



A BRAND AE-CR-VTS-N



SNAPSHOT

BACKGROUND

A large fabrication shop was having issues with built up edge (BUE) when milling automotive window door frames made from aluminum 7075.

GOALS

The goal was to eliminate BUE to increase tool life.

DETAILS

INDUSTRY

Automotive

PART

Window Frame

MATERIAL

Aluminum (7075)

MACHINE | COOLANT

HAAS VF4 | 9%

SPINDLE

CAT40

ORIGINAL TOOLING

Competitor End Mill
0.25" | 2 Flute | Bright

NEW TOOLING

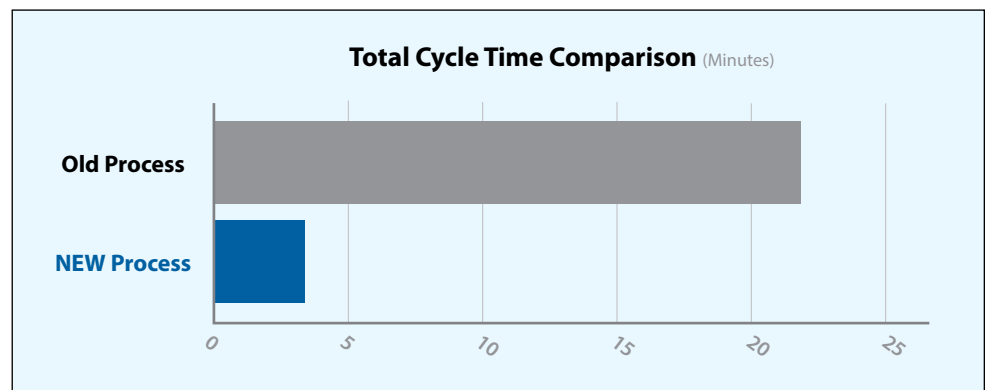
A Brand AE-VTS-N End Mill
0.25" | 3 Flute | DLC-IGUSS

OVER \$91,000 ANNUAL SAVINGS!

THE STRATEGY

OSG proposed the OSG A Brand AE-N series AE-CR-VTS-N for the application. The A Brand AE-CR-VTS-N is coated with OSG's DLC-IGUSS coating. This coating has a low coefficient of friction and should reduce the BUE seen from the the current tool.

	Original Process	NEW Process
Tool Diameter (Inch)	0.25"	
Cutting Speed (RPM • SFM)	7,000 • 459	25,000 • 1,638
Feed (IPM • IPT)	22.4 • 0.0016	150 • 0.002
Depth of Cut (Aa/Ar)	0.5" • 0.05"	
Metal Removal Rate	0.56 in ³ min	3.75 in³ min
Cycle Time (Minutes)	21.43	3.20
Tool Life (# of Parts)	45	75





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THE RESULTS

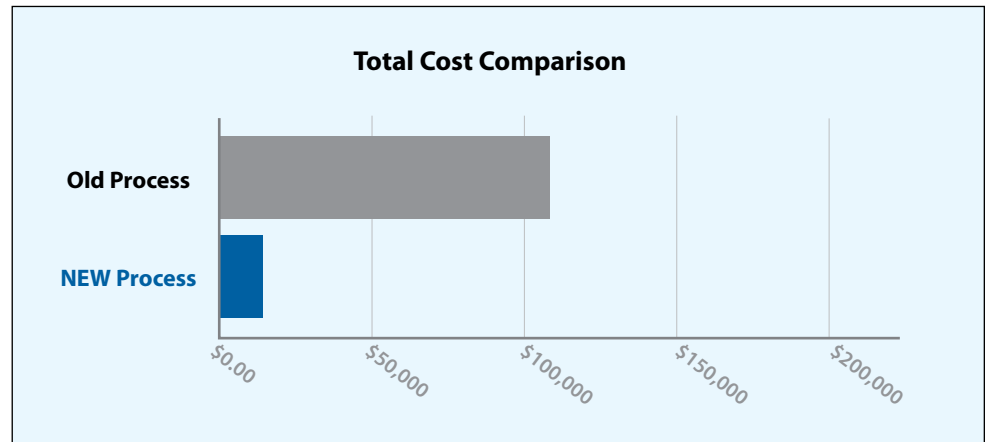
OSG was able to eliminate BUE, increase productivity, and tool life!

- Feed rate increased **from 22.4IPM to 150IPM**
- Cycle time reduced **from 21min 24sec to 3min 12sec**
- Parts per tool increased **from 45 to 75 parts per tool!**

Results Overview	
Cycle Time Saved Per Part (Minutes)	18.23
Number of Parts Per Year	3,000
Annual Cycle Time Saved (Minutes)	54,686
Annual Machine Cost Savings	\$91,143
Tool Life Productivity Improvement (%)	67%
Annual Tool Change Cost Savings	\$13.33
Total Machining Cost Saved Annually	\$91,754

THE CONCLUSION

The OSG A Brand AE-CR-VTS-N excelled in the application *saving the customer \$91,769.70!*



OVER \$91,000 ANNUAL SAVINGS!



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Click or scan for stock, features & benefits, videos and more! osgtool.com/a-brand-ae-n

