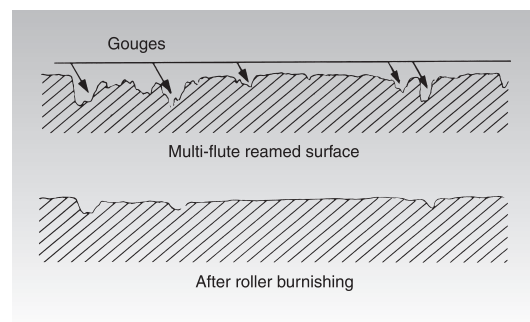
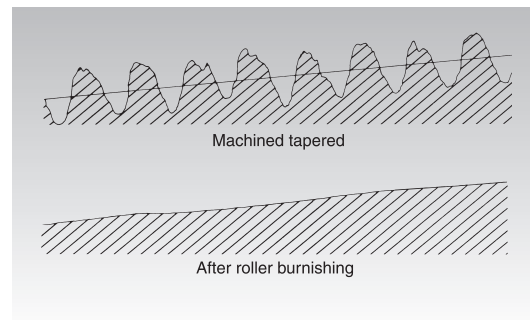
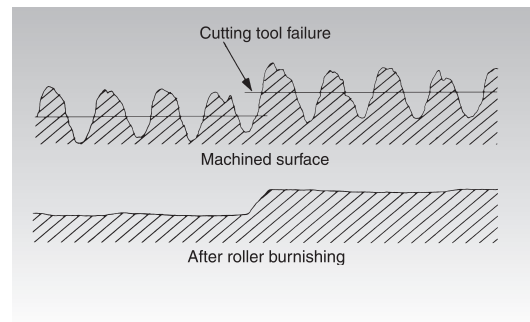


Part preparation & operating parameters for roller burnishing

Roller burnishing

TROUBLE-SHOOTING GUIDE		
PROBLEM	POSSIBLE CAUSE	SOLUTION
1. FINISH		
A. Scratches	Foreign material Worn rolls.	Clean filter coolant. Inspect – Replace if discolored or marred.
B. Flaking.	Too much interference. Too much friction.	Adjust for less interference More lubricity in coolant.
C. Spiral marks. Residual tool marks.	Premachining too smooth, or not uniform.	Sharper radius cutting tool, replace or sharpen. Increase feed of cutting tool.
	Not enough burnishing.	Increase tool diameter, pressure support part wall if thin, or consider Bearingizing.
	Roll stuck, or foreign matter stuck in pocket.	Inspect and clean cage, replace if necessary.
	Roll paths not overlapping. Chips left in bore.	Decrease feed rate. Flush prior to burnishing.
2. SIZE		
A. Too small or large after burnishing.	Incorrect stock allowance.	Adjust cutting tool (resize) and Roll-a-Finish tool.
B. Bell mouth or taper.	Premachining problem	Check before burnishing.
	Misalignment.	Correct or use floating holder.
	Tool runout. Part has thin wall, irregular geometry, or no support.	Indicate mandrel-repair. Support by fixture or consider Bearingizing.
3. (MISC.)		
A. Rolls hit on entry.	Misalignment.	Correct alignment.
	Too much roll projection.	Chamfer part-if possible. Retain with O'Ring or similar device if a short bore. Use smaller cage, if interchangeable. Or, select a tool with your part size on the higher end of the adjustment range.
B. Can't burnish entire length of bore.	Tool too short.	Use R-style or consider special tool.
	Mandrel hits bottom of bore or fixture.	Grind mandrel tip off, use larger tool size, or consider special tool.

Effects of poorly machined surfaces on burnishing



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