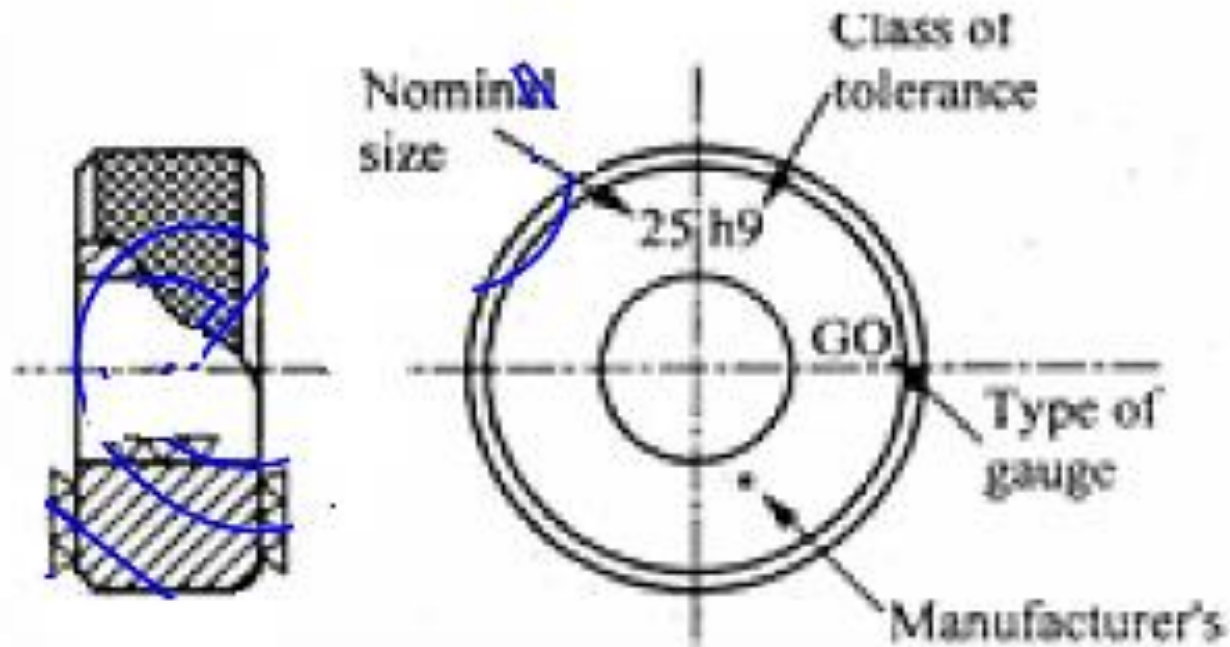




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Ring gauges





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Ring gauges

- 1. Ring gauges are mainly used for checking the diameter of shafts. The hole is accurately finished by grinding and lapping after taking hardening process.**
- 2. The periphery of the ring is knurled to give more grips while handling the gauges. We have to make two ring gauges separately to check the shaft such as GO ring gauge and NOGO ring gauge.**
- 3. But the hole of GO ring gauge is made to the upper limit size of the shaft and NOGO for the lower limit.**
- 4. While checking the shaft, the GO ring gauge will pass through the shaft and NOGO will not pass.**
- 5. To identify the NOGO ring gauges easily, a red mark or a small groove cut on its periphery.**





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Snap gauges

Snap gauges are used for checking external dimensions. They are also called as gap gauges. The different types of snap gauges are:

1. Double Ended Snap Gauge

This gauge is having two ends in the form of anvils. Here also, the GO anvil is made to lower limit and NOGO anvil is made to upper limit of the shaft. It is also known as solid snap gauges





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Snap gauges - Double Ended



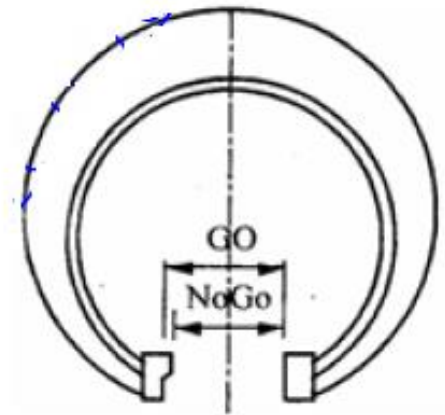


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2. Progressive Snap Gauge

This type of snap gauge is also called caliper gauge. It is mainly used for checking large diameters up to 100mm. Both GO and NOGO anvils at the same end. The GO anvil should be at the front and NOGO anvil at the rear. So, the diameter of the shaft is checked progressively by these two ends. This type of gauge is made of horse shoe shaped frame with I section to reduce the weight of the snap gauges.





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2. Progressive Snap Gauge

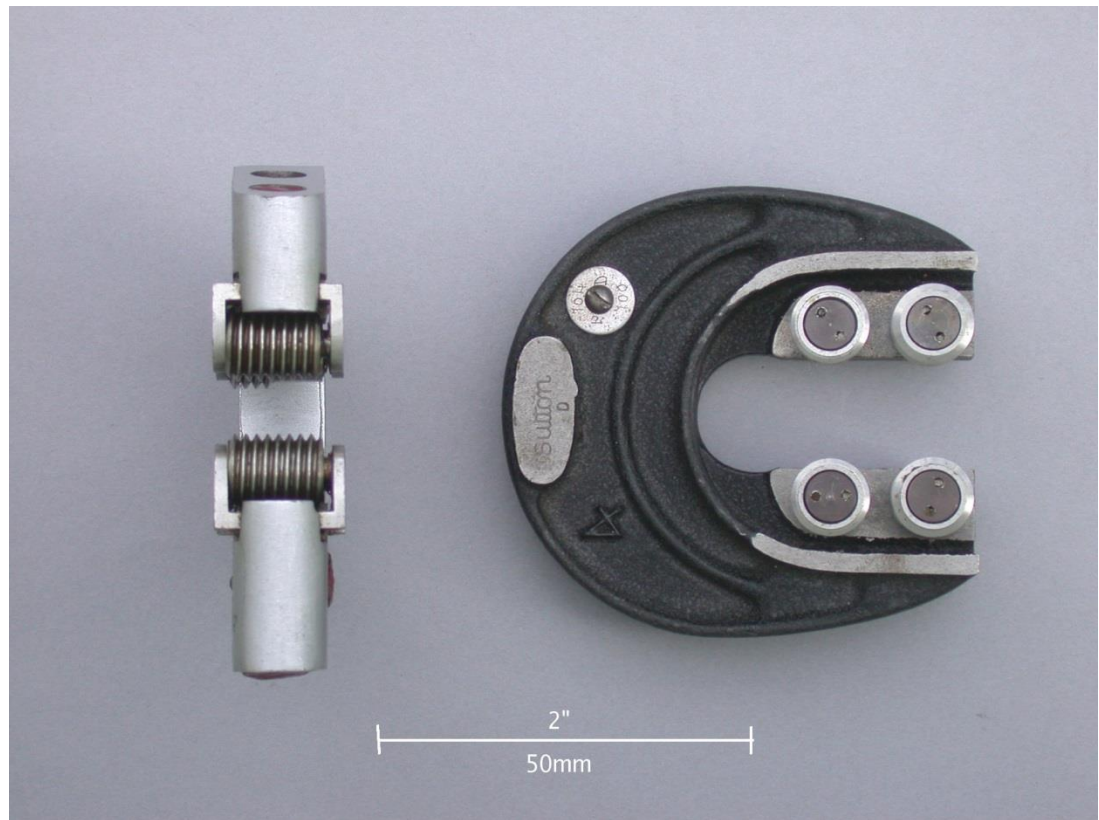




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2. Progressive Snap Gauge



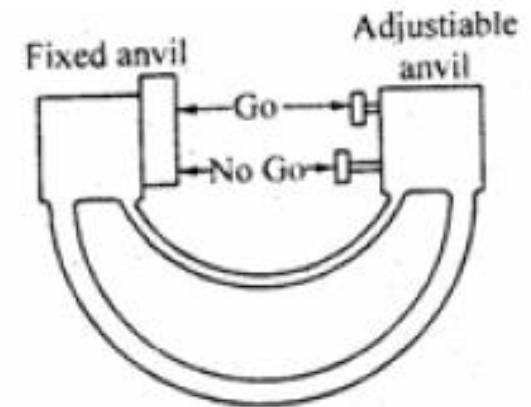


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3. Adjustable Snap Gauge

Adjustable snap gauges are used for checking large size shafts made with horseshoe shaped frame of I section. It has one fixed anvil and two small adjustable anvils. The distance between the two anvils is adjusted by adjusting the adjustable anvils by means of setscrews. This adjustment can be made with the help of slip gauges for specified limits of size.

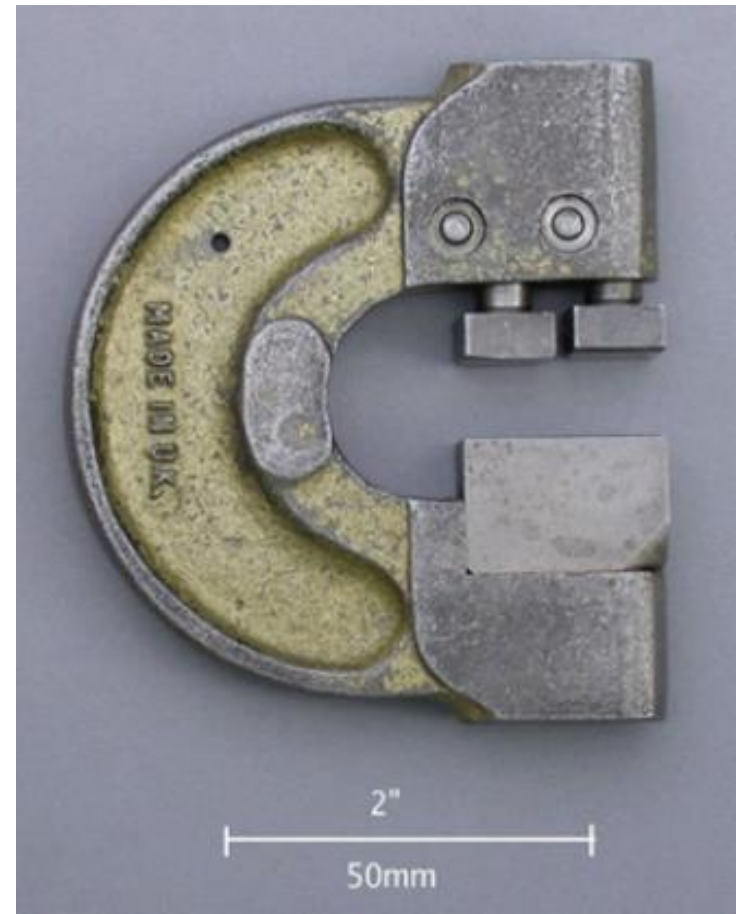




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3. Adjustable Snap Gauge





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3. Adjustable Snap Gauge







Q (2)

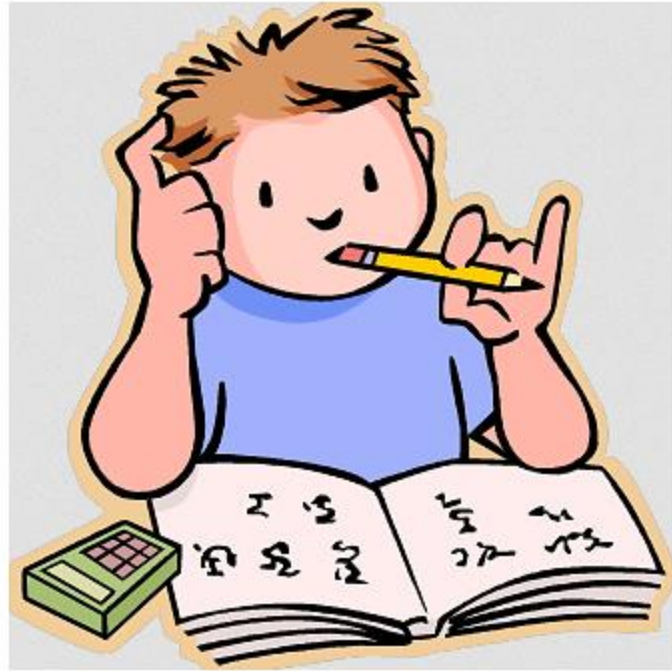
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1. *What are the various errors of linear measurements instruments?*
2. *Explain with neat sketch the principle of vernier clipper operation.*



5





Homework



HW (1)

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- 1. What is a comparator? How does a comparator differ from the measuring instrument?**
- 2. What are the various sources of error in micrometers? Explain how you can reduce or eliminate it in design and measuring?**



Thank
You