

Precision Grinding

GOAL

Controlling the position of a high-precision servo grinder.

Maintaining the position of the grinding wheel to within a few micro-inches to meet the finished part tolerances.

Making measurements in the presence of environmental contaminants, such as machining oil.

SOLUTION

SMT-9700

The sensor is mounted above the grinder (see Figure 1) and monitors the radial position of the rotary drive shaft. A bipolar analog output indicates the position of the grinding wheel relative to the ground part. The signal from the sensor directly controls the position of the grinder through a closed-loop feedback circuit.

Result: Precise grinding of parts for improved component life.

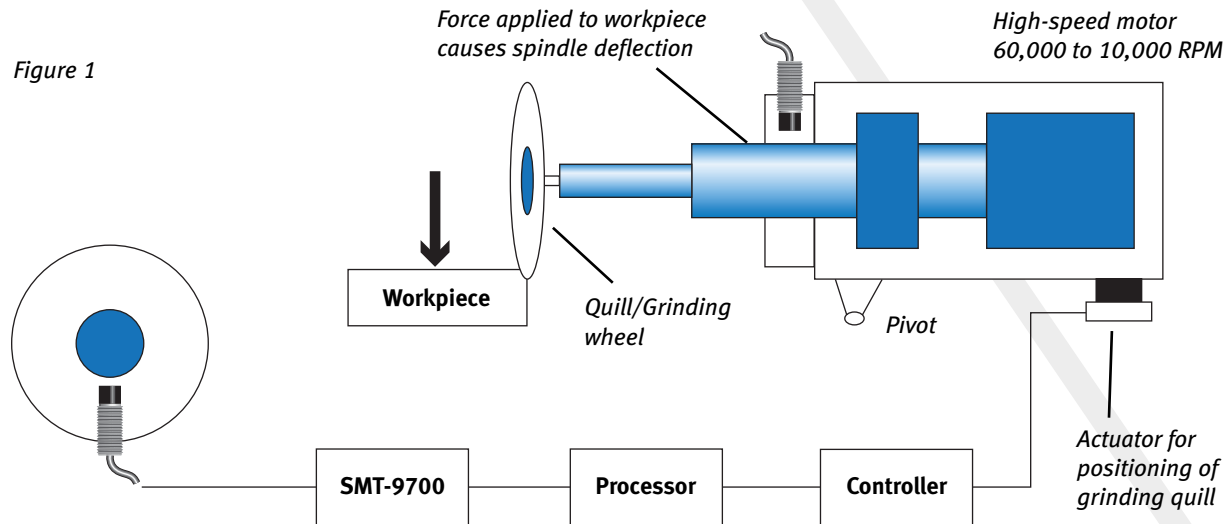
THE KAMAN ADVANTAGE

Good reasons to use the Kaman SMT-9700 measuring system:

Non-contact. Using eddy current technology, the sensor can measure position without ever touching the target. The result is an extremely reliable system with no moving parts.

High sensitivity. The system's sensitivity of 4 microinches/mV allows for precise control of the grinding wheel's position.

Custom design. A microseal treatment protects the sensor face from machining oil and splashing coolant. The SMT-9700 also incorporates an integral sensor cable, eliminating the need for an electrical sensor-to-cable connection that can be degraded by environmental contaminants.



Every application is unique.
Contact Kaman for application engineering assistance.

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