

Feeds and Speeds

Recommended Cutting Data for J-type Front Turning Inserts							
Material	Hardness HB	Feed Rate Inch/Rev		SFM Uncoated		SFM Coated	
		min	max	min	max	min	max
Carbon steel	150	0.0039	0.0087	528	891	660	1155
	250	0.0031	0.0067	396	726	495	908
	350	0.0028	0.0055	231	462	330	660
Alloy steel	200	0.0031	0.0079	363	627	495	908
	300	0.0028	0.0063	231	462	330	660
	400	0.0024	0.0059	165	330	231	462
Stainless steel	150	0.0031	0.0079	363	627	495	908
	250	0.0028	0.0063	231	462	330	660
	350	0.0024	0.0059	165	330	231	462
High temperature alloy	200	0.0020	0.0047	132	363	165	429
	300	0.0020	0.0047	83	297	99	363
	400	0.0020	0.0047	66	215	83	264
Brass	<110	0.0039	0.0138	990	2310	1320	3300
	>110	0.0031	0.0110	825	1650	990	2310
Copper	<100	0.0039	0.0138	825	1650	990	2310
	>100	0.0031	0.0110	577.5	1155	825	1650
Aluminum	<100	0.0039	0.0079	990	2310	1320	3300
	>100	0.0031	0.0079	825	1650	990	2310

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Recommended Cutting Data for K-type Radial Turning Inserts							
Material	Hardness HB	Feed Rate Inch/Rev		SFM Uncoated		SFM Coated	
		min	max	min	max	min	max
Carbon steel	150	0.0028	0.0059	429	759	528	891
	250	0.0020	0.0047	330	627	396	726
	350	0.0016	0.0039	198	396	231	462
Alloy steel	200	0.0020	0.0047	297	528	363	627
	300	0.0016	0.0039	198	396	231	462
	400	0.0012	0.0031	132	264	165	330
Stainless steel		0.0000	0.0000	0	0	0	0
	150	0.0020	0.0047	297	528	363	627
	250	0.0016	0.0039	198	396	231	462
High temperature alloy	350	0.0012	0.0031	132	264	165	330
	200	0.0012	0.0035	99	297	132	363
	300	0.0012	0.0035	66	247.5	82.5	297
Brass	400	0.0012	0.0035	49.5	165	66	214.5
	<110	0.0028	0.0098	825	1650	990	2310
	>110	0.0020	0.0079	577.5	1155	825	1650
Copper	<100	0.0028	0.0098	660	1320	825	1650
	>100	0.0020	0.0079	462	924	577.5	1155
Aluminum	<100	0.0028	0.0059	825	1980	990	2310
	>100	0.0024	0.0059	577.5	1320	825	1650

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Recommended Cutting Data for T-type Threading Inserts							
Material	Hardness HB	Feed Rate Inch/Rev		SFM Uncoated		SFM Coated	
		min	max	min	max	min	max
Carbon steel	150	0.0028	0.0059	429	759	429	759
	250	0.0020	0.0047	330	627	330	627
	350	0.0016	0.0039	198	396	198	396
Alloy steel	200	0.0020	0.0047	297	528	297	528
	300	0.0016	0.0039	198	396	198	396
	400	0.0012	0.0031	132	264	132	264
Stainless steel	150	0.0020	0.0047	297	528	297	528
	250	0.0016	0.0039	198	396	198	396
	350	0.0012	0.0031	132	264	132	264
High temperature alloy	200	0.0012	0.0035	99	297	99	297
	300	0.0012	0.0035	66	247.5	66	247.5
	400	0.0012	0.0035	49.5	165	49.5	165
Brass	<110	0.0028	0.0098	825	1650	825	1650
	>110	0.0020	0.0079	577.5	1155	577.5	1155
Copper	<100	0.0028	0.0098	660	1320	660	1320
	>100	0.0020	0.0079	462	924	462	924
Aluminum	<100	0.0028	0.0059	825	1980	825	1980
	>100	0.0024	0.0059	577.5	1320	577.5	1320

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Recommended Cutting Data for C-type WhizIn Boring Bars							
Turning, Copy Turning, Back turning etc.							
Material	Hardness HB	Feed Rate Inch/Rev		SFM Uncoated		SFM Coated	
		min	max	min	max	min	max
Carbon steel	150	0.0039	0.0087	528	891	660	1155
	250	0.0031	0.0067	396	726	495	907.5
	350	0.0028	0.0055	231	462	330	660
Alloy steel	200	0.0031	0.0079	363	627	495	907.5
	300	0.0028	0.0063	231	462	330	660
	400	0.0024	0.0059	165	330	231	462
Stainless steel	150	0.0031	0.0079	363	627	495	907.5
	250	0.0028	0.0063	231	462	330	660
	350	0.0024	0.0059	165	330	231	462
High temperatur	200	0.0020	0.0047	132	363	165	429
	300	0.0020	0.0047	82.5	297	99	363
	400	0.0020	0.0047	66	214.5	82.5	264
Brass	<110	0.0039	0.0138	990	2310	1320	3300
	>110	0.0031	0.0110	825	1650	990	2310
Copper	<100	0.0039	0.0138	825	1650	990	2310
	>100	0.0031	0.0110	577.5	1155	825	1650
Aluminum	<100	0.0039	0.0079	990	2310	1320	3300
	>100	0.0031	0.0079	825	1650	990	2310

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Recommended Cutting Data for C-type WhizIn Boring Bars							
Grooving Threading Etc.							
Material	Hardness HB	Feed Rate Inch/Rev		SFM Uncoated		SFM Coated	
		min	max	min	max	min	max
Carbon steel	150	0.0028	0.0059	429	759	528	891
	250	0.0020	0.0047	330	627	396	726
	350	0.0016	0.0039	198	396	231	462
Alloy steel	200	0.0020	0.0047	297	528	363	627
	300	0.0016	0.0039	198	396	231	462
	400	0.0012	0.0031	132	264	165	330
Stainless steel	150	0.0020	0.0047	297	528	363	627
	250	0.0016	0.0039	198	396	231	462
	350	0.0012	0.0031	132	264	165	330
High temperature alloy	200	0.0012	0.0035	99	297	132	363
	300	0.0012	0.0035	66	247.5	82.5	297
	400	0.0012	0.0035	49.5	165	66	214.5
Brass	<110	0.0028	0.0098	825	1650	990	2310
	>110	0.0020	0.0079	577.5	1155	825	1650
Copper	<100	0.0028	0.0098	660	1320	825	1650
	>100	0.0020	0.0079	462	924	247.5	1155
Aluminum	<100	0.0028	0.0059	825	1980	990	2310
	>100	0.0024	0.0059	577.5	1320	825	1650

* HB Scale is Hultgren Ball Scale and is roughly equivalent to ten time Rockwell C Scale. Ex: A 350 HB would be approximately 35RC.

** Meters per min convert to RPM with formula $RPM = \frac{\text{Meters per min}}{\text{Ø of Work (mm)}} \cdot 3.14/1000$