

The Titan Cathetometer is a precision optical instrument used for measuring vertical displacement in areas that are inaccessible to an indicator, scribe or other mechanical checking devices because of distance or combinations of blended curves. It is a Micro-Telescope which has a simple "Cross Hair" Reticle mounted in the eyepiece and vertical and horizontal divisions on the cross hairs combined with 2 concentric circles. It has an adjustable focal length from 4" to infinity. The Cathetometer can be attached to any standard American or Foreign Height Gauge 18" or larger by the 1/4" X 1/2" holding bar, in place of an indicator or scribe attachment. Because of the light weight (1 lb.) it will level perfectly on even the lightest Height Gauge.

### OPERATING PROCEDURE:

- (1) Attach Cathetometer to a Height Gauge.
- (2) Place Height Gauge on surface plate or any other level flat surface.
- (3) Looking through eyepiece, turn knurled knob by the eyepiece until the cross hair is in sharp focus.
- (4) Adjust height approximately for the Cathetometer to line up with the object to be checked.
- (5) Rotate knurled eyetube in front of Cathetometer until object is in sharp focus.
- (6) Readjust height with fine adjustment to bring starting point in line with cross hair of Cathetometer. The fine adjustment on the Cathetometer can also be used for this purpose as well as for leveling the instrument as it is provided with its own liquid level to use when necessary.
- (7) With the Cathetometer lined up on the starting point, take a reading on the Height Gauge beam. Move the cathetometer on the vertical beam of the Height Gauge to the next point to be checked. Take a reading. subtract reading #1 from reading #2 and the distance between the two points is realized.
- (8) Continue further readings following the same procedure.



**TC-II shown attached to a Height Gauge.  
Height Gauge is not included.**



### OPTICAL DATA: MODEL TC-II

**Focal Length:** 4" to infinity by rotating the front eyetube.

<b>Field of View at</b>	4" - .375"
	8" - 1.00"
	12" - 1.50"
	24" - 3.125"
	36" - 5.00"
	48" - 6.50"

Consistently increasing until infinity.

**Image:** Right side up, not inverted. Optically correct left to right.

**Reticle:** TC-II 90° crosslines with equally spaced divisions and 2 concentric circles for vertical and horizontal alignment.

**Light Source:** Ambient light. No extra illumination is necessary. Unless as needed for application.

**Magnification as Microscope:** 12.5X at 4"

**Magnification as Telescope:** 3.5X at Infinity

**Level:** TC-II Accuracy of .0001" per foot.

**Weight:** 1 Lb.

### TC-II Ordering Information

Order Number	Description
TC-II	Cathetometer