

# **Universal Gauge Sets**

These gauges are used for measuring internal and external dimensions, such as grooves, shoulders, recesses, threads, tapers, gears, splines, hole centres, a wide range of measuring contacts are available to enable measurement of various features.











#### **Features**

- Internal and external measurement
- Range 30-255mm Internal / 0-220mm External with 20mm Anvil Travel
- Large measuring range possible 0-3000mm (0-118")
- Extensions available 150mm (Steel) 500mm and 1000mm (Carbon Fibre)
- Constant measuring force
- Supplied with digital readout
- Large range of accessories for standard measurement of threads, grooves, splines, diameters, lengths, shallow spigots and recess diameters etc
- Special anvil designs available P.O.A



TGUSET1

UNIVERSAL GAUGE SETS		
Code No	Description	
TGUSET1	Large Set with Box	
TGUSET2	Small Set with box	

SET CONTENTS - TGUSET1		
Code No	Description	
TGU1000-XT	Universal with Box but without Indicator or Accessories	
TGUA001-AN	Digital / Analogue Indicator 25mm / 0.001mm c/w COWL	
TGUA006	Measuring arms 50mm (Pair)	
TGUA007	Measuring Arms 75mm (Pair)	
TGUA008	Measuring Arms 100mm (Pair)	
TGUA013	20mm Disc Anvils for measuring grooves (Pair)	
TGUA014	12mm Disc Anvils Int/Ext for measuring grooves (Pair)	
TGUA011	Shoulder anvils flat outside spigot diameter (Pair)	
TGUA012	Semi-cylindrical anvils for inside register diameters (Pair)	
TGUA010	Depth-stops (Pair)	
TGUA003	Clamping inserts (Pair)	
TGUA004	Flat Measuring Anvil (Pair)	
TGUA005	Spherical contacts (Pair)	
TGUA009	Mounting Attachment (Pair)	

Note: BT denotes Bluetooth



TGUSET2

SET CONTENTS - TGUSET2		
Description		
Universal with Box but without Indicator or Accessories		
Digital / Analogue Indicator 25mm / 0.001mm c/w COWL		
Clamping inserts (Pair)		
Spherical contacts (Pair)		
Measuring arms 50mm (Pair)		
Depth-stops (Pair)		



## **Universal Setting Gauge**

To improve the quality of your large diameter machined parts, the portable Universal Setting Gauge from Bowers has been developed as an easy to use comparator tool which can be set up next to the gauge being utilised. This Universal Setting Gauge has been designed to improve the ongoing accuracy levels; when setting the master, the spring loaded setting anvil ensures a constant force is maintained thereby giving repeat setting readings. The Universal Setting Gauge guide bars offer two adjustable supports for the pillars which are used at the airy points of the setting rod, all designed to reduce the amount of deflection. Due to its rugged construction the Universal Setting Gauge is ideally suited to the shop floor environment. It has been designed to work primarily in conjunction with the Bowers Universal Gauge and the INTEX Comparator Beam Gauge, although will allow other instruments to be set. The portability of the Universal Setting Gauge ensures that it can be utilised next to the gauge in use, so any deviations in measurements can be reset with the minimum amount of time and error.

#### **Features**

• Available in 3 different lengths:

Up to 550mm Internal - 650mm External Up to 1050mm Internal - 1150mm External Up to 1550mm Internal - 1650mm External

- Setting gauge has flat face contact anvils
- Ideal for use in the workshop area
- Easily adjustable gauge mounting supports
- Requires Length Setting Rods for setting (Spherical ends advised)
- Length adjustment can also be achieved by fitting an optional digital indicator (see below)
- Can be orientated vertically up to 1050mm internal / 1150 external when a base and vertical guide, (USGS) are fitted





39

UNIVERSAL SETTING GAUGE				
Code No	Description	Range (mm)	Length (mm)	
USG550	Universal Setting Gauge	550mm internal to 650mm external	550mm internal to 650mm external	
USG1050	Universal Setting Gauge	1050mm internal 1150mm external	1050mm internal 1150mm external	
USG1550	Universal Setting Gauge	1050mm internal 1150mm external	1550mm internal 1650mm external	
USGS	Universal Setting Gauge Vertical Stand			
30-805-5501B	Digital Indicator	0-25mm, 0.001mm		
30-805-5621B	Digital Indicator	0.50mm 0.001mm		

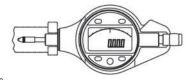
Tel: **+44 (0)1276 469 866** Partners in Precision



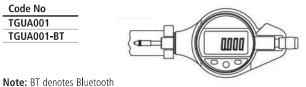
## **Universal Gauge and Accessories**

#### **Digital Indicator and Protective Shroud**





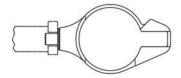
Code No TGUA001 TGUA001-BT



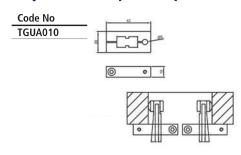
Note: A denotes Analogue

#### **Protective Shroud for Dial/Digital Indicator**



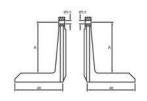


#### **Adjustable Depth Stops for Measuring Arms**



#### **Measuring Arms**

Code No
TGUA006
TGUA007
TGUA008



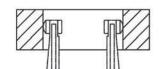
#### **Flat Tips**



#### **Spherical Tips**





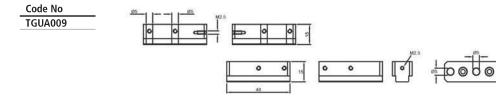


#### **Clamping Insert**

Code No TGUA003



#### Mounting Attachments for use with the following Anvils



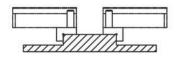


# **Universal Gauge and Accessories**

#### **Shoulder Anvils Flat Outside Spigot Diameter**



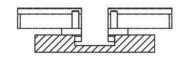




#### **Semi-Cylindrical Anvils for Inside Register Diameters**

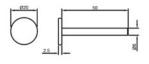


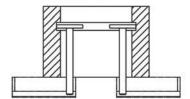


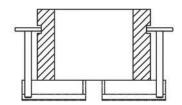


#### **DISC Anvils for measuring Groove Diameter**





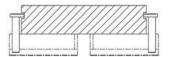




#### **DISC Anvils for measuring Groove Diameter**

Code No TGUA014

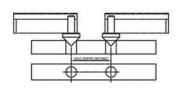




#### **Cone Anvils for Measuring Hole Centre Distance**

Code No	Dimn - D
TGUA019	13
TGUA020	25
TGUA021	50

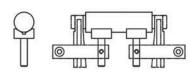




#### **Vee Support for Length Measurement**

Code No TGUA022



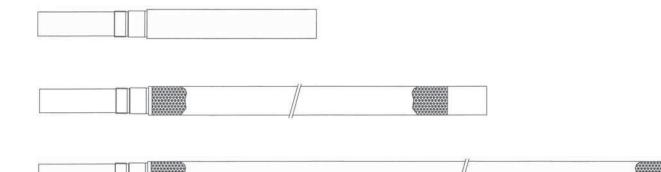




# **Universal Gauge and Accessories**

#### **UNIVERSAL GAUGING EXTENSIONS**

Code No	Description	Length (mm)
TGUA035	Extension Steel	150
TGUA036	Extension Carbon Fibre	500
TGUA037	Extension Carbon Fibre	1000



#### Universal Setting Gauge up to 1550 Internal and 1650 External





