

Superfinishing Machines | Business Case Study

Superfinisher Solutions for Shock Absorber Piston Rod Manufacturer

Global Manufacturer's Requirements: A US-based Tier 1 manufacturer of shock absorber piston rods was interested in our DSF-900 superfinisher model. The client wanted to achieve surface roughness of maximum Ra 0.05 μm with a diameter tolerance of ± 0.001 mm and a cycle time of 20 ft/min. They also required the changeover time for rods of different diameters and lengths to be less than 30 minutes.

LPR's Superfinisher Solution: We provided the DSF-900 through-feed superfinishing machine with a unique roller-setting system and quick-release stone holders. The size of the setting jig for any workpiece could be easily calculated using a formula, allowing precise roller setting and easy changeover.

We designed and manufactured setting jigs for different rod diameters. The quick-release stone holders, which use levers to grab and release stones, reduced human error to a minimum while operators were setting rollers and changing stones. In addition, the machine downtime was kept to less than 20 minutes during the stone change time.

