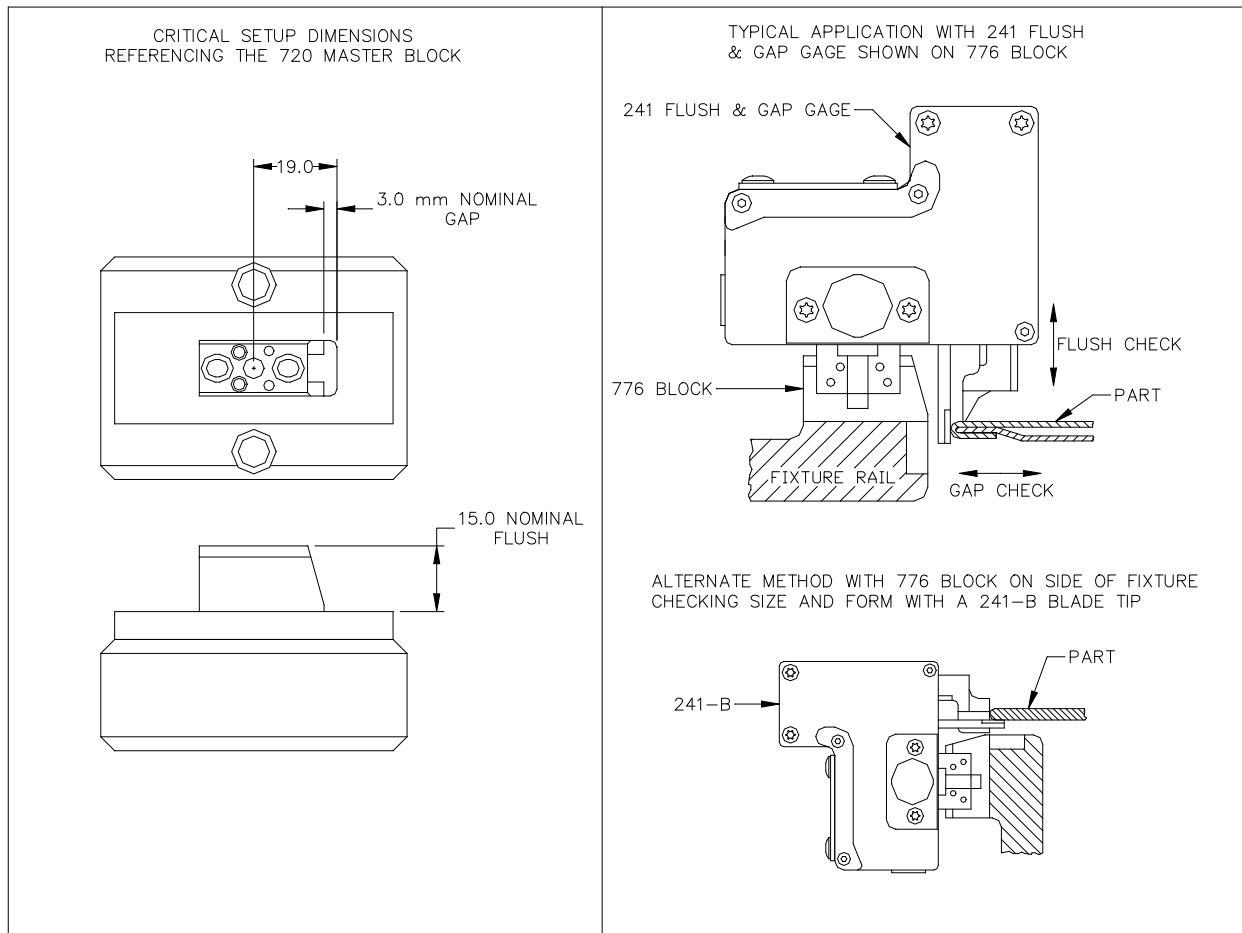


Research, Development and Manufacturing of Precision Measuring Systems

INSTALLATION OF LMI 776 MOUNTING BLOCKS

PRIOR TO INSTALLATION, BASIC FUNCTION

There are a wide variety of checking scenarios and the fixture designer and builder need to be familiar with the function of the 776 block and its relationship to the actual measuring device. Tracing templates and CAD data are available to assist in mounting and determining the proper 776 block setup. The 776 block is used as a patented locating device for the LMI 241 flush and gap gage. The 241 measures flush and gap readings 90 degrees to each other and is mastered to a 720-D master block. The fixture should be set up to relate the nominal/perfect part size to this known reference. See the drawings below and the templates in your catalog for reference.



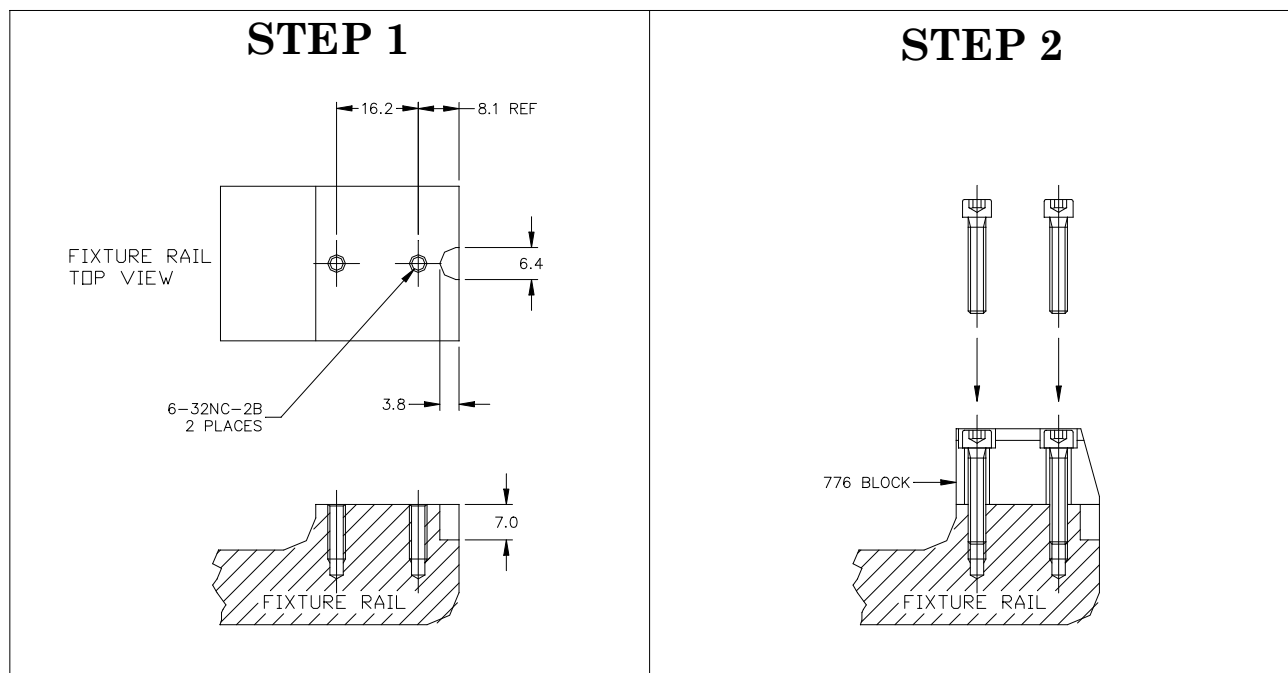
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BASIC MOUNTING:

The following is a general guideline on mounting the 776 blocks. Changing some of the specific mounting dimensions may be required depending on part geometry, part specifications or the fixture design. Use the following drawings to relate to each step of the mounting procedure. The directions below assume the rail is perpendicular to the part and the nominal gap on the part is 3.0 mm. Feel free to contact LMI for additional technical assistance.

STEP 1 - At each check point, drill and tap two 6-32 holes for the socket head cap screws supplied with the 776 blocks. Machine a clearance notch into the front of the fixture rail for clearance for the gap pin on the 241 gages. The standard 241 gage has a gap pin that extends 5 mm below the fixture surface so a 7 mm deep notch should be sufficient. The holes and clearance notch are usually machined into the fixture with a CNC machine or an LMI 7007 drill jig is available.

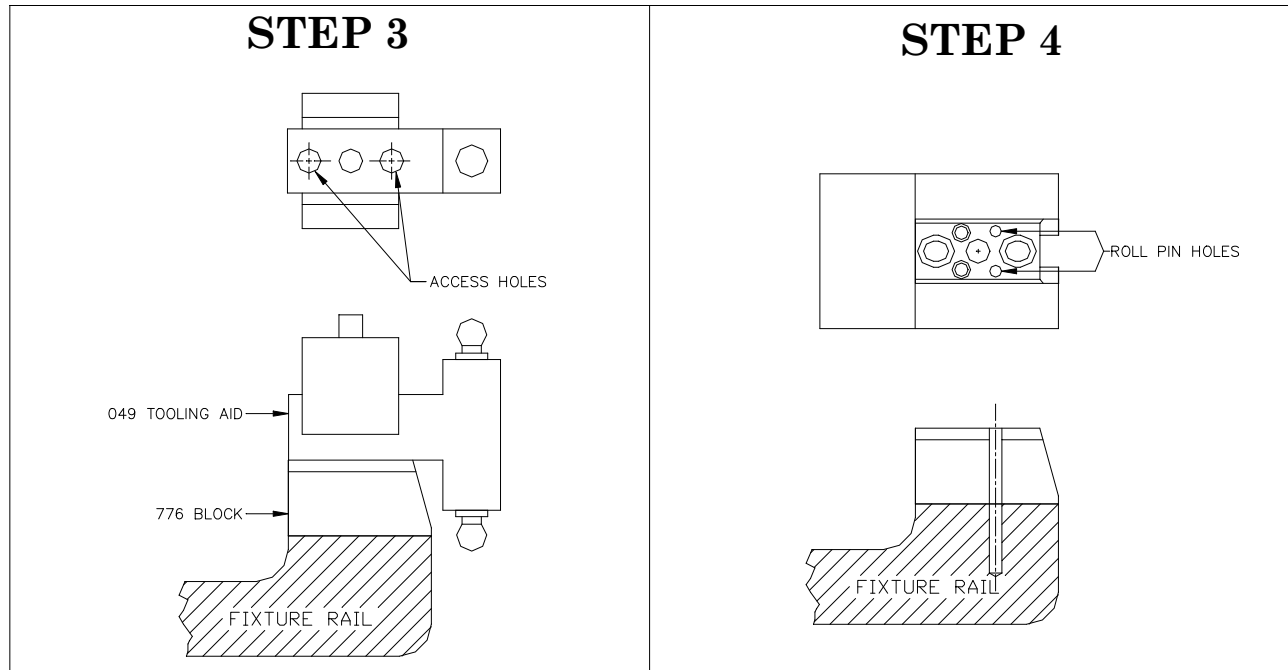
STEP 2 - Mount the 776 blocks onto the fixture using the supplied screws. Snug the screws into the slotted counter bored holes so the block can be adjusted for next step of certifying the block into location.



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STEP 3 - Use a 049 Tooling Aid and a CMM to indicate the position of the tooling balls to properly locate the 776 blocks. It is critical to reference the tracing template for the tooling aid and the 776 blocks to accomplish this. To find the edge of the theoretical perfect part (assuming a 3 mm nominal gap) simply subtract 5.0 mm from the center of the tooling balls which is 24.0 from the center of the locating post. ($24.0 - 5.0 = 19.0$) Once the block is properly positioned use the access holes in the 049 to tighten the 6-32 mounting screws.

STEP 4 - Drill through the secured 776 block and pin the block into location using the supplied 3/32" diameter roll pins.



The pictures below show an 049 Tooling Aid on a 776 block and the top view of a mounted 776 block.

