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Insert Overview

P.: 8777370987
https://sctools.co/FMCarbide

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Cutting Speed by Grade and Material Group

Imperial		Turning												Milling		Drilling	
SFM (ft/min)		FM524		FM2553		FM2538		FM2543		FM2553		FM324		FM125		FM125	
ISO	Sub Group	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	Non Alloy Steel	720	1570	560	1480	560	1340	590	1250	490	1150	390	820	460	1250	460	790
	Low Alloy Steel	720	1380	590	1250	430	1180	360	1150	300	980	230	750	390	980	390	720
	High Alloy Steel			330	1080	260	1020	200	980	230	820	230	590	230	490	230	490
M	Ferritic & Martensitic									390	750	200	590	390	660	390	660
	Austenitic Stainless Steel									260	660	200	490	430	820	460	820
K	Grey Cast Iron	560	1380	390	980							200	520	390	820	460	720
	Nodular Cast Iron	390	1340	390	920							200	390	430	720	490	790
N	Aluminum																
S	Titanium & Super Alloy									110	260	110	200	80	150		
H	Hardened Material											130	260	130	260		

Metric		Turning												Milling		Drilling	
Vc (m/min)		FM524		FM2553		FM2538		FM2543		FM2553		FM324		FM125		FM125	
ISO	Sub Group	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
P	Non Alloy Steel	220	480	170	450	170	410	180	380	150	350	120	250	140	380	140	240
	Low Alloy Steel	220	420	180	380	130	360	110	350	90	300	70	230	120	300	120	220
	High Alloy Steel			100	330	80	310	60	300	70	250	70	180	70	150	70	150
M	Ferritic & Martensitic									120	230	60	180	120	200	120	200
	Austenitic Stainless Steel									80	200	60	150	130	250	140	250
K	Grey Cast Iron	170	420	120	300							60	160	120	250	140	220
	Nodular Cast Iron	120	410	120	280							60	120	130	220	150	240
N	Aluminum																
S	Titanium & Super Alloy									35	80	35	60	25	45		
H	Hardened Material											40	80	40	80		

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Grade Chart

Turn	Mill	Drill	Grade Information
●			P01 - P10 K10 - K25 **FM524 (CVD)** for Gray Cast Iron & Very Stable Steel Application • Hardest substrate & CVD coating for Extreme wear resistance
●			P05 - P20 K15 - K35 **FM2533 (CVD)** for Stable Steel Application & Nodular Cast Iron • Good balance between Wear Resistance & Chipping Resistance
●			P10 - P25 **FM2538 (CVD)** Balanced productivity for Continuous cut • High wear resistance and improved toughness ensures high productivity with less trouble
●			P15 - P30 **FM2543 (CVD)** First Choice grade for Steel with Various Steel Application • High Flexibility from Continuous cut to Interrupted Cut • Can be applied on Various Steel Application
●			P20 - P35 M10 - M30 **FM2553 (CVD)** for Interrupted Cut of Steel and Stainless Steel • Tough substrate CVD grade for Heavy Interrupted Cut
●			P10 - P30 M05 - M25 S05 - S25 H20 - H40 **FM324 (PVD)** Multi Purpose PVD grade for Turning • Balanced grade between chipping resistance & wear resistance • Recommended on Low cutting speed
	●	●	P20 - P35 M10 - M30 K20 - K40 S15 - S25 **FM125 (PVD)** Multi-Purpose PVD Grade for Milling & Drilling • PVD Coating with optimal thermal resistance & added strength • Tough carbide substrate designed for demanding application

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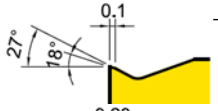
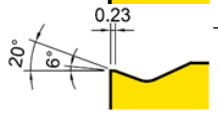
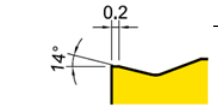
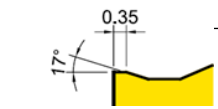
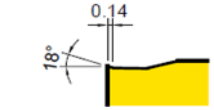
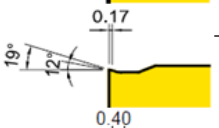
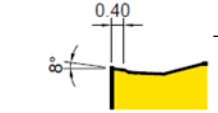
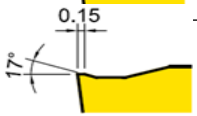
Turning Chip Breakers Legend

		Application	Feed Rate	Depth of Cut
Negative	 -BF	Steel Finishing	0.05~0.25 mm/rev .002~.010 in/rev	0.5~1.5 mm .02~.06 in
	 -BL	Steel Semi Finishing	0.1~0.3 mm/rev .004 ~.012 in/rev	1~3 mm .04~.12 in
	 -BG	Steel Medium	0.2~0.4 mm/rev .008~.016 in/rev	1.5~4 mm .06~.16 in
	 -BC	Steel Medium Roughing & Cast Iron	0.2~0.5 mm/rev .008~.020 in/rev	1.5~4 mm .06~.16 in
	 -BR	Steel Roughing	0.3~0.6 mm/rev .012~.024 in/rev	2~6 mm .08~.24 in
	 -BMF	Stainless steel Finishing	0.07~0.3 mm/rev 0.003~0.012 in/rev	0.2~1.5 mm 0.01~0.06 in
	 -BMM	Stainless steel Medium and Low Carbon Steel	0.2~0.35 mm/rev 0.008~0.014 in/rev	1~3.5 mm 0.04~0.14 in
	 -BMR	Stainless steel Roughing	0.3~0.6 mm/rev 0.012~0.022 in/rev	1.8~5.5 mm 0.07~0.22 in
	 ..MA	No Chipbreaker (Grey Cast Iron)	0.2~0.6 mm/rev .008~.024 in/rev	1~7 mm .04~.28 in
Positive	 -BF	Finishing	0.05~0.2 mm/rev .002~.008 in/rev	0.5~1.5 mm .02~.06 in
	 -BG	Medium	0.15~0.3 mm/rev .006~.012 in/rev	1~3 mm .04~.12 in