

eCAD®

eCAD is an industry-changing innovation that sets a new standard for inspection and measurement with an optical comparator.

- Create charts directly from CAD files
- Tolerance zones are user defined for size, color, and type with global settings and edit capabilities
- Symmetrical or asymmetrical tolerance zones
- Available on CCP CC-14, CC-16, CC-20 and CC-30 comparators

eCAD - Virtual Charts Direct From Your CAD File



Proudly designed and manufactured in the United States of America



TQS

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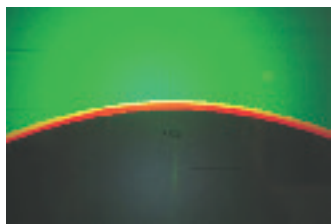
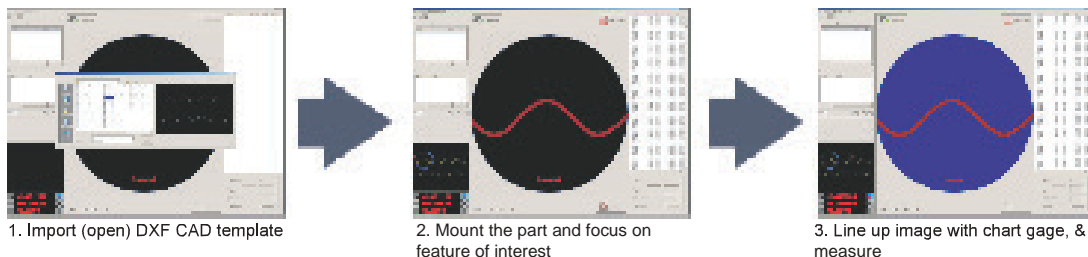
**Total Quality
Systems Inc.**

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Save Costs and Time:

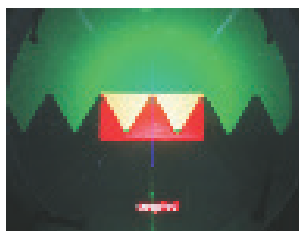
- Eliminate manufacturing of overlay templates
- No more designing overlay templates, simply download the CAD file to the comparator
- No more calibration of overlay templates
- No more chart storage
- No more replacing worn overlay templates
- No more cleaning

The eCAD process is easy as 1-2-3:

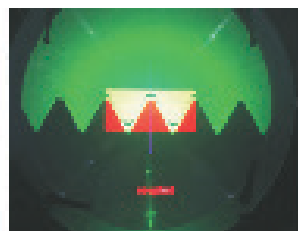


Checking shallow radii against CAD model tolerance band

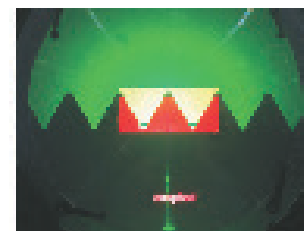
Using eCAD is as easy as 1-2-3:



Too big (part oversized)



Too small (part undersized)



Just right (part in tolerance)

	Standard
Supported CAD File Format	DXF (Gerber, Excellon, HPGL, PRT, EPS, DWG)
Standard Electronic Charts	C-1 90° cross lines only; C-2 90° cross lines with 30° line in all four quadrants; MG-2 micro-gage cross lines with 30° micro-gage line in all four quadrants; 360° Radius Chart-Multi-Mag; Tool Room Chart
Hardware	Includes trackball, lamp house mount for rapid positioning of computer pointing device at the comparator viewing screen (CCP floor model units only); optional PSR Precision Stepper Rotary Stage. Optional Fresnel lens required.
Digital Readouts Supported	QVI® Q-Check® DRO, or Quadra-Check® QC-300
Licensing	One machine license and dongle included per eCAD package
Computer Requirements (all software requires a separate computer)	Windows™ XP Professional or Windows 7 (32 or 64 bit), Pentium class processor, 32-bit or 64-bit architecture, 128 MB RAM, 20 MB free space on hard drive, dual monitor support DVI/VGA card (800 x 600 min) required, CD-ROM drive, mouse, 104-key keyboard
Units	English or metric
CAD File Orientation	Rotational; mirror image horizontal; mirror image vertical; delete entities; material side identification
Tolerance Views	Translucent, color-coded; silhouette; micro-gage
Viewing Tools	Nominal; nominal with profile tolerances; unilateral or bilateral tolerances; tolerance per entity
Inspection Modes	Manual moves; automated moves with manual step-by-step indexing; automated moves with programmed pauses; recall programmed inspection projects; chart gage rotation using motion
Calibration Modes	Field of view, parcentrality; keystone
CAD Alignment Methods	1. Visual Comparison - manual alignment by eye of general part characteristics 2. Manual Orientation Features - manual alignment by eye using a datum structure or skew alignment feature for a more precise relationship 3. Automatic Orientation Features (Automatic Edge Detection) - using the power of EdgeScan™ (if equipped) to precisely align specific features
Optional Software Module	eCAD offline - available for remote programming without interfering with a production machine. Has the ability to define tolerancing, import CAD files, create alignment methods, and program critical inspection areas from a remote location