

## Toolmakers V-blocks (Double V Type)

- Hardened and ground within .0003".
- Unique style with 2 V's, holds large and small work.
- Four tapped holes 3/8-16 for additional clamping.
- Forged clamp had adjustable side screw for support.



Model No.:VB-DV

### Specification:

- Work capacity: 1-5/16" dia. approx.
- Dimension: 1-7/8" sq x 3-5/8" long.
- Accuracy: All surfaces(except vees)Parallel & square within .0002"
- "vees" are 90° +.0000"-.0003".

## 1-2-3, 2-4-6, 4-6-8 Blocks

- Each matched pair has the cross drilling design.
- 23 holes: 5 holes for tapped 3/8"-16 for holding down.
- Hardened: HRC 55-62.

- Made of hardened steel, precision ground on all six sides.
- Squareness on all side per inch, 0.0001" to 0.0003".



Model No.	Size	Tolerance	Description
123P	1 x 2 x 3"	+0.0001"	23 hole
123E	1 x 2 x 3"	+0.0002"	23 hole
123	1 x 2 x 3"	+0.0003"	23 hole
123-NH	1 x 2 x 3"	+0.0003"	No holes
123-1H	1 x 2 x 3"	+0.0003"	1 holes
123-PS	1 x 2 x 3"	+0.0001"	23 hole (in metal case)
246	2 x 4 x 6"	+0.0003"	23 hole
468	4 x 6 x 8"	+0.0003"	23 hole
25-50-75	25 x 50 x 75mm	± 0.0125mm	23 hole

## Ultra precision Ground 1-2-3 Blocks

### Each set includes:

- Matched pair of 1" x 2" x 3" blocks.
- Five 3/8"-16 socket head cap screws.
- Hex key.

### Features:

- Each block is precision ground on all 6 surfaces.
- Case is hardened to HRC 55-66.
- Surface finish from 6 to 16 microinches.
- Squareness on all sides to within .0001" per inch.
- Features 23 holes: 5 are tapped 3/8"-16 the other 18 are untapped thru holes.
- Oversized to allow for nominal lapping .0001-.0003".



Model No.:123-PP

## Universal 1-2-3 Block Set

- 5 holes tapped 5/16"-18, arranged for holding down and conversion into Angle plates.
- 6 holes drilled through with deep recess for easy clamping.
- Complete with 2 socket head screws.
- Make your own precision angle plate and other inspection tools.
- Blocks measure 1 x 2 x 3" and are supplied in matched pairs.
- Squareness on all sides to within .0001" per inch.
- Oversized to allow for nominal lapping .0001-.0003".



Model No.:123-PW

## Rectangular Gage Block Sets

- Steel sets are produced from a special material featuring high carbon and chrome content.
- Stress relieved and heat treated to 65 RC; extremely wear-resistant.
- Mirror-polished surface finish provides exceptional wringing characteristics.
- Individual serial numbers on each block, regardless of grade.
- Manufactured in a temperature-controlled environment to provide precise and reliable accuracy.
- The accuracies of all blocks meet or exceed standard of the GGG-G-15C (inch block) and ISO (metric block), Also made in accordance with DIN861.
- With certificate.

### Carbide Sets

- Provides maximum durability under the most demanding conditions.
- Especially recommended when exposure to abrasives may occur.
- Outlasts and outperforms regular steel blocks every time.

### Tolerances

Inch (US. Federal Standards), Millionths:	Grade		
	Grade2	Grade3	GradeB
< 1"	+4/-2	+8/-4	+/-50
< 2"	+8/-4	+16/-8	+/-50
< 3"	+10/-5	+20/-10	+/-50
< 4"	+12/-6	+24/-12	+/-50



Model No.:GB-81B

Model No.		No. of Block	Blocks Included	Grade
Steel	Carbide			
<b>Inch</b>				
GB-812	GBC-812	81 Pc. Set	9 blocks .1001"-.1009" steps of .0001"	2
GB-813	GBC-813		49 blocks .101"- .149" steps of .001"	3
GB-81B	GBC-81B		19 blocks .050"- .950" steps of .050"	B
4 blocks 1"-4" steps of 1"				
<b>Metric</b>				
GBM-760	GBCM-760	76 Pc. Set	1 block 1.0005mm	0
GBM-761	GBCM-761		49 blocks 1.01-1.49 in 0.01mm steps	1
GBM-762	GBCM-762		19 blocks 0.5-9.5mm in 0.05mm steps	2
5 blocks 10, 20, 30, 40, 50 mm				
2 blocks 25, 100mm				
GBM-830	GBCM-830	83 Pc. Set	1 blocks 1.005mm	0
GBM-831	GBCM-831		49 blocks 1.01-1.49 in 0.01mm steps	1
GBM-832	GBCM-832		4 blocks 1.6-1.9 in 0.1mm steps	2
10 blocks 10-100 in 10mm steps				
GBM-870	GBCM-870	87 Pc. Set	9 blocks 1.001-1.009 in 0.001mm steps	0
GBM-871	GBCM-871		49 blocks 1.01-1.49 in 0.01mm steps	1
GBM-872	GBCM-872		19 blocks 0.5-9.5 in 0.5mm steps	2
10 blocks 10-100 in 10mm steps				
GBM-1120	GBCM-1120	112 Pc. Set	1 blocks 1.005mm	0
GBM-1121	GBCM-1121		9 blocks 1.001-1.009 in 0.001mm steps	1
GBM-1122	GBCM-1122		49 blocks 1.01-1.49 in 0.01mm steps	2
49 blocks 0.5 thru 24.5 in 0.5mm steps				
4 blocks 25thru in 25mm steps				

## Large Gage Block Sets



Model No.: GBLM-80

### 8 pieces

metric: 125mm, 150mm, 175mm, 200mm, 250mm, 300mm, 400mm & 500mm.  
inch: 5", 6", 7", 8", 10", 12", 16"

### 5 pieces

metric: 600mm, 700mm, 800mm, 900mm & 1000mm.  
inch: 24", 28", 32", 36", 40"

Standard:	Grade0	Grade1	Grade2
METRIC	GBLM-50	GBLM-51	GBLM-52
	GBLM-80	GBLM-81	GBLM-82
INCH	GBLI-50	GBLI-51	GBLI-52
	GBLI-80	GBLI-81	GBLI-82
Standard: GGG-G-15C	Grade2	Grade3	GradeB
INCH	GBL-52	GBL-53	GBL-5B
	GBL-82	GBL-83	GBL-8B

## 36 Piece Space Block Sets

- 3/4" Diameter, 1/4-28 ID thread.
- Each block clearly marked for size.
- Ground, hardened and tapped.
- 4 Connecting screws included, make any length desired.
- ± .0001" Accuracy.



Plastic case Model No.:SBS-36

### Blocks Included In Set

.050	.090	.500	.100	.105	.110	.150
.060	.100	.600	.101	.106	.120	.160
.0625	.200	.700	.102	.107	.125	.170
.070	.300	.800	.103	.108	.130	.180
.080	.400	.900	.104	.109	.140	.190
			1.00			

## NEW Cylindrical Squares

### Applications:

- Used in surface plates 90° reference angle.
- Used for checking squares, height gages and many other instruments.

### features:

- Made of high quality steel
- Hardness: HRC52-58

Model No.	Diameter	Square	Height (inch)	Squareness
HY-1	3"	6"		±0.0001"
HY-2	4"	12"		±0.00015"
HYM-1	75mm	150mm		±0.003mm
HYM-2	100mm	300mm		±0.004mm

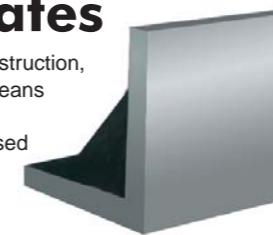


## Angle Plates

With ample thickness and ribbed construction, these angle plates offer a versatile means of holding work for layout, machining and inspection and also are widely used as vertical reference.

### precision-ground.

Model No.	Size	Model No.	Size
AP-222	2 x 2 x 2"	AP-666	6 x 6 x 6"
AP-333	3 x 3 x 3"	AP-888	8 x 8 x 8"
AP-444	4 x 4 x 4"	AP-101010	10 x 10 x 10"
AP-555	5 x 5 x 5"	AP-121212	12 x 12 x 12"



## Slotted Angle Plates

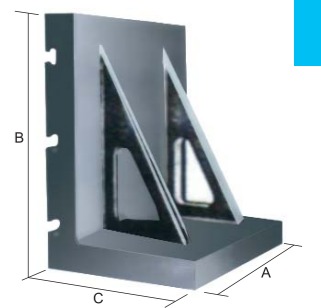
- These slotted angle plates have convenient clamping slots for mounting and are widely used for machining, layout and inspection.
- Two types-webbed-end and open-end.
- precision-ground.
- Open-end
- Accurately machine square and parallel on all faces.
- Webbed-end
- Have side webs and are accurately machined square and parallel on outside faces and ends.



Model No.		Length	First Angle	Second Angle
Webbed-end	Open-end			
AP-322	APO-322	3"	2-1/2"	2"
AP-332	APO-332	3-1/2"	3"	2-1/2"
AP-433	APO-433	4-1/2"	3-1/2"	3"
AP-654	APO-654	6"	5"	4-1/2"
AP-754	APO-754	7"	5-1/2"	4-1/2"
AP-865	APO-865	8"	6"	5"
AP-976	APO-976	9"	7"	6"
AP-1086	APO-1086	10"	8"	6"
AP-1298	APO-1298	12"	9"	8"
AP-12108	APO-12108	12"	10"	10"
AP-121210	APO-121210	12"	12"	10"
AP-141210	APO-141210	14"	12"	10"

## T-Slotted Webbed Angle Plates

- Provides an accurate vertical base for mounting vises, sub-plates, parts or fixtures.
- Standard 5/8" T-slots on 6" grid pattern are provided on both faces.
- Made from one piece, class 40 cast iron that has been stress relieved.
- Extra heavy 2-1/2" wall thickness provides stability during milling operations.
- Faces and edges machined flat, square and parallel w/i .001" per 12".



Model No.	Size (inch)			Wall Thickness
	A	B	C	
AW-181812	18	18	12	2-1/2
AW-242412	24	24	12	2-1/2

## "Vee" Angles

- The V-Angle is manufactured from a high grade cast iron that is fully stress relieved to give stability throughout its working life.
- The V-Angle has many more clamping positions than an ordinary angle.

Model No.	Size
AV-335	3 x 3 x 5
AV-446	4 x 4 x 6
AV-557	5 x 5 x 7
AV-668	6 x 6 x 8

