



#### **Product Grading**



High performance industrial tooling designed for continuous use applications on machine tools where repeatability and long tool life are of critical importance.



Industrial tooling that has enhanced features and benefits demanded by craftsmen and professional users.



#### Industrial

Designed for regular use in industrial applications. Manufactured to stringent quality levels and international standards.



**Workshop**Standard quality tooling for use by tradesmen and generally industrial use.



#### Maintenance

Products designed for general maintenance of machines, workshops, garages and some household applications.



**Home Improver**DIY quality tooling. Designed for home use and light industrial applications.



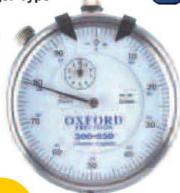
# **Product Groups** 300 - 372

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58mm (21/4") Diameter Dial Matt finish chromed housing and black oxidised limit hands. Fitted with 1/4" inside diameter stem. Manufactured to BS 907.



#### Spares to suit Oxford Plunger Type Gauges

Description	Order Code KEN-301
Anvil - mm	-9400K
Anvil - inch	-9410K

Resolution	Travel	Reading	Weight each	Order Code OXD-300	
0.001"	0.5"	0-50-0	440g	-8100K	
0.01mm	5mm	0-50-0	350g	-7850K	
0.01mm	10mm	0-100	440g	-8500K	
0.01mm	25mm	0-100	440g	-8520K	

58mm

Diameter

Easy Read Dial Gauge Plunger Type

58mm (21/4") Diameter Dial 6 Jewel

EQUIPMENT

PRECISION

Matt finish chromed housing and black oxidised limit hands. Shockproof mechanism. Fitted with 1/4" inside diameter stem. Manufactured to BS 907.





Description	Order Code KEN-301
Anvil - mm	-9400K

Resolution	Travel	Reading	Weight each	Order Code OXD-300
0.01mm	10mm	0-100	440g	-5500K
0.01mm	25mm	0-100	440g	-5520K

58mm

#### 58mm (21/4") Diameter Dial Easy Read Dial Gauges and DTI's are designed for countless

applications and available in two basic styles. With shockproof mechanisms and clear, 'Easy Read' dial for zero setting. All models are operational in both directions. Supplied in fitted cases with accessories storage space. Matt finish chromed housing and black oxidised limit hands. Fitted with 1/4" inside diameter centre back lug and 5/16" diameter stem. Manufactured to BS 907.



**Easy Read Dial Gauges** 

**Plunger Type** 

#### Spares to suit Kennedy **Plunger Type Gauges**

Description	Order Code KEN-301
Anvil - mm	-9400K
Anvil - inch	-9410K

Resolution	Travel	Reading	Weight each	Order Code KEN-300	
0.001"	0.5"	0-50-0	440g	-7100K	
0.001"	0.5"	0-100	440g	-7110K	
0.001"	1.0"	0-100	440g	-7160K	
0.0005"	1.0"	0-50	440g	-7170K	
0.01mm	10mm	0-100	440g	-7500K	
0.01mm	25mm	0-100	440g	-7520K	

## Smile Dial Gauges Plunger Type

58mm (21/4") Diameter Dial Matt finish chromed housing and black oxidised limit hands. Jewelled. Fitted with 1/4" inside diameter centre back lug and 5/16" diameter stem. Manufactured to BS 907.





#### Spares to suit Kennedy **Plunger Type Gauges**

Description	Order Code KEN-301
Anvil - mm	-9400K

Resolution	Travel	Reading	Weight each	Order Code KEN-300
0.01mm	10mm	0-100	440g	-5000K

#### **Dovetail** Mounting **Accessories**

Spigot

1/4" standard type.

Stem Diameter		Order Code KEN-398
4mm	20g	-0330K
6mm	20g	-0340K
8mm	20g	-0350K

#### **Dial Gauge Accessories** Replacement Anvils

For all Kennedy plunger type dial gauges. Steel.



Type Metric -9400K -9410K Inch .082g

#### **Universal Spigot**

For lever type (not easy read).



Type KEN-301 1/4" ID -9840K 20g

#### Replacement Stylus

Carbide steel. Replacement stylus for all Kennedy lever type dial test indicators (except dual reading stylus for KEN- 300-4000K).

STEEL STEEL



Order Code KEN-301 use with New Style Easy -9630K Read DTI's

246

## **DIAL GAUGES**

GROUP 300

# XFORD Easy Read Dial Test

32mm Diameter Dial Lever Type Supplied with dovetail fitting and 6 and 8mm spigot.







#### Spares to suit Oxford Dial Test Indicators

Description	KEN-301
Replacement Stylus	-9630K
Universal Holder	-9840K
	Order Code
	KEN-398
1/4" Spigot - 6mm Stem	-0340K
1/4" Spigot - 8mm Stem	-0350K

Resolution	Travel	Reading	Weight each	Order Code OXD-300
0.01mm	0.8mm	0-40-0	170g	-9020K

#### 11/4" Dial Diameter



**KEN-398** 

-0340K

-0350K

Reading

0-15-0

Weight

170g

Order Code OXD-300

-9010K

1/4" Spigot - 6mm Stem

1/4" Spigot - 8mm Stem

Travel

0.03

Resolution

0.0005

#### Easy Read Anti-Magnetic **Dial Test Indicators**



32mm (11/4") Diameter Dial Lever Type

Supplied with dovetail fitting and 6 and 8mm spigot. Matt finish chromed housing. Jewelled.



#### Vertical Lever **Dial Gauge**

0-40-0

0.8mm

0.01mm

Anti-magnetic lever dial gauge with jewelled movement for a smooth and precise operation. Measuring direction automatically adapts on contact. Supplied with basic set of mounting accessories and case.

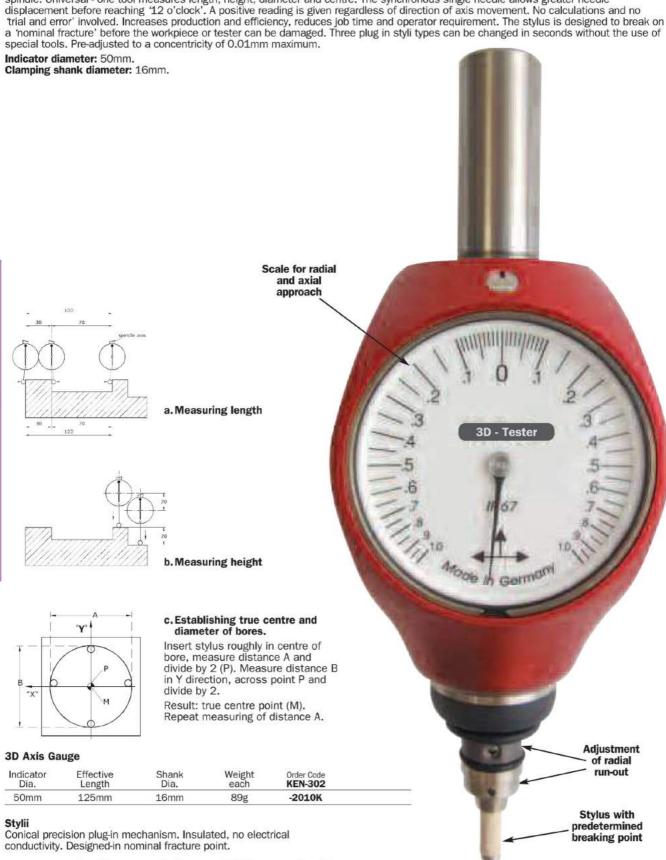
170g

-8020K





The New Generation of NC axis gauging equipment, for quick, accurate setting of all three axes (X, Y, Z) by analogue differential indicator. Suitable for all machine tools with CNC, NC or DRO and also for EDM/spark erosion tools - the stylus is electrically insulated from the spindle. Universal - one tool measures length, height, diameter and centre. The synchronous single needle allows greater needle displacement before reaching '12 o'clock'. A positive reading is given regardless of direction of axis movement. No calculations and no 'trial and error' involved. Increases production and efficiency, reduces job time and operator requirement. The stylus is designed to break on a 'nominal fracture' before the workpiece or tester can be damaged. Three plug in styli types can be changed in seconds without the use of



33 72 10g -2170K Long PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR 248

Order Code KEN-302

-2130K

Weight

each

3g

Anvil

Dia.

4.0

Length

Type

Short

Stylus ball



#### **HARDNESS TESTERS**

## GROUP 303

#### **Rockwell Hardness Tester**

For testing the hardness of hard alloys, quenched and unquenched steels, using steel ball or diamond penetrators to measure Rockwell A, B & C units of measurement. Supplied with test block, flat large, small and V notch anvils, steel ball bearing indentor and diamond Indentor.

Manufactured in accordance with ISO 6508-2:1999 & ASTME18.

Measuring ranges: 20-88HRA (Test force: 588.4N/60kgf), 20-100HRB (Test force: 980.7N/100kgf), 20-70HRC (Test force: 1471N/150kgf).

Max height of test piece:

80mm with screw protective jacket, 170mm without.

Depth of throat: 135mm.

Dimensions: 466 x 238 x 630mm.

Product Number	Weight each	Order Code OXD-303	
150R	65kg	-1000K	

#### **Anvils, Indentors & Test Blocks**

To suit Oxford hardness tester.



Large Flat Anvil





**Small Flat Anvil** 



Steel Ball **Bearing Indentor** 

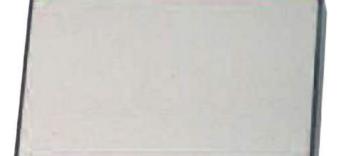


V-Notch Anvil



Diamond

Description	Size	Order Code OXD-303	
Large Flat Anvil	150mm	-9100K	
Small Flat Anvil	58mm	-9110K	
V-Notch Anvil		-9120K	
Diamond Indentor	Ø1.588mm	-9150K	
Steel Ball Bearing Indentor	Ø1.588mm	-9160K	
- Will	88 HRA	-9200K	
Rockwell Std. Test Blocks	85 HRB	-9210K	
41 4 TO THE PROPERTY OF THE PR	60 HRC	-9220K	
60 x 40 x 10mm	35 HRC	-9230K	
	20 HRC	-9240K	



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**Test Block** 

## PRECISION GRANITE PRODUCTS

# XFORD Oxford Precision Granite Products

Does not burr, is corrosion free and easy to maintain.

Precision granite products are manufactured to the highest quality standards to provide an accurate surface from which final measurements can be taken. More dimensionally stable than steel or cast iron, with a low thermal expansion co-efficient.

#### **Granite Surface Plates**

Accurate bases which are used for mounting sensitive measuring, mechanical and electronic equipment. Made to BS817.



#### Grade 1 - Inspection Grade

L×W×H	Weight each	Order Code OXD-306	
400 x 250 x 70mm	27kg	-4020K	
630 x 400 x 100mm	90kg	-4040K	
800 x 500 x 100mm	140kg	-4060K	

#### Stand - To suit Granite Surface Plate (OXD-306-4060K and -3860K) Only

LxWxH	Weight each	Order Code OXD-306	
480 x 300 x 650mm	20kg	-4100K	

#### **Granite Squares**

90°. For measuring and inspecting squareness, parallelism and alignment. Made to **BS939**: **1977 Grade A** for flatness, straightness and squareness of working faces.



WxH	Weight each	Order Code OXD-306	
250 x 160mm	2.26kg	-5060K	

#### **Granite Straight Edges**

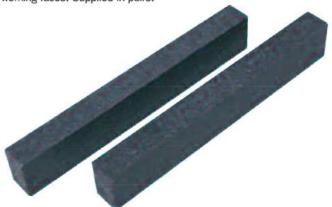
Used for checking surfaces for straightness, drawing and scribing straight lines. Made to BS5204 : Grade A.



LxWxH	Weight each	Order Code OXD-306	
630 x 100 x 50mm	7kg	-6020K	*
1000 x 160 x 50mm	10kg	-6040K	

#### **Granite Parallels**

Used for setting up work on machine tables and surface plates. Made to **BS906 : Part 1 : Grade B** for flatness and parallelism of working faces. Supplied in pairs.



LxWxH	Weight each	Order Code OXD-306	
160 x 25 x 16mm	0.55kg	-3020K	
250 x 40 x 25mm	1.83kg	-3040K	
400 x 63 x 40mm	6.97kg	-3060K	

#### **Granite Vee Blocks**

90°. Used for handling and inspecting round work. Also used for layout work. Made to **BS3731**: **Grade 2**. Supplied in pairs.



Order Code OXD-306 LxWxH 62 x 62 x 62mm 2.0kg -7020K

250

# GROUP

## **ENVIRONMENT METERS/THERMOMETERS**

# EDISON

#### Airflow, Velocity & Thermometer

#### **TVA150**

Ideally used to measure the air speed at ventilation outlets and to test temperatures in residential and commercial environments. Conforms with

EN61326-6: 2006 and EN61326-2-2: 2006.

#### Meter capabilities:

- · Airflow: m/s, km/h, fpm, mph, kts.
- · Beaufort scale.
- . Temperature in both °C and °F.
- 4 digit display with optional back light.
- · Data hold function.
- · Auto power 'OFF' and low power indicator.
- 3x AAA battery included.

**Testing ranges:** 0.4 - 20m/s, 80 - 4000fpm, -10 - 50°C (14 - 122°F).

Model Number	Order Code EDI-312	
TVA150	-4020K	

#### Relative Humidity & Temperature Tester **THM150**

This multimeter is ideal for temperature, humidity and dew point testing in residential and commercial environments such as offices, storerooms, greenhouses and places where a controlled environment is essential. Conforms with EN61326-6: 2006 and EN61326-2-2: 2006.

#### Meter capabilities:

- Temperature: -10 -50°C (14 to 122°F).
- Testing humidity: 0 100%RH.
- 4 digit clear LCD display with optional back light.
- Data hold function.
  Auto power 'OFF' and low power indicator.
- 3x AAA battery included

Model Number	Order Code EDI-312	
THM150	-4040K	

#### 5-in-1 Multimeter & Environmental Tester **MET060**

Relative measurement function. Diode testing facility. Clear display with LED back light and data hold function. Auto power OFF' and low power indicator. Digital display count up to 3999. Supplied with test probes, clamp-on test leads, temperature sensor probe, 9V battery, and Instructions manual. Conforms with

IEC 1010, CAT II 1000V and CAT III 600V.

Temperature: from -20 to 1000°C **Humidity:** 30 - 90%. Sound: 35 - 100db. **Illumination:** 4000 - 40000 Lux. AC/DC: 600V. AC/DC: 10A

Resistance: 40MW. Capacitance: 200mF. Frequency: 1Hz to 200KHz. Dimensions (W x D x H): 165 x 65 x 230mm.

Model Number	Order Code EDI-516	
METO60	-3460K	

#### Mini Laser Thermometer

Pocket sized infrared thermometer employing single dot infrared laser technology to instantly display surface temperatures. °C/°F selectable with a measurement range of between -20°C to 270°C (-4° to 518°F). Features ambient temperature (TAMB) measurement, back light, hold function and low battery indication. Supplied with wrist lanyard and

21 111 00	cteries.	SCAN E-536
6:1 Distance to Spot	-20°C +270°	888
Model	Order Code	

-3960K

EMT960



#### Infrared Laser Thermometer

A high resolution infrared laser thermometer suitable for a wide range of industrial applications, HVAC and automotive diagnostics. Laser targeting enables accurate readings by guiding the user to the optimum measuring distance. Suited for work in confined spaces. Simply aim, pull the trigger and read the current surface temperature. Laser can be activated via the laser button for more accurate targeting. Temperature is displayed on back-lit LCD display.

Measurement range: -20°C to 537°C.

Accuracy: -20°C to 50°C +/- 2.5°C, 51°C to 537°C +/- (Reading x 1% 1°C)

Distance to spot ratio: 12:1.

Emissivity: 0.95.

8888

-1888-

COURDS

8888

Celsius/Fahrenheit selection.

Back light display.

Power source: 9V battery.

Average/maximum/minimum/maximum-minimum mode selection.

Complies with EN61326:1997/A1:1998/ A2:2001/A3:2003.

Dimensions (L x W x H): 162 x 56 x 190mm.

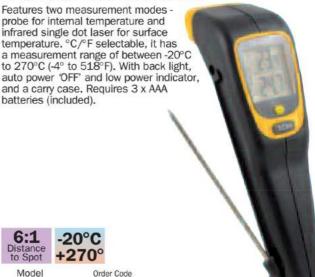
Nett weight: 270g. Range: -20°C to +537°C



#### Infrared & Probe Thermometer

EDI-312

-3980K



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**EPT980** 

RUTLAND Multi Function Digital Stopwatch - Standard

Water and shock resistant design. Supplied with nylon neck cord.

#### Specification:

1/100 second precision with split times. Calendar and time display 12hr or 24hr format. Daily alarm. Hourly chime. Supplied complete with 1.5V battery.



Order Code RTL-314 -3020K

**Multi Function Digital** Stopwatch - Professional

Water and shock resistant design. slim line contour case fits comfortably in the hand. Supplied with nylon neck cord.

#### Specification:

1/100 second precision with split times. Calendar and time display 12hr or 24hr format. Fastest, slowest and average lap calculation. Daily alarm. Hourly chime, Supplied complete with 1.5V battery.



Order Code RTL-314 -3040K

#### RID Electronic Tally Counter - Up

Electronic tally counter counts up to 9999. Four-digit LCD with large push-buttons. High-impact construction with comfortable rubber keys. Optional audible counting indicator. Battery included.



Size	Order Code
(W x D x H)	OXD-314
30 x 15 x 60mm	-5820K

## **Chrome Tally Counters**

Four digit (0-9999) metal body mechanical counters with push button actuator and reset button. Sturdy chrome plated steel construction.

Hand Tally comfortably fits in the palm of your hand, audible click, finger ring and recommended for applications where operator must be mobile.

Desk Tally features a special mounting base designed for desk, bench or clipboard mounting. Recommended for fixed applications.

Description	Weight each	Order Code OXD-314
Hand Tally	60g	-5500K
Desk Tally	709	-5520K

#### **Mechanical Stroke Counter**

Five digit mid-range mechanical stroke counter. Tough plastic case. Excellent value.

Overall length: 80mm.



Spindle Rotation	Weight each	Order Code OXD-314	
Right Hand	91ø	-6100K	_

#### **Electronic Tally Counter -**Up/Down

Electronic tally counter counts up to 9999. Four-digit LCD with large pushbuttons. Reverse function to count down as well as up. High-impact construction with comfortable rubber keys. Optional audible counting indicator. Battery included.



Size	Order Code
(W x D x H)	0XD-314
30 x 15 x 60mm	-5830K

## EYE LOUPES & MAGNIFIERS/TACHOMETERS 315/316



#### **Electronic Tachometer**

Precise red LED light source (laser beam) together with a reflective strip, non-contact measurements can be made safely up to 40cm (153/4") from the target. For measuring in rpm and rps.

#### **Testing range:**

100 to 30000rpm/1.7 to 500rps. 6 digit clear LCD display with optional back light. Data hold function.

Auto power 'OFF' and low power indicator. Battery operated: DC1.5V 3x AAA (included)

Conforms with EN61326-6: 2006 and EN61326-2-2: 2006.

#### Pack includes:

Digital tachometer. Wrist strap. 2x 30cm reflective strips. Hard carry case. DC1.5V 3x AAA batteries (installed). Instruction manual.



Order Code EDI-315 -4200K



Actual size of LCD



Test for regular rotary speed



Laser beam accuracy



Complete with protective head



## XFORD Folding Pocket Magnifier

#### 15mm Diameter

The original 'Linen tester'. Although deriving its name from the textile industry it is also suitable for inspecting paper, photographs, printed documents etc. 15mm diameter glass lens. 7x magnification. 1" working distance. 1/2" square field. Inch graduation. 1/8" divisions. Self-standing to free

your hands. Folds flat when not in use. Black powder coated body.

-1600K

30mm Diameter

**Folding Pocket Magnifier** 

The original 'Linen tester'. Although deriving

its name from the textile industry it is also

suitable for inspecting paper, photographs, printed documents etc. 30mm diameter glass lens. 6x magnification. 38mm (1<sup>1</sup>/<sub>2</sub>") working distance. 25mm (1") square field. Metric and inch graduations. 1mm and ½8"

divisions. Self-standing to free your hands.

Folds flat when not in use. Black powder coated body. Comes with plastic wallet.

Order Code OXD-316

-1620K

## **Magnifying Loupes**

Suitable for precision engineers', instrument makers', watch repairers', jewellers etc.

#### **Triplet**

Provides sharp images with minimum distortion. Three separate lenses bonded together to form one compound lens. Chrome plated finish. Complete with leather case.



#### Double

21mm diameter double lenses bonded together to form one compound lens. Provides a sharp magnified image with virtually no distortion.



Туре	Magnification	Order Code OXD-316	
Triplet	10x	-1500K	
Double	20x	-1520K	

#### **LED Light Magnifier**

### 30mm Diameter

10x magnification. 5mm diameter LED light. 30mm diameter integral 2x optical glass lens. Powered by 3x AAA batteries (not supplied). LED lasts around 40,000 hours under normal use.

Battery life = 40/50 hours under continuous use. Compared to a conventional bulb the LED diode lives up to 1000 times longer with 90% less power consumption. Complete with plastic case with belt loop.



Order Code OXD-316 -2010K

# Magnifiers

89mm (31/2") diameter lens. 2x magnification. Chrome plated brass frame. 180mm flexible hose length permits viewing at any angle. Suitable for viewing work requiring high precision, reading, sewing, quality control, hobbies

## **Hand Magnifier**

Available in 2x, 3x and 4x deluxe high power magnifications. 2x, 3x have chromeplated brass frame and bakelite handle. 4x deluxe has a gilt-effect frame and

hardwood handle. Suitable for reading stamp and coin collection, product examination, etc.



## With Clamp

Black powder coated clamp provides stability and convenience. Portable and easy to clip onto a bench or table. Clamping capacity: 55mm.



#### With Stand Cast horseshoe type stand provides stability and convenience.

Type	Order Code OXD-316	
Clamp	-1100K	
Stand	-1120K	

## Illuminated Bench Magnifier - Adjustable Arm Type

Illuminated bench magnifier fitted with long life high efficiency 22W circular fluorescent daylight tube which provides perfect colour matching,

low heat emission and greater eye comfort. Suitable for the workplace, hobbies or for people with limited vision.

- 127mm (5") diameter lens.
- 3x magnification. • 1143mm (45") arm length.
- 180° arm adjustment.
- 160° lamp adjustment.

#### Illuminated Magnifier Accessories Order Code OXD-316 Diameter Type 127mm -1030K Fluorescent Tube 22W -8600K

#### LED Head Loupe with Removable LED Light & Interchangeable Lenses

This head loupe has a detachable LED light which can be removed to provide an independent source of light that has two magnets for attaching to steel objects. It can be worn with spectacles and has an adjustable headband for greater comfort and integral visor to cut out ambient light. It comes with four interchangeable lenses supplied

with their own storage case. The lenses stay firmly in position when raised or lowered, leaving both hands free to work. Suitable for electrical service and assembly, model making and other applications where both hands are required to carry out finely detailed work.

## **Illuminated Adjustable Stand Magnifier**

With the lens tilted, small hand-held objects can be worked on or inspected. When the lens is parallel to the work surface anything laid beneath is in focus. Fitted with a long life high efficiency 22W circular daylight tube which provides perfect colour matching, low heat emission and greater eye comfort. Suitable for the workplace, hobbies or for people with limited vision.

- 127mm (5") diameter lens.
- · 3x magnification.
- · Fully adjustable.



-1010K



Magnification for Working Distance 520 - 620mm

1.8x 230 - 320mm 2.5x 150 - 250mm 80 - 120mm

Order Code OXD-316 -2560K

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127mm

# **RUTLAND** Compact Style Binoculars

Compact folding design for easy storage and transport. The high quality roof prisms and UV protective coated ocular lenses are housed in a polyurethane body coated in a shock absorbing high grip rubber armour. Diopter adjustment for improved image clarity and sharpness. To allow use with spectacles the soft rubber eye cups fold down. Accurate focusing of the binoculars is controlled by fingertip movement of the central focusing wheel. Integral neck strap eyelets and tripod mounting threaded recess point. Supplied complete with neck strap and cleaning cloth. Suitable for camping/hiking, outdoor spectator sports, nature viewing, theatre. Lead- and arsenic-free glass.













Product	Magnification	Order Code
Number	x Lens Dia. (mm)	RTL-318
CR1025R	10 x 25	-1620K

## Traditional Binoculars 7 x 50

#### TP0750

Weight:

Product

Number

TP0750

High quality lenses. Ocular objective lens caps. Diopter adjustment ring with index. Neck strap eyelets underneath.



176 x 191 x 82mm.

Magnification x

Lens Dia. (mm)

7 x 50

900g.

RTI-318

-1370K

#### Traditional Style Binoculars TP1050

The high quality porro prisms and UV protecting ruby coated ocular lenses are housed in a polyurethane body coated in a shock absorbing high grip rubber armour. Diopter adjustment for improved image clarity and sharpness. To allow use with spectacles the soft rubber eye cups fold down. Accurate focusing of the binoculars is controlled by fingertip movement of the central focusing wheel. Integral neck strap eyelets and tripod mounting threaded recess point. Supplied complete with lens cap, case, neck strap, and cleaning cloth. Suitable for camping/hiking, outdoor spectator sports, nature viewing. Lead- and arsenic-free glass.



Includes Lens caps, case, neck strap, and cleaning cloth.



-1600K

Traditional Binoculars 10 x 60

Ruby coated high quality precision lenses. Double diopter adjustment ring with index. Neck strap eyelets. Ocular lens caps. Central focusing wheel,

tripod mounting thread cover. Objective lens caps. Rubber armoured ergonomically designed grip. Tripod mounting point.

Includes Lens caps,

case, neck strap and cleaning cloth.

eye cup







Prism type: Porro. Magnification: 10x. Objective lens: 60mm. Angle of view: 6.4°. Field of view at 1000m: 108m. Exit pupil: 6mm. Focusing method: Manual. Closest focusing distance: 10m. **Dimensions:**  $(W \times H \times D)$ 

200 x 200 x 85mm. Weight: 1175g.

Product Magnification x Number Lens Diameter (mm) TP1060 10 x 60



10 x

RTL-318 -1400K



Lens Diameter (mm)

10 x 42

High quality precision lenses. Dust caps for ocular and objective lenses. Rubber armoured body protection. Complete with tripod and mounting point Includes case with shoulder strap, and cleaning cloth. Bag has integral divider which separates the scope from the tripod to eliminate undue wear and tear.









Prism type: Porro. Magnification: Objective lens: 50mm. 26 - 43°. Angle of view: Field of view at 1000m: 23 - 38m.

Product

SS3650

256

18 - 36x.

Exit pupil: Focusing method: **Dimensions:** 

Weight:

Magnification x Lens Diameter (mm) RTL-318 -3100K 18-36 x 50

18 - 36 1.5 - 4mm. Manual.  $(W \times H \times D)$ 380 x 360 x 330mm. 1190g.

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

Number

TP1042

# RECISION Biological Compound Microscope

Constructed to high optical and mechanical standards, the Oxford Biological Compound Microscope produces a clear and well defined two dimensional image. Designed for clinical examination and teaching demonstrations in laboratories, scientific research, colleges and the medical field. An ideal instrument for biological, bacteriological, pathological and pharmaceutical research. High quality prism providing a magnification of up to 400x. Fully coated optical system for improved light transmission and overall image quality. Objective lenses are of DIN standard, colour coded and click into position. Eyepiece with pointer. Monocular head which is inclined at 45° and can be rotated 360°. Separate fine and coarse focus by rack and pinion with a built-in slip clutch and tension adjustment. Built-in illuminator with a blue filter and a built in condenser lens ensuring optimal light effect for comfortable and clear viewing. Large die cast acid and reagent proof stage.

Tube length: . . . . . . . . . . . . . . . . 160mm.

Objective lenses: . . . . . . . . . Achromatic DIN 4x (0.10 numerical aperture). Objective lenses: . . . . . . . . . Achromatic DIN 10x (0.25 numerical aperture).

Objective lenses: . . . . . . . . . Achromatic DIN 40xS (0.65 numerical aperture) retractable. Disc diaphragm: ... ... 3mm, 4mm, 5mm, 8mm and 20mm calibrated dish type. Stage condenser: ... ... Single lens 0.65 numerical aperture condenser. Fine focusing: ... ... 0.0002mm.

Indoor working temperature: . . 0°C - 40°C (32°F - 104°F).

Maximum relative humidity: . . 85%. Net weight: . . . . . . . . . . . 2.832kg.



Part Number	Magnification	Order Code OXD-318	
BCM400	400x	-4100K	

#### Dissecting Stereo Metallurgical Microscope

Constructed to high optical and mechanical standards, the Oxford Dissecting Stereo Microscope produces a clear and well defined three dimensional image. Designed for clinical examination and teaching demonstrations in laboratories, scientific research, colleges and the

medical field. Provides true colour. High quality prism providing a magnification of up to 40x. Fully coated optical system for improved light transmission and overall image quality. Objective lenses are of DIN standard and click into position. Rubber evecups and a diopter adjustment ring for clear and comfortable viewing. Rack and pinion focusing with built in slip clutch system. A choice of either upper or lower illumination or both. Pillar mounted body rotates 360° and can be removed and mounted on machine tools or laboratory apparatus. Binocular head which is inclined at 45°. Built-in illuminator.

Eyepiece: . . . . . . . . . . . Wide angle 10x.

Diopter adjustment range: . . . ±5mm.

Objective lenses: . . . . . . . Achromatic DIN 2x/object field 10mm. Objective lenses: . . . . . . . Achromatic DIN 4x /object field 5mm.

Working distance: . . . . . . 53mm.

Interpupillary distance: . . . . Adjustable between 55 - 75mm. 

Fuse type: Lamp T1A 250V, plug 3 amp. Voltage: 220V ± 10%, 50/60Hz. Indoor working temperature: . 0°C - 40°C (32°F - 104°F).

Maximum relative humidity: . 85%. Net weight: . . . . . . . . . 2.359kg.



Product Order Code OXD-318 Magnification Number DSM040 40x -4400K

Combination Set

Fully hardened and ground datum faces. Precision rules with deeply etched graduations. Protractor has full 360° scale plate, graduated 0 - 180° - 0, includes vial. Square head offers the following fixed angles: 45° and 90°. Centre head offers a fixed 90° angle, for finding the centre of round bar stock up to 120mm diameter.



OXD-330

-3850K

#### Spares

Description	Order Code OXD-330	
Square Head	-3860K	
Centre Head	-3870K	
Protractor Head	-3880K	
12"/300mm Rule	-3890K	
24"/600mm Rule	-3900K	



#### 300mm/12" Multi-function **Combination Set**

#### KCS300

Can be used as a square, mitre, depth and height gauge.

Set Contains: Square head with accurate machined faces, fixed angles of 45° and 90°, built-in spirit level, adjusting nut and scriber. Protractor head for measuring angles up to 180°, graduated to 1°. Centre head offers a fixed 90° angle, for finding the centre of round bar stock up to 120mm diameter. 300/12" hardened stainless steel rule, metric and inch measurements with graduations in 1.0mm and 1/32".



Order Code KEN-330

-3250K

#### Snares

oparos		
Description	Order Code KEN-330	
Square Head	-3260K	
Centre Head	-3270K	
Protractor Head	-3280K	
12"/300mm Rule	-3290K	

# XFORD Bevel Protractor

Made of polished and hardened stainless steel with magnifying lens for easy reading of vernier scale. Range is 4x 90° and accuracy

is +1/2° or 5 minutes.

Set includes:

258

protractor head, 150mm (6"), 200mm (8") & 300mm (12" plain rules, height gauge and acute angle attachments.

> Order Code OXD-330 -9500K



# **Height Gauges**



Used in conjunction with a granite or metal surface plate, the Oxford dual counter height gauge will give you the accuracy you need when laying out work prior to machining. The height gauge can also be used in much the same way as a caliper to help you determine the dimensions of a workpiece.

- · Designed for accurate marking out and taking precise measurements.
- Measuring head positioned on sturdy twin columns providing highly repeatable height measurements and stability.

Easy reading with dual directional negative and positive reading mechanical digital counters.

Rotating dial face.

Independently set the position.

rapid and precise adjustment.

scriber for accurate

Manufactured from



Range	Product Number	Range/ Rev	Weight each	Order Code OXD-330
12"	DHG000	0.1"	4.25kg	-3120K
24"	DHG000	0.1"	10kg	-3240K
300mm	DHG000	1mm	4.25kg	-3620K
600mm	DHG000	1mm	10kg	-3740K

## **DIAL DEPTH & THICKNESS GAUGES/DIAL CALIPERS**



## ORD Leg Type **Dial Calipers**

Used for measuring diameters and narrow grooves in hard to reach

Internal specifications: range: 55 - 75mm, graduation: .01mm, groove depth: 8mm, groove width: 3mm, maximum reach: 100mm. External specifications: range: 0 - 20mm, graduation: 0.01mm, groove depth: 6mm, groove width: 3mm, throat depth: 60mm.



Type	Groove Depth	Reach/ Depth	Order Code OXD-330	
External	6mm	60mm	-0600K	
Internal	8mm	100mm	-0750K	

#### **Dial Thickness Gauge**

For quickly measuring the thickness of paper, film, leather, rubber etc. The spindle is moved using the thumb lever. With adjustable bezel. Measuring faces are made of high grade tool steel,

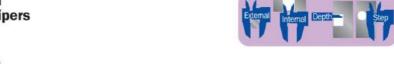
hardened, ground and lapped for accuracy. Thumb lever raises spindle to allow for workpiece insertion. Range: 0 - 10mm. Resolution: 0.01mm. Throat depth: 30mm. Accuracy: ±0.02mm.



Туре	Groove Depth	Reach/ Depth	Weight each	Order Code OXD-330	
Evternal	6mm	60mm	2364	-0100K	

#### Dial Calipers

Rack covers prevent dust from fouling teeth of racks. All measuring faces are precision ground and micro lapped for absolute inside, outside, depth and step readings. Manufactured to DIN 862.









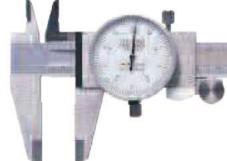


Range	Resolution	Accuracy (mm)	Weight each	Order Code KEN-330	
150mm	0.05mm	±.05mm	320g	-1160K	

## Dial Calipers

Rack covers prevent dust from fouling teeth of racks. All measuring faces are precision ground and micro lapped for absolute inside, outside, depth and step readings. Manufactured to **DIN 862.** 





Range	Resolution	Accuracy (mm)	Weight each	Order Code OXD-330	
6"	0.001"	±.001"	310g	-6060K	
8"	0.001"	±.002"	480g	-6080K	
12"	0.001"	±.002"	570g	-6120K	
150mm	0.05mm	±.05mm	320g	-6150K	
200mm	0.05mm	±.05mm	530g	-6200K	
300mm	0.05mm	±.05mm	750g	-6300K	





Incorporating Quadri feature - gives outside, inside, depth and step readings. Fine adjustment feature allows improved sensitivity of slider movement. 14° vernier face angle reduces parallax. Satin chrome finish with clear easy read graduations.



Metric & Inch Reading - Resolution: 0.02mm/0.001" Range Accuracy Weight Resolution mm/inch KEN-330 (mm) each

130/5 0.02/.001 ±0.03 190g -2060K 0.02/.001 0.02/.001 180/7 ±0.03 230g -2080K 280/11 470g ±0.03 -2120K

Standard Vernier Calipers





Give four types of reading - inside, outside, depth and step. Dual reading scale (metric and inch) with 14° bevelled vernier scale for reduced parallax reading error and knurled locking nut. Manufactured from hardened stainless steel for rigidity. Satin finish. Conform to DIN 862



Range mm/inch	Resolution	Accuracy (mm)	Weight each	Order Code OXD-330
150/6"	0.02/.001	±0.03	143g	-7360K
200/8"	0.02/.001	±0.03	180g	-7380K
300/12"	0.02/.001	±0.04	355g	-7420K

#### **Fine Adjustment Vernier Calipers**

Give four types of reading, inside, outside, depth and step. Dual reading scale (metric and inch) with 14° bevelled vernier scale for reduced parallax reading error, fine adjustment assembly and knurled locking nut. Manufactured from hardened stainless steel for rigidity with satin finish.

Conforms to DIN 862.

PRECISION EQUIPM



Range mm/inch	Resolution	Accuracy (mm)	Weight each	Order Code OXD-330	
130/5"	0.02/.001"	±0.03	190g	-7060K	
180/7"	0.02/.001"	±0.03	230g	-7080K	
280/11"	0.02/.001"	±0.03	470g	-7120K	

#### **Heavy Duty Vernier Calipers**

Give inside and outside readings. Dual reading scale (metric and inch) with 14° bevelled vernier scale for reduced parallax reading error, fine adjustment assembly and knurled locking nut. Internal reading edges have rounded faces for accurate bore measurement. Manufactured from hardened stainless steel.





Range	Resolution	Accuracy (mm)	Weight each	Order Code OXD-330
450mm/18"	0.02/0.001	±0.1	2.25kg	-7180K
600mm/24"	0.02/0.001	±0.1	2.40kg	-7240K

#### **Depth Gauge Attachment**

Stainless steel depth gauge attachment for use with 150 and 200mm (6" and 8") depth gauges. 16mm vernier recess width with knurled locking nut.

Size	Models suited (mm)	Weight each	Order Code OXD-330
75mm	150/200	45g	-9600K



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PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

# SENATOR

Large display for clarity. Fast response speed. Zero reset. Dual readout mm/inch. Knurled thumb grip for precise movement.

Conforms to:

EN 61000-6-3:2007 EN 61000-6-1:2007

Resolution: 0.01mm/0.0005" Accuracy:

±0.03mm/±0.001"



#### **Polycal Digital Caliper**

For taking outside, inside, step and depth measurements. Measurement conversion in inches, millimetres and fractions. Uses one CR2032 3V battery.

Conforms to EN 61000-6-3: 2007 and EN 61000-6-1:2007.

Measuring range: 0-150mm/0-6 Resolution: 0.01mm/0.0005' Accuracy: ±0.02mm/±0.008"



**ABSolute Digital Electronic Calipers** 

Modern design with a knurled thumb wheel for easy use when taking internal and external depth and step measurements. Dual readout giving instant inch/metric conversion at the touch of a button. Zero reset at any point, large clear display, error-free operation, fast response speed. Non-output type.

Resolution: 0.01mm/0.0005".



Extra batteries available -Order Code EDI-904-4000K.

Order Code

EDI-904-4000K.

Weight Accuracy Resolution Range (mm) each **KEN-331** 150mm/ 6 0.01mm ±0.03 360g -2260K 200mm/ 8" 300mm/12" 425g 0.01mm  $\pm 0.03$ -2280K ±0.03 805

±0.03

±0.03

0.01mm

0.01mm

460g

810g

-2280K

-2320K

#### () RI) Precision ABS **Digital Calipers**

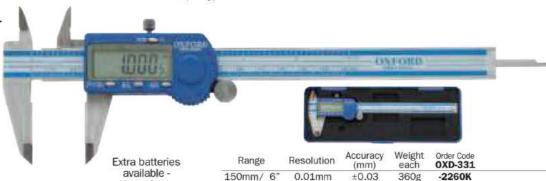
Precision ABSolute digital calipers have a thumb wheel for precise movement and a useful locking screw for checking repeat measurements. A measurement can be converted between inch/metric at the touch of a button. Non-output type.

#### **ABSolute Measurement Function -**

The zero point once set is fixed until changed, even if the caliper is turned off (unless the battery is removed). Incremental mode can be achieved for repeated use of Go/No-Go measurement.

#### Resolution:

0.01mm/0.0005".



PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

200mm/ 8"

300mm/12"

261

Coolant-Proof IP67 Digital Caliper





Available in a range of sizes, this digital caliper is coolant, water and dust proof to IP67 level. It has a large LCD display, fast response speed, dual readout (mm/inch) and can be used for inside, outside, depth and step measuring. Also enables absolute and relative reading.





Extra batteries available -Order Code EDI-904-4000K.

Accuracy Weight Range (mm) **KEN-331** 150mm/6 ±.0.03 400g -1200K 200mm/8 -2270K +.0.03500g 300mm/12' ±.0.04 750g -2310K

#### Digital **Depth Gauge**



Easy handling with mm/inch measurement, large digital display. External readings with zero set at any point fitted with a thumb wheel for greater accuracy.





262

**ZERO** RESET

READING .0005"



Range 0 - 150mm/6' Digital Depth Gauge

Order Code OXD-331

-4060K

-5010K

#### FORD Digital Electronic **External Micrometer**



PRECISION EQUIPMENT

Easy handling with a large digital display, quick response speed and zero set at any point. Metric/inch measurement. The micrometer can be connected to a PC serial port by the SPC cable provided. **IP54** rating.

Resolution: 0.001mm/0.00005". Measuring force: 5 - 10N.

Accuracy: -0.004mm.



Protected against dust ingress and fluid splash





#### **External Digital Micrometer**

Oxford external digital micrometer with large digital display, quick response speed and zero set at any point. Metric/inch measurement. Can be connected to a PC serial port via the SPC cable (supplied separately). IP65 rating.

- · Easy handling
- mm/Inch measurements
- . Ball end cap for measuring curved surfaces
- · Large digital display
- Quick response speed
- Zero set at any point
- · IP65 rating





Water Resistant



#### **Digital External Micrometers**

Featuring large digital display and carbide tipped measuring faces. With ball end cap for measuring curved surfaces, auto power on/off and mm/inch conversion. Ratchet stop for consistent measurement and locking device. Complete with case, spanner and battery.





# FORD IDM Digital

Features: Easy to use with clear digital LCD display. Large, easy-read 7.5mm LCD display. Soft-key touch for operator comfort, superior construction quality.

Response speed: <0.5m/s.

Auto power off.

#### Type IDM

Inch/metric conversion, zero reset data hold, min. max display, fast display, auto power off.



Order Code
OXD-331 -6020K



against dust inch ingress and fluid splash mm NVERTIBLE

Protected

12.7mm 0.5" ZERO 0.001mm RESET .00005"

## **IDS Digital Indicator**

75-100mm/3-4

Easy to use with clear digital LCD display. Large, easy-read 7.5mm LCD display. Soft-key touch for operator comfort. Superior construction quality.

-3530K

Protected

against dust

ingress and fluid splash

Response speed: <0.5m/s. Auto power off.



Order Code OXD-331 -6010K



inch mm ONVERTIBL

12.7mm ZERO RESET

READING 0.01mm .0005"

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

0.5"

#### **MAGNETIC BASES & COMPARATOR STANDS**

## Permanent **Mag Stand**

Mini-Mag Stand With one magnetic face. Light duty with standard clamp. 30mm diameter keeper.

Mounts: 1/4" I/D lug stem/spigot diameter: 5/16"

Column height x dia.: 120 x 6.3mm. Clamp hole: 8mm. Magnetic pull:

14.75kg. Base dimensions: 30 x 35mm.



-2010K

#### **Lever Switchable Universal 2** Mag Stand

320g

With two magnetic faces and large vee. Heavy duty with universal clamp.

#### Mounts: 1/4" I/D lug. stem/spigot

EQUIPMENT

PRECISION

150mm

diameter: 4mm, 8mm, 3/8" without bush. Column height x dia.: 175 x 12mm.

Crossbar length x dia.: 165 x 10mm. Clamp ring: 6.35mm.

Magnetic pull: 50kg. Base dimensions: 60 x 50 x 55mm.

Overall	Weight	Order Code	
Height	each	KEN-333	
230mm	1.2kg	-2030K	

#### Lever Switchable Fine Adjustable 2 Mag Stand



Weight Overall Order Code **KEN-333** 1.2kg 230mm -2050K

264

#### **Universal 2 Mag Stand**

Lever type, two magnetic faces and large vee. With universal clamp.



Overall Height	Weight each	Order Code OXD-333
230mm	1.20kg	-7030K

#### Fine Adjustment 2 Mag Stand

Lever type two magnetic faces and large vee. Universal clamp.



Overall Height	Weight each	Order Code OXD-333	
230mm	1.20kg	-7050K	

#### **Universal 4 Mag Stand**

With four magnetic faces, one at 45°. Universal clamp.

#### Mounts:

 $^{1/4}$ " I/D lug, stem/spigot diameter:  $^{1/8}$ ",  $^{5/16}$ " and



Overall Height	Weight each	Order Code OXD-333
230mm	1.20kg	-7100K

Group **425** 

#### **Compact 4 Mag Stand**

With four magnetic faces, one at 45°. Standard clamp.



Base dimensions: 48 x 44 x 51mm. Column height x dia.: 185 x 12mm. Crossbar length x dia.:

165 x 6.3mm. Clamp ring: 8mm. Magnetic pull: 30kg.



Group	300	/
Overall Height	Weight each	Order Code OXD-333
280mm	1.90kg	-7080K

# 333

## **MAGNETIC BASES & COMPARATOR STANDS**

## Lever Switchable Mini Elbow Joint 2 Mag Stand

Compact in design, this stand has a magnetic pull of 30kg with positive switching, fully adjustable joints and slotted V' groove. Mounts: 1/4" I/D lug, dovetail

stem/spigot diameter: 5/16". Base dimensions: 36 x 30 x 35mm. Column height x diameter: Up to 150 x 12mm. Magnetic pull: 30kg.



Mini Elbow Joint	Weight each	Order Code KEN-333	
2 Mag	420g	-2140K	

## Lever Switchable Elbow Joint 2 Mag Stand

With two magnetic faces and large vee. Medium duty special clamp with fine adjustment.

**Mounts:**  $\frac{3}{4}$ " I/D lug, dovetail stem/spigot diameter:  $\frac{5}{16}$ ". **Base dimensions:**  $60 \times 50 \times 55$ mm.

Column height x diameter: Up to 280 x 15mm.

Clamp ring: 6.35mm. Magnetic pull: 50kg.



Elbow	Weight	Order Code
Joint	each	KEN-333
2 Mag	1,2kg	-2110K

## Lever Switchable Large Elbow Joint 2 Mag Stand

Large stand with two powerful magnetic faces producing a magnetic pull of 80kg. Positive switching, fully adjustable joints and slotted 'V' groove for versatility.



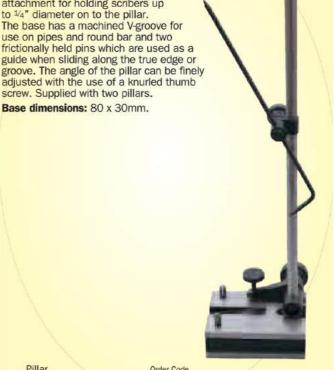
#### Mounts: 1/4" I/D lug, dovetail stem/spigot diameter: 5/16 Base dimensions: 60 x 50 x 55mm. Column height x diameter: Up to 300 x 17mm. Magnetic pull: 80kg.

Large Elbow Joint	Weight each	Order Code KEN-333	
2 Mag	1.62kg	-2150K	

### Surface Gauges

Used for marking out lines parallel to a true edge or groove, and also to mark the centre of round bars. Machined base, two pillars, a double ended scriber and an adjustable attachment for holding scribers up to 1/4" diameter on to the pillar. The base has a machined V-groove for use on pipes and round bar and two frictionally held pins which are used as a guide when sliding along the true edge or groove. The angle of the pillar can be finely adjusted with the use of a knurled thumb

Base dimensions: 80 x 30mm.



KEN-518

-4300K

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

Pillar

Height (mm) 230 & 305

Mounts:

Base dimensions:

48 x 44 x 51mm.

175 x 12mm.

Column height x diameter:

Crossbar length x diameter:

165 x 10.0mm.

Clamp ring: 8mm. Magnetic pull: 30kg.

**Universal 4 Mag Stand** 

Heavy duty with universal clamp.

 $^{1/_4}{\rm ''}$  I/D lug, stem/spigot diameter:  $^{1/_8}{\rm ''}$  ,  $^{5/_16}{\rm ''}$  and  $^{3/_8}{\rm ''}$  .

With four magnetic faces, one at 45°.

Fitted as standard to KEN-333-2030K, -2050K and -2110K two magnetic faces, bottom and back face. Large vee for curved surfaces.

Threaded: M8 x 1.25mm.

Base dimensions: 60 x 50 x 55mm.

Magnetic pull: 50kg.



## Push Button Base - 30kg

Fitted as standard to KEN-333-2080K and -2100K. Four magnetic faces, bottom, sides and 45° angle face for curved surfaces.

-2240K

Base dimensions: 48 x 44 x 51mm. Threaded: M8 x 1.25mm.

Magnetic pull: 30kg.

850g



Weight	Order Code
each	KEN-333
850g	-2220K

#### Push Button Base - 80kg

Fitted as standard to KEN-333-2060K and -2070K. Four magnetic faces, bottom, sides and 45° angle face for curved surfaces.

Threaded: M8 x 1.25mm. Magnetic pull: 80kg.



Weight Order Code KEN-333 each 850g -2200K

## Major 4 Mag Stand With four magnetic faces, one at 45°. Heavy duty with universal clamp. Mounts: <sup>1</sup>/<sub>4</sub>" I/D lug, stem/spigot diameter: <sup>1</sup>/<sub>4</sub>", <sup>5</sup>/<sub>16</sub>". Base dimensions: 64 x 64 x 76mm. Column height x diameter: 266 x 20mm. Crossbar length x diameter: 200 x 14.0mm. Magnetic pull: 80kg.

Overall Weight Height **KEN-333** 380mm 3.00kg -2070K

#### Fine Adjusting 4 Mag Stand

With four magnetic faces, one at 45°. Heavy duty with universal clamp and fine adjustment.

EQUIPMENT

PRECISION

1/4" I/D lug, stem/spigot diameter: 1/8", 1/4".

Base dimensions:

64 x 64 x 76mm.

Column height x diameter:

Crossbar length x diameter: 165 x 10.0mm.



Overall Weight KEN-333 Height each 280mm 1.90kg -2060K

#### Compact 4 Mag Stand

Weight

0.90kg

**KEN-333** 

-2100K

With four magnetic faces, one at 45°. Medium duty with standard clamp.

#### Mounts:

Overall

Height

227mm

1/4" I/D lug, stem/spigot diameter: 5/16". Base dimensions: 48 x 44 x 51mm.



266

PRODUCTS ARE ONLY AVAILABLE VIA YOUR DISTRIBUTOR

0.89kg

273mm

-2080K

# (ENNED)

#### Magnetic **Stand Fitments**

All main columns are threaded M8 x 1.25mm and are interchangeable with Kennedy, Oxford, Mitutoyo etc. base units except mini-mag (M6 x 1mm) also suitable for incorporating into special fixtures or threaded pot magnets.

**Light Duty Fitment - Plain** Fitted as standard to KEN-333-2010K. (See page 264). Column: 6.3 x 120mm.

Clamp hole: 8mm. Threaded: M5.

6.3mm Standard Weight Order Code Clamp To Suit KEN-333 1/4" I/D Lug, 90g -2500K Stem/Spigot Dia. 5/16"

**Heavy Duty Fitment - Fine Adjusting** Fitted as standard to KEN- 333-2060K and KEN- 333-2050K. (See pages 266 and 264).



10mm Universal Weight Order Code Clamp To Suit **KEN-333** 1/4" I/D Lug, Stem/Spigot Dia.1/8", 1/4", 5/16" & 3/8" 442g -2400K

#### Spare Knuckle Assemblies

For connecting columns and crossbars.



Accepts Weight A & B (dia.) **KEN-333** 12 & 10mm -2920K

#### **MAGNETIC BASES & COMPARATOR STANDS** Medium Duty Fitment - Plain Fitted as standard to KEN-333-2080K.

(See page 266). Column: 12 x 185mm. Cross bar: 6.3 x 150mm. Threaded: M8 x 1.25mm.

> Weight Order Code each KEN-333 6.3mm Standard

Clamp To Suit 1/4" I/D Lug, 420g -2460K Stem/Spigot Dia. 5/16"

**Heavy Duty Fitment - Plain** Fitted as standard to KEN-333-2100K and KEN-333-2030K. (See pages 266 and 264).



10mm Universal Weight Order Code Clamp To Suit **KEN-333** <sup>1</sup>/<sub>4</sub>" I/D Lug, Stem/Spigot Dia. <sup>1</sup>/<sub>8</sub>", <sup>1</sup>/<sub>4</sub>", <sup>5</sup>/<sub>16</sub>" & <sup>3</sup>/<sub>8</sub>" 400g -2420K

## Crossbar Assemblies

With lug adaptor. 1/4" I/D lug.



Weight Order Code Accepts **KEN-333** 4 & 10mm Spigot 85g -3020K To Fit 10mm Bar 4 & 8mm Spigot To Fit 12mm Bar 85g -3040K

Medium Duty Fitment - 3 Point Fitted as standard to KEN-333-2110K. (See page 265). 3 point adjustable column:



15 x 280mm max. Clamp hole: 8mm. Threaded: M8 x 1.25mm.

3 Point Special Clamp To Suit Weight Order Code each **KEN-333** 1/4" I/D Lug, Dovetails 312g -2480K Stem/Spigot Dia. 5/16



14mm Universal Weight Order Code each KEN-333 Clamp To Suit 1/4" I/D Lug, Stem/Spigot Dia. 1/8", 1/4", 5/16" & 3/8" 1450g -2440K

#### Crossbar Assemblies

With lug adaptor. 44" I/D lug.



Weight Order Code Accepts each 5/16"& 1/4" Spigot 50g -3000K To Fit 10mm Bar

## GROUP 335

## **BORE GAUGES & MICROMETERS**





Designed to self-centre, for accurate measuring of bores. Satin finish, fitted with knurled ratchet stop.

#### OXD-335-2520K

Micrometers: 11 - 14mm, 14 - 17mm, 17 - 20mm. Calibration ring: 11 and 17mm, slotted screwdriver and spanners x2.



#### OXD-335-2530K

268

Micrometers: 20 - 25mm, 25 - 30mm, 30 - 35mm, 35 - 40mm. Calibration ring: 25 and 35mm, slotted screwdriver and spanners x2.



# AS

## **BORE GAUGES/DEPTH MICROMETERS**



# OXFORD Dial Indicating Bore Gauges

#### 29mm 11/8" Dial Diameter

Suitable for rapid, accurate measurement of size, concentricity, wear, taper, etc., in a wide range of bores. For workshop and inspection use. All models have one fixed and one moving anvil and a self-adjusting centre shoe. A 'datum point' can be set by using a setting ring of a known diameter or a micrometer. Zero' the gauge to this datum point by rotating the bezel to align 'zero' with the indicator. To check a bore is within tolerance, the limit hands can be fixed as required. All anvils are spring loaded to expand into the bore. For accurate reading ensure the stem of the gauge is parallel to the axis of the bore. This can be checked by 'rocking' the gauge back and forth until the smallest diameter is found. All models have inter-changeable anvils to cover a range of bore sizes.







Supplied in a tough hard case.

Type	Resolution	Dial	Reading	Per Rev	Travel
Metric	0.01mm	57mm	0-100	1mm	3mm
Inch	0.0005"	23/16"	0-25-0	0.050"	0.25"
Range	Bore Depth	Weight each	Order (		
18 - 35	200	0.58kg	-140	OK	
35 - 50	240	0.95kg	-145	OK	
50 - 150	240	1.28kg	-150	OK	
0.7 - 1.5"	71/2"	0.53kg	-100	OK	
1.4 - 2.4"	9"	0.90kg	-105	OK	
2.0 - 6.0"	9"	1.20kg	-110	OK	



#### Fixed Rod Depth Micrometers

Ideal for low-range measurements, this non-digital depth micrometer has a 63 or 100mm hardened tool steel base and satin chrome finish. Includes a 'constant force attachment' for use when fitting the interchangeable rods and supplied in a handy case.





Accuracy	Range	Base Size	Order Code OXD-335
4 µm (microns)	0 - 25mm	63mm	-3310K
4 µm (microns)	0 - 25mm	100mm	-3330K

### **EXTERNAL MICROMETERS**

## OXFORD Enamelled Frame External Microme **External Micrometers**

With enamelled frame and tungsten carbide tipped anvils. High quality fitted metal case with adjusting spanner. Sizes 25 - 50mm/1 - 2" and over supplied with setting standard. Manufactured to BS 870.

All supplied in a impact resistant fitted plastic case.





Range	Resolution	Weight each	Order Code OXD-335	
		Metric	***************************************	
0 - 25mm	0.01mm	230g	-5010K	
25 - 50mm	0.01mm	300g	-5020K	
50 - 75mm	0.01mm	400g	-5030K	
75 - 100mm	0.01mm	530g	-5040K	
100 - 125mm	0.01mm	770g	-5050K	
125 - 150mm	0.01mm	800g	-5060K	
150 - 175mm	0.01mm		-5070K	
175 - 200mm	0.01mm		-5080K	
200 - 225mm	0.01mm		-5090K	
225 - 250mm	0.01mm		-5100K	
250 - 275mm	0.01mm		-5110K	
275 - 300mm	0.01mm		-5120K	
		Inch		
0 - 1"	0.001"	230g	-6010K	
1 - 2"	0.001"	300g	-6020K	
2 - 3"	0.001"	400g	-6030K	
3 - 4"	0.001"	530g	-6040K	
4 - 5"	0.001"	770g	-6050K	
5 - 6"	0.001"	800g	-6060K	

#### **Enamelled Frame External Micrometers**

Enamelled frame and tungsten carbide tipped anvils. Manufactured to BS 870. Supplied in a durable plastic case.

#### Accuracy:

Flatness: 0.6mm.

Parallelism: (2 + L/100) µm (fraction rounded down). Instrumental error: ±(1 + L/75) µm (fraction rounded up). L = maximum measuring length.



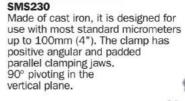


Range	Resolution	Weight each	Order Code KEN-335	
		Metric		
0 - 25mm	0.01mm	230g	-0010K	
25 - 50mm	0.01mm	300g	-0020K	
50 - 75mm	0.01mm	400g	-0030K	
75 - 100mm	0.01mm	530g	-0040K	
100 - 125mm	0.01mm	770g	-0050K	
125 - 150mm	0.01mm	800g	-0060K	

# Micrometer Setting Standards For setting external micrometers, calipers etc. to zero, providing accurate repeatability of measurements. Flat, lapped measuring ends with fitted heat insulation block. Manufactured to BS 870.

Size	Weight each	Order Code OXD-335	Size	Weight each	Order Code OXD-335	
25mm	10g	-7010K	1"	10g	-7110K	
50mm	10g	-7020K	2"	10g	-7120K	
75mm	20g	-7030K	3"	20g	-7130K	
100mm	30g	-7040K	4"	30g	-7140K	
125mm	40g	-7050K	5"	40g	-7150K	
150mm	62g	-7060K	-	-		
175mm	76g	-7065K		2	<u>-</u>	
200mm	86g	-7070K		+	19	
225mm	95g	-7075K		-	5.4	
250mm	105g	-7080K	( (*)			
275mm	115g	-7085K		-	9	
300mm	268g	-7090K		-	15	

## Micrometer Stand





Product Number	Weight each	Order Code KEN-335	
SMS230	980g	-7230M	

270

PRECISION EQUIPMENT

# OXFORD Interchangeable Anvil Micrometers

**EXTERNAL MICROMETERS** 





Carbide tipped spindle faces. Hardened and ground anvils. Supplied in metal case with adjusting spanner. Four anvils and three setting standards.

Accuracy: ±(4+L/75)mm.

Measuring faces flatness: ±0.6mm.

Parallelism: (2+L/100)mm.



Range	Resolution	Weight each	Order Code OXD-335	
0 - 100mm	0.01mm	850g	-3000K	

#### **Wire Micrometer**

Specially designed for measuring wire diameters 0 - 10mm. The front of the body is flat to help support the wire when measuring. With knurled thimble, ratchet stop and vernier scale barrel, all over satin chrome finish.

Range	Resolution	each	OXD-335
0 - 150mm	0.01mm	990g	-3020K

#### **Interchangeable Anvil Micrometers**

Oxford's versatile range of micrometers with interchangeable anvils with ratchet top, lock, setting standards and wooden case. Rigid and stable cast iron frame that is perforated for lightness.





Capacity	Resolution	Weight each	Order Code OXD-335	
0 - 10mm	0.002mm	150g	-2000K	



Product Number	Range	Order Code OXD-335
2425-0400	300 - 400mm	-3100K
2425-0500	400 - 500mm	-3120K
2425-0600	500 - 600mm	-3140K

OXFORD Mechanical Digital Micrometer - 0 - 25mm 0 - 25mm

Direct reading external micrometer for quick and easy reading. With enamelled frame and tungsten carbide precision ground micro finish measuring faces.

Measuring range: 0 - 25mm. Resolution: 0.01mm, 0.5mm screw pitch with lock.

Supplied in a robust case with setting key, with fitted heat shield on frame.



#### 30° Anvil Micrometers

Used for measuring within small grooves or recesses and for quick comparisons of thread accuracy in screw cutting operations. With knurled thimble, ratchet stop and thumb lock.

-5310K

Enamelled frame with satin chromed finish barrel and sleeve.

Measuring range: 0 - 25mm. Resolution: 0.01mm.





#### **Blade Micrometers**

Combining lightweight workshop design with enamel finished frame and blade-shaped anvil. Ratchet stop for consistent measurement. Complete with case.

Resolution: 0.01mm.



	1110m April		-5320K	
Resolution	Weight each	Order Code OXD-335		
0.01mm	0.46kg	-5310K		
0.01mm	0.60kg	-5320K		
0.01mm	1.12kg	-5330K		



-3520K

-4100K

MA	The second second		
	CARREN	17/20	
	11112		

#### Micrometer Head

**Spherical Face** 

Range 25mm

50mm 75 - 100mm

0 -

Supplied with setting keys. Spindle diameter: 5mm. Spindle housing diameter: 9.5mm. Main body diameter: 14mm.

Accuracy: 0.004mm. Range: 0 - 13mm. Resolution: 0.01mm.

Order Code OXD-335 -8200K



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new

GROUP 335

## XFORD Precision **Tool Set**

Multi-purpose precision set supplied in plastic fitted bench case.

#### Contents:

0 - 25mm and 25 - 50mm external micrometer, 25mm setting standard, two micrometer setting spanners, 125mm/5" vernier caliper, 150mm/6" rule with pocket clip, 300mm/12" engineers' rule, 100mm engineers' square, pocket scriber with clip.





Weight	Order Code
each	OXD-335
150g	-9000K



#### **External Micrometer Sets**

With enamelled frame and tungsten carbide tipped anvils and fine adjustment ratchet. Supplied in plastic fitted bench case.

#### Contents:

#### -5500K

0 - 25mm, 25 - 50mm, 50 - 75mm and 75 - 100mm external micrometers, 25mm, 50mm and 75mm micrometer setting standards, two micrometer setting spanners.

#### -6600K

0 - 1", 1 - 2", 2 - 3" and 3 - 4" external micrometers, 1", 2" and 3" micrometer setting standards, two micrometer setting spanners.





Range	Resolution	Weight each	Order Code OXD-335
0 - 100mm	0.01mm	1.90kg	-5500K
0 - 4"	0.0001"	1.90kg	-6600K

OXFORD Apprentice Engineer's Tool Set

150mm (6") engineer's rule, 0 - 25 and 25 - 50mm micrometers, 25mm setting standard, 10x magnification eye loupe, 150 (6") digital caliper, 0.5 - 1.0mm 20 blade feeler gauge, 51 metric 60° screw pitch gauge, pocket scriber. Technical data handbook.





Weight	Order Code
each	OXD-335
1.75kg	-9200K

# PRECISION Portable Optical

For determining the concentration of oil in water emulsions and transparent solutions, such as machine shop coolant. Maintaining the correct mixture in coolant systems is vital to ensure optimum performance from cutting tools. To protect the machine and workpiece from corrosion and to reduce the risk of health hazards arising from incorrect concentrations of water soluble oils. To economise the use of water base cutting fluids and grinding fluids.







**Specifications:** 

Range ND: 1.333 - 1.356. Bx: 0 - 15%. Eyepiece magnification: 11x. Telescopic lens magnification: 4x.

Accuracy: ±0.0003 ±0.2%. Lattic value: 0.0005 0.2%.

Supplied in fitted plastic case complete with calibration screwdriver and operator manual.

Refractometer

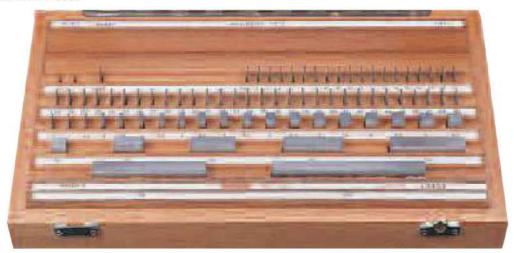
Weight each Order Code Dimensions OXD-336 38 x 38 x 185mm -1010K 30g

Spares

Weight each Order Code OXD-398 Description Lens for Portable Refractometer -3630K 10g

274

Supplied in high quality wooden bench cases, complete with **UKAS** certificate of calibration. Available in two grades. Manufactured to **BS EN ISO 3650.** 



#### Grade 2: For Workshop Use

No. of Pieces	Range (inclusive)	Increments	Weight each	Order Code KEN-338	
		36-Pi	ece Inch		
(2) (9) (9) (9)	.05"10" .10011009" .101109" .110190"	.05" .0001" .001"	2.4kg	-3360K	
(4) (3)	.25" 1, 2 & 4"	.10"			
		81-Pi	ece Inch		
(9) (49) (19) (4)	.10011009" .101149" .0595" 1-4"	.0001" .001" .05"	4.0kg	-3810K	

No. of Pieces	Range (inclusive)	Increments	Weight each	Order Code KEN-338	
	/ M	47-Pie	ce Metric		
(1) (9) (9) (24) (4)	1.005mm 1.01-1.09mm 1.1-1.9mm 1-24mm 25-100mm	.01mm .1mm 1mm 25mm	2.1kg	-4470К	
15,66		88-Pie	ce Metric		
(1) (9) (49) (20) (9)	1.0005mm 1.001 -1.009m 1.01-1.49mm .5-10mm 20-100mm	m .001mm .01mm .5mm	2.8kg	-4880K	



#### Grade 1: For Inspection Use

No. of Pieces	Range (inclusive)	Increments	Weight each	Order Code KEN-339	
		81-P	iece Inch		
(9)	.10011009"	.0001"			
(49)	.101149"	.001"	4.00	40404	
(19)	.0595"	.05"	4.0kg	-4810K	
(4)	1-4"	1"			

No. of Pieces	(inclusive)	Increments	weight each	KEN-339	
		47-Pie	ce Metric		
(1)	1.005mm	1001			
(9)	1.01-1.09mm	.01mm			
(9)	1.1-1.9mm	.10mm	2.4kg	-5470K	
(24)	1-24mm	1mm	8 02		
(4)	25-100mm	25mm			
VIA-01	5 - 8134555700200 101	88-Pie	ce Metric		
(1)	1.0005				
(9)	1.001-1.009mr	m .001mm			
(49)	1.01-1.49mm	.01mm	2.8kg	-5880K	
(20)	.5-10mm	.5mm	_		
(9)	20-100mm	10mm			

Made from hardened steel and precision ground. Supplied with three fully adjustable blades. One plain, parallel blade for use as a conventional engineer's square, 30° and 45° bevel edged blade for checking angles, and a narrow blade graduated





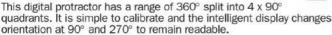


Measured Length	Weight each	Order Code KEN-518	
100mm/4"	340g	-4150K	
150mm/6"	410g	-4160K	

EQUIPMENT

PRECISION

#### Digital **Protractor**



It has a V' groove on the top and bottom for easy placement on acute angled or cylindrical objects. 3V lithium battery gives up to 2000 hours use.

Complete with a leatherette pouch that has a belt loop.





Product Number	Range	Resolution	Weight each	Order Code KEN-331	
PDV360	360° (90° x 4)	0.1	10.2kg	-4020K	

Manufactured from hardened steel that has been precisely ground to produce parallel edges so that the square has an exact right angle on both the inside and outside of the stock and blade, to ensure accuracy. Conforms to BS939 Grade B.



Size (mm)	tol. (mm)	Order Code OXD-340	
75 ( 3") 100 ( 4") 150 ( 6") 225 ( 9")	+/-0.016	-0030K -0040K -0060K -0090K	
300 (12")	+/- 0.024	-0120K	

#### Engineer's Levels

Manufactured from hardened steel that has been precisely ground to produce parallel edges so that the square has an exact right angle on both the inside and outside of the stock and blade, to ensure accuracy. Conforms to BS939 Grade B.



Size	Order Code	
(mm)	OXD-340	
165 x 34	-4940K	-
310 x 36	-4970K	

#### Screw Plug Gauges

Double-Ended Go & No Go



Size	Weight each	Order Code KEN-360	
Me	etric Coarse - (	Class 6H Tolerance	
M2.0 x 0.40	4g	-0810K	
M2.5 x 0.45	4g	-0830K	
M3.0 x 0.50	4g	-0840K	
M4.0 x 0.70	10g	-0860K	
$M5.0 \times 0.80$	12g	-0880K	
M6.0 x 1.00	14g	-0890K	
M7.0 x 1.00	26g	-0900K	
M8.0 x 1.25	28g	-0910K	
M9.0 x 1.25	28g	-0920K	
M10.0 x 1.50	52g	-0930K	
M12.0 x 1.75	70g	-0950K	
M14.0 x 2.00	108g	-0960K	
M16.0 x 2.00	128g	-0970K	
M18.0 x 2.50	132g	-0980K	
M20.0 x 2.50	148g	-0990K	
M24.0 x 3.00	272g	-1010K	
M30.0 x 3.50	484g	-1030K	
M36.0 x 4.00	622g	-1050K	



Hardened and ground steel parallels for workshop use. Supplied in pairs for packing or levelling components prior to machining in



	Accuracy: ±0.005mm
Dimensions	Order Code
Length x Width x Height	OXD-372
8 x 15 x 100mm	-4080K
10 x 4 x 160mm	-3700K
10 x 20 x 100mm	-4100K
12 x 20 x 100mm	-4120K
14 x 10 x 150mm	-3800K
14 x 4 x 160mm	-3710K
16 x 10 x 150mm	-3810K
18 x 4 x 160mm	-3720K
18 x 10 x 150mm	-3820K
20 x 10 x 150mm	-3830K
20 x 30 x 200mm	-4200L
22 x 4 x 160mm	-3730K
22 x 10 x 150mm	-3840K
24 x 10 x 150mm	-3850K
25 x 40 x 250mm	-4250K
26 x 4 x 160mm	-3740K
26 x 10 x 150mm	-3860K
28 x 10 x 150mm	-3870K
30 x 4 x 160mm	-3750K
30 x 10 x 150mm	-3880K
32 x 10 x 150mm	-3890K
34 x 4 x 160mm	-3760K
35 x 10 x 150mm	-3900K
38 x 4 x 160mm	-3770K
40 x 10 x 150mm	-3910K
42 x 4 x 160mm	-3780K
45 x 10 x 150mm	-3920K
50 x 10 x 150mm	-3930K

#### 18 Piece Set

Weight

each

Contents: nine pairs of

the following sizes:  10 x 4 x 160mm,  14 x 4 x 160mm,  18 x 4 x 160mm,  22 x 4 x 160mm,  26 x 4 x 160mm,  30 x 4 x 160mm,
34 x 4 x 160mm, 38 x 4 x 160mm, 42 x 4 x 160mm.
Supplied in wooden storage box.
18 PIECES

Order Code OXD-372

-3620K

#### 16 Piece Set

Contents: eight pairs of the following sizes:

5 x 16 x 100mm,	6 x 18 x 100mm,	8 x 24 x 100mm,
10 x 30 x 100mm,	12 x 36 x 150mm,	14 x 48 x 150mm,
18 x 60 x 150mm,	22 x 62 x 150mm.	And support blocks.



16 PIECES

Weight	Order Code
each	0XD-372
12.7kg	-3600K

#### 28 Piece Set

Contents: fourteen pairs of the following sizes:

14 x 10 x 150mm,	16 x 10 x 150mm,	18 x 10 x 150mm,
20 x 10 x 150mm,	22 x 10 x 150mm,	24 x 10 x 150mm,
26 x 10 x 150mm,	28 x 10 x 150mm,	30 x 10 x 150mm,
32 x 10 x 150mm,	35 x 10 x 150mm,	40 x 10 x 150mm,
45 x 10 x 150mm,		50 x 10 x 150mm.

Supplied in wooden storage box.



-3640K

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11.5kg

PRECISION EQUIPMENT

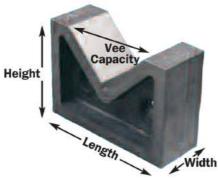


## STEEL VEE BLOCKS, SQUARES & SURFACE PLATES

# **Blocks**

Matched and numbered pairs of close grained iron castings accurately machined.

Precision 90° vee blocks. Supplied as a pair.



Dimensions L x W x H	Vee Capacity	Weight/ Pair	Order Code OXD-370	
75 x 33 x 60mm	45	1.7kg	-2110K	
100 x 40 x 65mm	56	2.9kg	-2120K	
125 x 50 x 78mm	62	4.8kg	-2130K	
150 x 62 x 88mm	78	6.5kg	-2140K	
200 x 100 x 140mm	113	11.2kg	-2150K	
250 x 125 x 165mm	125	19.0kg	-2160K	



Designed for checking precision machine parts. Hardened and precision ground steel supplied in matched pairs, each with V-grooves central and parallel to the sides and base ensuring perfect alignment. Complete set with two V-blocks (one pair) and two





Dimensions	Weight/	Order Code	
Length x Width x Height	Pair	OXD-370	
50 x 37 x 37mm	1.0kg	-2300K	

### Workshop Grade Hollow Ground Vee Blocks & Clamp

Designed for checking precision machine parts. Hardened and precision ground steel supplied in matched pairs, each with V-grooves central and parallel to the sides and base ensuring perfect alignment. Complete set with two V-blocks (one pair) and two clamps.

Supplied with malleable iron clamps with steel screws.



Dimensions	Weight/	Order Code	
Length x Width x Height	Pair	OXD-370	
31.5 x 40 x 31.5mm	1.7kg	-2310K	

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## **SURFACE PLATES/SCALES & MEASURES**



#### Open End

Open end angle plates are versatile accessories which can be used to clamp and hold work in a vertical position for planing, milling, or drilling. Work can be clamped and rotated through several planes for measurement or machining without repositioning. The slots allow work to be easily fastened to the plate, and the plate to a fixture base or machine bed.

Manufactured from close grained cast iron. BS: 5535 Grade B.



Dimensions	Weight	Order Code	
Length x Width x Height	each	OXD-370	
12½" x 10" x 8"	27.0kg	-1370K	

#### **Electronic Weighing Scales**

Digital display. Designed to run on mains power via the 12Vdc 650mA AC adaptor provided or the 6V4AH rechargeable battery (included). Units will run up to 20 hours on a single full charge.

Capacity: 15kg/31lb.

Resolution: 0.002kg/0.005lb.



Model	Maximum	Order Code	
No.	Capacity	OXD-844	
WS-15E	15kg	-2220K	

#### Webbed End

Webbed slotted angle plates can be used for rapid mounting fixtures for machine set-up, layout, or inspection. They are heavily ribbed for strength and rigidity.

Sides and ends are machine finished. Manufactured from close grained cast iron.

BS: 5535 Grade B.



Length x Width x Height	weight each	OXD-370	
12½" x 10" x 8"	26.5kg	-1170K	

#### Liquid Measures

Chemical and oil resistant polyethylene liquid measures.



Capacity (Litres)	Resolutions	Weight	Order Code KEN-540	
1/4	1/4 ltr - 10ml	45g	-5500K	
1/2	1/2 ltr - 10ml	75g	-5520K	
1	1 ltr - 10ml	100g	-5540K	
2	2 ltr - 20ml	180g	-5560K	
3	3 ltr - 50ml	260g	-5580K	
5	5 ltr - 100ml	360g	-5600K	