

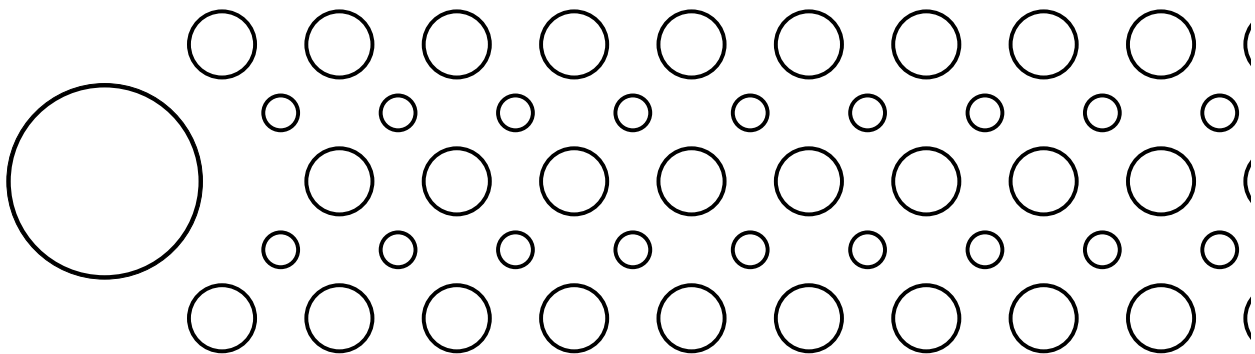
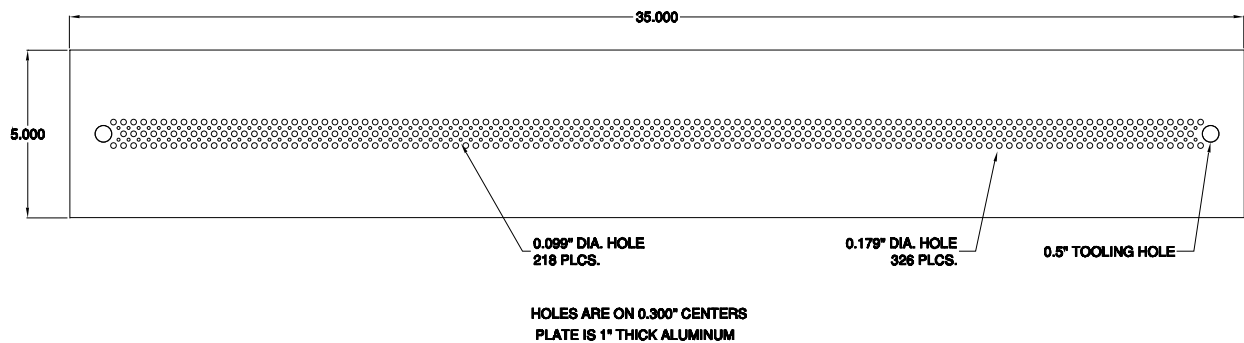
Results from the Brenner Test Plate

We recently received the test plate that was drilled at Brenner Tool and Die, along with five ASCII files summarizing their CMM measurements of the plate.

The results are all well within our specs!

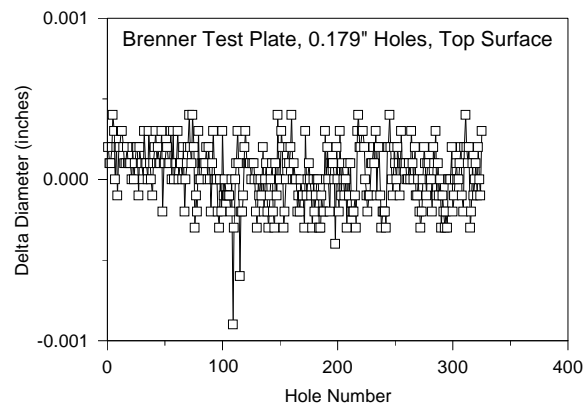
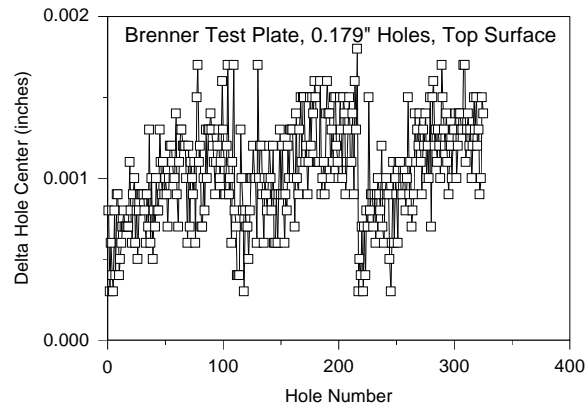
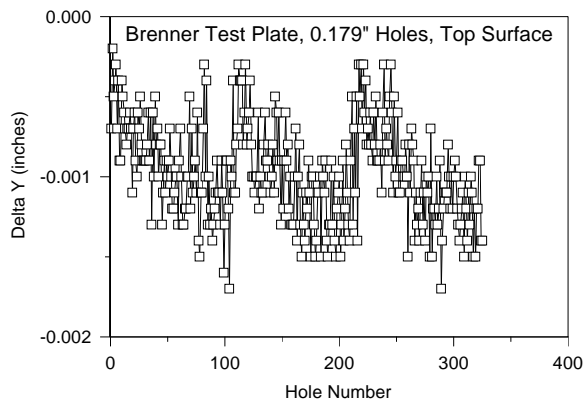
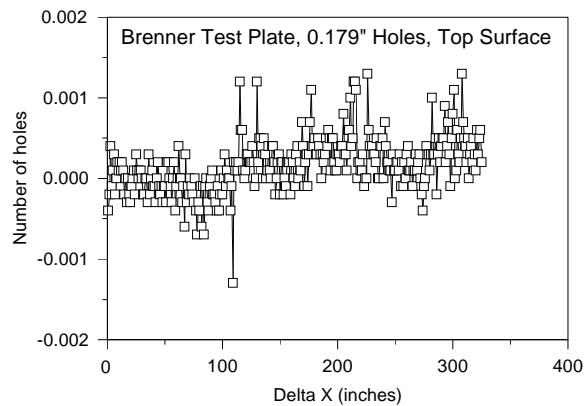
The hole pattern on the plate is shown below.

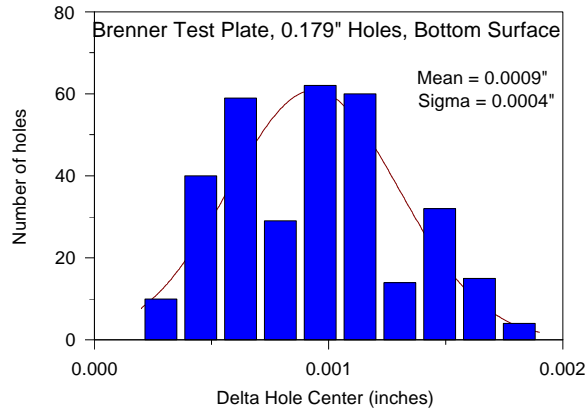
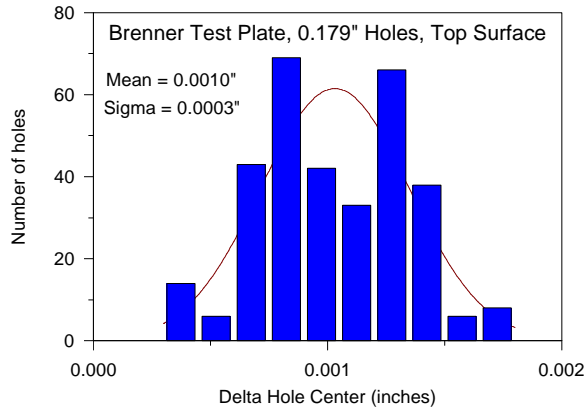
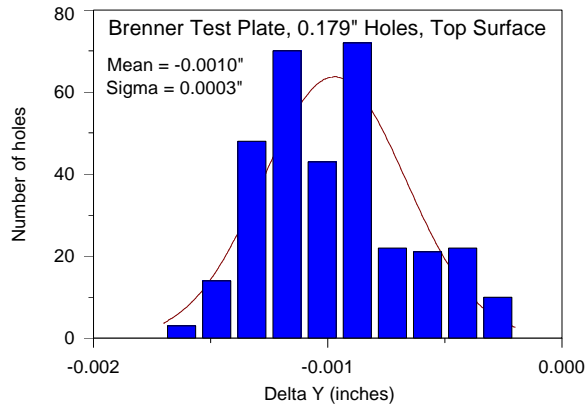
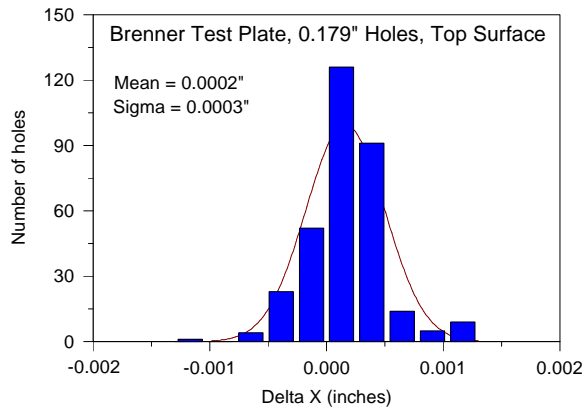
BRENNER DRILLING TEST PLATE

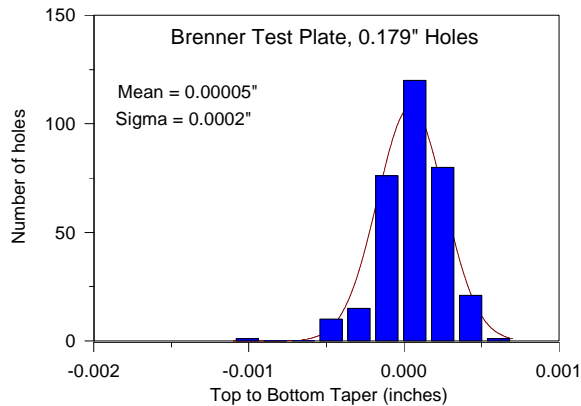
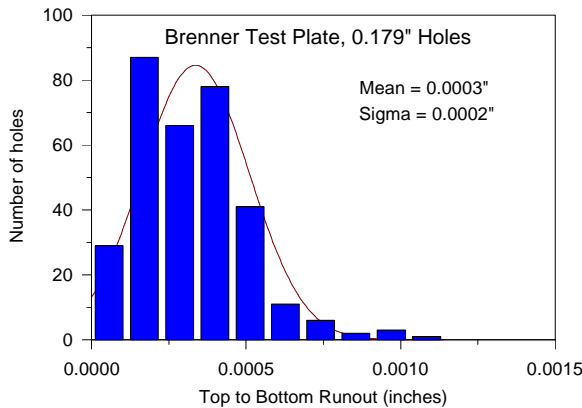
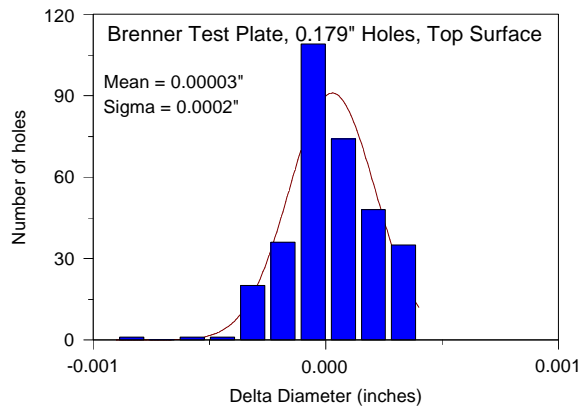


The CMM files are called top179.mea, mid179.mea, bot179.mea, top099.mea and bot099.mea. top, mid and bot refer to the rows of holes, which were drilled from left to right in a given row, one row at a time. 179 and 099 refer to the hole diameters in inches, 4.5 and 2.5 mm, respectively. The files can be found in the anonymous FTP server [bbr-boyce.slac.stanford.edu](ftp://bbr-boyce.slac.stanford.edu) in directory `d:\pub-rfb\sands\brenner`.

1 Results for 0.179" Holes







Remarks

1. The holes diameters are larger than those reported in the above histogram by a small fixed amount related to the geometry of the CMM stylus. We do not have a statement of this offset from Brenner at present. However, they have used go/nogo pins to verify that all holes are actually larger than our minimum specified radius.
2. In their .mea files Brenner reports the offset between measured and ideal hole locations as twice the distance between measured and ideal hole centers, consistent with the machinist's convention for 'true position tolerance'. We report just the distance between measured and ideal hole centers in the above plots.

2 Results for 0.099" Holes

