

- VERIMET OVERVIEW -

The **VERIMET® U1000 SYSTEM** is a Modular Instrument designed to perform automatic, variable gaging operations. The U1000 replaces all the gaging instruments previously sold by **K. J. Law Engineers**. The U1000 processes inputs from Digital Probes and Air Circuits to perform difficult dynamic and static measurements. Each instrument has advanced filtering with integrated Temperature Compensation and Spindle Compensation capability. Standard software features included are; SPC, GR&R, Tool Compensation, Bias Test, Serialization, Configurable Data Stores, Trend Screens and Multiple Levels of Security.

The U1000 was developed using the latest hardware and software standards allowing integration with other devices and systems and the ability to evolve with emerging standards.



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- VERIMET SOFTWARE -

Development Platform:

Microsoft .NET Framework using C# language

Operating Systems:

Windows XP, Future Windows OS support

Modularity

Buy only the modules you need for the application at hand to support LVDTs, Air Circuits, Temperature Probes and Eddy Current probes and coils.

Standards Support

Compatibility with all Windows-supported standards (TCP/IP, Ethernet, Wireless 802.11b/g, USB, etc.) and standard devices such as Printers and CD-ROMs.

Security

Ability to define user logins and roles provides password-protected access to the various functions of the gage and related user-interface elements.

Specific logins only see the menu items, screens, etc. they need to perform their tasks to keep training costs low and allow for plant-wide standards to be set.

- GENERAL SPECIFICATIONS -

Additional Features

The U1000 Program Editor allows end-users to set up any gage program from simple bench-gage applications to fully-automatic multi-station dynamic gages.

Users may write their own equations and / or use the built-in library of common gage equations.

The system is extendible and customizable: additional Screens and other UI elements, Datastores, and Control Interfaces (e.g. for PLCs, Tool Comp, etc.) may be added on a per-job basis or as new technologies emerge.

Automatic Spindle Compensation records the slight imperfections in the gage spindle and removes that influence as each part is gaged.

Integrated Temperature Compensation corrects for variations in part and fixture temperature on a per-feature basis.

Integrated Tool Compensation establishes and maintains process control by automatically transferring tool offset data to the CNC to adjust for normal tool wear. A Trend Screen provides a visual history of any feature per source operation.

Remote monitors may be placed at a specific operation (e.g. lathe) that show results only from that specific operation.

Built-in GRR capability provides instant gage evaluation and data may be exported in Excel or .csv format for cataloging or further analysis.

The Bias Test module provides for automatic periodic gage verification using known parts.

A range of higher-level harmonics may be monitored in a single test and an optional datastore of the harmonic spectrum may be triggered when one or more harmonics exceed the limits.

Any number of Data Attributes may be set up to tag part data (e.g. serial#, shift, part#).

Any number of Datastores may be set up to store part data, mastering history, counter data, bias test results.

A user-definable serial datastream allows definition of any output to most part marking systems.

Integrated SPC for real-time process control allows monitoring of various features based on the specific source operation.

A summary report may be printed to verify correctness of gage program configuration (e.g. validate formulas, spec limits, master values, etc.)

Robust fault-handling to prevent invalid measurements.