

METROLOGY[®]



Granite Tri-Square Master



Granite Parallel Master



Granite V-Block Master



Granite Four Face Square Master



Granite Straight Edge Master



Granite Surface Plate

GRANITE MASTER GAUGE

■ Granite Surface Plate

For layout of workpieces and measuring reference plane of geometric elements inspection.

Use repeat checking calibrator to check local error of plate flatness

Grade : German DIN 876/00, JCC inspection report included



Stone excavation & cutting



Stone milling to complete the shape



Grinding and drilling



Precision hand polishing



| Model No. | Specification (L*W*T mm) | Accuracy (mm) | Weight (kg) |
|-----------|--------------------------|---------------|-------------|
| GN-1010 | 100x100x50 | 0.0020 | 1.5 |
| GN-2020 | 200x200x60 | 0.0025 | 7.2 |
| GN-3030 | 300x300x80 | 0.0030 | 22 |
| GN-3045 | 300x450x80 | 0.0030 | 37 |
| GN-4560 | 450x600x100 | 0.0035 | 83 |
| GN-5050 | 500x500x100 | 0.0035 | 75 |
| GN-5080 | 500x800x100 | 0.0040 | 120 |
| GN-6060 | 600x600x100 | 0.0040 | 112 |
| GN-6090 | 600x900x100 | 0.0045 | 162 |
| GN-75100 | 750x1000x150 | 0.0045 | 338 |
| GN-90120 | 900x1200x150 | 0.0045 | 486 |
| GN-100100 | 1000x1000x150 | 0.0050 | 465 |
| GN-100150 | 1000x1500x200 | 0.0060 | 900 |
| GN-100200 | 1000x2000x200 | 0.0065 | 1200 |
| GN-150150 | 1500x1500x200 | 0.0065 | 1350 |
| GN-150200 | 1500x2000x200 | 0.0070 | 1800 |
| GN-150300 | 1500x3000x300 | 0.0140 | 4050 |
| GN-200200 | 2000x2000x300 | 0.0140 | 3600 |
| GN-200300 | 2000x3000x300 | 0.0180 | 5400 |
| GN-200400 | 2000x4000x350 | 0.0220 | 8400 |
| GN-300300 | 3000x3000x400 | 0.0260 | 9450 |
| GN-300400 | 3000x4000x400 | 0.0300 | 12600 |

*Providing requirement for specific type, specification and accuracy of granite structure.

*Accuracy is DIN 0 grade, if the specification is bigger than GN-150300 (include)

■ Granite Tri-Square Master

An economical way to accurately check squareness and straightness of X-Y-Z axis on machine tools and coordinate measuring machines.

Grade : German DIN 876/00, JCC inspection report included



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| Model No. | Specification (L*W*T mm) | Accuracy (mm) | Weight (kg) |
|-----------|--------------------------|---------------|-------------|
| GN-250T | 250x160x40 | 0.0025 | 2.4 |
| GN-300T | 300x200x40 | 0.0030 | 3.6 |
| GN-400T | 400x250x40 | 0.0035 | 6 |
| GN-630T | 630x400x50 | 0.0045 | 18.9 |
| GN-800T | 800x500x60 | 0.0050 | 35 |
| GN-1000T | 1000x630x80 | 0.0060 | 70 |
| GN-1500T | 1500x1000x100 | 0.0075 | 200 |

*Above products with two-faces straightness, flatness, squareness, precision machining.

*Providing requirement for specific type, specification and accuracy of granite structure.

*Optional: wooden with leather box packaging.



Grade : German JFA Precision I++ and Precision Lab
 Material : Finest Diabase black natural granite
 Include : JFA Inspection Report, transport wooden case



| Technical table | | | | | | | | | |
|--------------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| side length - long side | mm | 300 | 400 | 500 | 600 | 800 | 1000 | 1200 | 1500 |
| side length - short side | mm | 200 | 250 | 300 | 400 | 500 | 660 | 800 | 1000 |
| width | mm | 50 | 60 | 60 | 70 | 80 | 120 | 150 | 160 |
| weight | kg | 6 | 11 | 16 | 30 | 55 | 129 | 225 | 383 |
| JFA precision I++ | mm | 0,002 | 0,002 | 0,002 | 0,002 | 0,004 | 0,004 | 0,004 | 0,004 |
| JFA precision LAB | mm | 0,001 | 0,001 | 0,001 | 0,001 | 0,002 | 0,002 | 0,002 | 0,002 |

Remark : Above specs are available in both 2 faces and 4 faces precision machining.

■ Granite Four Face Square Master

For more accurate checking of squareness, parallelism and straightness of X-Y-Z axis of machine tools and CMMs.

Grade : German DIN 876/00, JCC inspection report included



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| Model No. | Specification (L*W*T mm) | Accuracy (mm) | Weight (kg) |
|-----------|--------------------------|---------------|-------------|
| GN-200F | 200x200x40 | 0.0020 | 5 |
| GN-300F | 300x300x40 | 0.0025 | 12 |
| GN-400F | 400x400x50 | 0.0030 | 24 |
| GN-500F | 500x500x50 | 0.0035 | 38 |
| GN-600F | 600x600x60 | 0.0045 | 65 |
| GN-800F | 800x800x70 | 0.0050 | 134 |
| GN-1000F | 1000x1000x100 | 0.0075 | 300 |

*Above products with four-faces straightness, flatness, squareness, parallelism, precision machining.

*Providing requirement for specific type, specification and accuracy of granite structure.

*Optional: wooden with leather box packaging.



Grade : German JFA Precision I++ and Precision Lab
 Material : Finest Diabase black natural granite
 Include : JFA Inspection Report, transport wooden case



| Technical table | | | | | | | | |
|-------------------|----|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| side lengths | mm | 200 x 200 | 300 x 300 | 400 x 400 | 500 x 500 | 600 x 600 | 800 x 800 | 1000 x 1000 |
| width | mm | 40 | 50 | 50 | 60 | 70 | 90 | 120 |
| weight | kg | 4 | 11 | 21 | 38 | 65 | 140 | 300 |
| JFA precision I++ | mm | 0,002 | 0,002 | 0,002 | 0,002 | 0,002 | 0,004 | 0,004 |
| JFA precision LAB | mm | 0,001 | 0,001 | 0,001 | 0,001 | 0,001 | 0,002 | 0,002 |

Remark: Above specs are available in 4 faces, 5 faces, and 6 faces precision machining.

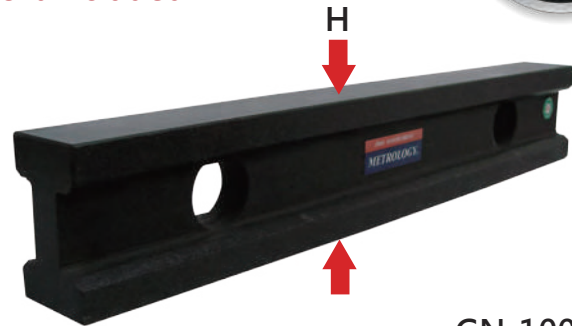
■ Granite Straight Edge Master

For accurate checking of straightness, parallels, and flatness of machine tools, measuring machines and workpieces.

Grade : German DIN 876/00, JCC inspection report included



GN-750S2



GN-1000I2



| Model No. | Specification (L*H*T mm) | Accuracy(mm) | Weight(kg) |
|-----------|--------------------------|--------------|------------|
| GN-500S2 | 500x100x60 | 0.0020 | 9 |
| GN-750S2 | 750x100x60 | 0.0025 | 13.5 |
| GN-1000S2 | 1000x120x60 | 0.0030 | 21.6 |
| GN-1500S2 | 1500x150x60 | 0.0045 | 40.5 |
| GN-2000S2 | 2000x200x80 | 0.0055 | 96 |
| GN-2500S2 | 2500x250x80 | 0.0070 | 150 |
| GN-3000S2 | 3000x250x100 | 0.0085 | 225 |
| GN-4000S2 | 4000x300x120 | 0.0120 | 432 |
| GN-500S4 | 500x100x60 | 0.0020 | 9 |
| GN-750S4 | 750x100x60 | 0.0025 | 13.5 |
| GN-1000S4 | 1000x120x60 | 0.0030 | 21.6 |
| GN-1500S4 | 1500x150x60 | 0.0045 | 40.5 |
| GN-2000S4 | 2000x200x80 | 0.0055 | 96 |
| GN-2500S4 | 2500x250x80 | 0.0070 | 150 |
| GN-3000S4 | 3000x250x100 | 0.0085 | 225 |
| GN-4000S4 | 4000x300x120 | 0.0120 | 432 |

| Model No. | Specification (L*H*T mm) | Accuracy(mm) | Weight(kg) |
|-----------|--------------------------|--------------|------------|
| GN-500I2 | 500x100x60 | 0.0020 | 6.5 |
| GN-750I2 | 750x100x60 | 0.0025 | 10 |
| GN-1000I2 | 1000x120x60 | 0.0030 | 16 |
| GN-1500I2 | 1500x150x60 | 0.0045 | 30 |
| GN-2000I2 | 2000x200x80 | 0.0055 | 76 |
| GN-500I4 | 500x100x60 | 0.0020 | 6.5 |
| GN-750I4 | 750x100x60 | 0.0025 | 10 |
| GN-1000I4 | 1000x120x60 | 0.0030 | 16 |
| GN-1500I4 | 1500x150x60 | 0.0045 | 30 |
| GN-2000I4 | 2000x200x80 | 0.0055 | 76 |

I2: I type of two-faces machining

I4: I type of four-faces machining

*Normal products with two-faces straightness, flatness, parallelism, precision machining.

*Special style, specification, and accuracy requirements available as per client request by drawing.

*Optional: wooden with leather box packaging.

S2: Straight type of two-faces machining

S4: Straight type of four-faces machining



Grade : German JFA Precision I++ and Precision Lab

Material : Finest Diabase black natural granite

Include : JFA Inspection Report, transport wooden case



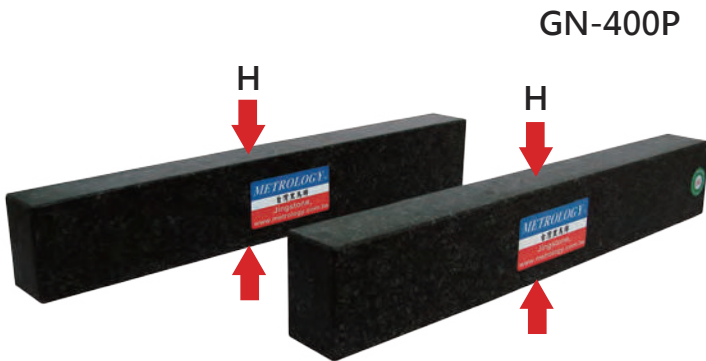
| Technical table | | | | | | | | | |
|-------------------|----|---------|----------|----------|----------|----------|----------|----------|----------|
| length | mm | 500 | 750 | 1000 | 1250 | 1500 | 1750 | 2000 | 2500 |
| cross-section | mm | 45 x 90 | 50 x 140 | 56 x 160 | 60 x 190 | 70 x 220 | 75 x 235 | 80 x 250 | 90 x 280 |
| weight | kg | 6 | 16 | 27 | 42 | 67 | 93 | 115 | 194 |
| JFA precision I++ | mm | 0,002 | 0,002 | 0,002 | 0,004 | 0,004 | 0,004 | 0,004 | 0,004 |
| JFA precision LAB | mm | 0,001 | 0,001 | 0,001 | 0,002 | 0,002 | 0,002 | 0,002 | 0,002 |

Remark : Above Straight type specs are available in both 2 faces and 4 faces precision machining.

■ Granite Parallel Master

For setting up workpiece on surface plates and machine tables for checking parallels, straightness, and flatness.

Grade : German DIN 876/00, JCC inspection report included



| Model No. | Specification (L*H*T mm) | Accuracy (mm) | Weight (kg) |
|-----------|--------------------------|---------------|-------------|
| GN-160P2 | 160x25x16 | 0.0015 | 0.5 |
| GN-250P2 | 250x40x25 | 0.0020 | 1.5 |
| GN-400P2 | 400x63x40 | 0.0040 | 6 |
| GN-630P2 | 630x100x63 | 0.0060 | 24 |
| GN-160P4 | 160x25x16 | 0.0015 | 0.5 |
| GN-250P4 | 250x40x25 | 0.0020 | 1.5 |
| GN-400P4 | 400x63x40 | 0.0040 | 6 |
| GN-630P4 | 630x100x63 | 0.0060 | 24 |

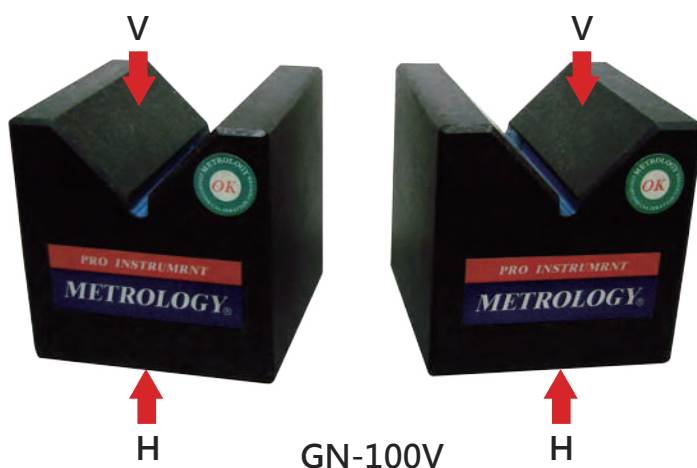
- *Standard: 2pcs/ set
- *Normal product is with two-faces straightness, flatness, parallelism, precision machining.
- *Providing requirement for specific type, specification and accuracy of granite structure.
- *Optional: wooden with leather box packaging.

P2: two-faces machining
P4: four-faces machining

■ Granite V-Block Master

For measuring coaxial, concentricity, roundness and roundout of cylindrical workpieces.

Grade : German DIN 876/00, JCC inspection report included



| Model No. | Specification (L*W*H mm) | Accuracy (mm) | Weight (kg) |
|-----------|--------------------------|---------------|-------------|
| GN-60V | 60x60x60 | 0.0015 | 1.2 |
| GN-100V | 100x100x80 | 0.0020 | 4 |
| GN-160V | 160x160x100 | 0.0025 | 14 |
| GN-200V | 200x200x120 | 0.0030 | 28 |
| GN-300V | 300x300x150 | 0.0045 | 80 |

- *Standard: 2pcs/ set , Normal product is with precision machining of flatness on both sides of bottom & V-shaped surfaces.
- *Providing requirement for specific type, specification and accuracy of granite structure.
- *Optional: wooden with leather box packaging.