

PRECISION SQUARES
SERIES 229:



Accurately made of fine grade tool steel. Ground and polished blade and beam. Hardened and tempered blade. Suitable for precise layout and measuring. Length of blade is measured from inner edge of beam to end of blade.



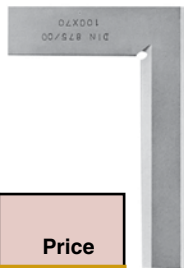
In/mm Size & Lgth. of Blade	In/mm Lgth. of Beam	Squareness of Blade	Order No.	Price
2"/50mm	2/50	.001"/25 microns	1580002	
3"/75mm	2-1/2/63	.001"/25 microns	1580003	
4"/100mm	3/75	.001"/25 microns	1580004	
6"/150mm	4/100	.001"/25 microns	1580006	
9"/225mm	6/150	.001"/25 microns	1580009	
12"/300mm	8/200	.002"/50 microns	1580012	
18"/450mm	10/250	.0038"/90 microns	1580018	
24"/600mm	13/33	.0038"/90 microns	1580024	

Set includes:
2", 3", 4" & 6"
in a wooden case.

Order No. 2290000	Price	
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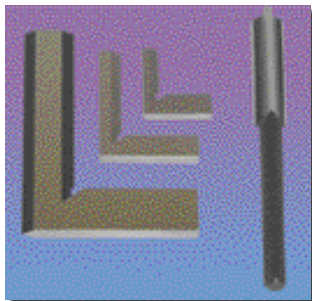
BEVEL EDGE SQUARES
SERIES 230:

Made from a single piece of high grade tool steel. Entire square is hardened, accurately ground, and lapped for straightness and parallelism. Blades are beveled on both edges of each side.



Size & Lgth. of Blade	Lgth. of Beam	Order No.	Price
1-3/8	1	1585001	
2-3/8	1-3/8	1585002	
3-1/8	2	1585003	
4	2-1/2	1585004	
5	3	1585005	
6-3/4	4	1585006	
8-1/2	5-1/8	1585008	
10-1/2	6-3/8	1585010	

DIE MAKERS' SQUARE SET
SERIES 231:



Especially made for precise miniature layout. Set consists of three hardened bevel edged squares 3/4", 1-1/4", and 2-3/8" long, plus a 1-1/2" triangular straight edge with a removable handle. Includes fitted case.

Order No. 1590000	Price	
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STEEL SQUARES
MIT SERIES 916:



All edges are hardened and precision ground.

Beveled Edge Squares

Size	Order No.	Outside Dimensions	Square- ness	Price
2	916100	2 x 1.6	.00010	
3	916101	3 x 2	.00011	
4	916102	4 x 2-3/4	.00012	
6	916103	6 x 4	.00014	
8	916104	8 x 5	.00018	

Regular Squares

Size	Order No.	Outside Dimensions	Square- ness	Price
3	916401	3 x 2	.00026	
4	916402	4 x 2-2/3	.00028	
6	916403	6 x 4	.00032	
8	916404	8 x 5	.00036	
10	916405	10 x 6-1/2	.00040	
12	916406	12 x 8	.00044	
16	916407	16 x 10	.00052	
20	916408	20 x 12	.00059	
30	916409	30 x 16	.00080	
40	916410	40 x 20	.00116	

**MASTER
PRECISION SQUARES**
STARRETT SERIES 20:



Recommended for use where extreme accuracy is required. Beams and blades are of high quality tool steel hardened, ground and lapped to insure parallelism and straightness. Beam is grooved at inner corner for clearance of burr or dirt. Squareness accuracy to .0001"/0.0025mm every 6" (150mm).



Length of Blade*	Length of Beam	Catalog No.	EDP No.	Price
1-1/2" / 40mm	1-1/2" / 40mm	20-1-1/2	50128	
3" / 75mm	2-3/8" / 60mm	20-3	50130	
4-1/2" / 115mm	3-1/2" / 90mm	20-4-1/2	50132	
6" / 150mm	4-5/16" / 110mm	20-6	50134	
12" / 300mm	7" / 180mm	20-12	50136	
24" / 600mm	12-5/16" / 310mm	20-24	50140	
36" / 910mm	20" / 500mm	20-36	50142	

*Measured from the inner edge of the beam to the end of the blade. Sent without case unless otherwise ordered. Cases available for squares through 12" (300mm) by ordering No. 20ZZ and size.

CYLINDER SQUARES SERIES 236:



DOUBLE SQUARES STARRETT SERIES 13:



These squares are hardened, and the ends are lapped to 90° angular accuracy with the cylinders as follows: 6" square to ± .00010", 12" square to ± .00015". Includes fitted case.



Height	Diameter	Order No.	Price
6	3	1620003	
12	4	1620004	

Double squares are popular with machinists, tool and pattern makers. Hardened, sliding blades are adjustable for a wide variety of uses. Faces of head are ground square. 6"/150mm size is equipped with a level, head is approximately 3-1/2" (90mm) long, and the faces approximately 9/16" (14mm) wide.

Blades are graduated in 8ths, 16ths, 32nds, 64ths (1mm both Edges one Side; and 1mm and 1/2mm Reverse Side). Bevel blade has octagon angle at one end and hexagon angle at other end clearly marked. Drill grinding blade is beveled to 59° and 41° and both ends have quick reading machine-divided graduations in 64ths, and graduation is located to measure perpendicularly to axis of the drill. By reading graduations, center point can be easily and accurately located.

Size	Description	Catalog No.	EDP No.	Price
4"	With graduated blade only	13A	50109	
4	With graduated and bevel blades	13B	50110	
6	With graduated blade only	13C	50111	
6	With graduated and bevel blades	13E	50112	
6	Complete with graduated, bevel, and drill grinding blades	13F	50113	
100mm	With Graduated Blade only	13MA	56278	
100mm	With Graduated and Bevel Blades	13MB	56279	
150mm	With Graduated blade only	13MC	56280	
150mm	With Graduated and Bevel Blades	13ME	56263	

GRADUATED STEEL SQUARES SERIES 229:



- Made of tool steel.
- Square accurate both inside and outside
- Etched fine graduations in inches and millimeters



Order No.	Length of blade		Price
	Inch	mm	
2294100	4	100	
2296150	6	150	
2296200	8	200	
2299225	9	225	
2291230	12	300	

MASTER PRECISION SQUARES WITH BEVELED EDGES STARRETT SERIES 55:



Similar to Starrett hardened squares except that blades are beveled on both edges of each side, providing practically a line contact with work. Beam and blade are hardened, ground and lapped to insure parallelism and straightness. The beam is grooved at inner corner for clearance of burr and dirt.



Length of Blade*	Length of Beam	Catalog No.	EDP No.	Price
1-1/2" / 40mm	1-1/2" / 40mm	55-1-1/2	50277	
3" / 75mm	2-3/8" / 60mm	55-3	50279	
4-1/2" / 115mm	3-1/2" / 90mm	55-4-1/2	50281	
6" / 150mm	4-5/16" / 110mm	55-6	50283	

*Measured from the inner edge of the beam to the end of the blade. Sent without case unless otherwise ordered. Cases available for squares through 12" (300mm) by ordering No. 55ZZ and size.

CENTER SQUARE SERIES 229:



- Made from ground tool steel.
- Hardened and tempered blade.
- Useful square for rapid location of round bar or disc center.
- To execute, place the round bar between the centre square. Scribe different lines on the work piece each time changing its position. Center of the scribed lines will give the accurate center of the work piece.



Max. Work Diameter		Order No.	Price
Inch	mm		
1-1/2	38	2290112	
3	75	2290375	

DIE MAKERS' SQUARES

STARRETT SERIES 453:



Starrett



Larger knurled thumb screw locks sliding blades at any position, and smaller one tilts blades at an angle. To set blades, release blade clamp screw, and tilt blade to desired angle by turning small knurled screw. Blade held in position by tightening clamping screw. Head and blades hardened and ground. Offset blade, used where it would be impossible to sight straight blade, protrudes from square about 1-1/2" (38mm) and is 1/8" (3mm) wide. Both sides of each edge are beveled to give line contact.

The inch reading blade is graduated on one side, upper edge in 32nds, lower edge in 64ths and the millimeter reading blade is graduated in millimeter and 1/2 millimeter. The bevel blade is approx. 2-1/2" (63mm) long x 1/2" (12.5mm) wide and is beveled to 30° on one end and 45° on the other.

The narrow graduated blade has 32nds graduation on one side, and 64ths on the other. It is 5/32" (4mm) wide over a length of approx. 1-5/8" (41mm) and cut away at one end to a width of 3/32" (2.4mm).

Description	Catalog No.	EDP No.	Price
Inch Reading - Graduation 32nds, 64ths			
With standard graduated blade	453A	52345	
Complete with standard, bevel narrow, and offset blades in case	453EZ	52351	
Millimeter Reading - Graduation mm and 1/2 mm			
With standard graduated blade	453MA	52346	

DIE MAKERS' SQUARES

WITH ANGULAR ADJUSTMENT

STARRETT SERIES 457:



Starrett



This is a highly useful tool for tool and diemakers, especially for measuring die clearances. It is also very handy for pattern makers to check angles and drafts on patterns.

The beam of this square is graduated to show the setting in degrees of the blades. Blades can be set for any angle up to 10°, either side of 0° and the angle is indicated by the line on the pointer.

The graduated blade has 32nds of an inch on one side, and 64ths on the other. It is 5/32" (4mm) wide over a length of approximately 1-5/8" (41mm) and cut away at one end to a width of 3/32" (2.4mm).

The offset blade, which is used where it would be impossible to insert the straight blade, protrudes from the square about 1-1/2" (38mm). It is 1/8" (3mm) wide and both sides of each edge are beveled to give visual line contact.

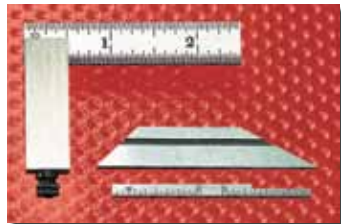
The beam is beveled adjacent to the blade so that the blade is readily visible when checking in holes, slots, etc. Blades and beams are hardened and ground.

Angular Range 10°-0°-10°

Description	Catalog No.	EDP No.	Price
With Straight Blade Only	457A	52428	
Complete, With Straight and Offset Blades	457C	52429	

DOUBLE STEEL SQUARES WITH HARDENED AND GROUND HEAD AND BLADES

STARRETT SERIES 14:



Starrett



These fine precision double steel squares are designed for tool and diemakers. Blades are adjustable for use in places not possible with stationary blade squares. A knurled clamping nut accurately locks the blades in any position.

The inch reading blade is graduated on one side, upper edge in 32nds and lower edge in 64ths and the millimeter reading blade is graduated in mm and 1/2 mm.

The bevel blade for checking angles is beveled 45° on one end and 30° on the other end.

The narrow graduated blade is 2-1/4" (58mm) long with 32nds graduation on one side, and 64ths on the other. It is 5/32" (4mm) wide over a length of approximately 1-5/8" (41mm) and cut away at one end to a width of 3/32" (2.4mm). Millimeter blades are mm on one side and 1/2 mm on the other.

Size	Grad.	Description	Catalog No.	EDP No.	Price
Inch Reading - 32nds, 64ths					
2-1/2"	32nds, 64ths	With graduated blade only	14A	50117	
		Complete with graduated narrow, and bevel blades	14D	50118	
Millimeter Reading - mm both edges One Side; 1/2 mm Reverse Side					
50mm	mm, 1/2mm	With graduated blade only	14MA	56260	
		Complete with graduated narrow, and bevel blades	14MD	9956261	

DOUBLE SQUARE SERIES 234:

Ideal for precision layout work. Blades are hardened and tempered with a satin-chrome finish.



COMBINATION SQUARE SET - 4 PIECE SERIES 233:



Hardened and Ground. Set includes 12" stainless steel chrome plated blade with 4R inch (8ths, 16ths, 32nds, 64ths) graduations, double indexed and reversible Protractor Head with full 180° graduation and spirit level, Square Head with level and scribe, and Center Head.

Order No. 1600112	Price	
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Size of Blade	Grad.	Order No.	Price
4	4R	1610004	
4	16R	1610014	
4	E/M	1610024	
6	4R	1610006	
6	16R	1610016	
6	E/M	1610026	

PRECISION TOOLS



COMBINATION SQUARES

SERIES 233:



- Blades are fully hardened and tempered.
- Reversible protractor heads for hardened squares.
- Double-indexed protractor is graduated 180° in both directions.
- Finished in baked enamel.
- Square Head has level and scribe point.
- Micro-fine blade graduation.
- Easy to read satin chrome finished blades.
- Sets with cast heads or with hardened heads.

Blade Graduations:

- 4R** - 8ths, 16ths, 32nds, 64ths,
- 16R** - 32nds, 64ths, 50ths, 100ths
- E/M** - 32nds, 0.5mm, 64ths, mm
- M** - mm, 0.5mm, mm, 0.5mm

4 PIECE COMBINATION SQUARE SETS



STANDARD SETS include cast Square Head, cast Center Head, non-reversible Protractor Head, and hardened chrome plated Blade.

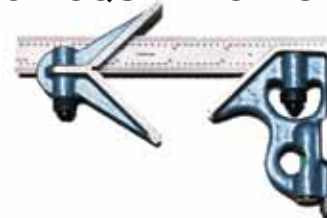
HARDENED SETS include hardened Square Head, hardened Center Head, reversible Protractor Head and hardened chrome plated Blade.

STANDARD SETS

HARDENED SETS

Size of Blade	Grad.	Order No.	Price	Size of Blade	Grad.	Order No.	Price
12"	4R	2331200		12"	4R	2331250	
12	16R	2331201		12	16R	2331251	
12	E/M	2331202		12	E/M	2331252	
18	4R	2331800		18	4R	2331850	
18	16R	2331801		18	16R	2331851	
18	E/M	2331802		18	E/M	2331852	
24	4R	2332400		24	4R	2332450	
24	16R	2332401		24	16R	2332451	
24	E/M	2332402		24	E/M	2332452	
300mm	M	2331203		300mm	M	2331253	
450mm	M	2331803		450mm	M	2331853	
600mm	M	2331603		600mm	M	2331653	

3 PIECE COMBINATION SQUARE SETS



Similar to 4 piece COMBINATION SQUARE SETS but without Protractor Head. Sets consist of Square Head, Center Head, and Hardened Chrome Plated Blade.

STANDARD SETS

HARDENED SETS

Size of Blade	Grad.	Order No.	Price	Size of Blade	Grad.	Order No.	Price
6"	4R	2330600		6"	4R	2330650	
6	16R	2330601		6	16R	2330651	
6	E/M	2330602		6	E/M	2330652	
12	4R	331200		12	4R	9331250	
12	16R	331201		12	16R	331251	
12	E/M	331203		12	E/M	331253	
18	4R	331800		18	4R	331850	
18	16R	331801		18	16R	331851	
18	E/M	331803		18	E/M	331853	
24	4R	332400		24	4R	332450	
24	16R	332401		24	16R	332451	
24	E/M	332403		24	E/M	332453	
150mm	M	2330603		150mm	M	2330653	
300mm	M	331204		300mm	M	331254	
450mm	M	331804		450mm	M	331854	
600mm	M	332404		600mm	M	332454	

For 2 piece sets consisting of blade and square head see next page and order each piece separately.