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

<table>
<thead>
<tr>
<th>Size of Plate (in mm)</th>
<th>AS PER DIN 876 : 84</th>
<th>AS PER IS 7327 - 2003</th>
<th>Weight in Kgs. (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GRADE &quot;00&quot;</td>
<td>GRADE &quot;0&quot;</td>
<td>GRADE &quot;1&quot;</td>
</tr>
<tr>
<td>250 x 250</td>
<td>3</td>
<td>3.5</td>
<td>7</td>
</tr>
<tr>
<td>300 x 300</td>
<td>3</td>
<td>3.5</td>
<td>7</td>
</tr>
<tr>
<td>400 x 250</td>
<td>3</td>
<td>4.0</td>
<td>8</td>
</tr>
<tr>
<td>400 x 400</td>
<td>3</td>
<td>4.5</td>
<td>9</td>
</tr>
<tr>
<td>500 x 300</td>
<td>4</td>
<td>5.0</td>
<td>10</td>
</tr>
<tr>
<td>630 x 400</td>
<td>4</td>
<td>5.0</td>
<td>10</td>
</tr>
<tr>
<td>630 x 630</td>
<td>4</td>
<td>7.0</td>
<td>14</td>
</tr>
<tr>
<td>800 x 500</td>
<td>4</td>
<td>7.0</td>
<td>14</td>
</tr>
<tr>
<td>1000 x 630</td>
<td>5</td>
<td>8.0</td>
<td>16</td>
</tr>
<tr>
<td>1600 x 1000</td>
<td>6</td>
<td>9.5</td>
<td>19</td>
</tr>
</tbody>
</table>

*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**

Granite Surface Plates are capable of supporting a total normal load of 25 kgs. per 0.1 sq.mtr.

**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 : 84 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 : 3.08 g/cm²
- Hardness : Scleroscope over 90
- Modules of Elasticity : 9.0 to 12.0 x 10^6 kg/cm²
- Moisture of absorption : Nil

**Flatness Tolerance**

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

1. 3.0 μm for plates of Grade 00
2. 3.5 μm for plates of Grade 0
3. 7.0 μm for plates of Grade 1
4. 15.0 μm for plates of Grade 2
5. 30.0 μm for plates of Grade 3

**Advantages**

1. Granite has one of the lowest co-efficients 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 inserts with drilled and tapped holes.
5. Granite Cubes.
6. Master Cylinder made of hardened and ground steel.