T/EXP

Standard cutting conditions

■05·06 type

Work material	Insert grades	Cutting speed Vc (SFM)	Feed per tooth fz (in/t)	ø.750 (z = .078)	ø1.00 (z = .078)	ø1.25 (z = .078, .118)	ø1.50 (z = .118)	ø2.00 (z = .157)		
Carbon Steels (1018,1055)	AH120 (T3130)	330 ~ 820	.020 ~ .078	Vc = 500 SFM, fz = .031 in/t ap = .039 in, ae = .039D in	Vc = 500 SFM, fz = .039 in/t ap = .039 in, ae = .039D in					
<300HB	(10100)			When plunging in small depth: fz = .008 in/t						
Alloy steels (4140, 4340)	AH120 (T2120)	330 ~ 650	.020 ~ .078	Vc = 425 SFM, fz = .031 in/t ap = .039 in, ae = .039D in	Vc = 425 SFM, fz = .039 in/t ap = .039 in, ae = .039D in					
< 300 HB	(T3130)			When plunging in small depth: fz = .008 in/t						
Prehardened steels (P20, H13)	OD H13) AH120		.020 ~ .039	Vc = 330 SFM, fz = .020 in/t ap = .039 in, ae = .039D in	Vc = 330 SFM, fz = .020 in/t ap = .039 in, ae = .039D in					
30 ~ 40HRC	(T3130)			When plunging in small depth: fz = .004 in/t						
Stainless steels	AH130	330 ~ 650	.020 ~ .078	Vc = 425 SFM, fz = .031 in/t ap = .039 in, ae = .039D in		Vc = 425 SFM ap = .039 in,				
(304, 316)	AH140			When plunging in small depth: fz = .008 in/t						
Cast irons (CLASS 25-40)	AH120	330 ~ 820	.032 ~ .098	Vc = 500 SFM, fz = .039 in/t ap = .039 in, ae = .039D in		Vc = 590 SFM ap = .039 in,				
(01400 20-40)				When plunging in small depth: fz = .008 in/t						
Hard materials (A980)	AH730	200 ~ 330	.020 ~ .078	Vc = 230 SFM, fz = .028 in/t ap = .028 in, ae = .039D in		Vc = 230 SFM ap = .028 in,				
40 ~ 50HRC				When plunging in small depth: fz = .004 in/t						

08 type

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Work material	Insert grades	Cutting speed Vc (SFM)	Feed per tooth fz (in/t)	ø. 750 (z = .078)				ø4.00 (z = .236)	ø5.00 (z = .275)	ø6.00 (z = .315)		
Carbon Steels (1018,1055)	AH120 (T3130)	330 ~ 820	.020 ~ .078	Vc = 590 SFM, fz = .039 in/t ap = .039 in, ae = 130 in	30 in ap = .039 in, ae = .039D in							
<300HB	(10100)			When plunging in small depth: fz = .008 in/t								
Alloy steels (4140, 4340)	AH120 (T3130)	330 ~ 650	.020 ~ .078	Vc = 425 SFM, fz = .039 in/t ap = .039 in, ae = 130 in	Vc = 500 SFM, fz = .059 in/t ap = .039 in, ae = .039D in							
< 300 HB	(T3130)			When plunging in small depth: fz = .008 in/t								
Prehardened steels (P20, H13)	P20 H13) AH120		.020 ~ .039	Vc = 330 SFM, fz = .020 in/t ap = .039 in, ae = 130 in				1, fz = .03 ae = .039				
30 ~ 40HRC	(T3130)			When plunging in small depth: fz = .004 in/t								
(004 040)	AH130 AH140	330 ~ 650	.020 ~ .078	Vc = 425 SFM, fz = .039 in/t ap = .039 in, ae = 130 in				1, fz = .05 ae = .039				
				When plunging in small depth: fz = .008 in/t								
Cast irons (CLASS 25-40)	AH120	500 ~ 820	.032 ~ .098	Vc = 590 SFM, fz = .059 in/t ap = .039 in, ae = 130 in				1, fz = .07 ae = .039				
				When plunging in small depth: fz = .008 in/t								
Hard materials (A980)	AH730	200 ~ 330	.020 ~ .039	Vc = 230 SFM, fz = .078 in/t, ap = .087 in, ae = .039D in								
40 ~ 50HRC	7	200 000		When plungi	ng in sma	II depth:	fz = .004	in/t				

- Note: The above values of cutting speed show the standard speed when overhang length of tool is below 3D. The cutting speed and the feed rate should be set at the lower limit values when overhang length of tool exceeds 3D.

 Thick and heavy chips are discharged by these TAC mills. Use internal air supply or air-blast in order to prevent tool failure.

09 type

Work material	Insert grades	Cutting speed Vc (SFM)	Feed per tooth fz (in/t)	ø2.00 (z = .078)	ø2.50 (z = .118)	ø3.00 (z = .157)	ø4.00 (z = .197)	ø5.00 (z = .236)	ø6.00 (z = .275)
Carbon Steels (1018,1055) < 300HB	AH120 (T3130)	330 ~ 820	.020 ~ .078	Vc = 650 SFM, fz = .059 in/t, ap = 2.0 in, ae = .039D in When plunging in small depth: fz = .008 in/t					
Alloy steels (4140, 4340) < 300 HB	AH120 (T3130)	330 ~ 650	.020 ~ .078	Vc = 500 SFM, fz = .059 in/t, ap = 2.0 in, ae = .039D in When plunging in small depth: fz = .008 in/t					
Prehardened steels (P20, H13) 30 ~ 40HRC	AH120 (T3130)	260 ~ 500	.020 ~ .039	Vc = 120 SFM, fz = .031 in/t, ap = 2.0 in, ae = .039D in When plunging in small depth: fz = .004 in/t					
Stainless steels (304, 316)	AH130 AH140	330 ~ 650	.020 ~ .078	Vc = 500 SFM, fz = .059 in/t, ap = 2.0 in, ae = .039D in When plunging in small depth: fz = .008 in/t					n
Cast irons (CLASS 25-40)	AH120	500 ~ 820	.032 ~ .098	Vc = 650 SFM, fz = .078 in/t, ap = 2.0 in, ae = .039D in When plunging in small depth: fz = .008 in/t					n
Hard materials (A980) 40 ~ 50HRC	AH730	200 ~ 330	.020 ~ .039	Vc = 230 SFM, fz = .028 in/t, ap = .028 in, ae = .039D in When plunging in small depth: fz = .004 in/t					in

Notes: The cutting speed and feed should be set to 70 to 80 % of the value shown in the above table when overhang length of tool exceeds 3D.