



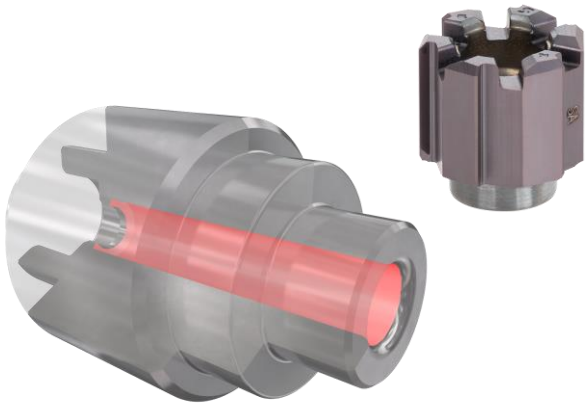
REAMMEISTER

TUNGALOY

IMPROVED PRODUCTIVITY & TOOL LIFE



~Gear Counter Drive~



H i g h l i g h t s

Challenges :

Since the competitor's boring tool generated vibration at increased feed rates, the customer had to use low cutting parameters to satisfy the surface finish quality required but generated chip evacuation problem which caused repeated tool fracture. The customer needed to improve process security and machining efficiency to boost productivity.

Solution :

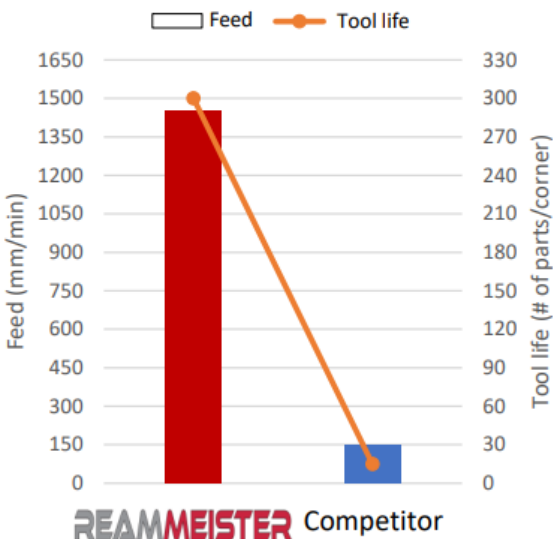
ReamMeister eliminated vibration while providing process security and good surface quality at increased cutting parameters thanks to its tool stability ensured by secure tool support with the reamer margins.

Furthermore, **ReamMeister** significantly reduced the machining time from 46 to **5(!) seconds** per part. Tool life was increased by over **20 times** combined with premium surface quality.

Significant improvements of machining efficiency and tool failures outbalanced initial increase in tool investments, thus allowing the customer to boost productivity.

Part	Gear counter drive (E-Axle)
Material	18CrNiMo7-6
Application	Reaming (Blind hole)
Machine	NC Lathe

Productivity 9.7 times
Tool life 20 times



		REAMMEISTER	Competitor
Tool	Body	TRM-T8-R20-5	Anti-vibration boring bar
	Head/Insert	Special (φ20.050, z=8)	Positive ISO insert, 2 corners
	Grade	AH725	PVD, P10
Parameters	Hole dia. tolerance	φ20.050 ± 0.05 (.789" ± .002)	
	Surface roughness Ra (μm)	1.6	
	Pre-hole dia. (mm)	19.8 (.780")	19.0 (.748")
	Hole depth H (mm)	100 (3.94")	
	Cutting speed Vc (m/min)	170 (558 sfm)	120 (394 sfm)
	Feed rate f (mm/rev)	0.5 (.020 ipr)	0.08 (.003 ipr)
	Coolant	Internal (Emulsion 8%)	←

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