

INDEXABLE MILLING

SOLID END MILLING

HOLEMAKING

TAPPING

TURNING

Insert Selection Guide

Material Group	Light Machining		General Purpose		Heavy Machining	
	Geometry	Grade	Geometry	Grade	Geometry	Grade
P1-P2	...MM	WP40PM	...MM	WP40PM	...MM	WP40PM
P3-P4	...MM	WP25PM	...MM	WP40PM	...MH	WP40PM
P5-P6	...MM	WP25PM	...MH	WP25PM	...MH	WP40PM
M1-M2	...MM	WP25PM	...MM	WS30PM	...MM	WP40PM
M3	...MM	WP25PM	...MM	WP25PM	...MM	WP40PM
K1-K2	...MH	WK15CM	...MH	WK15CM	...MH	WK15CM
K3	...MH	TN6520	...MH	TN6520	...MH	WK15CM
N1-N2	-	-	-	-	-	-
N3	-	-	-	-	-	-
S1-S2	...MM	WP25PM	...MM	WS30PM	...MM	WP40PM
S3	...MM	WS30PM	...MM	WS30PM	...MM	WP40PM
S4	...MM	WS30PM	...MM	WP40PM	...MM	WP40PM
H1	...MH	WP25PM	-	-	-	-

Recommended Starting Speeds [m/min]

Material Group		★ TN6520			★ TN6525			★ TN7535			★ WK15CM			★ WP25PM			WS30PM			★ WP40PM			★ WS40PM		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
P	1	-	-	-	410	320	280	545	475	445	-	-	-	395	340	325	-	-	-	355	310	295	-	-	-
	2	-	-	-	320	250	215	335	305	275	-	-	-	330	290	240	-	-	-	300	260	215	-	-	-
	3	-	-	-	280	215	185	305	275	245	-	-	-	305	260	210	-	-	-	275	235	190	-	-	-
	4	-	-	-	235	170	145	230	210	190	-	-	-	270	220	180	-	-	-	245	205	160	-	-	-
	5	-	-	-	310	235	200	310	275	250	-	-	-	220	205	180	-	-	-	205	185	160	440	325	230
	6	-	-	-	205	160	130	190	160	130	-	-	-	200	150	120	-	-	-	180	140	110	375	260	165
M	1	-	-	-	190	120	80	245	220	185	-	-	-	245	215	200	270	240	220	235	205	185	850	605	375
	2	-	-	-	120	80	50	220	190	170	-	-	-	220	190	155	245	215	175	210	180	150	755	560	345
	3	-	-	-	125	80	55	175	155	140	-	-	-	170	145	115	185	160	125	155	140	110	625	440	280
K	1	450	320	230	275	245	220	355	320	290	505	460	410	275	245	220	-	-	-	-	-	-	-	-	-
	2	390	250	190	215	190	180	280	250	230	400	355	330	215	190	180	-	-	-	-	-	-	-	-	-
	3	300	230	160	180	160	145	235	210	190	335	300	275	180	160	145	-	-	-	-	-	-	-	-	-
N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S	1	-	-	-	-	-	-	-	-	-	-	-	-	50	40	30	55	50	35	50	40	35	200	145	90
	2	-	-	-	-	-	-	-	-	-	-	-	-	50	40	30	55	50	35	50	40	35	180	130	85
	3	-	-	-	-	-	-	-	-	-	-	-	-	60	50	30	65	55	35	60	50	35	210	150	95
	4	-	-	-	-	-	-	-	-	-	-	-	-	85	60	40	100	70	50	80	60	40	295	215	135
H	1	-	-	-	-	-	-	-	-	-	-	-	-	145	110	85	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE: FIRST choice starting speeds are in **bold** type.
As the average chip thickness increases, the speed should be decreased.

Recommended Starting Feeds [mm]

Insert Geometry	Programmed Feed per Tooth (fz) as a % of Radial Depth of Cut (ae)															Insert Geometry
	Light Machining					General Purpose					Heavy Machining					
	5%			10%		20%			30%		40-100%					
...MM	0,90	1,67	4,09	0,65	1,19	2,83	0,48	0,88	2,08	0,42	0,77	1,80	0,38	0,70	1,64	...MM
...MH	0,90	2,34	5,00	0,65	1,66	3,41	0,48	1,23	2,49	0,42	1,07	2,16	0,38	0,98	1,97	...MH

NOTE: Use "Light Machining" values as starting feed rate.

★ = ALL-STAR PORTFOLIO PRODUCT. ALL-STAR PRODUCTS ARE PROVEN SOLUTIONS THAT ARE ALWAYS AVAILABLE.