



TUBING & CASING THREAD INSPECTION - External Crest Diameter



GAGEMAKER™

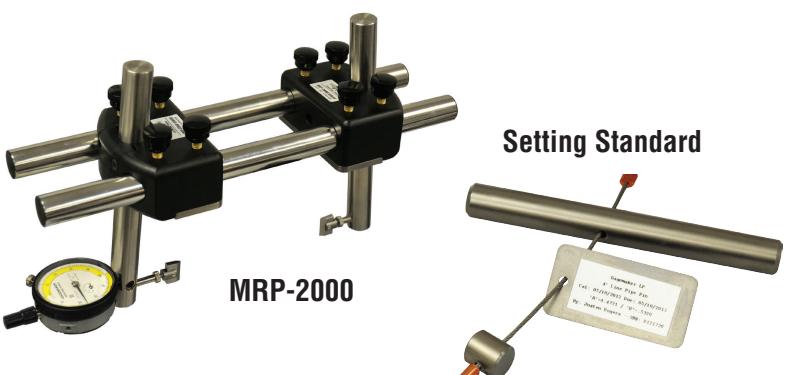
Crest Diameter Gage - MRP 1000/2000/3000

Crest Diameter:

Crest diameter is the most critical measurement in machining threads. Since pipe is not perfectly round, measuring dimensional changes across the face of connectors is critical in determining the proper fit of the connector.

Gage Description:

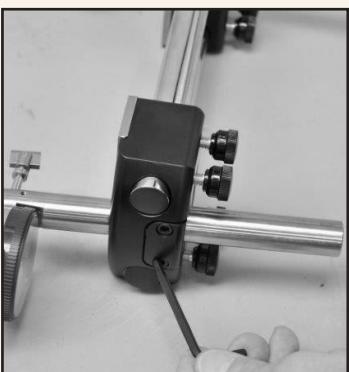
The MRP® gages inspect the crest diameter and ovality of internal and external tapered threads ranging from $1\frac{1}{2}''$ -20". The MRP® gage includes three models, which gives the gage its versatility. The gage uses two pivoting shoes that rest on the crests of the threads during inspection. Any variations in pitch diameter detected during inspection are shown on the gage's indicator.



Crest Diameter Inspection with MRP® Gage

Zeroing the Gage

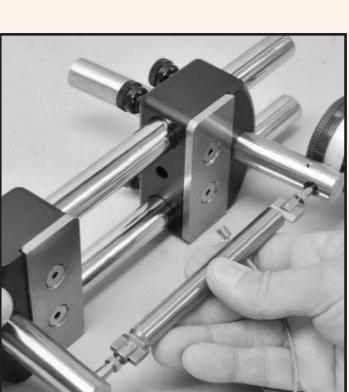
1. Loosen the set screws on the upper and lower blocks of the gage with a hex wrench and loosen all locking knobs.



2. Place the B rod on the gage's wear pad and move the upper arm until the pivot shoe contacts the standard. Tighten the two locking knobs.



3. Place the A standard between the pivot shoes and adjust the lower arm until the shoes contact the standard.



4. Slide the lower block .050" or one indicator revolution away from the upper block to provide preload. Tighten the locking knobs.



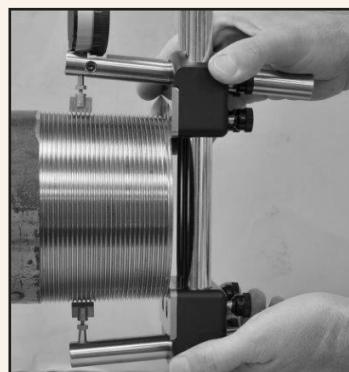
5. Sweep the standard from side to side to find the smallest indicator reading.



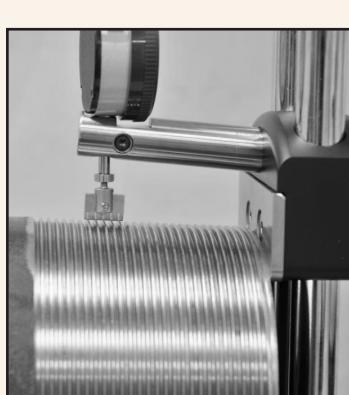
6. Turn the indicator dial to align the needle with zero and tighten the indicator clamp.

Inspecting a Part

1. Place the gage on the part so the wear pads rest on the face of the part and the pivot shoes ride on the crests of the threads.



2. Ensure that the pivot shoes on the MRP® gage are properly positioned on the threads of the part.



3. Using the lower shoe as a pivot, sweep the MRP® gage from side to side to locate the largest indicator reading on the part.



4. Rotate the gage 90° and sweep for the largest reading again. If your second reading is greater or less than the first, sweep 180° around the part to find the largest and smallest values.



5. To calculate the crest diameter, add the largest diameter reading to the smallest diameter reading and divide the total by 2.

6. To calculate the ovality, subtract the smallest indicator reading from the largest indicator reading.

7. Record any deviations on an inspection report.

8. Verify repeatability periodically by placing the gage on the standard.

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