

Excellence in Precision
Manufacturing

graph

graph

GRANITE & IRON
PRECISION MANUFACTURING



Why Graph Datum?

With years of industry expertise, Graph Datum provides granite surface plates that ensure top-tier accuracy, reliability and durability, trusted by professionals worldwide.



Accuracy



Durability



Reliability

Accuracy : Stringent quality control inspections are conducted throughout every stage, with a final inspection utilizing an Electronic Level calibrated regularly by an accredited laboratory.

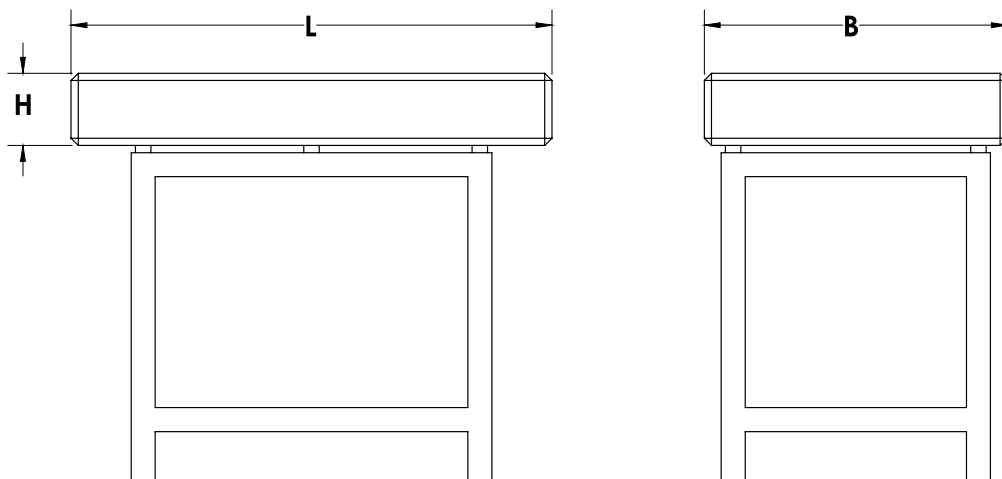


Built for Precision,
Designed for Longevity –
Graph Datum's Surface Plates at Work.

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Granite Surface Plates



Granite surface plates are precision tools used as reference surfaces for measuring and inspecting dimensions, flatness, and alignment of various parts or objects.

They are extensively utilized across industries such as manufacturing, aerospace, automotive, metrology and quality control.

Available Sizes :

300 x 300 x 50 mm

400 x 400 x 63 mm

450 x 450 x 63 mm

630 x 400 x 80 mm

630 x 630 x 80 mm

900 x 600 x 100 mm

1000 x 630 x 150 mm

900 x 900 x 100 mm

Above sizes come with
Fabricated Stand

1000 x 1000 x 150 mm

1200 x 900 x 150 mm

1200 x 1200 x 150 mm

1600 x 1000 x 200 mm

2000 x 1000 x 200 mm

1500 x 1500 x 200 mm

2000 x 1500 x 200 mm

2000 x 2000 x 250 mm

Above sizes has two option
Fabricated Stand or leveling Screw Jacks (Set of 5 Pcs.)

3000 x 1000 x 250 mm

3000 x 1500 x 250 mm

3000 x 2000 x 300 mm

4000 x 1000 x 250 mm

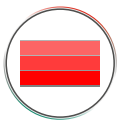
4000 x 1500 x 300 mm

4000 x 2000 x 300 mm

5000 x 1000 x 300 mm

5000 x 1500 x 300 mm

Key Features :



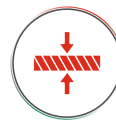
Flatness :

Maintains extreme precision, measured in microns, for accurate measurements.



Surface Finish :

Ensures consistent contact, minimizing measurement errors.



Thickness :

Available in various thicknesses for different applications and load capacities.



Hardness:

High Mohs grade for superior wear and damage resistance.

Types of Granite Surface Plates :

- **Standard Grade Surface Plates:**

- Used for general industrial applications.
- Provides adequate flatness and stability formost measuring tasks.

- **High-Grade Surface Plates:**

- Designed for precision and high-accuracy environments.
- Offers ultra-flatness and exceptional surface finish for critical measurements.

- **Inspection Grade Surface Plates:**

- Ideal for laboratory and metrology settings requiring utmost accuracy.
- Calibrated for superior flatness and smoothness.



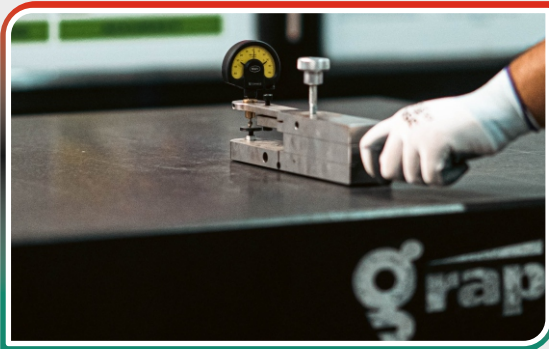
Comparison Table (Granite vs. Other Materials) :

Feature	Granite Surface Plate	Cast Iron Plate
Flatness	● High Precision (microns)	● Lower
Hardness	● Highly wear-resistant	● Moderate
Non-Corrosive	● Rust & corrosion-proof	● Rusts over time
Thermal Stability	● Minimal expansion	● Moderate
Vibration Damping	● Excellent	● Moderate
Chemical Resistance	● Resistant to oils & solvents	● Can be damaged

● Strong Advantage ● Significant Disadvantage ● Moderate or Acceptable Performance

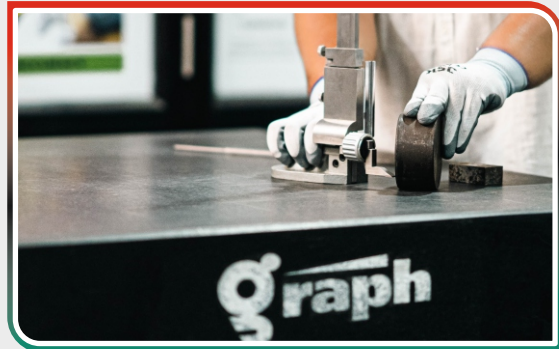
Application :

Granite surface plates play a crucial role in numerous industrial and metrology applications, including:



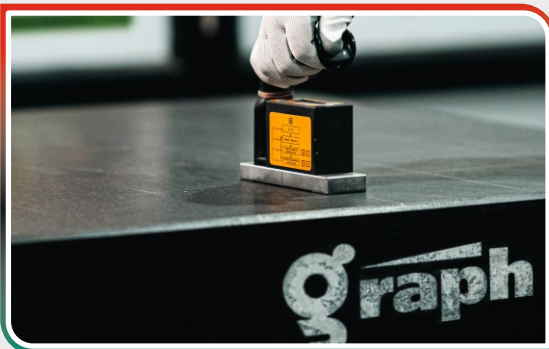
Precision Inspection :

Ensuring accuracy in metrology labs



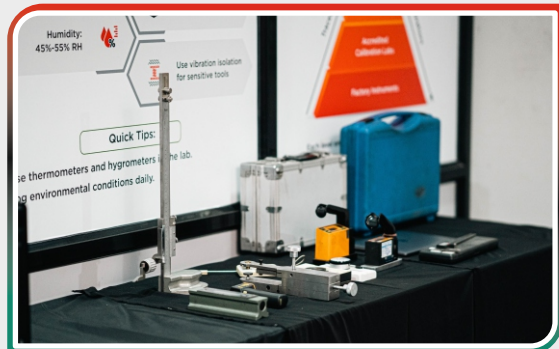
Tool Alignment

Helping in CNC machining & tool setup



Gauge Calibration

Reliable reference for measuring instruments

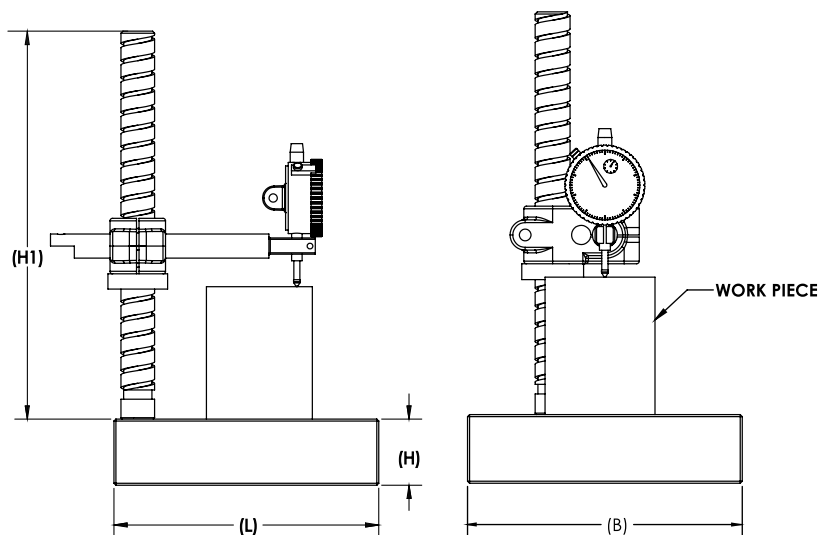


Measuring Tools

Various tool for precise measurements

By offering unmatched precision, durability and stability, granite surface plates remain an essential tool for quality assurance and metrology applications across various industries.

Granite Height Comparator Stand



we are supplier and manufacturer for those manufacturer who supply the object with height perfection and who deals with MNC companies.

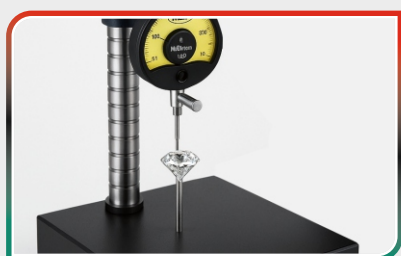
Specialize for lab as per client requirement height comparator stand for measuring height and width on surface plate. Provides high dimensional accuracy for industries with strict quality and manufacturing requirements.

Available Sizes :

Model No.	Base Plate Size (LxB)	Column Height (H1)
GH-150	150 x 150 mm	250 mm
GH-200	200 x 200 mm	300 mm
GH-250	250 x 250 mm	300 mm
GH-300	300 x 300 mm	300 mm
GH-400	400 x 400 mm	400 mm
GH-500	500 x 500 mm	400 mm
GH-600	600 x 600 mm	400 mm

Application :

The Granite Height Comparator Stand is a precision inspection tool primarily used for comparative measurements of components in a controlled metrology environment.



Dimensional Inspection:

Ensures parts meet tight tolerances by comparing them with reference gauges.



Precision Engineering:

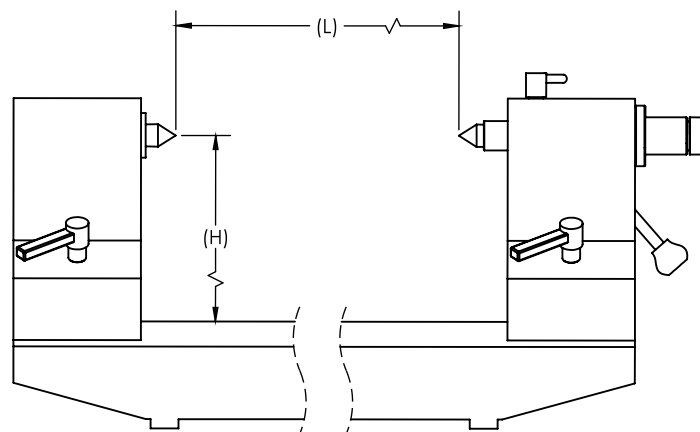
Ideal for industries such as automotive, aerospace, and defense where component accuracy is critical.



Bearing and Shaft Measurement:

Useful for checking bearing diameters, runout, and concentricity using dial gauges.

Cast Iron Bench Center



Bench center measures concentricity, axial alignment, and perpendicularity of cylindrical parts like shafts and gears.

They reduce measurement errors by keeping the work piece stable and aligned.

Bench centers precisely align and center cylindrical work pieces for accurate and symmetric measurements.

Available Sizes :

Center Distance	Center Height	Center Distance	Center Height
300 mm	125 mm	1250 mm	160 mm
300 mm	160 mm	1250 mm	200 mm
500 mm	160 mm	1500 mm	160 mm
500 mm	200 mm	1500 mm	200 mm
750 mm	160 mm	2000 mm	200 mm
750 mm	200 mm	2000 mm	250 mm
1000 mm	160 mm	2500 mm	200 mm
1000 mm	200 mm	2500 mm	250 mm

Application :

The Cast Iron Bench Center is used for checking the concentricity, roundness, and runout of cylindrical components such as shafts, spindles, and rotors.

It provides a rigid and precise setup for rotating components between centers, enabling accurate measurement and inspection in quality control and metrology labs.

