



splitting a micron  
for you...



# About KCP

## Precision begins here...

Being a precision instrument manufacturer we are aware that precision of all the engineered products in the market actually begins from us. And this sense of responsibility always makes us endeavor harder.

Since the budding stage of 1999 KCP is now a renowned, established and yet a growing Brand. From ISO 9001:2000 Certification to setting up a well equipped NABL accredited lab KCP has come a long way. Over the years, we have refined our processes and developed new techniques to produce high end quality products in competitive prices.

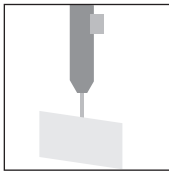
We have developed an excellent state-of-the-art manufacturing unit with a unique blend of latest computer assisted systems and craftsman's skills. Also we get the added advantage of our in-house NABL Accredited lab. This synergy together strikes the cord of Quality for KCP.



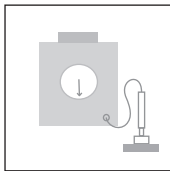
## About Our Products



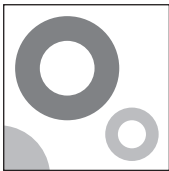
Length Standards



Calibration Equipments



Air Gauges



Limit Gauges

KCP has an array of high end products in the field of dimensional metrology.

We have proficiency in making Carbide, Steel and Ceramic Gauges. Being a quality driven company we ensure that we give nothing but the best. Thereby our quality checks begin right from selection of raw material. Knowing its vitality in the quality of end product, we import it only from our globally reputed associations. We have also developed some special techniques to enhance the required characteristics of the material. Our gauges thus have strong dimensional stability and greater wear resistance. Our products have that extra superfinish which in turn leads to strong wringability.

We have specially designed softwares to assist in calibration of Gauge Blocks, making it quick and easy.

Our experience and expertise in the field has enabled us to offer customization of various special gauges to serve the unique requirements of our clients.

After years of constant quality service and new innovations, we have been able to set our own standards and we see to it that every product of ours stands to its class, which we call '**KCP class**'.

## Gauge Blocks



- KCP caters wide range of Gauge Blocks covering all grades i.e. Grade 00, Grade K, Grade 0, Grade 1 & Grade 2 in line with IS/ISO/DIN/ BS Standards in Metric and Imperial.
- Our KCP class Gauge blocks are made from special grade of Tungsten Carbide / Alloy Steel / Ceramic that gives greater wear resistance, superior finish leading to strong wringability.
- Wear Protector and Gauge Blocks required for Calibration of Micrometer checker are also offered.
- Along with the standard sizes, Gauge Blocks are also made available in customized sizes. Individual Gauge Block is also available.

Type Of Metric Sets	No. Of Gauge Blocks	Type of Imperial Sets	No. Of Gauge Blocks
M122/1	122 Nos.	E 81	81 Nos.
M112/1	112 Nos.	E 41	41 Nos.
M103/1	103 Nos.	E36	36 Nos.
M88/1	88 Nos.	E9	9 Nos.
M47/1	47 Nos.	E2	2 Nos.
M46/1	46 Nos.		
M32/1	32 Nos.		
M9/1	9 Nos.		
M2/1	2 Nos.		
M2/2	2 Nos.		

\* All Sets from Metric are also offered in 2 mm base size.

All our Length Standard products and accessories are delivered in quality wooden casing, appended with; Calibration Certificate traceable to National Standards and Instruction Manual on the use and care.

## Material



## Advantages of Ceramic Gauge Blocks

- Zero Corrosion
- Scratch Proof
- No Dent Burrs
- Dimensional Stability
- High Wringing Force
- Anti-magnetic Nature



# Long Series Gauge Blocks



- Range available over 100 mm to 1000 mm in Grade K, Grade 0, Grade 1 & Grade 2 as per ISO 3650/DIN 861 standards.
- Manufactured from special grade of alloy steel, for greater wear resistance and for superior surface finish.
- Holes are provided at both ends of Gauge Blocks for combinations with the help of Gauge block clamp.
- Gauge Blocks are available in standard as well as customized sizes. Along with standard sets, individual Gauge Block is also available.

Type of set	Sizes in mm	Qty.
M 8	125,150,175, 200, 250, 300, 400 & 500	8 nos.
M 5	600, 700, 800, 900 & 1000	5 nos.

Material

▼

steel

▲

# Length Bars

- Range available from 100 to 500 mm in 'Reference Grade', 'Calibration Grade', 'Inspection Grade' and 'Workshop Grade' as per IS: 7014 standard.
- Also available in Grade K, Grade 0, Grade 1 & Grade 2 in line with ISO: 3650 / DIN 861 standards.
- Bars are offered in 22 mm and 12 mm diameter from range 25 to 500 mm in steps of 25 mm. Bars of 12 mm dia. can be used as Micrometer Setting Standards.
- Manufactured from same special alloy steel used for Gauge Blocks so as to achieve the finest properties.
- 'Calibration Grade', 'Inspection Grade' and 'Workshop Grade' are provided with internal threaded holes to both the ends for combinations with help of studs.
- 'Reference Grade' length bars are used as a master with plain ends for highest accuracy.



Material

▼

steel

▲



## Gauge Block Accessories



## Angle Gauges

- Angle gauges are used for inspection and calibration of angles, tapers, indexing plates, rotary scale/table, dividing head, clinometers etc.
- Manufactured as per IS: 6231 of 1971.
- Offered in Standard and Non Standard angles. Special angles as per requirement are also provided.
- Available in set as well as individual angles.

Type of set	Sizes
Set A (13 Pieces Set)	1, 3, 9, 27 & 41 degrees (01 No. each) 1, 3, 9 & 27 minutes (01 No. each) 6, 18 & 30 seconds (01 No. each) Precision Square Block (01 No.)
Set B (15 Pieces Set)	1, 3, 5, 15, 30 & 45 degrees (01 No. each) 1, 3, 5, 20 & 30 minutes (01 No. each) 6, 12 & 30 seconds (01 No. each) Precision Square Block (01 No.)

\* All figures in mm

- These accessories are designed to extend the applications of Gauge Blocks in production & inspection.
- In line with IS: 4440 standards
- Enables quick and easy assembly of equipments or gauges and saves repetitive expenditure on gauges.
- Ideal for -
  - ✓ Setting of internal & external measurement of gauges.
  - ✓ Setting of Bore Gauges
  - ✓ Height Marking
  - ✓ Accurate Graduation etc.
- All wearable parts are made of carbide.

Description	7 Pcs. Set	16 Pcs. Set
Base (Steel)	01	01
Tungsten Carbide Scriber	01	01
Tungsten Carbide Tipped Centre Point	-	01
Tungsten Carbide Large Measuring Jaw	02	02
Tungsten Carbide Parallel Measuring Jaw	-	01
Tungsten Carbide '2.5 mm' Radius Jaw	-	02
Tungsten Carbide '5 mm' Radius Jaw	-	02
Tungsten Carbide '6 mm' Radius Jaw	-	02
Holder (Steel) '0-50 mm'	01	01
Holder (Steel) '50-100 mm'	01	01
Holder (Steel) '100-200 mm'	01	01
Holder (Steel) '200-300 mm'	-	01

### Material

- carbide
- steel



## Gauge Block Comparator



- Provides quick and reliable calibration of gauge blocks from 0.5 to 100 mm as per ISO/DIN/BS Standard in Metric/Imperial.
- Eminent for calibration of all grades of Gauge Blocks by comparison method.
- Specially developed user friendly software provides quick results for center deviation, parallelism and selection of grade.
- No zero setting required as the software compares the difference between the Master and Test Gauge Block taking into consideration the expansion in length due to temperature, type of material and deformation factor.
- Two LVDT probes connecting both the faces of Gauge blocks allow differential measurement that gives most accurate results.
- Manual version is also available.
- Comes along with Calibration Certificate traceable to National Standards & Instruction Manual on the use and care.

### Technical Specifications



- Measuring Range: 0.5 - 175 mm
- Work Table: 60 X 60 mm (Tungsten Carbide)
- Measuring Inconsistency: 0.01  $\mu\text{m}$
- Locating Bore for LVDT probe: 8 mm
- Weight: 45 kg

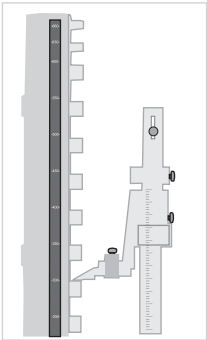


# Caliper Checker

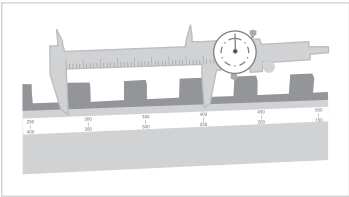


## Material

- carbide
- steel



- Reliable for calibration of all types of Vernier Calipers and Vernier Height Gauges.
- Comprises of permanently wrung Gauge blocks made of KCP Class i.e. made of selected alloy steel and tungsten carbide giving high-grade super finish and greater wear resistance.



Range	External Measurement	Internal Measurement	Height Measurement	Accuracy (±)
300	360	300	360	0.003
600	660	600	660	0.005
1000	1060	1000	1060	0.007

\* All figures in mm

# Internal Micro Checker

- Just right for calibration and zero setting of Internal Micrometers up to 600 mm range.
- Comprises of permanently wrung Gauge blocks made of KCP class.

Range	Measuring Steps	Accuracy (±)
300	0,25,...300 step 25	0.003
600	0,25,...600 step 25	0.005

\* All figures in mm

## Material

- carbide
- steel



# Depth Micro Checker



- Just right for calibration and zero setting of Depth Micrometers up to 300 mm range.
- Comprises of permanently wrung Gauge Blocks made of KCP Class.

Range	Measuring Steps	Accuracy ( $\pm$ )
150	0,25,...150 step 25	0.003
300	0,25,...300 step 25	0.005

\* All figures in mm

## Material

- carbide
- steel

# Comparator Stand

- Manufactured in three types-
  - 1) **0-150 mm** with fine adjustment
    - Mounting hole :  $\varnothing$  8 mm,  $\varnothing$  28 mm &  $\varnothing$  30 mm
    - Work Table:  $\varnothing$  60 mm Plain / Serrated in steel / carbide
  - 2) **0-200 mm** and 3) **0-300 mm** with Micro fine adjustment
    - Mounting hole :  $\varnothing$  8 mm
    - Work Table: 60 x 60 x 6 mm in Plain / Serrated in steel / carbide
    - : 80 x 80 x 16 mm in Plain / Serrated available in steel
- Spare comparator base is also available in steel / carbide in following sizes -
  - $\varnothing$  60 x 6 mm (Plain / Serrated)
  - $\varnothing$  80 x 8 mm (Plain / Serrated)
  - 60 x 60 x 6 mm (Plain / Serrated)



## Material

- carbide
- steel



# Air Gauges

Our Air Gauges are indispensable tool for precision batch and mass production. Air gauges have many advantages viz. very high accuracy i.e. end of assumptions, no subjectivity, repeatability, ease of operation, self cleaning ability and very fast response time. Air gauge system is a non-contact gauging system and thereby it has longer life due to minimal frictional wear. Two setting masters ensure linearity online as well as magnification.

Air gauges are best suitable for inspection of inside, outside, average diameter, taper, ovality & face run-out with provision of 2 jets, 3 jets & 4 jets configurations to air probes. Air gauges are also suitable for checking relative dimension such as flatness, parallelism, center distance, squareness & concentricity.

## Air Plug Gauge



- Range available from 3.0 mm to 150 mm in steel and from 6.0mm to 60 mm in carbide.
- Provided with pair of Master Setting Ring (higher & lower).
- Offered for Through bore, Blind bore, Stepped bores.
- Adjustable depth collar can be provided for checking specific height.
- Offered with 2, 3 & 4 measuring jets as per requirement.
- Also offered to suit different makes, as per requirement.

### Material

carbide

steel

## Air Ring Gauge

- Range available from 4.0 mm to 120 mm in steel.
- Range available from 4.0 mm to 60 mm in carbide.
- Provided with Master Setting Plug (higher & lower).
- Also offered to suit different makes, as per requirement.
- Offered with 2, 3 & 4 measuring jets as per requirement.

### Material

carbide

steel



## Air Snap gauge



- Range available from 10.0 mm to 150 mm with carbide resting pads.
- Provided with Master Setting Plug (higher & lower).
- Also offered to suit different makes, as per requirement.

### Material

	carbide
	steel

## Air Gauging Display Units

Display units of our Air Gauging Systems are available in 3 types-

- Analog Display Unit
- Electronic Display Unit
- Electronic Column Unit

### Analog Display Unit

- Works on null balance pressure system
- Operating pressure: 43 psi-60 psi (3-4 bar)
- Available in two resolution
  - i) L.C. 0.0005 mm, Range:  $\pm 0.02$  mm
  - ii) L.C. 0.001 mm, Range:  $\pm 0.04$  mm



## Air Electronic Display Unit



- Single /Tri Colour Six Digit Display
- Absolute/Comparative Measurement
- Auto Calibration Facility
- Range/LC:  $\pm 2000 \mu\text{m}/1 \mu\text{m}$ ,  $\pm 200 \mu\text{m}/0.5 \mu\text{m}$ ,  $\pm 200 \mu\text{m}/0.10 \mu\text{m}$
- Metric/Imperial measurement
- RS 232 Output
- Single/ Tri Colour LED indicating component tolerance status

## Air Electronic Column Unit

- Single /Tri Colour Six Digit Display
- Absolute/Comparative Measurement
- Auto Calibration Facility
- Selectable range and least count
- Metric/Imperial measurement
- RS 232 output
- Single /Tri Colour LED indicating component tolerance status



Plain Plug Gauge



- Provides Plain Plug Gauges with GO member in carbide and NOGO in steel (NOGO member can be provided in carbide)
- Both GO & NOGO in steel is also available.
- Also supplied as per customer requirement for special length.
- Possess all the required characteristic properties of KCP Class.

Material

- carbide
- steel

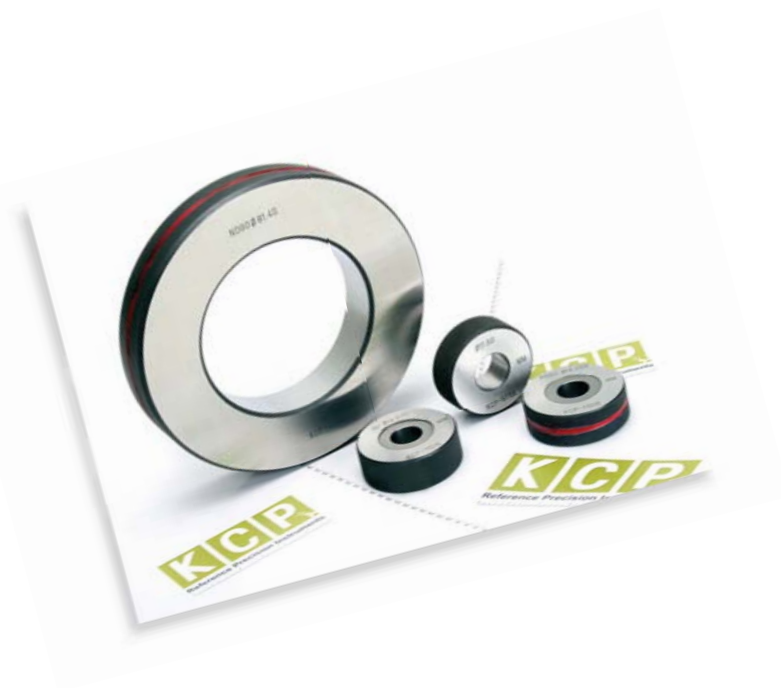
Range in mm	5-8	8-40	40-60	60-350
Type	Reversible	Taper Shank	Tri Lock	Plate

Plain Ring Gauge

- Ring Gauges with GO member in carbide and NOGO in steel (NOGO member can be provided in carbide)
- Both GO & NOGO in steel is also available.
- Manufactured range of Ring gauges - carbide: 6-60 mm and steel: 6-100 mm.
- Ring Gauges with special length and diameter are also available.

Material

- carbide
- steel



## Snap Gauges



- Range available from 1-300 mm in line with international standards.
- Single ended design with proper marking of GO, NOGO sizes (double ended design also available on requirement)
- Customized sizes available for checking of length and groove diameter etc.

### Material

▼	
■	carbide
■	steel
▲	

## Dial Snap Gauges

- High precision Dial Snap Gauges for quick comparative measurement of external diameter ranging up to 200 mm.
- Proficient for inspection of continuous and batch production items.
- Measuring faces are made of Tungsten Carbide for greater wear resistance.
- Parallelism of measuring faces is in range of 0.003 mm up to 200 mm.
- Any standard dial indicator with  $\varnothing 8$  mm holding shank can be fitted easily.





# Width Gauge



- Best suitable for checking groove width.
- Supplied with reversible type design.
- Custom requirements are also catered.

## Material

- carbide
- steel

# Measuring Pins

- Carbide pins from 0.5 – 10 mm in Grade 1 (Mfg. Tolerance +/- 0.001 mm) & Grade 2 (Mfg. Tolerance +/- 0.002 mm) as per IS: 11103 standard.
- Supplied in set as well as individual pins.

## Material

- carbide
- steel





Our high end equipments, skilled personnel and methodology enable us to cater your requirements to act in accordance with ISO 9000/QS 9000/TS 16949 etc.

We provide Calibration Services for Gauge Blocks, Gauges, Precision Instruments as well as Engineered Components.

We have a well equipped Lab accredited as per ISO/IEC 17025 of 2005 by NABL. Our lab is strictly maintained in terms of physical conditions like temperature, humidity, illumination etc.

Lab Accredited By NABL  
As Per ISO 17025:2005

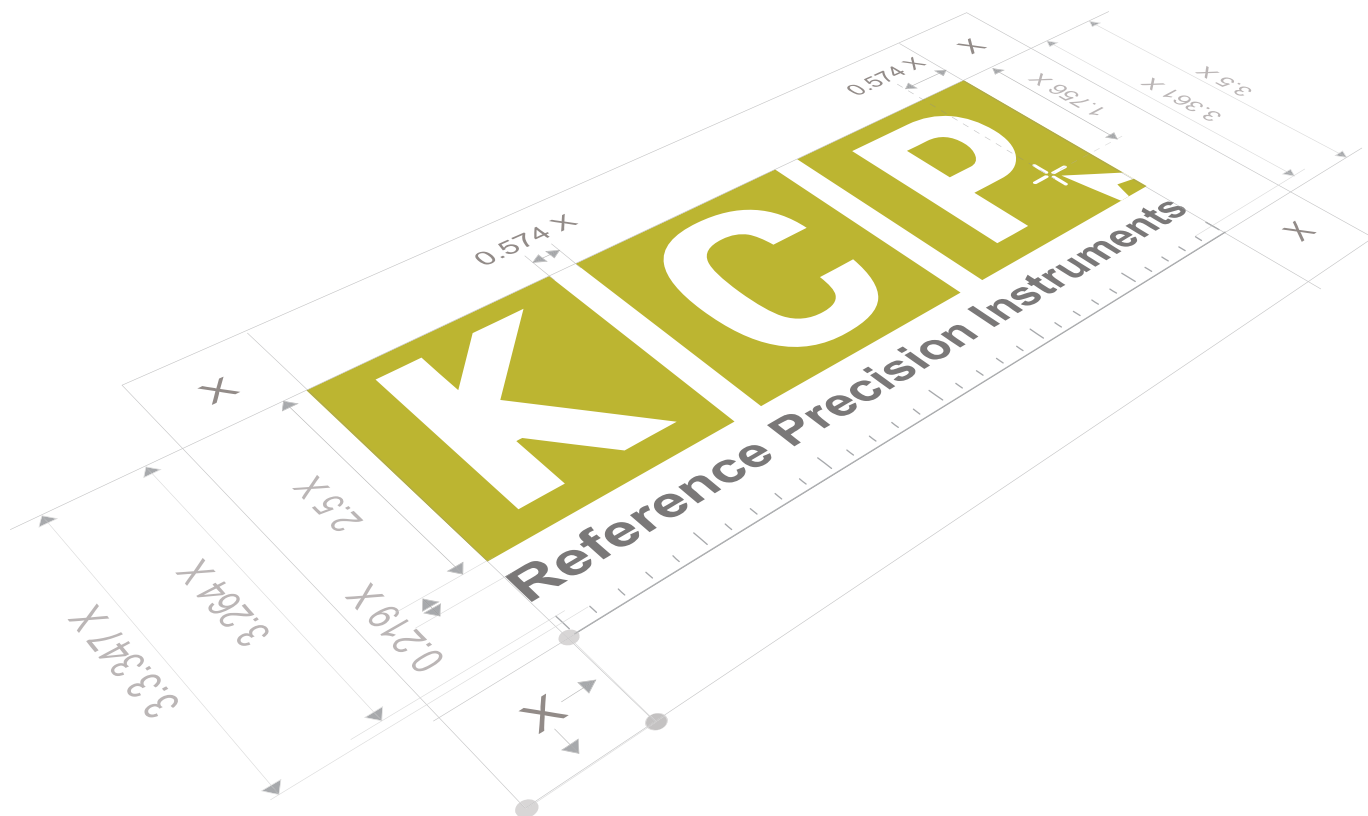
 **NABL**  
Certificate No. : C-0432



An ISO 9001 : 2000 Company



Usually all Quality Management Systems concentrate over 'Must Have' which is the minimum thing needed for survival. But in the today's competitive world to be a step ahead of others, KCP not just believes but practices - 'More Than Must Have'.



*precision begins here...*

**K C Precision**

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