

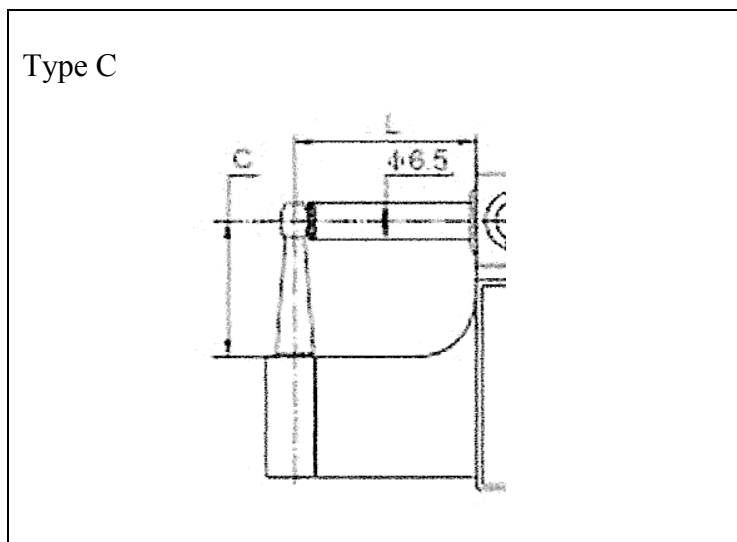
Mechanical Tube Micrometers Spherical Anvil (Type C)



Accuracy conforms to DIN 863
 Resolution: Metric 0.01mm, Inch 0.0001”
 Micro fine graduations for accurate reading
 Tungsten carbide spindle face
 Spindle locking lever
 Ratchet stop
 Non-glare satin chrome barrel and sleeve
 Blue baked enamel hammer tone finish
 Supplied in fitted case with adjustment tools

Packed Weight and Dimensions

Code	Range	Code	Range	Weight g	W mm	H mm	L mm
Metric	mm	Inch	inch				
50-157-025	0-25	50-157-001	0-1	340	88	30	158

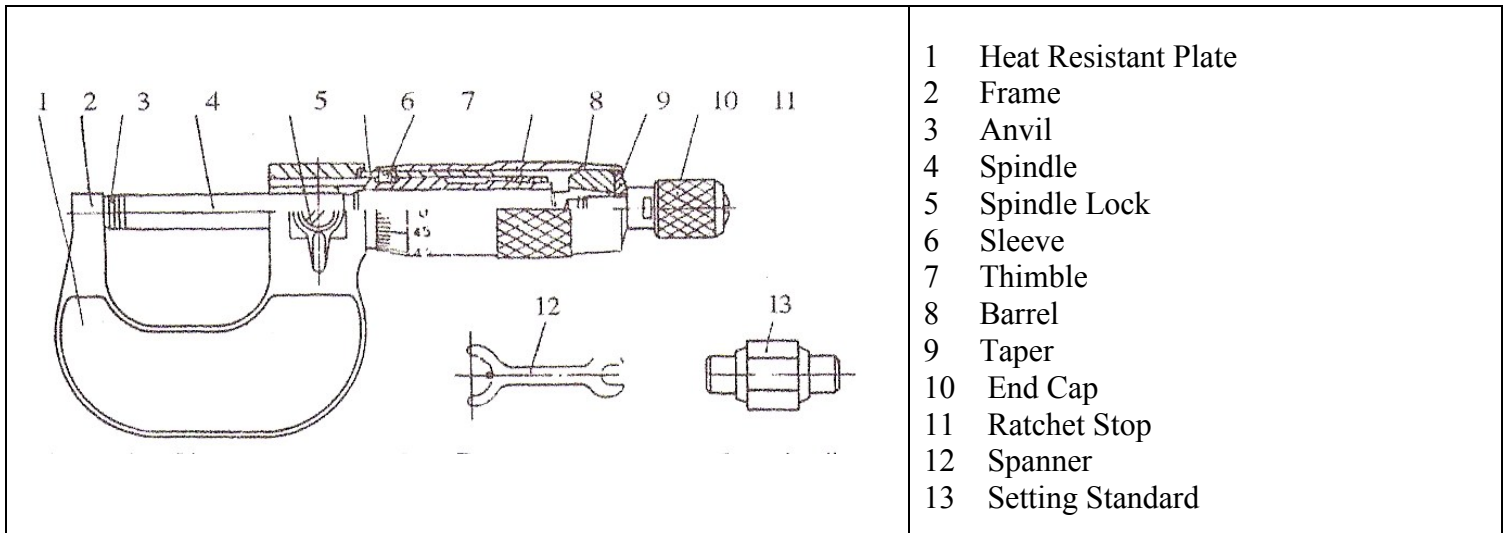


Code	Range mm/Inch	L mm	C mm	Accuracy mm
50-157-025	0-25	31	24	+/- 0.004
50-157-001	0-1	31	24	+/- 0.004

Spherical anvil diameter: 4.7mm

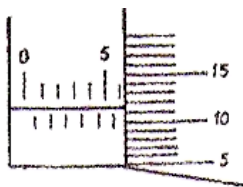
Instructions and Care

Check all new and in use micrometers for correct zero setting prior to use
 Clean micrometer spindle and measuring anvils with soft cloth or paper to remove any oil or particles which may affect the measurements
 Ensure that the micrometer is thermally stabilised with the temperature where it is to be used
 Ensure that the spindle lock is off
 For 0-25mm and 0-1” micrometers: Advance the spindle towards the fixed anvil. Use the ratchet stop to finally close the 2 anvils together. Rotate the ratchet stop 1 ½ to 2 revolutions to exert a constant measuring force
 In the closed position the zero position on the thimble should coincide with the horizontal line on the sleeve
 If the two lines do not coincide, small adjustments can be made by using the “C” spanner provided
 Insert the “C” spanner into the hole at the back of the sleeve and gently turn the sleeve in the direction required to achieve line up
 The micrometer is now set and ready for use
 Clean micrometers and check zero position regularly during use to ensure their continued accuracy
 After use always clean and replace the micrometer in its box

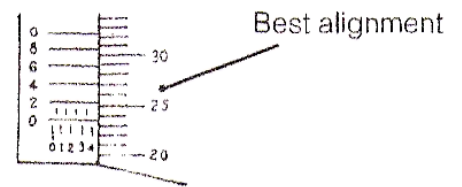


- 1 Heat Resistant Plate
- 2 Frame
- 3 Anvil
- 4 Spindle
- 5 Spindle Lock
- 6 Sleeve
- 7 Thimble
- 8 Barrel
- 9 Taper
- 10 End Cap
- 11 Ratchet Stop
- 12 Spanner
- 13 Setting Standard

Reading Examples: Metric

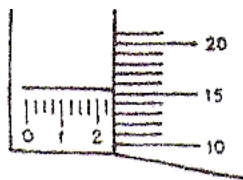


Example for division 0.01mm
 Reading:
 From Sleeve: 6mm
 From thimble: 0.11mm
 Final readings should be
 $6. + 0.11 = 6.11\text{mm}$

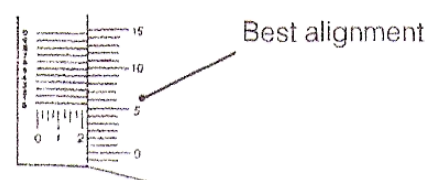


Example for division 0.002mm
 Reading:
 From Sleeve: 4mm
 From thimble: 0.23mm
 From vernier of sleeve: 0.004mm
 Final readings should be
 $4 + 0.23 + 0.004 = 4.234\text{mm}$

Reading Examples: Inch



Example for division .001"
 Reading:
 From sleeve: .2000"
 $.2 + .025 = .225"$
 From thimble: .0150"
 Final readings should be:
 $.2000" + .0250" + .0150" = .2400"$



Example for division 0.0001"
 Reading:
 From Sleeve: .2000"
 $.2 + .025 = .225"$
 From thimble: .0050"
 From vernier of sleeve: .0004"
 Final readings should be
 $.2000" + .0250" + .0050" + .0004" = .2304"$

Mechanical Micrometers

Page: 3 of 3

Cleaning and Basic Checking Procedure

Remove any oil, grease, dust or small particles which may cause damage to the micrometer or affect its accuracy when taking measurements. Use a soft lint free cloth or paper together with a proprietary instrument cleaning agent. Do not use acetone as this can damage parts of the micrometer

Before use check that the ratchet mechanism functions correctly

Check the spindle movement by using the ratchet stop to traverse the spindle through its complete travel

Check that the measuring faces are in good condition

Check the locking mechanism works correctly

Zero Point Checking and Adjustment

Use the ratchet stop to move the spindle until it touches the fixed anvil. Allow the ratchet to turn $1\frac{1}{2}$ to 2 revolutions for the final positioning

The zero point on the thimble should now coincide with the reference graduated base line on the sleeve

For micrometers above 25mm / 1" use the supplied setting standard or a gauge block to check the zero position

If the zero point does not line up as required, it can be corrected by using the following procedure

When the zero point deviation on the thimble is under 2 divisions from the graduated base line

Turn the sleeve using the "C" spanner provided until correct alignment is achieved

When the zero point deviation on the thimble is over 2 divisions from the graduated base line

Hold the frame and the thimble and loosen the ratchet stop using the spanner provided

Disconnect the coupling of the thimble to the spindle by giving a light shock to the side of the thimble

Turn the thimble until the zero point is in alignment with the base line on the sleeve

Press the thimble against the spindle and re-tighten with the spanner to achieve a positive coupling

Re-check the zero position, any final small adjustment can now be made using the "C" spanner to re-position the sleeve to the thimble zero

Reading the Micrometer

When reading the micrometer ensure that your line of sight is directly above the graduated scale on the sleeve and the thimble scale to avoid parallax reading errors

Ensure that the micrometer and the work piece are at the same temperature

Handle the instrument with care, if it is dropped or knocked in any way it must be rechecked for correct working and accuracy as above