Measuring Instruments

Precision Parallels & Sets Hardened & Ground

1/8"10 Pair Parallel Set

Made of high grade alloy steel, hardened and ground. Two holes in each set for easier handling and greater versatility for setups. · All 6"Length

· Accuracy:.0002"Parallelism in height. ± .0002"to size in height.

Hardness:55-62 HRC

Plastic case PS-1/8

Model No.	Dimensions	Hole Size	Model No.	Dimensions	Hole Size
P-18/12/6	$1/8 \times 1/2 \times 6$ "	13/64"		1/8 × 1-1/8 × 6"	
P-18/58/6 P-18/34/6	1/8 × 5/8 × 6" 1/8 × 3/4 × 6"	1/4" 5/16"		1/8 × 1-1/4 × 6" 1/8 × 1-3/8 × 6"	
P-18/78/6	1/8 × 7/8 × 6"	5/16"		1/8 × 1-1/2 × 6"	1/2"
P-18/1/6	$1/8 \times 1 \times 6$ "	5/16"	P-18/158/6	1/8 × 1-5/8 × 6"	1/2"

1/4" 9 Pair.1/2" 8 Pair **Parallel Set**

Made of high quality alloy steel, hardened and ground to better than 16 Micro-Finish

Two holes in each parallel for easier handling and greater versatility for set-ups.

All 6"Length

· Accuracy:.0002"Parallelism in height. ± .0002"to size in height. · Hardness:55-62 HRC

8 Dair Sot · DS-1/2 v 8

9 Pair Set	t : PS-1/4	
Model No.	Dimensions	н

Model No.	Dimensions	Hole Size	Model No.	Dimensions	Hole Size
P-12/78/6	1/2 × 7/8 × 6"	5/16"	P-14/34/6	$1/4 \times 3/4 \times 6$ "	5/16"
P-12/1/6	1/2 × 1 × 6"	5/16"	P-14/78/6	$1/4 \times 7/8 \times 6$ "	5/16"
P-12/118/6	1/2 × 1-1/8 × 6	" 3/8"	P-14/1/6	1/4 × 1 × 6"	5/16"
P-12/114/6	1/2 × 1-1/4 × 6	" 3/8"	P-14/118/6	1/4 × 1-1/8 × 6'	3/8"
P-12/138/6	1/2 × 1-3/8 × 6	" 7/16"	P-14/114/6	1/4 × 1-1/4 × 6'	' 3/8"
P-12/112/6	1/2 × 1-1/2 × 6	" 7/16"	P-14/138/6	1/4 × 1-3/8 × 6'	7/16"
P-12/158/6	1/2 × 1-5/8 × 6	" 1/2"	P-14/112/6	1/4 × 1-1/2 × 6'	7/16"
P-12/134/6	1/2 × 1-3/4 × 6	" 1/2"	P-14/158/6	1/4 × 1-5/8 × 6'	' 1/2"
			P-14/134/6	$1/4 \times 1-3/4 \times 6'$	' 1/2"

Wavy Parallel Set

Features:

- · Economical, simple and easy to use in precision clamping of parts in drilling, boring, milling, grinding, assembly work, etc
- · Can readily be used as elastic shims.
- Thin and fragile workpieces can be secured without damage by utilizing the spring pressure of these parallels.
- · Made of high-quality spring steel, hardened, stress-relieved and precision ground.
- · Guaranteed to size in height and parallelism .0002"/0.005mm.
- Hardness: 40-45HRC
 - Metric 8 pair set

Range	Model No.	Range
9-23mm(by 2mm) 25-39mm(by 2mm)	PS-W	1/2 to 1-1/2"(by 1/8")
	9-23mm(by 2mm)	9-23mm(by 2mm)



	Matched	Pairs	4 Pa	ir Sets	
Model No.	Dimensions	Model No.	Dimensions	Model No.	Dimensions
P-316/125/6 P-316/15/6	$\begin{array}{l} 3\!/16\!\times\!1.000\!\times\!6''\\ 3\!/16\!\times\!1.250\!\times\!6''\\ 3\!/16\!\times\!1.500\!\times\!6''\\ 3\!/16\!\times\!1.750\!\times\!6''\end{array}$	P-12/125/6 P-12/15/6	1/2×1.000×6" 1/2×1.250×6" 1/2×1.500×6" 1/2×1.750×6"	P-12/15/6	3/16×1.000×6" 3/16×1.250×6" 1/2×1.500×6" 1/2×1.750×6"
PS-3/16	4 Pair Set	PS-1/2	4 Pair Set	PS-3/16-1/2	4 Pair Set

Ultra 20 Pair Super Set

1/2" thru 1-11/ · All are 6" lor

Features:

- · Parallelism:.0002" · Paired .0002"in height. Tolerance of size: ± 0.0002"
- · Hardness:50 HRC.

Set includes: 20 pairs. 1/2". 9/16". 5/8". 11/16". 3/4". 13/16", 7/8", 15/16", 1", 1-1/16", 1-1/8", 1-3/16", 1-1/4", 1-5/16", 1-3/8", 1-7/16", 1-1/2", 1-9/16", 1-5/8". 1-11/16".

Metric **Precision Parallel Sets**

Parallels to position and layout workpieces in e.g. clamping jaws for drilling, grinding, milling and measuring. The workpieces and assemblies can easily be set up to the desired working height. Parallelism:0.005mm

· Hardness:55-62 HRC



PMS-14/150

Model No.	Dimensions (mm) L × T × H(Length × Thickness × Height)	Pairs per Set
PMS-12/125 PMS-14/125 PMS-24/125	125 × 10 × 14,16 to 32 by 2,35,40 125 × 10 × 14 to 32 by 2,35,40,45,50 125 × 8 × 11 to 36,10 × 13 to 38, 12 × 15 to 40,14 × 17 to 42 by 5) 12) 14 24
PMS-12/150 PMS-14/150 PMS-24/150	$\begin{array}{c} 150\times10\times14, 16 \text{ to } 32 \text{ by } 2,35,40 \\ 150\times10\times14 \text{ to } 32 \text{ by } 2,35,40,45,56 \\ 150\times8\times11 \text{ to } 36,10\times13 \text{ to } 38, \\ 12\times15 \text{ to } 40,14\times17 \text{ to } 42 \text{ by } 5 \end{array}$) 12 14 24

*Individual size is available

6PC Adjustable **Parallels Set**

Adjustable parallels can adjust nominal size and be in common use for fixing, working ,checking of work pieces

Model No.	Range	Length
PSADJ-A	3/8-1/2"	1-3/4"
PSADJ-B	1/2-11/16"	2-1/8"
PSADJ-C	11/16-15/16"	2-11/16"
PSADJ-D	15/16-1-5/16"	3-9/16"
PSADJ-E	1-5/16-1-3/4"	4-3/16"
PSADJ-F	1-3/4-2-1/4"	5-1/16"
PSADJS-6	(includes abov	e 6 size)

10 PC, 12PC **Angle Block Set** Features:

- · Simple, quick angle set-ups.
- · Eliminates calculation, avoids errors.
- Lightly magnetized for better holding.
- · Manufactured of steel, hardened,
- stablized and ground.
- Size: 3" long × 1/4" thick
- Accuracy: .0001"per inch, ± 20 arc seconds
- · Oil-hardened steel, precision ground.
- **AB-10** includes: 1° . 2° . 3° . 4° . 5°
- 10°, 15°, 20°, 25°, 30° • **AB-12** includes:AB-10 & 1/4° ,1/2°

17 PC Angle Block Set

- · Provides quick set-ups for angles from 1/4° to 45°
- · Eliminates time dressing angles.
- · Made from hardened steel.
- · Supplied in a fitted wood case.
- Accuracy: .0003", ± 20 arc seconds.
- · Complete set of 17 Blocks:
- 1/4° ,1/2° ,1° ,2° ,3° ,4° ,5° ,10° , 15°.20°.25°.30°.35°.40°.45°
- and 2 riser blocks.

Solid Angle Plate Features:

- · Hardened and ground steel.
- · Precisely ground angles for convenient setups in tooling,
- production and inspection. · 4-11/32"holes for easy mounting
- · Supplied in fitted case.

Model No. Angle(°) Size ABI-45/90 45/45/90 3×3×5/16" ABI-30/60 30/60/90 2 × 3-3/8 × 5/16" AB-2 2 Piece Set

ΔR.2

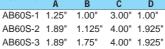
0° - 60° Precision Angle Block V-Blocks And Clamps

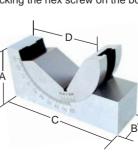
- Specifications: • Offers a 0-60° adjustable angle by locking the hex screw on the bottom.
- · Squareness:.0002".
- · Angle accuracy: ± 10 seconds.
- HRC:50° -55°

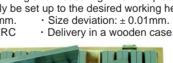
• Accuracy ± 10'

· Fast, easy to use for drilling, milling and setup applications. • 90° "V"

Model No. В С AB60S-1 1.25" 1.00"



















PSM-W1

Inch 9 Dair Sot



Model No ·AB-17

Model No.:AB-10

Thin 1/32", Precision Parallel S
'16" heights in 1/16" increments. ng and only 1/32" thick!

Measuring Instruments

Cast Iron V-blocks

- · Supplied in pairs.
- Made from high quality castings, properly seasoned against distortion
- · Blocks are accurately
- machined square and parallel



Model No.	Length of Block	Width of Vee	Height of Block	Thickness of Block	Approx. Weight
VBC-2	2"	1"	1-1/4"	15/16"	1Lbs.
VBC-3	3"	1-1/4"	2-3/8"	1-3/4"	2Lbs.
VBC-4	4"	1-5/8"	2-5/8"	2"	5Lbs.
VBC-5	5"	2"	3-1/8"	2-5/8"	9Lbs.
VBC-6	6"	2-3/8"	3-1/2"	3-3/4"	13Lbs.
VBC-7	7"	3"	4-1/2"	3-3/4"	26Lbs.
VBC-8	8"	4"	5-1/2"	4-1/2"	46Lbs.
VBC-10	10"	6"	6-1/2"	5"	76Lbs.
VBC-12	12"	6-1/2"	8"	7"	135Lbs.



Precision V-block Sets

- · Two reversible swing-away clamps provided per set.
- · Clamps to almost any work surface.
- · Parallel, square are centered within .0002"
- 90°V-block
- · Completely hardened and ground tool steel
- · Wooden case



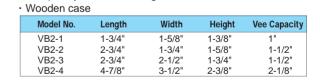
Model No.	Length	Width	Height	Vee Capacity
VB-1	1-3/8"	1-3/8"	1-3/16"	1-19/32"
VB-2	2-3/8"	2-3/8"	2"	1-3/16"
VB-3	4-1/8"	4-1/8"	3-1/16"	2-9/16"
	VB-1 VB-2	VB-1 1-3/8" VB-2 2-3/8"	VB-1 1-3/8" 1-3/8" VB-2 2-3/8" 2-3/8"	VB-1 1-3/8" 1-3/8" 1-3/16" VB-2 2-3/8" 2-3/8" 2"

Double V Slot Block Set

- Features:
- · All sides are ground square and parallel to each other.
- · Sturdy enough to be used in
- machining operation.
- · Matched accuracy .0002".
- · Precision ground, matched
- and numbered in pairs.
- · 90°V-block
- · Completely hardened and ground tool steel



VB2-2



- · Stepped groove construction. · Made of hardened steel in numbered pairs.
- · Features clamps within grooves to permit use on sides.
- · 2-1/2"long, 2-3/4"wide, 2"high
- · Work capacity approximately 2' diameter.
- V groove is 90° +.0000"-.0003".
- · Corresponding dimensions for each pair are alike within .0003".







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