

NARROW WIDTH SLITTERS

Cutter Series:
TSC

Insert Series:
TIMC, TIPV

Diameter Range:
3.00"-8.00"
40.00-160.00mm

Width Range:
.063"-2.00"
1.60-5.10mm

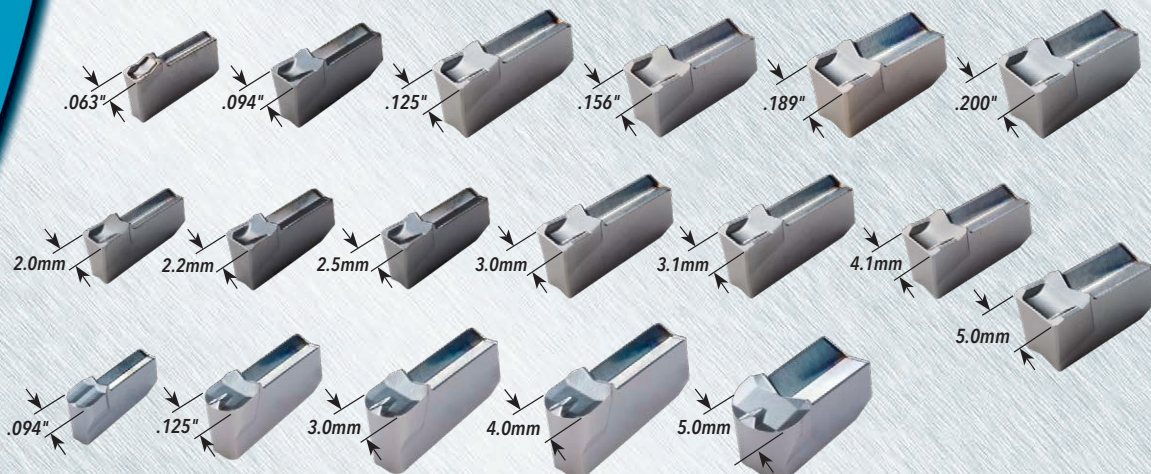
Applications:
Slitting & Sawing

Materials:
Iron, Steel, Stainless Steel,
Hi-Temps, Titanium & Aluminum



General Features:

- Narrow widths starting at .063"
- Simple easy-to-mount inserts...no wedges, clamps or screws
- Secure insert retention
- Self-positioning insert stopper for repeatability and minimal runout
- Positive rake geometry reduces cutting forces
- New modular slitter has coolant through!



Note: Standard insert widths shown. Special widths can be quoted.

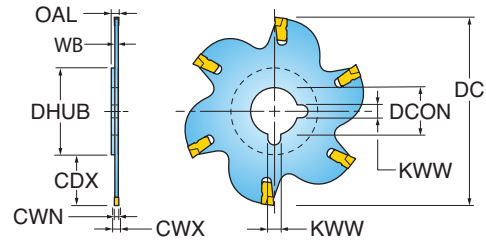


TOCLAMP^{ULTRA}™ SERIES TSC_A

THIN SLITTER (.063"-.094" WIDTH) (1.60-2.50MM WIDTH)



Slotting



INCH

Part Number	DC Cutting Diameter	CWN Cutting Width Min.	CWX Cutting Width Max.	CDX Cutting Depth Max.	ZNP Peripheral Insert Count	WB Body Width	DHUB Hub Diameter	OAL Overall Length	DCON Bore Diameter	KWW Keyway	SSC Insert Seat Size	RPMX RPM Max.
TSC3.0631.000A	3.000	0.063	0.063	0.71	8	.049	1.54	0.10	1.000	0.25	1	1050
TSC3.0871.000A	3.000	0.078	0.100	0.71	8	.063	1.54	0.10	1.000	0.25	2	1050
TSC4.0631.000A	4.000	0.063	0.063	1.21	10	.049	1.54	0.10	1.000	0.25	1	780

METRIC

Part Number	DC Cutting Diameter	CWN Cutting Width Min.	CWX Cutting Width Max.	CDX Cutting Depth Max.	ZNP Peripheral Insert Count	WB Body Width	DHUB Hub Diameter	DCON Bore Diameter	SSC Insert Seat Size	RPMX RPM Max.
TSC751.622A	75.00 mm	1.60 mm	1.60 mm	18.0 mm	8	1.24 mm	39.0 mm	22.00 mm	1	1060
TSC75222A	75.00 mm	2.20 mm	2.50 mm	18.0 mm	8	1.60 mm	39.0 mm	22.00 mm	2	1060
TSC1001.622A	100.00 mm	1.60 mm	1.60 mm	30.0 mm	10	1.24 mm	39.0 mm	22.00 mm	1	800
TSC100222A	100.00 mm	2.20 mm	2.50 mm	30.0 mm	10	1.60 mm	39.0 mm	22.00 mm	2	800
TSC1251.627A	125.00 mm	1.60 mm	1.60 mm	30.0 mm	12	1.24 mm	64.0 mm	27.00 mm	1	640

NOTE: Insert extractor supplied with each cutter. Note maximum RPM ratings. Cutter width is dictated by insert width.

TOCLAMP^{ULTRA}™ HARDWARE - SERIES TSC_A

Part Number



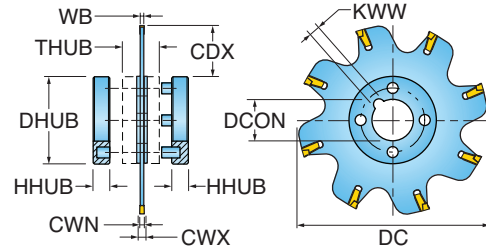
Insert Extractor

TSC_A

DR-0032

NOTE: Refer to website for a list of all compatible tool holders.

THIN SLITTER (2.20-2.50MM WIDTH)



METRIC

Part Number	DC Cutting Diameter	CWN Cutting Width Min.	CWX Cutting Width Max.	CDX Cutting Depth Max.	ZNP Peripheral Insert Count	WB Body Width	DHUB Hub Diameter	HHUB Hub Height	THUB Hub Thickness	DCON Bore Diameter	SSC Insert Seat Size	RPMX RPM Max.
TSC1002.422K	100.00 mm	2.20 mm	2.50 mm	27.0 mm	10	1.90 mm	46.0 mm	10.00 mm	22.40 mm	22.00 mm	2	800
TSC1252.432K	125.00 mm	2.20 mm	2.50 mm	35.0 mm	12	1.90 mm	55.0 mm	10.00 mm	22.40 mm	32.00 mm	2	640
TSC1602.432K	160.00 mm	2.20 mm	2.50 mm	52.5 mm	16	1.90 mm	55.0 mm	12.00 mm	26.40 mm	32.00 mm	2	500

NOTE: Insert extractor supplied with each cutter. Hub-set ordered seperately. Note maximum RPM ratings. Cutter width is dictated by insert width.

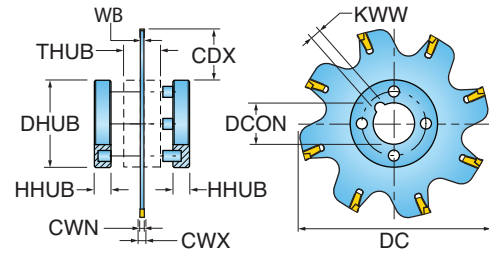
Part Number			
TSC1002.422K	DR-0032	FL-0005	
TSC1252.432K	DR-0032	FL-0006	
TSC1602.432K	DR-0032	FL-0006	

NOTE: Refer to website for a list of all compatible tool holders.

THIN SLITTER (.110"-.216" WIDTH) (2.80-5.10MM WIDTH)



Slotting



INCH

Part Number	DC Cutting Diameter	CWN Cutting Width Min.	CWX Cutting Width Max.	CDX Cutting Depth Max.	ZNP Peripheral Insert Count	WB Body Width	DHUB Hub Diameter	HHUB Hub Height	THUB Hub Thickness	DCON Bore Diameter	KWW Keyway	SSC Insert Seat Size	RPMX RPM Max.
TSC4.1221.000K	4.000	0.110	0.161	1.08	6	.094	1.81	0.390	0.874	1.000	0.25	4	780
TSC4.1881.000K	4.000	0.179	0.216	1.08	6	.157	1.81	0.390	0.937	1.000	0.25	4	780
TSC5.1221.250K	5.000	0.110	0.161	1.40	8	.094	2.17	0.390	0.874	1.250	0.31	4	630
TSC5.1881.250K	5.000	0.179	0.216	1.40	8	.157	2.17	0.390	0.937	1.250	0.31	4	630
TSC6.1221.500K	6.000	0.110	0.161	1.41	10	.094	3.15	0.470	1.034	1.500	0.38	4	520
TSC6.1881.500K	6.000	0.179	0.216	1.41	10	.157	3.15	0.470	1.097	1.500	0.38	4	520
TSC8.1221.500K	8.000	0.110	0.161	2.41	14	.094	3.15	0.470	1.034	1.500	0.38	4	390
TSC8.1881.500K	8.000	0.179	0.216	2.41	14	.157	3.15	0.470	1.097	1.500	0.38	4	390

METRIC

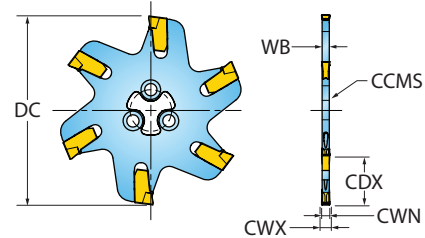
Part Number	DC Cutting Diameter	CWN Cutting Width Min.	CWX Cutting Width Max.	CDX Cutting Depth Max.	ZNP Peripheral Insert Count	WB Body Width	DHUB Hub Diameter	HHUB Hub Height	THUB Hub Thickness	DCON Bore Diameter	SSC Insert Seat Size	RPMX RPM Max.
TSC100322K	100.00 mm	2.80 mm	3.53 mm	26.0 mm	6	2.40 mm	46.0 mm	10.00 mm	23.10 mm	22.00 mm	4	800
TSC100422K	100.00 mm	3.54 mm	5.10 mm	27.0 mm	6	3.20 mm	46.0 mm	10.00 mm	24.10 mm	22.00 mm	4	800
TSC125332K	125.00 mm	2.80 mm	3.53 mm	34.0 mm	8	2.40 mm	55.0 mm	10.00 mm	23.10 mm	32.00 mm	4	640
TSC125432K	125.00 mm	3.54 mm	5.10 mm	34.0 mm	8	3.20 mm	55.0 mm	10.00 mm	24.10 mm	32.00 mm	4	640
TSC160340K	160.00 mm	2.80 mm	3.53 mm	39.0 mm	10	2.40 mm	81.0 mm	12.00 mm	27.10 mm	40.00 mm	4	500
TSC160440K	160.00 mm	3.54 mm	5.10 mm	39.0 mm	10	3.20 mm	81.0 mm	12.00 mm	28.10 mm	40.00 mm	4	500

NOTE: Insert extractor supplied with each cutter. Hub-set ordered separately. Note maximum RPM ratings. Cutter width is dictated by insert width.

Part Number			
	Insert Extractor	Hub Set	
TSC4.1221.000K	DR-0032	FL-0002	
TSC4.1881.000K	DR-0031	FL-0002	
TSC5.1221.250K	DR-0032	FL-0003	
TSC5.1881.250K	DR-0031	FL-0003	
TSC6.1221.500K	DR-0032	FL-0004	
TSC6.1881.500K	DR-0031	FL-0004	
TSC6.2361.500K	DR-0031	FL-0004	
TSC8.1221.500K	DR-0032	FL-0004	
TSC8.1881.500K	DR-0031	FL-0004	
TSC8.2361.500K	DR-0031	FL-0004	
TSC10.2361.500K	DR-0031	FL-0004	
TSC100322K	DR-0031	FL-0005	
TSC100422K	DR-0031	FL-0005	
TSC125332K	DR-0031	FL-0006	
TSC125432K	DR-0031	FL-0006	
TSC160340K	DR-0031	FL-0007	
TSC160440K	DR-0031	FL-0007	

NOTE: Refer to website for a list of all compatible tool holders.

THIN SLITTER (1.60-3.00MM WIDTH)



METRIC

Part Number	DC Cutting Diameter	CWN Cutting Width Min.	CWX Cutting Width Max.	CDX Cutting Depth Max.	ZNP Peripheral Insert Count	WB Body Width	CCMS Connection Code Machine Side	DHUB Hub Diameter	SSC Insert Seat Size	RPMX RPM Max.
TSC401.6PAR00	40.00 mm	1.60 mm	1.60 mm	10.0 mm	5	1.40 mm	TriLink PA14	20.0 mm	1	1990
TSC402.4PAR00	40.00 mm	2.20 mm	2.50 mm	10.0 mm	5	1.90 mm	TriLink PA19	20.0 mm	2	1990
TSC501.6PAR00	50.00 mm	1.60 mm	1.60 mm	15.0 mm	6	1.40 mm	TriLink PA14	20.0 mm	1	1590
TSC502.4PAR00	50.00 mm	2.20 mm	2.50 mm	15.0 mm	6	1.90 mm	TriLink PA19	20.0 mm	2	1590
TSC503PAR00	50.00 mm	2.80 mm	3.00 mm	15.0 mm	5	2.40 mm	TriLink PA24	20.0 mm	4	1590
TSC631.6PAR00	63.00 mm	1.60 mm	1.60 mm	21.5 mm	7	1.40 mm	TriLink PA14	20.0 mm	1	1260
TSC632.4PAR00	63.00 mm	2.20 mm	2.50 mm	21.5 mm	7	1.90 mm	TriLink PA19	20.0 mm	2	1260
TSC633PAR00	63.00 mm	2.80 mm	3.00 mm	21.5 mm	6	2.40 mm	TriLink PA24	20.0 mm	4	1260

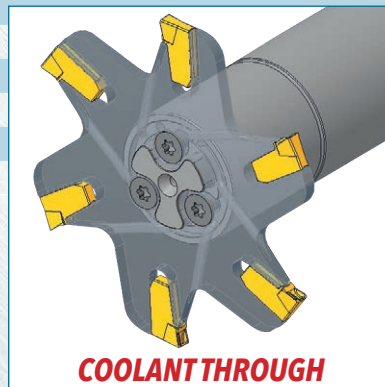
NOTE: Insert extractor supplied with each cutter. Hub-set ordered separately. Note maximum RPM ratings. Cutter width is dictated by insert width.

Part Number



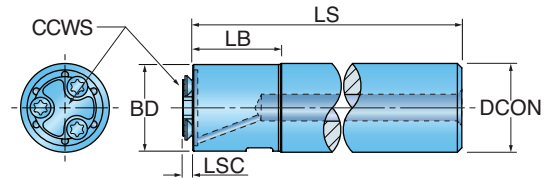
Insert Extractor

TSC401.6PAR00	DR-0032	
TSC402.4PAR00	DR-0032	
TSC501.6PAR00	DR-0032	
TSC502.4PAR00	DR-0032	
TSC503PAR00	DR-0031	
TSC631.6PAR00	DR-0032	
TSC632.4PAR00	DR-0032	
TSC633PAR00	DR-0031	



TOOL HOLDERS SERIES S*PA*SA

STEEL TRILINK CYLINDRICAL SHANKS



INCH

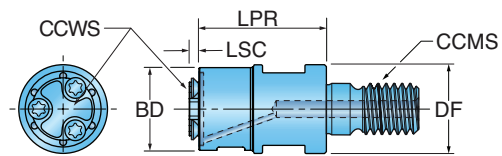
Part Number	DCON Shank Diameter	CCWS Connection Code Workpiece Side	LSC Clamping Length	LB Body Length	LS Shank Length	BD Body Diameter	CNSC Coolant Entry Style Code	CXSC Coolant Exit Style Code
S075PA14SA100	0.750	TriLink PA14	1.40 mm	20.00 mm	101.40 mm	19.50 mm	1	3
S075PA19SA100	0.750	TriLink PA19	1.90 mm	20.00 mm	101.90 mm	19.50 mm	1	3
S075PA24SA100	0.750	TriLink PA24	2.40 mm	20.00 mm	102.40 mm	19.50 mm	1	3

METRIC

Part Number	DCON Shank Diameter	CCWS Connection Code Workpiece Side	LSC Clamping Length	LB Body Length	LS Shank Length	BD Body Diameter	CNSC Coolant Entry Style Code	CXSC Coolant Exit Style Code
S20PA14SA100	20.00 mm	TriLink PA14	1.40 mm	20.00 mm	101.40 mm	19.50 mm	1	3
S20PA19SA100	20.00 mm	TriLink PA19	1.90 mm	20.00 mm	101.90 mm	19.50 mm	1	3
S20PA24SA100	20.00 mm	TriLink PA24	2.40 mm	20.00 mm	102.40 mm	19.50 mm	1	3

TOOL HOLDERS SERIES MOD*PA*SA

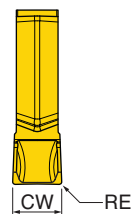
STEEL TRILINK MODULAR TOPON ADAPTER



METRIC

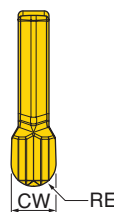
Part Number	CCMS Connection Code Machine Side	CCWS Connection Code Workpiece Side	LSC Clamping Length	LPR Protruding Length	BD Body Diameter	DF Flange Diameter	CNSC Coolant Entry Style Code	CXSC Coolant Exit Style Code
MOD12PA14SA030	TopOn M12	TriLink PA14	1.40 mm	30.0 mm	19.50 mm	21.00 mm	1	3
MOD12PA19SA030	TopOn M12	TriLink PA19	1.90 mm	30.0 mm	19.50 mm	21.00 mm	1	3
MOD12PA24SA030	TopOn M12	TriLink PA24	2.40 mm	30.0 mm	19.50 mm	21.00 mm	1	3

TOCLAMP^{ULTRA}™ TIMC - SQUARE UTILITY INSERTS



Part Number	Application	RE Corner Radius	CW Cutting Width	SSC Insert Seat Size	NOI Number of Indexes	IH Insert Hand	Grade	K10	TT5100	TT6030	TT7220	TT8020	TT9030
TIMC1.6	0.063 +/- .004" Width - Neutral Geometry	0.006	0.063	1	1	Neutral		•		•	•	•	•
TIMC2	0.087 +/- .004" Width - Neutral Geometry	0.008	0.087	2	1	Neutral		•	•	•		•	•
TIMC2.4	0.094 +/- .004" Width - Neutral Geometry	0.008	0.094	2	1	Neutral		•		•	•	•	•
TIMC3	0.122 +/- .004" Width - Neutral Geometry	0.008	0.122	4	1	Neutral		•	•	•	•	•	•
TIMC4	0.161 +/- .004" Width - Neutral Geometry	0.01	0.161	4	1	Neutral		•	•	•	•	•	•
TIMC4.8	0.189 +/- .004" Width - Neutral Geometry	0.011	0.189	4	1	Neutral		•	•	•		•	
TIMC5	0.200 +/- .004" Width - Neutral Geometry	0.012	0.200	4	1	Neutral		•				•	

TOCLAMP^{ULTRA}™ TIPV - FULL RADIUS PRECISION INSERTS

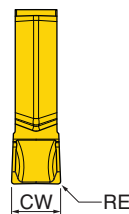


INCH

Part Number	Application	RE Corner Radius	CW Cutting Width	SSC Insert Seat Size	NOI Number of Indexes	IH Insert Hand	Grade	TT8020
TIPV.094.047	0.094 +/- .0008" Width - Neutral Geometry	0.047	0.094	2	1	Neutral		•
TIPV.125.062	0.125 +/- .0008" Width - Neutral Geometry	0.062	0.125	4	1	Neutral		•

METRIC

Part Number	Application	RE Corner Radius	CW Cutting Width	SSC Insert Seat Size	NOI Number of Indexes	IH Insert Hand	Grade	K10	TT5100	TT6030
TIPV3.00E1.50	3.00 +/- 0.02mm Width - Neutral Geometry	1.50 mm	3.00 mm	4	1	Neutral		•	•	•
TIPV4.00E2.00	4.00 +/- 0.02mm Width - Neutral Geometry	2.00 mm	4.00 mm	4	1	Neutral		•	•	•
TIPV5.00E2.50	5.00 +/- 0.02mm Width - Neutral Geometry	2.50 mm	5.00 mm	4	1	Neutral		•	•	•



INCH

Part Number	Application	RE Corner Radius	CW Cutting Width	SSC Insert Seat Size	NOI Number of Indexes	IH Insert Hand	Grade	K10	TT5100	TT6030	TT8020
TIPV.078.007	0.078 +/-0.0008" Width - Neutral Geometry	0.007	0.078	2	1	Neutral		•	•	•	
TIPV.094.007	0.094 +/-0.0008" Width - Neutral Geometry	0.007	0.094	2	1	Neutral		•	•	•	
TIPV.097.013	0.097 +/-0.0008" Width - Neutral Geometry	0.013	0.097	2	1	Neutral		•	•	•	
TIPV.125.007	0.125 +/-0.0008" Width - Neutral Geometry	0.007	0.125	4	1	Neutral		•	•	•	
TIPV.156.007	0.156 +/-0.0008" Width - Neutral Geometry	0.007	0.156	4	1	Neutral		•	•	•	
TIPV.189.022	0.189 +/-0.0008" Width - Neutral Geometry	0.022	0.189	4	1	Neutral			•	•	

METRIC

Part Number	Application	RE Corner Radius	CW Cutting Width	SSC Insert Seat Size	NOI Number of Indexes	IH Insert Hand	Grade	K10	TT5100	TT6030	TT8020
TIPV2.000.20	2.00 +/-0.02mm Width - Neutral Geometry	0.20 mm	2.00 mm	2	1	Neutral		•	•	•	
TIPV3.000.20	3.00 +/-0.02mm Width - Neutral Geometry	0.20 mm	3.00 mm	4	1	Neutral		•	•	•	
TIPV3.00E0.40	3.00 +/-0.02mm Width - Neutral Geometry	0.40 mm	3.00 mm	4	1	Neutral		•	•	•	
TIPV4.000.20	4.00 +/-0.02mm Width - Neutral Geometry	0.20 mm	4.00 mm	4	1	Neutral		•	•	•	
TIPV4.00E0.40	4.00 +/-0.02mm Width - Neutral Geometry	0.40 mm	4.00 mm	4	1	Neutral		•	•	•	•
TIPV5.00E0.40	5.00 +/-0.02mm Width - Neutral Geometry	0.40 mm	5.00 mm	4	1	Neutral		•	•	•	
TIPV5.150.15	5.00 +/-0.02mm Width - Neutral Geometry	0.15 mm	5.15 mm	4	1	Neutral		•	•	•	

Insert Loading Procedure

1. Be sure insert pockets are free of dirt prior to assembly.
2. Manually place insert into seat and tap into position using a plastic hammer.



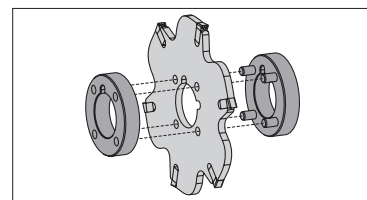
Insert Removal Procedure

1. To remove inserts from the cutter body, first, place insert extractor into space behind the insert.
2. Turn the extractor 90° until the insert is dislodged from the pocket.
3. One extractor is provided with each cutter.

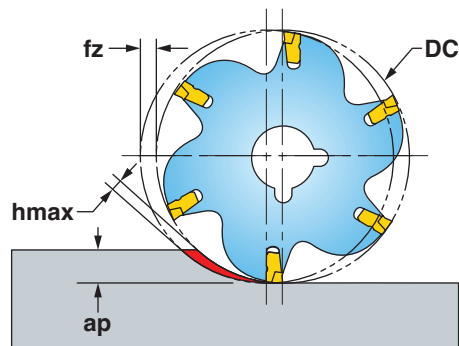


Cutter Mounting

When using drive flange-style cutter bodies, the use of a drive flange set is highly recommended to provide more bearing surface for the drive key. Without the drive flange set, the drive flange key or arbor may be damaged when the cutter is run at high speeds.



Chip Thinning



For radial depths of cut (a_p) less than 1/4 of cutter diameter (DC), increase feed rates by the following %, or use the Chip Thinning Calculator to ensure h_{max} is within the f_z range:

<https://www.imc-i.com/mpwr/Milling/HChipThickness>

Depth of Cut (a_p) x Cutter Dia. (DC)	1/4	1/6	1/8	1/10	1/20
Increase Feed Rate by	0%	15%-	30%	45%	100%

Materials				Vc Cutting Speed (SFM)	fz Feed/Tooth (inch)				Harder <-----> Tougher						Coolant
ISO	Group	Type	Examples		0.063	0.087-0.094	0.122-0.161	0.188-0.250	K10	TT6030	TT7220	TT9030	TT8020	TT5100	
P	1-5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-700	0.002-0.004	0.003-0.006	0.003-0.007	0.003-0.004	-	-	4	3	2	1	No
	6-9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	300-500											
	10-11	High-alloy Steel	H13, A2, D2, M2, T1												
M	12-13	Stainless Steel (ferritic and martensitic)	410, 416, 440	350-550	0.002-0.004	0.003-0.006	0.003-0.006	0.003-0.006	-	-	3	2	1	-	Yes
	14	Stainless Steel (austenitic)	303, 304, 316, 15-5, 17-4	250-500											May not be required at high speeds
K	15-16	Gray Cast Iron	CLS. 20, 30, 45	300-600	0.002-0.004	0.003-0.006	0.003-0.007	0.003-0.006	-	1	-	2	3	-	No
	17-18	Nodular Cast Iron	60-40-18, 100-70-03	250-500											
N	21-30	Aluminum	7075, 6061	700-800	0.002-0.003	0.003-0.007	0.003-0.008	0.002-0.006	1	2	-	-	3	-	Yes
S	31-35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	65-100	0.002-0.003	0.003-0.005	0.003-0.005	0.003-0.005	-	-	-	1	2	-	Yes
	36-37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr	90-130											