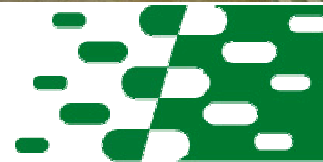


Castrol Machine Test Center

- Evaluate the machining characteristics of metalworking products using state of the art CNC machining practices.
- Provide engineering support and solutions for new product development and service applications.
- Provide problem solving expertise for Castrol customers on manufacturing technology.
- Initiate and support field trials with newly developed products.
- Evaluate alternative technologies.



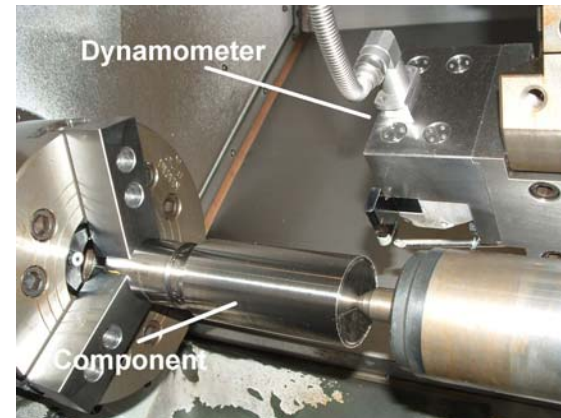
Castrol Machine Test Center

- Development - Tool to evaluate the capability of metalworking fluids and the processes they support.
- Simulation - We work together with customers to reproduce their machining systems.
- Partnership - We work with customer's engineers who (where possible) supply tools, materials and conditions (speeds feeds etc).
- Transparency – You and customer can be here at the center to witness evaluations.



Measurable performance

- Power/torque – dynamometer and load cell -(Kws / Ncm).
- Surface finish of component – profilometer - Ra (μm).
- Tool condition – microscopic (μm) examination.
- Chip condition – microscopic (μm) examination.
- Ancillary fluid properties – smell, foam, mixability, etc.



Testing Flexibility

Typical Operations

- Drilling
- Reaming
- Milling
- Tapping
- Gundrilling
- Turning

Tooling Materials

- HSS, Carbide, Ceramic, PCD.

Typical Materials

- Steels
 - Carbon, Alloy, Stainless.
- Aluminium
 - Cast, Wrought.
- High Temp alloys
 - Inconel, Titanium.

