

# CZS SUS304 milling example

Tool : **CZS 4060-0900** ( $\phi 6 \times 9$ )  
 Work material : SUS304  
 Milling shape : Keyway (91 x 8 x 8 mm) x 10  
 Coolant : Water soluble  
 Cycle time : About 37 min / 10 slot

## Milling condition

### Helical approach

Spindle Speed (min <sup>-1</sup> )	Z-Feed Rate (mm/min)	Hole diameter (mm)	$a_p$ /1 rotate (mm)
4,000	100	7.5	0.5

### Side milling

Spindle Speed (min <sup>-1</sup> )	Feed Rate (mm/min)	$a_p$ (mm)
4,000	400	4

### Slotting

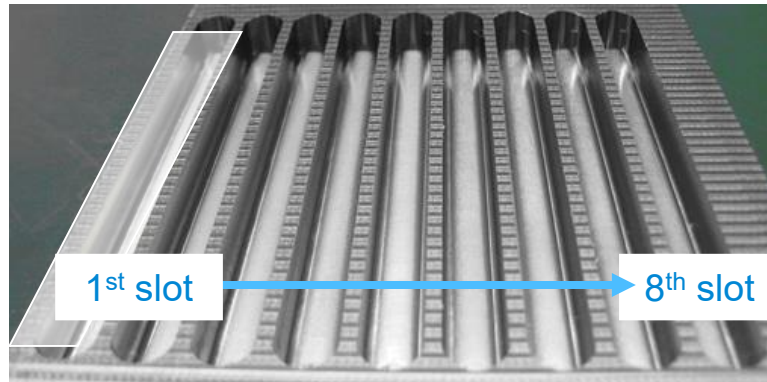
Spindle Speed (min <sup>-1</sup> )	Feed Rate in straight (mm/min)	Feed Rate in corner (mm/min)	$a_p$ (mm)	$a_e$ (mm)
4,000	240	40	4	1

Z -4, -8 mm ... 2 times milling

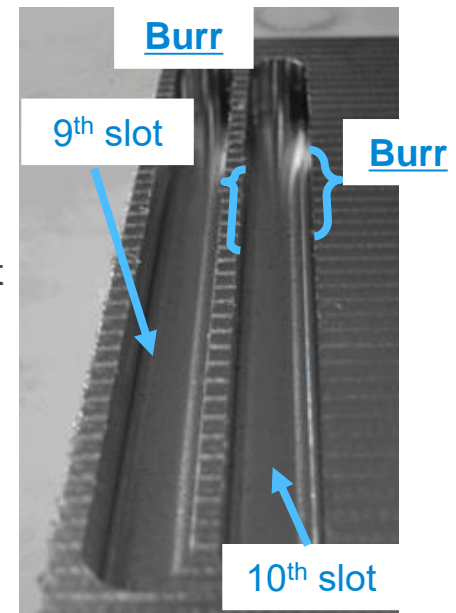
## Result

Work observation : Burrs tend to occur as the number of slot increases.  
 Tool damage : Normal tool wear. No major damage after 10 slots.  
 Cutting noise : No cutting noise when the helical approach.  
 but a slightly high-tone noise occurred when slotting.

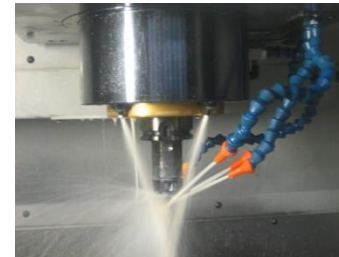
1<sup>st</sup> ~ 8<sup>th</sup> slot



9<sup>th</sup> ~ 10<sup>th</sup> slot



Coolant supply



Helical approach



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Tool after the process

