



# KELCH

## Quick Start Guide

KENOVA measure line VHE / VC

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KELCH KENOVA measure line VHE



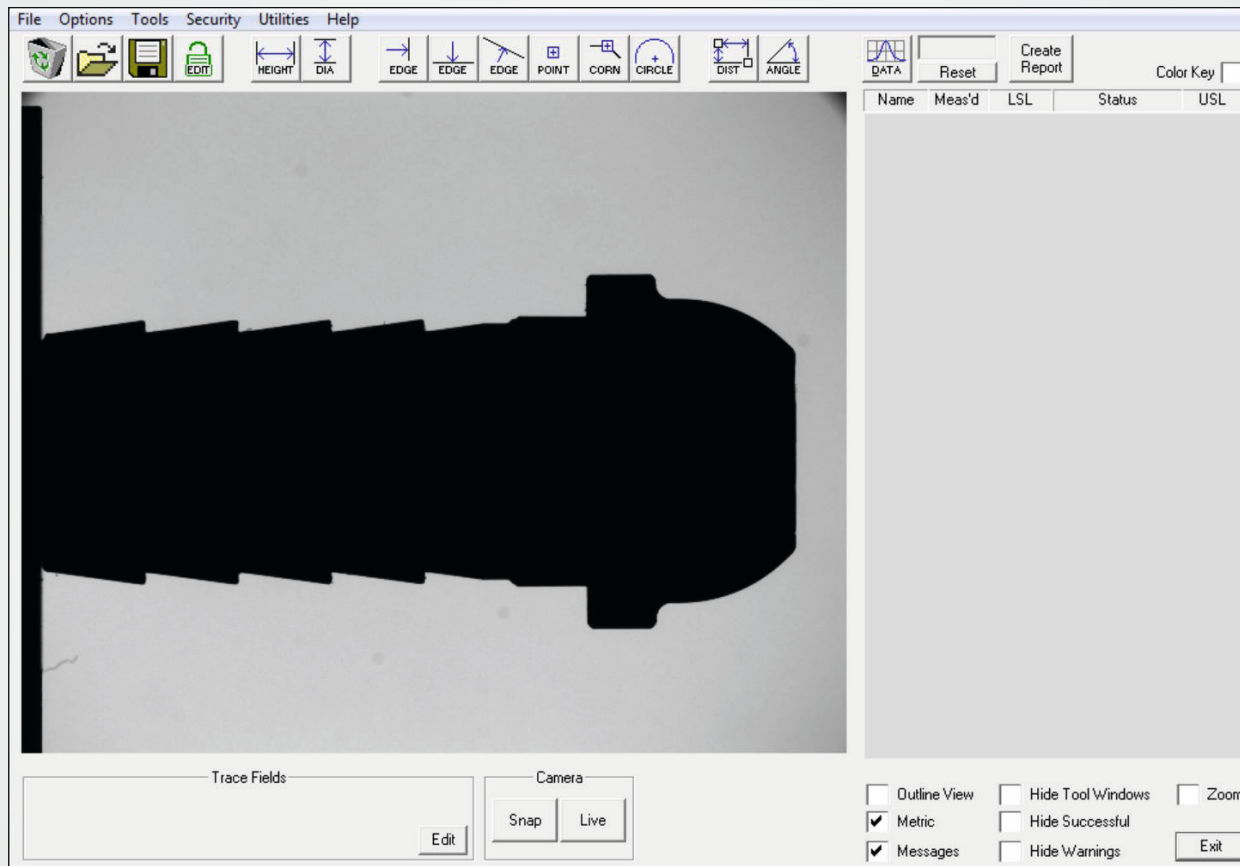
KELCH KENOVA measure line VC

# KELCH

If you have any questions using this guide,  
please call Kelch GmbH, at:  
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This guide utilizes a sample part to  
demonstrate the programming basics.

## KELCH KENOVA measure line VHE / VC Software and Sample Part



To use this guide, determine which of the following three scenarios applies to you:

- 1) I have an VHE / VC Inspection System, **and** I have the sample part:
  - Launch the software on the VHE / VC and place the Sample Part on the center of the stage.
- 2) I have an VHE / VC Inspection System, **but I do not** have the sample part:
  - You can follow this guide by loading a saved image of the sample part.

Launch the software on the VHE / VC. Select "File", then "Load Image". Select "5440K114.bmp" and click "Open". This will load a saved image of the Sample Part and you can program on that image, just as if the part were sitting on the VHE / VC.

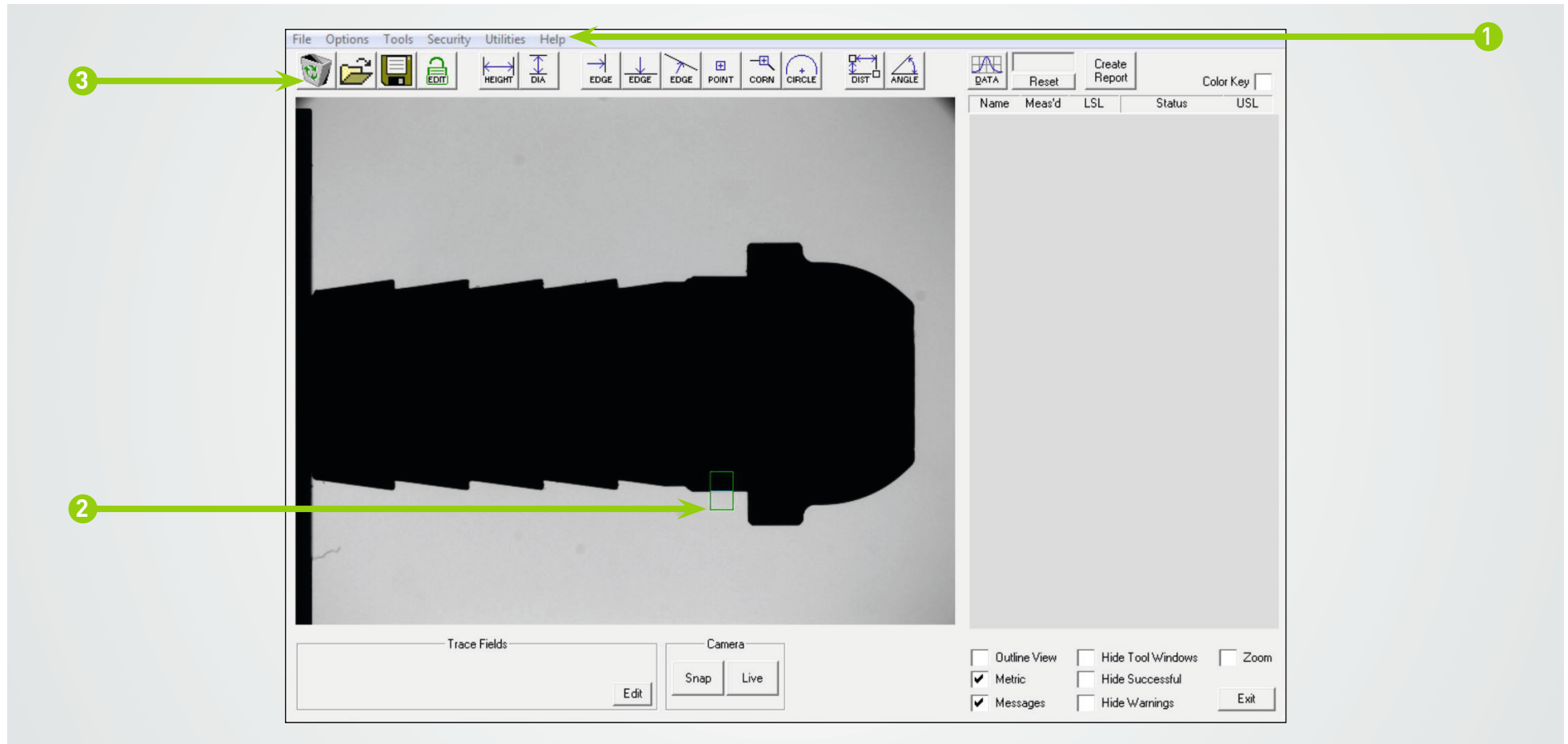
- 3) I **do not** have an VHE / VC Inspection System:
  - You can follow this guide by loading a saved image of the sample part into the Offline
  - Version of the VHE / VC software. Download and install the Offline VHE / VC software from

- our website:  
<http://www.kelch.de/en/downloads-kopie.html>


Launch the Offline VHE / VC software. Select "File", then "Load Image". Select "5440K114.bmp" and click "Open". This will load a saved image of the Sample Part and you can program on that image, just as if the part were sitting on the VHE / VC.

**NOTE:** The Offline Version of the VHE / VC software will run on any Microsoft Windows based computer and is best viewed at a screen resolution of 1024 x 768 pixels.

## Simple Instructions for the KELCH KENOVA measure line VHE / VC

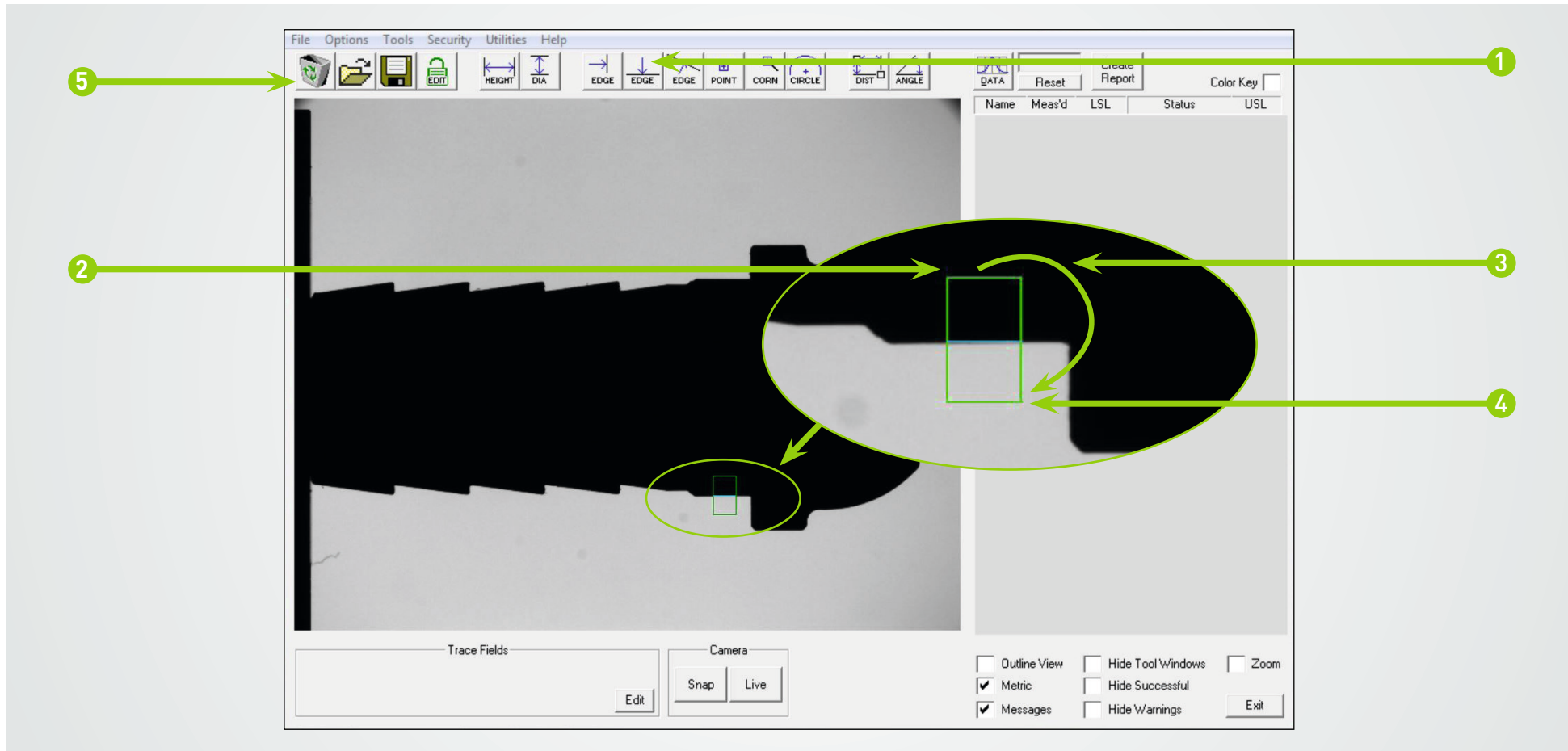


### It's Easy - Using this Guide


- 1) The numbers in these instructions match the numbers and green arrows in the screen capture above. For example, if this instruction (#1) indicated to click the "Help", then the #1 arrow in the screen capture would be pointing to the appropriate place on the screen, as shown
- 2) The size and position of the edge detection boxes are important. Try to locate the boxes as they appear on the image.
- 3) To clear the screen and start over at any time, click the Recycle Bin icon . CAUTION: The Recycle Bin will clear the current program and any unsaved work will be lost! You may have to restart at Step #1.



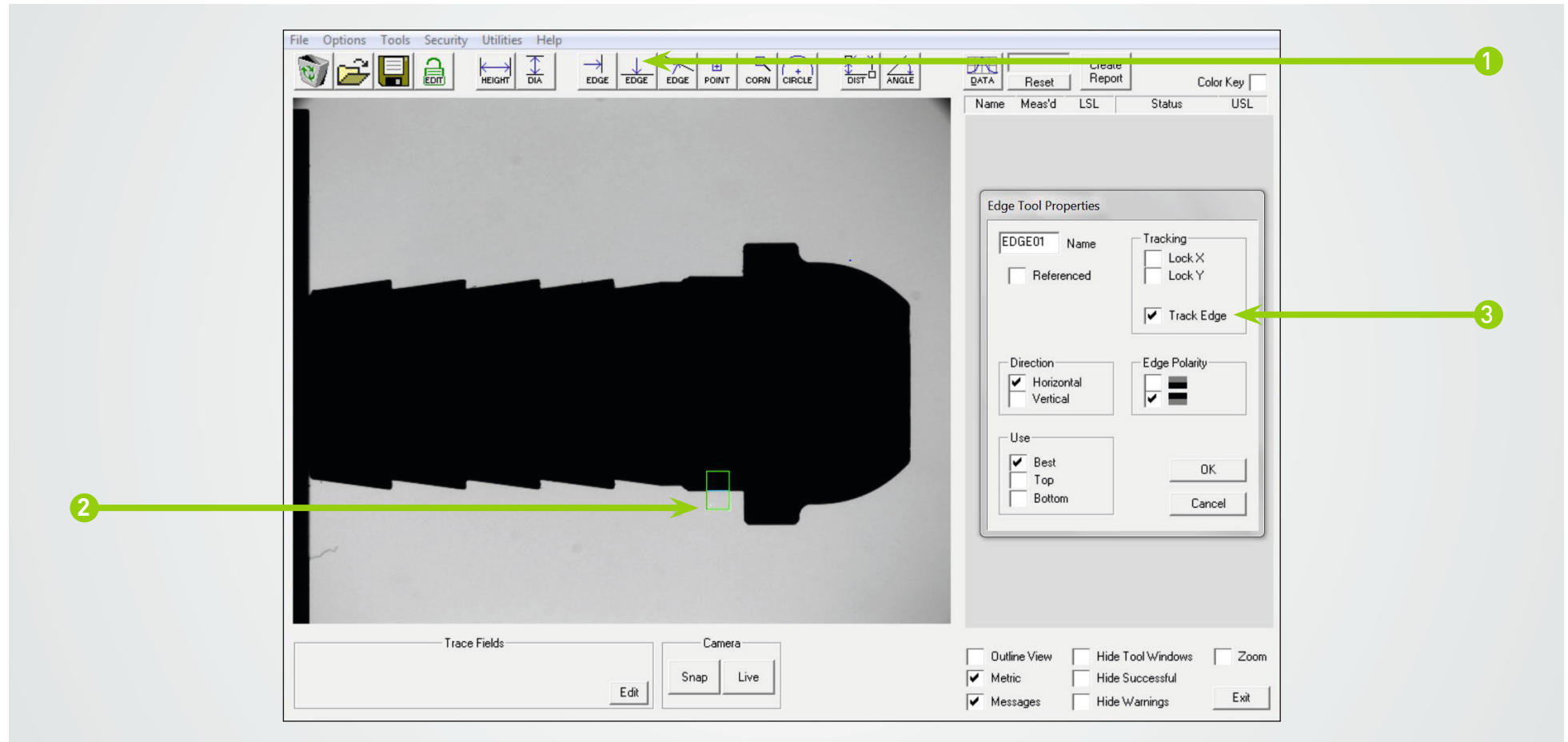
## Practice Drawing Boxes on the KELCH KENOVA measure line VHE / VC




### It's easy - Click, Drag and Drop

- 1) To practice drawing edge boxes, begin by left clicking on the Horizontal Edge Tool .
- 2) **Click:** Move the cursor to a location where the first corner of the box will start. Left click **and hold the mouse button down**.
- 3) **Drag:** While still holding the mouse button down, drag the cursor to size the box around the edge.
- 4) **Drop:** Release the mouse button to drop & lock the size of the box.
- 5) Click the Recycle Bin to clear the screen. Repeat these steps as needed before moving on. To surround the edge, the box starts **above** (or below) and to the **left** (or right) of the edge.

## Tracking a Part on the KELCH KENOVA measure line VHE / VC



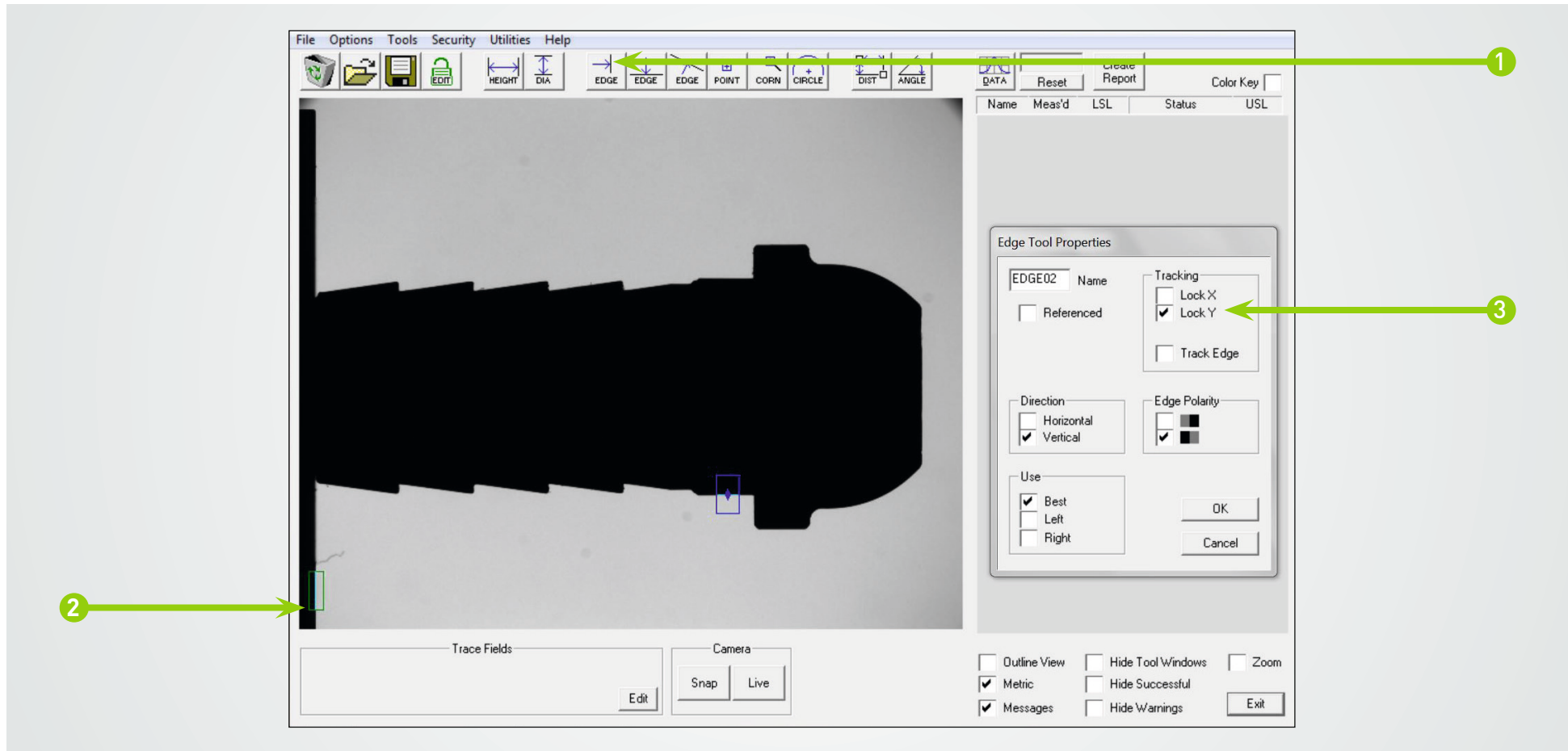
### Step #1: Track Part with Horizontal Edge

- 1) Locate a horizontal edge on the part by first left clicking on the Horizontal Edge Tool  .  
When you move the cursor, it will appear with the word "NEW".
- 2) Draw an edge detection box around the edge to be found, as shown.


- 3) Right-click, select "Edge Properties", and check the box labeled "Track Edge". Click OK.

**NOTE:** Unless needed to completely start over, do not delete your work or clear the screen as you progress. This guide is written in order, where one step relies on another to keep moving forward.

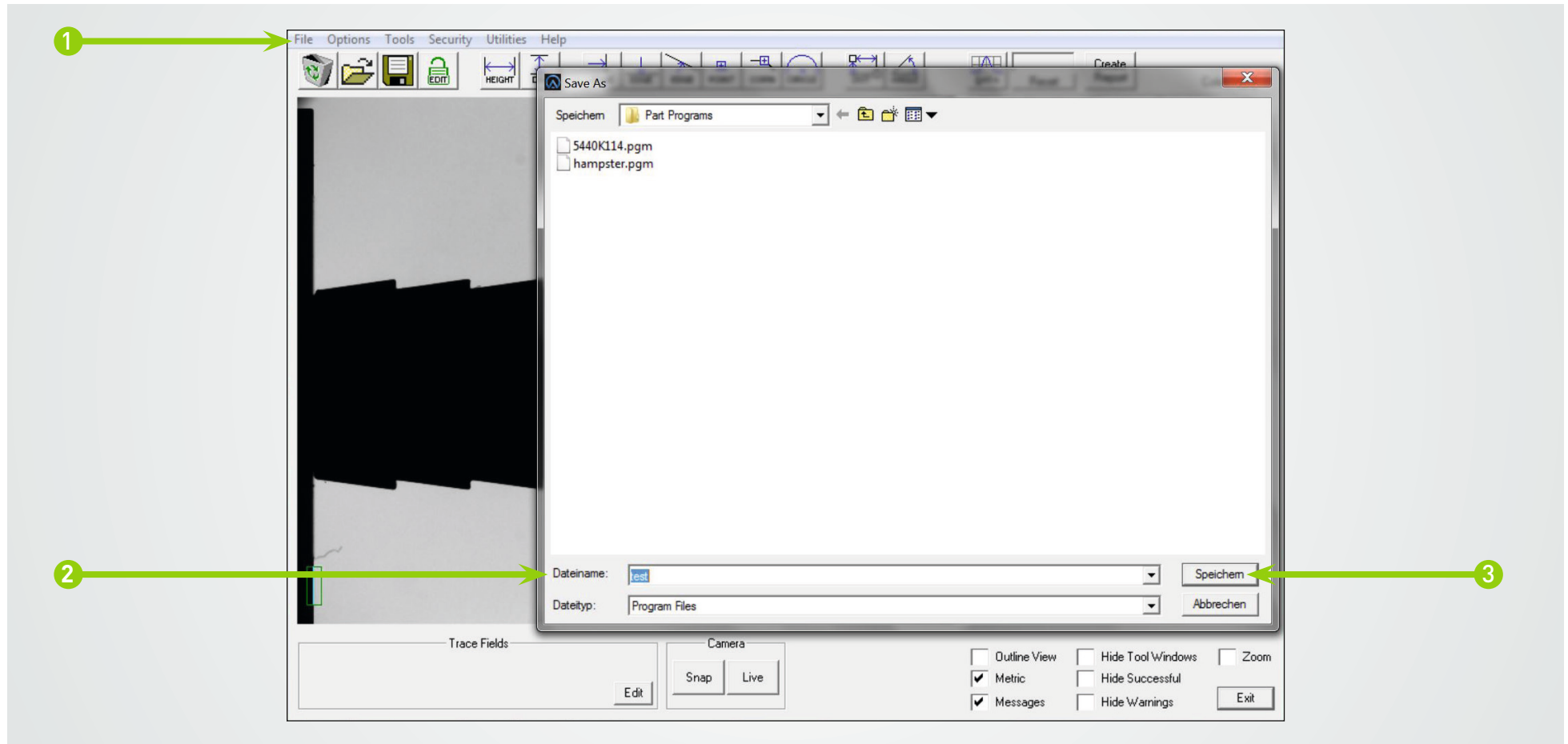
## Staging the Vertical Edge on the KELCH KENOVA measure line VHE / VC




### Step #2: Locate Stage with Vertical Edge

- 1) Locate the stage edge by first left clicking on the Vertical Edge Tool . The cursor will appear with the word "NEW".
- 2) Draw an edge detection box around the edge to be found, as shown.
- 3) Right-click, select "Edge Properties", and check the box labeled "Lock Y". Click OK.

## Easy to Save on the KELCH KENOVA measure line VHE / VC

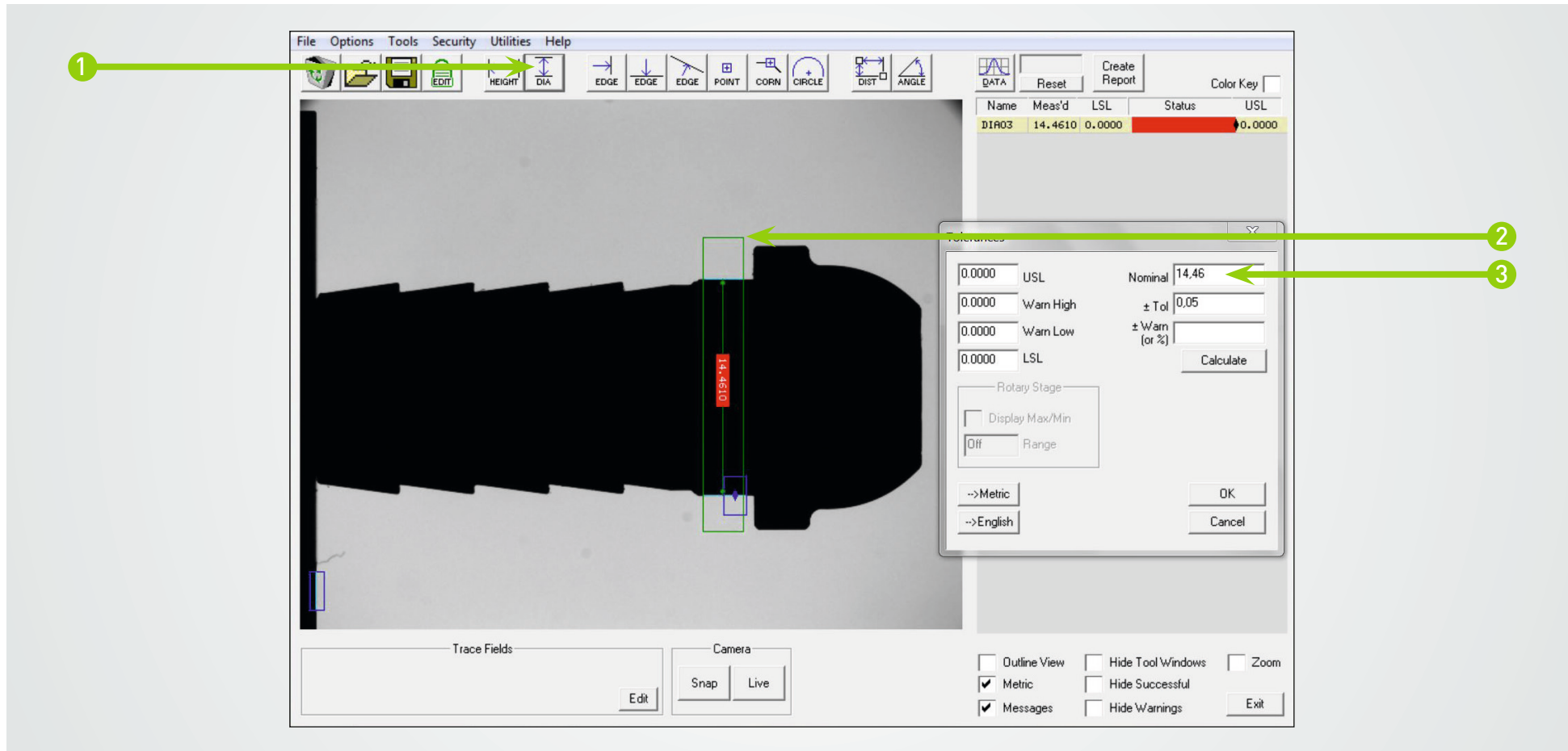


### Step #3: Save Program

- 1) Save the program by clicking "File", then "Save" . You can also click the Save Icon.
- 2) Enter the desired name of the program.
- 3) Click "Save".


**NOTE:** Saving early and often is a good practice to protect against unexpected loss of work.

## Measuring the Diameter on the KELCH KENOVA measure line VHE / VC



Fast, Accurate, Easy. Measure On.

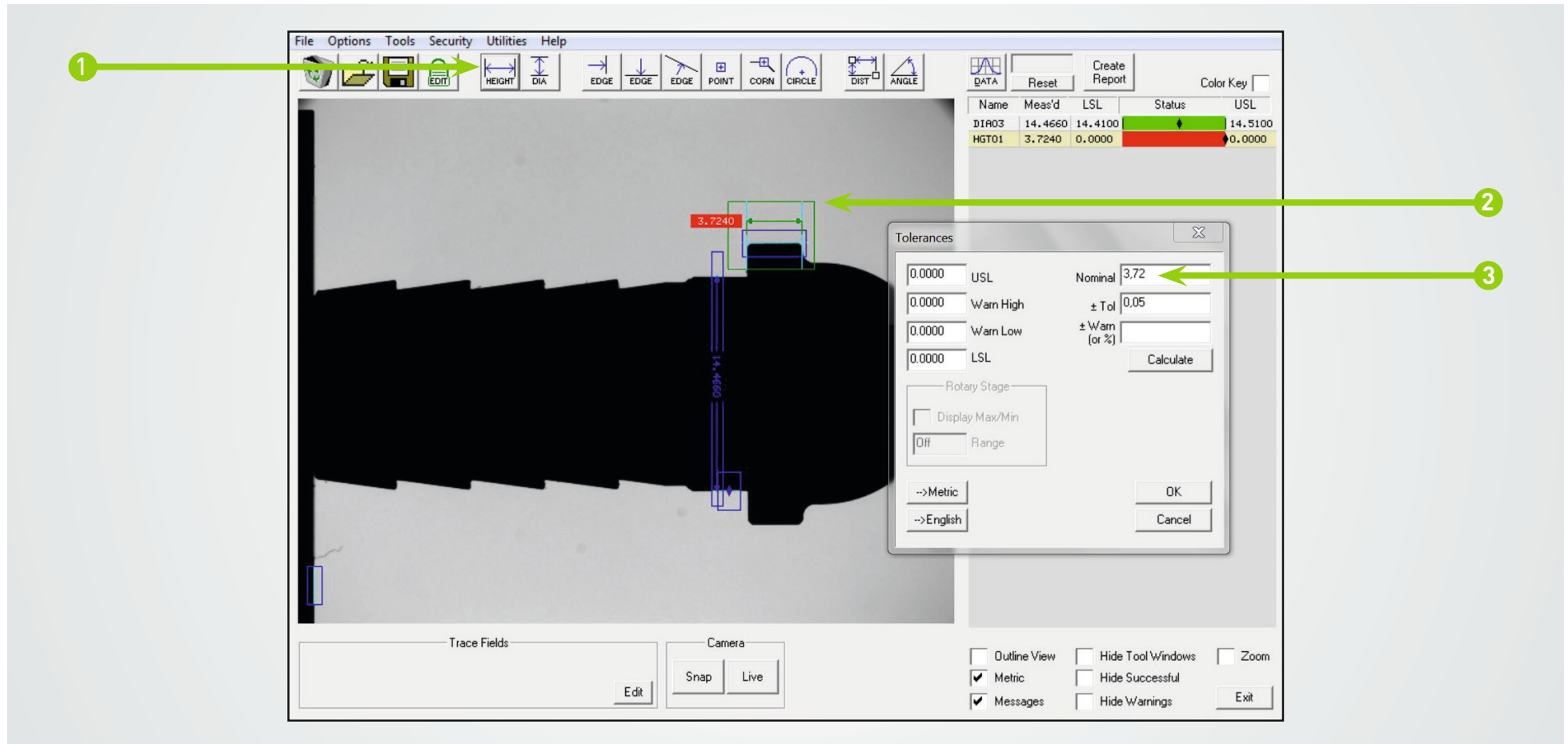
### Step #4: Measure Diameter

- 1) First, left click on the Diameter Tool .  
The cursor will appear with the word "NEW".
- 2) Draw an edge detection box over the diameter to be measured, as shown.
- 3) Right click, and then select "Tolerance". Enter 0.5500 in Nominal and 0.0050 in +/- Tol. Click OK.


**NOTE:** To start a measurement over, remove the box by right clicking, then select "Delete".

**NOTE:** To go back to a previously saved version of the program, click the Recycle Bin icon and then click OK to clear the current program. Click "File", and then "Open". Select the proper program, and then click "Open". Click the Edit Icon to unlock the program and uncheck "Hide Tool Windows".

## Measuring the Height on the KELCH KENOVA measure line VHE / VC



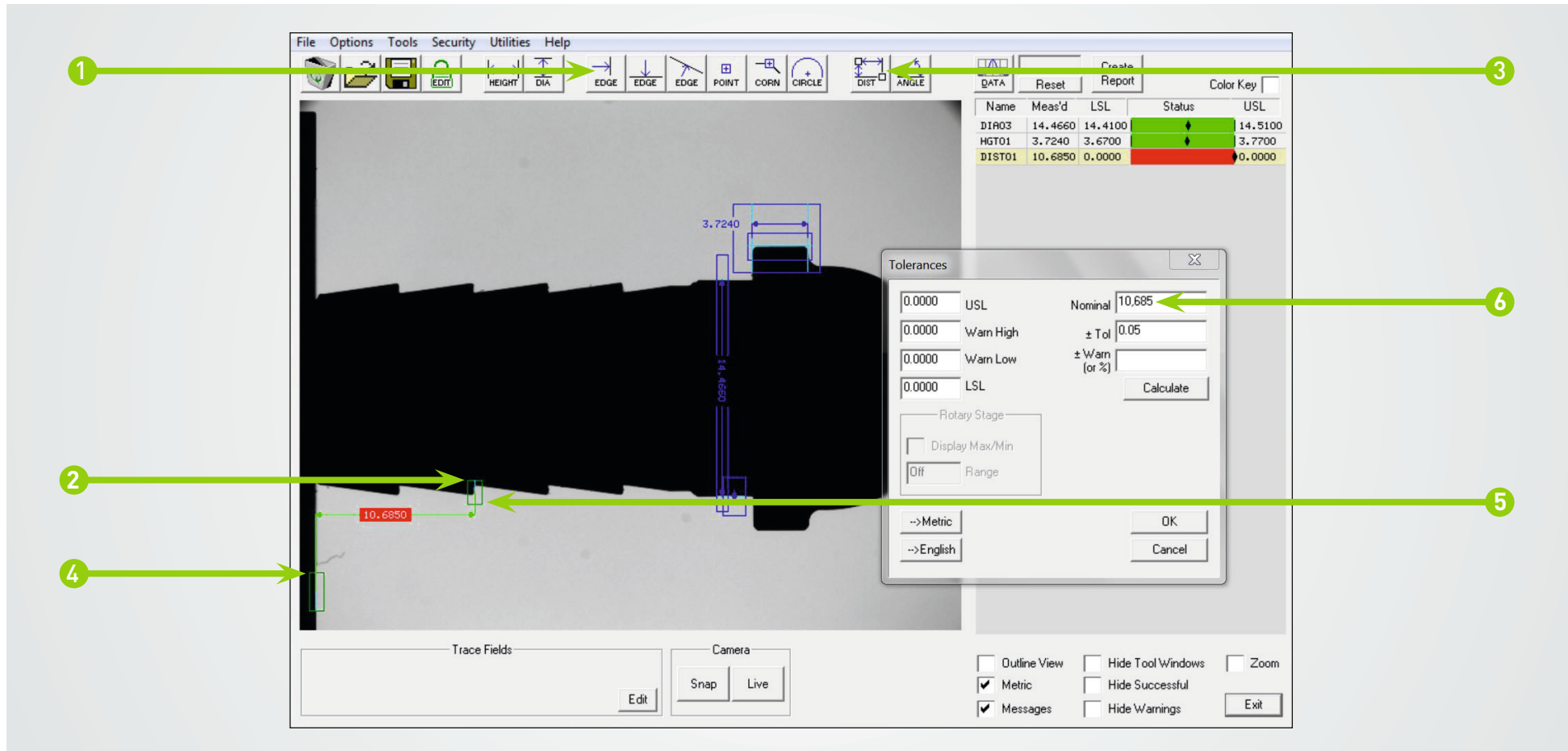
### Step #5 - Measure Height

- 1) First, left click on the Height Tool .  
The cursor will appear with the word "NEW".
- 2) Draw an edge detection box over the height to be measured, as shown.
- 3) Right click, and then select "Tolerance".  
Enter 0.1400 in Nominal and 0.0050 in +/- Tol.  
Click OK.



**NOTE:** A height is two vertical edges that are directly across from each other.



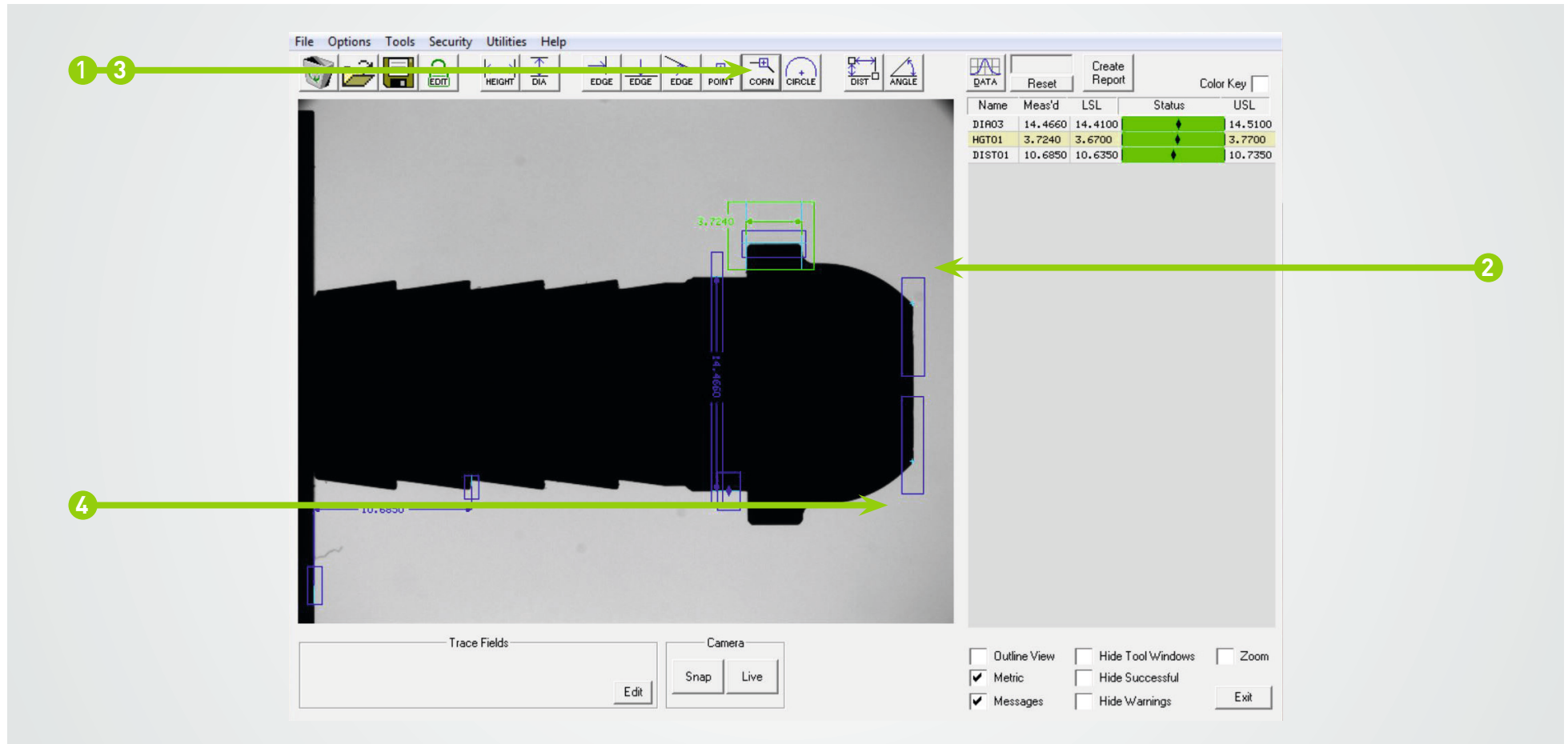
## Measuring the Horizontal Distances on the KELCH KENOVA measure line VHE / VC




### Step #6 - Measure Horizontal Distance

- 1) First, left click on the Vertical Edge Tool . The cursor will appear with the word "NEW".
- 2) Draw an edge detection box around the edge to be used, as shown.
- 3) Left click on the Distance Tool . The cursor will appear with "1 EDGE".
- 4) Left click on the stage edge box; the cursor will then appear with "2 EDGE".
- 5) Left click on the edge box that you first drew to get the distance measurement.
- 6) Right click, and then select "Tolerance". Enter 0.4000 in Nominal and 0.0050 in +/- Tol. Click OK.

## Locating Corners on the KELCH KENOVA measure line VHE / VC



## Step #7 - Locate Corners

- 1) Left click on the Corner Tool . The cursor will appear with the word "NEW".
- 2) Draw a detection box to locate the corner (theoretical intersection) desired, as shown.
- 3) Again, left click on the Corner Tool. The cursor will appear with the word "NEW".

- 4) Draw a detection box to locate another second corner, as shown.

**NOTE:** You can save your work at any time by saving the program, as was done in Step #3.




## Measuring the Vertical Distances on the KELCH KENOVA measure line VHE / VC

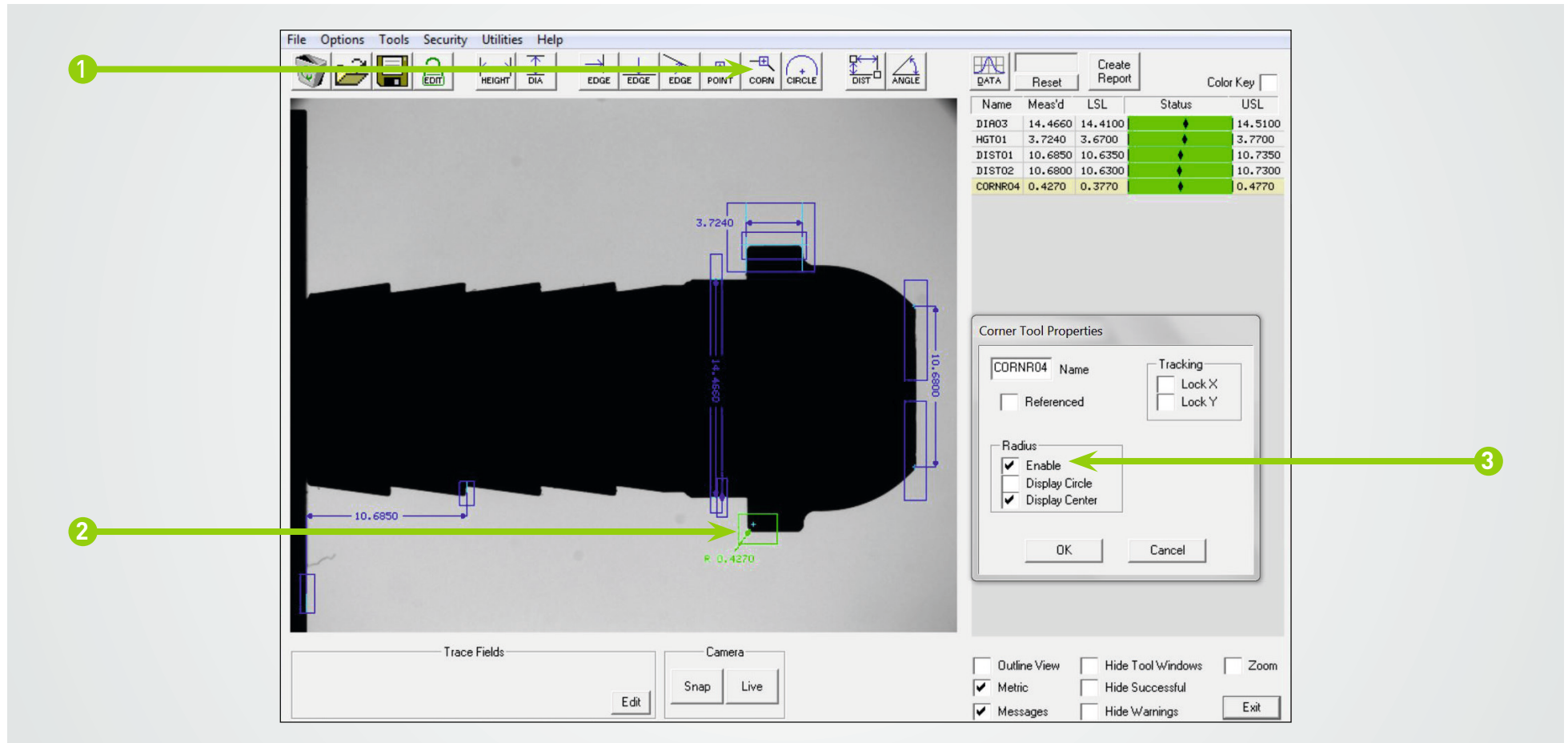
The screenshot shows a software interface for measuring a part. The main view displays a black silhouette of a part with several measurement lines. A vertical distance of 10.6850 is highlighted in red. A horizontal distance of 3.7240 is also shown. The 'Tolerances' dialog box is open, showing a Nominal value of 10.68 and a tolerance of ±0.05. The dialog box has fields for USL, Warn High, Warn Low, and LSL, all set to 0.0000. The 'Rotary Stage' section has 'Display Max/Min' checked and 'Diff' set to 'Range'. The 'Metric' checkbox is checked, and the 'Messages' checkbox is also checked. The 'Exit' button is visible at the bottom right of the dialog box.

Name	Meas'd	LSL	Status	USL
DIPO3	14.4660	14.4100	↕	14.5100
HGT01	3.7240	3.6700	↕	3.7700
DIST01	10.6850	10.6350	↕	10.7350
DIST02	10.6800	0.0000	↕	0.0000


### Step #8 - Measure Vertical Distance

- 1) To begin, left click on the Distance Tool . The cursor will appear with "1 EDGE".
- 2) Left click on first corner box; the cursor will then appear with "2 EDGE".
- 3) Left click on the other corner box to get the distance measurement.
- 4) Right click, and then select "Tolerance". Enter 0.4100 in Nominal and 0.0150 in +/- Tol. Click OK.

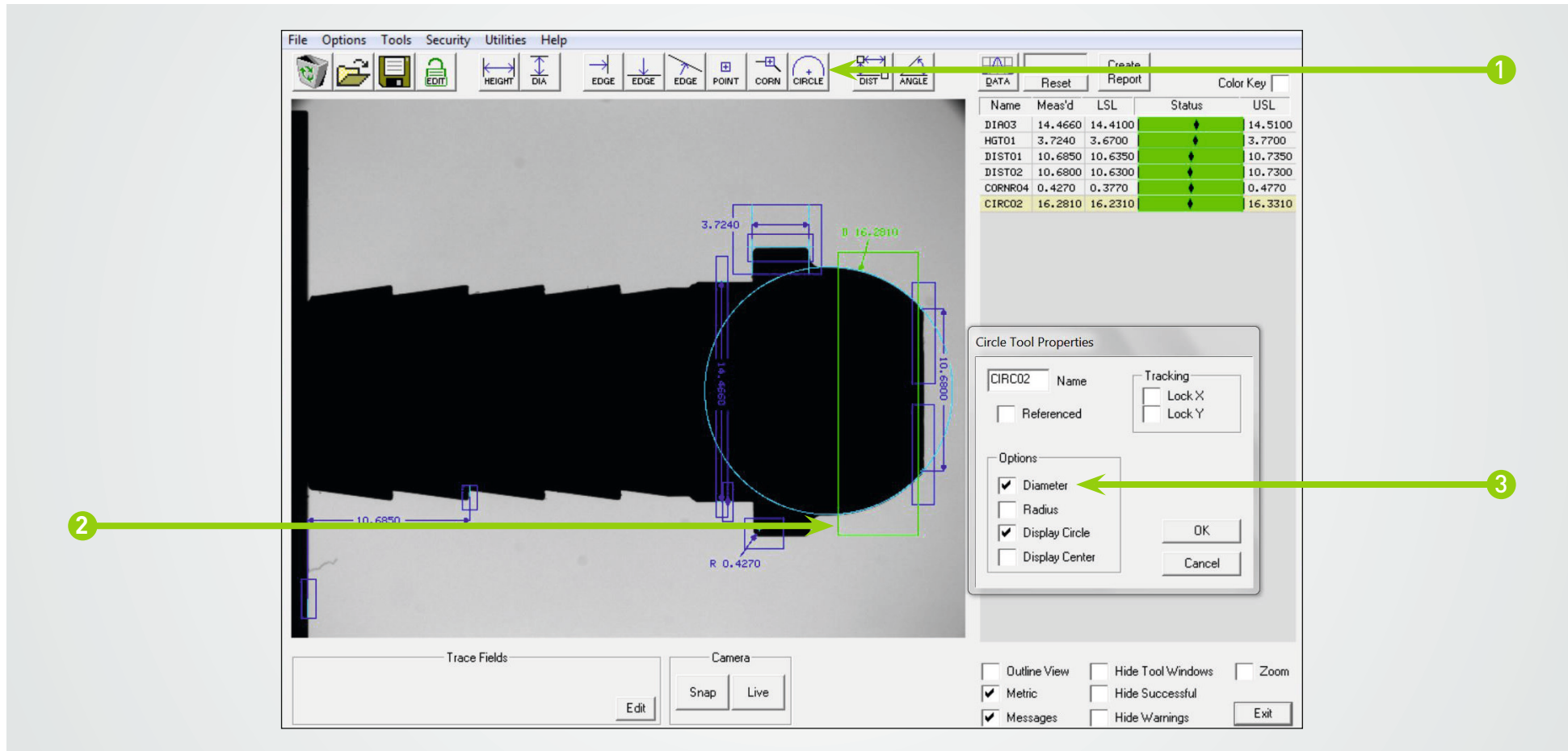
## Measuring Corners on the KELCH KENOVA measure line VHE / VC




### Step #9 - Measure Corner Radius

- 1) Left click on the Corner Tool . The cursor will appear with the word "NEW".
- 2) Draw a detection box to locate the corner with a radius to be measured, as shown.
- 3) Right click and select "Corner Properties", then check the box labeled "Enabled" under radius. Click OK.
- 4) Right click, and then select "Tolerance". Enter 0.0150 in Nominal and 0.0050 in +/- Tol. Click OK.

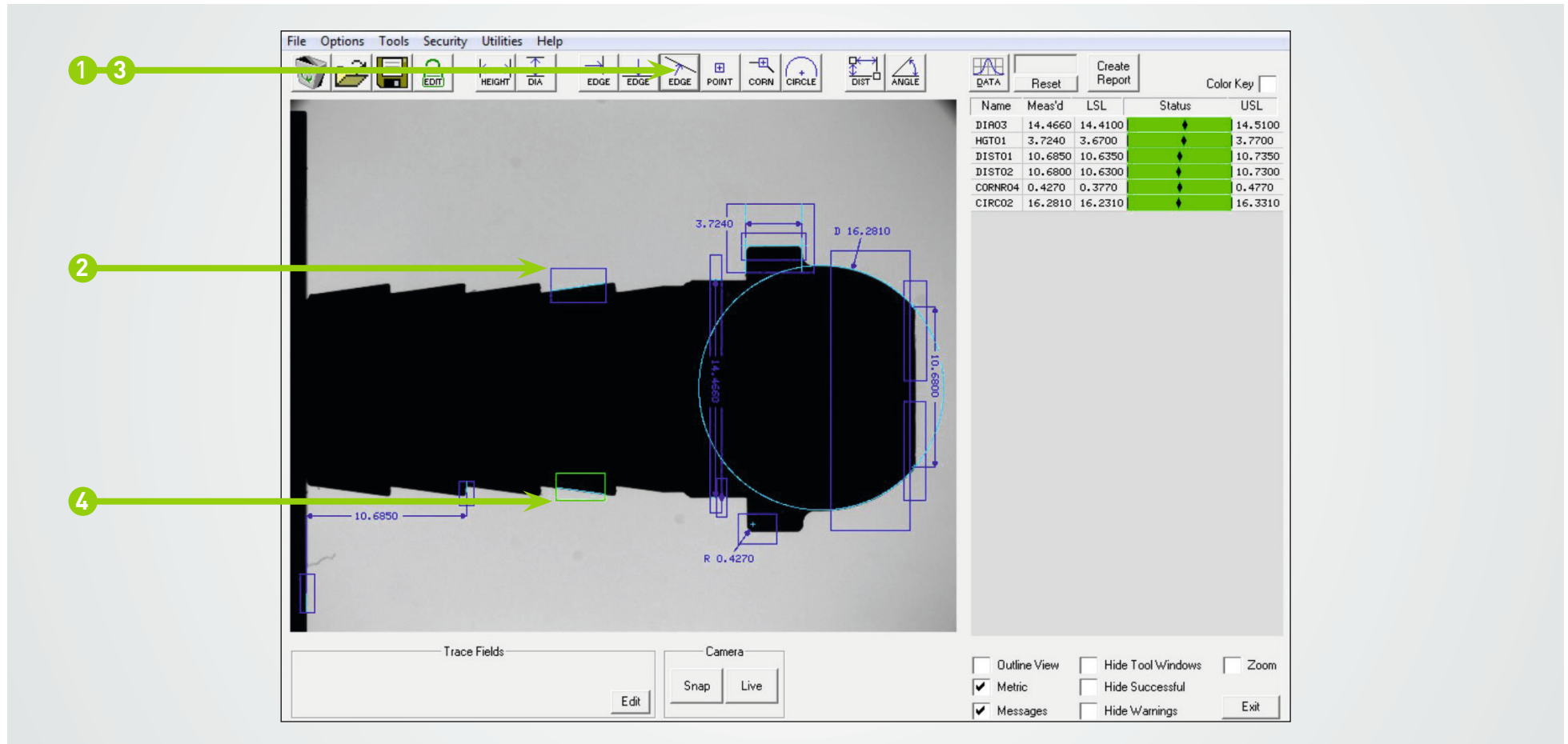
## Measuring a Circle on the KELCH KENOVA measure line VHE / VC




### Step #10 - Measure Circle

- 1) Start by left clicking the Circle Tool  .  
The cursor will appear with the word "NEW".
- 2) Draw a detection box around the circle to be measured, as shown.
- 3) Right click and select "Circle Properties", then check the box labeled "Diameter". Click OK.
- 4) Right click, and then select "Tolerance".  
Enter 0.6200 in Nominal and 0.0100 in +/- Tol.  
Click OK.

## Locating Angular Edges on the KELCH KENOVA measure line VHE / VC

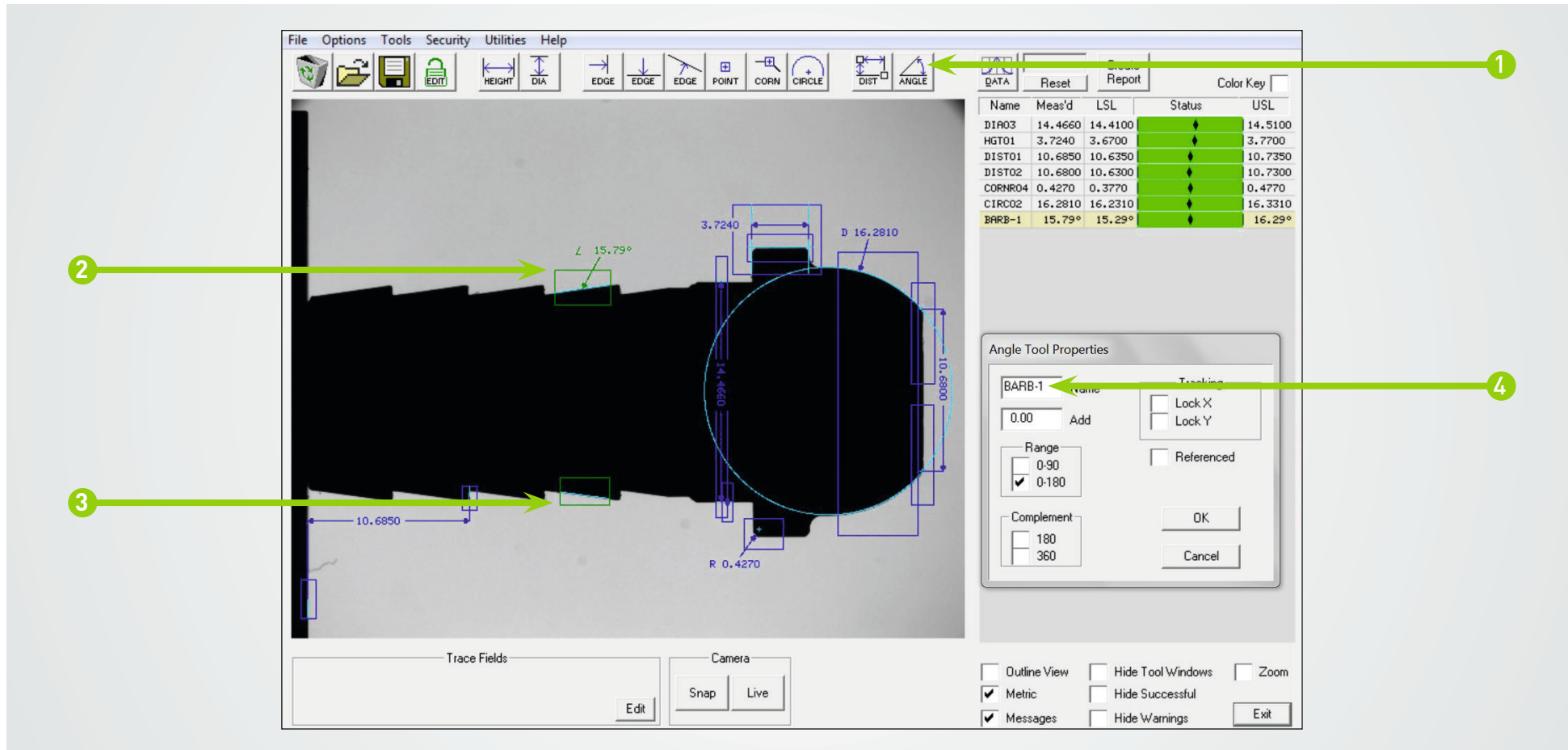


### Step #11 - Locate Angular Edges


- 1) Left click on the Angular Edge Tool .  
The cursor will appear with the word "NEW".
- 2) Draw an edge detection box around the angular edge to be located, as shown
- 3) Again, left click on the Angular Edge Tool. The cursor will appear with the word "NEW".
- 4) Draw another edge detection box around the second angular edge to be located, as shown

**NOTE:** When drawing edge detection boxes for angular edges, make certain to draw the box only over the angle to be located – not covering any adjacent features.

## Measuring an Angle on the KELCH KENOVA measure line VHE / VC



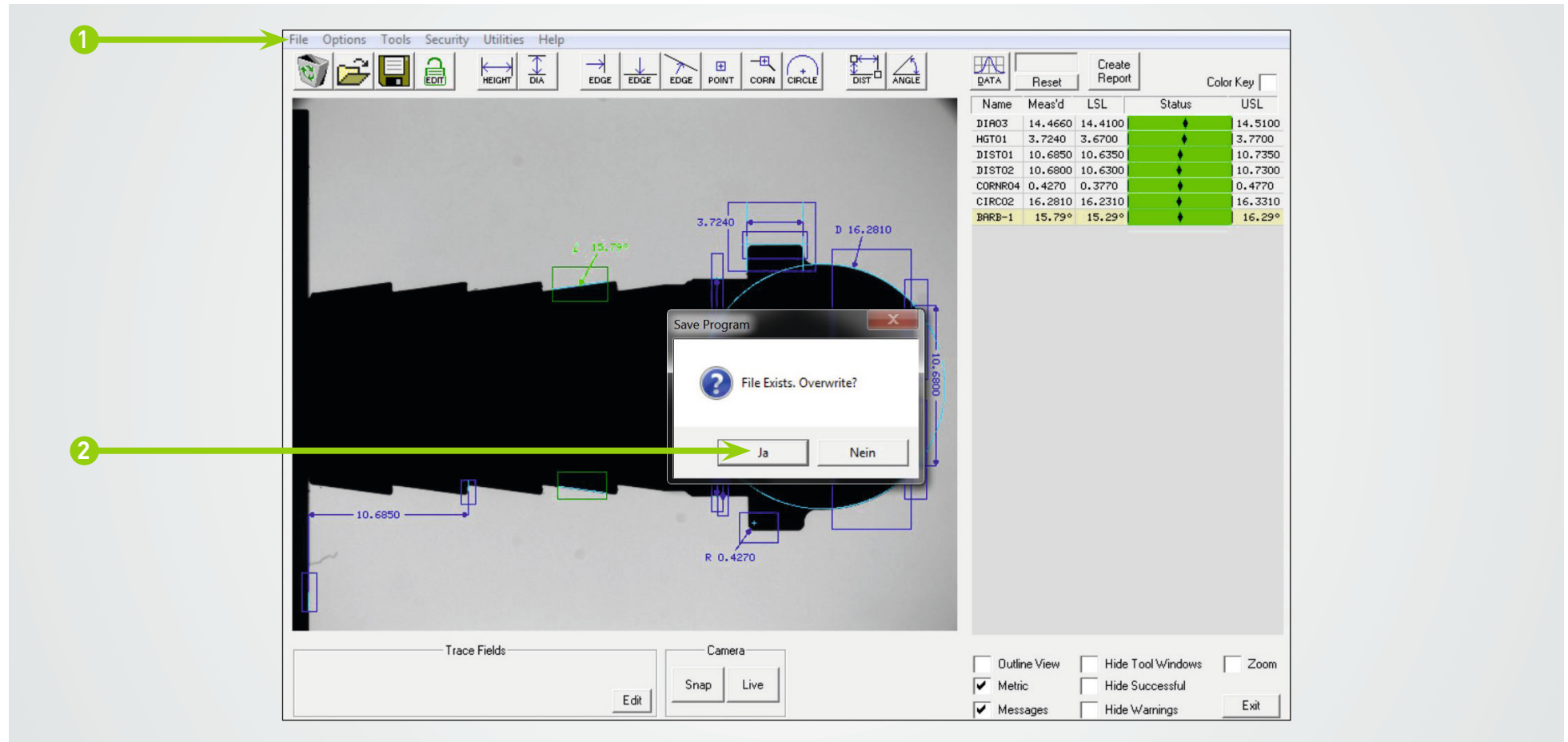
### Step #12 - Measure Angle

- 1) Left click on the Angle Tool . The cursor will appear with "1 EDGE".
- 2) Left click on first angular edge box; the cursor will then appear with "2 EDGE".
- 3) Left click on the other angular edge box to get the relative angle measurement.
- 4) Right click and select "Angle Properties". Change the tool name to BARB-1. Click OK.
- 5) Right click, and then select "Tolerance". Enter 16.00 in Nominal and 2.00 in +/- Tol. Click OK.


**NOTE:** The angle measurement points to the first edge selected, and the angle can be measured relative to any other edge (Horizontal, Vertical, or Angular).



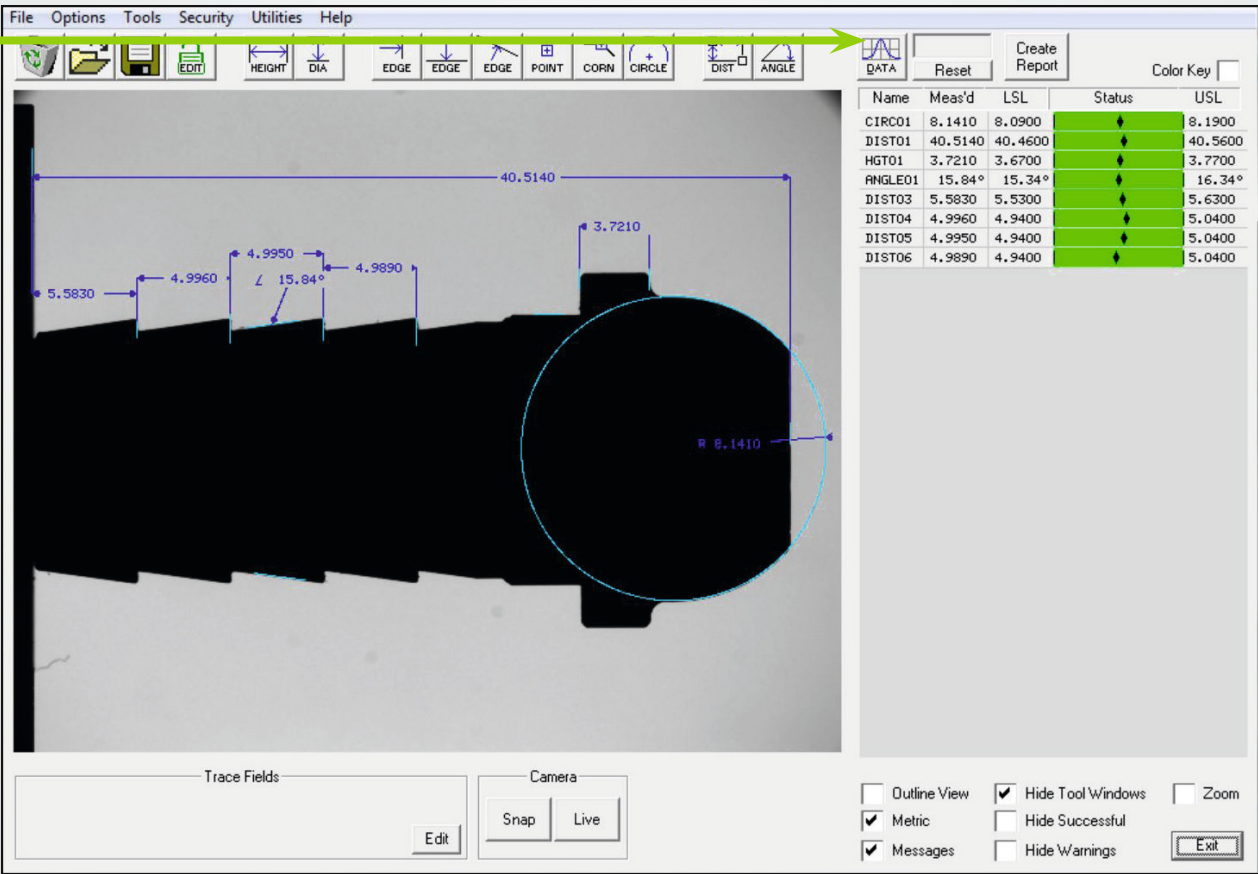
## Saving the Program on the KELCH KENOVA measure line VHE / VC



### Step #13 - Save Program

- 1) Save the program by clicking "File", then "Save".  
You can also Click the Save Icon .
- 2) Since this program was previously saved, a dialog box will ask you to confirm saving over the previous program file. Click "Yes" to save the current program and overwrite the existing.

## Storing Data on the KELCH KENOVA measure line VHE / VC




The screenshot shows a software interface for measuring a part. The main window displays a black silhouette of a part with various dimensions and features. A green arrow points to the 'DATA' icon in the toolbar. The data table on the right lists the following measurements:

Name	Meas'd	LSL	Status	USL
CIRC01	8.1410	8.0900	↕	8.1900
DIST01	40.5140	40.4600	↕	40.5600
HGT01	3.7210	3.6700	↕	3.7700
ANGLE01	15.84°	15.34°	↕	16.34°
DIST03	5.5830	5.5300	↕	5.6300
DIST04	4.9960	4.9400	↕	5.0400
DIST05	4.9950	4.9400	↕	5.0400
DIST06	4.9890	4.9400	↕	5.0400

The interface also includes a menu bar (File, Options, Tools, Security, Utilities, Help), a toolbar with various measurement tools (HEIGHT, DIA, EDGE, POINT, CORN, CIRCLE, DIST, ANGLE), and a data table with 'Reset' and 'Create Report' buttons. The bottom of the window has 'Trace Fields' and 'Camera' (Snap, Live) controls, and a settings panel with checkboxes for 'Outline View', 'Metric', 'Messages', 'Hide Tool Windows', 'Hide Successful', 'Hide Warnings', and 'Zoom', along with an 'Exit' button.

### Step #14 - Store Data

- 1) Left click the Data Icon  to store the measurements on the VHE / VC.
- 2) A dialog box will appear confirming that your measurements were successfully stored.
- 3) Repeat step 1 for each measurement.

# Running Reports on the KELCH KENOVA measure line VHE / VC

The screenshot shows a software interface for inspecting a mechanical part. The main window displays a technical drawing of a part with various dimensions and angles. A green arrow points from a '1' in a circle to the 'Create Report' button in the top toolbar. The data table on the right lists various measurements and their status.

Name	Meas'd	LSL	Status	USL
DIA03	14.4660	14.4100	↕	14.5100
HGT01	3.7240	3.6700	↕	3.7700
DIST01	5.6170	5.5670	↕	5.6670
DIST02	10.6770	10.6300	↕	10.7300
CORN04	0.4270	0.3770	↕	0.4770
CIRC02	16.2810	16.2310	↕	16.3310
BARB-1	15.79°	15.29°	↕	16.29°
DIST02	40.5010	40.4500	↕	40.5500
DIST03	10.5950	10.5400	↕	10.6400
DIST04	15.5880	15.5380	↕	15.6380
DIST05	20.6020	20.5500	↕	20.6500
DIA02	18.9710	18.9210	↕	19.0210
ANGLE01	15.97°	15.47°	↕	16.47°
ANGLE02	15.97°	15.47°	↕	16.47°
ANGLE03	15.85°	15.35°	↕	16.35°
DIST06	12.8860	12.8360	↕	12.9360
DIST07	12.8850	12.8300	↕	12.9300
DIST08	12.8790	12.8300	↕	12.9300
DIST09	12.8950	12.3800	↕	13.3800

## Step #15 - Run Report

- 1) Click the Create Report  button to launch into the OASIS Inspection Report.



## KELCH KENOVA measure line VHE / VC Inspection Report

**OASIS - Inspection Report**

Kelch GmbH  
Werkstr. 30  
71384 Weinstadt

Phone: 0049 (0)7151 205220  
Fax: 0049 (0)7151 2052211  
www.kelch.de

**KELCH**

Insp. Type: 85\_002\_07      Lot Size:      Date: 05/29/2015  
Inspector:      Sample Size:      Part Number: Quickstart1  
Comments:      Job Number:

Dimension	Low Limit	Low Warn	Measured	High Warn	High Limit	Status	Dimension Notes
CIRC01	8.0900	0.0000	8.1410	0.0000	8.1900	↓	
DIST01	40.4600	0.0000	40.5140	0.0000	40.5600	↓	
HGT01	3.6700	0.0000	3.7210	0.0000	3.7700	↓	
ANGLE01	15.34	0.00	15.84	0.00	16.34	↓	
DIST03	5.5300	0.0000	5.5830	0.0000	5.6300	↓	
DIST04	4.9400	0.0000	4.9960	0.0000	5.0400	↓	
DIST05	4.9400	0.0000	4.9950	0.0000	5.0400	↓	
DIST06	4.9400	0.0000	4.9890	0.0000	5.0400	↓	

Part No. 1    Mai 29 2015 02:16:16    C:\qpc\Oasis\Data\Quickstart1.txt

Dimension	Low Limit	Low Warn	Measured	High Warn	High Limit	Status	Dimension Notes
CIRC01	8.0900	0.0000	8.1410	0.0000	8.1900	↓	
DIST01	40.4600	0.0000	40.5140	0.0000	40.5600	↓	
HGT01	3.6700	0.0000	3.7210	0.0000	3.7700	↓	
ANGLE01	15.34	0.00	15.84	0.00	16.34	↓	
DIST03	5.5300	0.0000	5.5830	0.0000	5.6300	↓	
DIST04	4.9400	0.0000	4.9960	0.0000	5.0400	↓	
DIST05	4.9400	0.0000	4.9950	0.0000	5.0400	↓	
DIST06	4.9400	0.0000	4.9890	0.0000	5.0400	↓	

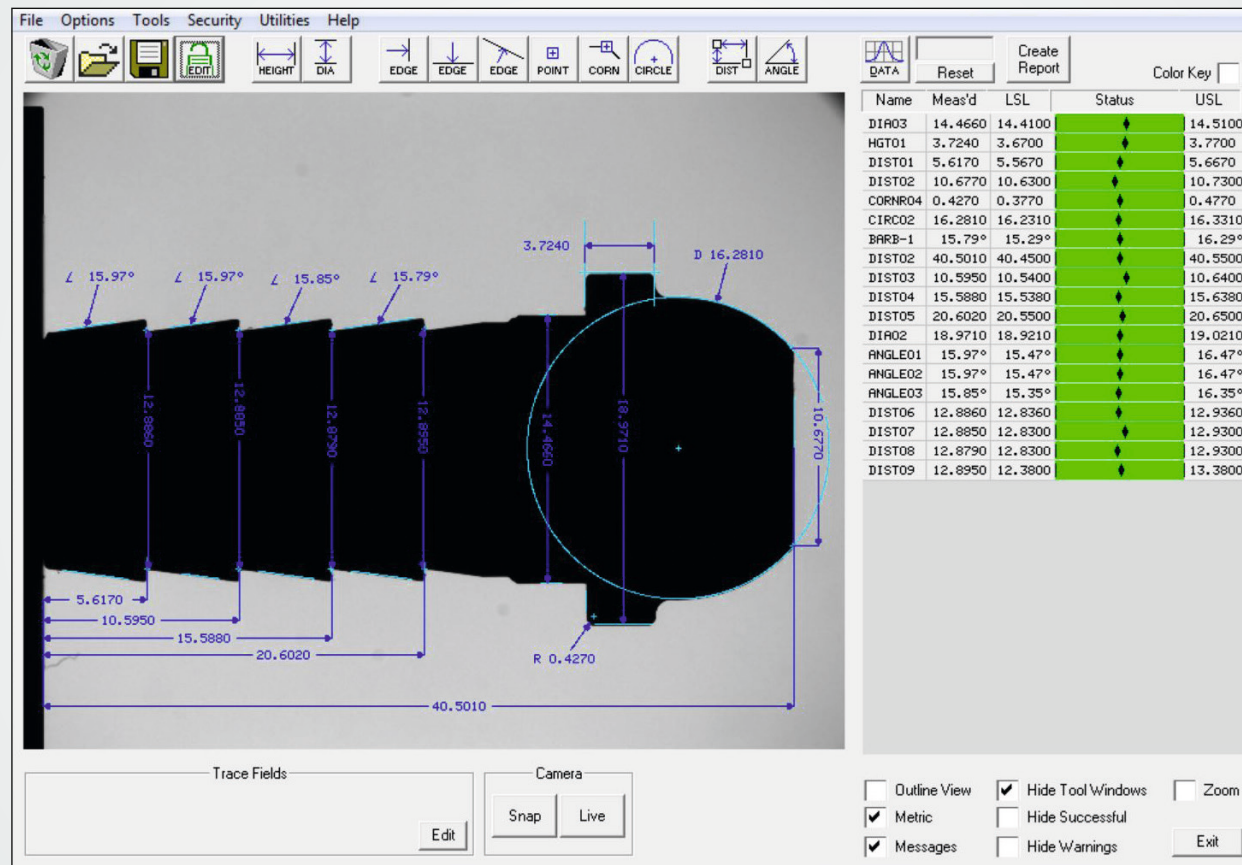
Part No. 2    Mai 29 2015 02:16:18    C:\qpc\Oasis\Data\Quickstart1.txt

### Inspection Report

This image shows the VHE / VC Inspection Report created from Step #15. To save this report:

- 1) Fill in all information you need.
- 2) Store the report under "File".
- 3) Left click "Save Inspection Report / Exit".

# Complete Program

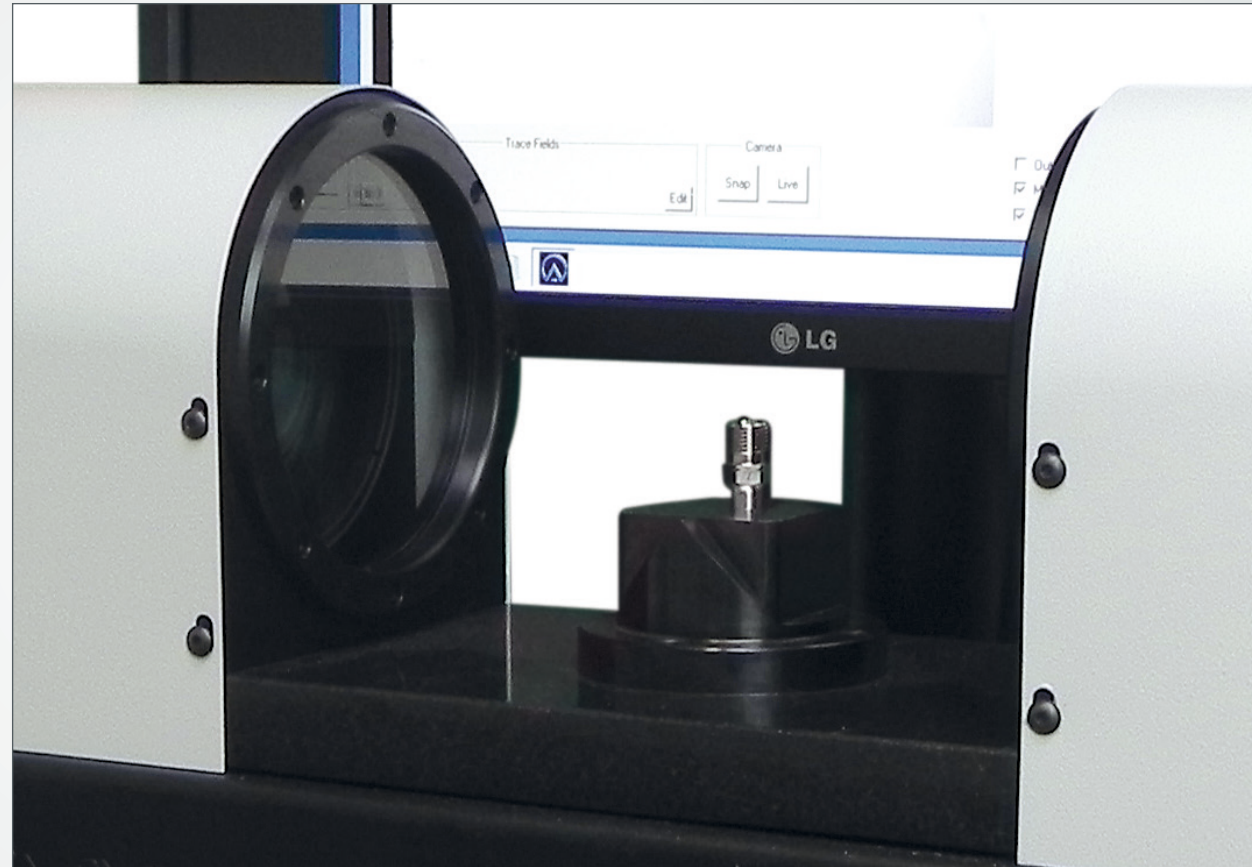


## Congratulations!

In the previous steps, you've created an OASIS part program, saved it for future use, measured your first part and created an inspection report. If you continue with all the features on the part, your completed OASIS measurement program might look like this.

**NOTE:** Dimensions in green are good; red are measurements that are outside of tolerances.

## Company and product information



### Kelch GmbH

Kelch GmbH, based in Weinstadt near Stuttgart, offers peripherals and services for manufacturers and users of machine tools for cutting processes. With over 100 employees, the company generates annual revenue of approx. €13 million. As a 100%-owned subsidiary of Harbin Measuring & Cutting Tool Group Co., Ltd. (HMCT), Harbin/China, Kelch belongs to China General Technology (Group) Holding Co., Ltd. (Genertec), Beijing. Genertec is represented in 100 countries world-

wide, with 45,000 employees in 51 companies. Kelch GmbH acts as the technology centre for the international business group in Europe. Kelch develops, manufactures and markets tool holders, cleaning devices, shrinking devices, presetters, as well as measuring machines, and also offers tool management services.

More information at <http://www.kelch.de> .

# KELCH

Model: KELCH KENOVA measure line VHE,  
KELCH KENOVA measure line VC

Software Version: 4.0

Release Date: 11/13/2013

Fast, Accurate, Easy. Measure On.

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[www.kelch.de](http://www.kelch.de)

**KELCH**

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