Research & Development

Generating Solutions



IMPCO is a leading OEM of Microfinishing machines. From our R&D lab we can generate solutions that will allow you to obtain a consistent surface finish on a wide range of components. We have years of experience in delivering cost effective and reliable solutions for a wide variety of clients. These include Formula 1 race teams who trust IMPCO with high performance tolerance requirements as well as the majority of major engine manufacturers, gas or diesel, large or small.

A few of our capabilities are:

- Optimized surface topography reduced friction on running surfaces
- Optimized component geometry reduced high & low frequency surface chatter
- Reduced 'Oil Film' thickness allowing reduced running clearance
- Reduced friction on highly loaded critical surfaces

 improving engine power output
- Reduced friction allowing a reduction on CO2 emission
- Removal of ferrite caps in nodular iron crankshafts
 increasing bearing life
- Reduction of edge loading on bearings through process optimization



In addition to our process development capabilities, IMPCO has the ability to do production Microfinishing for our customers for prototype builds, production spills requiring repair finishing, or small batches that do not justify purchasing in-house capability.

Through our efforts and collaboration with our customers we are able to provide them with the appropriate machine solution for a large number of situations as noted but not limited to:

- High volume, high performance solution for components up to 0.8mtr in length
- Low volume, high performance solutions up to 0.8mtr in length
- Low volume, high performance Heavy Duty solution up to 4mtr in length
- Flexible Microfinishing solutions are available where low production with a high variation in product variation.

At IMPCO we are able to support our customers with product development, through process optimization for their Microfinishing needs; from prototype parts to full production runs. Our close partnerships with OEM's research facilities ensures we are able to develop a process that meets their needs. The knowledge gained and developed through our in-house Research and Development process is transferable into a production environment.

When you have a finishing question, IMPCO's fully staffed and equipped Research & Development facility will help you get the answers.