

# Hydrogauge

An innovative new metrology.



FAST, ACCURATE IN-PROCESS MEASUREMENT TOOL  
WITH CLOSED LOOP FEEDBACK

- High resolution and repeatability
- Provides quick and accurate measurement of ID and OD
- Employs a robust design to minimize chip accumulation issues
- Ensures increased process stability for unmanned operation



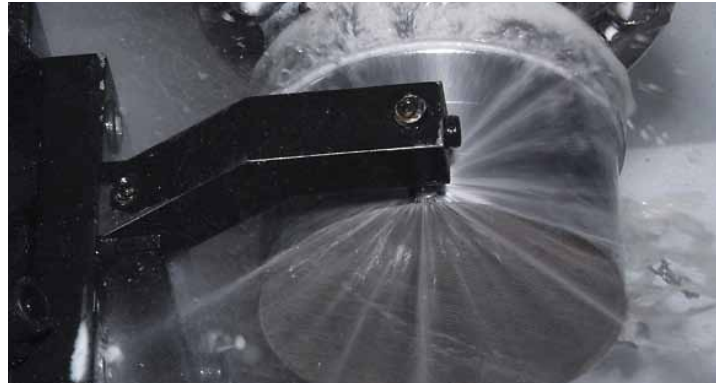
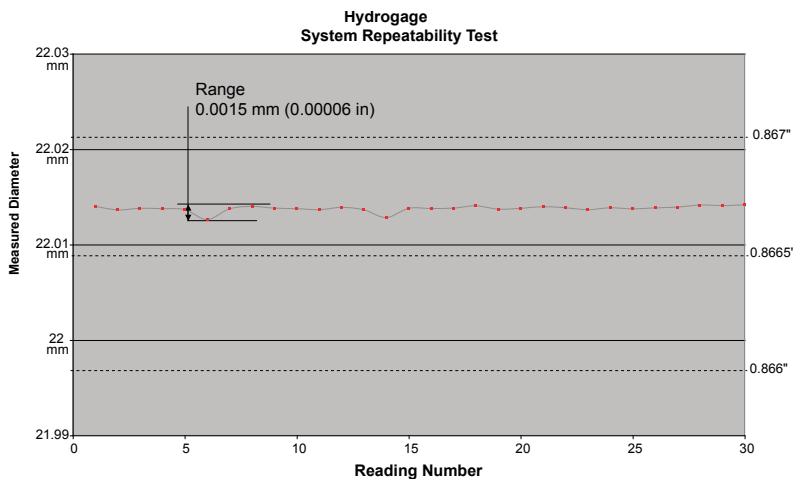
## AN EASILY INTEGRATED SOLUTION

The Hydrogage system can be field installed on a wide variety of Mori Seiki & DMG machines, including the N Series and Sprint Series. A calibration ring mounted in the machining environment allows operators to specify automatic calibration, ensuring reliable accuracy over time. Furthermore, the system automatically adjusts for coolant temperature and viscosity with calibration. All programming of the Hydrogage system takes place through the machine's CNC, as it is a fully integrated solution.

## INCREASED PROCESS STABILITY AND EFFICIENCY

Not only does the Hydrogage system automatically monitor part measurements, but it also enables higher levels of process stability. The system can easily be programmed to adjust tool offsets or recut parts to ensure that they are machined to specification. All of this is completed inside the machine, providing a clear advantage over external gaging systems that require a machine to sit idle while a part is measured or to accept the risk of operation without real time data.

## HYDROGAGE PERFORMANCE EVALUATION



## A DURABLE DESIGN FOR IN MACHINE MEASUREMENT

To ensure a long life, all electronic components of the Hydrogage system are placed in the machine's electrical cabinet. The system contains no moving parts in the plugs that are directly exposed to the machining environment. The Hydrogage plugs are also designed to eliminate chip contamination issues, ensuring consistently high performance from the Hydrogage system.

### Value Proposition

By combining gantry loading (or other automation) with the Hydrogage system, high tolerance parts can be cut in a totally unmanned environment, increasing productivity and freeing up labor hours for other tasks. The system is particularly recommended for:

- Applications where tool life is short and machine utilization is reduced by the wait for work piece data dimensional, whether collected manually or automatically.
- Applications where there is excessive variability in families of parts to justify automated external gages.
- Applications where unmanned operation of the machine can only be enabled by robust monitoring and adjustment of critical features.