PRACTICAL EXAMPLES

Workpiece type		Plate	Machine part
Cutter		EPA06R075U0075-03N (ø0.750", z = 3)	EPA10R125U0125W03N (ø1.250", z = 3)
Insert		TOMT060304PDER-MJ	TOMT100404PDER-MJ
	Grade	AH3135	AH3135
Workpiece material		304 *E P S S S S S S S S S S S S S S S S S S	1045 P
	Cutting speed: Vc (sfm)	410	150
ns	Feed per tooth: fz (ipt)	0.003	0.19
conditions	Feed speed: Vf (ipm)	23.6	836
ouc	Depth of cut : ap (in)	0.06	1
	Width of cut : ae (in)	0.354	5
Cutting	Machining	Shoulder milling	Shoulder milling
utt	Coolant	Dry	External air
Machine		CAT40	Turn-Mill center
Machine		23.622	TOTAL WITH COLLEGE
			Conditions Burr Wall surface finish
		9 (E) 15.748 (S) (E) 7.874	TUNG-TRI Small Better
			Competitor Big Worse
	Results	₩ ¥ 7.874	Competitor big Worse
		Uniquely designed cutting edge geometry delivers low cutting force and prevents chattering, resulting in highly efficient machining of steel sheet.	smaller burr and better wall surface finish compared to the competitor.
Workpiece type			
	Workpiece type	Base	Block
	Workpiece type Cutter	Base EPA10R125U0125W03N (ø1.250", z = 3)	Block TPA10R250U0075A06 (ø2.500", z = 6)
			TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ
	Cutter	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135	TPA10R250U0075A06 (Ø2.500", z = 6) TOMT100408PDER-MJ T1215
	Cutter Insert	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ	TPA10R250U0075A06 (Ø2.500", z = 6) TOMT100408PDER-MJ
S	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm)	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03
	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt)	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006
	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt) Feed speed: Vf (ipm)	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004 15.4	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006 35.433
	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt) Feed speed: Vf (ipm) Depth of cut : ap (in)	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004 15.4 0.060	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006 35.433 0.098
condition	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt) Feed speed: Vf (ipm) Depth of cut : ap (in) Width of cut : ae (in)	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004 15.4 0.060 1.00	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006 35.433 0.098 2.146
condition	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt) Feed speed: Vf (ipm) Depth of cut : ap (in) Width of cut : ae (in) Machining	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004 15.4 0.060 1.00 Shoulder milling	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006 35.433 0.098 2.146 Face milling
	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt) Feed speed: Vf (ipm) Depth of cut : ap (in) Width of cut : ae (in) Machining Coolant	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004 15.4 0.060 1.00 Shoulder milling External air	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006 35.433 0.098 2.146 Face milling Dry
condition	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt) Feed speed: Vf (ipm) Depth of cut : ap (in) Width of cut : ae (in) Machining	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004 15.4 0.060 1.00 Shoulder milling External air Vertical M/C	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006 35.433 0.098 2.146 Face milling Dry CAT40
condition	Cutter Insert Grade Workpiece material Cutting speed: Vc (sfm) Feed per tooth: fz (ipt) Feed speed: Vf (ipm) Depth of cut : ap (in) Width of cut : ae (in) Machining Coolant	EPA10R125U0125W03N (ø1.250", z = 3) TOMT100404PDER-MJ AH3135 1050 430 0.004 15.4 0.060 1.00 Shoulder milling External air	TPA10R250U0075A06 (ø2.500", z = 6) TOMT100408PDER-MJ T1215 100-70-03 643 0.006 35.433 0.098 2.146 Face milling Dry