



FREEMANS
PRECISION

VERNIER *CALIPER*

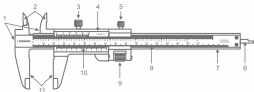


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USER MANUAL



Nomenclature



- ❶ Step Measuring Faces
- ❷ Inside Measuring Faces
- ❸ Clamping Screw
- ❹ Slider
- ❺ Clamping Screw for Fine Adjustment
- ❻ Depth Measuring Blade
- ❼ Beam
- ❽ Main Scale
- ❾ Adjusting Screw for Fine Adjustment
- ❿ Vernier Scale
- ⓫ Outside Measuring Faces

Technical Specifications

Measuring Range	FVC150	0-150mm 0-16in
	FVC200	0-200mm 0-8in
	FVC300	0-300mm 0-12in
Accuracy	FVC150	$\pm 0.03\text{mm}$ 0.0012in
	FVC200	$\pm 0.03\text{mm}$ 0.0012in
	FVC300	$\pm 0.04\text{mm}$ 0.0016in
Resolution	0.02mm (0.001in)	
Material	Stainless Steel	
Working Temperature	5°-40°C 41°-104°F	
Humidity	Of no importance below 80% of relative humidity.	

Preparation for Work

- 1) Before measuring, use a soft cloth to clean the measuring and sliding surfaces. The Caliper can be lubricated with a small amount of oil for smooth sliding.
- 2) Before you begin taking measurements with the Vernier Caliper, ensure that the zero lines of the main and the Vernier Scale coincide, and no gap can be observed between the jaws in the light.
- 3) The slider may be moved only when the clamping screw has been unlocked. Tighten this screw to lock the measurement, if the object needs to be removed before taking the reading.
- 4) Apply suitable force, and tighten both fine adjustment screws to get an accurate measurement.

Multiple Measuring Applications

Outside measurement



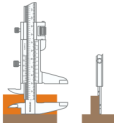
Inside measurements



Depth measurement



Step measurement

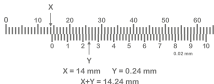


How to read your measurements _____

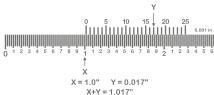
Your reading will comprise of the sum of the main scale and Vernier scale reading :

- 1) Use the main scale to get your reading, X
- 2) Take the Vernier scale reading at the graduation which coincides best with the one on the main scale, Y
- 3) Your reading will be the sum of X and Y (X+Y)

0.02 mm



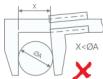
0.001 in



Common Measuring Errors _____

Application of unnecessary force could lead to inaccurate jaw position and inaccurate measurements.

1)



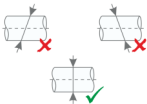
Common Measuring Errors _____

To avoid a visual/parallax error, view from a perpendicular direction when reading the Vernier scale.

2)



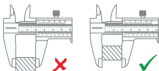
3)



4)

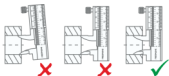


5)

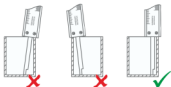


Common Measuring Errors

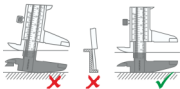
6)



7)



8)



Maintenance Instructions

- 1) Keep the Caliper clean and dry.
- 2) Liquid can damage the slider.
- 3) Measuring surfaces should be cleaned gently with cotton fabrics.
- 4) Never use petrol, acetone, and the other organic solvents.





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Warranty

All **FREEMANS** Precision products are guaranteed for **1 year** from the date of sale against manufacturing defects. This guarantee does not cover damage due to modifications, misuse or fair wear and tear.

*Please Retain this Instruction Manual
in Order to Claim Your Warranty (If Applicable).*

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