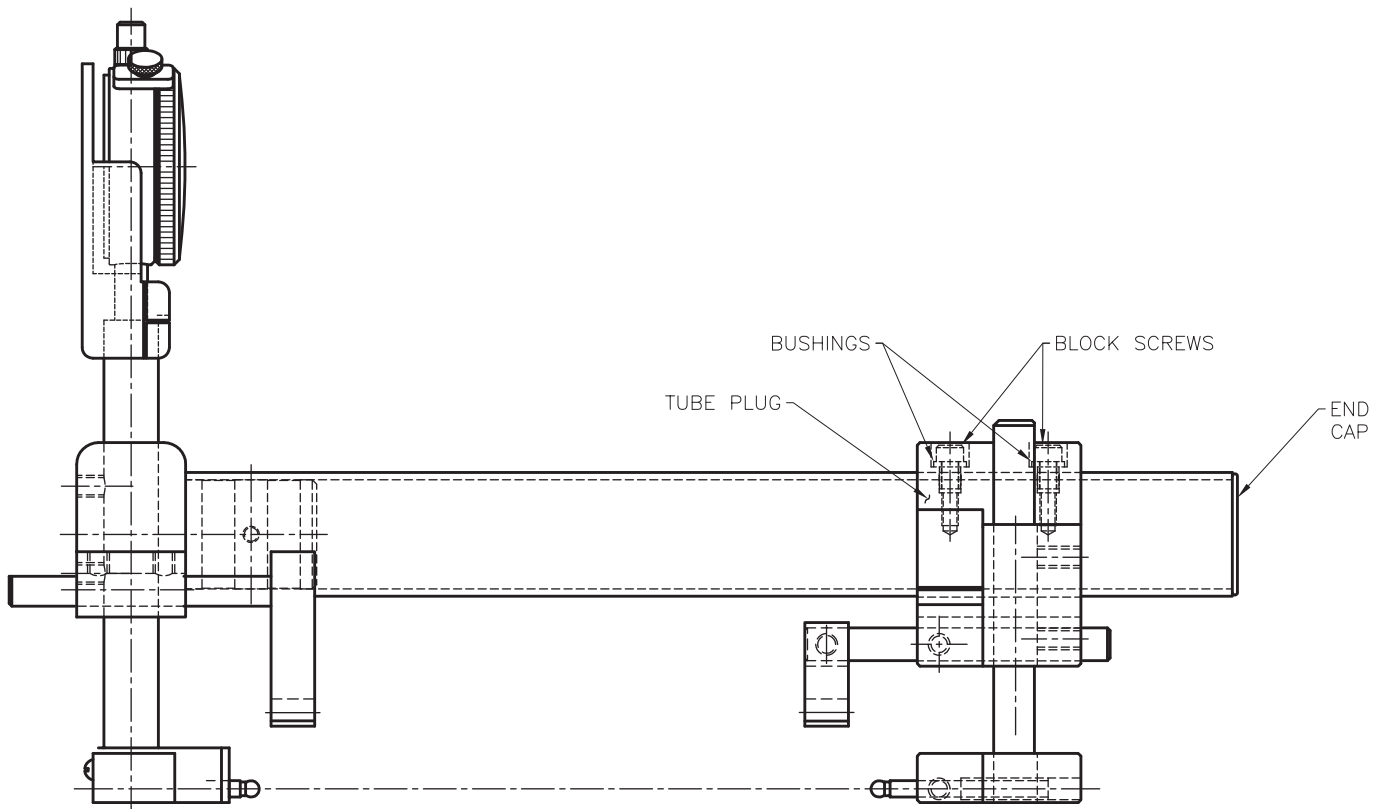


Setting Procedure for Large Diameter Gages and Masters



1. Set the rest diameter with a scale or tape measure. The rests on each end should be equidistant to the gaging contacts. Ensure that the sides of the rests are perpendicular to the surface plate.
2. On a large surface plate, set the gage rests on three gage blocks of the same height. For most applications 2" long gage blocks would be ideal. Calculate the gage block stack that should be used to set the gaging depth. If 2" gage blocks are being used, the gage block stack to be used would equal 2" less the required gaging depth, less half the contact pin or ball diameter. (For a 0.150" gaging depth on a gage with 3/16" TC ball contacts the gage block stack would equal $2.000 - 0.150 - 0.0935 = 1.7565$ ").
3. Set the stack as calculated above on the surface plate. Loosen the two set-screws that hold the 5/8" tubing on one end of the gage. Rest the contact point on the gage block stack and tighten the two set screws ensuring that the gaging head is in-line with the frame. Repeat this step on the other end of the gage.

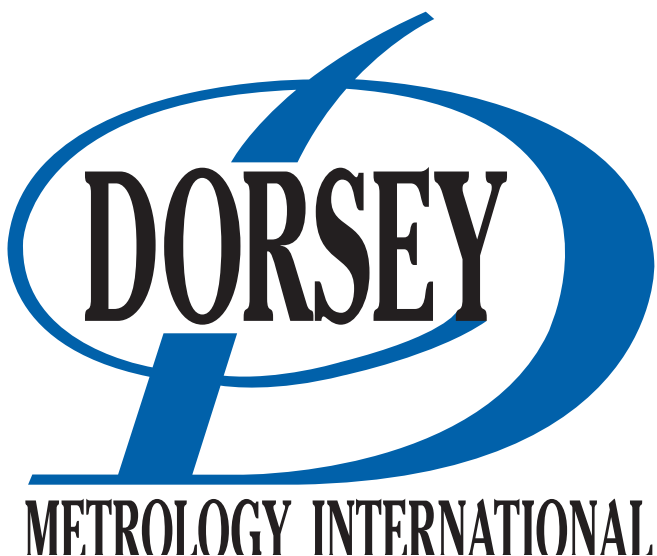
4. On Carbon Fiber LDA (Adjustable) gages, it will be necessary to rough-set the adjustable block with a tape measure. This is accomplished by loosening the two "BLOCK SCREWS" on the top of the adjustable block assembly. Slide the entire assembly along the frame tubing to the appropriate location. Tighten the two "BLOCK SCREWS" previously loosened.

In order to change the gage between an I.D. and O.D. check, the adjustment block must be partially disassembled. First, remove the two "BLOCK SCREWS" and the "END CAP", then carefully turn the gage upside down so that the two internal "BUSHINGS" fall out of the "TUBE PLUG" and into your hand or safely on your work surface. The adjustable block assembly can now be completely slid off of the carbon tubing, rotated 180 degrees, and reinstalled so that the reference-end contact is now facing the opposite direction. Insert the two "BUSHINGS" that were previously removed, install and tighten the two "BLOCK SCREWS", and finally insert the "END CAP" into the end of the carbon tubing.

The indicator and gaging contact assembly can be rotated from I.D. to O.D. position by backing out the two set-screws that lock the 5/8" tubing in position, rotating the assembly 180-degrees, and re-tightening the two set-screws against the flat area of the 5/8" tubing.

These steps are not necessary for fixed gages.

5. Set up a gage block stack to the mean size of the diameter to be checked. Loosen the set-screw that holds the reference (static) contact in place. Back off the fine adjust screw and push the reference contact into the reference head. Gently tighten the set-screw so that there is sufficient drag on the reference contact as the fine-adjust screw is manipulated. Set the gage on the surface plate on three gage blocks of the same height. If the rests are inboard of the reference contact, as when setting up most OD applications, the rest on the reference end will sit on the gage block stack itself. Screw in the fine adjustment screw to bring the gage to zero. It is necessary to sweep the gage and maintain it at the position where the indicator changes direction to obtain a correct setting. Once the correct setting is obtained, tighten the set-screw to hold the reference contact in place. Recheck the zero position.
6. The gage is then used to set the master. On SMA (adjustable) masters, it is necessary to rough-set the adjustable block with a tape measure. Loosen the two set screws on the bottom of the block, slide the block along the rail to the appropriate location, then tighten the two screws on the bottom of the block ensuring that the cone points are engaged in the recesses on the bottom of the rail.
7. Loosen the set-screw that holds the adjustable anvil in place. Back off the fine-adjust screw and push the anvil into the block. Gently tighten the set-screw so that there is sufficient drag on the anvil shank as the fine-adjust screw is manipulated. Screw in the fine adjustment screw to bring the gage to zero. It is necessary to sweep the gage and maintain it at the position where the indicator changes direction to obtain a correct setting. Once the correct setting is obtained, tighten the set-screw to hold the adjustable anvil in place. Recheck the zero position.



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