

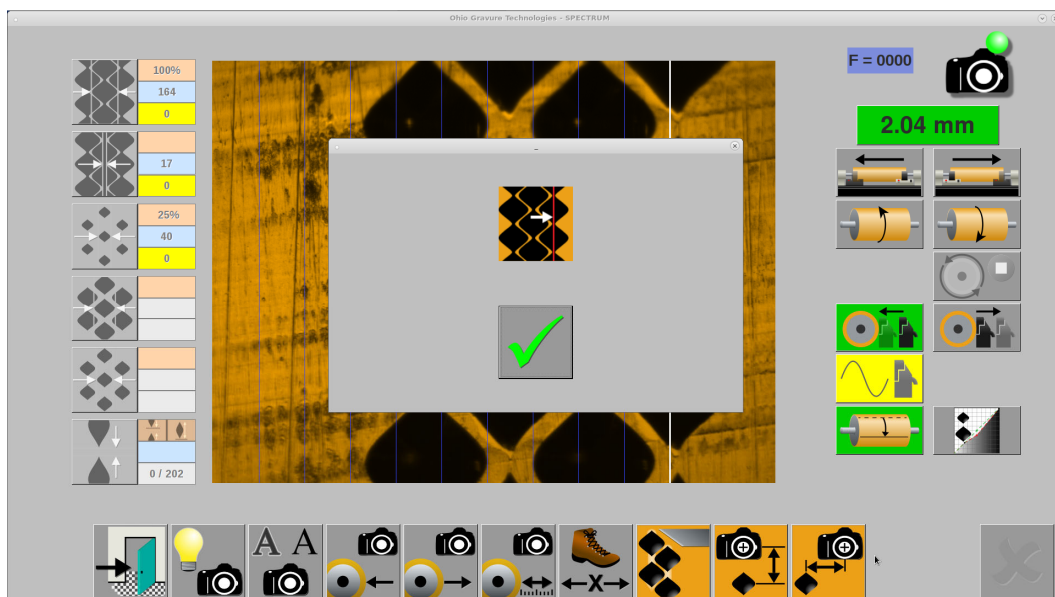
## Aligning and Calibrating the Vista System Camera

Check the camera calibration periodically to ensure optimum VISTA system performance and accuracy. OHIO GT recommends checking the calibration once a year. Camera calibration should remain very consistent and may not need any correction when you check calibration.

### Camera Alignment

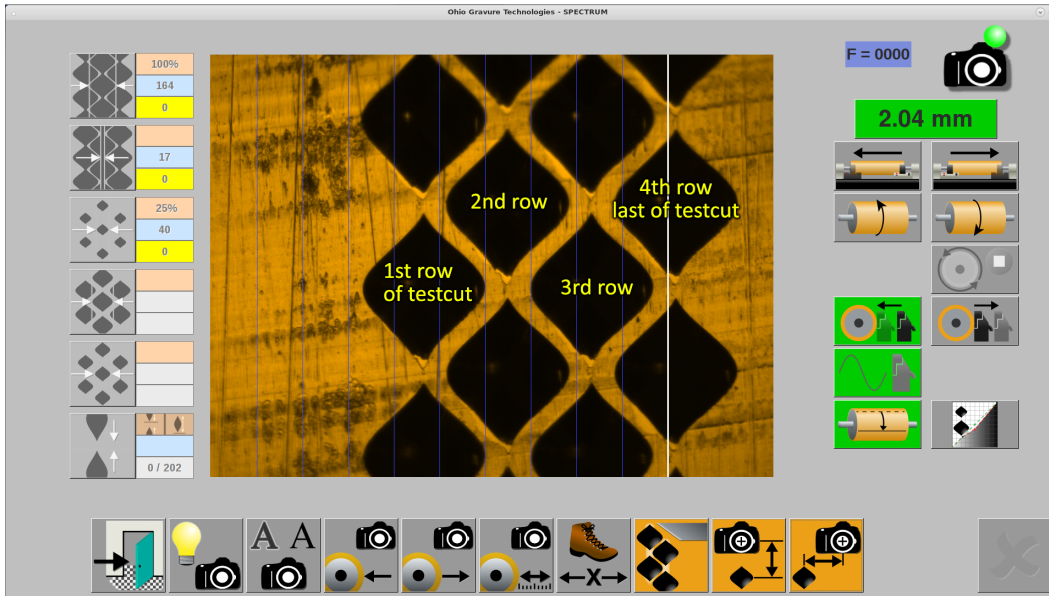
Align the camera horizontally to maintain optimum results from the VISTA Cell Measuring System. There are two things to consider in the camera alignment:

- Horizontal alignment – The white line on the right side of the display is used for this purpose.
- Rotational alignment – The blue lines running vertically through the display are used for this purpose.



A camera positioned at the correct horizontal location has the last row of the test cut centered on the white line. The picture above shows the display with the alignment sub-window visible. The sub-window is hidden when the checkmark is touched, allowing an unobstructed view of the cells and line. The picture below shows the view with the sub-window removed.

**Note:** Remember, align the camera horizontally to the white line. The blue lines are used for rotational alignment, explained later in this chapter.



## Alignment of the VISTA Camera

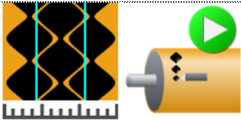
### Rotational Alignment of Camera

1. Un-select any cylinder currently loaded on the Engrave page.

2. Load a cylinder into the machine.



3. Set the proper cylinder size on the Screen page, and set to a 70 l/cm screen 45° screen angle.



4. Open the Cell Setup page, then make a test cut.



5. Open the Vista page, then turn on the VISTA camera function. The head lowers against the cylinder.

6. Position the cylinder so you can see the full cell area of the testcut. Either the Nested or Stripe area will work.

DO NOT move the carriage horizontally, only rotate the cylinder.

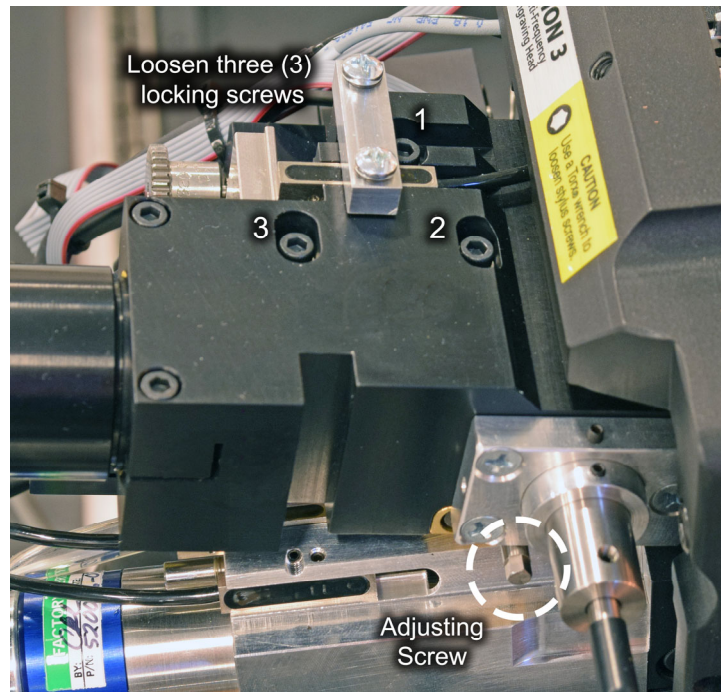


7. Touch the Camera Utilities button then touch the Horizontal Alignment button.

A sub-window appears on the screen showing you the location where the vertical white line should cross the cells. Press OK to remove the window and see the cells and line position.

If the white line is centered through the last row of cells, you are finished and alignment is not necessary. Go to step 11 to verify rotation alignment. If not, go to step 8.

- Slightly loosen the three (3) locking screws on the top of the camera block. These screws are set in slotted holes to allow for camera block movement. See following picture.



*Adjusting and locking screws for camera*

- Turn the adjusting screw on the right side of the camera block – see picture above – to shift the image left or right. Use the adjusting tool (D370029-01) from the Spectrum tool kit, or a 9/64" open-end wrench, for adjusting the screw.

**CAUTION:** Use extreme care not to damage the adjusting screw if using a wrench.



D370029-01

To move the image:	Turn adjusting screw:
← Left ←	⤿ Anti-clockwise
→ Right →	⤻ Clockwise

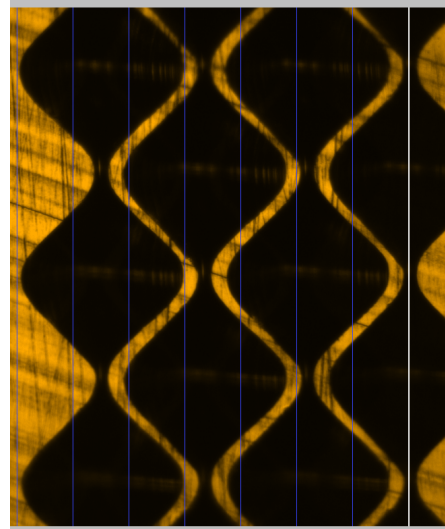
- Tighten the locking screws. The camera may shift slightly while tightening the locking screws. Use the adjusting screw to move the cells back into proper alignment as you tighten the locking screws.

### Vertical Alignment of Camera

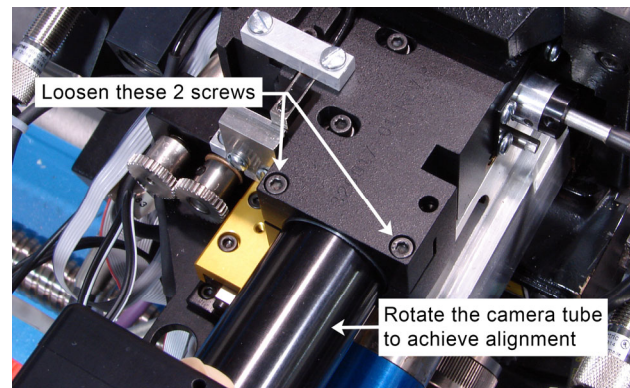
The cells should run vertically through the display – channel measurement can be affected if the cells are skewed. Use the blue lines to verify the rotation of the camera. Multiple blue lines allow you to choose a line that is close to either a channel or cell edge to verify if the camera is straight and not rotated. If not, adjust the camera rotation by slightly loosening the two screws clamping onto the camera tube.

11. Check the rotation of the camera. For this you can use either the white line or the blue lines running vertically through the display. Choose a cell/channel and a blue line that are easy to see if the cells are running vertically. The picture to the right shows good camera rotational alignment. The cells are running vertically through the display. This can be seen with the white line or with the blue line running along the right cell edge of the first row.

If the cells are not vertical, you must adjust the camera. Go to step 12.



12. Rotate the camera gently until the cell/channel aligns with a blue or white line. Do this by loosening the two screws holding the camera tube and rotating the camera. Tighten the two screws noting that the camera may shift slightly during tightening. Once the camera rotation is correct, re-check the horizontal camera position using the white line.



13. Exit the Vista page.
14. *Optional step* – Setup the machine to engrave the coarsest screen/raster – i.e., biggest cell – that you currently use. Change the stylus if necessary. Perform a Converge sequence, either EasyCell or QuickCell, to see if the single cell is positioned with the entire cell visible. Cancel the routine if the single cell is visible but does not fall totally inside the display. Repeat the alignment routine starting from step 3. When aligning the cell in the display, position the cell left or right according to the direction the cell was cut off during the single cell routine.

**Note:** The maximum cell width that can be measured by EasyCell or QuickCell is 375  $\mu\text{m}$ . Larger sizes must be measured manually. The maximum cell width that can be measured manually is 475  $\mu\text{m}$ . The entire cell must be visible in the display to measure any cell width, automatically or manually.