

# **GAUGE BLOCKS**





- 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, Grade 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 attractive 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
- 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) Identification Number



# 100 Years of Technology Excellence

# **Accuracy / Grade**

ISO 3650 Specification

Permissible errors on Parallelism & Length of Gauge Blocks at 20°C permissible errors in  $\mu m$ 

# **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 4.5 x 10-6 K-1
- While checking steel components correction factor for temperature compensation should be considered

### **Manufacturing Facility**







Long Length Machine





Inspection & Calibration



# **Specifications**

Range of Nominal		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 (±)
-	10	0.10	0.12	0.16	0.20	0.30	0.45
10	25	0.10	0.14	0.16	0.30	0.30	0.60
25	50	0.10	0.20	0.18	0.40	0.30	0.80
50	75	0.12	0.25	0.18	0.50	0.35	1.00
75	100	0.12	0.30	0.20	0.60	0.35	1.20
Flatness		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

Standard Sets, Wetric 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						
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						
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						

# **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 are available from 25 mm to 1000 mm in the following sizes: 25, 50, 75, 100, 125, 150, 175, 200, 375, 400, 575, 600, 775, 800, 1000 mm. as set or as individual piece in inspection and workshop grade



# Manufactured by & Sales by

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