

UP210-S3

For Steels, Cast Iron—— Side Milling



Workpiece Material		mm	Vc m/min	Tool Diameter(mm)	3	4	6	8	10	12	16	20
P	35HRC	$ap \leq 1.5D$	180	min-1	19110	14330	9550	7170	5730	4780	3580	2870
		$ae \leq 0.15D$		mm/min	1610	1550	1380	1400	1380	1290	1290	1290
	35-48HRC	$ap \leq 1D$	130	min-1	13800	10350	6900	5180	4140	3450	2590	2070
		$ae \leq 0.12D$		mm/min	910	870	830	930	850	760	620	560
M		$ap \leq 1.5D$	130	min-1	13800	10350	6900	5180	4140	3450	2590	2070
		$ap \leq 0.15D$		mm/min	1040	990	890	980	920	880	740	680
K	32HRC	$ap \leq 1.5D$	160	min-1	16990	12740	8490	6370	5100	4250	3190	2550
		$ae \leq 0.15D$		mm/min	1270	1220	1220	1130	1060	1020	910	840
	35-45HRC	$ap \leq 1D$	140	min-1	14860	11150	7430	5570	4460	3720	2790	2230
		$ae \leq 0.12D$		mm/min	980	1000	1000	940	870	840	750	680

Make sure work piece and machine are stable and use a precision holder.
 Please adjust the speed, feed and cutting depth according to actual cutting conditions.
 The milling conditions are for an end mill where the tool overhang length is less than 4*D (mill dia).
 When the tool overhang length is longer, please adjust the speed, feed and cutting depth.

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Workpiece Material		mm	Vc m/min	Tool Diameter(mm)	3	4	6	8	10	12	16	20
P	35HRC	ap≤0.8D	80	min-1	8490	6370	4250	3190	2550	2120	1590	1270
				mm/min	640	800	660	590	550	520	600	610
	35-48HRC	ap≤0.3D	60	min-1	6370	4780	3190	2390	1910	1590	1190	960
				mm/min	380	460	400	340	330	330	340	340
M		ap≤0.3D	55	min-1	5840	4380	2920	2190	1750	1460	1100	880
				mm/min	210	240	310	300	290	290	260	240
K	32HRC	ap≤0.5D	55	min-1	5840	4380	2920	2190	1750	1460	1100	880
				mm/min	320	370	380	330	320	310	280	250
	35-45HRC	ap≤0.3D	50	min-1	5310	3980	2650	1990	1590	1330	1000	800
				mm/min	240	280	320	270	260	260	240	220

Make sure work piece and machine are stable and use a precision holder.
 Please adjust the speed,feed and cutting depth according to actual cutting conditons.
 The milling conditions are for an end mill where the tool overhang length is less than 4*D(mill dia).
 When the tool overhang length is longer, please adjust the speed,feed and cutting depth.