

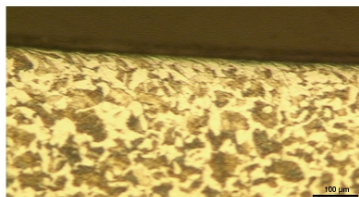
Centerless Roller Burnishing Machine

- QUALITY IMPROVEMENT
- COST REDUCTION
- MASS PRODUCTION
- PROCESS REDUCTION
- ELIMINATE CONSECUTIVE GRINDING OPERATIONS

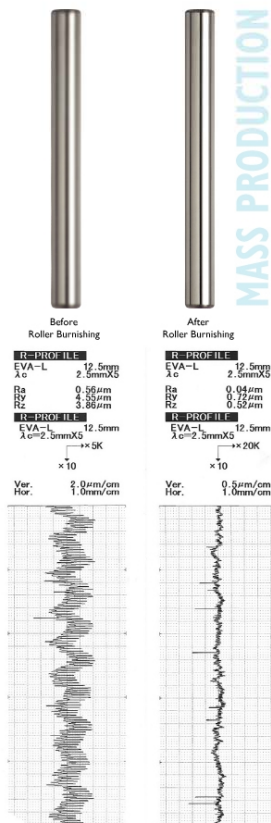


Advantages of Roller Burnishing against classical methods.

- Roller Burnishing is a chipless finishing method different to grinding, honing or lapping.
- Surface roughness value of Roller Burnishing Operation is less or equal to these abrasive methods. Even the values are equal; roller burnished surface is smoother than the abraded surface because chip-generating operations leave sharp projections in the contact plane.
- No expensive investments are required.
- Mechanical advantages. (Corrosion resistance, increase in surface hardness)
- Faster production at a lower cost. Thousands of pieces can be burnished without any maintenance cost.
- Surface roughness value of 0.03-0.10 µm. (Ra) - (ISO N2, N3)
- 0.01 mm or better tolerances
- 30% - 70% increase in Brinell Hardness on surface.



- Up to 300 % increase in resistance to fatigue failure
- Eliminating the factors of stress corrosion cracking. Increase in corrosion resistance
- Elimination of tool marks, pits, scratches and porosities. Reduced friction up to 35 %
- Reduced noise level is achieved

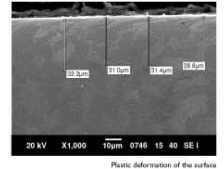


Centerless Roller Burnishing Machine (OPEM)

OPEM is an automatic centerless roller burnishing machine used to finish metal surfaces of pins, shafts, shock absorber shafts etc. to obtain mirror-finish surfaces.

Without any special feeding equipment OPEM allows surface finishing of shafts with any length. Self Feeding of the workpiece is possible by means of the feed angle of the rollers.

OPEM reduces cost by rapid process and elimination of preceding processes like grinding, buffing and super finishing.



Application Examples

- Printer shafts
- Motorshafts of electric motors
- Break pistons of automobiles
- Shock absorber shafts
- Coils, wires and etc.

PROCESS REDUCTION



COST REDUCTION



Specifications	OPEM 25/01	
Workpiece Size	∅ 1 - ∅ 25 mm	
Workpiece Length	Unlimited	
Machining Speed	20 - 40 mm / sec	
Drive AC	220V 0.75 kW (Inverter Control)	
Coolant Unit	Pump	
	Tank	40 liter
	Filter	15 µ
Machine Dimensions mm	Width	620
	Depth	1200
	Height	1200

QUALITY IMPROVEMENT