List 16642 - A Brand AT-2 R-SPEC
List 16647 - A Brand AT-2 R-SPEC

Work Material		Cutting Speed (SFM)	Feed Rate (in/t)
Low Carbon Steel	~C0.25%	-	-
Medium Carbon Steel	C0.25%~0.45%	-	-
High Carbon Steel	C0.45%~	-	-
Alloy Steel	4140, 4340, 8620	-	-
Hardened Steel	25-45 HRC	-	-
	45-50 HRC	-	-
	50-65 HRC	-	-
Stainless Steel	300-Series, 400-Series	-	-
Tool Steel	D2, H13, A6	-	-
Cast Steel	-	-	-
Cast Iron	-	-	-
Ductile Cast Iron	-	-	-
Copper	-	330 - 985	0.0118 - 0.0197
Brass	B21, B36	-	-
Brass Casting	B62	-	-
Bronze	B124, B103, B159	-	-
Aluminum	6061, 7075, 2014	330 - 985	0.0118 - 0.0197
Aluminum Alloy Casting	-	330 - 985	0.0118 - 0.0157
Magnesium Alloy Casting	-	330 - 985	0.0118 - 0.0197
Zinc Alloy Casting	-	-	-
Titanium Alloy*	Ti-6Al-4V	-	-
Nickel Alloy*	Inconel	-	-
Thermosetting Plastic	-	-	-
Thermo Plastic	-	-	-

1. This cutting condition table shows the standard values. When machining, it is recommended to use the program created by the NC program creation tool "ThreadPro".
2. Please select "Continuous" as the path type of ThreadPro.
3. Please use water soluble coolant unless there is pre-hole made by casting or drilling.
4. When machining magnesium please refer to the coolant oil manufacturer's specification for recommended oil. Please also properly dispose of the cutting chips to prevent fire hazards.
5. Please adjust the cuting conditions depending on the rigidity of the machine, tool holder, and workpiece clamping.
6. Tool vibration should be kept at a minimum level to ensure highest thread accuracy.
7. Select a higher feed rate for larger diameter tooling and a lower feed rate for smaller diameters.
8. The tool is left-hand cutting - program the spindle for counterclockwise rotation.

Note

Bottom shape of finished hole is as depicted in the right picture. Please make sure that it is acceptable based on the cutting instruction in advance.