STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Hardness	Grades	Recommended Selection criteria	Recommended Chip-breaker	Max. axial depth of cut *ap* (in)	Cutting speed *Vc* (sfm)	Feed per tooth: *fz* (ipt) øDc (in) ø0.375	ø0.500	ø0.625	ø0.750	ø1.000	ø1.250
P	Low carbon steel, alloy steel	85 - 180 HB	AH725	First choice	MJ	≤0.04D	590 - 850	0.008	0.008	0.010	0.010	0.012	0.014
		85 - 180 HB	AH725	For wear resistance	ML	≤0.04D	590 - 850	0.008	0.008	0.010	0.010	0.012	0.014
	High carbon steel, alloy steel	180 - 280 HB	AH725	First choice	MJ	≤0.03D	490 - 750	0.008	0.008	0.010	0.010	0.012	0.014
		180 - 280 HB	AH725	For wear resistance	ML	≤0.03D	490 - 750	0.008	0.008	0.010	0.010	0.012	0.014
	Prehardened steel Die & mold tool steel	HRC 40 - 48	AH725	First choice	ML	≤0.03D	590 - 980	0.008	0.008	0.010	0.010	0.012	0.014
		HRC 40 - 48	AH725	For impact resistance	MJ	≤0.03D	590 - 980	0.008	0.008	0.010	0.010	0.012	0.014
M	Stainless steel	135 - 200 HB	AH725	First choice	ML	≤0.03D	330 - 820	0.006	0.008	0.008	0.010	0.010	0.012
		135 - 200 HB	AH725	For impact resistance	MJ	≤0.03D	330 - 820	0.006	0.008	0.008	0.010	0.010	0.012
K	Cast iron	150 - 240 HB	AH725	First choice	MJ	0.04D	300 - 1150	0.008	0.010	0.012	0.012	0.014	0.016
		150 - 240 HB	AH725	For wear resistance	ML	≤0.04D	300 - 1150	0.008	0.010	0.012	0.012	0.014	0.016
N	Aluminum	-	AH725	First choice	ML	≤0.03D	660 - 1310	0.010	0.014	0.014	0.014	0.016	0.018
		-	AH725	For impact resistance	MJ	≤0.03D	660 - 1310	0.010	0.014	0.014	0.014	0.016	0.018
H	High hardened steel	HRC 48 - 60	AH725	First choice	ML	≤0.02D	330 - 720	0.003	0.004	0.005	0.006	0.008	0.010
		HRC 48 - 60	AH725	For impact resistance	MJ	≤0.02D	330 - 720	0.003	0.004	0.005	0.006	0.008	0.010

- Standard cutting conditions should be used only as references for each workpiece material.
- These conditions are based on the use of steel shank.
  For carbide shank, depth of cut and feed per tooth can be increased by 20 - 30%.

How to clamp the insert

1. Clear chips and dust from the pocket.
2. Place the insert in the pocket. The insert can be placed only in one direction.
3. Tighten the screw while pressing the insert into the pocket.

How to check the run-out

1. Clamp the insert on the shank.
2. Clamp the shank on a high-precision arbor.
3. Measure the run-out on tool presetter or by dial gauge.

Notes:

1. Due to the helical cutting edge, it is important that the run-out is inspected with the insert clamped on the shank.
2. Do not use micrometer or caliper to inspect the insert diameter as inaccurate dimensions may be provided.