

Cableless tool setting and inspection probing for machine tools

Renishaw's new twin probe optical signal transmission system uses a single optical receiver for tool setting probe and spindle-mounted touch probe installations, offering fast integration and a cable-free machine environment. The system is easily integrated on a wide range of machining centres and CNC milling machines, offering users automated on-machine tool setting, tool breakage detection, part set-up and part verification capability.



A typical twin probe system will comprise the new Renishaw OTS tool setter and Renishaw OMP40-2 inspection probe, but other compatible spindle-mounted touch probes with modulated optical transmission may also be used. The cableless tool setter design is particularly suitable for machines with twin pallets or rotary tables, which historically have proven challenging for installations of hard-wired tool setters.

The twin probe system uses Renishaw's OMI-2T optical receiver, incorporating Renishaw's new modulated optical transmission, which has been designed to offer the highest levels of resistance to light interference.



The OMI-2T is also used to activate either the spindle-mounted touch probe or tool setting probe, and gives visual indication of the activated device.

Renishaw's OTS tool setting probe with optical transmission is a robust, compact and cable-free product which provides no restrictions on table movement, and offers users broken tool detection and rapid measurement of tool length and diameter.



The Renishaw OMP40-2 is an upgrade to the original award-winning OMP40 touch probe. It meets the demand for probing on small machining centres and the growing family of high-speed machines fitted with small HSK and small taper spindles. User programmable parameters make the OMP40-2 simple to optimise for specific machine applications and, using Renishaw's unique Trigger-Logic™ programming method, allows users to easily program probe options. This avoids the need to access internal probe components, therefore eliminating the risk of subsequent damage due to coolant and debris ingress.



Sealed to withstand harsh machine tool environments and being highly resistant to false triggering induced by shock and vibration, the Renishaw OMP40-2 is fully compatible with existing and future Renishaw optical systems. It can be used with high-speed, single touch or double touch probing routines.