



470NA Calibration Sine Bar

Generate precise angles

Also known as an "angle generator", the **470NA** facilitates checking, calibration, and adjustment of devices that measure small angles. The removable tilting plate is a surface-table quality black granite bar with a work area of 5½" x 24" (14 x 61 cm). The tilting table is controlled by a lever assembly actuated by a micrometer. The unit is calibrated so that 0.001" of micrometer motion equals 1 arcsecond of tilt. The large, easy-to-read micrometer thimble is directly readable to 0.0001", which corresponds to a tilt resolution of 0.1 arcseconds.



The granite bar is supported in three places by steel plugs with carbide inserts, which in turn rest on steel balls. A pivot ball on the lever arm supports the surface plate and is mounted in an eccentric bushing, which provides for precise factory adjustment and calibration in the field if necessary. The calibration of this unit is traceable to NIST.



Two steel plates provide a corner reference stop that may be used to position any test unit on the granite bar. The cast iron base is supported by three adjustable foot screws, permitting transverse and lateral leveling of the unit. These foot screws each have a locknut to prevent inadvertent movement. An eccentric lifting mechanism is also provided to raise the granite bar off of its resting points when not in use.

Specifications

Sine bar range: ±500 arcseconds

Range accuracy: ±0.4 arcseconds total range error from 0 to 1000 arcseconds

Incremental accuracy: ±0.2 arcseconds per 25 arcsecond interval

Base material: Stabilized cast iron

Base footprint: Approx. 6" x 31" (15.2 x 78.7 cm)

Tilting plate: 5½" x 24 x 2" granite block, Grade B flatness certification. (14cm x 61cm x 5cm)

Finish: Base and base components are machine gray polyurethane.

Case: Hardwood

Maximum Load: 25 pounds (11.3kg)

Approx Weight: Sine bar, 75 lbs (34 kg); sine bar with case, 100 lbs (45.4 kb); Shipping, 125 lbs (56.7 kg)

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