

**NEW
PRODUCT!**



ATM60

Universal thread milling cutter with indexable insert

Suitable for medium and large diameter internal thread machining



Thread Milling Product Range Overview

Tools	Series	ATM60
	Thread depth	2.5XDN
	Designation	Single/multi-row thread milling cutters with indexable inserts
	Insert grade	AP320U
	Insert code	TM60、TM55
	Coolant supply	Internal coolant
	Milling thread type	M ; MF ; MJ ; UNC ; UNF ; UNEF ; UN ; UNJ ; G ;
	Hole with thread	

Indexable Thread Milling Denomination - Tool Holder

A	TM	60	—	024	—	Z01	—	068	—	W	25	R	—	09	—	007
1	2	3		4		5		6		7	8	9		10		11

1	2	3	4	5	6
Company Name	Product Group	Insert Shape	Cutter Dimensions	Number of Teeth	Effective length of Holder
ACHTECK	Thread milling	T-Type	14	01	52
			19	03	55
			24		80
			30		90
			35	
		

7:8	9	10	11
Shank Type and Size	Tool Rotation Direction	Insert Size	Axial Distance Between Rows
W16 Weldon 16	Right	06	6
W20 Weldon 20		09	7
W25 Weldon 25		11	12
W32 Weldon 32		14
W40 Weldon 40			Without mark means single row

Indexable Thread Milling Cutter Denomination - Inserts

TM	60	G	—				09	02	02	E	—		MU1	AP320U	
1	2	3					4	5	6	7			8	9	

1
Category
Thread milling inserts

2
Insert Code
Positive triangle insert 60° thread angle
Positive triangle insert 55° thread angle
.....

3
Process
G- Ground insert
M-Pressed insert

4
Dimensions
06
09
11
14

5
Thickness
T1=1.98
02=2.38
03=3.18

6
Corner Radius
01
02
04

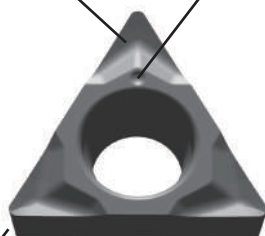
7
Edge Type
E-Type

8
Chip Breaker
MU1 Universal

9
Grade
AP320U

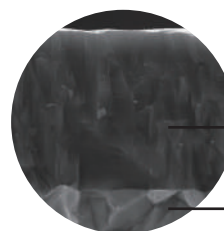
Specially designed geometry is used for thread milling.

The identification point is convenient for the operator to index cutting edge, to ensure that each cutting edge is used.



Sharp cutting edge.

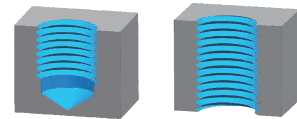
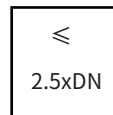
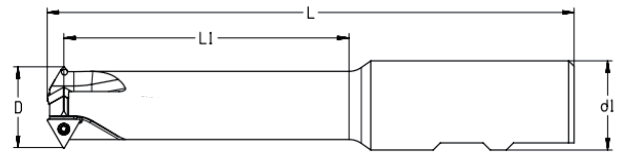
Precise corner radius, according to the thread standards.





Multilayered nano-coating with good resistance to crack propagation, high hardness and wear resistance.

New fine grain cemented carbide substrate.

• Single-row Teeth Thread Milling Cutter ATM60

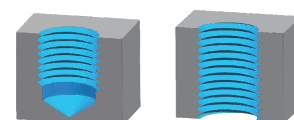
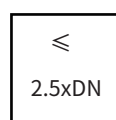
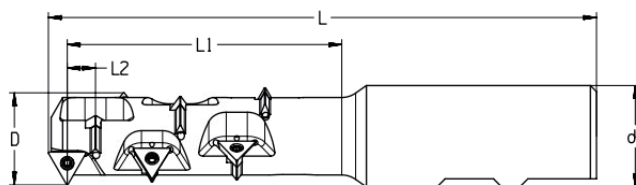


Product code	Dimension						Z	coolant	No. of inserts	Insert code
	DN	P _{max} mm	D mm	L1 mm	L mm	d1 mm				
ATM60-016-Z03-052-W16R-06	M20	2.5	16	52	108	16	3		3	TM-06
ATM60-019-Z03-055-W20R-06	M24	3	19	55	115	20	3		3	TM-06
ATM60-024-Z03-080-W25R-09	M30	3.5	24	80	148	25	3		3	TM-09
ATM60-030-Z03-090-W32R-09	M36	4	30	90	162	32	3		3	TM-09
ATM60-035-Z03-110-W32R-11	M42	4.5	35	110	180	32	3		3	TM-11
ATM60-040-Z03-125-W40R-14	M48	5	40	125	208	40	3		3	TM-14
ATM60-044-Z03-150-W40R-14	M56	5.5	44	150	232	40	3		3	TM-14
ATM60-052-Z04-165-W40R-14	M64	6	52	165	248	40	4		4	TM-14

 With internal coolant
 Without internal coolant

Dimensions (mm)	Spare parts		
D mm	Screw	Wrench	Locking torque
16-19	SP020043	DT-TP06	0.6Nm
24-30	SP022049H	DT-TP07	0.9Nm
35	SP025066	DT-TP07	0.9Nm
40-52	SP030077	DT-TP09	2.0Nm

Multi-row Teeth Thread Milling Cutter ATM60

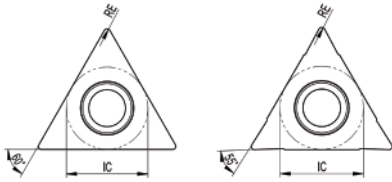


Product code	Dimension							Z	coolant	No. of inserts	Insert code
	DN	Pitch P mm	D mm	L1 mm	L2 mm	L mm	d1 mm				
ATM60-013-Z01-035-W12R-06-010	M16/M18	2.5/2	13	35	10	86	12	1		3	TM-06
ATM60-013-Z01-038-W12R-06-009	M16/M18	1.5	13	38	9	88	12	1		4	TM-06
ATM60-017-Z01-047-W16R-06-007.5	M20/M22	2.5/1.5	16.5	47	7.5	103	16	1		6	TM-06
ATM60-017-Z01-053-W16R-06-010	M20/M22	2.5/2	16.5	53	10	109	16	1		5	TM-06
ATM60-019-Z01-054-W20R-06-009	M24/M27	3/1.5	19	54	9	114	20	1		6	TM-06
ATM60-019-Z01-063-W20R-06-012	M24/M27	3/2	19	63	12	123	20	1		5	TM-06
ATM60-024-Z01-064-W25R-09-010.5	M30/M33	3.5/1.5	24	64	10.5	131	25	1		6	TM-09
ATM60-024-Z01-079-W25R-09-014	M30/M33	3.5/2	24	79	14	146	25	1		6	TM-09
ATM60-030-Z01-076-W32R-09-008	M36/M39	4/2	30	76	8	147	32	1		9	TM-09
ATM60-030-Z01-095-W32R-09-012	M36/M39	4/3/2/1.5	30	95	12	166	32	1		8	TM-09
ATM60-035-Z01-089-W32R-11-009	M42/M45	4.5/3/1.5	35	89	9	159	32	1		9	TM-11
ATM60-035-Z01-110-W32R-11-009	M42/M45	4.5/3/1.5	35	110	9	180	32	1		10	TM-11
ATM60-040-Z01-102-W40R-14-010	M48/M52	5/2	40	102	10	186	40	1		10	TM-14
ATM60-040-Z01-122-W40R-14-015	M48/M52	5/3/1.5	40	122	15	206	40	1		8	TM-14
ATM60-044-Z01-119-W40R-14-011	M56/M60	5.5	44	119	11	201	40	1		10	TM-14
ATM60-044-Z01-146-W40R-14-011	M56/M60	5.5	44	146	11	228	40	1		10	TM-14
ATM60-052-Z01-135-W40R-14-012	M64/M68	6/3/2	52	135	12	218	40	1		11	TM-14

With internal coolant
 Without internal coolant

Dimensions (mm)	Spare parts		
D mm	Screw	Wrench	Torque
13-19	SP020043	DT-TP06	0.6Nm
24-30	SP022049H	DT-TP07	0.9Nm
35	SP025066	DT-TP07	0.9Nm
40-52	SP030077	DT-TP09	2.0Nm

• **Thread Milling Inserts TM60G、TM55G**



Inserts	Product code	RE mm	Pitch P mm	Pitch P inch	Grade
					AP320U
	TM60G-06T101E-MU1	0.1	1.5-2.9	18-9	●
	TM60G-06T102E-MU1	0.2	3	8	●
	TM60G-090201E-MU1	0.1	1.5-2.9	18-9	●
	TM60G-090202E-MU1	0.2	3.0-4.0	8-6	●
	TM60G-110201E-MU1	0.1	1.5-2.9	18-9	●
	TM60G-110202E-MU1	0.2	3.0-4.5	8-6	●
	TM60G-140301E-MU1	0.1	1.5-2.9	18-9	●
	TM60G-140302E-MU1	0.2	3.0-5.0	8-5	●
	TM60G-140304E-MU1	0.4	5.0-6.0	5-4	●
	TM55G-090202E-MU1	0.2		11	●
	TM55G-140302E-MU1	0.2		11	●

Marked: ● Stocked
 ○ Limited-stock

- **Tool Selection-Single row teeth**

Metric thread

Tool holder code	D mm	Insert	Coarse pitch	Fine pitch
ATM60-016-Z03-052-W16R-06	16	TM60G-06T101	M20; M22;	M20X1.5; M20X2;
ATM60-019-Z03-055-W20R-06	19	TM60G-06T101		M22X1.5; M22X2; M24X1.5; M24X2; M25X1.5; M26X1.5;
		TM60G-06T102	M24; M27;	
ATM60-024-Z03-080-W25R-09	24	TM60G-090201		M27X1.5; M27X2; M28X1.5; M28X2; M30X1.5; M30X2; M32X1.5; M32X2; M33X1.5; M33X2;
		TM60G-090202	M30; M33;	
ATM60-030-Z03-090-W32R-09	30	TM60G-090201		M34X1.5; M35X1.5; M36X1.5; M36X2; M38X1.5; M39X1.5; M39X2;
		TM60G-090202	M36; M39;	M36X3; M39X3;
ATM60-035-Z03-110-W32R-11	35	TM60G-110201		M39X1.5; M39X2; M40X1.5; M40X2; M42X1.5; M42X2;
		TM60G-110202	M42; M45;	M40X3; M42X3;
ATM60-040-Z03-125-W40R-14	40	TM60G-140301		M45X1.5; M45X2, M48X2;
		TM60G-140302	M48; M52;	M45X3; M48X3;
ATM60-044-Z03-150-W40R-14	44	TM60G-140301		M50X1.5; M50X2; M52X1.5; M52X2; M56X1.5; M56X2; M58X1.5; M60X1.5; M60X2;
		TM60G-140302		M50X3; M52X3; M56X3; M60X3;
		TM60G-140304	M56; M60;	
ATM60-052-Z04-165-W40R-14	52	TM60G-140301		M62X1.5; M62X2; M64X2; M68X1.5; M68X2;
		TM60G-140302		M62X3; M62X4; M64X3; M64X4; M68X3; M68X4;
		TM60G-140304	M64; M68;	M70X6; M72X6;

• Tool Selection-Multi row teeth
Metric thread

Tool holder code	D mm	Pitch P mm	Insert	Coarse pitch	Fine pitch
ATM60-013-Z01-035-W12R-06-010	13	2.5/2	TM60G-06T101	M16; M17; M18;	M18X2; M17X2;
ATM60-013-Z01-038-W12R-06-009	13	1.5	TM60G-06T101		M16X1.5; M17X1.5; M18X1.5;
ATM60-017-Z01-047-W16R-06-007.5	16.5	2.5/1.5	TM60G-06T101	M20; M22;	M20X1.5; M22X1.5;
ATM60-017-Z01-053-W16R-06-010	16.5	2.5/2	TM60G-06T101	M20; M22;	M20X2; M22X2;
ATM60-019-Z01-054-W20R-06-009	19	3/1.5	TM60G-06T101		M22X1.5; M24X1.5; M25X1.5; M26X1.5; M27X1.5;
			TM60G-06T102	M24; M27;	
ATM60-019-Z01-063-W20R-06-012	19	3/2	TM60G-06T101		M24X2; M25X2; M27X2;
			TM60G-06T102	M24; M27;	
ATM60-024-Z01-064-W25R-09-010.5	24	3.5/1.5	TM60G-090201		M27X1.5; M28X1.5; M30X1.5; M32X1.5; M33X1.5;
			TM60G-090202	M30; M33;	
ATM60-024-Z01-079-W25-09-014	24	3.5/2	TM60G-090201		M28X2; M30X2; M32X2; M33X2;
			TM60G-090202	M30; M33;	
ATM60-030-Z01-076-W32R-09-008	30	4/2	TM60G-090201		M36X2; M39X2; M40X2; M42X2;
			TM60G-090202	M36; M39;	
ATM60-030-Z01-095-W32R-09-012	30	4/3/2/1.5	TM60G-090201		M35X1.5; M36X1.5; M38X1.5; M39X1.5; M36X2; M39X2; M40X2; M42X2;
			TM60G-090202	M36; M39;	M36X3; M39X3; M40X3;
ATM60-035-Z01-089-W32R-11-009	35	4.5/3/1.5	TM60G-110201		M39X1.5; M40X1.5; M42X1.5; M45X1.5;
			TM60G-110202	M42; M45;	M42*3; M45*3;
ATM60-035-Z01-110-W32R-11-009	35	4.5/3/1.5	TM60G-110201		M39X1.5; M40X1.5; M42X1.5; M45X1.5;
			TM60G-110202	M42; M45;	M42X3; M45X3;
ATM60-040-Z01-102-W40R-14-010	40	5/2	TM60G-140301		M45X2; M48X2; M50X2; M52X2; M55X2; M56X2;
			TM60G-140302	M48; M52;	
ATM60-040-Z01-122-W40R-14-015	40	5/3/1.5	TM60G-140301		M45X1.5; M48X1.5; M50X1.5; M52X1.5; M55X1.5; M56X1.5; M58X1.5; M60X1.5; M62X1.5; M64X1.5;
			TM60G-140302	M48; M52;	M48X3; M50X3; M52X3; M55X3; M56X3;
ATM60-044-Z01-119-W40R-14-011	44	5.5	TM60G-140304	M56; M60;	
ATM60-044-Z01-146-W40R-14-011	44	5.5	TM60G-140304	M56; M60;	
ATM60-052-Z01-135-W40R-14-012	52	6/3/2	TM60G-140301		M58X2; M60X2; M62X2; M64X2; M65X2; M68X2; M70X2; M72X2;
			TM60G-140302		M58X3; M60X3; M62X3; M64X3; M65X3; M68X3; M70X3; M72X3;
			TM60G-140304	M64; M68;	M70X6; M72X6;

• Tool Selection-Single row teeth
ANSI UN thread

Tool holder code	D mm	Insert	UNC	UNF	UNEF	UN
ATM60-016-Z03-052-W16R-06	16	TM60G-06T101	7/8-9;	3/4-16; 7/8-14; 1-12;		7/8-12; 7/8-16;
		TM60G-06T102				
ATM60-019-Z03-055-W20R-06	19	TM60G-06T101		1-12; 1 1/8-12; 1 1/4-12;	1 1/16-18;	1-16;
		TM60G-06T102	1-8;			1 1/16-8;
ATM60-024-Z03-080-W25R-09	24	TM60G-090201		1 1/8-12; 1 1/4-12;	1 1/8-18; 1 1/4-18;	1 1/8-16; 1 1/4-16;
		TM60G-090202	1 1/8-7; 1 1/4-7; 1 3/8-6;			1 1/8-8; 1 1/4-8;
ATM60-030-Z03-090-W32R-09	30	TM60G-090201		1 3/8-12; 1 1/2-12;	1 3/8-18; 1 1/2-18;	1 3/8-16; 1 1/2-18;
		TM60G-090202	1 1/2-6;			1 3/8-8; 1 1/2-8;
ATM60-035-Z03-110-W32R-11	35	TM60G-110201			1 5/8-18;	1 5/8-12; 1 5/8-16;
		TM60G-110202				1 5/8-6; 1 5/8-8; 1 3/4-6; 1 3/4-8;
ATM60-040-Z03-125-W40R-14	40	TM60G-140301				1 3/4-12; 1 3/4-16; 1 7/8-12; 1 7/8-16;
		TM60G-140302				1 7/8-6; 1 7/8-8;
ATM60-044-Z03-150-W40R-14	44	TM60G-140301				2-12; 2-16; 2 1/8-12; 2 1/8-16; 2 1/4-12; 2 1/4-16; 2 1/2-12; 2 1/2-16;
		TM60G-140302				2-6; 2-8; 2 1/8-6; 2 1/8-8; 2 1/4-6; 2 1/4-8; 2 1/2-6; 2 1/2-8;
		TM60G-140304	2-4.5; 2 1/4-4.5; 2 1/2-4;			
ATM60-052-Z04-165-W40R-14	52	TM60G-140301				2 1/2-12; 2 1/2-16; 2 3/4-12; 2 3/4-16; 3-12; 3 1/4-16; 3 1/2-12; 3 1/4-16;
		TM60G-140302				2 1/2-6; 2 1/2-8; 2 3/4-6; 2 3/4-8; 3-6; 3-8; 3 1/4-6; 3 1/4-8; 3 1/4-8; 3 1/2-6; 3 1/4-8;
		TM60G-140304	2 3/4-4; 3/4; 3 1/4-4; 3 1/2-4;			



• **Tool Selection-Single row teeth**

G-Thread (BSP)

Tool holder code	D mm	Insert	G
ATM60-024-Z03-080-W25R-09	24	TM55G-090202	G1-11; G1 1/8-11; G1 1/4-11;
ATM60-030-Z03-090-W32R-09	30	TM55G-090202	G1 1/8-11; G1 1/4-11; G1 3/8-11; G1 1/2-11;
ATM60-040-Z03-125-W40R-14	40	TM55G-140302	G1 1/2-11; G1 3/4-11; G2-11;
ATM60-044-Z03-150-W40R-14	44	TM55G-140302	G1 3/4-11; G2-11; G2 1/4-11; G2 1/2-11; G3-11;

• Indexable Thread Milling Cutting Parameter Recommendation

Materials					ATM60				
ISO	Material classification		Brinell hardness (HB/HRC)	Tensile strength Rm(N/mm ²)	Cutting speed Vc(m/min)	fz(mm) Insert dimension			
						06	09	11/14	
P	Unalloyed steel	C ≤ 0.25%	Annealed	125	428	180	0.3	0.35	0.4
		0.25 < C ≤ 0.55%	Annealed	190	639	180	0.3	0.35	0.4
		0.25 < C ≤ 0.55%	Heat-treated	210	708	180	0.3	0.35	0.4
		C > 0.55%	Annealed	190	639	180	0.3	0.35	0.4
		C > 0.55%	Heat-treated	300	1013	180	0.25	0.3	0.35
		Free cutting steel (short-chip)	Annealed	220	745	180	0.3	0.35	0.4
	Low-alloyed steel	Annealed		175	591	180	0.3	0.35	0.4
		Heat-treated		300	1013	180	0.3	0.35	0.4
		Heat-treated		380	1282	130	0.2	0.3	0.35
		Heat-treated		430	1477	80	0.15	0.2	0.3
	High-alloyed steel and high-alloyed tool steel	Annealed		200	675	180	0.25	0.35	0.4
		Hardened and tempered		300	1013	180	0.25	0.35	0.4
		Hardened and tempered		400	1361	130	0.25	0.3	0.35
	Stainless steel	Ferritic/martensitic, annealed		200	675	180	0.25	0.3	0.35
Martensitic, heat-treated		330	1114	130	0.25	0.3	0.35		
M	Stainless steel	Austenitic, quench hardened		200	675	180	0.2	0.3	0.35
		Austenitic, precipitation hardened (PH)		300	1013	130	0.2	0.3	0.35
		Austenitic/ferritic, duplex		230	778	80	0.2	0.3	0.35
K	Malleable cast iron	Ferritic		200	400	180	0.3	0.35	0.4
		Pearlitic		260	700	180	0.3	0.35	0.4
	Grey cast iron	Low tensile strength		180	200	250	0.3	0.35	0.4
		High tensile strength/austenitic		245	350	180	0.3	0.35	0.4
	Nodular cast iron	Ferritic		155	400	180	0.3	0.35	0.4
		Pearlitic		265	700	180	0.3	0.35	0.4
	GGV(CGI)			230	400	180	0.3	0.35	0.4
N	Wrought aluminium alloys	Non-aging		30	-				
		Aged		100	340				
	Cast aluminium alloys	≤ 12% Si, non-aging		75	260				
		≤ 12% Si, aged		90	310	200	0.3	0.35	0.4
		> 12% Si, non-aging		130	450	240	0.3	0.35	0.4
	Magnesium alloys			70	250				
	Copper and copper alloys	Unalloyed, electrolytic copper		100	340				
Brass, bronze, red brass		90	310						
Cu alloys, short-chipping		110	380						
High-tensile, Ampco alloy		300	1010						
S	Heat-resistant alloys	Fe-based	Annealed	200	680	35	0.2	0.2	0.2
			Hardened	280	940	20	0.1	0.1	0.1
		Ni or Co based	Annealed	250	840	35	0.2	0.2	0.2
			Hardened	350	1180	20	0.1	0.1	0.1
	Titanium alloys	Cast		320	1080	30	0.2	0.2	0.2
		Pure titanium		200	680	35	0.2	0.2	0.2
		α and β alloys, hardened		375	1260	35	0.2	0.2	0.2
		β alloys		410	1400	25	0.2	0.2	0.2
Tungsten alloys			300	1010	35	0.2	0.2	0.2	
Molybdenum alloys			300	1010	35	0.2	0.2	0.2	
H	Hardened steel	Hardened and tempered		50HRC		40	0.15	0.2	0.2
		Hardened and tempered		55HRC					
		Hardened and tempered		60HRC					
	Chilled cast iron	Hardened and tempered		50HRC		40	0.15	0.2	0.2

The recommended cutting parameters are theoretical values, special applications require adjustment of the recommended values.