ACCURATE
Metrology & Automation
Since 1984

GAUGE BLOCKS

Steel Gauge Block Carbide Gauge Block

CERTI.NO. CC- 2433

FRANK World-class German Gauge Blocks now manufactured by ACCURATE METROLOGY

100 Years of Technology Excellence

- 100 Years of Technology Excellence of know-how gained in manufacturing of highest precision quality gauge blocks by Karl Frank and earlier by Carl Zeiss, Germany
- Gauge blocks are completely finish lapped on machines give very low deviation in flatness and parallelism of measuring faces with excellent accuracy
- Unique flat lapping polishing and edge rounding techniques lead to superior wringability
- Each gauge block is identified with clear, crisp and highly visible marking for Size, Logo and Serial number
- Available in Grade K,0,1 and 2 either in sets or Individual gauge block upto 100 mm
- Gauge blocks are housed in attracted wooden casing with clearly reference strips to facilitate easy selection

Steel Gauge Blocks

Features

- Made of special Alloy Steel, rolled to specific size to ensure high wear resistance and impact strength. Stabilized by multiple tempering and Sub-zero treatment at-80°C to achieve total martensitic structure for absolute dimensional stability
- Coefficient of thermal expansion 11.5 X 10^{-6} K^{-1}
- Hardness guaranteed to 800 HV
- Gauge Blocks with Metric nominal length conform to ISO 3650:1998 /DIN EN ISO 3650/IS 2984. Gauge Blocks with inch nominal lengths comply with British standard BS 4311 Part 1

Calibration & Certification

- NABL Calibration certificate traceable to National / International standard is provided with Gauge Block Sets & Individual Gauge Blocks
- Calibration Certificate includes following :
  a) Nominal Size, Central Length Deviation,Grade, Fo, Fu.,
  b) Identificacation Number

Accuracy / Grade

ISO 3650 Specification
Permissible errors on Parallelism & Length of Gauge Blocks at 20°C permissible errors in µm

Tungsten Carbide Gauge Blocks

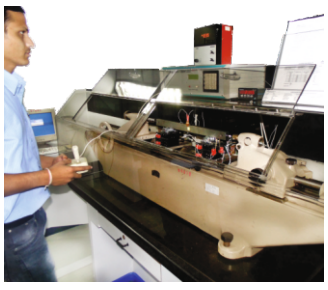
Features

- Tungsten Carbide Gauge Blocks are 10 times wear resistant compared to Steel gauge blocks
- Hardness guaranteed to 1400 HV
- Coefficient of thermal expansion 4.7 X 10^{-6} K^{-1}
- While checking steel components correction factor for temperature compensation should be considered

Manufacturing Facility

Double Disc Lapping Machine

Long Length Machine



Inspection & Calibration

SPECIFICATIONS

Range of Nominal		Grade K		Grade 0		Grade 1		Grade 2	
Over	Upto & Including mm	Parallelism µm	Gauge Length µm (±)	Parallelism µm	Gauge Length µm (±)	Parallelism µm	Gauge Length µm (±)	Parallelism µm	Gauge Length µm (±)
-	10	0.05	0.2	0.10	0.12	0.16	0.20	0.30	0.45
10	25	0.05	0.3	0.10	0.14	0.16	0.30	0.30	0.60
25	50	0.06	0.4	0.10	0.20	0.18	0.40	0.30	0.80
50	75	0.06	0.5	0.12	0.25	0.18	0.50	0.35	1.00
75	100	0.07	0.6	0.12	0.30	0.20	0.60	0.35	1.20
Flatness		0.10	0.10	0.10	0.10	0.15	0.15	0.25	0.25

For nominal length from 0.5 to 100 mm

Standard Sets, Metric System

Set Size Pieces	Nominal Value mm	Steps mm	No. of Pieces
M32	1.005 1.01 to 1.09 1.10 to 1.90 1.00 to 9.00 10, 20, 30,50	 0.01 0.10 1.00	1 9 9 9 4
M46	1.001 to 1.009 1.01 to 1.09 1.10 to 1.90 1.00 to 9.00 10.00 to 100.00	0.001 0.01 0.10 1.00 10.00	9 9 9 9 10
M47	1.005 1.01 to 1.20 1.30 to 1.90 1.00 to 9.00 10.00 to 100.00	 0.01 0.10 1.00 10.00	1 20 7 9 10
M79	1.005 1.01 to 1.49 0.5 to 9.50 10.00 to 100.00	 0.01 0.50 10.00	1 49 19 10
M88	1.0005 1.001 to 1.009 1.01 to 1.49 0.5 to 9.5 10.00 to 100.00	 0.001 0.01 0.50 10.00	1 9 49 19 10
M112	1.0005 1 .001 to 1.009 1.01 to 1.49 0.50 to 24.50 25.00 to 100.00	 0.001 0.01 0.50 25.00	1 9 49 49 4
M122	1.0005 1 .001 to 1.009 1.01 to 1.49 1.60 to 1.90 0.50 to 24.50 25,30,40,50,60,70,75,80, 90,100	 0.001 0.01 0.10 0.50	1 9 49 4 49 10

Standard Sets, Inch System (Carbide material)

Set Size Pieces	Nominal Value Inch	Steps Inch	No. of Pieces
E81	0.1001 to 0.1009 0.101 to 0.149 0.050 to 0.950 1,2,3,4	0.0001 0.001 0.05	9 49 19 4

Long Gauge Blocks

Features

- Manufactured as per ISO 3650 from high quality steel
- Cross section (35x9 mm) with holes for clamping two slips together
- Long Gauge Blocks are available in Grade 0, Grade 1 from 125 mm to 1000 mm in the following sizes : 125, 150,175, 200, 250, 300, 400, 500, 600, 700, 800, 900, 1000 mm as set or as individual piece

Length Bars

Features

- Manufactured as per IS : 7014 :1973
- Hardened, Ground, Precisely Lapped length bars are manufactured from special high quality steel
- Length Bars Sizes are in mm 25 mm to 1000 mm in the following sizes : 25, 50, 75, 100, 125, 150, 175, 200, 250, 275, 300, 375, 400, 500, 575, 600, 700, 775, 800, 900, 1000 mm. as set or as individual piece in inspection and workshop grade

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Since 1984

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Note : Due to continuous Improvements at our end, Specifications are subject to change without prior notice.