

## Press information PI 185/07

### Optimized Shaft Finishing

Specialty machine concept designed for the finishing of thin cylindrical workpieces for the automobile industry.



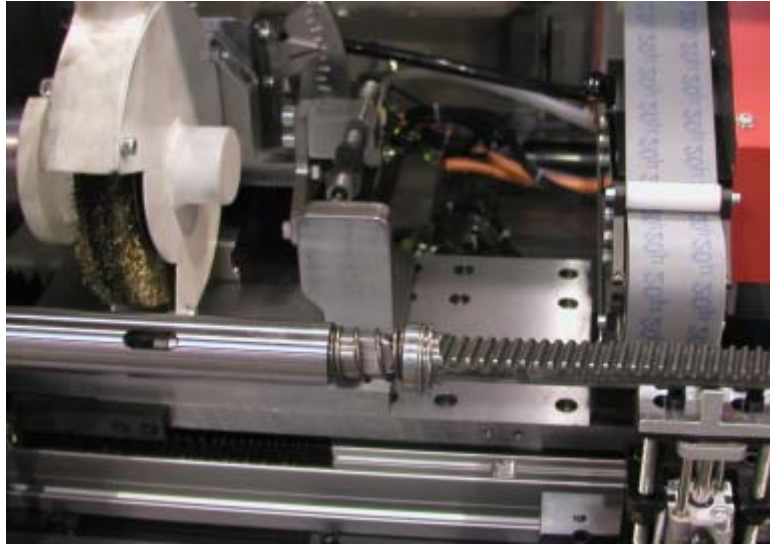
**Supfina Grieshaber is a leading machine builder and Know-how supplier when high quality surface finishes and geometrical qualities are required with controlled and cost-effective processes. Supfina has experience with an array of finishing technologies and will choose the best fit for the application, whether stone or tape superfinishing, brush deburring or grinding systems.**

After splining, milling or grinding there will always be burrs left on the workpiece to some degree. These burrs must be removed from the finished product at the latest by the superfinishing process, most likely the last process in the cycle. Depending on requirement we are talking here about a targeted micro-deburr, specifically in the cases of bores or control edges. In the cases of pump gear teeth and camshaft lobes the edges will be deburred during the edge rounding operation. Also during the overhaul of used steering systems the combined technologies of brush-deburring and tape superfinishing recondition the components to the required quality.

The machine in the picture above is outfitted with a specialty loading door for manual loading and unloading of long, thin workpieces. Depending on the loading concept this machine can also be loaded from either a robot or in-line automation.

Through an integrated NC-axis the tooling heads can precisely travel and position themselves. With that it is possible to run a variety of part types with minimal change in setup. The coolant can be either oil or emulsion based and in some cases the process can also be run dry.

- 2 -



In the overhaul of steering racks the sealing surfaces on the right and left near the piston need to be superfinished. The splined area needs to be concurrently deburred and descaled.



The processing of camshafts has a completely different set of requirements for a machine concept. Here the bearing journals and cam lobes must be finished. In the end an edge rounding process occurs on the cam lobes.

**Author:**

Uwe Friedrich  
Division Leader - Supfina Lean Systems  
Supfina Grieshaber GmbH & Co. KG  
Tel: +49 (0) 2191-3713-661  
Fax: +49 (0) 2191-3713-657

Text und photos per e-mail:  
[p.mich@supfina.com](mailto:p.mich@supfina.com)  
Photo: Supfina Grieshaber

[www.supfina.com](http://www.supfina.com)