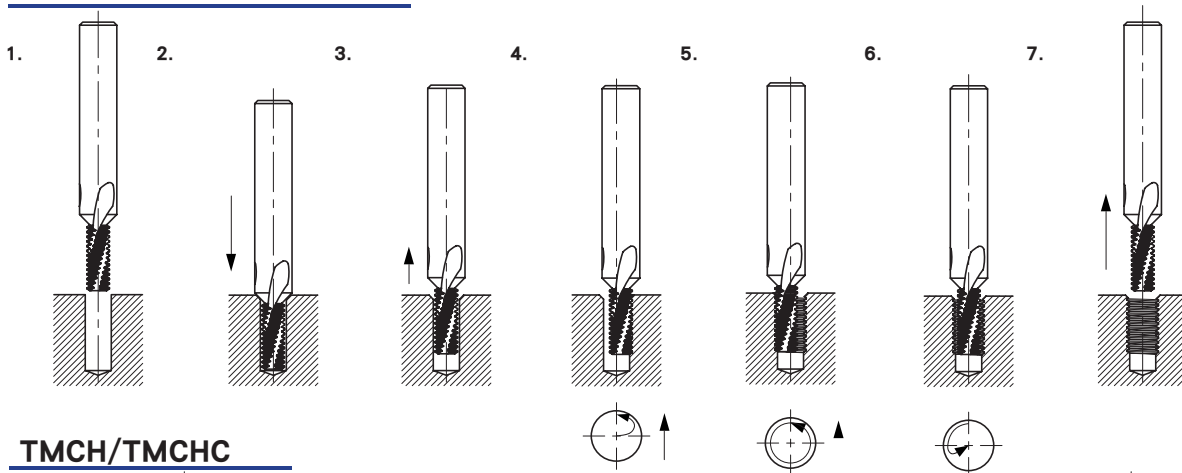
TMC/TMEL/TMCH

Specification page
P132-135

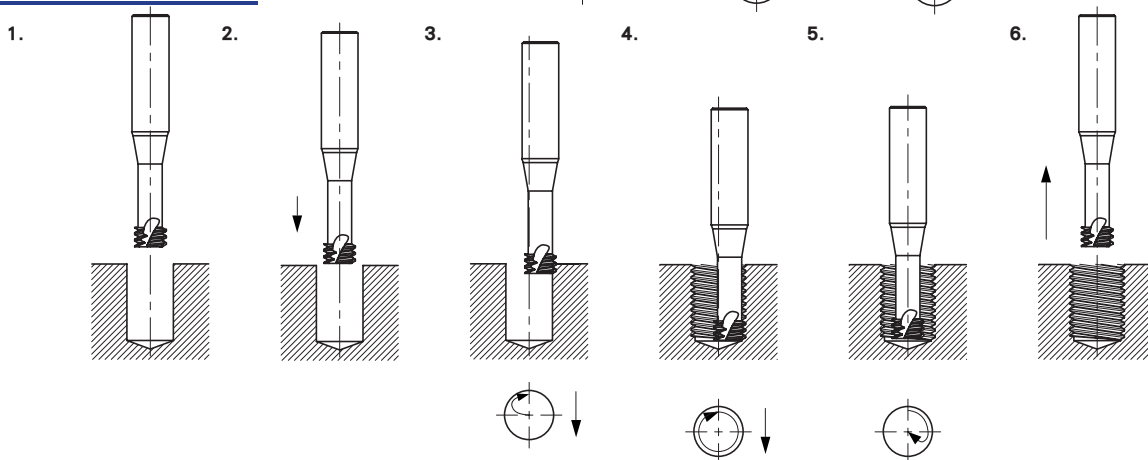
Work Material	SSS400, AISI 1050, SCM, etc. Non-Alloyed Steels Alloy Steels Tool Steels		AISI H13, AISI D2, etc. Alloy Steels, Heat Resistant Steels		AISI 304 AISI 316, etc. Austenite, Martensite, Stainless Steels		Cast Iron, Nodular Cast Iron, Malleable FC250, etc. Cast Iron		Almelec, Aluminum and aluminum alloy		Alloy Steels, Titanium Alloy	
HARDNESS	~30HRC		30~45HRC		~40HRC		≥240HB					
STRENGTH	~1000 N/mm ²		1000~1500 N/mm ²		~950N/mm ²						1300N/mm ²	
Vc	50~220		30~100		50~140		60~140		80~280		15~80	
Diameter (mm)	fz (mm/z)		fz (mm/z)		fz (mm/z)		fz (mm/z)		fz (mm/z)		fz (mm/z)	
2	0.025	0.020	0.020	0.025	0.025	0.015	0.012	0.011	0.015	0.011	0.009	0.005
3	0.035	0.025	0.025	0.035	0.035	0.015	0.016	0.014	0.020	0.014	0.012	0.006
4	0.040	0.030	0.030	0.040	0.040	0.020	0.020	0.018	0.025	0.018	0.015	0.008
6	0.055	0.035	0.035	0.055	0.055	0.025	0.024	0.021	0.030	0.021	0.018	0.009
8	0.065	0.040	0.040	0.065	0.065	0.025	0.028	0.025	0.035	0.025	0.021	0.011
10	0.080	0.045	0.045	0.080	0.080	0.030	0.032	0.028	0.040	0.028	0.024	0.012
12	0.090	0.050	0.050	0.090	0.090	0.030	0.043	0.039	0.054	0.038	0.034	0.021
16	0.110	0.060	0.060	0.110	0.110	0.040	0.048	0.043	0.060	0.043	0.038	0.023
20	0.140	0.070	0.070	0.140	0.140	0.040	0.058	0.052	0.072	0.051	0.046	0.028
14	0.067	0.056	0.060	0.039	0.056	0.038	0.067	0.060	0.084	0.060	0.053	0.032
16	0.077	0.064	0.069	0.045	0.064	0.043	0.077	0.069	0.096	0.068	0.061	0.037
20	0.096	0.080	0.086	0.056	0.080	0.054	0.096	0.086	0.120	0.085	0.076	0.046

Cutting Demonstration

TM/TMC/TMEL/TMCEL



TMCH/TMCHC



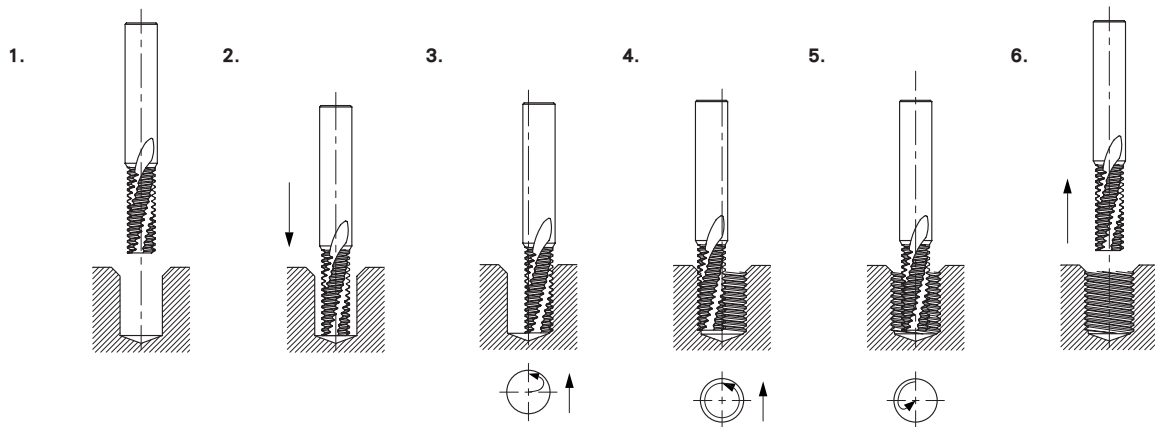
TM3ZT/TMSM/TMPA/TMCHD

Specification page
P136-139

Work Material 被削材	SS400, AISI 1050, SCM, etc. Non-Alloyed Steels Alloy Steels Tool Steels	AISI H13, AISI D2, etc. Alloy Steels, Heat Resistant Steels	AISI 304 AISI 316, etc. Austenite, Martensite, Stainless Steel	Cast Iron, Nodular Cast Iron, Malleable FC250, etc. Cast Iron	Almelec, Aluminum and aluminum alloy	Alloy Steels, Titanium Alloy
HARDNESS	~30HRC	30~45HRC	~40HRC	≥ 240HB		
STRENGTH	~1000 N/mm ²	1000~1500 N/mm ²	~950N/mm ²			1300N/mm ²
Vc	50~220	30~100	50~140	60~140	80~280	15~80
Diameter	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
1	0.025	0.020	0.020	0.025	0.030	0.020
1.5	0.035	0.030	0.030	0.035	0.040	0.020
2	0.040	0.040	0.040	0.040	0.045	0.025
3	0.055	0.045	0.045	0.055	0.060	0.030
4	0.065	0.050	0.050	0.065	0.075	0.035
5	0.080	0.055	0.055	0.080	0.090	0.045
6	0.095	0.060	0.060	0.095	0.105	0.050
8	0.130	0.075	0.075	0.130	0.130	0.055
10	0.145	0.090	0.090	0.145	0.145	0.060

Cutting Demonstration

TM3ZT/TMSM1ZT/TMFP/TMPA



TMCHD

