

Special Bore Measurement - Measurement of Dovetail Slots & Turbine Blade Grooves



The Challenge:

Bowers was approached by a well-known industrial turbine manufacturer to develop a method of measuring dovetail slot width and position in a circular component. The datum for the measurements was taken from the shoulder of the slot replicating the final 'In Service' blade datums.

The Solution:

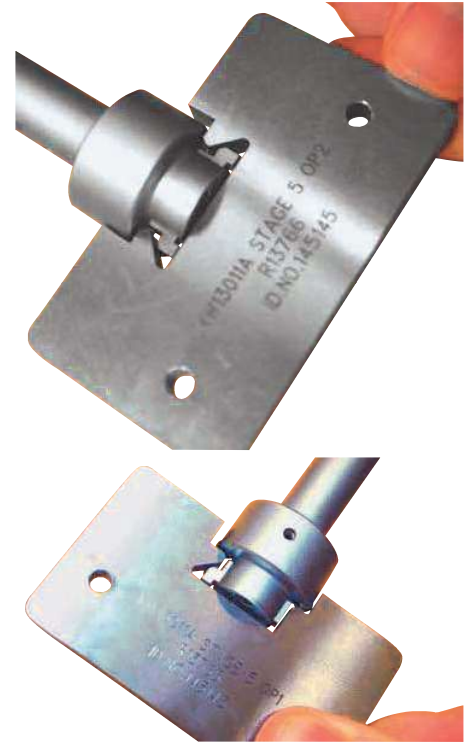
Bowers' Special Applications Team developed a special 2 Point head solution based on the popular Bowers XT system. The system incorporates tungsten carbide ball contacts for high accuracy. The Bowers XT digital readout offers the capability to send data for SPC and part traceability.

Advantages over Competitor Solutions:

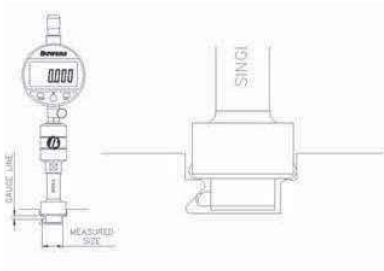
The Bowers dovetail variable gauge is able to output the actual size and position as opposed to competitors' attribute (Go / No Go) gauging. The gauge has a long working life and doesn't wear like attribute gauging.

Potential Industries:

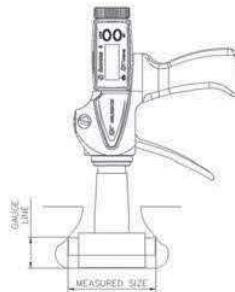
- Aerospace
- Nuclear
- Turbines
- Power Generation



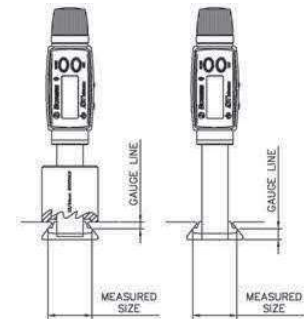
Single side measurement for set-up / symmetry



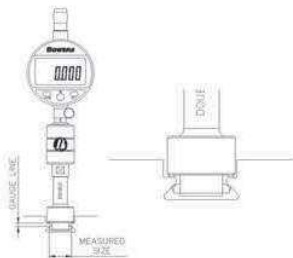
Measurement of dovetail seat face width



Other Dovetail & Fir Tree Slots



Double side measurement for overall width



Measurement of bottom lobe width

