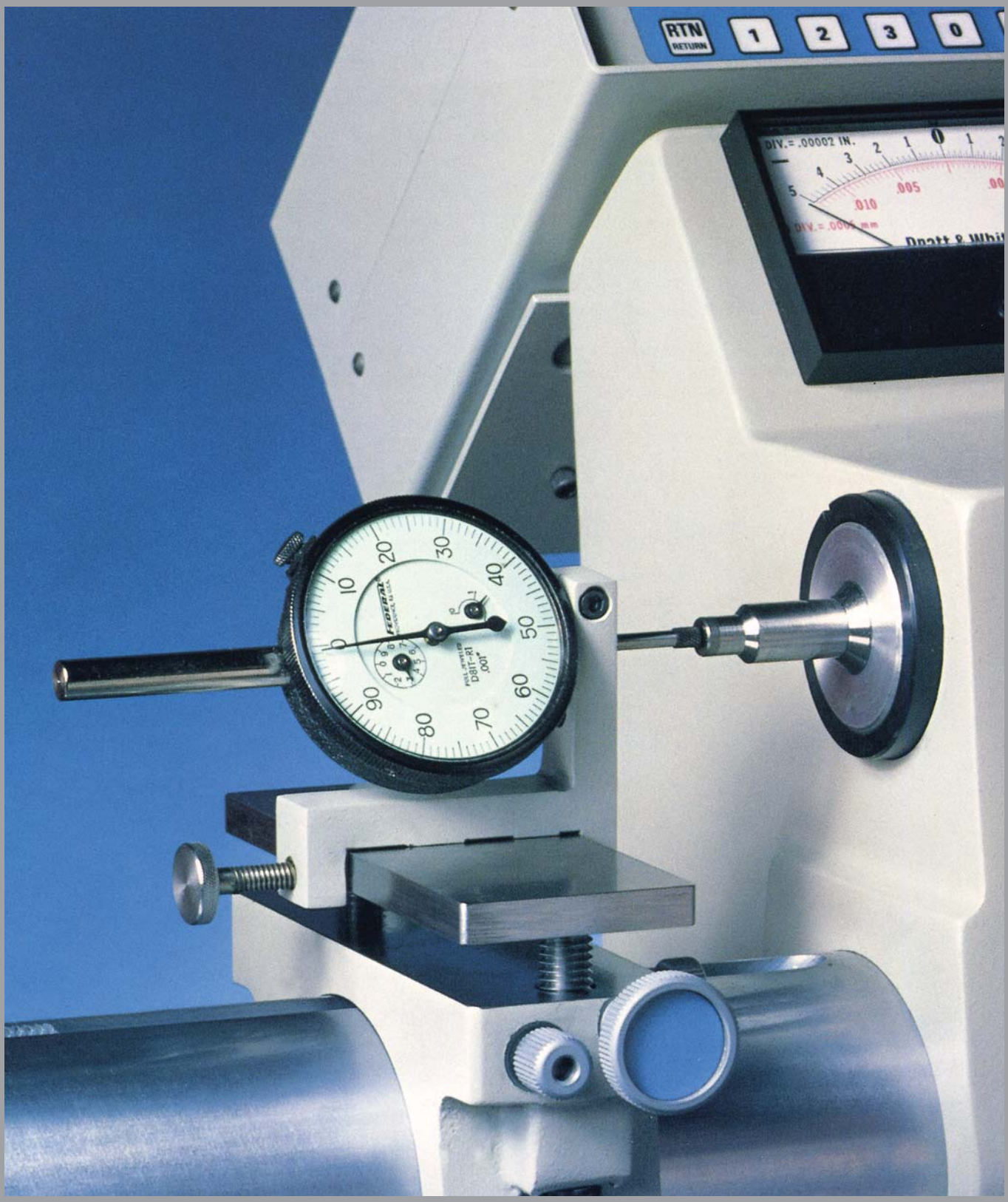
EXTERNAL SUPERMICROMETER™



Pratt & Whitney®
Measurement Systems, Inc.

EXTERNAL SUPERMICROMETER™

THE STANDARD OF ACCURACY

Two Instruments in one

The Pratt & Whitney* External Supermicrometer** gives you the advantage of two instruments in one. It's a direct reading, high precision metrology instrument and also an electronic size comparator for continuous accuracy on the production floor. This versatile instrument features an inch/metric (switchable) microprocessor-based digital display for part measurements. To keep you up-to-date with the latest SPC developments and computer links, an RS232C output is standard.

The External Supermicrometer, certified traceable to the National Institute of Standards and Technology, continues the "Standard of Accuracy" set by Francis Pratt & Amos Whitney over 135 years ago to give you the best built metrology instruments for quality control and long-life reliability.

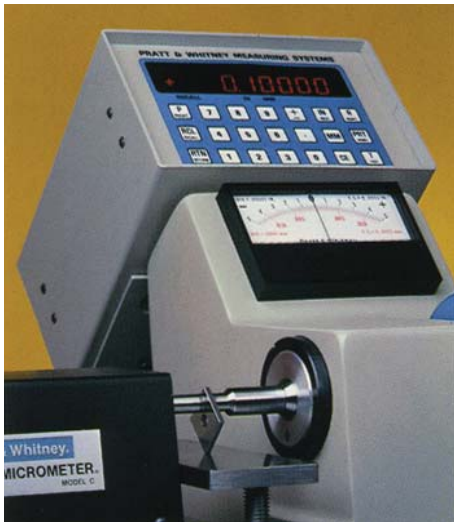
Simple and easy to use

For direct reading measurements, set the tailstock gaging pressure. Then move the tailstock into position and clamp. Place the desired master between the tailstock and headstock anvils and bring the analog meter to the precise zero position. The External Supermicrometer is now set to measure within the range of the spindle movement. Place the part between the anvils and move the spindle into contact until the meter pointer reads zero. Read the measurement directly from the digital display to .000010 inch. For your records, press "print" for a hard copy printout (optional hardware).

For comparative measurements place the zero master reference between the head and tailstock anvils. Move the headstock anvil to contact the reference master and clamp in place. Rotate the headstock dial until the meter reads zero on the scale and remove the reference master. Place the workpiece between the anvils and read the deviation directly from the meter. With system accuracy to 20 millionths and repeatability to 10 millionths, the External Supermicrometer increases productivity with guaranteed accuracy and continuous high performance.

Gage Management

Our optional gage management module, designed in accordance with ISO 1725 and ISO 9000, puts gage information at your fingertips. It represents a logical addition to the Supermicrometer because it makes storing, retrieving and reporting gage information quite simple. You will be able to track and display gage history, wear data, current users, the product evaluated with the gage, calibration dates, days since last calibration, and much more.



Mastering with a gage block

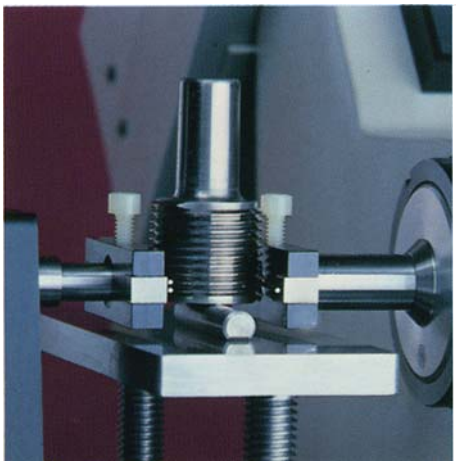
Additional subsystems of the gage management module include gage studies, gage crib, gage preventative maintenance, and gage archives. With them, you'll be able to control your gage data as well as your gages.

Detailed Printouts to Your Specifications

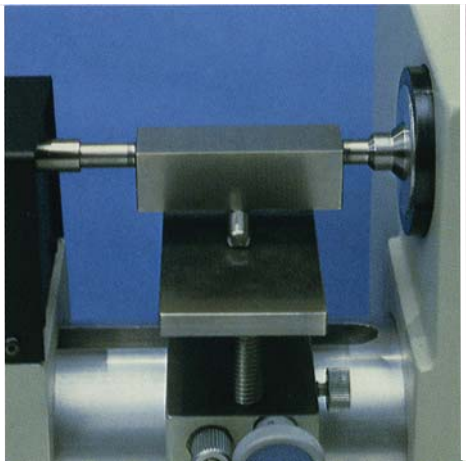
The reporting system is extensive, offering both standard and custom reports. Common reports include standard calibration reports, gages due, recall letters, gage lists, supplier summaries, gage study listings, and many more.

Guaranteed Service/A2LA Accredited

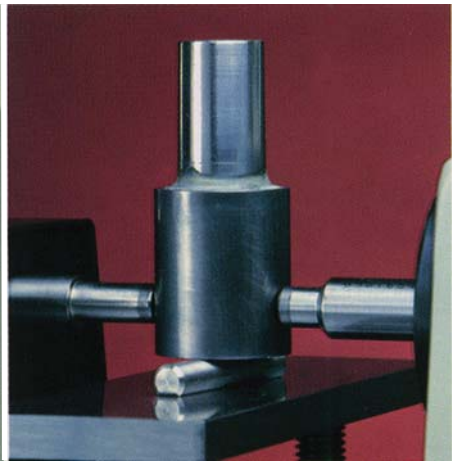
Pratt & Whitney offers a full one-year warranty and service personnel who receive factory training to provide you with fast, experienced product support and calibration services meeting ISO 1725 standards. We've built the External Supermicrometer to exacting standards of accuracy to guarantee you years of high productivity, reliability and product integrity. Our reputation as well as yours depends on it.



Measuring pitch diameter of a thread plug gage



Setup for a comparative measurement



Measuring a cylindrical plug gage

EXTERNAL SUPERMICROMETER™

Heavy-Duty Cylindrical Bed
The chromium-plated cylinder ensures long life and performance integrity. The rack and pinion drive with positive lock feature assures square and parallel orientation of the measuring anvils while eliminating movement during the measuring cycle.

Adjustable Pressure Tailstock
Our exclusive Electrolimit® Tailstock offers adjustable pressure from 2 to 48 ounces. The unique friction-free mounting of the gaging reference finger provides a fricition-free system for smooth, guaranteed reliability. The Electrolimit LVDT transducer provides high reliability and optimum performance.

Carbide-Tipped Measuring Spindles
The non-rotating measuring spindles have long life, corrosion-free lapped anvils and are calibrated to assure repeatable and reproducible results.

Elevating Table
Adjustability permits measurement of various part diameters and allows for presentation of the part to the instrument in a non-influencing manner. More than one table may be used for large or heavy parts.

Direct Reading, Microprocessor-Based Digital Display
Easy-to-read digital display provides *direct* reading in inch or metric units. The keyboard includes present capability, print command, and RS232C communication link with programmable output characteristics.

Calibrated Analog Meter
Establishes the reference zero for taking direct measurements from the digital display. The meter also has an inch/metric calibrated scale for use in determining size deviation from a setting master.

Digital Inch Module
Divides the inch into .000010 in. increments for high resolution. Specially manufactured on precision equipment, the lead screw moves the spindle longitudinally to the measuring position.