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NEW

SIC-EVO(SSV type)

DIJET INDUSTRIAL CO.,LTD

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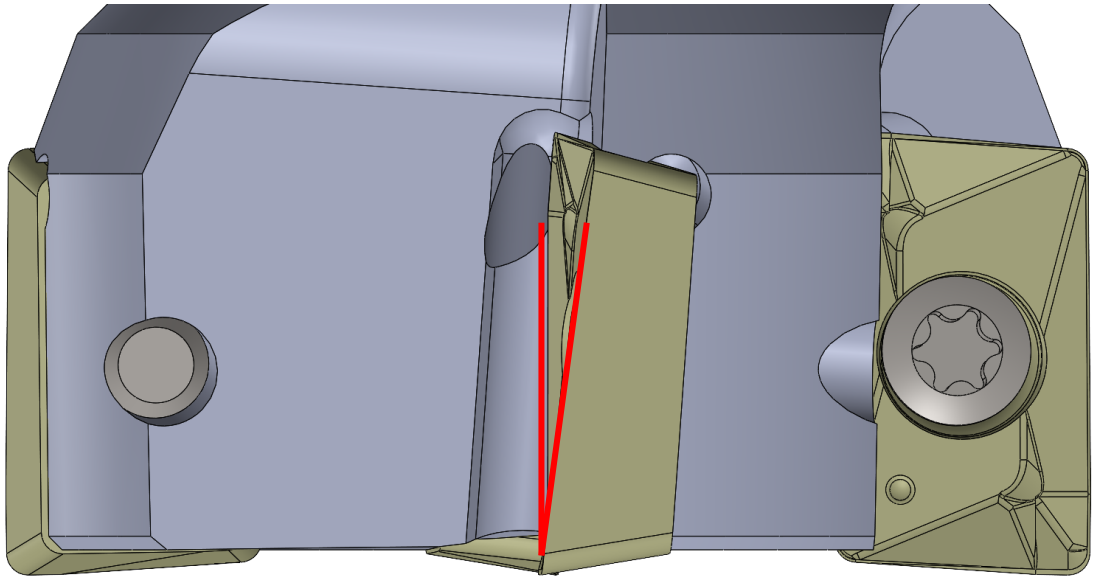
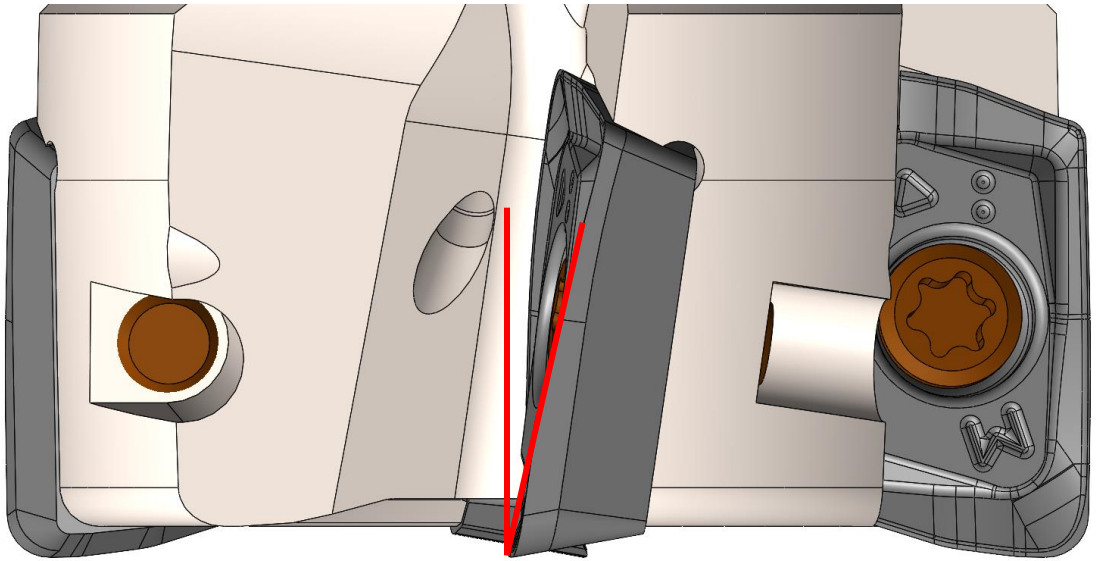
“SIC-EVO” has evolved with increased sharpness compared to conventional SIC!!



SIC



SIC-EVO
Indexable End Mill SSV type

Features of SIC-EVO

Max. Ap 15mm

Apply for ramping and helical interpolation.

Due to **arc-geometry** on the periphery cutting edge, the **cusp height can be smaller** even in case of **large ap**.

Achieves **high efficiency & stable machining** for side wall.

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SIC-EVO

Indexable End Mill SSV type

End mills(SSV type)
φ25-2N～φ50-5N

Face mills（SSV type）
φ40-4N～φ125-8N

Modular type(SSV type)
φ25-2N～φ40-4N

R0.4,R0.8,R1.6,R2.0,R3.0

ZOMT1605**ZER-PM

JC8050/JC8118

LINE UP

Modular/Dia	ϕ25	ϕ28	ϕ30	ϕ32	ϕ35	ϕ40
Number of teeth	2	2	3	3	3	4
Interface	M12	M12	M16	M16	M16	M16

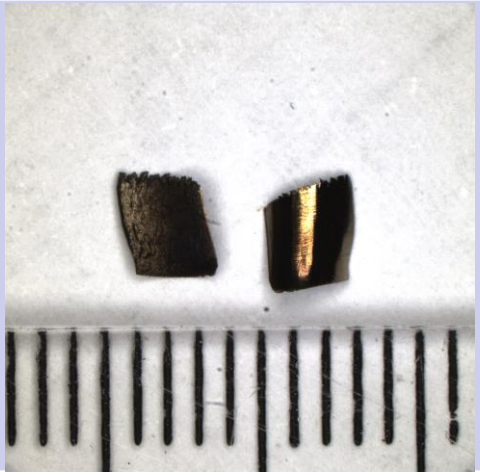
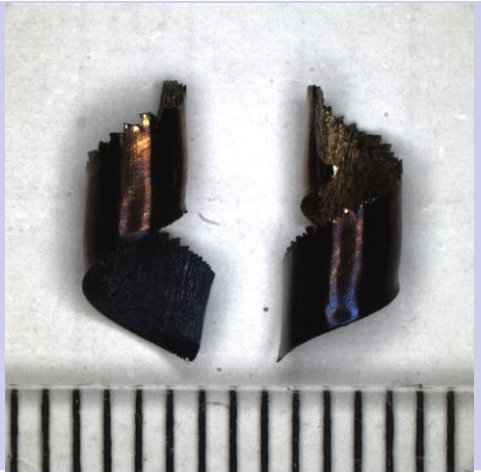
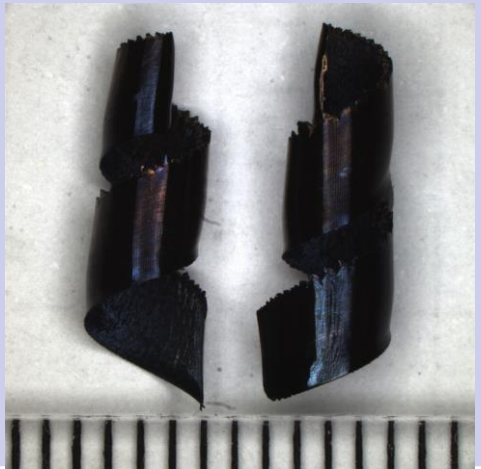
Facemill/Dia	ϕ40	ϕ50	ϕ63	ϕ80	ϕ100	ϕ125
Number of teeth	4	5	6	7	8	8
Interface	ϕ16	ϕ22	Φ22,ϕ27	Φ27,Φ25.4	Φ32,Φ31.75	Φ40,Φ38.1

Endmill/Dia	ϕ25	ϕ30	ϕ32	ϕ40	ϕ50
Number of teeth	2	3	3	4	5
Interface	ϕ25	ϕ32	ϕ32	ϕ32	ϕ32

Insert/Corner R	R0.4,R0.8,R1.6,R2.0,R3.0
Grade	JC8050, JC8118

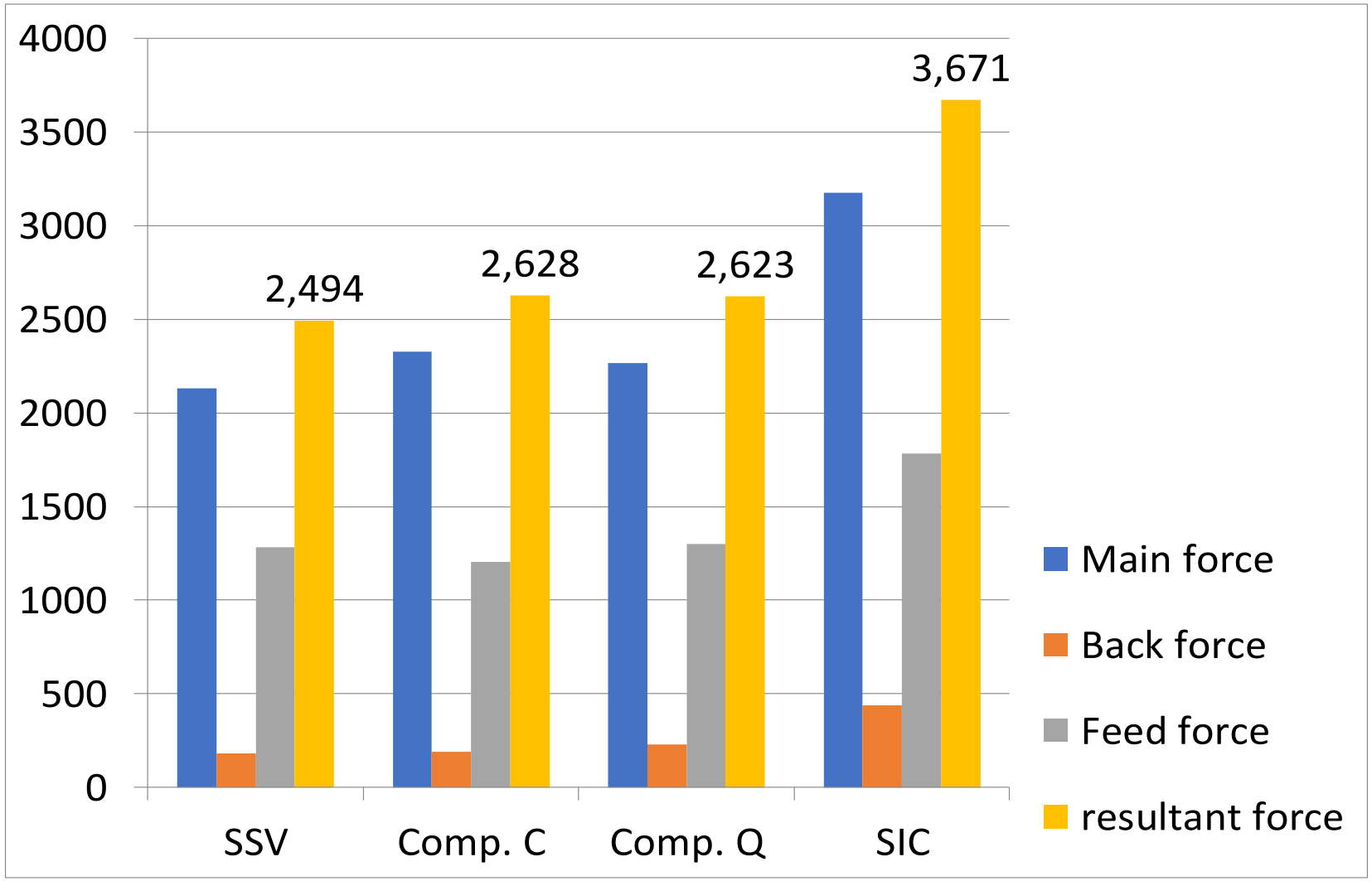
Chip Shapes

Material:C50,1050 Vc=120m/min,fz=0.3mm/t,ap=3mm,1N,L=60mm,Tool Dia=Φ25mm

ae=2mm	ae=4mm	ae=6mm
		
ae=10mm	**ae=16mm**	**ae=25mm**
		

Cutting force comparison

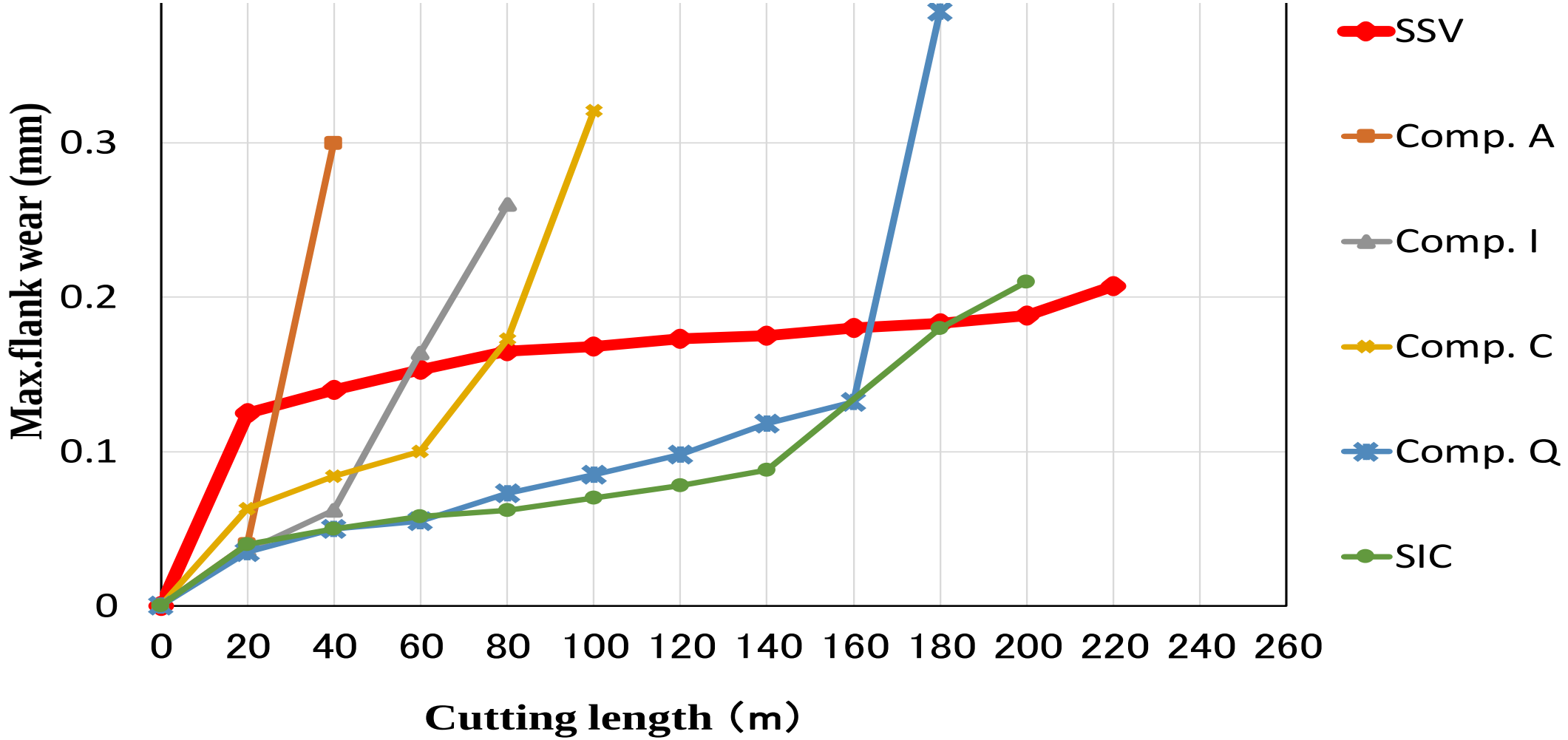
Material:C50,1050 Vc=200m/min,fz=0.1mm/t,ap=15mm,ae=1mm
1N,L=60mm,Tool Dia=Φ25mm



The ratio of the resultant force of each tool when the resultant force of the SIC is 100	
SSV	68%
Comp. C	72%
Comp. Q	71%
SIC	100%

Tool life comparison

Material:P20,1.2311 Vc=150m/min,ap=14mm,ae=1mm,fz=0.3mm/t,1N,L=60mm,Tool Dia=Φ25mm



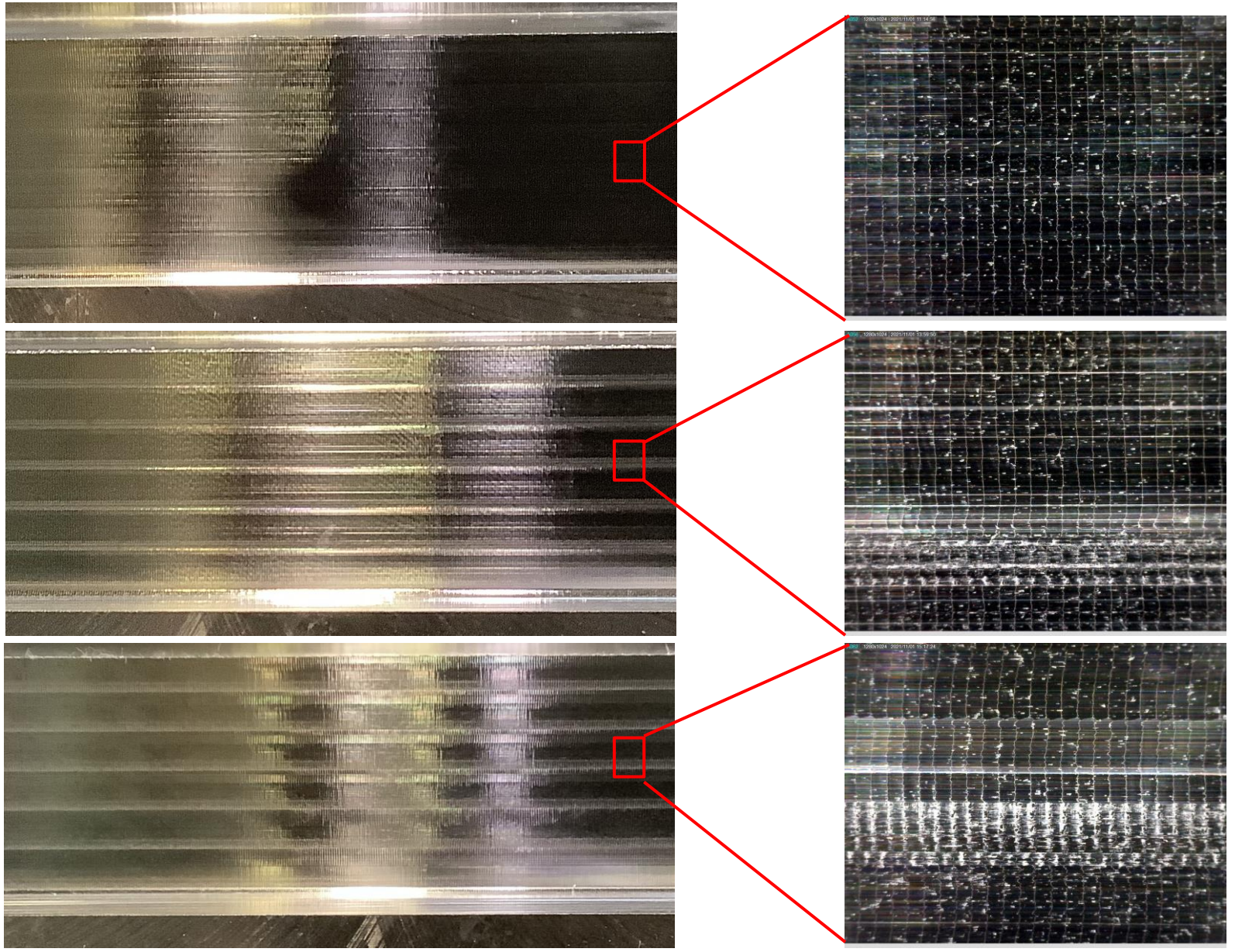
Damaged condition of inserts

	40m	80m	100m	180m
SSV				
Comp. A				
Comp. I				
Comp. C				
Comp. Q				
SIC				

Machined Surface condition(Side wall)

Material:P20,1.2311
Vc=150m/min
ap=5mmx6
ae=2mm
fz=0.15mm/t
2N,L=60mm
Tool Dia=Φ25mm

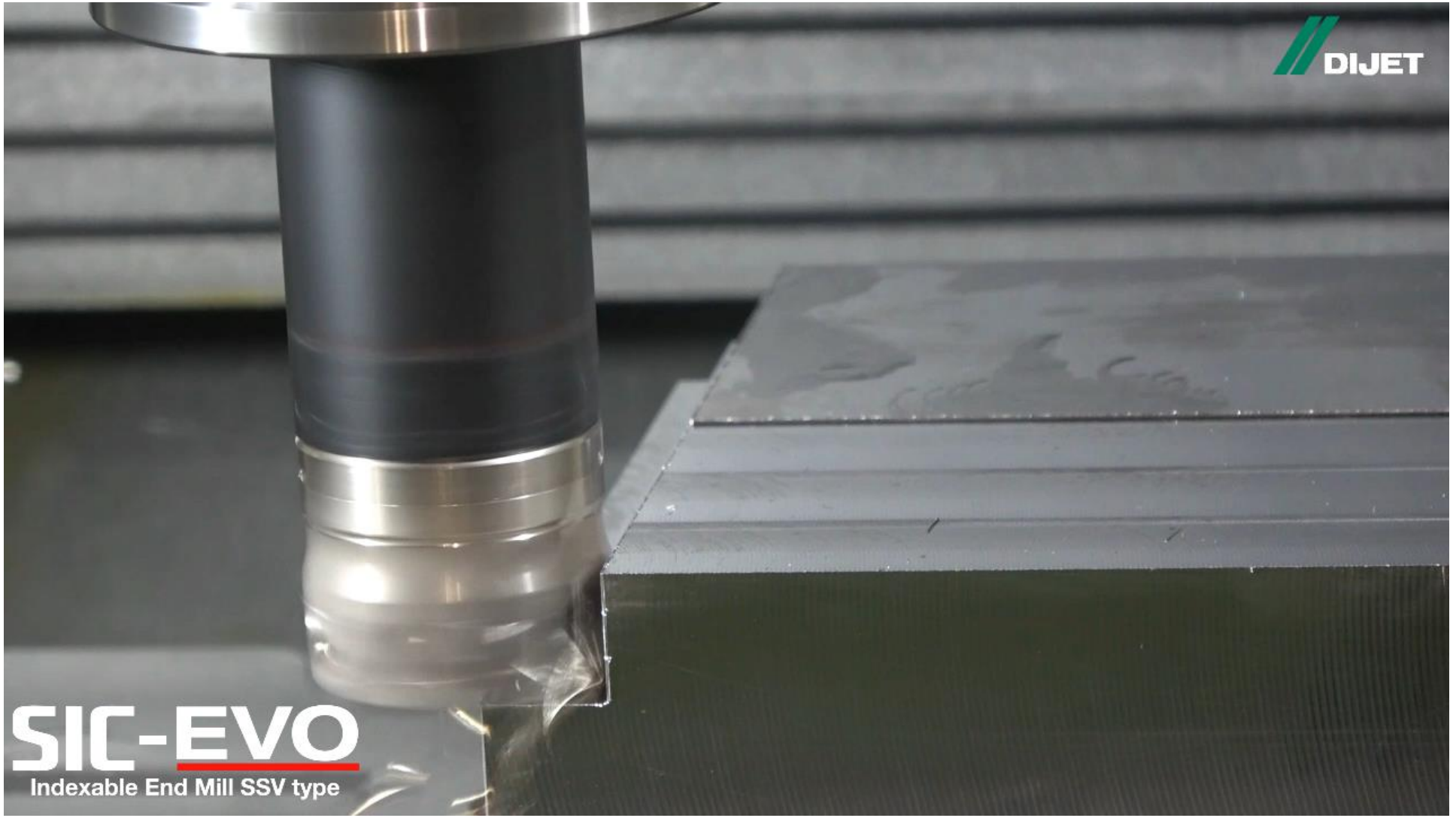
SSV



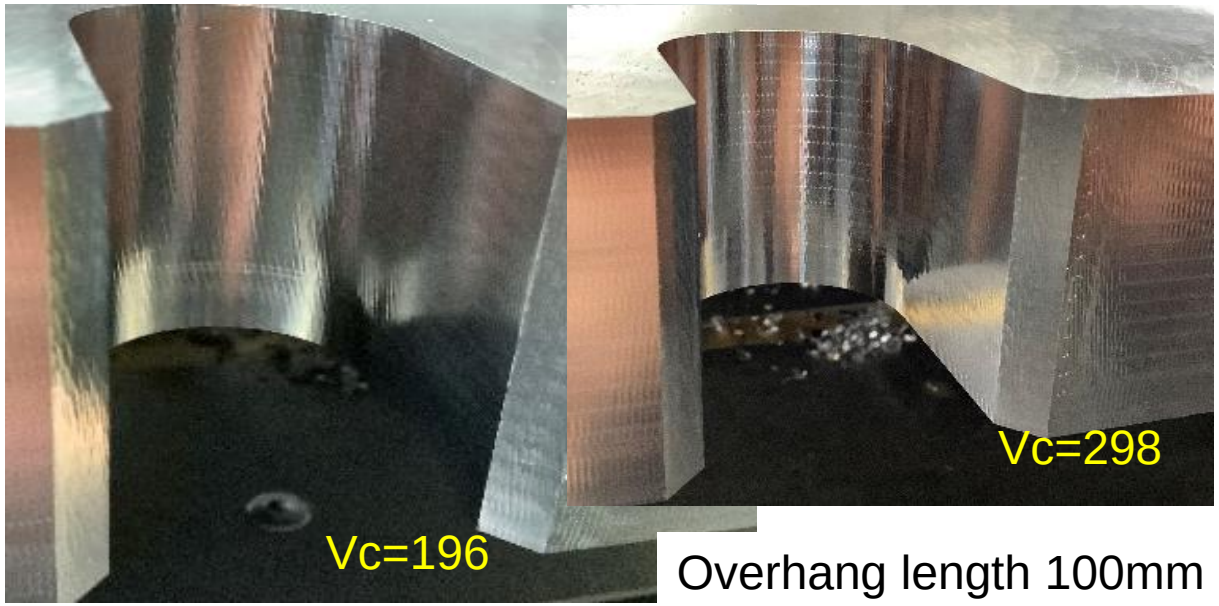
Comp. C

SIC

VIDEO (Mat'l : 1.1213)



Cutting data



Overhang length 100mm

	Comp. E	SSV-2025-M16 ZOMT160508ZER-PM JC8118
Surface finish	Side wall ○ Corner part △	Side wall ◎ Corner part ◎
Wear or Chipping	Normal Wear	Normal wear
Result	Achieves the same or better machined surface with 1.5 times higher machining efficiency.	

Work	**Part name**	Common plate
	Material	S275JR(1.0044)
	Hardness	
Tool	Tool	2N-Φ25mm
Cutting conditions	Cutting speed	2,500min^{-1} (196m/min) E社 3,000min^{-1} (235m/min)
	Feed speed	2,000mm/min(0.8mm/t) Comp. E : 2,000mm/min(0.66mm/t)
	Ap	3mm (Comp. E : 2mm)
	Ae	5mm
	Coolant	Air blow

How to choose SIC-EVO and EXSAP

	Dia.	Max. ap	No. of corner	Cutting edge strength	Cutting force	Chip evacuation	Ramping	Surface finish	verticality	Long reach
SIC-EVO Indexable End Mill SSV type 	Φ25 ~ Φ125	15mm	2	○	◎	◎	◎	○	○	◎
EXSAP 	Φ25 ~ Φ125	15mm	4	◎	○	○	○	◎	◎	○