

## PELCO® FlipScribe® Sample Holders

Product Number 54332, 54334, 54335, 54336, and 54337

### INTRODUCTION AND INTENDED USE

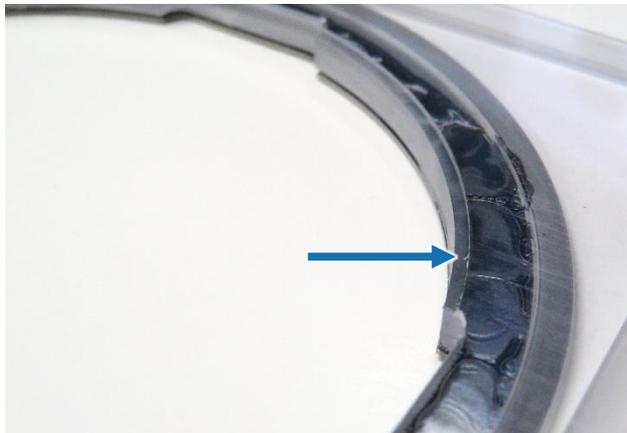
These sample holders are intended for use with the PELCO® FlipScribe® back-side scribing system and to aid in maintaining alignment and proper pressure when scribing. Holders are available for standard wafer sizes, square slides and samples, and for small samples. They make it easy to downsize wafers, scribe at difficult angles, and to work with samples down to <5mm in size, depending upon the holder. Holders are available individually or in the PELCO® FlipScribe® Kit for Sample Holding (#15333), with the exception of the Small Sample Holder. This document describes basic technique for using each of the sample holders.

### LOADING A SAMPLE INTO THE WAFER HOLDER (2", 3" or 4")

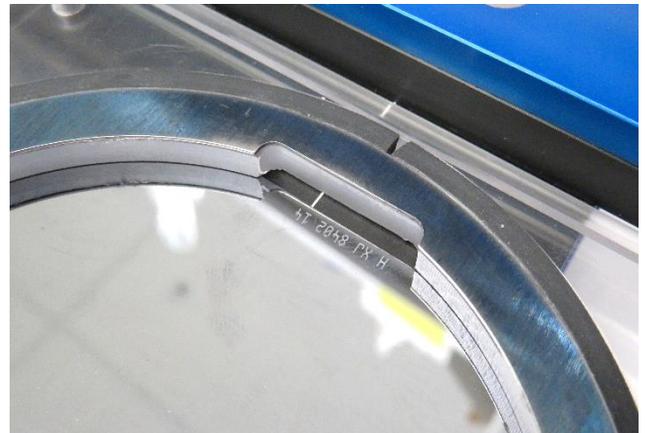
You will need:

- Wafer Holder
- Clamping Bar
- Wafer Sample

1. Note the lip on the underside of the Wafer Holder (*Figure 1*). Seat the top of the wafer against this lip and orient the wafer so that its flat edge is aligned with one of the slots in the Wafer Holder. While holding the wafer in place, set the Wafer Holder onto the PELCO® FlipScribe® (*Figure 2*).

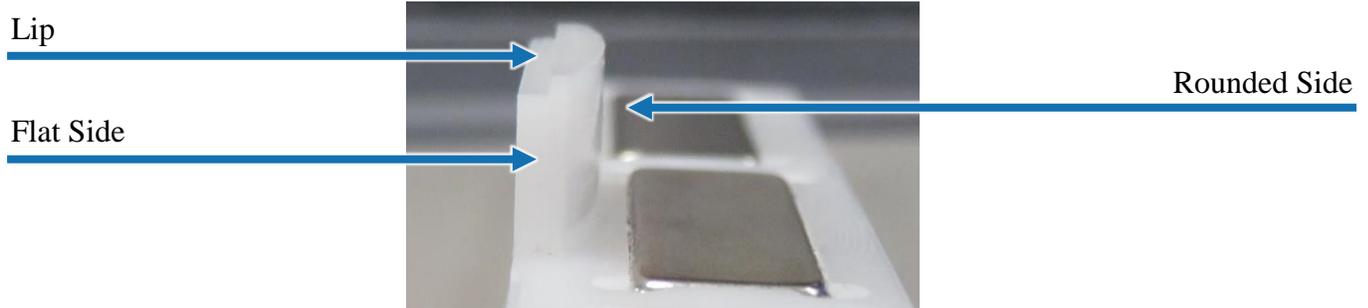


*Figure 1: Detent in Wafer Holder*



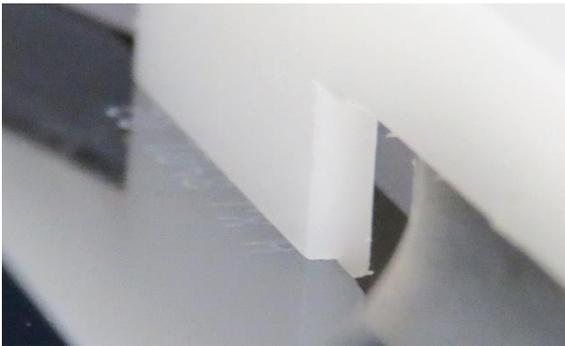
*Figure 2: Wafer Seated and Oriented in Wafer Holder*

- 2. Note the lip along the flat edge of the Clamping Bar (*Figure 3*).



*Figure 3: The Clamping Bar*

- 3. Place the Clamping Bar down into the open slot in the Wafer Holder with its flat edge (noted in *Figure 3*) facing the flat edge of the sample. Press the Clamping Bar against wafer, ensuring that the lip seats onto the wafer (*Figure 4* and *Figure 5*).



*Figure 4: Lip in Clamping Bar Seated onto Wafer*



*Figure 5: Clamping Bar Installed*

- 4. Orient Wafer Holder as shown in *Figure 6*, then position the area of interest for scribing and lock the guides.
- 5. Position hands on either side of the Wafer Holder as to place even pressure when scribing. While keeping the Wafer Holder tight against the Sample Slide and the Guide, scribe the sample.



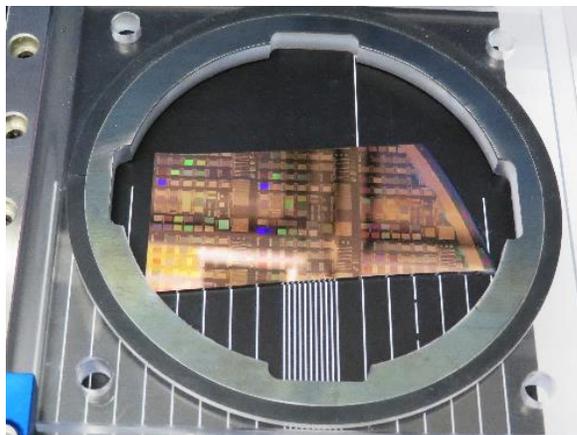
*Figure 6: Scribing a Wafer using Wafer Holder*

## LOADING A WAFER PIECE IN A WAFER HOLDER (2", 3" OR 4")

You will need:

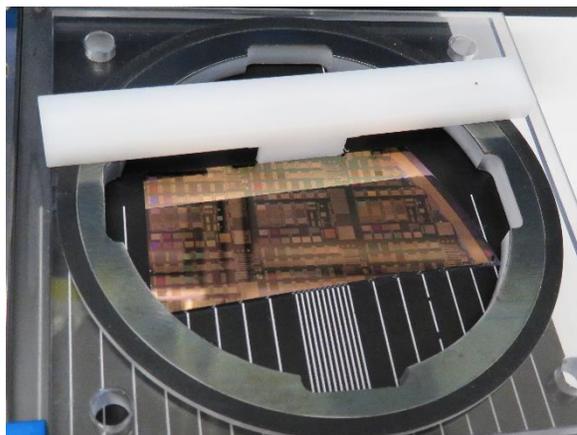
- Wafer Holder
- Clamping Bar
- Wafer Piece

1. Place the sample into the Wafer Holder as desired, *Figure 7*.



*Figure 7: Sample Placed as Desired into Wafer Holder*

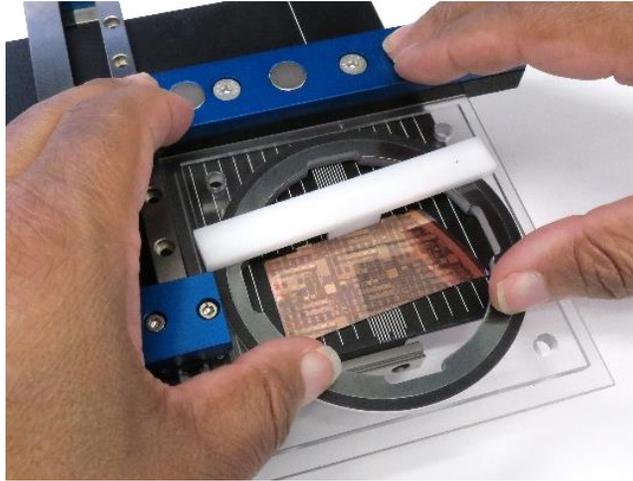
2. The Clamping Bar can then be positioned in any rotation to hold the sample in place, *Figure 8*.



*Figure 8: Clamping Bar Positioned to Hold Sample in Place*

3. Place the holder with the sample on the PELCO® FlipScribe®. Then position the area of interest for scribing and lock the guides.

- Position hands on either side of the Wafer Holder as to place even pressure when scribing. While keeping the Wafer Holder tight against the Sample Slide and the Guide, scribe the sample (*Figure 9*).



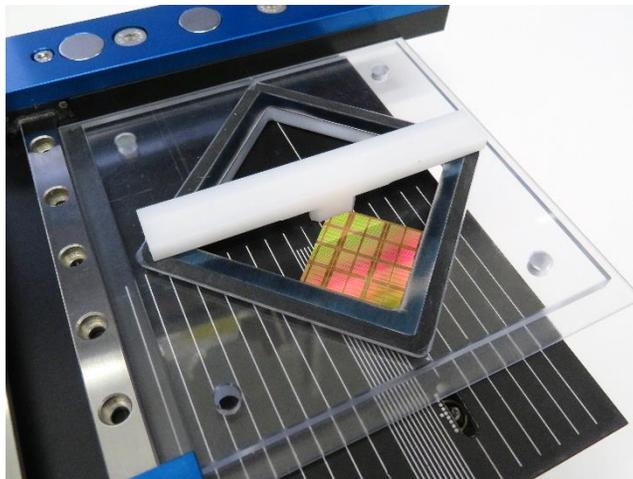
*Figure 9: Sample in Wafer Holder Placed onto the PELCO® FlipScribe®*

## LOADING A WAFER PIECE IN THE 45° HOLDER

You will need:

- 45° Holder
- Clamping Bar
- Wafer Piece

- Place the 45° holder onto the PELCO® FlipScribe®. Place a rectangular piece of wafer into a corner of the 45° holder, then press the Clamping Bar against the opposing corner of the sample to hold it in place (*Figure 10*).



*Figure 10: Wafer Piece set in Corner of 45° Holder*

- Position the area of interest for scribing and lock the guides.

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- Position hands on either side of the 45° Holder as to place even pressure when scribing. While keeping the 45° Holder tight against the Sample Slide and the Guide, scribe the sample (*Figure 11*).



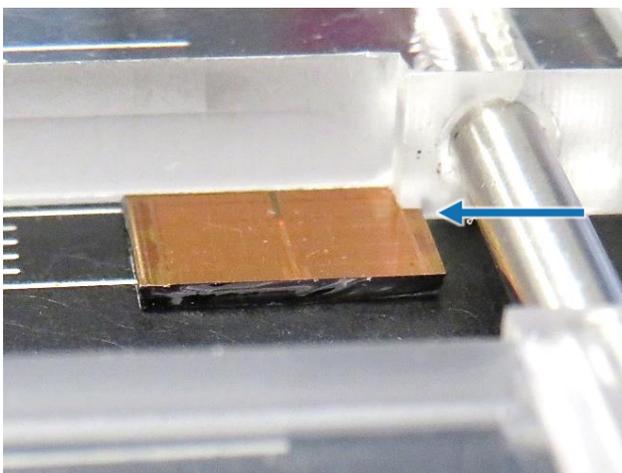
*Figure 11: Scribing with the 45° Holder*

### LOADING A SMALL SAMPLE INTO THE SMALL SAMPLE HOLDER

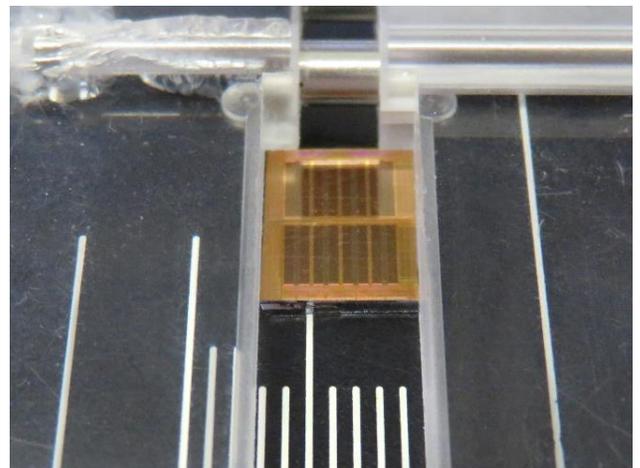
You will need:

- Small Sample Holder
- Clamping Bar
- Small Sample

- Place the Small Sample Holder onto the PELCO® FlipScribe®, then slide one corner of the sample into a notch in the Holder (see blue arrow in *Figure 12*). Then slide the other half of the Small Sample Holder towards the sample until seated against the other side of the sample (*Figure 13*).



*Figure 12: Notch in the Sample Holder*



*Figure 13: Small Sample Fully Seated*

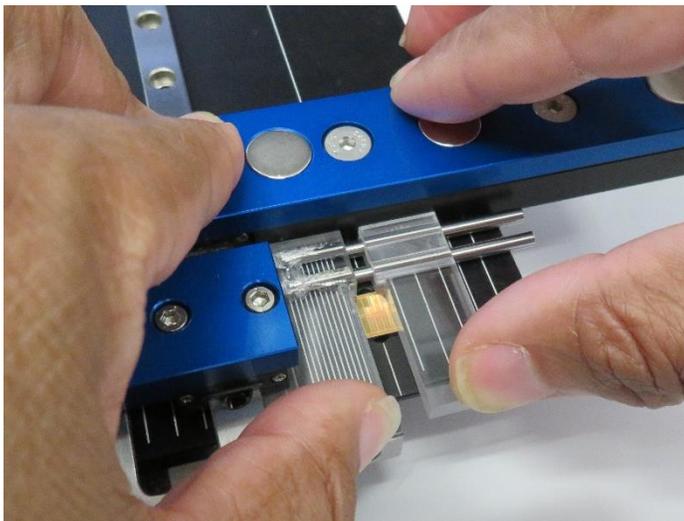
- Position the area of interest for scribing and lock the guides.

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- 3. Position hands on either side of the Small Sample Holder as to place even pressure when scribing. While keeping the Small Sample Holder tight against the Sample Slide and the Guide, scribe the sample (*Figure 14*).



*Figure 14: Sample Holder Properly Setup*