User’s Guide
St Mary’s TIR/FIM Gage

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Procedure:

1. Rotate the knob on the left counterclockwise to open the rolls enough to fit the fastener being checked.

2. Place the sample screw between the rolls, and rotate the knob clockwise to tighten the rolls onto the screw.
3. Loosen the thumb screw on the indicator arm and position the indicator point immediately over the point at which the part is to be measured and tighten the thumb screw to fix the indicator into position.
4. Press the ZERO/ON button. If the indicator is not in the desired increments press the IN/MM button to change from inches to millimeters or millimeters to inches.

5. Press the RAN (Range) three times to put the indicator into the “TIR/FIM” mode.
6. Rotate the fixture handle three times in each direction. The value on the display is the “Total Indicator Reading” or the “Full Indicator Movement”.

Note: “Concentricity” is ½ of TIR/FIM.

7. To remove the screw, rotate the know on the left of the fixture counterclockwise until the screw is released. Remove the screw and place the next sample in the fixture.
Measuring Perpendicularly (optional)

1. Change over the plunger style indicator to a test indicator of your choice. The fixture will accommodate a 3/16" holder stem. Additional post shown in picture below is provided.

2. Perform the above procedure for loading the fastener. Locate the stylus of the test indicator to the face you are trying to measure and rotate the handle to observe total indicator movement.