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Step 1 • Select the insert geometry
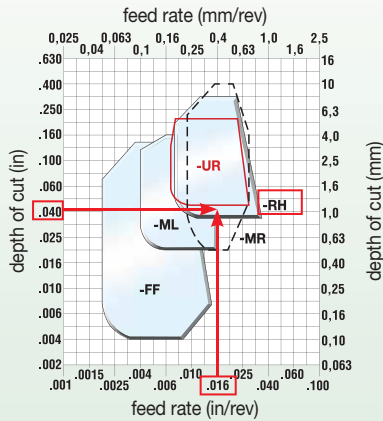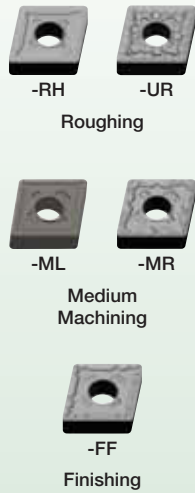
|		
P	Steel	
M	Stainless Steel	
K	Cast Iron	
N	Non-Ferrous	
S	High-Temp Alloys	
H	Hardened Materials	

Negative Inserts

-RH   -UR
Roughing

-ML   -MR
Medium Machining

-FF
Finishing

feed rate (mm/rev)

depth of cut (in)

feed rate (in/rev)

depth of cut (mm)

Step 2 • Select the grade

cutting condition		Negative Insert Geometry					Positive Insert Geometry		
		-FF	**-ML**	**-MR**	**-UR**	**-RH**	**-FP**	**-MU**	**-MP**
heavily interrupted cut		WP15CT	WP25CT	WP35CT/WP25CT	WP35CT	WP35CT	WP25CT/WS25PT	WP35CT	WM35CT
lightly interrupted cut		WP15CT	WP25CT	WP25CT	WP35CT	WP35CT	WP25CT	WP25CT	WP25CT
varying depth of cut, casting, or forging skin		WP15CT	WP15CT	WP15CT	WP25CT	WP25CT	WP15CT	WP15CT	WP15CT
smooth cut, pre-turned surface		WP15CT	WP15CT	WP15CT	WP25CT	WP25CT	WP15CT	WP15CT	WP15CT

Step 3 • Selecting the cutting speed

Low-Carbon (<0.3% C) and Free-Machining Steel — speed — m/min — Starting Conditions

material group	grade	135	180	225	275	320	360	410	455	495	m/min
P0/P1	WP15CT										395
	WP25CT										275
	WP35CT										210
	WS10PT										280

WIDIA Material Group Selection Guide:

To optimise speed recommendations, material subgroups have been added to each of the six workpiece material groups.

material	material group ISO code	number of material subgroups
steel	**P**	1–6
stainless steel	**M**	1–3
cast iron	**K**	1–3
non-ferrous materials	**N**	1–8
high-temp alloys	**S**	1–4
hardened materials	**H**	1

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