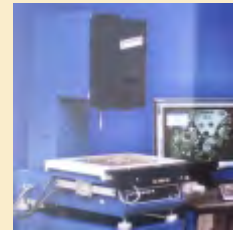
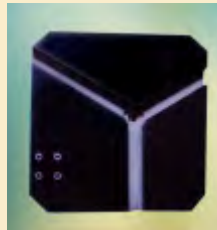
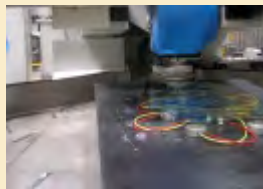


# CUSTOM MADE PRECISION GRANITE MACHINE & REFERENCE BASES



*5 decades in the dimensional metrology business*

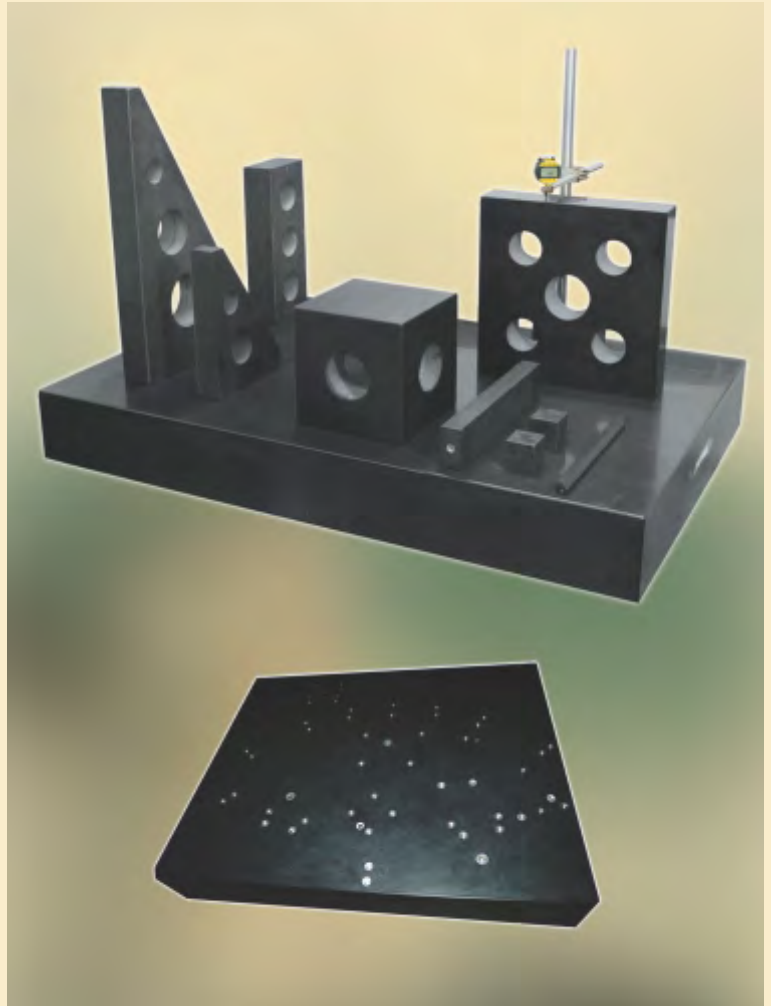
- Vibration Reduction
- Thermal Stability
- Corrosion Proof

# GRANITE BEST SUITED TO METROLOGY APPLICATIONS

South India has the largest deposits of the granite best suited to metrology applications. The success in cast iron Metrology products led to the development of the 'Granite Metrology Product Range'. Granite bonded with metal has resulted in specials for many applications. The following are the representative properties of our granites.

Texture	: Fine
Specific Gravity	: 3.08
Hardness	: Scleroscope over 90
Modules of Elasticity	: 9.0 to 12.0 x 10
Moisture absorption	: Nil

Apart from complete range of standard granite and cast iron metrology dimensional inspection equipment, GMT's Metrology Division also manufactures custom built metrology products like master square for alignment of machining center, large size granite plates and granite base structures for Special Purpose Machines.



# SELECTING GRANITE FOR METROLOGY

Certain minerals present in the granite are the cause of its typical colour. The presence of these minerals on the working surface of a surface plate, or other metrology artefact, can cause problems. If they are very hard and brittle (quartz for e.g.) they can wear quickly leaving pitted areas on the surface.

It is an acknowledged fact that pure black granite from the Deccan plateau in the South India is most resistant to wear.

This does not mean that other colours do not have metrology characteristics.

As granite is a natural material and its properties can vary from vein to vein in the quarry, it is best to get the stone periodically tested for its properties.

Experts from GMT visit quarry to select the granite best suited for metrology.



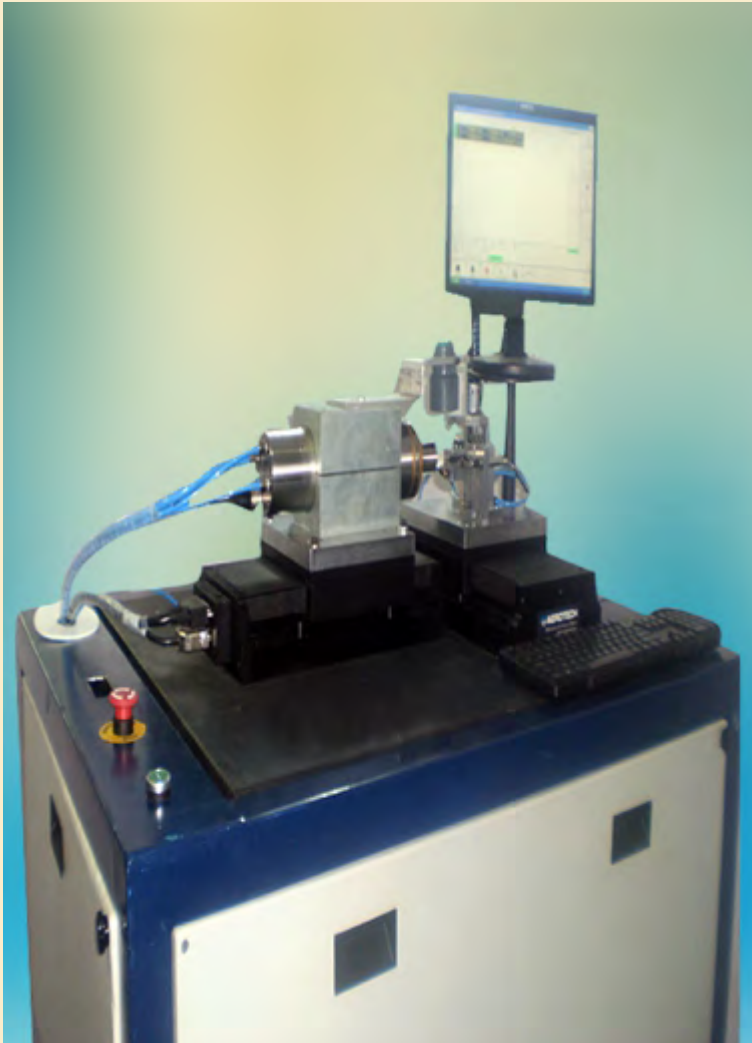
*Our Metrology division General Manager, Mr. V.Sekar selects the granite best suited for metrology.*

# FACILITIES

The metrology division with 36 employees is in the Hosur Sipcot Industrial Estate, near Bangalore, India. It is spread over 1.25 acres and a built up area of 14,000 sq. ft. Facility includes 2100mm dia lapping machine, custom built for lapping granite. The plates are hand lapped by a skilled force for higher accuracies. It is equipped with a modern lab with controlled environment for checking flatness and fine measurement.



# GRANITE STRUCTURE FOR CONTACT LENS GRINDING MACHINE



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GRANITE BASE STRUCTURE FOR CONTACT  
LENS GRINDING MACHINE

Parts Supplied by GMT: Granite Base

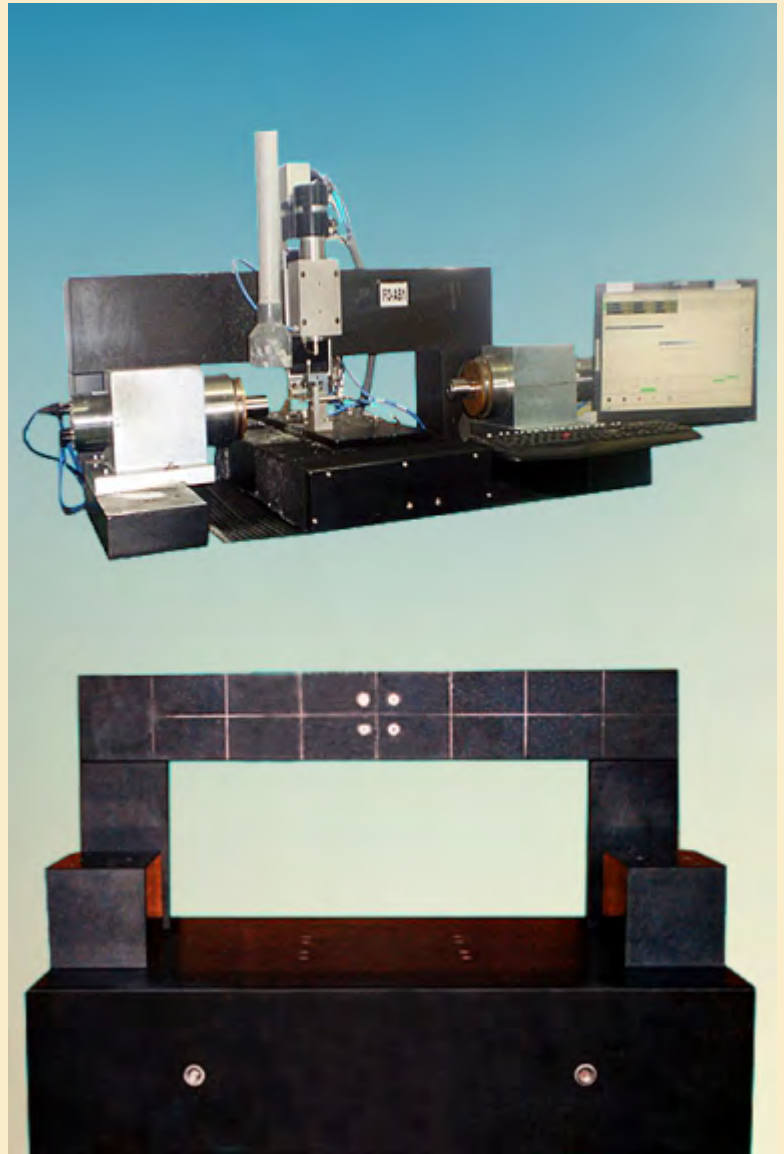
Instrument Application : Used for  
contact lens grinding

# GRANITE BASE STRUCTURE FOR CONTACT LENS GRINDING MACHINE

## GRANITE BASE STRUCTURE FOR CONTACT LENS GRINDING MACHINE

Parts Supplied by GMT: Granite Base,  
Spindle Base, Milling Vertical, Milling  
Horizontal.

Instrument Application : The Granite  
Structure was supplied to the  
customer as per their specification.  
These parts are used by them for  
making contact lens.



# GRANITE STRUCTURE FOR GLASS GRINDING AND CHAMFERING MACHINE



TOP



BOTTOM

GRANITE STRUCTURE FOR GLASS GRINDING AND CHAMFERING MACHINE

Size : 1800X1000X60mm

Application: It is used for chamfering, profile cutting in glass.

# GRANITE TABLE FOR MARINE CRANKSHAFT



## GRANITE TABLE FOR MARINE CRANKSHAFT INSPECTION

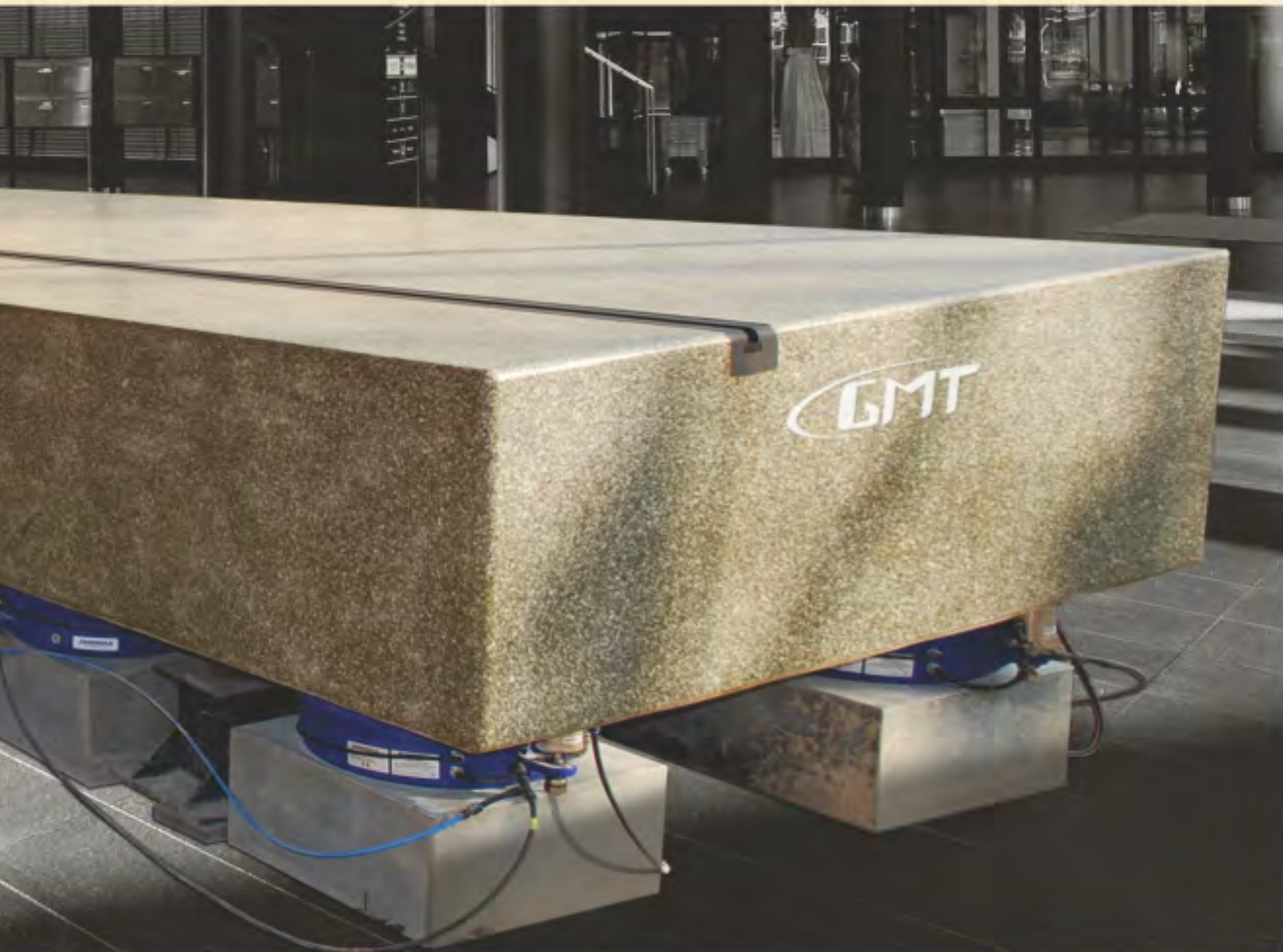
Size : 12000mm x 1500mm x 500mm

Flatness : 50 micrometer

With T-Slot - Straightness 10 micrometer per metre



# INSPECTION



# IMAGE PROCESSING MACHINE WITH GRANITE BASE



IMAGE PROCESSING MACHINE WITH GRANITE BASE WITH COLUMN  
Material supplied by GMT : Granite base with column

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# TURBINE RUN OUT CHECKING SYSTEM



## TURBINE RUN OUT CHECKING SYSTEM

Parts Supplied by GMT: Granite Base, Granite Column, Cross Slide & Centering and Leveling Units.

Instrument Application : Run out Measurement System used for checking run out eccentricity & Circularity in different sizes of Turbine by using software.



## ENGINE BLOCK BORE ROUGHNESS CHECKING

Engine block bore roughness checking

Parts Supplied by GMT : Granite Base, column & accessories

Size : 1600X1000X200 mm

## GRANITE BASE FOR TOOL PRE SETTER

Tool Pre Setter

The Granite was supplied to the customer as per their specification.  
Application : To set carbide inserts on face milling cutter within 1 micron



# 1500 x 1500mm MASTER SQUARE



10  
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## Granite Tri Square

Application : These high precision Tri- Squares are used for the direct checking of squareness of machining centre. Also used during alignment of various machinery and for calibration of CMM'S.

# SURFACE PLATE FOR BOEING PROJECT



6M GRANITE SURFACE PLATE FOR BOEING PROJECT  
6000mm X 1500mm X 400mm size granite plate  
Flatness : 15 micrometer

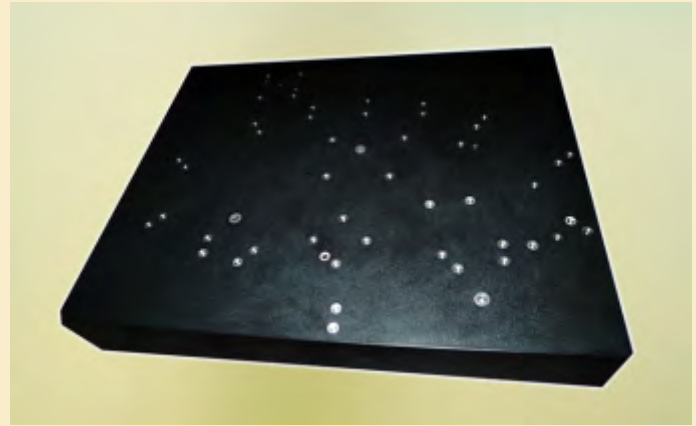
# GRANITE BASE WITH T SLOT



GRANITE BASE WITH T SLOT , 150 MM CCC AND V BLOCK ROLLER BEARING

Application : Used For testing run out , coaxiality , parallelism and squareness of cylindrical products .  
CCC: For checking component with center. ROLLER BEARING "V" BLOCK - Used for checking heavy and odd shaped round jobs without centre. Perfectly matched pair having accuracy 0.005mm.

# FINE PITCH ACCURACY GRANITE BASE




FINE PITCH ACCURACY GRANITE BASE  
2000x1600x300 mm. Pitch accuracy 25 micrometer

# GRANITE BASE WITH RISER BLOCK



GRANITE BASE WITH FRONT & REAR RISER BLOCK  
Application: Laser System with highlighted beam delivery optics

 **Guindy Machine Tools Limited**  
**(Metrology Division)**

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Fax :+91-4344-276450 / 405110 E-mail : [gmtmetrology@gmt.co.in](mailto:gmtmetrology@gmt.co.in), [gmtmetrology@airtelmail.in](mailto:gmtmetrology@airtelmail.in).  
Web : [www.gmt.co.in](http://www.gmt.co.in)      [www.gmtmetrology.com](http://www.gmtmetrology.com)