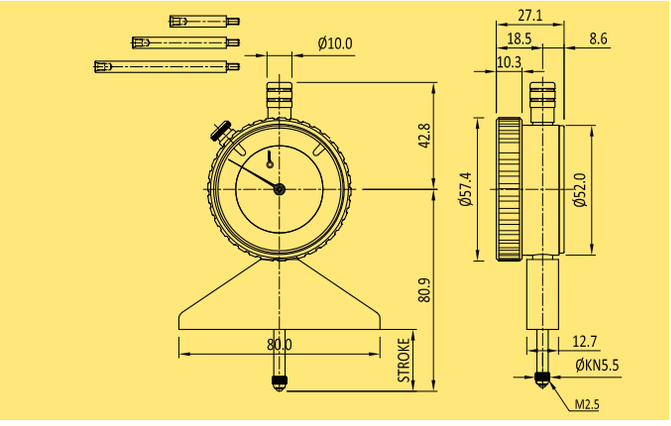
DIAL INSTRUMENTS

Depth Gauge & Universal Test Set

DIAL DEPTH GAUGE

K158/3

Also available with digital dial gauge



METRIC

Bezel dia.	Type	Reading	Range	Graduation
56mm	K158/0	0.1mm	0-200mm	10-0
	K158/3	0.01mm	0-200mm	100-0

INCH

Bezel dia.	Type	Reading	Range	Graduation
56mm	K158/1	0.001"	0-8"	100-0

DIGITAL

Bezel dia.	Type	Reading	Range
56mm	K158/D	0.001 mm/0.00005"	0-200 mm

ANSI (AGD)

Bezel dia.	Type	Reading	Range	Graduation
2 ¼"	K158/1B	0.001"	0-10"	100-0

FEATURES

- Every gauge carries a calibration certificate giving actual values
- Suitable for quick and easy measurements of depths.
- Base with 80 mm length: hardened and ground to a high degree of flatness
- Supplied with a set of extension rods
- Supplied with Tungsten Carbide contact point for longer life

UNIVERSAL TEST SET

UI02

METRIC

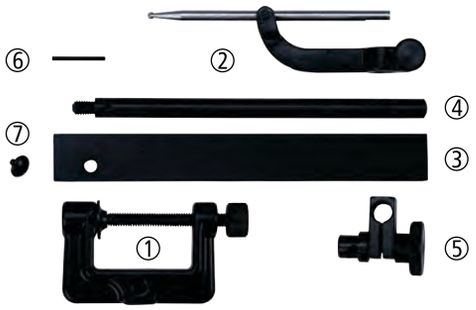
Bezel dia.	Type	Reading	Range	Graduation
38mm	UI01	0.01mm	2.0mm	0-50-0
	UI02			0-100

INCH

Bezel dia.	Type	Reading	Range	Graduation
38mm	UI51	0.001"	0.1"	0-50-0
	UI52			0-100

ANSI (AGD)

Bezel dia.	Type	Reading	Range	Depth
1 ½"	U51	0.001"	0.1"	0-50-0
	U52	0.001"	0.1"	0-100



1. G Clamp 2. Swinging Arm Assembly 3.Tool post holder
4. Holding Rod 5. Universal Clamp 6. Tommy Bar 7. Anvil

FEATURES

- Every gauge carries a calibration certificate giving actual values
- Consists of back Plunger dial Gauge, 'G' clamp, universal clamp, swinging arm assembly, tool post holder, holding rod, tommy bar and anvil
- Swinging arm assembly enables the back plunger dial gauge to be used for internal work up to a depth of 40 mm similar to a lever type gauge
- 'G' Clamp, tool post holder. holding rod and universal Clamp allows multiple types of mounting possibilities
- Versatile combinations, allow gauging applications like concentricity checks, alignment of machine tools, testing parallelism and surface plate work

Dial Thickness Gauge

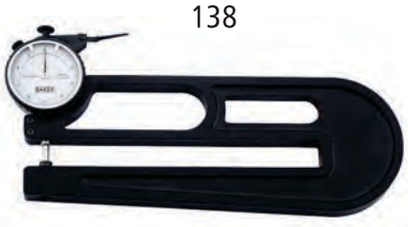
THROAT DEPTH: 30-200 mm

130

138

138

142



145

150

METRIC

Bezel dia.	Type	Reading	Range	Graduation	Throat Depth
56 mm	K130/0	0.1 mm	10 mm	0-10	30 mm
	K130/3	0.01 mm	10 mm	0-100	30 mm
	K130/6	0.002 mm	2 mm	0-20	30 mm
	K130/7	0.002 mm	5 mm	0-20	30 mm
	K138/0	0.1 mm	25 mm	0-10	50 mm
	K138/0L	0.1 mm	25 mm	0-10	50 mm
	K138/3	0.01 mm	25 mm	0-100	50 mm
	K138/3L	0.01 mm	25 mm	0-100	50 mm
	K142/0	0.1 mm	10 mm	0-10	100 mm
	K142/3	0.01 mm	10 mm	0-100	100 mm
	K145/0	0.1 mm	10 mm	0-10	200 mm
	K145/3	0.01 mm	10 mm	0-100	200 mm
	K150/0	0.1 mm	25 mm	0-10	200 mm
	K150/3	0.01 mm	25 mm	0-100	200 mm

INCH

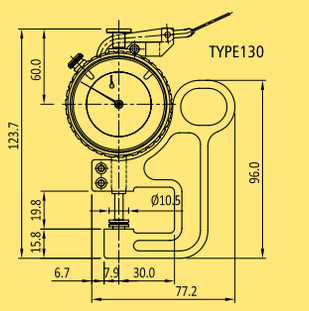
Bezel dia.	Type	Reading	Range	Graduation	Throat Depth
2 ¼"	K130/1	0.001"	0.5"	0-100	1.2"
	K130/8	0.0001"	0.05"		1.2"
	K130/9	0.0001"	0.2"		1.2"
	K138/1	0.001"	1.0"		2"
	K138/1L	0.001"	1.0"		2"
	K142/1	0.001"	0.5"		4"
	K145/1	0.001"	0.5"		8"
	K150/1	0.001"	1.0"		8"

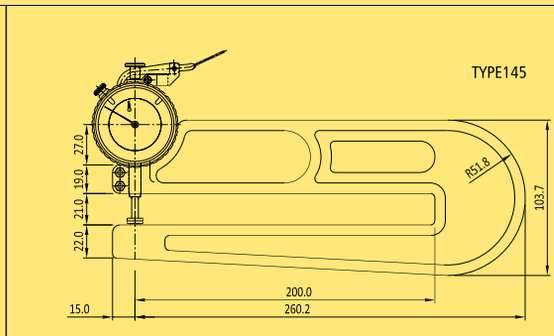
DIGITAL

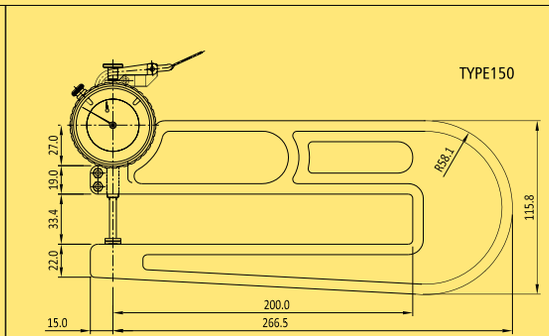
Bezel dia.	Type	Reading	Range	Throat Depth
56 mm	K130/D	0.001mm/ 0.00005"	12.5 mm/ 0.5"	30 mm
	K138/D		25 mm/ 1"	50 mm
	K142/D		12.5 mm/ 0.5"	100 mm
	K145/D		12.5 mm/ 0.5"	200 mm
	K150/D		25 mm/ 1"	200 mm

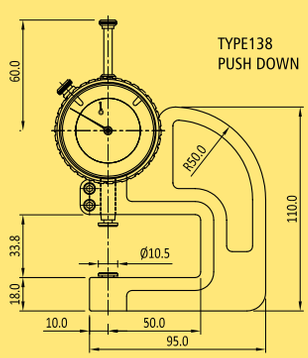
ANSI (AGD)

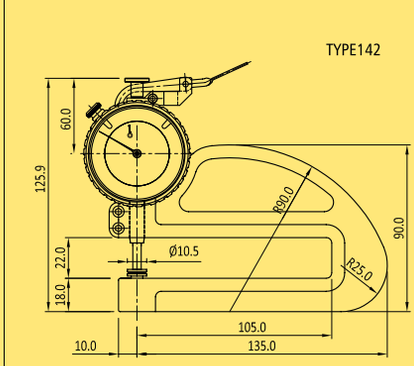
Bezel dia.	Type	Reading	Range	Graduation	Throat Depth
2 ¼"	K130/1B	0.001"	0.5"	0-100	1.2"
	K130/8B	0.0001"	0.05"		1.2"
	K130/9B	0.0001"	0.2"		1.2"
	K138/1B	0.001"	1.0"		2"
	K138/1LB	0.001"	1.0"		2"
	K142/1B	0.001"	0.5"		4"
	K145/1B	0.001"	0.5"		8"
	K150/1B	0.001"	1.0"		8"











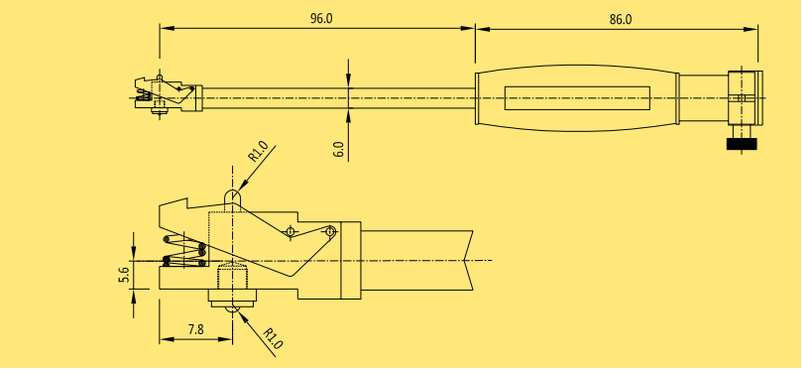
FEATURES

- Every gauge carries a calibration certificate giving actual values
- For quick measurement of thickness of sheets, paper, leather etc
- In series K130, K138/L and K142, K145, K150 measurement pressure is independent of the user, resulting in accurate readings of thickness
- K138 'Push Down Type' thickness gauge is particularly useful where fine measurement is not required - for example plywood
- Well-balanced frames and handgrips coupled with lightweight make these gauges easy to use for measurement
- Supplied with Ø10 mm flat anvil as standard. Can also be supplied with Ø20 mm flat anvil on request

Dial Bore Gauge

RANGE: 10-18 mm

K639



WITHOUT DIAL GAGUE

Type	Depth
K600	100 mm

METRIC

Bezel dia	Type	Reading	Depth	Graduation
40 mm	K639	0.01 mm	100 mm	0-50-0

INCH

Bezel dia	Type	Reading	Depth	Graduation
1 5/8"	K641	0.001 "	4"	0-50-0

DIGITAL

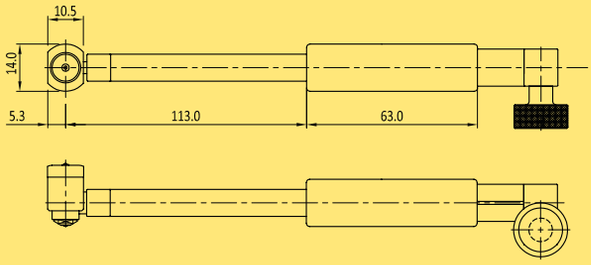
Bezel dia	Type	Reading	Depth
56 mm	K60DP	0.001 mm/0.00005"	100 mm
56 mm	K60D	0.01 mm/0.0005"	100 mm

FEATURES

- Every gauge carries a calibration certificate giving actual values
- Measures small bores from 10 mm to 18 mm
- High wear resistance due to carbide-tipped fixed and moving anvils
- Wide bridge ensures automatic centering in the bore
- Self-centralizing feature of this bore gauge ensures that measurement can be done with minimum skill
- Supplied in a sleek wooden case containing measuring anvils and extension rods with necessary tools

RANGE: 18-50 mm

K703



WITHOUT DIAL GAGUE

Type	Depth
K700	175 mm

METRIC

Bezel dia	Type	Reading	Depth	Graduation
56 mm	K703	0.01 mm	110 mm	0.50-0
	K709	0.002 mm		0-10-0
	K717	0.001 mm		0-100-0

INCH

Bezel dia	Type	Reading	Depth	Graduation
56 mm	K753	0.0005 "	4.5"	0-25-0
	K761	0.0001"		0-50-0

DIGITAL

Bezel dia	Type	Reading	Depth
56 mm	K70DP	0.001 mm/0.00005"	110 mm
56 mm	K70D	0.01 mm/0.0005"	110 mm

FEATURES

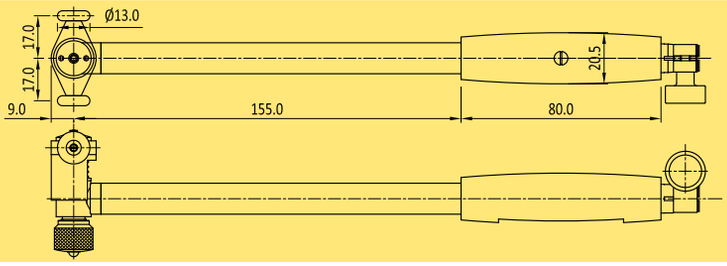
- Every gauge carries a calibration certificate giving actual values
- Highly versatile 18-50mm bore gauge covers a large range for which one needs to generally purchase 2 bore gauges having ranges Ø18-35 mm and Ø35-60 mm
- High wear resistance due to carbide-tipped fixed and moving anvils
- Wide bridge ensures automatic centering in the bore
- Self-centralizing feature of this bore gauge ensures that measurement can be done with minimum skill
- Supplied in a sleek wooden case containing measurement anvils and extension rods with necessary tools

Dial Bore Gauge & Dial Snap Gauge

RANGE: 50-150 mm

K803

Also avalible with digital dial gauge



WITHOUT DIAL GAGUE

Type	Depth
K800	150 mm

METRIC

Bezel dia	Type	Reading	Depth	Graduation
56 mm	K803	0.01 mm	150 mm	0.50-0
	K809	0.002 mm		0-10-0
	K817	0.001 mm		0-100-0

INCH

Bezel dia	Type	Reading	Depth	Graduation
56 mm	K853	0.0005 "	6"	0-25-0
	K861	0.0001"		0-50-0

DIGITAL

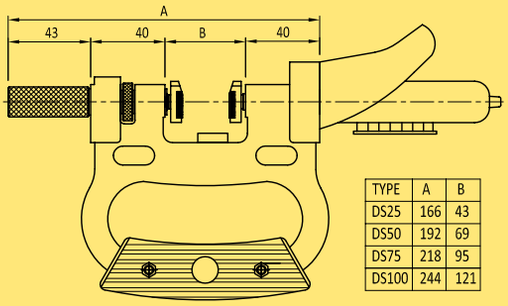
Bezel dia	Type	Reading	Depth
56 mm	K80DP	0.001 mm/0.00005"	150 mm
56 mm	K80D	0.01 mm/0.0005"	150 mm

FEATURES

- Every gauge carries a calibration certificate giving actual values
- Bore gauge covering a range of 50-150 mm, is widely used by Automobile, Aircraft, Engine and Pump manufacturers
- High wear resistance due to carbide-tipped fixed and moving anvils
- Extra wide bridge ensures automatic centering in the bore Self-centralizing feature of this bore gauge ensures that measurement can be done with minimum skill
- Furnished in a sleek wooden case containing measurement anvils and extension rods with necessary tools

DIAL SNAP GAUGE

DS25



TYPE	A	B
DS25	166	43
DS50	192	69
DS75	218	95
DS100	244	121

Note: Supplied **without** dial indicator

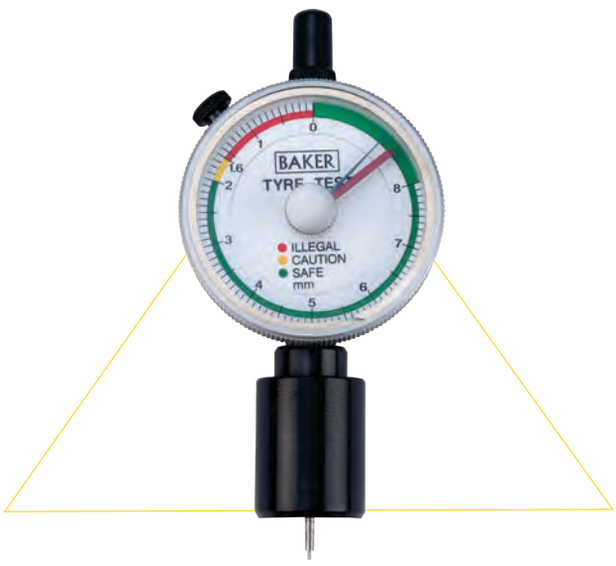
Type	Measuring Range (mm)
DS25	0-25
DS50	25-50
DS75	50-75
DS100	75-100

FEATURES

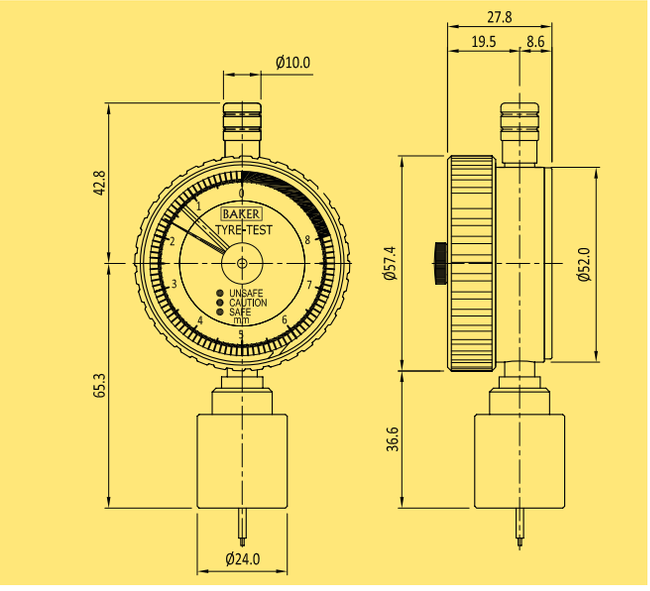
- Designed for quick GO / NOT GO gauging of diameters of cylindrical parts either in process or post process
- Adjustable spindle & sensing spindle are manufactured out of graded steel
- Spindles are hardened and ground including screw threads
- Carbide ground and lapped tip of measuring faces ensures maximum wear resistance
- For quick entry, chamfer provided on front edges
- Constant measuring force, which is a result of an in-bulit spring, eliminates user error
- For easy reading, the dial indicator can be rotated and locked
- Best suited for inspection of continuous / Batch production items
- Setting is done with the help of Gauge Blocks / Cylindrical setting Masters
- Any standard Dial indicator with Ø8 h6 mm holding shank can be fitted easily
- Also used with Electronic probe & digital dial gauge

Application
For measuring quick & accurate measurment of all kinds of Outer Diameter up to 100 mm

TYRE TREAD DEPTH GAUGE



TTG01



Bezel dia	Type	Reading	Range	Graduation
56 mm	TTG01	0.1 mm	8 mm	8 - 0
	TTG02	0.004 in	0.32 in	0.32 - 0

A Gauge developed specifically to monitor compliance with safety requirements for minimum tread depth of automobile tyres. Additionally, it is useful for gauging general tyre wear in the range 0-8 mm.

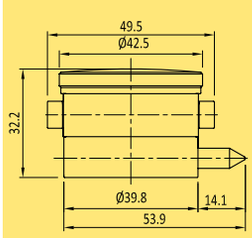
FEATURES

- Every gauge carries a calibration certificate giving actual values
- The gauge gives accurate readings to 0.1mm / 0.004Inch
- A 'telltale' maximum reading pointer is fitted to retain measurement, allowing the gauge to be applied to tyre positions where it cannot be easily read
- The dial has coloured bands for quick and easy reading

CRANKSHAFT WEB DEFLECTION GAUGE

CS1

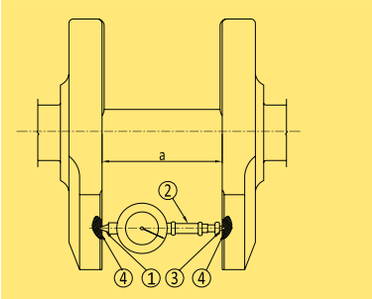
Type	Reading	Range	Graduation
CS1	0.01 mm	60-600 mm	0-50
CS2	0.0005 "	2.4-23.6 "	0-20
CS3	0.01 mm	60-600 mm	0-25-0
CS4	0.0005 "	2.4-23.6 "	0-10-0



Excessive web deflection is dangerous for the engine. The Cause may be faulty or damaged crankshaft, damaged bearing, poor bearing alignment, excessive bearing clearance or slackness, faulty flanging to transmission, flywheel or vee belt pulley etc.

FEATURES

- Every gauge carries a calibration certificate giving actual values
- Crankshaft Gauge measures the Web deflection of a crankshaft
- The BAKER Crankshaft Gauge is developed to identify and avoid the problems mentioned above
- The Gauge covers web-to-web distance of 60-600 mm
- Supplied in a sleek wooden box
- Gauge contacts are pointed & fit into dimples in the webs. A heavy spring pressure ensures that the Gauge is restrained but is free to turn in relation to the crankshaft. An adjustable balance weight restrains the Gauge against rotation of the crankshaft, so that the dial always faces the inspector

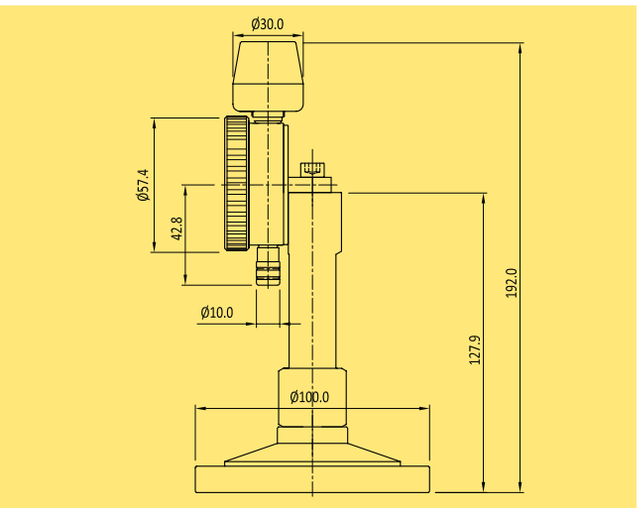


HOW TO USE BAKER CRANKSHAFT GAUGE ?

- Determine the distance (a) between two Webs. Assemble the extension (2) and fixed gauging point (3) and screw this assembly into the threaded bush of the dial gauge unit opposite to live point (1). Overall length from tip of fully extended live point (1) to tip of fixed point (3) should be about 1 to 2 mm greater than web distance (a)
- The back of the dial Gauge unit takes the balance weight to keep the dial facing upward while the Gauge is suspended between the webs during Crankshaft rotation. Use center bush for horizontal upward position and outer bush for inclined upward position. Without balance weight, the indicator adopts a face down position
- Place the Gauge between webs of Crankshaft so that gauging points are located in punch holes (4), center punched where measurement of deflection is required. First, place spring loaded live point (1) in one of the two punch holes (4), then locate fixed point (3) in other punch hole
- Set dial pointer to 20 on (metric) dial by rotating the indicator bezel. Turn Crankshaft by hand & observe pointer movement on dial
- Read deflections at various positions of the crankshaft revolution as set out in manufacturer's inspection procedure

Special Instruments

BALL DIAMETER



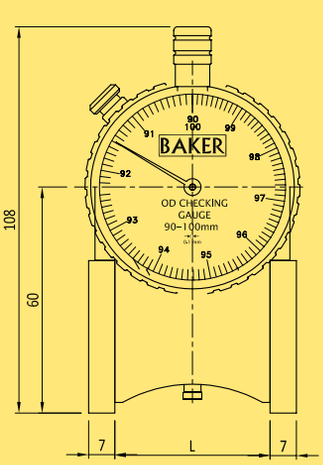
Type	Range (mm)	Reading (mm)
BD01	1-10	0.01
BD02	10-12	0.02
BD03	12-14	0.02
BD04	14-16	0.02
BD05	16-18	0.02
BD06	18-20	0.02
BD07	20-22	0.02
BD08	22-24	0.02
BD09	24-26	0.02
BD10	26-28	0.02
BD11	28-30	0.02

FEATURES

- Every gauge carries a calibration certificate giving actual values
- Gauge measures ball diameter quickly
- Minimum skill required
- Inspector needs to just place the ball over the circular cup & the direct reading of ball diameter is shown
- Available in variety of sizes

OUTER DIAMETER

Type	Range (mm)	Reading (mm)
OD01	50-70	0.1
Od02	70-90	0.1
OD03	90-110	0.1
OD04	110-130	0.1
OD05	130-150	0.1
OD06	150-175	0.5
OD07	175-200	0.5
OD08	200-225	0.5
OD09	225-250	0.5
OD10	250-275	0.5
OD11	275-300	0.5



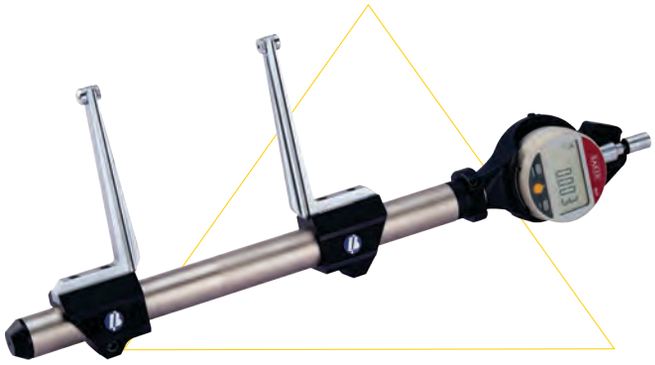
TYPE NO	RANGE	L
OD01	50-70	72
OD02	70-90	33
OD03	90-110	41
OD04	110-130	49
OD05	130-150	58
OD06	150-175	61
OD07	175-200	70
OD08	200-225	80
OD09	225-250	89
OD10	250-275	99
OD11	275-300	108.

FEATURES

- Every gauge carries a calibration certificate giving actual values
- Gauge measures OD of circular parts quickly
- Inspector needs to just place the gauge over circular periphery and the direct reading of OD is shown on circular scale
- OD of stacked pipes can be easily measured at site in as is condition
- It is the simplest method of checking OD above 40 mm
- Minimum skill required
- Available in variety of sizes

Universal Gauge

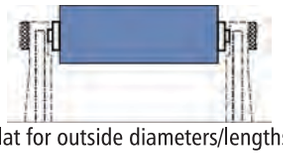
The Bowers Universal Gauge's ingenious modular design enables it to be quickly configured to suit almost any measuring challenge, both internal and external. The Universal's clever constant measuring pressure device ensures accuracy and consistency of reading. A large variety of measuring contacts and adaptors are available for the Universal Gauge enabling countless measuring tasks to be completed with ease. Accessories for the measurement of threads, grooves, splines, gears, hole centers and many others are available as standard and special adaptations for more non-standard applications can be quoted on request.



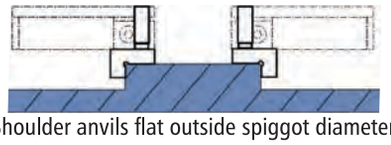
FEATURES

- Internal and External measurement
- Large measuring range possible 0-3000mm (0-118") with interchangeable extensions
- Constant measuring force
- Digital or Mechanical readout display
- Large range of accessories for standard measurement of threads, grooves, splines, diameters, lengths, shallow spigots and recess diameters etc.
- Special anvil designs available on request

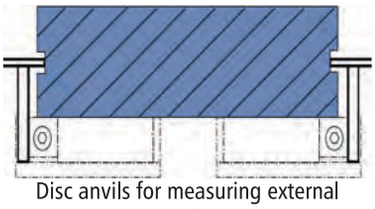
APPLICATIONS



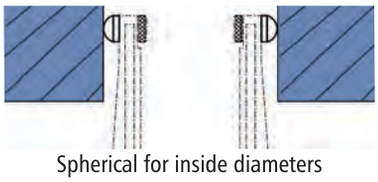
Flat for outside diameters/lengths



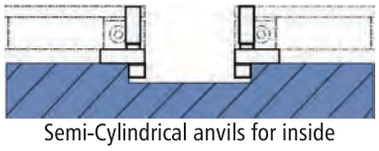
Shoulder anvils flat outside spiggot diameter



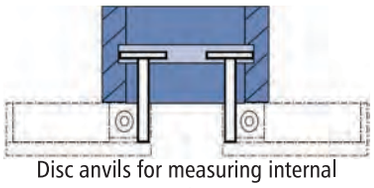
Disc anvils for measuring external groove diameter



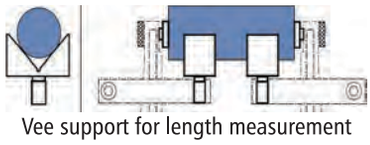
Spherical for inside diameters



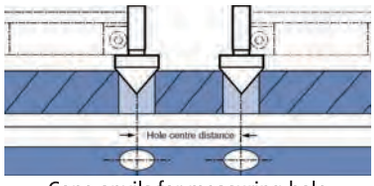
Semi-Cylindrical anvils for inside



Disc anvils for measuring internal groove diameter



Vee support for length measurement



Cone anvils for measuring hole center distance

Harpenden Skinfold Caliper

HUMAN BODY FAT MEASUREMENT

FEATURES

- The Harpenden Skinfold Caliper is a precision instrument designed for use in the performance of Skinfold thickness measurements (from which estimates of body fat are derived) The use of this instrument has been well established and documented over the past 40 years
- Designed in 1958 in collaboration with D. J. M. Tanner, a prominent force in the use of Skinfold measurements in the derivation of body fat measurement
- It is the only Caliper CE marked under the Medical Devices Directive 93 / 42 / EEC for a Class 1 Device with Measuring Function and is calibrated using masters traceable to National Standards
- It is used all over the world in applications including diagnostics & research, nutrition/malnutrition, obesity, eating disorder assessment (especially in sports) and juvenile growth disorders
- It is supplied with a handbook which includes tables for body fat% versus Skinfold thickness in males & females of all ages based on the Durnin & Womersley systems
- It is also supplied with Body Assessment Software (Optional)

TECHNICAL INFORMATION

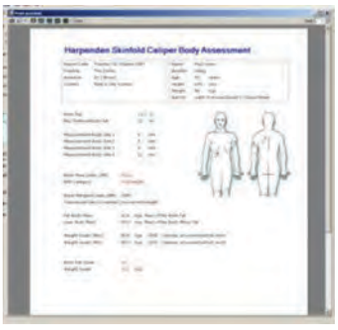
- Dial Graduation: 0.20 mm
- Measuring Range: 0 mm to 80 mm
- Measuring Pressure: 10 gms/mm^2 (constant over range)
- Accuracy: 99.00%
- Repeatability: 0.20 mm.

BODY ASSESSMENT SOFTWARE ON REQUEST

HARPENDEN SKINFOLD CALIPER BODY ASSESSMENT SOFTWARE

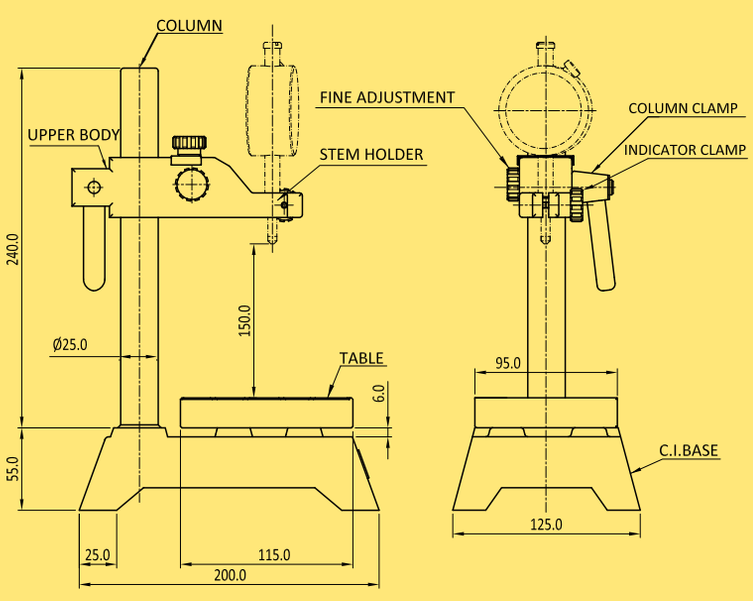
Assess a subjects :-

- Body fat % content
- Body fat % preferred level
- Body mass index
- Basal metabolic rate
- Lean body mass
- Fat mass
- Min/Max weight guide
- Child Bmi Growth Charts



Dial Comparator / Magnetic Stand

Dial Comparator Stand



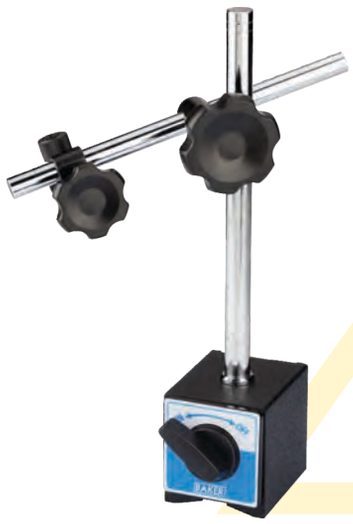
SPECIFICATION

Total Height	Measuring Range	Column Diameter	Adaptor hole for dial
295mm	150mm	25mm	Ø8h7

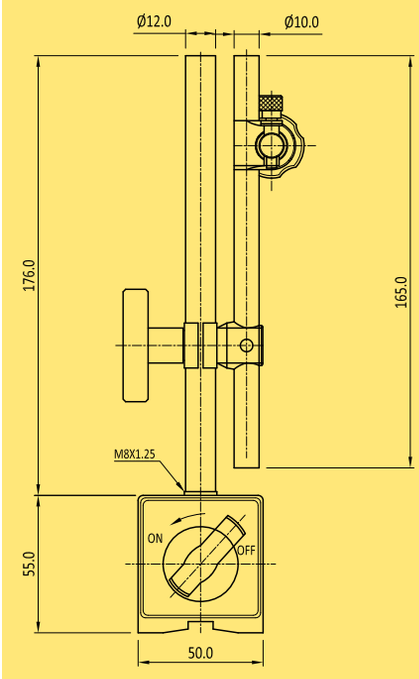
FEATURES

- Hardened with 0.003 mm flatness
- Rigid Cast-iron base
- Fine adjustment of 2 mm

Dial Magnetic Stand



Type : MS Magnetic Stand
Type : MSF Magnetic Stand with fine adjustment



SPECIFICATION

Magnetic base with on/off switch	
Clamp hole 3/8" & 5/32" and 8mm (when set a ring at the hole 3/8") & 5/32	
Magnetic force	600 N
Main stem	Ø12 x 176 mm
Branch stem	Ø10 x 165 mm
Tapped hole	M8 x 1.25 mm
Base (LxWxH)	58 mm x 50 mm x 55 mm
Weight	1.4 kg

FEATURES

- Smooth On/Off switch
- Firm Lock of stem
- Light weight design
- Fine adjustment of 15 mm