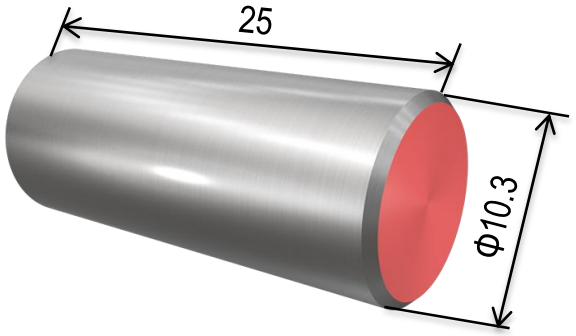
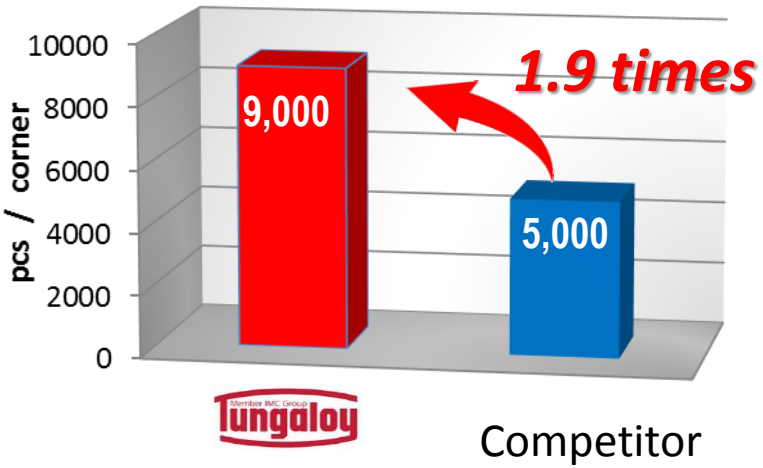
For Miniature application

FT report 1 - Positive

Parting off



		Tungaloy	Competitor
Tool	Tool holder	JSXXL1212X09	
	Insert	JXPG12L15F	2 corner
	Grade	SH725	(Sharp edge) PVD (Ti,Al)N
Cutting conditions	Cutting speed: Vc (m/min)	130	←
	Revolution: N (rev/min)	4,000	←
	Feed : f (mm/rev)	0.03	←
	Tool life (pcs/edge)	9,000	5,000
	Criteria	Finishing surface(wear)	Finishing surface(wear)
	Coolant	Wet	←



Part name	Plunger
Work material	Soft magnetic steel : ELCH2 (for Solenoid valve)
Application	Parting off
Machine	Small lathe

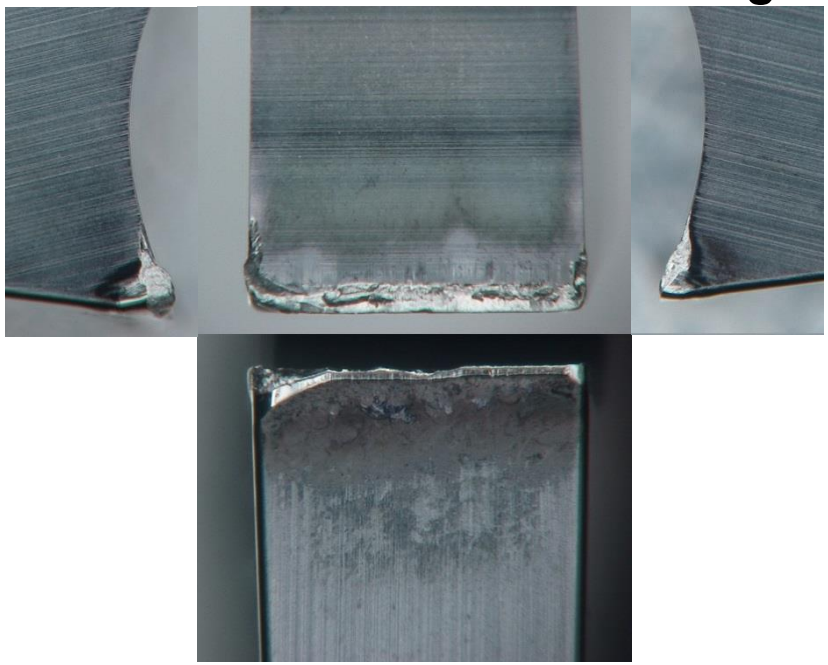
P Steel

DuoJustCut improved tool life without fracture due to high rigidity clamping .

For Miniature application

FT report 1 - Positive

Damage comparison



JXPG12L15F SH725

9,000pcs/corner

5,000pcs/corner

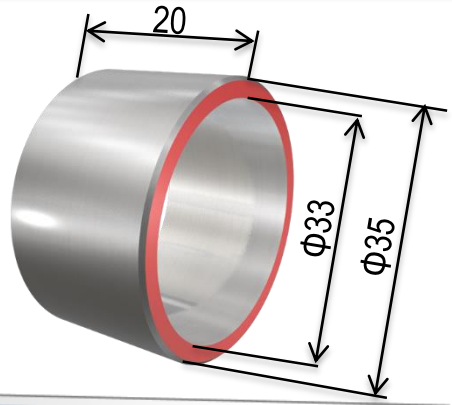
Competitor

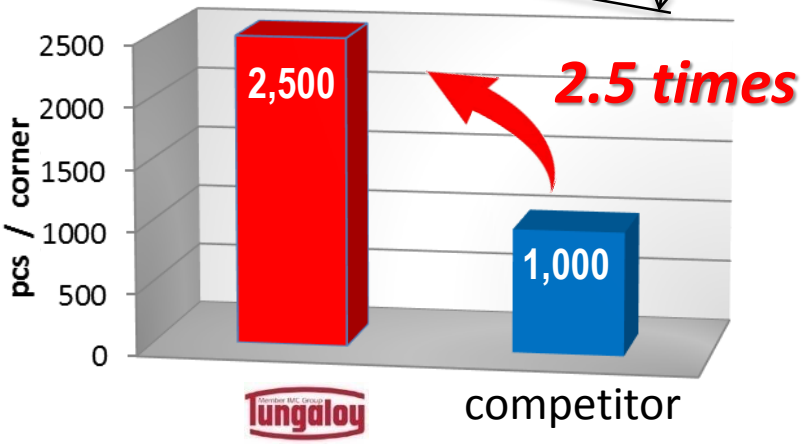
For Miniature application

FT report 2 - Positive

Parting off

		Tungaloy	competitor
Tool	Tool holder	JSXXR083	
	Insert	JXPG12R20F-15	3 corners
	Grade	SH725	P25 CVD
Cutting conditions	Cutting speed: Vc (m/min)	100	←
	Feed : f (mm/rev)	0.02	←
	Tool life (pcs/edge)	2,500	1,000
	Criteria	burr, Finishing surface(wear)	←
	Coolant	Wet	←





Part name	Shock Sleeve
Work material	C45/SAE1045(AISI)
)Application	Parting off
Machine	Small lathe

P Steel

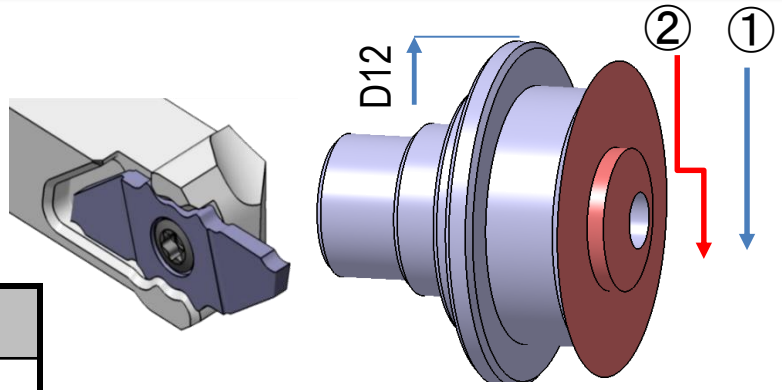
DuoJustCut improved cutting surface and burr.
Tool life was improved due to highly rigid clamping.

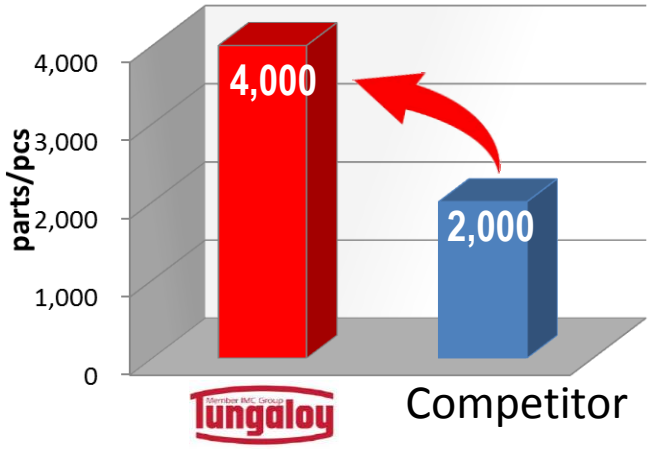
For Miniature application

FT report 3 - Positive

Face Turning & Parting off

		Tungaloy	Competitor
Tool	Tool holder	JSXXL1212X09-S	
	Insert	JXPG16L20F SH725	2 corner
	Grade	SH725	(Sharp edge) PVD (Ti,Al)N
Cutting conditions	Cutting speed: Vc (m/min)	75	←
	Revolution: N (rev/min)	2,000	←
	Feed : f (mm/rev)	0.02	←
	Tool life (pcs/edge)	4,000	2,000
	Criteria	Finishing surface(wear)	Finishing surface(wear)
	Coolant	Wet	←





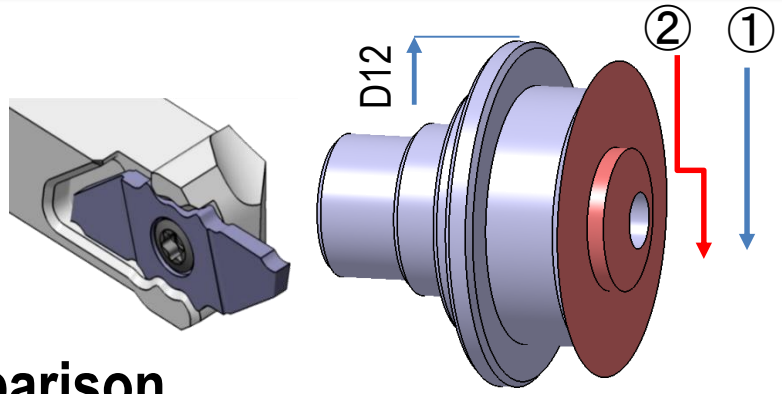
Part name	Oil parts
Work material	ISO:X5CrNi18-9 (JIS : SUS304)
Application	Parting off
Machine	Small lathe

M Stainless Steel

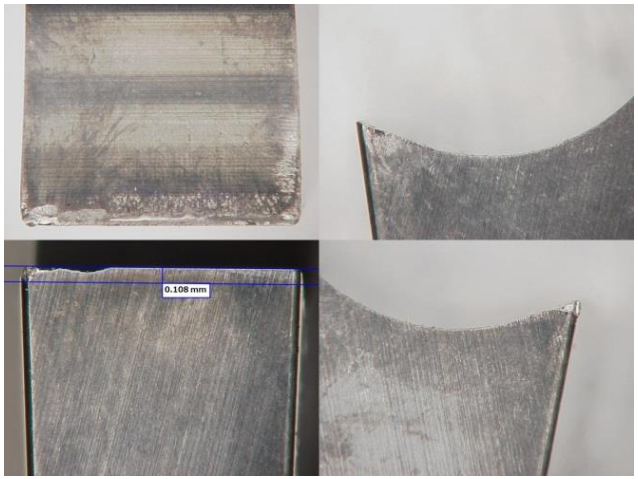
DuoJustCut improved tool life without chipping due to high rigidity clamping .

For Miniature application

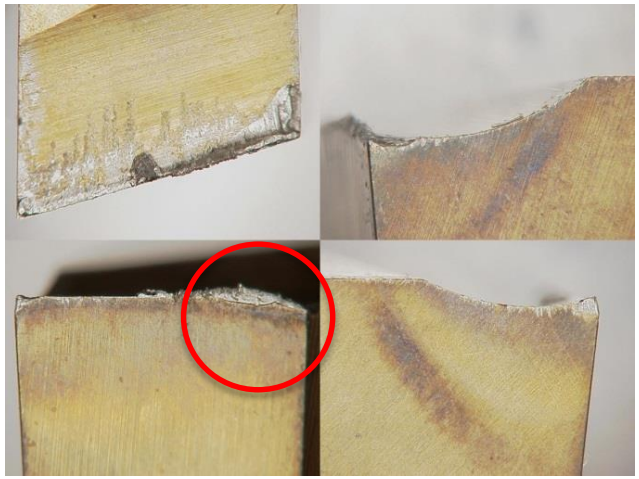
FT report 3 - Positive



Damage comparison



JXPG16L20F SH725
4,000pcs/corner



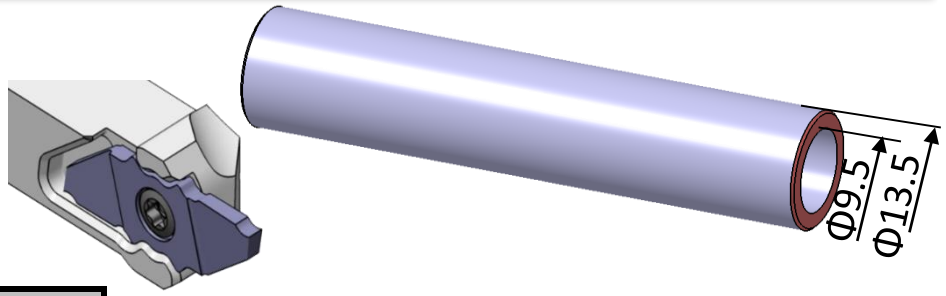
2,000pcs/corner
Competitor

The corners were fractured

For Miniature application

FT report 4 - Positive

Parting off



		Tungaloy	Competitor
Tool	Tool holder	JSXXL1212X09-S	
	Insert	JXPG12L15F	2 corner
	Grade	SH725	P25 PVD (Ti,Al)
Cutting conditions	Cutting speed: Vc (m/min)	120	←
	Revolution: N (rev/min)	3,000	←
	Feed : f (mm/rev)	0.03	←
	Tool life (pcs/edge)	6,000	6,000
	Criteria	Chip control, burr	←
	Coolant	Wet	←

Tungaloy Competitor

Part name	Torque Limiter
Work material	Low carbon alloy:STKM-12C
Application	Parting off
Machine	Small lathe

P Steel

DuoJustCut was able to control short chip shape and reduced burr due to sharp cutting edge