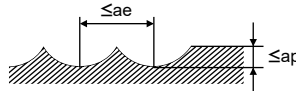


RECOMMENDED CUTTING CONDITIONS

Work material	P				H		H							
	Pre-hardened steel (35–45HRC) Carbon steel, alloy steel (180–280HB) Alloy steel ($\leq 350\text{HB}$) Hardened steel (40–62HRC) X40CrMoV51, X210Cr12, X40CrMoV51				Hardened steel (62–70HRC) 070M55, 1.3343 (6Mo5Cr4V2)									
	$\alpha \leq 15^\circ$		$\alpha > 15^\circ$		Depth of cut a_p (mm)	Depth of cut a_e (mm)	$\alpha \leq 15^\circ$		$\alpha > 15^\circ$		Depth of cut a_p (mm)	Depth of cut a_e (mm)		
Revolution (min^{-1})	Feed rate (mm/min)	Revolution (min^{-1})	Feed rate (mm/min)	Revolution (min^{-1})			Feed rate (mm/min)	Revolution (min^{-1})	Feed rate (mm/min)					
R 0.5	40000	800	40000	800	0.007	0.007	40000	560	40000	560	0.005	0.005		
R 0.75	40000	800	40000	800	0.009	0.009	40000	560	40000	560	0.007	0.007		
R 1.0	35000	1050	35000	1050	0.011	0.011	35000	700	35000	700	0.009	0.009		
R 1.25	35000	1050	35000	1050	0.013	0.013	35000	700	35000	700	0.011	0.011		
R 1.5	35000	1050	35000	1050	0.015	0.015	35000	700	35000	700	0.013	0.013		
R 2.0	25000	1000	25000	1000	0.017	0.017	25000	750	25000	750	0.015	0.015		
R 2.5	25000	1000	25000	1000	0.020	0.020	25000	750	25000	750	0.015	0.015		
R 3.0	25000	1000	25000	1000	0.020	0.020	25000	750	25000	750	0.015	0.015		



Note 1) This tool is recommended for finish machining only.

Note 2) Air blow or oil mist is recommended for good chip evacuation.

Note 3) Note the following points when using the tools.

- Avoid using equipment abruptly without proper preparation. After sufficient warming up of equipment, ensure that there will be no changes to the depth of cut such as due to elongation of the main axis during machining.
- If the tools are used immediately after rough machining of a surface, large uneven areas (cusp heights) will cause deflection of the tools and waviness of the machined surface. Therefore, it is recommended to add a medium finish machining process which uses the same value of a_e as indicated in the table above.

Note 4) α is the inclination angle of the machined surface.

