veritas®

Beam Compass 05N30.05

The Veritas® Beam Compass is used for laying out circles and arcs up to a radius of 36″ or 0.9 m. Additional 12″ long stainless-steel rod sections can be used to increase the capacity (up to a radius of 60″ or 1.5 m). The adjustable head features an integral micro-adjust to quickly fine-tune the setting within a range of 1/4″ or 6 mm.

Drawing

To draw circles and arcs, configure the beam compass as shown in **Figure 1**. Secure the pencil mount into one end of the rod and install the pencil. Move the adjustable head to the approximate desired radius then fine-tune the setting with the micro-adjust.

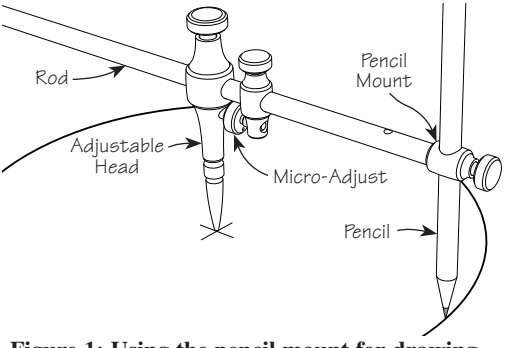


Figure 1: Using the pencil mount for drawing circles and arcs.

Scribing

The carbon-steel points are suitable for scribing soft metals such as brass and aluminum. They are also suitable for scribing most plastics. They are not hard enough to scribe glass or hardened steels.

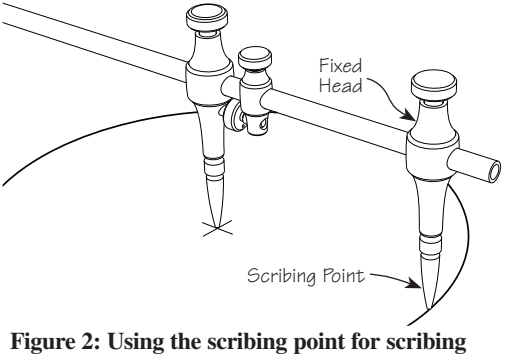


Figure 2: Using the scribing point for scribing circles and arcs.

The Micro-Adjust

The micro-adjust provides a fine adjustment range of 1/4″ or 6 mm between the points. The small divot on the knob serves as a visual reference for tracking the movement. Each revolution of the knob changes the spacing by about 1/32″ or 0.9 mm.

To use the micro-adjust, lock the anchor to the rod first, then adjust the location of the adjustable head using the micro-adjust knob. Finally, lock the adjustable head to the rod to prevent wiggle or accidental shifting.

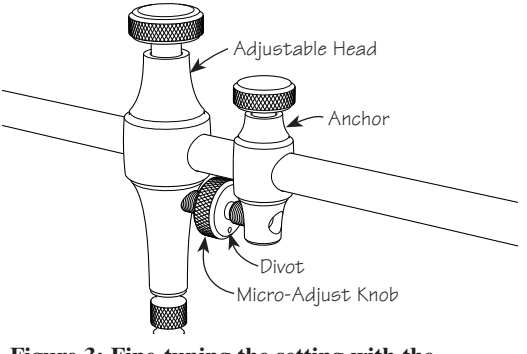


Figure 3: Fine-tuning the setting with the micro-adjust.

Using Extensions

The beam compass comes with three 12″ rod sections that can be joined to create a beam compass with a radius of up to 36″ or 0.9 m. Additional rod sections can be purchased to increase the capacity of the beam compass. Rods supplied with the Veritas Bar Gauge (05N29.01) are compatible with the beam compass.

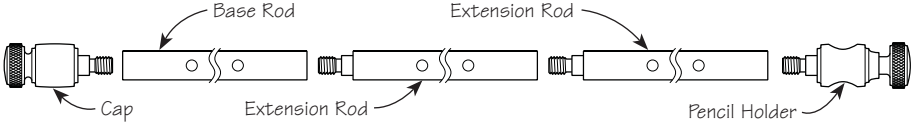
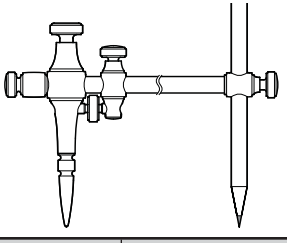
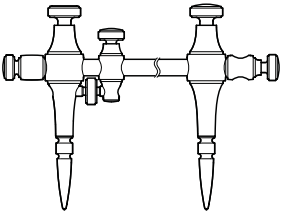


Figure 4: Joining rod sections.

The table below lists the working range of the beam compass based on whether it is configured for drawing or scribing. It is impractical to use the beam compass with more than five rod sections.

	Drawing		Scribing	
				
	Inches	**Millimetres**	**Inches**	**Millimetres**
Minimum	11/16	17	3/4	19
Maximum with 1 rod	12	305	11 3/8	285
Maximum with 2 rods	24	610	23 3/8	590
Maximum with 3 rods	36	915	35 3/8	895
Maximum with 4 rods	48	1220	47 3/8	1200
Maximum with 5 rods	60	1525	59 3/8	1505

To connect two rods together, thread the male end of one rod into the female end of another. Tighten the connection using the pair of hex keys, as shown in **Figure 5**.

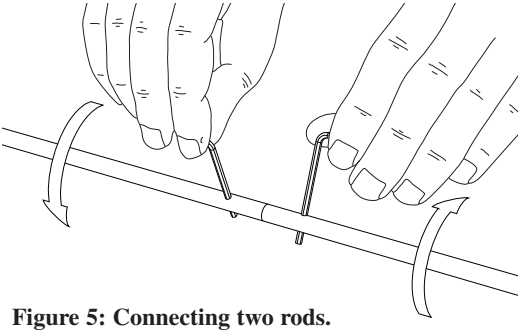
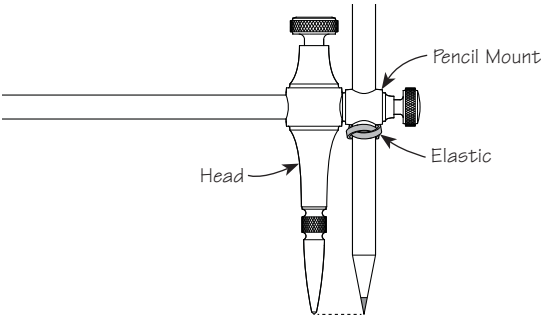


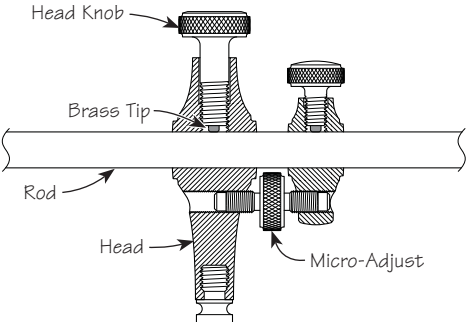
Figure 5: Connecting two rods.

Tips

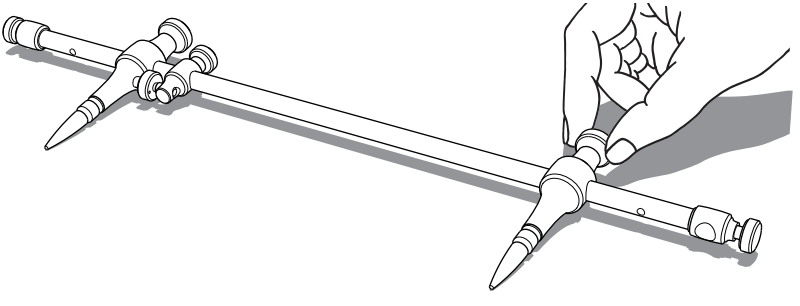
- *To get the pencil projection such that it matches the heads, slide one of the heads against the pencil mount. Wrap an elastic band or O-ring around the shaft of the pencil to speed up subsequent set-ups.*



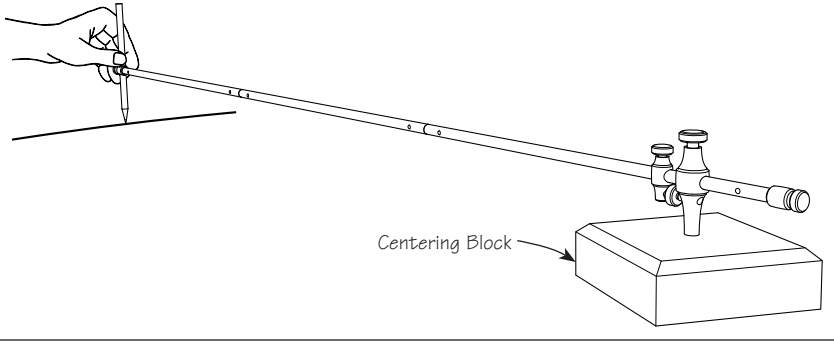
- *Small adjustments to the micro-adjust are made easier by partially tightening the head knob. This increases the drag between the head and the rod and reduces wiggle. However, the micro-adjust has tremendous mechanical advantage, and can easily overpower a tight head knob and abrade its brass tip.*



- *To quickly align the heads to each other or to the pencil, lay the entire beam compass on a flat surface. Then lock the heads in place.*



- *The beam compass can be unwieldy to use with many extensions. A 1 3/8" (35 mm) tall block with a 5/16" (8 mm) hole can be clamped or taped to the center to hold one head upright.*



Accessory

05N29.06 Pair of 12″ Extension Rods

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