

# TP-03 Camera Probe User Manual

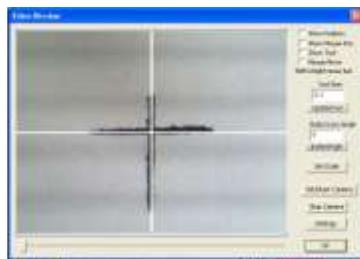
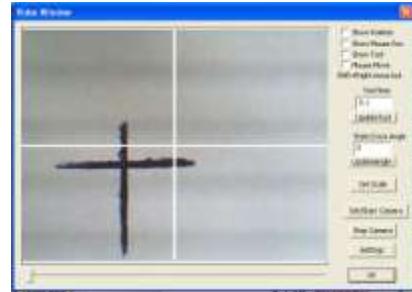
Instructions for setting up video camera

BEFORE PLUGGING CAMERA IN if it came with software, load it first, then PLUG CAMERA IN  
If using the camera for XP service pack 2 there is no driver disk, just plug the camera in and it should load the drivers automatically

Start Mach3 or other software CentreCam.

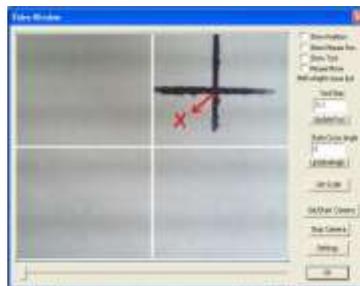
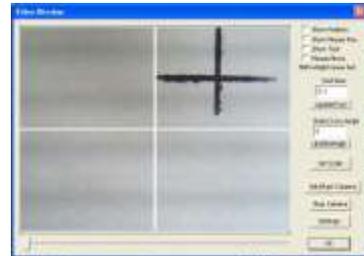
Select video window in Mach3 software or start CentreCam with your camera chucked hand tight in the spindle. Secure a target to your mill bed with a cross or mark on it, you want it to be solidly secured so it doesn't move.

Move the Z axis very close  $\frac{1}{4}$  to  $\frac{1}{8}$  inch from the mark and focus the camera until you get a good picture. Something like this.



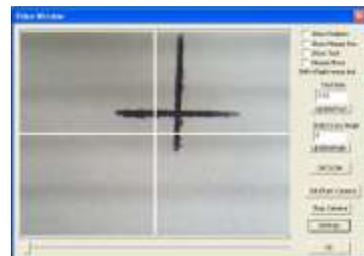
Now move your X & Y axis until you have the mark lined up on the video crosshairs. It should look like this.

Then rotate the spindle by hand 180 deg. No telling where the crosshair will go mine looks like this. Your picture should look something like this. Notice how the mark has moved off of the crosshair. At this time you will want to adjust the centering allen screws on the camera shaft.



You will want to adjust it so that the mark moves exactly  $\frac{1}{2}$  of the distance back to the crosshairs as shown in this picture.

After adjusting it should look something like this.



Now rotate the spindle back to the original position, reposition the crosshair by moving your axis X & Y again to line up the mark as in the second picture and repeat the steps all over again.

Once you get it where the mark doesn't move off center of the crosshairs, when you rotate, you will be perfectly centered on the spindle axis. This should be repeatable after removing from the chuck and rechecking.