

# **Granite Tables**

Completely stress free after millions of years of natural stress relieving, high rigidity, corrosion free and non-magnetic, just some of the attributes that makes granite ideal for inspection purposes and anywhere an accurate stable datum is required.

Granite Surface Tables are manufactured to BS817:1988 and are finished to the exacting tolerances required. Every table is supplied complete with a UKAS calibration certificate and a box section frame with adjusting supports. Tapped inserts and covers can also be supplied as extra.

Surface plates are similar to the Tables in both grade and finish and provide a highly accurate datum surface for smaller inspection departments. Each Plate is supplied with UKAS certificates but without a support frame. Tapped inserts and covers can be supplied at extra cost.



<b>GRANITE TABLES</b>						
Size	Code No	Description	Code No	Description	Code No	Description
900mm x 600mm (3' x 2')	10-10001	Grade 0	10-10002	Grade 1	10-10003	Grade 2
1000mm x 1000mm (3' x 3')	10-10005	Grade 0	10-10006	Grade 1	10-10007	Grade 2
1200mm x 900mm (4' x 3')	10-10013	Grade 0	10-10014	Grade 1	10-10015	Grade 2
1800mm x 900mm (6' x 3')	10-10021	Grade 0	10-10022	Grade 1	10-10023	Grade 2
2000mm x 1200mm (6' x 4')	10-10029	Grade 0	10-10030	Grade 1	10-10031	Grade 2
2400mm x 1200mm (8' x 4')	10-10033	Grade 0	10-10034	Grade 1	10-10035	Grade 2

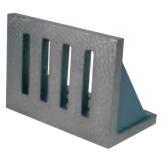
#### **SURFACE PLATES**

Size	Code No	Description	Code No	Description	Code No	Description
300mm x 300mm (12 x 12")	10-10073	Grade 0	10-10074	Grade 1	10-10075	Grade 2
450mm x 300mm (18 x 12")	10-10077	Grade 0	10-10078	Grade 1	10-10079	Grade 2
450mm x 450mm (18 x 18")	10-10081	Grade 0	10-10082	Grade 1	10-10083	Grade 2
600mm x 450mm (24 x 18")	10-10085	Grade 0	10-10086	Grade 1	10-10087	Grade 2
600mm x 600mm (24 x 24")	10-10089	Grade 0	10-10090	Grade 1	10-10091	Grade 2



# **Bowers Angle Plates**

Manufactured from close grained cast iron, our high quality Angle Plates are supplied in their Grade A or B and are supplied with UKAS calibration certification as standard.



#### **ANGLE PLATES**

Size Code No Description Code No Description	n
Size Code No Description Code No Description	///
6" x 3" x 4" <b>10-10319</b> Grade A Webb <b>10-10321</b> Grade B W	/ebb
8" x 4" x 6" <b>10-10323</b> Grade A Webb <b>10-10325</b> Grade B W	/ebb
11" x 6" x 8" <b>10-10327</b> Grade A Webb <b>10-10329</b> Grade B W	/ebb
12" x 6" x 10" <b>10-10335</b> Grade A Webb <b>10-10337</b> Grade B W	/ebb
16" x 9" x 12" <b>10-10343</b> Grade A Webb <b>10-10345</b> Grade B W	/ebb
20" x 12" x 16" 10-10347 Grade A Webb 10-10348 Grade B W	/ebb

#### **BOX ANGLE PLATES**

Size	Code No	Description	Code No	Description
6" x 5" x 4.5"	10-10351	Grade A	10-10352	Grade B
9" x 7" x 6"	10-10353	Grade A	10-10354	Grade B
12" x 10" x 9"	10-10355	Grade A	10-10356	Grade B

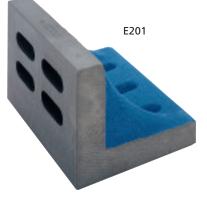


# **Moore & Wright Angle Plates**

Complies with: BS5535 Grade B

- Manufactured from close grained cast iron
- Heat stabilised to prevent distortion
- Machined to tolerance on all four edges and two faces (four faces on open end version)





#### **METRIC / IMPERIAL ANGLE PLATES**

Code No.	Description	Description Length (mm) Le		Width (mm)	Width (inch)	Height (mm)	Height (inch)
E200	Webbed	100	3.94	60	2.36	80	3.15
E201	Webbed	131	5.15	86	3.38	106	4.17
E202	Webbed	160	6.30	100	3.94	125	4.92
E204	Webbed	200	7.87	125	4.92	160	6.30
E301	Open End	125	4.92	80	3.15	100	3.94
E302	Open End	160	6.30	100	3.94	125	4.92
E304	Open End	200	7.87	125	4.92	160	6.30



# **Moore & Wright Vee Blocks & Clamps**

#### **Features**

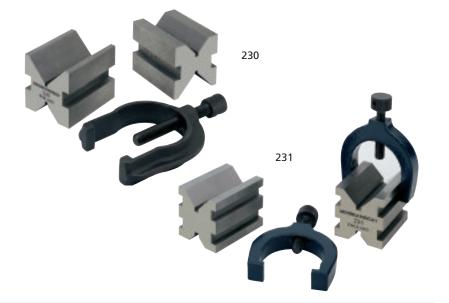
**BOWERS** GROUP

#### 230 General Workshop grade

- Manufactured from close grained cast iron
- Supplied in matched and numbered pairs
- One steel clamp and screw supplied per pair

#### 231 Precision Vee Blocks

- Manufactured to BS3731 grade B
- Manufactured from case hardened and ground mild steel
- Supplied in matched pairs only
- Two malleable iron clamps with steel screws supplied with each pair of blocks



#### **VEE BLOCKS & CLAMPS**

Code No	Accuracy (mm)	Accuracy (inch)	Range (mm)	Range (inch)	Width (mm)	Width (inch)	Length (mm)	Length (inch)	Height (mm)	Height (inch)
230	0.05	0.020	40	1 1/2	40	1 1/2	50	2	40	1 1/2
231	0.01	0.004	25	1	32	1 1/4	42	1 5/8	32	1 1/4
Codo No	Description									

Code No	Description
23001	Spare Clamp and Screw for 230

# **Moore & Wright Vee Blocks Standard Pairs**

#### **Features**

- Supplied in matched and numbered pairs only
- Manufactured from close grained cast iron
- Ground faces



#### **VEE BLOCKS STANDARD PAIRS**

Code No	Accuracy (mm)	Accuracy (inch)	Range (mm)	Range (inch)	Width (mm)	Width (inch)	Length (mm)	Length (inch)	Height (mm)	Height (inch)
211	0.04	0.0015	63	2.48	80	3.15	35	1.38	60	2.36
212	0.04	0.0015	80	3.15	100	3.94	40	1.57	75	2.95
213	0.05	0.0020	100	3.94	130	5.12	45	1.77	90	3.54
214	0.05	0.0020	125	4.92	150	5.90	50	1.97	100	3.94
215	0.06	0.0025	160	6.30	180	7.09	60	2.36	130	5.12
216	0.06	0.0025	200	7.87	220	8.66	70	2.76	160	6.30



### **Bowers Slip Gauges**

A full range of different set compositions, grades and materials all manufactured to BS 4311:1993 or DIN861. Popular sizes are available in either Imperial or Metric sets and can be made from Steel, Carbide or Ceramic. Individual sizes also available.

Slip Gauges are supplied either in sets or individually.

Sets are supplied complete in a fitted wooden box with sizes marked. Each set is supplied complete with a calibration certificate of accuracy.

Steel slips must be cleaned after use to avoid corrosion.

Due to their extra hardness, carbide slips can last up to 5 or 6 times longer and do not suffer from the same potential corrosion problems as their steel counterparts.



#### METRIC SETS IN STEEL - BS 4311 - Complete with UKAS

Note	Code No	Description	Code No	Description	Code No	Description
M112 (112 pieces)	16-1120	Grade 0	16-1121	Grade 1	16-1122	Grade 2
M88 (88 pieces)	16-1880	Grade 0	16-1881	Grade 1	16-1882	Grade 2
M47 (47 pieces)	16-1470	Grade 0	16-1471	Grade 1	16-1472	Grade 2
M8 (8 pieces)	16-1080	Grade 0	16-1081	Grade 1	16-1082	Grade 2

Imperial Sets available - Please contact the sales office

#### METRIC SETS IN CARBIDE - BS 4311 - Complete with UKAS

Code No Description	Description	Code No	Description	Code No	Note
16-2122 Grade 2	Grade 1	16-2121	Grade 0	16-2120	M112 (112 pieces)
16-2882 Grade 2	Grade 1	16-2881	Grade 0	16-2880	M88 (88 pieces)
16-2472 Grade 2	Grade 1	16-2471	Grade 0	16-2470	M47 (47 pieces)
16-2082 Grade 2	Grade 1	16-2081	Grade 0	16-2080	M8 (8 pieces)
				16-2080	

Imperial Sets available - Please contact the sales office

# **Combination Length Bar Sets**

Combination Length Bars are made from the same high grade steel as the gauge blocks. These length bars are manufactured to BS 1790 (Imperial) and BS 5317 (Metric). The bars have a round section, are hardened to 64 Rc and are precision lapped. Reference and calibration length bars are produced with plain ends and Inspection and Workshop grades have internal threaded holes in their end faces. This helps with the assembly of a combination of bars. A number of standard sets are available as well as individual sizes.



#### LENGTH BAR SETS SUPPLIED IN WOODEN CASE

Code No	Size
MB8	10mm, 20mm, 40mm, 60mm, 80mm, 100mm, 200mm and 300mm
MB9	10mm, 20mm, 40mm, 60mm, 80mm, 100mm, 200mm, 300mm and 400mm
MB10	10mm, 20mm, 40mm, 60mm, 80mm, 100mm, 200mm, 300mm, 400mm and 600mm
MB11	25mm, 50mm, 75mm, 100mm, 125mm, 150mm, 175mm, 200mm, 375mm, 575mm and 775mm
MB14	25mm (x3), 50mm, 75mm, 100mm, 125mm, 150mm, 175mm, 200mm (x2), 375mm, 575mm and 775mm



# **Moore & Wright Steel Gauge Blocks 700 Series**

#### **Features**

- Made from high quality stress relieved alloy steel
- Hardened to HV820 (HRC65)
- Excellent rigidity
- Size and serial number are engraved on each individual gauge block
- Available in 2 grades
- All sets have a MOORE & WRIGHT certificate
- All sets can be issued with a UKAS certificate at extra cost



# **Carbide Gauge Blocks 710 Series**

#### **Features**

Standard: DIN 861

- Made from solid carbide with high precision
- Service life is up to 6 times that of steel
- Excellent wringability due to micro polished surfaces
- Every gauge block has its own serial number
- Available in 3 grades
  - Grade 0 for calibration
  - Grade 1 for inspection
  - Grade 2 for workshop
- All sets have MOORE & WRIGHT certificate
- All sets can be issued with UKAS certificate at extra cost



#### **STEEL AND CARBIDE BLOCK SET CONFIGURATION**

No. blocks	Nominal size	Qty	Step (mm)												
103	1.005	1		47	1.005	1		87	1.001-1.009	9	0.001	32	1.005	1	
	1.01-1.49	49	0.01		1.01-1.09	9	0.01		1.01-1.49	49	0.01		1.01-1.09	9	0.01
	0.50-24.50	49	0.5		1.10-1.90	9	0.1		0.50-9.50	19	0.5		1.10-1.90	9	0.1
	25.0-100.0	4	25		1.0-24.0	24	1		10.0-100.0	10	10		10.0-30.0	3	10
					25.0-100.0	4	25						60.0	1	

#### **STEEL GAUGE BLOCK SETS - 700 SERIES**

Code No	No. of Blocks	Description	
MW700-02	103	Grade 1	
MW700-03	103	Grade 2	
MW700-05	87	Grade 1	
MW700-06	87	Grade 2	
MW700-08	47	Grade 1	
MW700-09	47	Grade 2	
MW700-11	32	Grade 1	
MW700-12	32	Grade 2	

#### CARBIDE GAUGE BLOCK SETS - 710 SERIES

Code No	No. of Blocks	Description
MW710-01	103	Grade 0
MW710-02	103	Grade 1
MW710-03	103	Grade 2
MW710-04	87	Grade 0
MW710-05	87	Grade 1
MW710-06	87	Grade 2
MW710-07	47	Grade 0
MW710-08	47	Grade 1
MW710-09	47	Grade 2
MW710-10	32	Grade 0
MW710-11	32	Grade 1
MW710-12	32	Grade 2



# **Mike-Check M10 Set 715 Series**

#### **Features**

Standard: DIN 861

- For the inspection of micrometers according to DIN 863
- Grade 0 accuracy
- Nominal sizes (mm): 2.5, 5.1, 7.7, 10.3, 12.9, 15.0, 17.6, 20.2, 22.8, 25.0
- Includes parallel optical flat 30mm dia. x 12mm
- UKAS calibration available at extra cost



#### **MIKE-CHECK M10**

Code No	Description
MW715-01	10 Piece Micrometer Gauge Block Set plus Optical Flat

## **Bore Gauge Setting Master Kit 720 Series**

#### **Features**

- Bore Gauge Setting Master Kit for accurately setting any 2 point bore gauge up to 160mm in diameter to an accuracy of 0.01mm
- Setting master and 33 piece metric gauge block set supplied in aluminium case

#### **Setting Device**

- Internal range 160mm
- Depth range 25mm
- Centraliser width 70mm
- Quick-release holder for fast adjustment

#### Gauge Block Set

- Accuracy to DIN 861, Grade2
- 33 piece metric steel set
- Includes MOORE & WRIGHT certificate

#### **BORE GAUGE SETTING MASTER KIT**

 Code No
 Description

 MW720-01
 Bore Gauge Setting Master Kit





# **Bowers** GROUP

# **Bowers Steel Rules and Tapes**

These Graduated Rules are manufactured out of spring steel.



#### **Graduated Steel Rules**

Manufactured to DIN 866/2 these round ended steel rules start their graduations on the left edge. The top of the rule is graduated in inch readings 1/16", 1/32" and 1/64". The bottom is graduated in metric readings of 1/2mm and 1/1mm.



#### **Graduated Steel Straight Edge**

Manufactured to DIN 866/1 the gauging surfaces have been precision ground. The clear and easy to read metric graduations start 5mm in from the ends.

# Care Marine Constant

#### **Circumference Tapes**

Tapes measure both circumference and external diameters on the vernier cover plate. Manufactured to DIN 866/2 and read to 0.1mm.

Code No	Size
80-460-241	150 x 13 x 0.5mm
80-460-243	250 x 15 x 0.5mm
80-460-247	300 x 30 x 1mm
80-460-248	500 x 30 x 1mm
80-460-249	1000 x 30 x 1mm
80-460-250	1500 x 30 x 1mm
80-460-251	2000 x 30 x 1mm
80-460-252	3000 x 30 x 1mm

#### **GRADUATED STEEL STRAIGHT EDGE**

Code No	Size
80-451-101	500 x 30 x 6mm
80-451-102	1000 x 40 x 8mm
80-451-103	1500 x 40 x 8mm
80-451-104	2000 x 50 x 10mm
80-451-105	3000 x 50 x 10mm

#### **CIRCUMFERENCE TAPES**

Code No	Circumference	Diameter (mm)
80-458-102	60-950mm	20-300
80-458-103	940-2200mm	300-700
80-458-104	2190-3460mm	700-1100
80-458-105	3450-4720mm	1100-1500
80-458-106	4710-5980mm	1500-1900
80-458-107	5960-7230mm	1900-2300
80-458-108	7220-8500mm	2300-2700
80-458-109	8490-9760mm	2700-3100
80-458-110	9730-11010mm	3100-3500

# **Moore & Wright Engineers' Rules**

#### **Features**

- Made from fine quality steel which has been hardened and tempered to provide the ideal balance between flexibility and durability
- 'D' end with hanging hole
- Satin chrome anti-glare finish
- Permanent black high definition scale markings
- Metric scales front and rear face graduations 0.5mm, 1.0mm
- Metric / Imperial scales front face graduations 1/16th, 1/32nd, 1/64th 1/10th, 1/20th, 1/50th, 1/100th of an inch
- Metric / Imperial scales rear face graduations 0.5mm, 1.0mm

#### **METRIC SCALES ONLY: TWO SIDES, FOUR EDGES**

Code No	Length (mm)	Width (mm)	Thickness	Pack Quantity
ER306F	150	19	0.4mm	1
ER312	300	25	1.0mm	1

#### **METRIC / IMPERIAL SCALES: TWO SIDES, FOUR EDGES**

Code No	Length (mm)	Length (inch)	Width (mm)	Thickness	Pack Quantity
ER106F	150	6	19.0	0.4mm	1
ER206F	150	6	12.5	0.4mm	1
ER112	300	12	25.0	1.0mm	1
ER212	300	12	12.5	1.0mm	1
ER424	600	24	25.0	1.0mm	1

ER106F

# **Bowers Straight Edges & Parallels**

Manufactured out of spring steel these straight edges are precision ground.



#### Steel Straight Edge

Manufactured to DIN 874/1. Up to 2000mm these straight edges are rectangular section. From 2500mm they are I- section with two grip slots.

Straightness: 4 +  $\underline{\text{Length (mm)}} = \mu m.$ 60

STEEL STRAIGHT EDGE				
Code No	Size			
80-465-101	500 x 40 x 8mm			
80-465-102	750 x 50 x 10mm			
80-465-103	1000 x 50 x 10mm			
80-465-104	1500 x 60 x 12mm			
80-465-105	2000 x 70 x 14mm			
80-465-106	2500 x 80 x 15mm			
80-465-107	3000 x 100 x 16mm			

# **Moore & Wright Engineers' Straight Edges**

#### Standard features include:

- Manufactured from high quality hardened steel
- Available with either square or one 30° bevelled edge
- Finish ground on both sides and edges
- Clearly marked supporting points on 900mm size



- Manufactured to BS5204 Grade B
- Suitable for general workshop use

		31012
	•	ANALYTIN THE ANALYTICS
•		

31036

#### **METRIC / IMPERIAL LIGHT SECTION (GRADE B) STRAIGHT EDGES**

Length (mm)	Width (inch)	Width (mm)	Width (inch)	Thickness	Code No	Description	Code No	Description
305	12	32	1 1/4	4.76mm / 3/16"	31012	Square Edge	310B12	Bevel Edge
610	24	41	1 5/8	6.35mm / 1/4"	31024	Square Edge	310B24	Bevel Edge
914	36	51	2	7.94mm / 5/16"	31036	Square Edge	310B36	Bevel Edge

#### **Heavy Section features:**

Manufactured to BS5204 Grade A

• Suitable for precision, inspection and workshop use

С	1	2	D	С	6
2		2	D	0	υ

#### **METRIC HEAVY SECTION (GRADE A) STRAIGHT EDGES**

Length (mm)	Length (inch)	Width (mm)	Width (inch)	Thickness	Code No	Description	Code No	Description
305	12	41	1 5/8	6.35mm / 1/4"	31212	Square Edge	312B12	Bevel Edge
610	24	51	2	7.94mm / 5/16"	31224	Square Edge	312B24	Bevel Edge
914	36	64	2 1/2	9.53mm / 3/8"	31236	Square Edge	312B36	Bevel Edge

#### **TOLERANCES TABLES FOR STRAIGHT EDGES**

GRADE B - 3	10 SERIES	Combined Tolerance of	
Nominal	Straightness of	Parallelism of	flatness & Parallelism of
Length	Working Faces	Working Faces	Side Faces
12"	0.00039"	0.00039"	0.00276"
24"	0.00047"	0.00047"	0.00315"
36"	0.00055"	0.00055"	0.00354"

#### TOLERANCES TABLES FOR STRAIGHT EDGES

GRADE A - 3	312 SERIES	Combined Tolerance of	
Nominal Length	Straightness of Working Faces	Parallelism of Working Faces	flatness & Parallelism of Side Faces
12"	0.00020"	0.00020"	0.00197"
12"	0.00020"	0.00020"	0.00197"
36"	0.00028"	0.00028"	0.00236"



# **Carbide Tipped Scriber**

#### **Features**

- Pocket clip
- Pearl chrome finish
- Robust design



#### **CARBIDE TIPPED SCRIBER**

Code No	Description	Pack Quantity
SCT-001XR	Retail Pack, replaceable carbide tipped scriber	1
SCT-002R	Retail Pack, fixed carbide tipped scriber	1

# **Telescopic Gauges 315 Series**

#### **Features**

- For quick inside measurement and determination of inside diameters
- Spring loaded plunger that expands in the bore or groove
- Satin chromed body
- With auto extension and direct locking
- Measuring faces are hardened and micro-lapped

TELESCOPIC GAUGE SETS		
Code No	Range (mm)	Pack Quantity
MW315-01	8-150	6-pieces

#### INDIVIDUAL TELESCOPIC GAUGES

Code No	Range (mm)	
MW315-011	8-12.7	
MW315-012	12.7-19	
MW315-013	19-32	
MW315-014	32-54	
MW315-015	54-90	
MW315-016	90-150	



#### Tel: 08708 50 90 50 Fax: 08708 50 90 60