



GRANITE SURFACE PLATES



OUR OTHER GRANITE PRODUCTS



Master Squares



Cubes



Straight Edge



Special Products

in the metrology business since 1966

SPECIFICATIONS

FLATNESS TOLERANCE IN μm FOR ACCURACY GRADE						
SIZE OF PLATE (in mm)	AS PER DIN 876:1984	AS PER IS 7327 : 2003				WEIGHT in Kgs. (Approx.)
	GRADE "00"	GRADE "0"	GRADE "1"	GRADE "2"	GRADE "3"	
250 x 250	3	3.5	7	15	30	10
300 x 300	3	3.5	7	15	30	22
400 x 250	3	4.0	8	16	32	20
400 x 400	3	4.5	9	17	34	40
500 x 300	3	4.5	9	17	34	35
630 x 400	4	5.0	10	20	39	65
630 x 630	4	5.0	10	21	42	100
800 x 500	4	5.0	10	21	42	120
1000 x 630	4	6.0	12	24	49	320
1000 x 1000	4	7.0	14	28	56	500
1200 x 800	4	7.0	14	28	56	475
1600 x 1000	5	8.0	16	33	66	1100
2000 x 1000	6	9.5	19	38	75	1650

Other sizes offered on request

GMT Metrology Granite Surface Plates meet the DIN and IS Standards specified in the table above. Granite Surface Plates are manufactured to precision standards using the highest quality granite.

ACCURACY

Rigorous quality control inspection is carried out at all stages. Final inspection is carried out at a High Precision Computerised Electronic Level.

ACCURACY UNDER LOAD

1micron / 20Kg using Beam Comparator apparatus as per IS 7327:2003

CERTIFICATE

A certificate of accuracy is supplied with each plate as per standards specified.

TECHNICAL DATA

Granite Surface Plates are manufactured in five grades. The typical application of these five grades of plates is as under:

GRADE 00 as per DIN 876 : 1984 is of laboratory grade. It is specified for precision measurement in gauge rooms and metrology laboratories.

GRADE 0 is of inspection grade. It is specified for general work in quality control.

GRADE 1 is of tool room grade. It is specified for production checking work through the shop.

GRADE 2 & 3 are intended for use in shops for general inspection. The choice of Grade 2 & 3 will depend on the application needs of the customer.

MATERIAL

Granite Surface Plates are made from select granite with uniform distribution of light and dark constituents. In such granite the minerals are evenly distributed resulting in a homogenous appearance. The following are the representative properties of our granites :

Texture	: Fine
Specific Gravity	: 2500 to 3000 kg/m ³
Hardness	: Moh's Scale 6
Modules of Elasticity	: 50 to 60 Gpa
Moisture of absorption	: Upto 0.1%

FLATNESS TOLERANCE

The flatness deviation of a local area of 250 mm x 250 mm of the working surface shall not exceed :

- I. 3.0 μm for plates of Grade 00
- II. 3.5 μm for plates of Grade 0
- III. 7.0 μm for plates of Grade 1
- IV. 15.0 μm for plates of Grade 2
- V. 30.0 μm for plates of Grade 3

ADVANTAGES

1. Granite has one of the lowest coefficients of expansion amongst known materials.
2. Granite does not rust.
3. It may chip but will not develop a burr.
4. It is easy to keep clean.

GRANITE SURFACE PLATE STANDS

These are fabricated of heavy angle iron and reinforced to ensure rigidity. The stands are designed to withstand the weight of the granite surface plates and are supplied with 3 leveling screws for leveling the granite surface plates.

OPTIONAL ACCESSORIES

Plate will be supplied with a suitable Rexine Cover to protect both the working surface and side faces of the plate at extra cost.

TO MEET SPECIAL REQUIREMENTS WE OFFER :

1. Bigger size Granite Surface Plates with extra thickness.
2. Granite Surface plates with T-Slot inserts, drilled and tapped inserts.
3. Granite Straight Edges.
4. Granite Master Squares.
5. Granite Cubes.
6. Master Cylinder made of hardened and ground steel.



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Due to constant development work we reserve the right to depart from the catalogue specifications.