

NEW PRODUCT NEWS

mgt
MEGA TECH
METALWORK

Tungaloy Report No. 546-G

High feed milling cutter

DOF^{FEED}TRI

**Introducing new grade and geometries for stainless steel
along with additional cutter sizes.**



NEW PRODUCT NEWS



Tungaloy Report No. 546-G



DO^{FEED}TRI



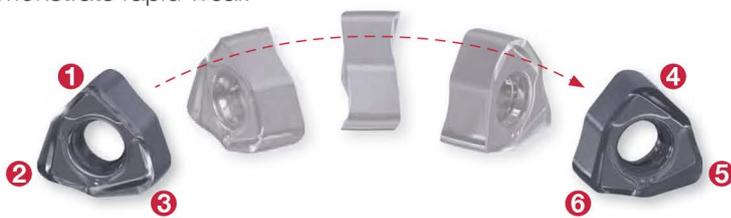
High feed milling cutters featuring
strong double-sided inserts with six cutting edges

DOFTRI

High feed milling cutter for the best economy and reliability

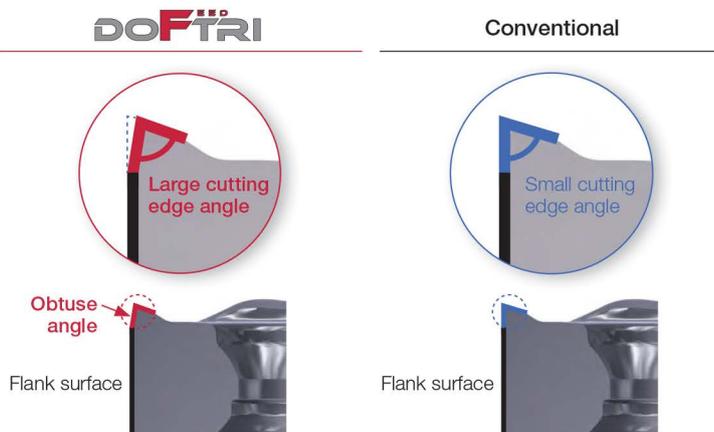
Economical double-sided inserts with six cutting edges

- 1.5 to 3 times greater number of cutting edges per insert compared with conventional high feed milling inserts.
- Reduced cost per insert when machining stainless steels and difficult materials, where inserts demonstrate rapid wear.



Designed for tool reliability and stability

- Robust cutting edge design forms an obtuse angle, eliminating insert fracture during machining.
- A large contact face on the insert seat provides secure insert retention.



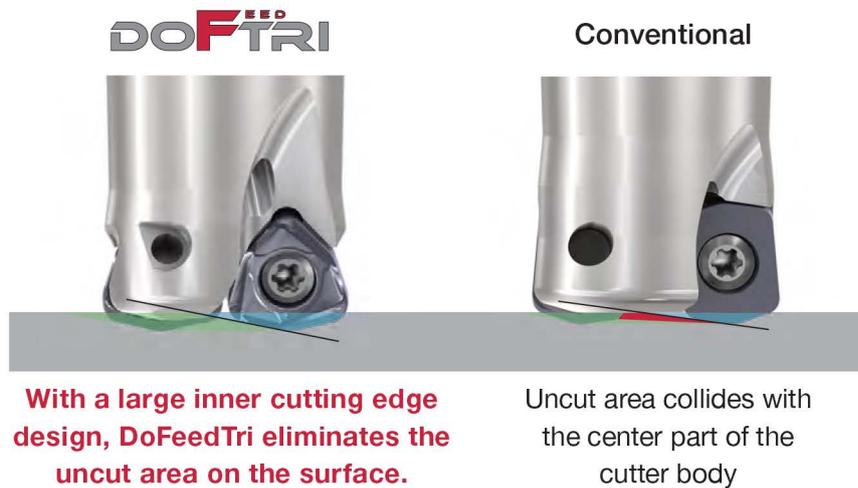
Tool life comparisons after pocket milling for 240 min



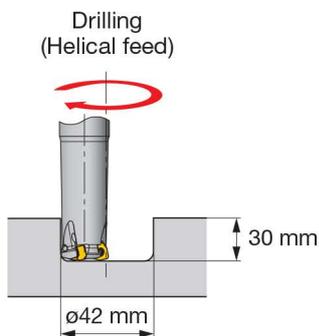
 Pocketing	Cutter	: EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
	Insert	: WXMU0303ZER-MM AH3225
	Workpiece material	: SCM440 / 42CrMo4 (280HB)
	Cutting speed	: $V_c = 150$ m/min
	Feed per tooth	: $f_z = 0.8$ mm/t
	Depth of cut	: $a_p = 0.5$ mm
	Width of cut	: $a_e = 10.5$ mm
	Coolant	: Internal air
	Machine	: Vertical M/C, BT50

■ Excellent ramping capability

- Longer inner cutting edge allows higher ramp-down capabilities to promote higher productivity.
- Increased max ramping angles allow productivity boosts in helical ramping and pocket machining operations.



■ Machining time comparison with helical interpolation



	DOFTRI	Competitor
Feed speed: Vf (mm/min)	3820	3820
Pitch for helical interpolation (mm)	1	0.5
Machining time (seconds)	25	50

Tool diameter : $\phi 25$ mm, CICT = 4
 Workpiece material : S55C / C55
 Cutting speed : $V_c = 150$ m/min
 Feed per tooth : $f_z = 0.5$ mm/t

Reduced cycle time at a double helical pitch.

DOF^{FEED}TRI

■ Excellent chatter-free design

- With 12° entry angle, the cutter directs the cutting force in the axial direction, eliminating chatter.
- Boosts productivity and tool stability for long overhang setups.



■ The comparison of anti chattering performance with long overhang setup



	Feed per tooth: <i>fz</i> (mm/t)		
	1	1.2	1.5
DOFTRI	✓	✓	✓
Competitor A	✓	✗	✗
Competitor B	✓	✗	✗

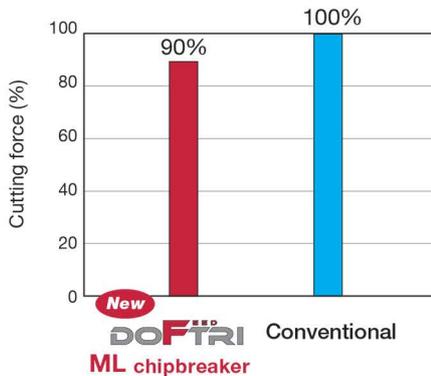
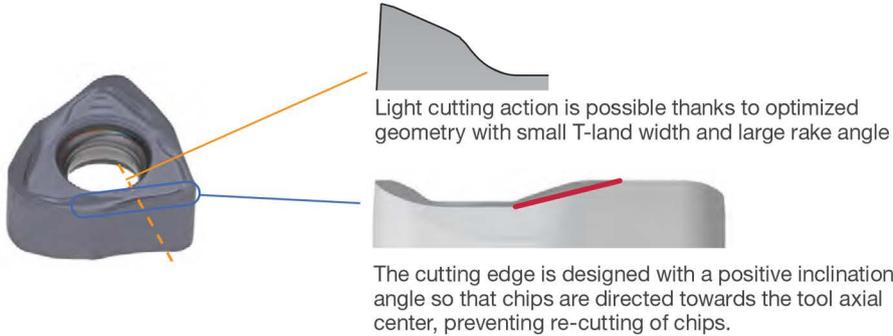
✓ OK
✗ Chatter

Cutter : HXWX03M020M10R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-MM AH3225
 Workpiece material : S55C / C55
 Cutting speed : $V_c = 150$ m/min
 Depth of cut : $a_p = 0.5$ mm
 Width of cut : $a_e = 10$ mm
 Coolant : Dry
 Machine : Vertical M/C, BT50
 Overhang length : L/D = 11

Significant expansion of application range!

ML and MS chipbreakers

New ML Chipbreaker for low cutting force



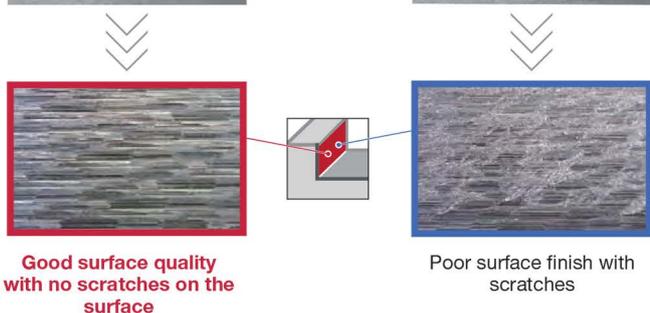
P S55C / C55

Cutter : EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-**ML** AH3225
 Cutting speed : $V_c = 200$ m/min
 Feed per tooth : $f_z = 1$ mm/t
 Depth of cut : $a_p = 0.6$ mm
 Width of cut : $a_e = 11.5$ mm
 Coolant : Wet
 Machine : Vertical M/C, BT50

ML chipbreaker provided 10% less cutting force than MM chipbreaker.

Excellent chip evacuation

- Prevents re-cutting of chips compared to conventional geometries.
- The chip breaker is designed so as to direct the chips towards the tool's axial center away from the work surface. This allows smooth evacuation while preventing re-cutting of chips.



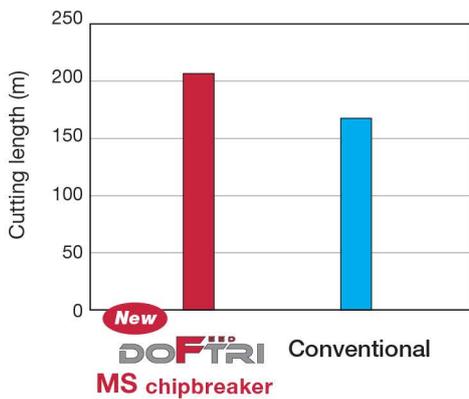
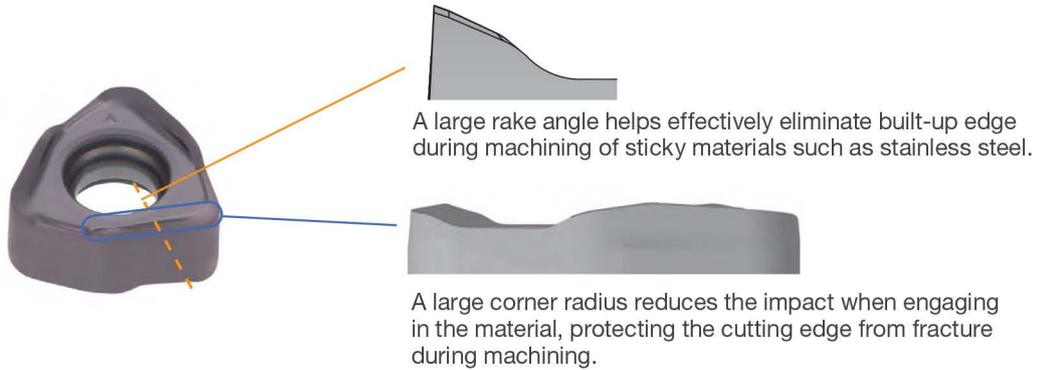
P SS400

Cutter : TXWX03M050B22.0R08 (ø50 mm, CICT = 8)
 Insert : WXMU0303ZER-**ML** AH3225
 Cutting speed : $V_c = 200$ m/min
 Feed per tooth : $f_z = 1.2$ mm/t
 Depth of cut : $a_p = 0.3$ mm
 Width of cut : $a_e = 15$ mm
 Coolant : Wet
 Machine : Vertical M/C, BT50

The ML breaker has an inclination shape that directs chips inward, reducing chip bite.

DOFTRI

New MS Chipbreaker for stainless steel



M SUS304 / X5CrNi18-9

Cutter : EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-MS AH130
 Cutting speed : $V_c = 120$ m/min
 Feed per tooth : $f_z = 0.6$ mm/t
 Depth of cut : $a_p = 0.6$ mm
 Width of cut : $a_e = 11.5$ mm
 Coolant : Wet
 Machine : Vertical M/C, BT50

MS chipbreaker provided 1.2 times tool life increase over conventional insert.

Cutter body lineup (Shank type, Modular type, and Bore type)

Now offering additional sizes of shank type, modular type, and bore type bodies for expanded application coverages

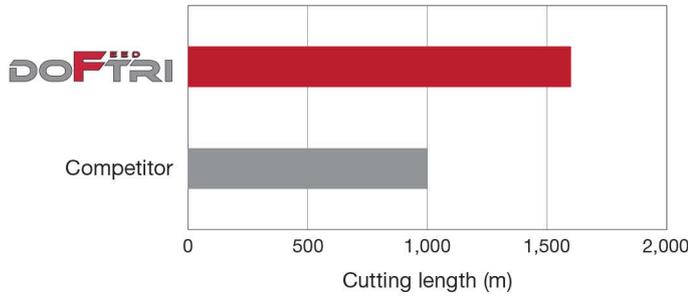


Tool diameter	ø16	ø18	ø20	ø22	ø25	ø28	ø32	ø30	ø35	ø40	ø42	ø50	ø52	ø63	ø66	ø80
Shell mil type	Expanded															
Modular type	Expanded															
Bore type	Expanded															

Expanded products
Existing products

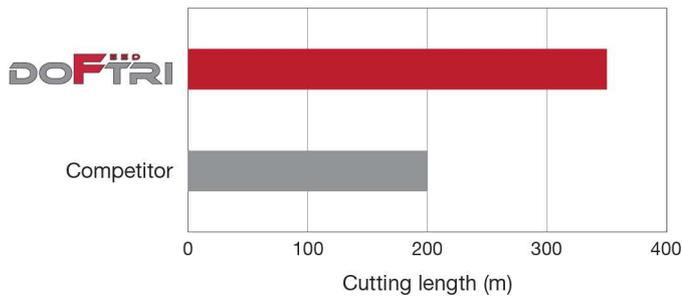
CUTTING PERFORMANCE

P S55C / C55 (200HB)



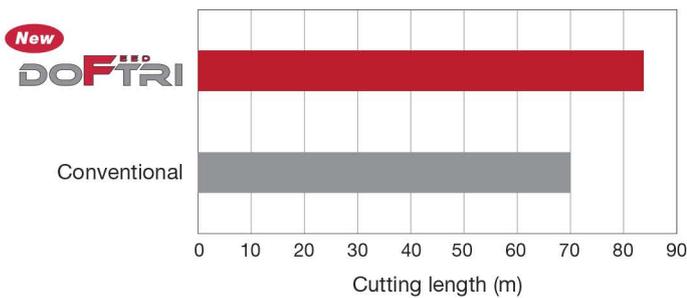
Cutter : EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-MM AH3225
 Cutting speed : $V_c = 200$ m/min
 Feed per tooth : $f_z = 1$ mm/t
 Depth of cut : $a_p = 0.6$ mm
 Width of cut : $a_e = 12$ mm
 Coolant : Dry
 Machine : Vertical M/C, BT40

P NAK80 (40HRC)



Cutter : EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-MM AH3225
 Cutting speed : $V_c = 120$ m/min
 Feed per tooth : $f_z = 0.7$ mm/t
 Depth of cut : $a_p = 0.6$ mm
 Width of cut : $a_e = 12$ mm
 Coolant : Dry
 Machine : Vertical M/C, BT40

M SUS630 / X5CrNiCuNb16-4 (40HRC)

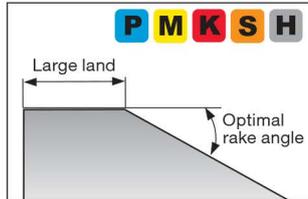


Cutter : EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-MS AH130
 Cutting speed : $V_c = 100$ m/min
 Feed per tooth : $f_z = 0.6$ mm/t
 Depth of cut : $a_p = 0.6$ mm
 Width of cut : $a_e = 11.5$ mm
 Coolant : Wet
 Machine : Vertical M/C, BT40

DOF^{FEED}TRI

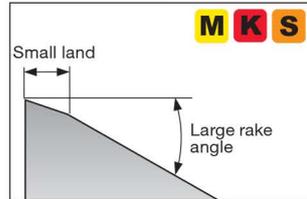
CHIPBREAKERS

MM General machining

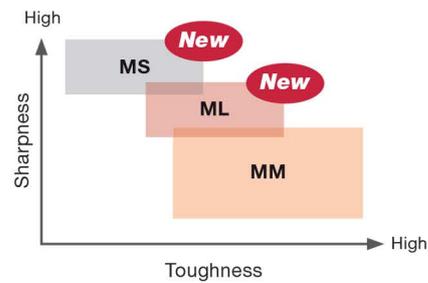


New

ML Low cutting force

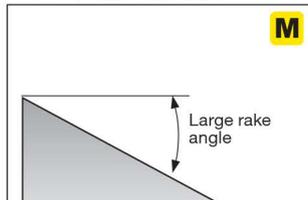


Chipbreaker characteristics



New

MS For stainless steel



HIGH FEED CUTTER SELECTION GUIDE

Series	DOF ^{FEED} TRI	DOFEED 03	ADD ^{FEED}	MILLQ ^{FEED} 09
Tool image				
Tool diameter (mm)	ø16 - ø80	ø16 - ø50	ø8 - ø25	ø25 - ø66
Max. depth of cut (mm)	1	0.9, 1	0.5	1, 1.5
No. of edges per insert	6	4	4	4
Approach angle	12°	ZER type: 17° UER type: 12°	17°	ZER type: 12° UER type: 7°
Efficiency (density)	○	⊙	⊙	○
Tool life	⊙	○	○	⊙
Light cutting	○	⊙	⊙	○
Cutting edge strength	⊙	○	○	○
Chip evacuation	○	⊙	⊙	○
Ramping	⊙	○	○	⊙
Corner radius deviation	⊙	⊙	⊙	○
Long overhang applications	⊙	○	○	⊙

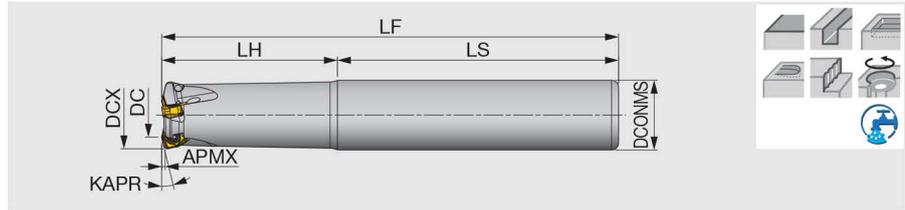
⊙: First choice
○: Supplementary

Tungaloy Report No. 546-G

EXWX03

High feed endmill, shank type, with screw clamp system

GAMP = +23°, GAMF = -7.9° ~ -6.2°



Designation	APMX	DCX	CICT	DC	DCONMS	LS	LH	LF	KAPR	WT(kg)	Air hole	Insert
EXWX03M016C16.0R02	1	16	2	8.9	16	70	30	100	12°	0.14	With	WXMU03...
EXWX03M016C16.0R02L	1	16	2	8.9	16	100	50	150	12°	0.21	With	WXMU03...
New EXWX03M018SC16.0R02	1	18	2	10.6	16	70	30	100	12°	0.14	With	WXMU03...
New EXWX03M018SC16.0R02L	1	18	2	10.6	16	125	25	150	12°	0.21	With	WXMU03...
EXWX03M020C20.0R03	1	20	3	12.8	20	80	50	130	12°	0.26	With	WXMU03...
EXWX03M020C20.0R03L	1	20	3	12.8	20	80	80	160	12°	0.31	With	WXMU03...
New EXWX03M022SC20.0R03	1	22	3	14.6	20	80	50	130	12°	0.27	With	WXMU03...
New EXWX03M022SC20.0R03L	1	22	3	14.6	20	130	30	160	12°	0.34	With	WXMU03...
EXWX03M025C25.0R04	1	25	4	17.8	25	80	60	140	12°	0.46	With	WXMU03...
EXWX03M025C25.0R04L	1	25	4	17.8	25	80	100	180	12°	0.58	With	WXMU03...
New EXWX03M028SC25.0R04	1	28	4	20.6	25	80	60	140	12°	0.48	With	WXMU03...
New EXWX03M028SC25.0R04L	1	28	4	20.6	25	145	35	180	12°	0.63	With	WXMU03...
New EXWX03M030SC25.0R04	1	30	4	22.6	25	80	60	140	12°	0.48	With	WXMU03...
New EXWX03M030SC25.0R04L	1	30	4	22.6	25	145	35	180	12°	0.63	With	WXMU03...
EXWX03M032C32.0R05	1	32	5	24.7	32	80	70	150	12°	0.84	With	WXMU03...
EXWX03M032C32.0R05L	1	32	5	24.7	32	80	120	200	12°	1.11	With	WXMU03...
New EXWX03M035SC32.0R05	1	35	5	27.6	32	115	35	150	12°	0.88	With	WXMU03...
New EXWX03M035SC32.0R05L	1	35	5	27.6	32	165	35	200	12°	1.18	With	WXMU03...
New EXWX03M040SC32.0R06	1	40	6	32.6	32	105	45	150	12°	0.9	With	WXMU03...
New EXWX03M040SC32.0R06L	1	40	6	32.6	32	175	45	220	12°	1.32	With	WXMU03...

SPARE PARTS

Designation	Clamping screw	Wrench
EXWX03...	CSPB-2.5SH	IP-7D

Recommended clamping torque: CSPB-2.5SH = 1.1 N·m

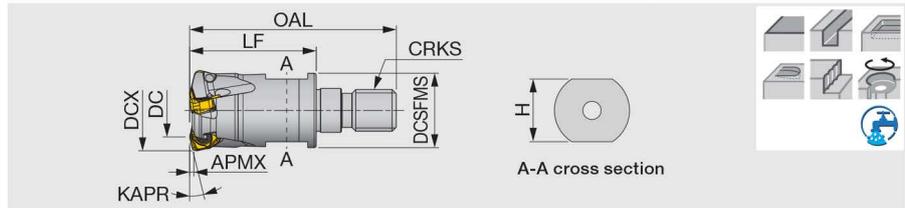
Tool diameter tolerance	
Tool diameter	EXWX03M***C... +0.15 / -0.3
	EXWX03M***SC... 0 / -0.45

TUNGFLEX

HXWX03-M

High feed endmill, modular type (TungFlex)

GAMP = +23°, GAMF = -7.9° ~ -6.2°



Designation	APMX	DCX	CICT	DC	OAL	LF	H	DCSFMS	KAPR	CRKS	WT(kg)	Air hole	Insert
HXWX03M016M08R02	1	16	2	8.9	42	25	10	12.8	12°	M8	0.03	With	WXMU03...
New HXWX03M018SM08R02	1	18	2	10.6	42	25	10	14.5	12°	M8	0.03	With	WXMU03...
HXWX03M020M10R03	1	20	3	12.8	49	30	15	17.8	12°	M10	0.06	With	WXMU03...
New HXWX03M022SM10R03	1	22	3	14.6	49	30	15	17.8	12°	M10	0.06	With	WXMU03...
HXWX03M025M12R04	1	25	4	17.8	57	35	17	20.8	12°	M12	0.10	With	WXMU03...
New HXWX03M028SM12R04	1	28	4	20.6	57	35	17	23	12°	M12	0.11	With	WXMU03...
New HXWX03M030SM12R04	1	30	4	20.6	57	35	17	23	12°	M12	0.12	With	WXMU03...
HXWX03M032M16R05	1	32	5	24.7	63	40	22	28.8	12°	M16	0.21	With	WXMU03...
New HXWX03M035SM16R05	1	35	5	27.6	63	40	22	28.8	12°	M16	0.21	With	WXMU03...
New HXWX03M040SM16R06	1	40	6	32.6	63	40	22	28.8	12°	M16	0.23	With	WXMU03...

SPARE PARTS

Designation	Clamping screw	Wrench
HXWX03M...	CSPB-2.5SH	IP-7D

Recommended clamping torque: CSPB-2.5SH = 1.1 N·m

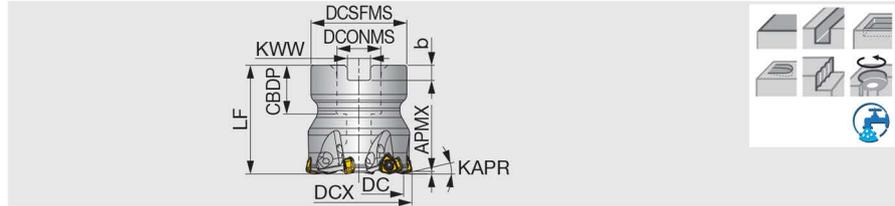
Tool diameter tolerance	
Tool diameter	HXWX03M***M... +0.15 / -0.3
	HXWX03M***SM... 0 / -0.45

DOF^{FEED}TRI

TXWX03

High feed bore type milling with screw clamp system

GAMP = +23°, GAMF = -6.2° ~ -6.1°



Designation	APMX	DCX	CICT	DC	DCSFMS	DCONMS	CBDP	LF	b	KWW	KAPR	WT(kg)	Air hole	Insert
TXWX03M040B16.0R06	1	40	6	32.7	35	16	18	40	5.6	8.4	12°	0.22	With	WXMU03...
New TXWX03M042SB16.0R06	1	42	6	34.7	35	16	18	40	5.6	8.4	12°	0.24	With	WXMU03...
TXWX03M050B22.0R08	1	50	8	42.7	47	22	20	50	6.3	10.4	12°	0.46	With	WXMU03...
New TXWX03M052SB22.0R08	1	52	8	44.7	49	22	20	50	6.3	10.4	12°	0.5	With	WXMU03...
New TXWX03M063SB22.0R08	1	63	8	55.7	59	22	20	50	6.3	10.4	12°	0.86	With	WXMU03...
New TXWX03M066SB22.0R10	1	66	10	58.7	60	22	20	50	7	10.4	12°	0.97	With	WXMU03...
New TXWX03M080SB27.0R12	1	80	12	72.7	76	27	22	50	7	12.4	12°	1.77	With	WXMU03...

SPARE PARTS

Designation	Clamping screw	Shell locking bolt	Wrench	Tool diameter tolerance
TXWX03M040B16.0R06	CSPB-2.5SH	CM8X30H	IP-7D	TXWX03M***B... +0.15 / -0.3
TXWX03M050B22.0R08	CSPB-2.5SH	CM10X30H	IP-7D	TXWX03M***SB... 0 / -0.45

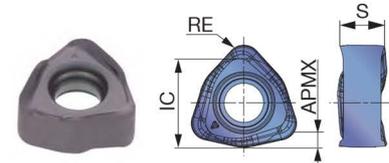
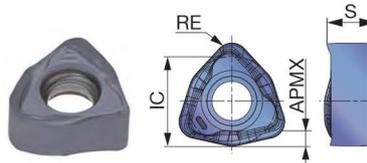
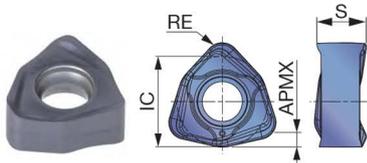
Recommended clamping torque: CSPB-2.5SH = 1.1 N·m

INSERT

WXMU0303-MM

New WXMU0303-ML

New WXMU0303-MS



	P	M	K	N	S	H
Steel	★ ☆					
Stainless	★ ☆					
Cast iron	★ ☆		★			
Non-ferrous						
Superalloy	★		★			
Hard materials	★ ☆	★				

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated			IC	S
			AH130	AH3225	AH8015		
WXMU0303ZER-MM	1.2	1	●	●	●	6.35	3.63
New WXMU0303ZER-ML	1.2	1	●	●	●	6.35	3.63
New WXMU0303ZER-MS	1.2	1	●			6.35	3.63

● : New product
● : Line up

GRADES

AH130 **M S**

- High chipping resistance
- Ideal for titanium alloy machining

AH3225 **P M**

- Nano multi-layer coating technology with three major properties for optimal cutting edge integrity
- Increased resistance to wear, fracture, oxidation, built-up edge, and delamination

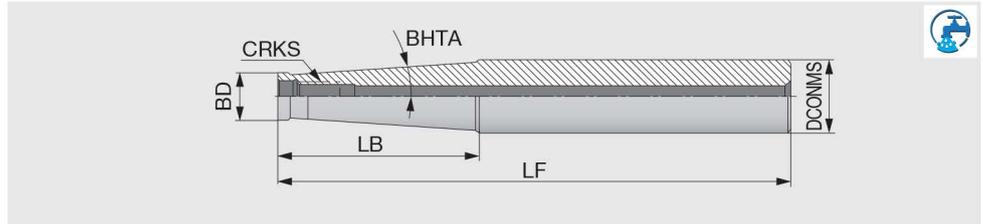
AH8015 **H K S**

- Incorporates a hard coating layer and carbide substrate
- Strong resistance to wear, heat, and built-up edge, ideal for machining hard or difficult materials

TUNGFLEX

SM

TungFlex - Modular shank

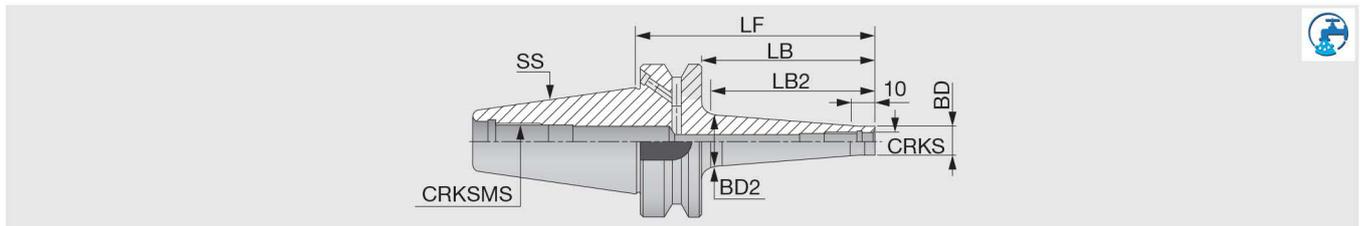


Designation	DCONMS	BD	LF	LB	BHTA	CRKS
SM08-L73C16	16	13	73	25	0°	M8
SM08-L128-C16	16	13	128	80	0.9°	M8
SM08-L170-C20	20	13	170	66.8	3.3°	M8
SM10-L80-C20	20	18	80	30	0°	M10
SM10-L130-C20	20	18	130	80	0.6°	M10
SM10-L200-C25	25	19	200	57.2	3.3°	M10
SM12-L86-C25	25	21	86	30	5.1°	M12
SM12-L200-C32	32	21	200	78	4.4°	M12
SM16-L95-C32	32	29	95	35	1.7°	M16
SM16-L230-C32	32	29	230	50	1.8°	M16

TUNGFLEX

BT-ODP (Screw clamping head holder)

TungFlex modular tooling system with BT shank



Designation	SS	CRKS	BD	BD2	LF	LB	LB2	CRKSMS
BT40ODP8X66	40	M8	13	15	66	39	30	M16
BT40ODP8X106	40	M8	13	23	106	79	70	M16
BT40ODP10X66	40	M10	18	20	66	39	30	M16
BT40ODP10X106	40	M10	18	28	106	79	70	M16
BT40ODP12X66	40	M12	21	24	66	39	30	M16
BT40ODP12X106	40	M12	21	31	106	79	70	M16
BT40ODP16X66	40	M16	29	28.6	66	39	-	M16
BT40ODP16X106	40	M16	29	34	106	79	70	M16

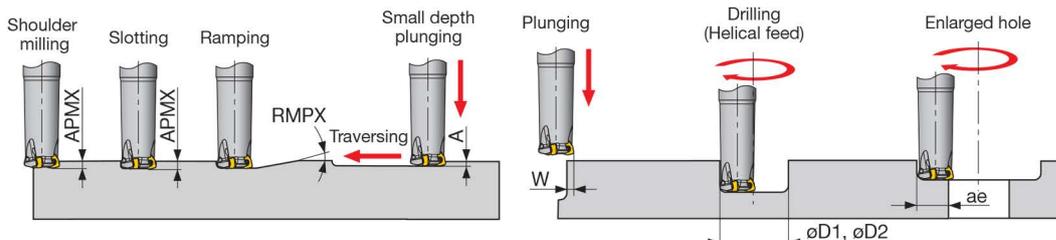
Applicable for 10 MPa pressure coolant
 (1) Balanced to G6.3 at 12,000 min⁻¹

DOF TRI

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Hardness	Priority	Grades	Chipbreaker	Cutting speed Vc (m/min)	Feed per tooth fz (mm/t)
P	Low carbon steel S15C, SS400, etc. C15E4, E275A, etc.	- 300HB	First choice	AH3225	MM	100 - 300	0.5 - 1.5
			For wear resistance	AH8015			
			Low cutting force	AH3225	ML		
	Carbon steel, Alloy steel S55C, SCM440, etc. C55, 42CrMoS4, etc.	- 300HB	First choice	AH3225	MM	100 - 250	0.5 - 1.5
			For wear resistance	AH8015			
			Low cutting force	AH3225	ML		
Prehardened steel NAK80, PX5, etc.	30 - 40HRC	First choice	AH3225	MM	100 - 200	0.5 - 1.2	
		For wear resistance	AH8015				
		Low cutting force	AH3225	ML			
M	Austenitic Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	- 200HB	First choice	AH130	MS	80 - 150	0.5 - 1
	Martensitic Stainless steel SUS410, SUS420J1, etc. X12Cr13, X20Cr13, etc.	- 200HB	First choice	AH130	MS	50 - 120	0.3 - 1
K	Grey cast iron FC250, FC300, etc. 250, 300, etc.	150 - 250HB	First choice	AH8015	MM	100 - 300	0.5 - 1.5
			For impact resistance	AH3225			
S	Ductile cast iron FCD400, etc. 400-15, 600-3, etc.	150 - 250HB	First choice	AH8015	MM	80 - 200	0.5 - 1.5
			For impact resistance	AH3225			
S	Titanium alloy Ti-6Al-4V, etc.	- 40HRC	First choice	AH130	MS	30 - 60	0.3 - 0.7
	Superalloys Inconel718, etc.	- 40HRC	First choice	AH8015	MM	20 - 50	0.1 - 0.3
H	Hardened steel SKD61, etc. X40CrMoV5-1, etc.	40 - 50HRC	First choice	AH8015	MM	80 - 150	0.1 - 0.5
			For impact resistance	AH3225			
		50 - 60HRC	First choice	AH8015	MM		

APPLICATION RANGE



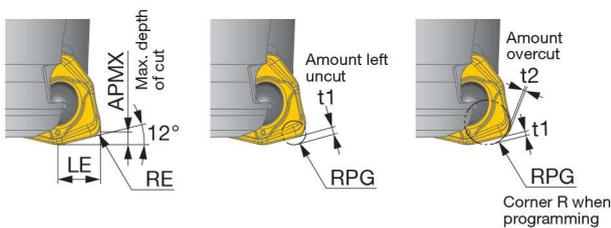
Designation	DCX	Max. depth of cut APMX	Max. ramping angle RMPX	Max. plunging depth A	Max. cutting width in plunging W	Min. machinable hole dia. øD1	Max. machinable hole dia. øD2	Max. cutting width in enlarged hole ae
E/HXWX03M016...	16	1	3	0.3	4	25	30	12
New E/HXWX03M018...	18	1	2	0.3	4	28	34	14
New E/HXWX03M020...	20	1	2	0.3	4	31	38	16
New E/HXWX03M022...	22	1	1.7	0.3	4	36	42	18
New E/HXWX03M025...	25	1	1.4	0.3	4	41	48	21
New E/HXWX03M028...	28	1	1.3	0.3	4	47	54	24
New E/HXWX03M030...	30	1	1.3	0.3	4	51	58	26
New E/HXWX03M032...	32	1	1	0.3	4	54	62	28
New E/HXWX03M035...	35	1	0.8	0.3	4	60	68	31
New E/H/TXWX03M040...	40	1	0.7	0.3	4	71	78	36
New TXWX03M042...	42	1	0.7	0.3	4	73	82	38
New TXWX03M050...	50	1	0.6	0.3	4	87	98	46
New TXWX03M052...	52	1	0.5	0.3	4	92	102	48
New TXWX03M063...	63	1	0.4	0.3	4	112	124	59
New TXWX03M066...	66	1	0.4	0.3	4	118	130	62
New TXWX03M080...	80	1	0.3	0.3	4	144	158	76

Tool diameter: DCX (mm), Number of revolution: n (min^{-1}), Feed speed: V_f (mm/min), Max. depth of cut: $APMX = 1$ mm, Number of teeth: CICT

$\phi 16$, CICT = 2		$\phi 20$, CICT = 3		$\phi 25$, CICT = 4		$\phi 32$, CICT = 5		$\phi 40$, CICT = 6		$\phi 50$, CICT = 8	
n	V_f	n	V_f	n	V_f	n	V_f	n	V_f	n	V_f
3,981	7,962	3,185	9,554	2,548	10,191	1,990	9,952	1,592	9,554	1,274	10,191
$V_c = 200$ m/min, $f_z = 1$ mm/t											
3,981	7,962	3,185	9,554	2,548	10,191	1,990	9,952	1,592	9,554	1,274	10,191
$V_c = 200$ m/min, $f_z = 1$ mm/t											
2,986	4,180	2,389	5,016	1,911	5,350	1,493	5,225	1,194	5,016	955	5,350
$V_c = 150$ m/min, $f_z = 0.7$ mm/t											
2,389	2,389	1,911	2,866	1,529	3,057	1,194	2,986	955	2,866	764	3,057
$V_c = 120$ m/min, $f_z = 0.5$ mm/t											
1,990	1,194	1,592	1,433	1,274	1,529	995	1,493	796	1,433	637	1,529
$V_c = 100$ m/min, $f_z = 0.3$ mm/t											
3,981	7,962	3,185	9,554	2,548	10,191	1,990	9,952	1,592	9,554	1,274	10,191
$V_c = 200$ m/min, $f_z = 1$ mm/t											
2,986	5,971	2,389	7,166	1,911	7,643	1,493	7,464	1,194	7,166	955	7,643
$V_c = 150$ m/min, $f_z = 1$ mm/t											
796	637	637	764	510	815	398	796	318	764	255	815
$V_c = 40$ m/min, $f_z = 0.4$ mm/t											
597	239	478	287	382	306	299	299	239	287	191	306
$V_c = 30$ m/min, $f_z = 0.2$ mm/t											
2,389	1,433	1,911	1,720	1,529	1,834	1,194	1,791	955	1,720	764	1,834
$V_c = 120$ m/min, $f_z = 0.3$ mm/t											
1,194	239	955	287	764	306	597	299	478	287	382	306
$V_c = 60$ m/min, $f_z = 0.1$ mm/t											

TOOL GEOMETRY ON PROGRAMMING

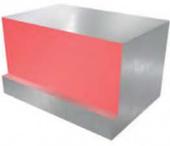
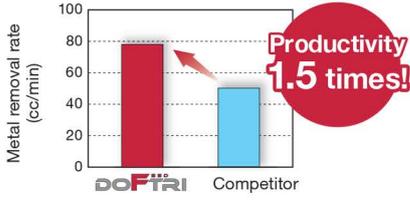
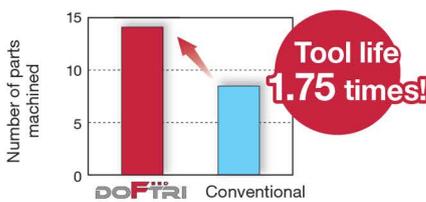
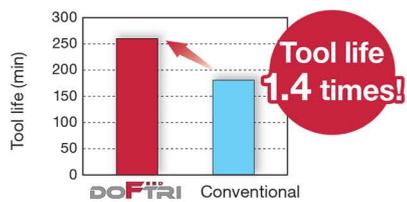
When programming for CAM, the tool should be considered as a radius cutter. Usually, the corner radius should be set as $R = 1.5$ mm. If a larger radius is used, overcutting will occur. The following table shows the amount left uncut (t_1) and overcut (t_2).



Max. depth of cut APMX (mm)	Corner radius RE (mm)	LE (mm)	Corner R when programming RPG	Amount left uncut t_1 (mm)	Amount overcut t_2 (mm)
1	1.2	3.5	1	0.56	-
1	1.2	3.5	1.5	0.46	-
1	1.2	3.5	2	0.35	0.16
1	1.2	3.5	2.5	0.2	0.5

DOFEEDTRI

PRACTICAL EXAMPLES

Workpiece type		Machine structural part	New Machine part
Cutter		EXWX03M020C20.0R03 (ø20 mm, CICT = 3)	TXWX03M050B22.0R08 (ø50 mm, CICT = 8)
Insert		WXMU0303ZER-MM	WXMU0303ZER-ML
Grade		AH3225	AH3225
		SS400 / E275A	SS400 / E275A
Workpiece material		 P	 P
Cutting conditions	Cutting speed: V_c (m/min)	180	180
	Feed per tooth: f_z (mm/t)	0.9	0.55
	Depth of cut : a_p (mm)	0.5	0.65
	Width of cut : a_e (mm)	20	40
	Machining	Slotting, Shoulder milling	Shoulder milling
	Coolant	Dry	Dry
Machine		Vertical M/C, BT40	Vertical M/C, BT40
Results		 <p>Generating low cutting forces, DoFeedTri eliminated chatter, providing machining stability and 1.5 times productivity.</p>	 <p>Thanks to the superior chip evacuation and control of the ML chipbreaker, DoForceTri eliminated chip re-cutting—which was common with conventional chipbreakers and often caused scratches on the work surface—while ensuring process security.</p>
Workpiece type		New Machine part	Die and mold
Cutter		TXWX03M050B22.0R08 (ø50 mm, CICT = 8)	EXWX03M032C32.0R05 (ø32 mm, CICT = 5)
Insert		WXMU0303ZER-MS	WXMU0303ZER-MM
Grade		AH130	AH3225
		SUS316 / X5CrNiMo17-12-2	SKD61 / X40CrMoV5-1
Workpiece material		 M	 H
Cutting conditions	Cutting speed: V_c (m/min)	100	120
	Feed per tooth: f_z (mm/t)	0.65	0.67
	Depth of cut : a_p (mm)	0.6	0.7
	Width of cut : a_e (mm)	- 32	- 32
	Machining	Face milling	Pocketing
	Coolant	Wet	Wet
Machine		Vertical M/C, BT40	Vertical M/C, BT50
Results		 <p>MS geometry provided 1.75 times tool life increase in stainless steel.</p>	 <p>With its strong cutting edge design, DoFeedTri provided 1.4 times tool life while machining parts with heavy interruptions</p>

SOLIDFIXWRENCH



Features and benefits of the new key wrench

- Ease-of-use

Designed for precision, durability, and rigidity, the key shaft provides easy handling and long service life.

- Extended service life of screws

The key also helps extend service life of screws by preventing stripped screws and eliminating the risk of cam-out.

- Designed with precision, the tip allows for a full engagement with a screw head.

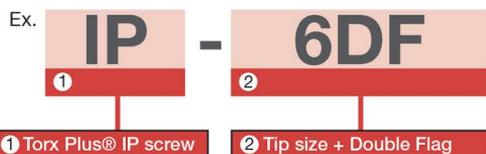
- Designed with durability, the tip shows little wear after repeated use.



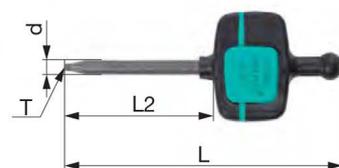
A thick shaft that fully transfers the driving torque.

Ergonomic grip design that can prevent excessive torque from being applied to the screw.

WRENCH



Dedicated to Torx Plus® screw



Designation	T	L	L2	d
IP-6DF	6IP	62	33	3
IP-7DF	7IP	62	33	3

CONTACT US

mgt

MEGA TECH
METALWORK



MEGA TECH METALWORK CO.,LTD (Headquarter)



Tel : 02-943-1591



Fax : 02-943-1592



Line ID : @mgt_metalwork



Email : sales.m@mgtg.co.th



Web : <https://www.mgtg.co.th/>



17/4 Soi Ramintra 89
Ramintra Khannayao
Bangkok 10230



For more
Information

SCAN NOW

