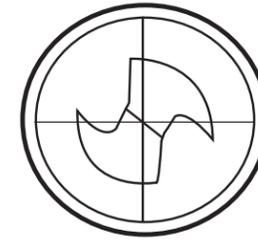
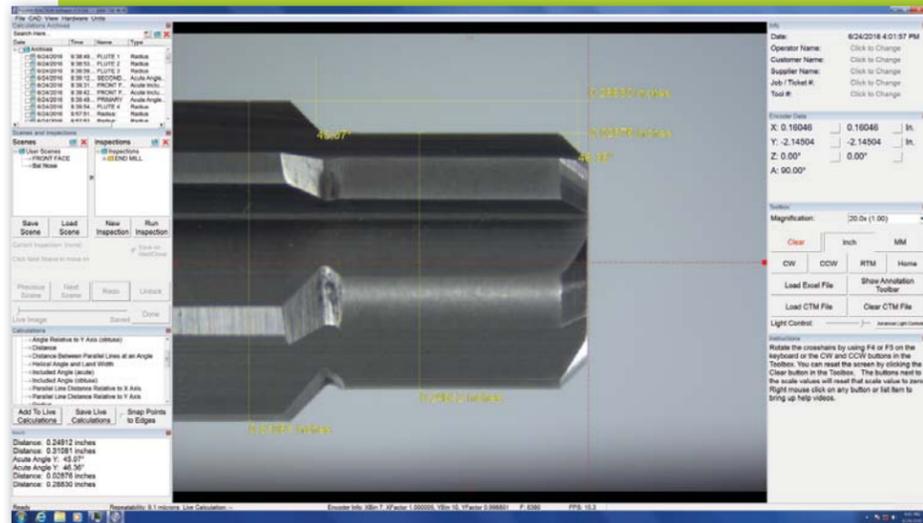




# PG1000

Cutting Tool Inspection System

## Archived tool inspection data for step reamer

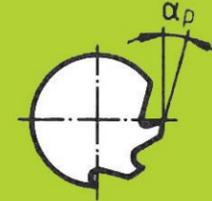


# PG1000

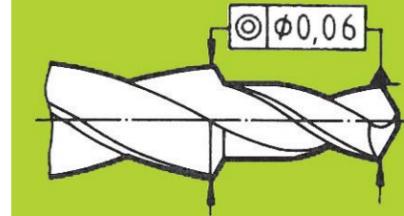
Cutting Tool Inspection System

## PG1000 REACTION Software

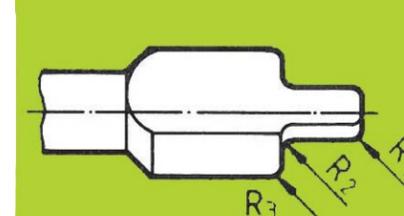
back clearance angle of minor edge



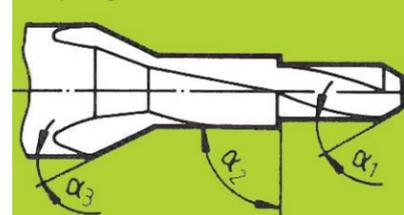
concentricity of step(s)



radius comparison



step angles



web thickness



**PG1000 REACTION Software** is a proprietary software written by Euro-Tech for the exclusive purpose of cutting tool inspection. The word REACTION is an acronym for **REALtime Cutting Tool Inspection**. Meaning we digitally analyze five million pixels, sorting over sixteen million colors fifteen times a second to find patterns and shapes overlooking excessive glare from too much directed light, shadows, irregular or broken shapes. REACTION Software does not electronically enhance, crop or magnify tool images in any way, what you see is exactly what the camera captures, the GPU and CPU analyze to help you the user inspect your cutting tools. We didn't use a CAD system as the backbone of our software. CAD systems while great for drawing images and dimensioning them on paper are incapable of doing complex custom image analysis, instead we wrote our own software to fill just the needs of cutting tool inspection.

Multiple inspections can be made on a single image in real time, saved they become an inspection scene. Save an inspection scene and you've just created a macro to repeat tool inspections. Save multiple tool scenes to create complete tool inspection, save scenes and inspection as archives for tool documentation or export inspection data to Excel. Import .dxf or .dwg files for tool comparisons or collect data points for export to a CAD system.

We take your good suggestions, ideas and make them reality, truly Cutting Edge Inspection Software for Cutting Tools.

## Where's my manual?

**Don't look for a PG1000 user's tool inspection manual, there isn't one.** Cutting tool are like machine tools, everybody uses them but for different reason to machine different parts. Cutting tool are no different, every manufacture makes them to their specifications claiming to be them to be the best. We created REACTION Software with all the tools to let you the user decide with your tool manufacturer how best to check your tools or if you are the

manufacturer you know better than we do how to check you're tools. The job of REACTION Software is to show you the tools that are available through on screen text, prompts and video examples. The text has been translated into three languages, but you now the old saying, "A picture is worth a thousand words". Feel free to contact us any time with any questions.



The PG1000 is a product of:  
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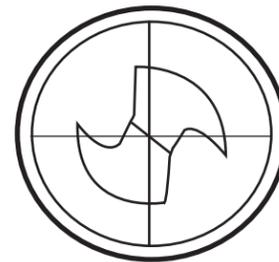
# REACTION Software

The screenshot displays the REACTION software interface with a central 3D model of a cutting tool. The interface includes several panels and toolbars:

- Top Bar:** Shows the software version number (v1.9.13) and gage serial number (1000-738-4K4).
- Annotation Tool Bar:** Located at the top right of the 3D view.
- Archived Inspection Data:** A table on the left side listing inspection records, sorted by name, type, date, or time.
 

Date	Time	Name	Type
6/24/2016	9:38:49...	FLUTE 1	Radius
6/24/2016	9:38:53...	FLUTE 2	Radius
6/24/2016	9:38:59...	FLUTE 3	Radius
6/24/2016	9:39:12...	SECOND...	Acute Angle
6/24/2016	9:39:31...	FRONT F...	Acute Inclu...
6/24/2016	9:39:42...	FRONT F...	Acute Inclu...
6/24/2016	9:39:49...	PRIMARY	Acute Angle
6/24/2016	9:39:54...	FLUTE 4	Radius
6/24/2016	9:57:51...	Radius:	Radius
6/24/2016	9:57:53...	Radius:	Radius
- Scenes and Inspections:** A panel on the left showing saved inspection scenes and the current inspection setup (END MILL, FRONT FACE, SIDE VIEW).
- Calculations:** A panel on the left listing various calculation types such as Angle Relative to X Axis, Distance, and Helical Angle.
- Results:** A panel on the left displaying inspection results, which are transferable to Excel.
 

Item	Value
END MILL FRONT FACE	6.280 mm
FLUTE RADII 1	2.498 mm
FLUTE RADII 2	2.510 mm
Acute Angle Y (edge detection)	13.90°
Acute Angle Y (edge detection)	27.80°
PRIMARY WIDTH 1	0.855 mm
PRIMARY WIDTH 2	0.850 mm
- Info Panel:** A panel on the right showing job data including Date, Operator Name, Customer Name, Supplier Name, Job / Ticket #, and Tool #.
- Encoder Data:** A panel on the right showing encoder data output for X, Y, Z, and A axes in mm.
- Toolbox:** A panel on the right containing controls for Magnification (20.0x), Inch/Metric selection, and rotation (CW, CCW, RTM, Home).
- Instructions:** A panel on the right providing user instructions for selecting tool locations and performing calculations.
- Status Bar:** Shows Repeatability (9.1 microns), Encoder Info (XBin 7, YBin 14), Focus Pulse Count (F: 6885), and Camera Frame Rate (FPS: 15.3).



**PG1000**  
Cutting Tool  
Inspection System