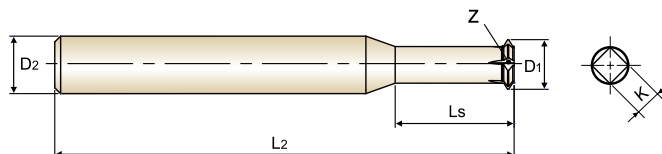




M Solid Carbide Miniature Thread Mill for Dental, ISO Metric Internal Thread - DIN 13

VOLLHARTMETALL MINI-GEWINDEFÄSER für Dental, ISO METRISCHES INNENGEWINDE - DIN 13
 Mini-fraise à fileter en carbure monobloc pour le secteur dentaire, filetage ISO Interieur Metrique - DIN13
 Micro - Frese a filettare in MD-filettature interne per dentale, ISO metriche - DIN 13

- Single thread applied to reduce cutting force.
- Suitable for machining implants (medical device components), Titanium, and Stainless Steel.



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Flat Shank	Plain Shank
END MILL HOLDER	HYDRAULIC CHUCK
SHRINK FIT HOLDER	POWER MILLING CHUCK
	ER COLLET CHUCK
	SK SLIM CHUCK

Unit : mm

EDP No.	Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Effective Length	Overall Length	No. of Flute
Y-Coating	D	P	D1	D2	Ln	L2	Z
L1AG1055	M1.2	0.25	0.90	3	5.0	40	3
L1AG1056	M1.2	0.25	0.90	3	6.0	40	3
L1AG1058	M1.2	0.25	0.90	3	8.0	40	3
L1AG1075	M1.4	0.3	1.05	3	5.0	40	3
L1AG1076	M1.4	0.3	1.05	3	6.0	40	3
L1AG1078	M1.4	0.3	1.05	3	8.0	40	3
L1AG1095	M1.6	0.35	1.20	3	5.0	40	3
L1AG1096	M1.6	0.35	1.20	3	6.0	40	3
L1AG1098	M1.6	0.35	1.20	3	8.0	40	3
L1AG1115	M1.8	0.35	1.40	3	5.0	40	3
L1AG1116	M1.8	0.35	1.40	3	6.0	40	3
L1AG1118	M1.8	0.35	1.40	3	8.0	40	3
L1AG1135	M2	0.4	1.50	3	5.0	40	3
L1AG1136	M2	0.4	1.50	3	6.0	40	3
L1AG1138	M2	0.4	1.50	3	8.0	40	3
L1AG1135-6	M2	0.4	1.50	6	5.0	57	3
L1AG1136-6	M2	0.4	1.50	6	6.0	57	3
L1AG1138-6	M2	0.4	1.50	6	8.0	57	3
L1AG1175	M2.5	0.45	1.95	3	5.0	40	3
L1AG1176	M2.5	0.45	1.95	3	6.0	40	3
L1AG1178	M2.5	0.45	1.95	3	8.0	40	3

► Other coatings are available on your request.

◎ : Excellent ○ : Good

ISO	P											M			K						
Material Description	Non-alloy steel					Low alloy steel				High alloy steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	
ISO	N										S							H			
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



THREAD MILL					L4271, L4272, L4273, L4274, L4276, L12D1, L12D3	L19E1 L19E3	L1AG1	L41A1 L42A1
SYNCHRO TAP	ISO	VDI 3323	Material Description	HB	HRc	Vc (m/min.)		
PRIME TAP / FORMING	P	1	Non-alloy steel	125		80-120		80-120
COMBO TAP		2		190	13	80-120		80-120
YG TAP STEEL		3		250	25	80-120		80-120
YG TAP CHIP BREAKER		4		270	28	80-120		80-120
YG TAP INOX		5		300	32	80-120		80-120
YG TAP CAST IRON		6	Low alloy steel	180	10	80-120	80-120	80-120
YG TAP HARDENED STEEL		7		275	29	80-120	80-120	80-120
YG TAP Ti Ni		8		300	32	80-120	80-120	80-120
YG TAP ALU		9		350	38	80-120	80-120	80-120
YG TAP FORMING		10	High alloyed steel, and tool steel	200	15	80-120	80-120	80-120
YG TAP GENERAL / HAND TAP		11		325	35	80-120	80-120	80-120
PIPE TAP	M	12	Stainless steel	200	15	40-80	40-80	40-80
STI TAP		13		240	23	40-80	40-80	40-80
NUT TAP		14		180	10	40-80	40-80	40-80
TECHNICAL DATA	K	15	Grey cast iron	180	10	50-100	50-100	50-100
		16		260	26	50-100	50-100	50-100
		17	Nodular cast iron	160	3	50-100	50-100	50-100
		18		250	25	50-100	50-100	50-100
		19	Malleable cast iron	130		50-100	50-100	50-100
		20		230	21	50-100	50-100	50-100
	N	21	Aluminum-wrought alloy	60		100-130		100-130
		22		100		100-130		100-130
		23	Aluminum-cast, alloyed	75		100-130		100-130
		24		90		100-130		100-130
		25		130		100-130		100-130
		26	Copper and Copper Alloys (Bronze / Brass)	110		100-130		100-130
		27		90		100-130		100-130
		28		100		100-130		100-130
		29	Non Metallic Materials			100-130		100-130
		30				100-130		100-130
	S	31	Heat Resistant Super Alloys	200	15	20-60	20-60	20-60
		32		280	30	20-60	20-60	20-60
		33		250	25	20-60	20-60	20-60
		34		350	38	20-60	20-60	20-60
		35		320	34	20-60	20-60	20-60
		36	Titanium Alloys	400Rm		20-60	20-60	20-60
		37		1050Rm		20-60	20-60	20-60
	H	38	Hardened steel	550	55		25-60	
		39		630	60		25-50	
		40	Chilled Cast Iron	400	42		25-70	
		41	Hardened Cast Iron	550	55		25-60	

TO CALCULATE SPEED & FEED RATES SCHNITTGESCHWINDIGKEIT & VORSCHUB KALKULIEREN

Calculate RPM of Cutter	Calculate Feed per Revolution	Finally Calculate Feed at Tool Center Line
$n = \frac{1000 \times V}{d \times \pi}$	$F_1 = F_z \times Z \times N$	$F_2 = \frac{F_1 \times (D - d)}{D}$

N	RPM
V	Recommended Cutting Speed
d	Diameter of Cutter
Fz	Recommended Feed per Tooth
Z	Number of Teeth
F2	Feed at Center Line of Cutting
F1	Feed at Cutting Edge
D	Major Diameter of Component

SELECTION GUIDE



THREADING TOOLS

TYPE

THREAD FORM

HOLE TYPE

TOOL MATERIAL

FLUTE TYPE

HELIX ANGLE

SERIES NO.

SURFACE TREATMENT

MODEL

THREAD MILL

THREAD MILLS
with Coolant Hole & Chamfer

M

MF

UNC

UNF

Max. 2.0xD

Blind /Through
Hole

Max. 1.5xD

Blind /Through
Hole

Max. 2.0xD

Blind /Through
Hole

Max. 2.0xD

Blind /Through
Hole

CARBIDE

Helix

R15

L4271
(p.63)L4272
(p.64)L4273
(p.65)L4274
(p.66)

TiAlN

TiAlN

TiAlN

TiAlN

Please visit
global.yg1.com/mat
for material search

◎ : Excellent ○ : Good

ISO	VDI 3323	Material Description	HB	HRc				
P	1	Non-alloy steel	125		◎	◎	◎	◎
	2		190	13	◎	◎	◎	◎
	3		250	25	◎	◎	◎	◎
	4		270	28	◎	◎	◎	◎
	5	Low alloy steel	300	32	◎	◎	◎	◎
	6		180	10	◎	◎	◎	◎
	7		275	29	◎	◎	◎	◎
	8		300	32	◎	◎	◎	◎
	9		350	38	◎	◎	◎	◎
	10	High alloyed steel, and tool steel	200	15	◎	◎	◎	◎
	11		325	35	◎	◎	◎	◎
M	12	Stainless steel	200	15	○	○	○	○
	13		240	23	○	○	○	○
	14		180	10	○	○	○	○
K	15	Grey cast iron	180	10	◎	◎	◎	◎
	16		260	26	◎	◎	◎	◎
	17	Nodular Cast Iron	160	3	◎	◎	◎	◎
	18		250	25	◎	◎	◎	◎
	19	Malleable cast iron	130		◎	◎	◎	◎
	20		230	21	◎	◎	◎	◎
N	21	Aluminum- wrought alloy	60		◎	◎	◎	◎
	22		100		◎	◎	◎	◎
	23		75		◎	◎	◎	◎
	24	Aluminum- cast, alloyed	90		◎	◎	◎	◎
	25		130		◎	◎	◎	◎
	26	Copper and Copper Alloys (Bronze / Brass)	110		◎	◎	◎	◎
	27		90		◎	◎	◎	◎
	28		100		◎	◎	◎	◎
	29	Non Metallic Materials			◎	◎	◎	◎
	30				◎	◎	◎	◎
S	31	Heat Resistant Super Alloys	200	15	○	○	○	○
	32		280	30	○	○	○	○
	33		250	25	○	○	○	○
	34		350	38	○	○	○	○
	35		320	34	○	○	○	○
	36	Titanium Alloys	400 Rm		○	○	○	○
	37		1050 Rm		○	○	○	○
H	38	Hardened steel	550	55				
	39		630	60				
	40	Chilled Cast Iron	400	42				
	41	Hardened Cast Iron	550	55				

THREAD MILL						
THREAD MILLS with Coolant Hole & Chamfer	Miniature THREAD MILLS		Miniature THREAD MILLS for Hard Materials		Miniature THREAD MILLS for Dental	Drill & THREAD MILLS with Chamfer
NPT	M	UNC	M	UNC		
-	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	Max. 2.0xD Blind /Through Hole	 Blind /Through Hole	A drill thread mill is used for machining without holes.

Helix			Straight		Helix		
R15	R15		-		R15	R25	
L4276 (p.67)	L12D1 (p.68)	L12D3 (p.69)	L19E1 (p.70)	L19E3 (p.71)	L1AG1 (p.72)	L41A1 (p.73)	L42A1 (p.73)
TiAIN	TiAIN	TiAIN	AlTiN	AlTiN	Y-Coating	Bright	TiAIN



SYNCHRO
TAP

PRIME TAP
FORMING

COMBO
TAP

YG TAP
STEEL

YG TAP CHIP BREAKER

YG TA
INOX

YG TAP
CAST IRON

YG TAP
HARDENED
STEEL

YG TAP
Ti Ni

YG TAP
ALU

YG TAP FORMING

YG TAP
GENERAL
/ HAND TAP

HIDE TAB

NUT TAP

TECHNICAL DATA