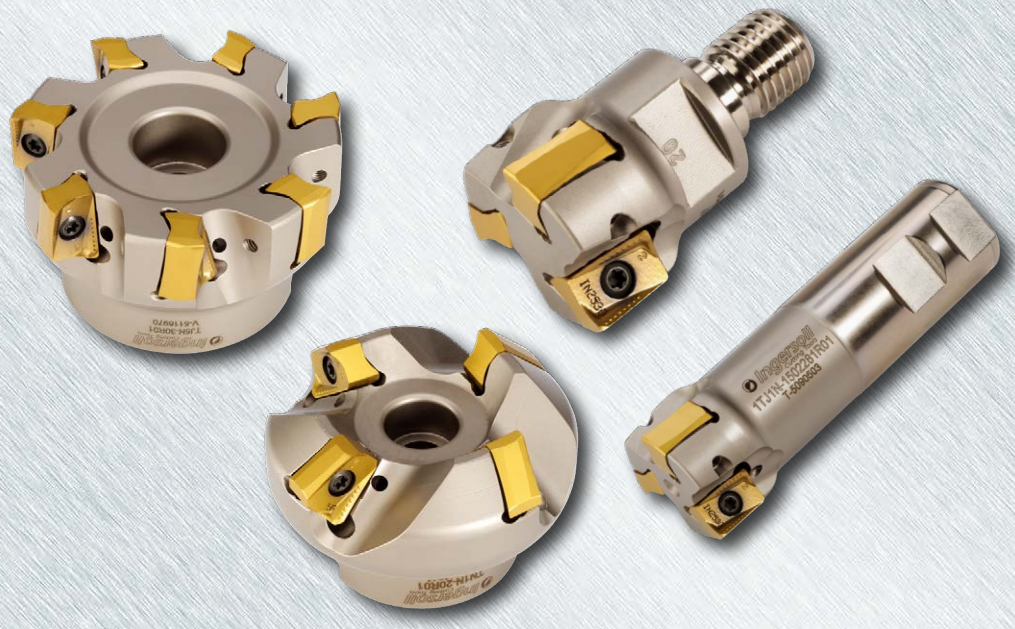
DIPOS·TETRA™

12 & 16



Multi-Purpose | Non-Ferrous | SS/Hi-Temps | Chip Splitters

Diameters:
1.00" - 8.00"

Cutter Series:
1TJ1Q, TJ*Q (12MM)
1TJ1N, TJ*N, TN1N (16MM)

Corner Radii:
.015, .031, .062 & .094R

Lead Angles:
90 & 45

Depth of Cut:
ANHU12 (90): .43
ANHU16 (90): .59
ANHU16 (45): .33

Materials:
Aluminum, Iron, Steel, Stainless Steel, High-Temp Alloys

Double your APKT style geometry from 2 to 4 cutting edges!

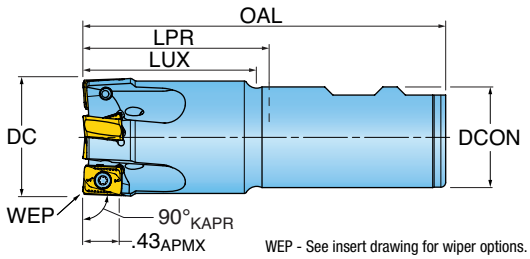
- Two-sided insert adds value by doubling your cutting edges!
- Thick and robust insert adds durability to demanding cutting conditions
- Double-positive geometry benefits machining efficiency and slices stainless steel and high-temp alloys
- Integrated wiper flat produces surface finishes between 32-63Ra
- Coolant through the tool offered

INDUSTRY 4.0 UPDATE PRODUCT ANNOUNCEMENT 2022

Member IMC Group
Ingersoll Cutting Tools

SERIES 1TJ1Q (WELDON STYLE) (12MM)

90° END MILL WITH 4 INDEXES

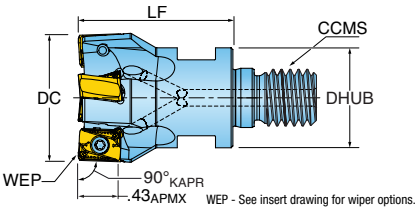


WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	RMPX Ramp Angle Max.
1TJ1Q-1001780R01	1.000	1.55	1.75	4.00	2	1.000	1.4
1TJ1Q-1001784R01	1.000	1.75	1.75	3.75	2	0.750	1.4
1TJ1Q-1003780R01	1.000	3.55	3.75	6.00	2	1.000	1.4
1TJ1Q-1201784R01	1.250	1.75	1.75	3.75	3	0.750	1.0
1TJ1Q-1202281R01	1.250	2.22	2.25	4.50	3	1.250	1.0
1TJ1Q-1204281R01	1.250	4.22	4.25	6.50	3	1.250	1.0
1TJ1Q-1502281R01	1.500	2.25	2.25	4.50	4	1.250	0.7

SERIES 1TJ1Q (TOPON STYLE) (12MM)

90° MODULAR END MILL WITH 4 INDEXES

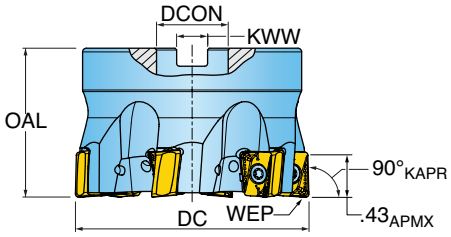


WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Dia.	RMPX Ramp Angle Max.
1TJ1Q-10015X7R01	1.000	1.50	2	TopOn M12	0.81	1.4
1TJ1Q-12017X8R01	1.250	1.75	3	TopOn M16	1.13	1.0
1TJ1Q-15017X8R01	1.500	1.75	4	TopOn M16	1.13	0.7

SERIES TJ5Q, TJ6Q (12MM)

90° FACE MILL WITH 4 INDEXES

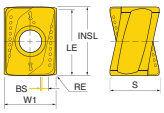


WEP - See insert drawing for wiper options.

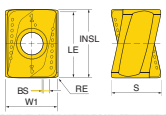
Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	KWW Keyway	RMPX Ramp Angle Max.
TJ5Q-20R01	2.000	1.57	6	0.750	0.312	.6
TJ6Q-20R01	2.000	1.57	3	0.750	0.312	.6
TJ6Q-25R01	2.500	1.57	6	0.750	0.312	.4
TJ5Q-30R01	3.000	1.75	9	1.000	0.375	.3
TJ6Q-30R01	3.000	1.75	7	1.000	0.375	.3
TJ5Q-40R01	4.000	2.38	11	1.500	0.625	.2
TJ6Q-40R01	4.000	2.38	7	1.500	0.625	.2

INSERTS (12MM)

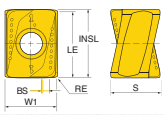
ANHU12



ANHU12_FR



ANHU12_P



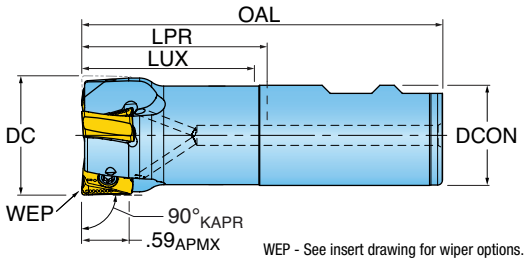
Part Number	Application	RE/BCH Corner Radius/ Chamfer	BS Wiper Length	LE Cutting Edge Length	INSL Insert Length	W1 Insert Width	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade	IN10K	IN2505	IN2510	IN2530	IN2540	IN4030	IN4035
ANHU120604R	Multi-Purpose	0.015 R	0.059	0.430	0.472	0.362	0.338	4	Right			•					
ANHU120608R	Multi-Purpose	0.031 R	0.043	0.430	0.472	0.362	0.338	4	Right			•	•	•	•	•	
ANHU120616R	Multi-Purpose	0.062 R	0.027	0.430	0.472	0.362	0.338	4	Right			•		•			
ANXU120608R	Multi-Purpose	0.031 R	0.043	0.430	0.472	0.362	0.338	4	Right			•		•			
ANHU120608FR	SS/Hi-Temps	0.031 R	0.043	0.430	0.472	0.362	0.338	4	Right								•
ANHU120604FR-P	Non-Ferrous	0.015 R	0.059	0.430	0.472	0.362	0.338	4	Right		•						
ANHU120608FR-P	Non-Ferrous	0.031 R	0.043	0.430	0.472	0.362	0.338	4	Right		•						

HARDWARE (12MM)

	 Insert Screw	 Driver Handle	 Driver Blade	 Retention Bolt	 Optional Coolant Bolt
1TJ1Q	SM35-088-10	DS-A00T	DS-T106B	-	-
TJ5Q-20R01	SM35-088-10	DS-A00T	DS-T106B	SD-06-46	SD-06-89
TJ6Q-20R01	SM35-088-10	DS-A00T	DS-T106B	SD-06-46	SD-06-89
TJ6Q-25R01	SM35-088-10	DS-A00T	DS-T106B	SD-06-46	SD-06-89
TJ5Q-30R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-46	SD-08-92
TJ6Q-30R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-46	SD-08-92
TJ5Q-40R01	SM35-088-10	DS-A00T	DS-T106B	SD-12-82	SD-12-99
TJ6Q-40R01	SM35-088-10	DS-A00T	DS-T106B	SD-12-82	SD-12-99

SERIES 1TJ1N (WELDON STYLE) (16MM)

90° END MILL WITH 4 INDEXES

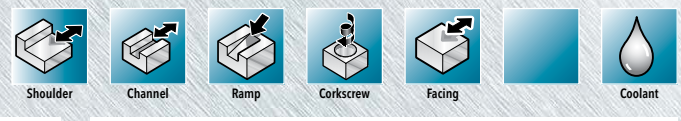


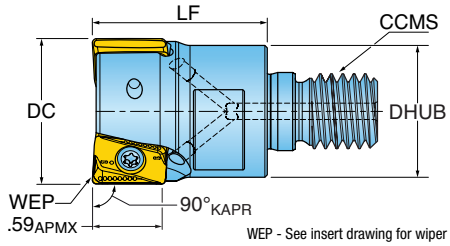
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	RMPX Ramp Angle Max.
1TJ1N-1202281R01	1.250	2.05	2.25	4.50	2	1.250	1.2
1TJ1N-1204281R01	1.250	4.05	4.25	6.50	2	1.250	1.2
1TJ1N-1206281R01	1.250	6.05	6.25	8.50	2	1.250	1.2
1TJ1N-1502281R01	1.500	2.25	2.25	4.50	3	1.250	1.1
1TJ1N-1504281R01	1.500	4.25	4.25	6.50	3	1.250	1.1
1TJ1N-2002281R01	2.000	2.25	2.25	4.50	4	1.250	1.0

SERIES 1TJ1N (TOPON STYLE) (16MM)

90° END MILL WITH 4 INDEXES





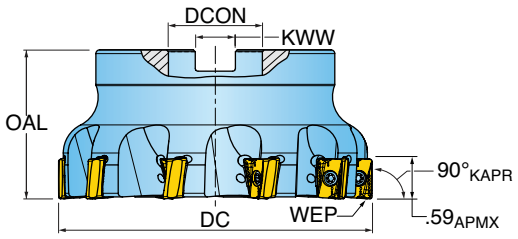
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code	DHUB Hub Dia.	RMPX Ramp Angle Max.
1TJ1N-12015X8R01	1.250	1.50	2	TopOn M16	1.13	1.2
1TJ1N-15015X8R01	1.500	1.50	3	TopOn M16	1.13	1.1

SERIES TJ5N, TJ6N (16MM)

90° FACE MILL WITH 4 INDEXES

Shoulder | Channel | Ramp | Corkscrew | Facing | Pocket | Coolant

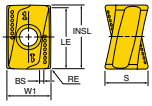


WEP - See insert drawing for wiper options.

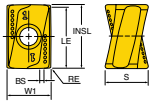
Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	KWW Keyway	DBC Bolt Circle	CSP Coolant	RMPX Ramp Angle Max.
TJ5N-20R01	2.000	1.57	4	0.750	0.312	NA	Yes	1.0
TJ6N-20R01	2.000	1.57	3	0.750	0.312	NA	Yes	1.0
TJ5N-25R01	2.500	1.75	5	1.000	0.375	NA	Yes	.6
TJ5N-30R01	3.000	1.75	7	1.000	0.375	NA	Yes	.5
TJ6N-30R01	3.000	1.75	5	1.000	0.375	NA	Yes	.5
TJ5N-40R01	4.000	2.38	8	1.500	0.625	NA	Yes	.35
TJ6N-40R01	4.000	2.38	5	1.500	0.625	NA	Yes	.35
TJ5N-50R01	5.000	2.38	10	1.500	0.625	NA	Yes	.25
TJ6N-50R01	5.000	2.38	7	1.500	0.625	NA	Yes	.25
TJ5N-60R01	6.000	2.48	11	1.500	0.625	NA	Yes	.15
TJ6N-60R01	6.000	2.48	8	1.500	0.625	NA	Yes	.15
TJ5N-80R01	8.000	2.48	14	2.500	1.000	4.00	No	.05

INSERTS (16MM)

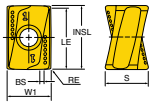
ANHU16



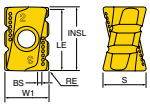
ANHU16_FR



ANHU16_P



ZNHU16



Part Number	Application	RE/BCH Corner Radius/ Chamfer	BS Wiper Length	LE Cutting Edge Length	INSL Insert Length	W1 Insert Width	S Thickness	NOI No. of Indexes	IH Insert Hand	Grade	IN10K	IN2505	IN2510	IN2530	IN2540	IN6515	IN4035	IN4030	IN6537
ANHU160704R	Multi-Purpose	0.015 R	0.067	0.590	0.630	0.433	0.421	4	Right					•					
ANHU160708R	Multi-Purpose	0.031 R	0.055	0.590	0.630	0.433	0.417	4	Right			•	•	•	•	•		•	•
ANHU160716R	Multi-Purpose	0.062 R	0.023	0.590	0.630	0.433	0.413	4	Right			•	•	•	•				
ANHU160724R	Multi-Purpose	0.094 R	-	0.590	0.630	0.433	0.409	4	Right			•							
ANXU160708R	M-P Pressed	0.031 R	0.055	0.590	0.630	0.433	0.425	4	Right			•		•					
ANHU160708FR	SS/Hi-Temps	0.031 R	0.055	0.590	0.630	0.433	0.417	4	Right					•			•		
ANHU160704FR-P	Non-Ferrous	0.015 R	0.051	0.590	0.630	0.433	0.429	4	Right		•								
ANHU160708FR-P	Non-Ferrous	0.031 R	0.051	0.590	0.630	0.433	0.421	4	Right		•								
ZNHU160708R	Chip Splitters	0.031 R	0.055	0.590	0.630	0.433	0.417	4	Right			•		•					

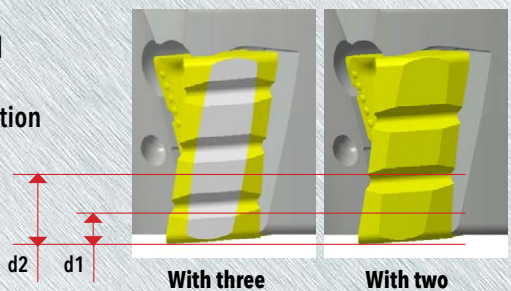
HARDWARE (16MM)

	 Insert Screw	 Driver Handle	 Driver Blade	 Retention Bolt	 Optional Coolant Bolt
1TJ1N	SM40-120-20	DS-A00T	DS-T156B	-	-
TJ5N-20R01	SM40-120-20	DS-A00T	DS-T156B	SD-06-46	SD-06-89
TJ6N-20R01	SM40-120-20	DS-A00T	DS-T156B	SD-06-46	SD-06-89
TJ5N-25R01	SM40-120-20	DS-A00T	DS-T156B	SD-08-46	SD-08-92
TJ5N-30R01	SM40-120-20	DS-A00T	DS-T156B	SD-08-46	SD-08-92
TJ6N-30R01	SM40-120-20	DS-A00T	DS-T156B	SD-08-46	SD-08-92
TJ5N-40R01	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99
TJ6N-40R01	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99
TJ5N-50R01	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99
TJ6N-50R01	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99
TJ5N-60R01	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99
TJ6N-60R01	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99
TJ5N-80R01	SM40-120-20	DS-A00T	DS-T156B	-	-

CHIPSPLITTER INFORMATION (16MM)

CHIPSPLITTER INFORMATION

- Reduces vibration and noise
- Improves chip evacuation (Chips split into small pieces)
- Reduces heat generation
- Suitable for long overhang machining (weak machining and fixture applications)
- Mountable on all standard cutter lines without any modification

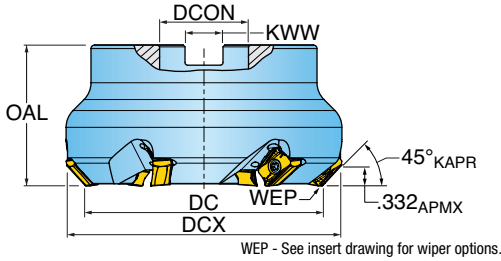


Depth of Cut	ANHU 16
d1	.10"
d2	.23"

SERIES TN1N (16MM)

45° FACE MILL WITH 4 INDEXES

Lead Angle | Chamfer | Facing | Coolant

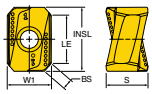


WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	KWW Keyway
TN1N-20R01	2.000	2.75	1.750	4	0.750	0.312
TN1N-30R01	3.000	3.75	1.750	5	1.000	0.375
TN1N-30R02	3.000	3.75	1.750	7	1.000	0.375
TN1N-40R01	4.000	4.75	2.375	6	1.500	0.625
TN1N-40R02	4.000	4.75	2.375	8	1.500	0.625

INSERTS (16MM)

ANHU1607ANR



Part Number	Application	BS Wiper Length	LE Cutting Edge Length	INSL Insert Length	W1 Insert Width	S Thickness (To Cutting Edge)	NOI Number of Indexes	IH Insert Hand	Grade IN2510	IN2530	IN2540
ANHU1607ANR	Multi-Purpose	0.062	0.500	0.630	0.433	0.409	4	Right	•	•	•

HARDWARE (16MM)


Insert Screw


Driver Handle


Driver Blade

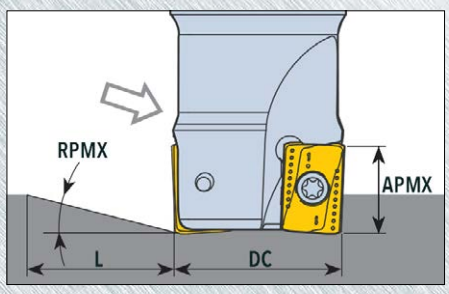

Retention Bolt


Optional Coolant Bolt

TN1N-20R01	SM40-120-20	DS-A00T	DS-T156B	SD-06-46	SD-06-89
TN1N-30R01	SM40-120-20	DS-A00T	DS-T156B	SD-08-46	SD-08-92
TN1N-30R02	SM40-120-20	DS-A00T	DS-T156B	SD-08-46	SD-08-92
TN1N-40R01	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99
TN1N-40R02	SM40-120-20	DS-A00T	DS-T156B	SD-12-82	SD-12-99

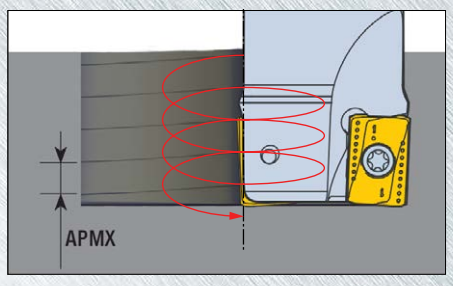
RAMPING DATA (12MM)

STRAIGHT RAMPING - 1TJ1Q, TJ5Q, TJ6Q



DC Cutting Dia.	RMPX Ramping Angle	L	APMX
1.00	1.4	17	0.43
1.25	1.0	25	0.43
1.50	0.7	31	0.43
2.00	0.6	41	0.43
2.50	0.4	62	0.43
3.00	0.3	82	0.43
4.00	0.2	124	0.43

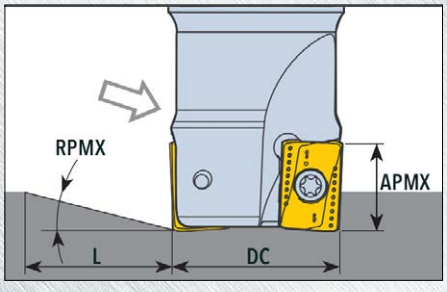
HELICAL RAMPING - 1TJ1Q, TJ5Q, TJ6Q



Cutter Dia. (DC) Using R.031 Insert	MIN. Diameter Milled Hole	MIN. APMX/Rev	MAX. Diameter Milled Hole	MAX. APMX/Rev
1.00	1.25	0.01	2.00	0.06
1.25	1.75	0.02	2.50	0.06
1.50	2.25	0.02	3.00	0.06
2.00	3.25	0.03	4.00	0.05
2.50	4.25	0.03	5.00	0.04
3.00	5.25	0.03	6.00	0.04
4.00	7.25	0.03	8.00	0.04

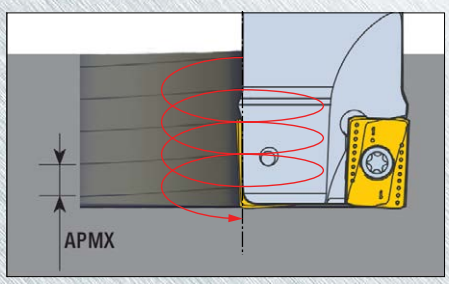
RAMPING DATA (16MM)

STRAIGHT RAMPING - 1TJ1N, TJ5N, TJ6N



DC Cutting Dia.	RMPX Ramping Angle	L	APMX
1.25	1.20	28	0.59
1.50	1.10	31	0.59
2.00	1.00	34	0.59
2.50	0.60	56	0.59
3.00	0.50	68	0.59
4.00	0.35	97	0.59
5.00	0.25	135	0.59
6.00	0.15	226	0.59
8.00	0.05	677	0.59

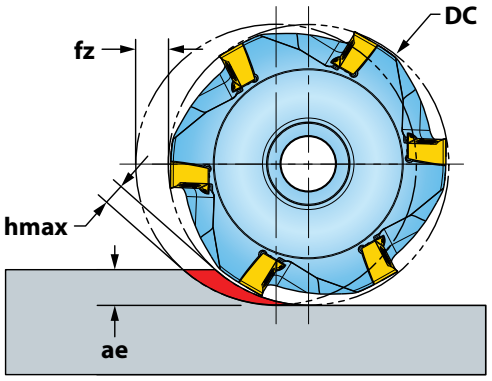
HELICAL RAMPING - 1TJ1N, TJ5N, TJ6N



Cutter Dia. (DC) Using R.031 Insert	MIN. Diameter Milled Hole	MIN. APMX/Rev	MAX. Diameter Milled Hole	MAX. APMX/Rev
1.25	1.75	0.024	2.44	0.071
1.50	2.40	0.039	2.94	0.079
2.00	3.25	0.055	3.94	0.091
2.50	4.25	0.047	4.94	0.071
3.00	5.50	0.055	5.94	0.075
4.00	7.25	0.051	7.94	0.063
5.00	9.10	0.047	9.94	0.059
6.00	11.85	0.039	11.94	0.043
8.00	15.00	0.016	15.94	0.020

OPERATING GUIDELINES: SERIES ITJ1Q, TJ5Q/TJ6Q, 1TJ1N, TJ5N/TJ6N

Chip Thinning



* Chip Thinning Calculator is recommended to ensure hmax is within fz range.

Materials				Vc Cutting Speed SFM	fz* Feed/Tooth (inch)	Harder ..... Tougher								Coolant
ISO	Mat'l Group #VDI 3323	Type	Examples			IN10K	IN2510	IN6515	IN2540	IN2505	IN4030 IN2530 IN2030	IN4035	IN6537	
P	1 thru 5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-1000	.003-.008				4	3	2		1	No
	6 thru 9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-700										
	10, 11	High-alloy Steel	H13, A2, D2, M2, T1	300-600										
M	12 thru 13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	400-700	.003-.008				4	3	1	2		May not be required at high speeds
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4	300-600										
K	15 thru 16	Gray Cast Iron	CLS. 20, 30, 45	500-1000	.003-.008		1	2		3				No
	17 thru 20	Nodular Cast Iron	60-40-18, 100-70-03	400-800	.003-.007		2	1		3				
N	21 - 30	Aluminum	7075, 6061	1000-3000	.003-.009	1								Yes
S	31 thru 35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	75-120	.003-.006					2	3	1		Yes
	36 thru 37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr	100-150	.003-.007					3	2	1		

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.