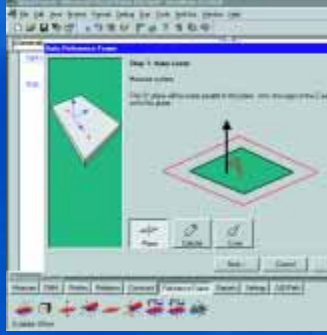
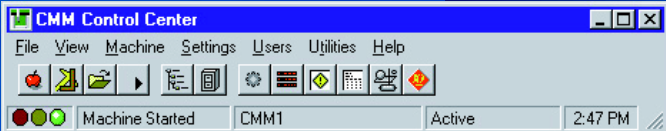
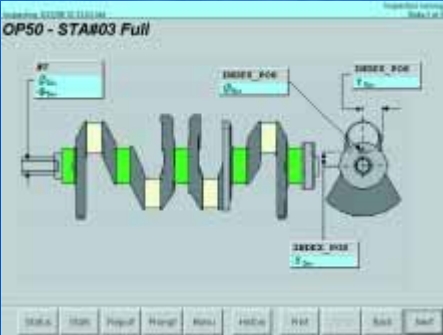
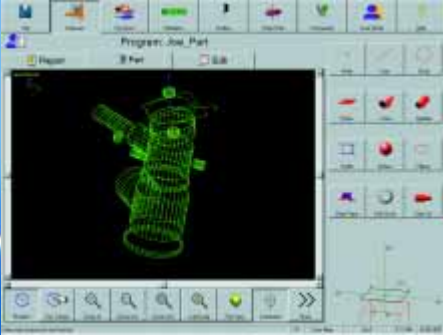


# Sheffield® MeasureMax+™ and MaxLite™ CMM Inspection Software



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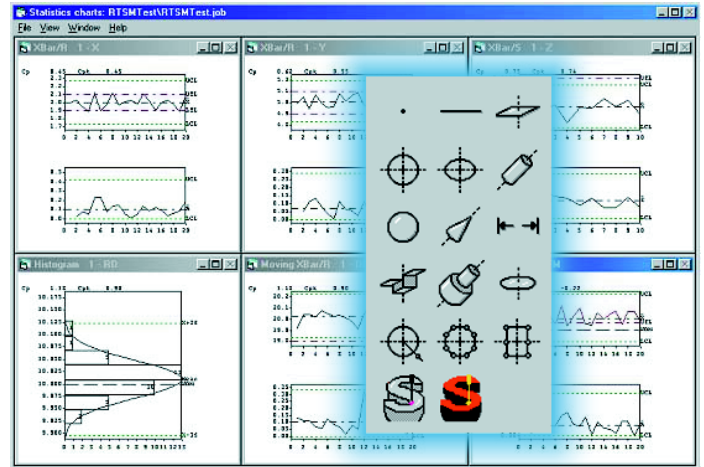
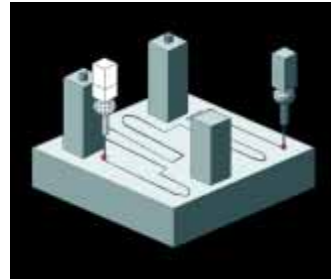
**Giddings & Lewis**  
**Controls, Measurement and Sensing**



**ThyssenKrupp**

# Sheffield MeasureMax+

Today's most powerful inspection software.



## Fills Every Need

Sheffield MeasureMax+ inspection software is the foundation of a complete measurement system. Capabilities include easy inspection and programming, real-time statistical analysis, a simple shop-floor interface, FlexScan™ scanning, 2-D and 3-D analysis, and even reverse engineering. It seamlessly and automatically integrates all probes, peripheral devices, input sources and output formats without long job changeovers or costly downtime. And MeasureMax+ runs on any Sheffield or Cordax® CMM.

## Easy To Use

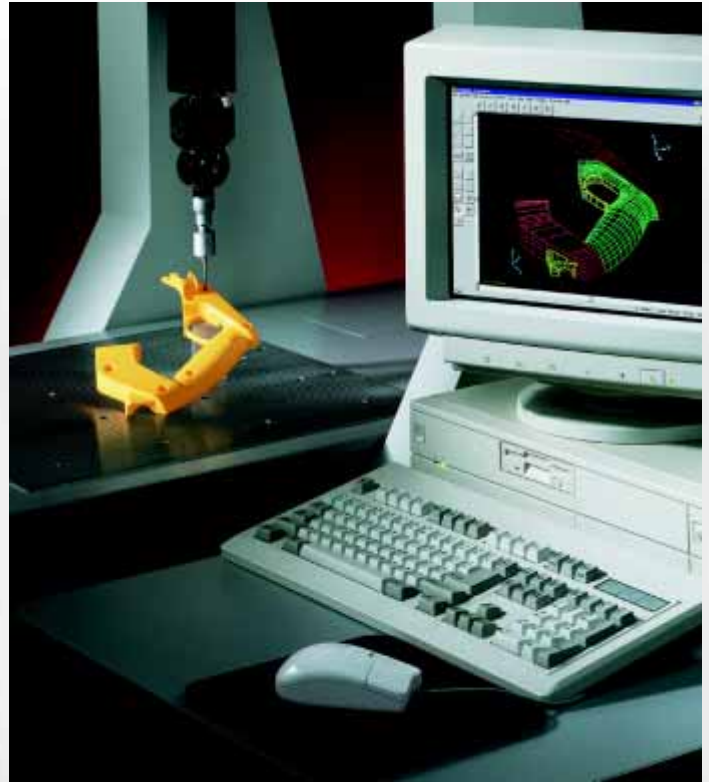
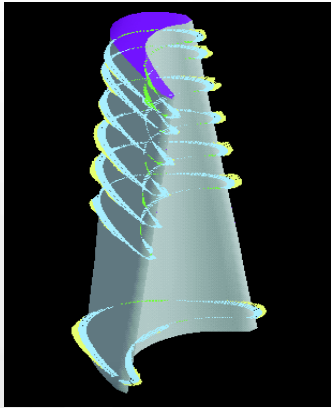
Windows®-based MeasureMax+ uses an intuitive control center and PC desktop to ensure convenience for experienced and inexperienced operators alike. Familiar ANSI part drawing symbols lead the operator in a logical, step-by-step process through a complete inspection sequence, automatically programming the inspection at the same time. Part features are displayed as they are being measured or programmed to permit easy verification of job progress.

## Maximum Flexibility

With CAD-based capability, operators can use detailed, shaded renderings to easily program on-line or off-line in minutes. Programs are automatically optimized with built-in collision avoidance. Programmers can also work in Visual Basic® to build their own development tools, and customize data collection and test results. MeasureMax+ runs nearly all Sheffield and Cordax legacy inspection programs, including those written in MaxLite™ or older versions of MeasureMax, as well as DMIS programs.

## Real-Time Statistics™

MeasureMax+ offers real-time inspection monitoring—making it a vital process control link between the CMM and manufacturing operations. With real-time statistics, an operator can display inspection findings of every feature characteristic at all times, or only when a critical variance occurs. Exception reports immediately show, at a glance, the type of problem which is causing a variance in any measured characteristic. MeasureMax+ reports the amount that a dimension is out of tolerance. It also indicates if a dimension is outside the threshold percentage of the blueprint tolerance established in the part program.



### Single-Touch Interface™ (STI)

Designed for the shop floor, STI makes CMM operation as simple as a single touch. It is so easy to use, operators can be trained in a matter of minutes. Graphical representations of the part and on-line help take the operator step-by-step through the inspection process, including set-up and probe calibration. Inspection results are clearly displayed in real-time, color-coded graphics or a written inspection report. On-line help allows you to easily design screen displays tailored for your specific requirements. STI is available with an optional touch-screen monitor and shop-hardened console.

### FlexScan Scanning

MeasureMax+ allows suitably equipped CMMs to quickly scan known and unknown features—giving you more measurement data for more accurate results and improved repeatability for better SPC information. FlexScan provides continuous data collection, eliminating information gaps. Form plots are generated to show the “goodness” of each feature. Because FlexScan is fully integrated into MeasureMax+, you can combine scanning and discrete point measurement on the same workpiece. FlexScan inspections can also be used to create IGES or DXF files.

### 3-D Analysis

This powerful, easy-to-use analysis package compares measured points to a CAD model to evaluate deviation errors in parts with complex geometric shapes. It provides fast 2-D and 3-D best-fit capabilities to accurately align parts with CAD models, even when reference feature quality is inadequate. It features a powerful graphics engine that allows users to easily visualize and manipulate CAD images, measurement data and analysis results. 3-D capability provides the tools you need for total part and part integrity analysis while it reduces inspection set-up time and the need for expensive fixtures.

### Reverse Engineering

MeasureMax+ lets you create CAD data from an existing part, scale model or prototype even when no drawing exists. With MeasureMax+, you can cut the reverse engineering process time by 60% or more. Beginning with a physical object—a worn part, a model or a piece no longer made—you can select all the critical features you want to capture. System capabilities also include:

- Geometry translation, rotation and projection
- Feature and projection plane construction
- Part alignment
- Output in IGES, DXF and STEP formats.



# Sheffield MaxLite

Industry's easiest-to-use inspection software.



## Powerful Yet Simple

Designed with the help of machine tool operators—most of whom had never used a coordinate measurement machine—MaxLite software is so easy to use, it requires no special training. This Windows-based application makes your CMM as simple to use as a manual machine, but with all the power of fully automatic DCC (Direct Computer Controlled) CMMs.

## Flexible and Compatible

MaxLite can run programs produced on any Sheffield or Cordax machine. It is compatible in both directions with MeasureMax and MeasureMax+, and with programs developed with CADPath™ automatic inspection programming software. It even features a graphical monitor function for easy programming and inspection run progress verification.

## Easy As 1-2-3

MaxLite features three primary modes of operation: Measure Mode tailors the CMM for “walk-up” part inspection, Run Mode recalls established inspection programs, and Program Mode allows the user to create a part measurement program automatically as the part is being measured. MaxLite features clear, intuitive graphical displays, including probe positioning to easily determine which probe is active. Wizards are available to guide you through each metrology step.

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