

MillLine

MILLQ^{UAD}FEED

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Tungaloy Report No. 502S1-G



Expanded cutter and grade options

for maximum high feed milling performance

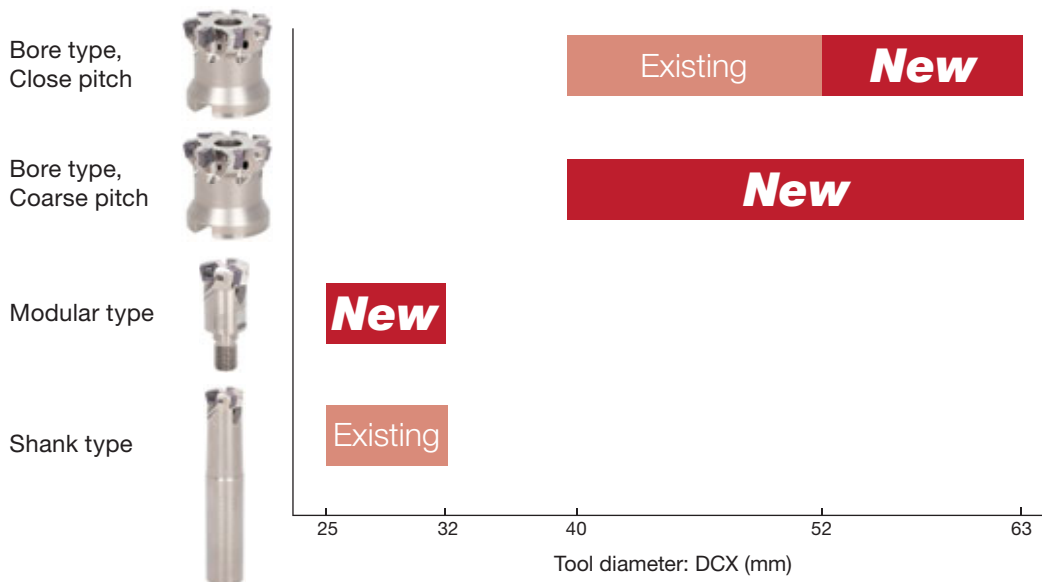


INDUSTRY 4.0
FEED the SPEED!

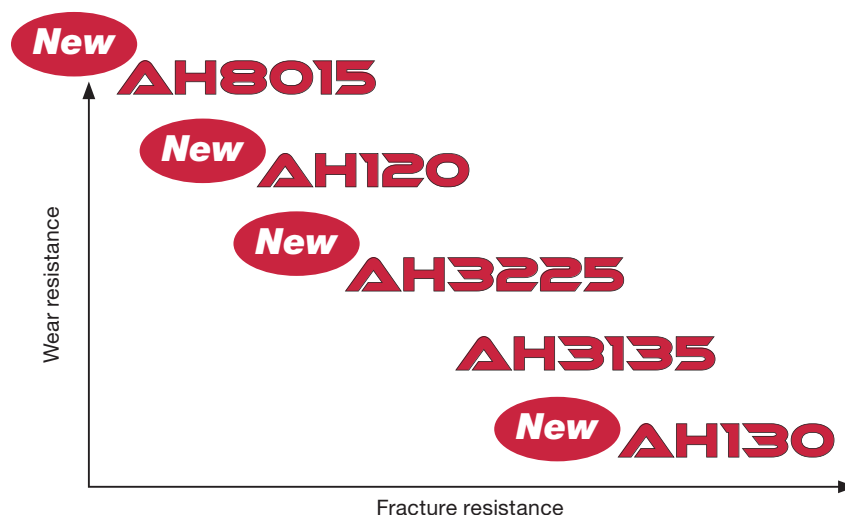


MillQuadFeed-09 offers expanded application coverage

In addition to a new modular style cutter head, additional cutter diameter options are available for up to 63 mm in a close or coarse pitch design for chatter solutions

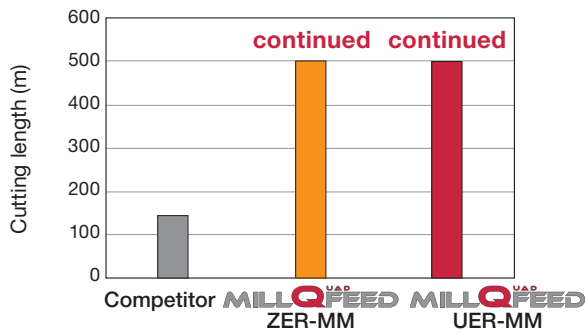


Expanded insert grade options for expanded materials coverage



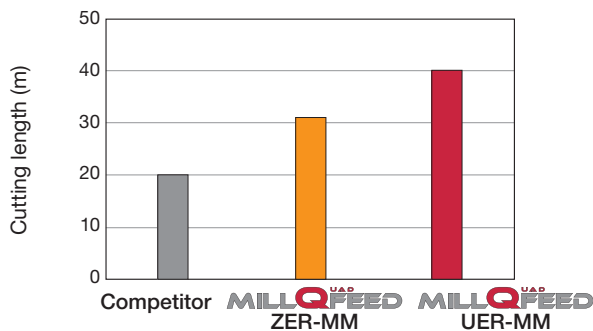
CUTTING PERFORMANCE

Comparisons of tool life



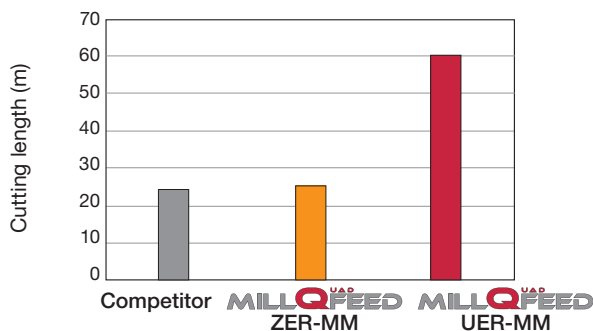
P Cutter : EXSW09M025C25.0R03 ($\phi = 25$ mm, $z = 3$)
 Insert : SWMT0904ZER-MM AH3225
 : SWMT0904UER-MM AH3225
 Workpiece material : S55C / C55 (180HB)
 Cutting speed : $V_c = 150$ m/min
 Feed per tooth : $f_z = 1.5$ mm/t
 Depth of cut : $a_p = 0.8$ mm
 Depth of width : $a_e = 9$ mm
 Number of teeth : 1
 Coolant : Dry
 Machine : Vertical M/C, BT50

Over 300% tool life with AH3225 grade



M Cutter : TXSW09M050B22.0R07 ($\phi = 50$ mm, $z = 7$)
 Insert : SWMT0904ZER-MM AH130
 : SWMT0904UER-MM AH130
 Workpiece material : SUS304 / X5CrNi18-9
 Cutting speed : $V_c = 120$ m/min
 Feed per tooth : $f_z = 0.8$ mm/t
 Depth of cut : $a_p = 0.8$ mm
 Depth of width : $a_e = 32$ mm
 Number of teeth : 1
 Coolant : Wet
 Machine : Vertical M/C, BT50

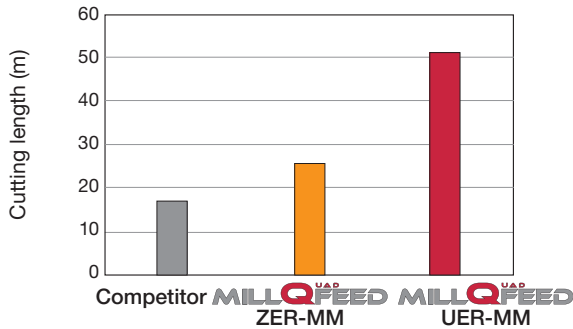
200% tool life with AH130 grade and UER insert



M Cutter : TXSW09M050B22.0R07 ($\phi = 50$ mm, $z = 7$)
 Insert : SWMT0904ZER-MM AH130
 : SWMT0904UER-MM AH130
 Workpiece material : SUS630 / X5CrNi18-9 (40HRC)
 Cutting speed : $V_c = 100$ m/min
 Feed per tooth : $f_z = 0.6$ mm/t
 Depth of cut : $a_p = 0.8$ mm
 Depth of width : $a_e = 32$ mm
 Number of teeth : 1
 Coolant : Wet
 Machine : Vertical M/C, BT50

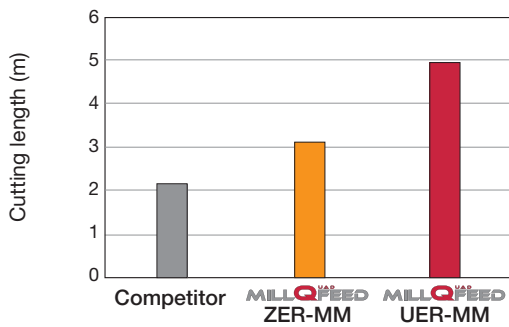
240% tool life with AH130 grade and UER insert

Comparisons of tool life



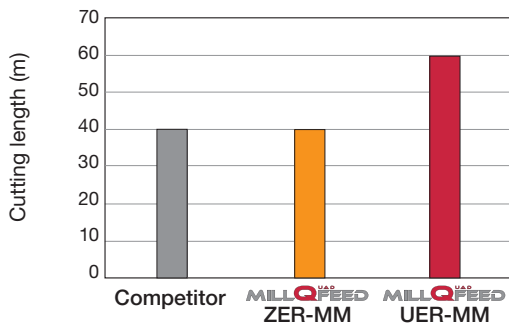
S Cutter : TXSW09M050B22.0R07 ($\phi = 50$ mm, $z = 7$)
 Insert : SWMT0904ZER-MM AH130
 : SWMT0904UER-MM AH130
 Workpiece material : Ti-6Al-4V (42HRC)
 Cutting speed : $V_c = 60$ m/min
 Feed per tooth : $f_z = 0.7$ mm/t
 Depth of cut : $a_p = 0.8$ mm
 Depth of width : $a_e = 32$ mm
 Number of teeth : 1
 Coolant : Wet
 Machine : Vertical M/C, BT50

320% tool life with AH130 grade and UER insert



S Cutter : TXSW09M050B22.0R07 ($\phi = 50$ mm, $z = 7$)
 Insert : SWMT0904ZER-MM AH8015
 : SWMT0904UER-MM AH8015
 Workpiece material : Inconel718 (40HRC)
 Cutting speed : $V_c = 40$ m/min
 Feed per tooth : $f_z = 0.4$ mm/t
 Depth of cut : $a_p = 0.8$ mm
 Depth of width : $a_e = 32$ mm
 Number of teeth : 1
 Coolant : Wet
 Machine : Vertical M/C, BT50

220% tool life with AH8015 grade and UER insert



H Cutter : TXSW09M050B22.0R07 ($\phi = 50$ mm, $z = 7$)
 Insert : SWMT0904ZER-MM AH8015
 : SWMT0904UER-MM AH8015
 Workpiece material : SKD61 / X40CrMoV5-1 (52HRC)
 Cutting speed : $V_c = 80$ m/min
 Feed per tooth : $f_z = 0.5$ mm/t
 Depth of cut : $a_p = 0.8$ mm
 Depth of width : $a_e = 32$ mm
 Number of teeth : 1
 Coolant : Dry
 Machine : Vertical M/C, BT50

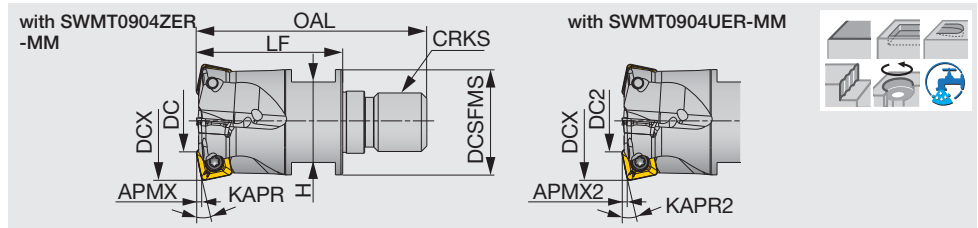
150% tool life with AH8015 grade and UER insert

New

HXSW09

High feed mill, modular type, for 4-corner single sided inserts

GAMP = +3.8°, GAMF = -3.5°



Designation	APMX	APMX2	DCX	CICT	DC	DC2	OAL	LF	H	DCSFMS	KAPR	KAPR2	CRKS	WT (kg)	Air hole	Insert
HXSW09M025M12R03	1.5	1	25	3	10	9	57	35	17	20.8	12°	7°	M12	0.09	With	SWMT09...
HXSW09M032M16R04	1.5	1	32	4	17	16	63	40	22	28.8	12°	7°	M16	0.18	With	SWMT09...

SPARE PARTS

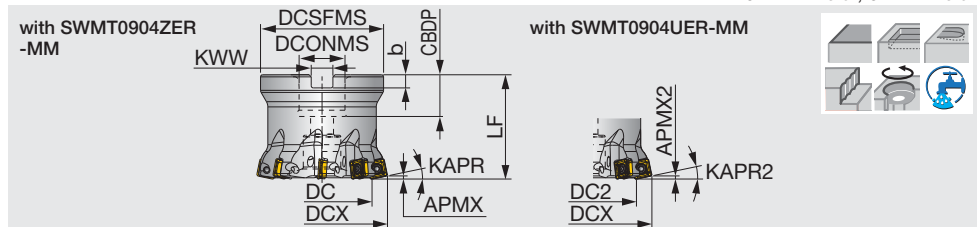
Designation	Clamping screw	Mono block wrench	Lubricant
HXSW09...	CSPD-3	IP-10D	M-1000

• Recommended clamping torque (N·m): CSPD-3=2.5

TXSW09

High feed mill, for 4-corner single sided inserts

GAMP = +3.8°, GAMF = -3.5°



Designation	APMX	APMX2	DCX	CICT	DC	DC2	DCSFMS	DCONMS	CBDP	LF	KWW	b	KAPR	KAPR2	WT(kg)	Air hole	Insert
New TXSW09M040B16.0R04	1.5	1	40	4	25	24	38	16	18	40	8.4	5.6	12°	7°	0.2	With	SWMT09...
TXSW09M040B16.0R05	1.5	1	40	5	25	24	38	16	18	40	8.4	5.6	12°	7°	0.2	With	SWMT09...
New TXSW09M050B22.0R05	1.5	1	50	5	35	34	47	22	20	50	10.4	6.3	12°	7°	0.37	With	SWMT09...
TXSW09M050B22.0R07	1.5	1	50	7	35	34	47	22	20	50	10.4	6.3	12°	7°	0.38	With	SWMT09...
New TXSW09M052B22.0R05	1.5	1	52	5	37	36	49	22	20	50	10.4	6.3	12°	7°	0.42	With	SWMT09...
New TXSW09M052B22.0R07	1.5	1	52	7	37	36	49	22	20	50	10.4	6.3	12°	7°	0.38	With	SWMT09...
New TXSW09M063B22.0R06	1.5	1	63	6	48	47	59	22	20	50	10.4	6.3	12°	7°	0.69	With	SWMT09...
New TXSW09M063B22.0R08	1.5	1	63	8	48	47	59	22	20	50	10.4	6.3	12°	7°	0.7	With	SWMT09...

SPARE PARTS

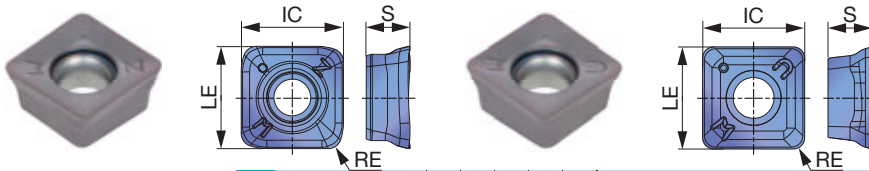
Designation	Clamping screw	Torx bit	Grip	Shell locking bolt	Lubricant
TXSW09M04...	CSPD-3	BLDIP10/S7	H-TB2W	FSHM8-30H	M-1000
TXSW09M05...	CSPD-3	BLDIP10/S7	H-TB2W	FSHM10-40H	M-1000
TXSW09M06...	CSPD-3	BLDIP10/S7	H-TB2W	CM10X30H	M-1000

• Recommended clamping torque (N·m): CSPD-3=2.5

INSERTS

SWMT0904ZER-MM

SWMT0904UER-MM



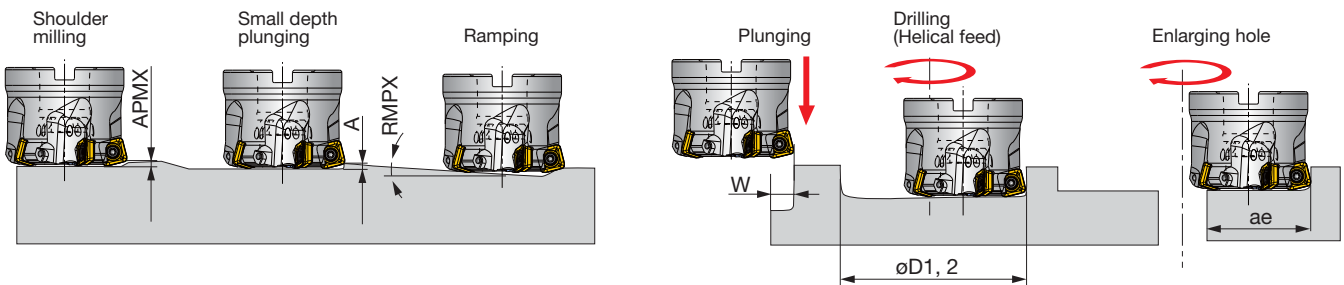
P	Steel	☆	☆	☆	☆	☆								
M	Stainless	★	☆	☆	☆									
K	Cast iron		☆	☆	☆	★								
N	Non-ferrous													
S	Titanium	★	☆											
S	Heat resistant alloy					☆	★							
H	Hard materials			☆	☆	★								

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated					LE	IC	S
			AH130	AH3135	AH3225	AH120	AH8015			
			●	●	●	●	●			
SWMT0904ZER-MM	1	1.5	●	●	●	●	●	8.605	8.605	4
SWMT0904UER-MM	1	1	●	●	●	●	●	9.05	9.05	4

● : New lineup

APPLICATION RANGE



09 type

Designation	Tool dia. DCX	Max. depth of cut		Max. plunging depth A	Max. ramping angle		Max. cutting width in plunging		Min. machining dia.		Max. machining dia.		Max. cutting width in enlarging	
		APMX	APMX		RMPX	RMPX	W	W	øD1	øD1	øD2	øD2	ae	ae
		SWMT 09**ZER	SWMT 09**UER	SWMT 09**ZER	SWMT 09**UER	SWMT 09**ZER	SWMT 09**UER	SWMT 09**ZER	SWMT 09**UER	SWMT 09**ZER	SWMT 09**UER	SWMT 09**ZER	SWMT 09**UER	SWMT 09**ZER
E/HXSW09M025...	25	1.5	1	0.3	4.8	6	7	7.5	34	33	47	47	16.5	16
E/HXSW09M032...	32	1.5	1	0.3	2.7	3.2	7	7.5	48	47	61	61	23.5	23
TXSW09M040...	40	1.5	1	0.3	1.8	2.1	7	7.5	64	63	77	77	31.5	31
TXSW09M050...	50	1.5	1	0.3	1.2	1.4	7	7.5	84	83	97	97	41.5	41
New TXSW09M052...	52	1.5	1	0.3	1.2	1.4	7	7.5	88	87	101	101	43.5	43
New TXSW09M063...	63	1.5	1	0.3	0.8	1.1	7	7.5	110	109	123	123	54.5	54

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