



SQUARES

SQUARES

Starrett squares are offered in a practical variety of styles to suit the needs of the individual, whether it be a toolmaker, mechanic, carpenter, or a "do-it-yourself" homeowner.

The Starrett name has always been associated with squares because our founder, Laroy Starrett, invented the combination square in 1877. The success of this tool led to the beginning of The L.S. Starrett Company in 1880. The combination square is one of the world's most practical and versatile tool inventions – the basic tool for every builder and craftsman.

SQUARES

In this section you will see combination squares, solid test or try squares, and special squares for tool and diemakers and carpenters.

To check squareness at the highest level of accuracy, we recommend our TS True Squares. These are available in three styles down to the amazing accuracy of 1/4 second. These are listed in the Gage Block Section of this catalog.

We also offer granite squares which are listed in the Granite Surface Plate Section of this catalog. The main purpose of these squares is for checking the X, Y, and Z axes on CNC machine tools and coordinate measuring machines.



COMBINATION SQUARES FEATURE:

- A choice of smooth-finished forged and hardened (longer wearing) steel square head and center head, or a cast iron square head and center head. All bearing surfaces are accurately ground.
- A choice of stable cast iron protractors – reversible or non-reversible style – all nicely finished with a black, durable finish
- Protractors are furnished as reversible, with shoulders on both sides of the blade, or non-reversible, with a single shoulder on one side of the blade only. All protractors also have a spirit level.
- Protractor heads have revolving turrets with direct-reading double graduations, 0-180° in opposite directions. This permits the direct reading of angles and supplementary angles.
- Most square heads have a handy spirit level and a hardened scriber
- Square blades and protractor heads come in a choice of regular or Starrett no-glare satin chrome finish
- A reversible lock bolt allows the blade to be turned over or end-for-end without removing the lock bolt or nut. This ensures true alignment of the blade and heads.
- Square blades feature easy-to-read, sharp graduations and are available in many convenient styles
- Separate parts and attachments available

TIPS FOR USING SQUARES AND CENTER HEADS

First, make sure your square is clean and that it is located against a flat surface – burrs on metal or knots and bumps on wood will throw squareness off.

Second, to scribe a line, the steel scriber can be used on any material, but usually on metal. A carpenter's pencil is normally used on wood, but if finer lines are needed, a light cut with a utility knife may be used. This is also handy when scribing cross grain.

Third, when using a center head on a piece that may not be completely round, it is good practice to scribe more than two intersecting lines.



COMBINATION SQUARES

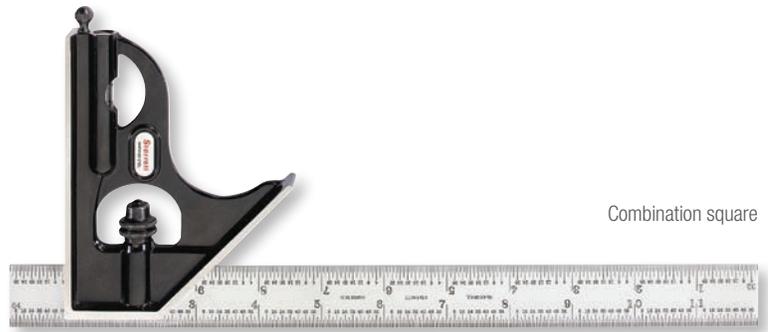
Starrett combination squares consist of a photo-engraved, hardened and tempered steel rule (or blade) on which is mounted on an adjustable square head.

Starrett Combination Square Heads are made of cast iron or forged and hardened steel and are not to be confused with the cheap imitation plastic or die cast heads on the market. The value of Starrett tools is that they are accurate and will last.

As the name indicates, these tools can be used for many different purposes – a complete substitute for a whole set of common solid try squares, a 45 degree miter, a depth gage, a height gage, a marking or scribing gage, a level, a plumb and, by withdrawing the blade, it can also be used as a precision rule. This saves littering the workbench with too many tools, each being necessary but may be used less. This results in the goal of all good craftsmen – better accuracy and greater efficiency.

The combination square with center head is a basic combination set. The center head is a convenient and accurate way to find the center of round work.

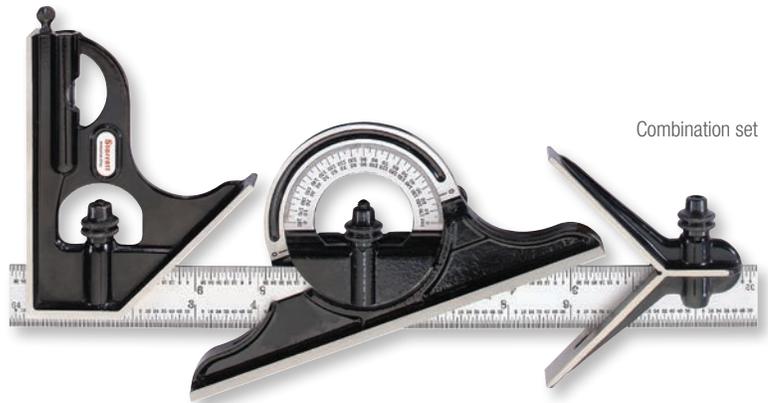
Complete combination sets feature the combination square with a center head and with either a reversible or non-reversible protractor. Details of the protractors are also included in the Protractor and Angle Measurements Section of this catalog.



Combination square



Combination square with head



Combination set



COMBINATION SQUARES

11H CAST IRON HEADS

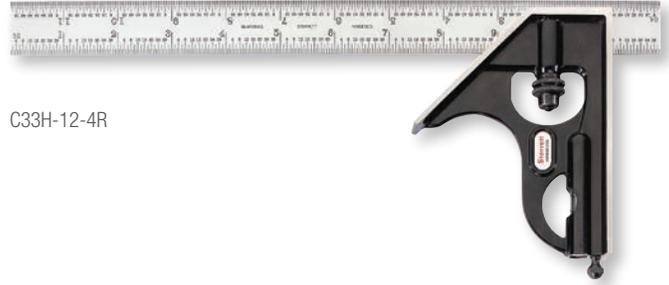
With reversible lock bolt, scribe, spirit level (except 4"), and hardened steel, photo-engraved blade with regular or satin chrome finish. Cast iron head with black wrinkle finish.



C11H-12-4R

33H FORGED AND HARDENED STEEL HEADS

These squares have the same features as the 11 cast iron heads except that the square heads are forged hardened steel with smooth, black enamel finish.



C33H-12-4R

4-24" Combination Squares with Square Head						
11H Cast Iron Heads with Black Wrinkle Finish		33H Forged and Hardened Steel Heads with Smooth Black Enamel Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
11H-4-4R	50049	33H-4-4R	50203	4"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
C11H-4-4R	56360	C33H-4-4R	56390			Satin Chrome
11H-6-4R	50051	33H-6-4R	50205	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
C11H-6-4R	56362	C33H-6-4R	56392			Satin Chrome
11H-6-16R	50053	33H-6-16R	50207	6"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
C11H-6-16R	56364	C33H-6-16R	56394			Satin Chrome
11H-12-4R	50055	33H-12-4R	50209	12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
C11H-12-4R	56366	C33H-12-4R	56396			Satin Chrome
C11H-12-4RW/SLC*	66896	C33H-12-4RW/SLC*	66897	12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
11H-12-16R	50057	33H-12-16R	50211	12"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
C11H-12-16R	56368	C33H-12-16R	56398			Satin Chrome
11H-18-4R	50059	33H-18-4R	50213	18"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
C11H-18-4R	56370	C33H-18-4R	56400			Satin Chrome
11H-18-16R	50061	33H-18-16R	50215	18"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
C11H-18-16R	56372	C33H-18-16R	56402			Satin Chrome
11H-24-4R	50063	33H-24-4R	50217	24"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
C11H-24-4R	56374	C33H-24-4R	56404			Satin Chrome
11H-24-16R	50065	33H-24-16R	50219	24"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
C11H-24-16R	56376	C33H-24-16R	56406			Satin Chrome
150-600mm Combination Squares with Square Head						
11MH Cast Iron Heads with Black Wrinkle Finish		33MH Forged and Hardened Steel Heads with Smooth Black Enamel Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
11MH-150	56241	33MH-150	56247	150mm	mm and 1/2mm Both Sides	Regular
C11MH-150	56380	C33MH-150	56410			Satin Chrome
11MH-300	56243	33MH-300	56249	300mm	mm and 1/2mm Both Sides	Regular
C11MH-300	56382	C33MH-300	56412			Satin Chrome
11MH-600	56245	33MH-600	56251	600mm	mm and 1/2mm Both Sides	Regular
C11MH-600	56384	C33MH-600	56414			Satin Chrome
300-600mm and 11-3/4 – 23-1/2" Combination Squares with Square Head						
11MEH Cast Iron Heads with Black Wrinkle Finish		33MEH Forged and Hardened Steel Heads with Smooth Black Enamel Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
11MEH-300	50067	33MEH-300	50221	300mm and 11-3/4"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
C11MEH-300	56386	C33MEH-300	56416			Satin Chrome
11MEH-600	56121	33MEH-600	50237	600mm and 23-1/2"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
C11MEH-600	56388	C33MEH-600	56418			Satin Chrome

* Includes redemption card for Standard Letter of Certification (SLC).

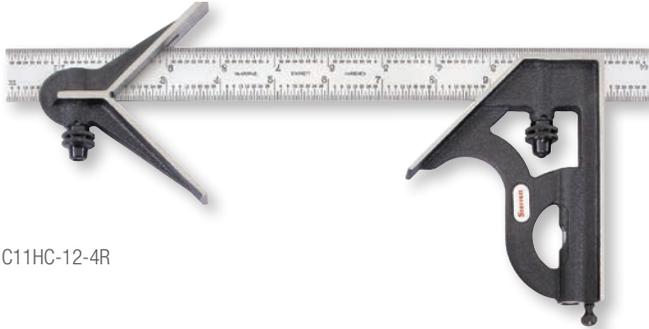


COMBINATION SQUARES

COMBINATION SQUARES WITH CENTER HEADS

11HC CAST IRON HEADS

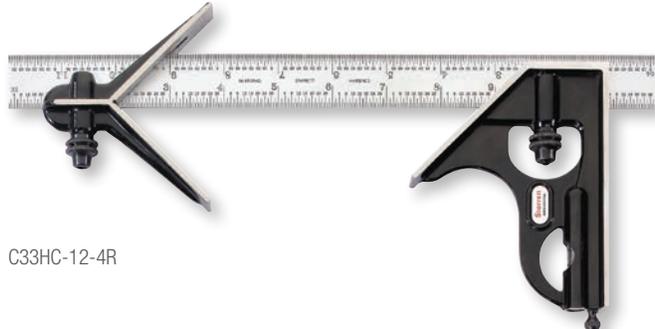
With reversible lock bolts, scribe, spirit level (except 4"), and hardened steel, photo-engraved blade with regular or satin chrome finish. Cast iron heads with black wrinkle finish.



C11HC-12-4R

33HC FORGED AND HARDENED STEEL HEADS

These squares have the same features as the 11HC cast iron heads except that the square heads and center heads are forged hardened steel with smooth, black enamel finish.



C33HC-12-4R

4-24" Combination Squares with Square and Center Heads

11HC Cast Iron Heads with Black Wrinkle Finish		33HC Forged and Hardened Steel Heads with Smooth Black Enamel Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
11HC-4-4R	50050	33HC-4-4R	50204	4"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular Satin Chrome
C11HC-4-4R	56361	C33HC-4-4R	56391			
11HC-6-4R	50052	33HC-6-4R	50206	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular Satin Chrome
C11HC-6-4R	56363	C33HC-6-4R	56393			
11HC-6-16R	50054	33HC-6-16R	50208	6"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular Satin Chrome
C11HC-6-16R	56365	C33HC-6-16R	56395			
11HC-12-4R	50056	33HC-12-4R	50210	12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular Satin Chrome
C11HC-12-4R	56367	C33HC-12-4R	56397			
11HC-12-16R	50058	33HC-12-16R	50212	12"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular Satin Chrome
C11HC-12-16R	56369	C33HC-12-16R	56399			
11HC-18-4R	50060	33HC-18-4R	50214	18"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular Satin Chrome
C11HC-18-4R	56371	C33HC-18-4R	56401			
11HC-18-16R	50062	33HC-18-16R	50216	18"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular Satin Chrome
C11HC-18-16R	56373	C33HC-18-16R	56403			
11HC-24-4R	50064	33HC-24-4R	50218	24"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular Satin Chrome
C11HC-24-4R	56375	C33HC-24-4R	56405			
11HC-24-16R	50066	33HC-24-16R	50220	24"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular Satin Chrome
C11HC-24-16R	56377	C33HC-24-16R	56407			

150-600mm Combination Squares with Square and Center Heads

11MHC Cast Iron Heads with Black Wrinkle Finish		33MHC Forged and Hardened Steel Heads with Smooth Black Enamel Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
11MHC-150	56242	33MHC-150	56248	150mm	mm and 1/2mm Both Sides	Regular Satin Chrome
C11MHC-150	56381	C33MHC-150	56411			
11MHC-300	56244	33MHC-300	56250	300mm	mm and 1/2mm Both Sides	Regular Satin Chrome
C11MHC-300	56383	C33MHC-300	56413			
11MHC-600	56246	33MHC-600	56252	600mm	mm and 1/2mm Both Sides	Regular Satin Chrome
C11MHC-600	56385	C33MHC-600	56415			

300-600mm and 11-3/4 – 23-1/2" Combination Squares with Square and Center Heads

11MEHC Cast Iron Heads with Black Wrinkle Finish		33MEHC Forged and Hardened Steel Heads with Smooth Black Enamel Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
11MEHC-300	50068	33MEHC-300	50222	300mm and 11-3/4"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular Satin Chrome
C11MEHC-300	56387	C33MEHC-300	56417			
11MEHC-600	50075	33MEHC-600	50238	600mm and 23-1/2"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular Satin Chrome
C11MEHC-600	56389	C33MEHC-600	56419			



COMBINATION SETS

COMBINATION SQUARE WITH CENTER AND REVERSIBLE PROTRACTOR HEADS

435 SQUARE, CENTER AND PROTRACTOR HEAD

CAST IRON

With reversible lock bolts, scriber, spirit level in both square head and protractor head, direct reading double 180° protractor scale, hardened steel, photo-engraved blade. Cast iron heads with black wrinkle finish. Also available with satin chrome blade and protractor head.



C435-12-4R



C434-12-4R



Supplied in protective case

434 FORGED AND HARDENED STEEL SQUARE AND CENTER HEADS, CAST IRON PROTRACTOR HEAD

THE VERY BEST SETS AVAILABLE

These squares have the same features as the 435 except that the square heads and center heads are forged, hardened steel with smooth, black enamel finish.

12-24" Combination Sets with Square, Center and Reversible Protractor Head and Blade

435 Sets Cast Iron Heads with Black Wrinkle Finish		434 Sets Forged and Hardened Square and Center Heads, Cast Iron Protractor Head with Smooth Black Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
435-12-4R	51556	434-12-4R	51542	12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
C435-12-4R	66682	C434-12-4R	51548			Satin Chrome
		C434-12-4R W/SLC*	66898			
435-12-16R	51557	434-12-16R	51543	12"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
		C434-12-16R	51549			Satin Chrome
435-18-4R**	51558	434-18-4R**	51544	18"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
		C434-18-4R**	51550			Satin Chrome
		434-18-16R**	51545			Regular
		C434-18-16R**	51551	18"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
435-24-4R**	51559	434-24-4R**	51546	24"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
		C434-24-4R**	51552			Satin Chrome
		434-24-16R**	51547			Regular
		C434-24-16R**	51553	24"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
						Satin Chrome

300-600mm Combination Sets with Square, Center and Reversible Protractor Head and Blade

435M Sets Cast Iron Heads with Black Wrinkle Finish		434M Sets Forged and Hardened Square and Center Heads, Cast Iron Protractor Head with Smooth Black Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
435M-300	66177	434M-300	56255	300mm	mm and 1/2mm Both Sides	Regular
C435M-300	61918	C434M-300	56420			Satin Chrome
435M-600**	66681	434M-600**	56256	600mm	mm and 1/2mm Both Sides	Regular
		C434M-600**	56421			Satin Chrome

300-600mm and 11-3/4 – 23-1/2" Combination Sets with Square, Center and Reversible Protractor Head and Blade

435ME Sets Cast Iron Heads with Black Wrinkle Finish		434ME Sets Forged and Hardened Square and Center Heads, Cast Iron Protractor Head with Smooth Black Finish		Size	Graduation	Blade
Cat. No.	EDP	Cat. No.	EDP			
435ME-300	51560	434ME-300	51554	300mm and 11-3/4"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
		C434ME-300	56422			Satin Chrome
435ME-600**	51561	434ME-600**	51555	600mm and 23-1/2"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
		C434ME-600**	56423			Satin Chrome

* Includes redemption card for Standard Letter of Certification (SLC).

** Does not include case.



COMBINATION SETS

COMBINATION SQUARE WITH CENTER AND NON-REVERSIBLE PROTRACTOR HEAD

9 COMBINATION SETS WITH SQUARE, CENTER AND NON-REVERSIBLE PROTRACTOR HEAD

CAST IRON

With reversible lock bolts, scribe, spirit level in both square head and protractor head, direct reading double 180° protractor scale, and hardened steel, photo-engraved blade. Cast iron heads with black wrinkle finish. Also available with satin chrome blade and protractor head.



SQUARES



12-24" Combination Sets with Square, Center and Non-reversible Protractor Head and Blade				
Cast Iron Heads with Black Wrinkle Finish				
Cat. No.	EDP	Size	Graduation	Blade
9-12-4R	50042	12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
C9-12-4R	50046	12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
9-12-16R	50043	12"	16R – Quick Reading 32nds, 64ths, Air Craft Quick Reading 50ths, 100ths	Regular
9-18-4R	50044	18"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
9-24-4R	50045	24"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
300-600mm Combination Sets with Square, Center and Non-reversible Protractor Head and Blade				
Cast Iron Heads with Black Wrinkle Finish				
Cat. No.	EDP	Size	Graduation	Blade
9M-300	56253	300mm	mm and 1/2mm Both Sides	Regular
9M-600	56254	600mm	mm and 1/2mm Both Sides	Regular
300-600mm and 11-3/4 – 23-1/2" Combination Sets with Square, Center and Non-Reversible Protractor Head and Blade				
Cast Iron Heads with Black Wrinkle Finish				
Cat. No.	EDP	Size	Graduation	Blade
9ME-300	50047	300mm and 11-3/4"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
9ME-600	50048	600mm and 23-1/2"	1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular



COMBINATION SETS

BLADES FOR COMBINATION SQUARES, SETS AND BEVEL PROTRACTORS

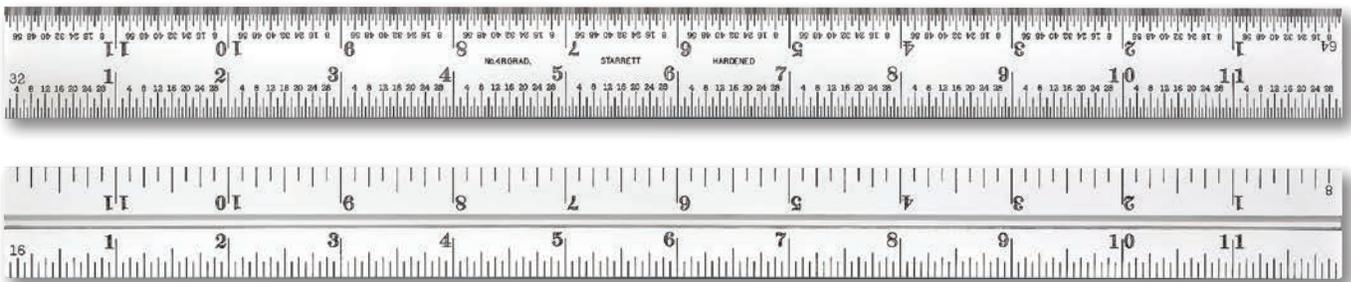
INCH, MILLIMETER AND INCH/MILLIMETER

The blades listed below fit any head according to the sizes noted in the charts on all combination squares, combination sets and bevel protractors. The 12", 18", 24", 36" and 48" and 300mm and 600mm sizes are interchangeable. Exception: Starrett 33J and 8 Combination Squares. (For these, see 33J and 8 listings.)

Inch Blades Only for Combination Squares, Sets and Bevel Protractors					
Cat. No.	EDP	Size	Approx. Width x Thickness	Graduation	Finish
B4-4R	50076	4"	5/8 x 1/16"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
CB4-4R	50077	4"	5/8 x 1/16"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
CB4-16R	50078	4"	5/8 x 1/16"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Satin Chrome
B6-4R	50079	6"	3/4 x 5/64"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
CB6-4R	50080	6"	3/4 x 5/64"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
B6-16R	50081	6"	3/4 x 5/64"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
CB6-16R	50082	6"	3/4 x 5/64"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Satin Chrome
B12-4R	50083	12"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
CB12-4R	50084	12"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
CB12-6R	50085	12"	1 x 3/32"	6R – Aircraft Quick Reading 50ths and 10ths	Satin Chrome
B12-16R	50086	12"	1 x 3/32"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
CB12-16R	50087	12"	1 x 3/32"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Satin Chrome
B18-4R	50088	18"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
CB18-4R	50089	18"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
B18-16R	50090	18"	1 x 3/32"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
CB18-16R	50091	18"	1 x 3/32"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Satin Chrome
B24-4R	50092	24"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Regular
CB24-4R	50093	24"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
CB24-6R	50094	24"	1 x 3/32"	6R – Aircraft Quick Reading 50ths and 10ths	Satin Chrome
B24-16R	50095	24"	1 x 3/32"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Regular
CB24-16R	50096	24"	1 x 3/32"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Satin Chrome
CB36-4R	50097	36"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
CB36-16R	50098	36"	1 x 3/32"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Satin Chrome
CB48-4R	67102	48"	1 x 3/32"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Satin Chrome
Millimeter Blades Only for Combination Squares, Sets and Bevel Protractors					
Cat. No.	EDP	Size	Approx. Width x Thickness	Graduation	Finish
B150-35	55985	150mm	19 x 2mm	35 – mm and 1/2mm Both Sides	Regular
CB150-35	55988	150mm	19 x 2mm	35 – mm and 1/2mm Both Sides	Satin Chrome
B300-35	55986	300mm	25 x 2.4mm	35 – mm and 1/2mm Both Sides	Regular
CB300-35	55989	300mm	25 x 2.4mm	35 – mm and 1/2mm Both Sides	Satin Chrome
B600-35	55987	600mm	25 x 2.4mm	35 – mm and 1/2mm Both Sides	Regular
CB600-35	55990	600mm	25 x 2.4mm	35 – mm and 1/2mm Both Sides	Satin Chrome
Inch and Millimeter Blades Only for Combination Squares, Sets and Bevel Protractors					
Cat. No.	EDP	Size	Approx. Width x Thickness	Graduation	Finish
B150-36	55991	150mm and 5-3/4"	19 x 2mm	36 – 1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
CB150-36	55992	150mm and 5-3/4"	19 x 2mm	36 – 1/2mm and 32nds One Side; mm and 64ths Reverse Side	Satin Chrome
B300-36	50101	300mm and 11-3/4"	25 x 2.4mm	36 – 1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
CB300-36	55993	300mm and 11-3/4"	25 x 2.4mm	36 – 1/2mm and 32nds One Side; mm and 64ths Reverse Side	Satin Chrome
B600-36	50102	600mm and 23-1/2"	25 x 2.4mm	36 – 1/2mm and 32nds One Side; mm and 64ths Reverse Side	Regular
CB600-36	55994	600mm and 23-1/2"	25 x 2.4mm	36 – 1/2mm and 32nds One Side; mm and 64ths Reverse Side	Satin Chrome

All sizes packed one per envelope.

CB12-4R



COMBINATION SQUARE BLADES

SQUARE HEADS, CENTER HEADS AND PROTRACTOR HEADS FOR COMBINATION SQUARES, COMBINATION SETS AND BEVEL PROTRACTORS

The heads listed fit any blade according to the sizes noted in the charts on all combination squares, combination sets and bevel protractors. Sizes 12", 18", 24", 36", and 48" and 300mm and 600mm are interchangeable. When ordering, specify complete catalog number and length of blade. Exception: Starrett 33J and 8 Combination Squares. (For these, see 33J and 8 listings.)

Square Heads Only for Combination Squares, Combination Sets and Bevel Protractors				
Cast Iron Black Wrinkle Finish		Forged and Hardened Steel with Smooth Black Enamel Finish		Fits Blade Size
Cat. No.	EDP	Cat. No.	EDP	
H11-4	50069	H33-4	50223	4"
H11-6	50070	H33-6	50224	6"
H11-1224	50071	H33-1224	50225	12" (300mm) 18" 24" (600mm)
Center Heads Only for Combination Squares, Combination Sets and Bevel Protractors				
Cast Iron Black Wrinkle Finish		Forged and Hardened Steel with Smooth Black Enamel Finish		Fits Blade Size
Cat. No.	EDP	Cat. No.	EDP	
C11-4	50072	C33-4	50226	4"
C11-6	50073	C33-6	50227	6"
C11-1224	50074	C33-1224	50228	12" (300mm) 18" 24" (600mm)
Protractor Heads – Cast Iron (Fits blades 12" and up) for Combination Squares, Combination Sets and Bevel Protractors				
Reversible		Nonreversible		Finish
Cat. No.	EDP	Cat. No.	EDP	
PR-1224W	52525	PNR-1224W	50107	Black Wrinkle
CPR-1224W	64601	CPNR-1224W	50108	Black Wrinkle, Chrome on Turret
PR-1224S	52515			Black Smooth
CPR-1224S	52516			Black Smooth, Chrome on Turret

For prices of lock bolts, contact the Parts Department.
 4" Center Head Max. Inspection Dia.: 3.125"
 6" Center Head Max. Inspection Dia.: 4.3"
 12"-24" Center Head Max. Inspection Dia.: 5.3"



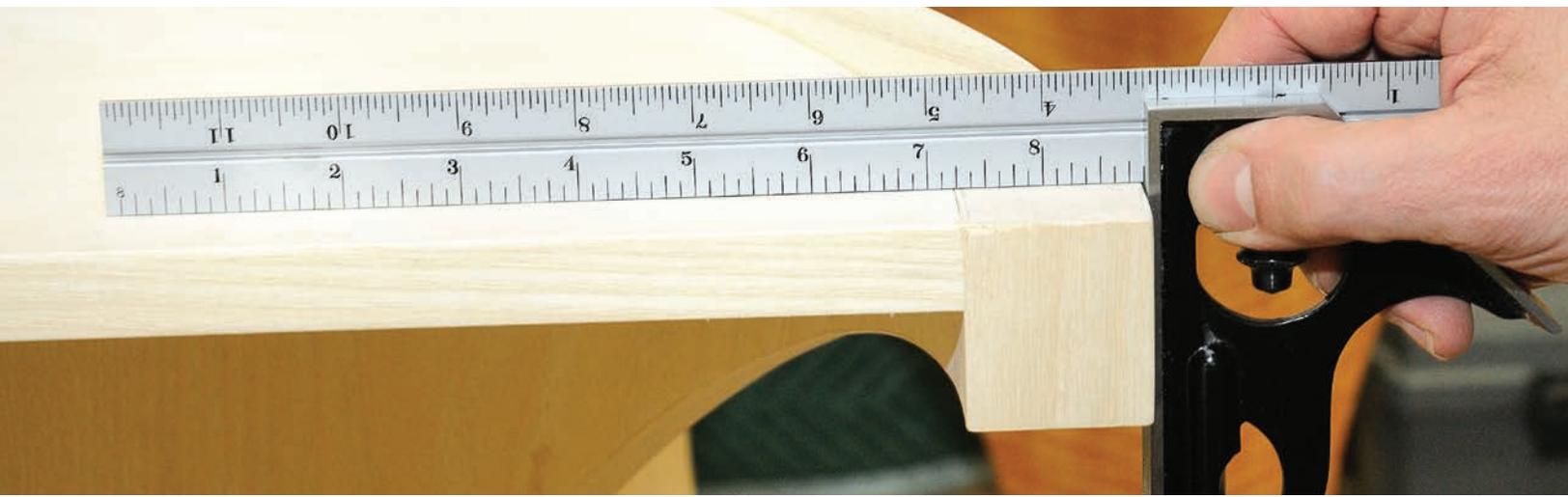
H11-1224



C33-1224



PR-1224S



COMBINATION SQUARES

289 ATTACHMENTS FOR COMBINATION SQUARES

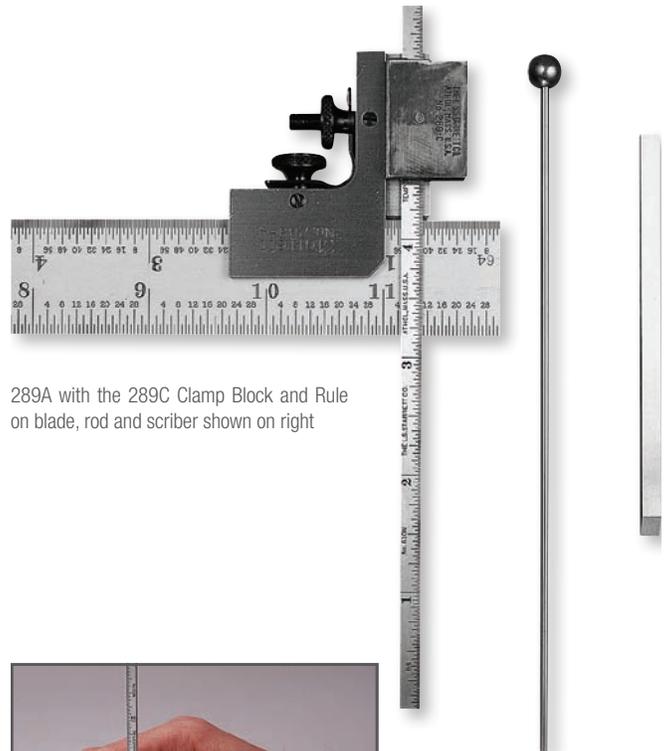
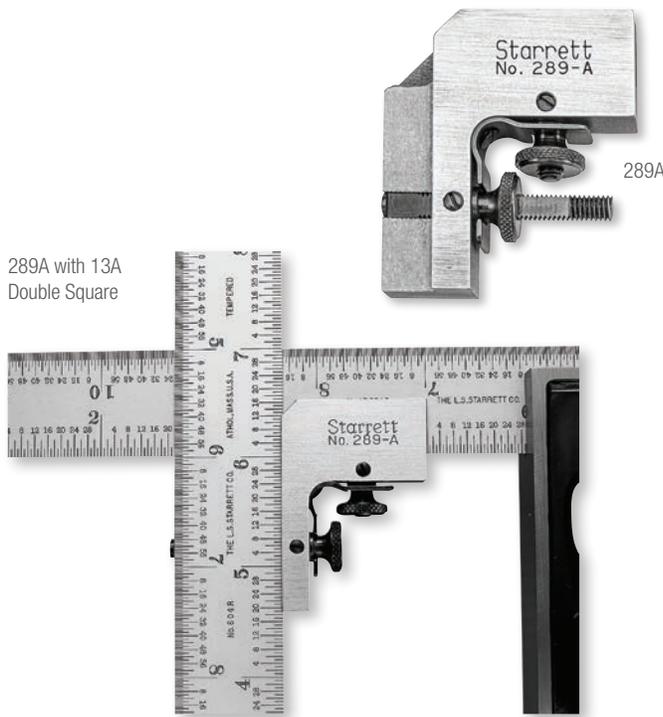
These attachments fit combination square blades 1" (25mm) wide and permit attaching rules, blades or thin steel try squares, up to 1" (25mm) wide, at right angles to the blade of the square for laying out key seats, centers, scribing horizontal lines, and measuring diameters. Available in two sizes listed below. Both sizes can also be used with 289C Height and Depth Gage Attachment.

289 Attachments for Combination Squares				
Cat. No.	EDP	Range Blade/Rule	Seat Length Blade	Rule
289A	51322	1" (25mm)	1-9/16" (40mm)	1-11/16" (43mm)
289B	51323		2-3/8" (60mm)	2-3/8" (60mm)

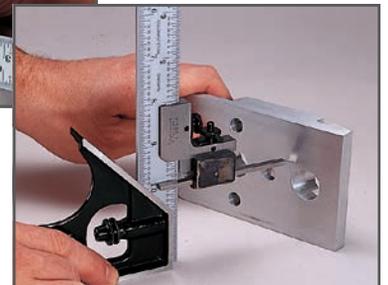
289C HEIGHT AND DEPTH GAGE SET FOR COMBINATION SQUARES

When combined with the 289A or 289B Attachments, this set converts any combination square or set having blades up to 1" (25mm) wide into a height gage or depth gage. In addition to a clamp block, the set has a scribe, 6" rule (610N-6) and a 6" (150mm) rod, any one of which may be inserted in the clamp and locked in position. By applying the scribe, a practical height gage results. Use of the rule converts the tool to a depth gage for measuring in 64ths of an inch. With the rod used as a depth gage, small recesses and holes can also be checked.

289C Height and Depth Gage Set for Combination Squares		
Cat. No.	EDP	Description
289C	51324	Clamp Block with Scribe, Rule and Rod



289A with the 289C Clamp Block and Rule on blade, rod and scribe shown on right



COMBINATION SQUARES

8 LARGE COMBINATION SQUARES

24"

Extra large, heavy-duty construction throughout. The square head is 8-3/8" long and the center head has 4-1/4" arms. Furnished with 24" blade, 1-1/2" wide x 1/10" thick, with distinctive, photo-engraved graduations. Heads are cast iron and have black wrinkle finish.

- Reversible lock bolts
- Accurate spirit level
- Hardened steel blade

8 Large Combination Squares

Cat. No.	EDP	Graduation	Description
8H	50037	4 – 8ths, 6ths, 32nds, 64ths	With Square Head Only
8HC	50038		With Square Head and Center Head

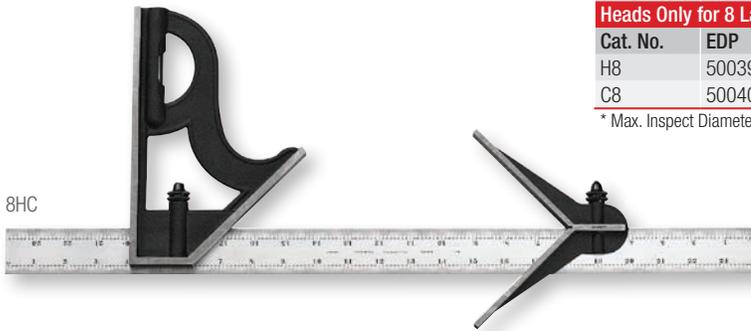
Blade Only for 8 Large Combination Squares

Cat. No.	EDP	Graduation	Description
B824-4	50041	4 – 8ths, 16ths, 32nds, 64ths	24" Blade

Heads Only for 8 Large Combination Squares

Cat. No.	EDP	Description
H8	50039	Square Head
C8	50040	Center Head*

* Max. Inspect Diameter: 7.5"



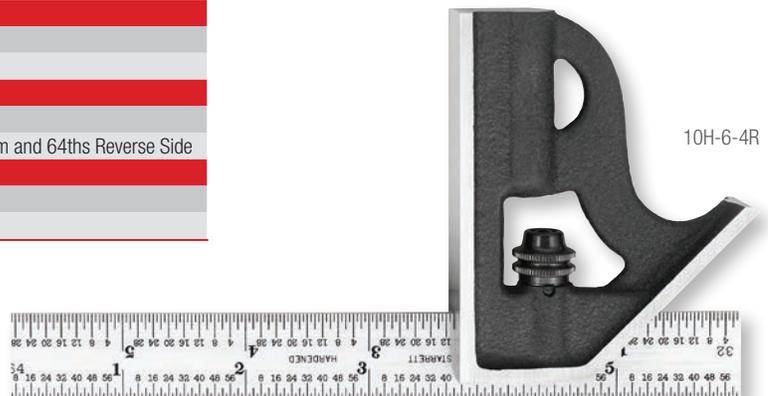
10 STUDENT COMBINATION SQUARES

These tools were designed to train and develop apprentices to lay out and check their work more efficiently. The combination square is far superior to clumsy, old-style solid workshop-grade squares that are still being used in some vocational schools and apprenticeship programs around the world. The student's advantages are:

- Rugged, cast iron square head will outlast cheap plastic and die-cast imitations
- Accurate, hardened and tempered square blade offered in inch, millimeter, and inch and millimeter combined
- Reversible lock bolt allows the blade to be turned over or end-for-end so that all four graduated edges may be used
- The combination square, as its name indicates, handles many jobs, saving the apprentice from buying more individual tools. This combination square can be used as a try square, 45° miter, a depth gage, a height gage, a layout tool, and as a rule.
- Optional center head is available to increase the versatility of this universal measuring tool

Inch			
Cat. No.	EDP	Size	Graduation
10H-6-4R	64942	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths
Millimeter			
Cat. No.	EDP	Size	Graduation
10MH-150	64943	150mm	mm and 1/2mm Both Sides
Inch and Millimeter			
Cat. No.	EDP	Size	Graduation
10MEH-150	64944	5-3/4" (150mm)	1/2mm and 32nds One Side mm and 64ths Reverse Side
Center Head Only			
Cat. No.	EDP	Description	
C11-6	50073	Center Head to Fit 10 Squares	

* Max. Inspect Diameter: 4.3"

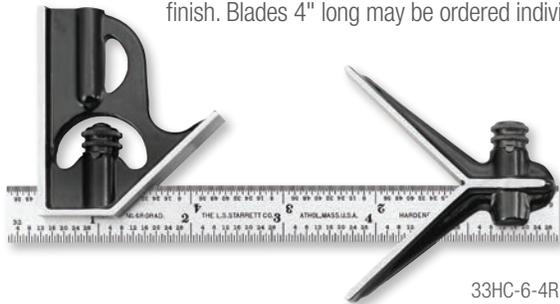


COMBINATION SQUARES

33J JUNIOR COMBINATION SQUARES

6"

These squares are used by mechanics, toolmakers and patternmakers because of their compact, small size and light weight. Both blade and heads are smaller than on regular squares. Heads are drop forged, hardened steel and have smooth, black enamel finish. Blades 4" long may be ordered individually as listed below. Blades are furnished in regular finish, except where indicated.



33HC-6-4R



SQUARES

33J Junior Combination Squares

Cat. No.	EDP	Blade Length	Graduation	Description
33JH-6-4R	50229	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	With Square Head Only
33JH-6-16R	50231	6"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	
33JHC-6-4R	50230	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	With Square Head and Center Head
33JHC-6-16R	50232	6"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	

Blades Only

Cat. No.	EDP	Blade Length	Graduation	Description
B33J-4R	50235	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Blade
CB33J-4R*	67100	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Blade
B33J-16R	50236	6"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Blade
CB33J-16R*	67101	6"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Blade
B4-4R	50076	4"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Blade
CB4-4R*	50077	4"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	Blade
CB4-16R*	50078	4"	16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths	Blade

Heads Only

Cat. No.	EDP	Description
H33-4	50223	Square Head
C33-4	50226	Center Head**

* Blade in satin chrome finish.

** Max. Inspect Diameter - 3.125"

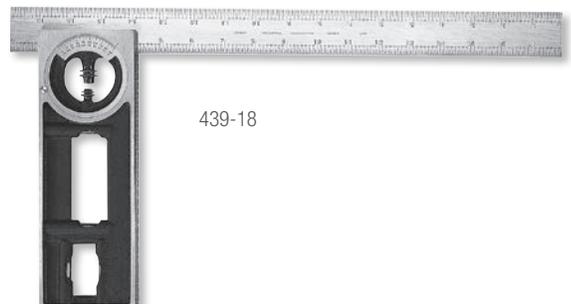
439 BUILDERS' COMBINATION TOOL

18" AND 24"

This versatile tool is invaluable for carpenters, builders, patternmakers, cabinet makers and all mechanics.

FEATURES

- Combines seven tool functions in one compact, practical unit. It is a rule, square, level, plumb, protractor, bevel and pitch-to-foot indicator.
- It consists of a stock, 9" (230mm) long, a hardened, photo-engraved 1-1/2" (38mm) wide blade in 18" or 24" lengths, and a protractor
- On one side the protractor is graduated from zero to 90° in both directions show the direct and supplementary angles. The other side is graduated in 1/2" pitch increments from 0-12" per foot pitch.
- The stock has four levels which permits leveling or plumbing the work in relation to any to any angle or pitch
- Tool is ideal for laying out or cutting valleys or hips of different pitches, done as follows: Rotate the blade to the desired pitch, place the face of the stock against the work and draw a line. Then place the square end of the stock against the line and draw the complementary line. This gives the complementary angle automatically, without calculation.



439-18

Cat. No.	EDP	Blade Length	Blade Graduation	Head Graduation	
				Degrees	Pitch
439-18	52110	18"	4R - 8ths, 16ths, 32nds, 64ths	0-90°	0-12" per ft.
439-24	52111	24"			



MASTER PRECISION SQUARES

20 MASTER PRECISION SQUARES

1-1/2-36"/40-910MM

The finest precision-checking squares – not graduated. Squareness accuracy to .0001" (0.0025mm) every 6" (150mm).

These hardened steel squares are used when extreme accuracy is required. The beams and blades are hardened, ground and lapped to ensure parallelism and straightness. The beam is grooved at the inner corner for clearance of burr or dirt. Made of high quality tool steel, with the finest of craftsmanship throughout.



20-3

20 Master Precision Squares

Squares Only		Case Only		Size – Length of Blade*		Length of Beam	
Cat. No.	EDP	Cat. No.	EDP	in	mm	in	mm
20-1 1/2	50128	916	55152	1-1/2	40	1-1/2	40
20-3	50130	951	55153	3	75	2-3/8	60
20-4 1/2	50132	918	55154	4-1/2	115	3-1/2	90
20-6	50134	919	55155	6	150	4-5/16	110
20-6 W/SLC‡	66899						
20-12	50136	20ZZ-12	55156	12	300	7	180
20-12 W/SLC‡	66900						
20-24	50140	20ZZ-24†	55158	24	600	12-5/16	310
20-36**	50142	20ZZ-36†	55159	36	910	20	500

Larger squares can be furnished; quoted on application.

* Length of blade from the inner edge of the beam to the end of the blade.

** 36" (910mm) and larger size squares have special screws to secure the blade to the beam.

† Rack-type case.

‡ Includes redemption card for Standard Letter of Certification (SLC).

55 MASTER PRECISION SQUARES WITH BEVELED EDGES

1-1/2-6"/40-150MM

These 55 Hardened Steel Squares are the same as the 20 Squares described above, except that the blades are beveled on both edges of each side, which provides an excellent visual line contact with the work.



55-3

55 Master Precision Squares with Beveled Edges

Squares Only		Case Only		Size – Length of Blade*		Length of Beam	
Cat. No.	EDP	Cat. No.	EDP	in	mm	in	mm
55-1 1/2	50277	916	55152	1-1/2	40	1-1/2	40
55-3	50279	951	55153	3	75	2-3/8	60
55-4 1/2	50281	918	55154	4-1/2	115	3-1/2	90
55-6	50283	919	55155	6	150	4-5/16	110

* Length of blade from the inner edge of the beam to the end of the blade.



SQUARES

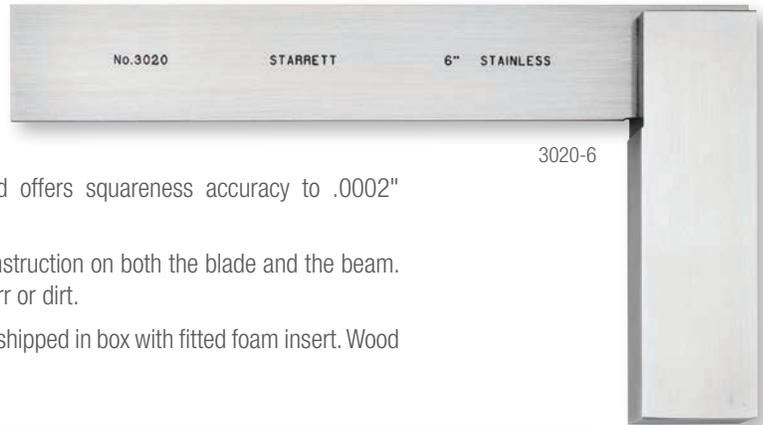
3020 TOOLMAKERS' GRADE STAINLESS STEEL SQUARES

2-31/32 - 12-1/32"/50-175MM

This high quality toolmakers' square is not graduated and offers squareness accuracy to .0002" (0.005mm) for every 6" (150mm).

They feature hardened, ground and lapped stainless steel construction on both the blade and the beam. The beam is machined at the inner corner for clearance of burr or dirt.

Packed one in a plastic case. 12" square and set of 4 squares shipped in box with fitted foam insert. Wood cases as listed may be purchased separately.



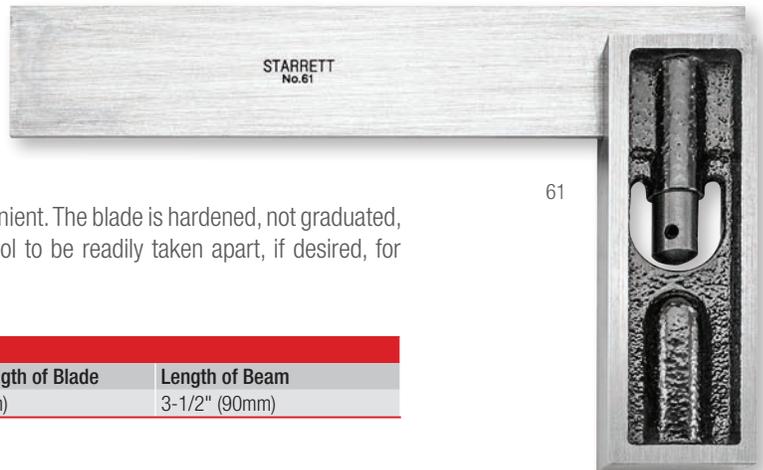
3020 Toolmakers' Grade Stainless Steel Squares							
Squares Only		Case Only		Size – Length of Blade*		Length of Beam	
Cat. No.	EDP	Cat. No.	EDP	in	mm	in	mm
3020-3	12225	951	55153	2-31/32	75	1-31/32	50
3020-4	12226	918	55154	3-31/32	100	2-31/32	75
3020-6	12227	919	55155	5-29/32	150	3-29/32	100
3020-12	12228	20ZZ-12	55156	12-1/32	300	6-7/8	175
3020 Sets							
Cat. No.	EDP	Description					
S3020Z	12229	Complete Set of all 4 Squares					

* Length of blade from the inner edge of the beam to the end of the blade.

61 "RELIABLE" TRY SQUARE

6"/150MM

A very useful try square – attractively designed, light and convenient. The blade is hardened, not graduated, and is firmly held by a special bolt and nut permitting the tool to be readily taken apart, if desired, for regrounding the blade and stock.



61 "Reliable" Try Square			
Cat. No.	EDP	Size – Length of Blade	Length of Beam
61	50303	6" (150mm)	3-1/2" (90mm)



DOUBLE SQUARES

13. 13M DOUBLE SQUARES WITH HARDENED BLADES

4-6"/100-150MM

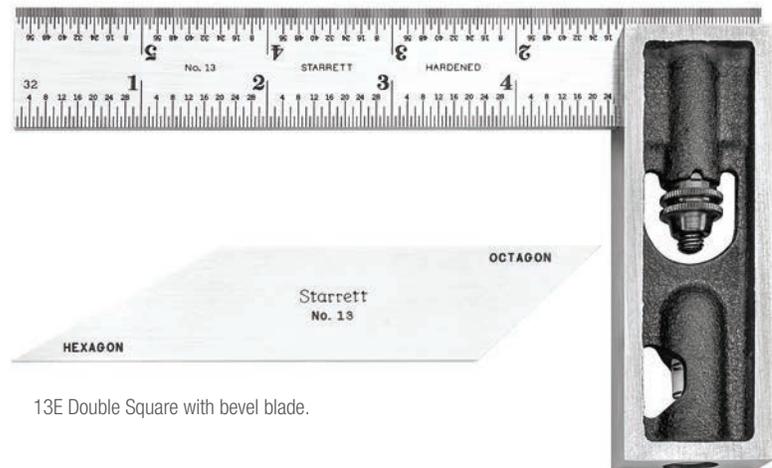
These squares are very popular with machinists, toolmakers, and patternmakers. The sliding blades are adjustable making it practical for a wide variety of uses. The faces of the head are ground square, and the 6" (150mm) size has a level.

The bevel blade is available, featuring an octagon angle 45° at one end and a hexagon angle 60° at the other end, clearly marked.

A drill grinding blade, also available for 6" (150mm) squares, is beveled to 59° for drill grinding on one end and 41° (the cutting angle of countersinks for machine screws) at the other. Both ends have quick-reading 64ths grads. and the graduation is located to measure perpendicularly to the axis of the drill. By reading the graduations, the center point can be easily and accurately located.

The 6" square head used with the drill grinding blade is approximately 3-1/2" (90mm) long, and the faces approximately 9/16" (14mm) wide.

Inch Reading Double Squares – 4R Graduation – 8ths, 16ths, 32nds, 64ths			
Cat. No.	EDP	Size	Description
13A	50109	4"	With graduated blade only
13C	50111	6"	With graduated blade only
13E	50112	6"	With graduated and bevel blades
13D	50114		Drill grinding blade only for 6" (150mm) squares
Millimeter Reading Double Squares – mm Both Edges One Side; mm and 1/2mm Reverse Side			
Cat. No.	EDP	Size	Description
13MA	56278	100mm	With graduated blade only
13MB	56279	100mm	With graduated and bevel blades
13MC	56280	150mm	With graduated blade only
13ME	56263	150mm	With graduated and bevel blades



13E Double Square with bevel blade.



DOUBLE SQUARES

14, 14M Double Steel Squares with Hardened and Ground Head and Blades

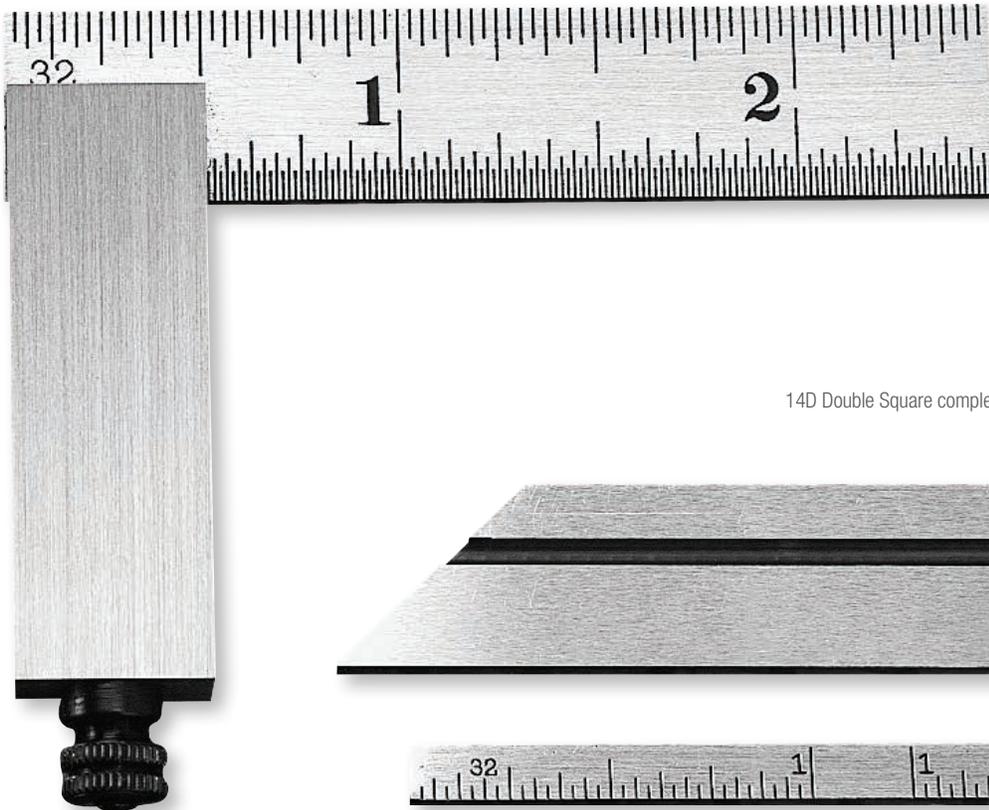
2-1/2"/50MM

Designed for tool and diemakers, these fine precision double steel squares have adjustable blades, ideal for tight fits. A knurled clamping nut accurately locks the blades in any position.

Beveled blade is 45° on one end and 30° on the other.

2-1/4" (58mm) Narrow blade has 32nds and 64ths graduations. 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).

14 Inch Reading Double Steel Squares – 32nds, 64ths				
Cat. No.	EDP	Size	Graduation	Description
14A	50117	2-1/2"	32nds, 64ths	With Graduated Blade Only
14D	50118			Complete with Graduated Narrow Blade and Bevel Blade
14M Millimeter Reading Double Steel Squares – mm Both Edges One Side; mm and 1/2mm Reverse Side				
Cat. No.	EDP	Size	Graduation	Description
14MA	56260	50mm	mm, 1/2mm	With Graduated Blade Only
14MD	56261			Complete with Graduated Narrow Blade and Bevel Blade



14D Double Square complete with graduated, bevel and narrow blades.



DIEMAKERS' SQUARES

453, 453M DIEMAKERS' SQUARES WITH ANGULAR AND SLIDING BLADE ADJUSTMENT

2-1/2"/50MM

The sliding blades of this tool and diemakers' square can be adjusted at an angle (up to approximately 10°) with the beam for measuring the clearance in dies (see sectional view). The larger knurled thumb screw locks the blades at any position, and the smaller one tilts the blades at an angle. To set the blades at an angle, first release the blade clamp screw, then the blade may be tilted to the desired angle by turning the small knurled screw into the beam. The blade can be held in position by tightening the clamping screw. Head and blades are hardened and ground.

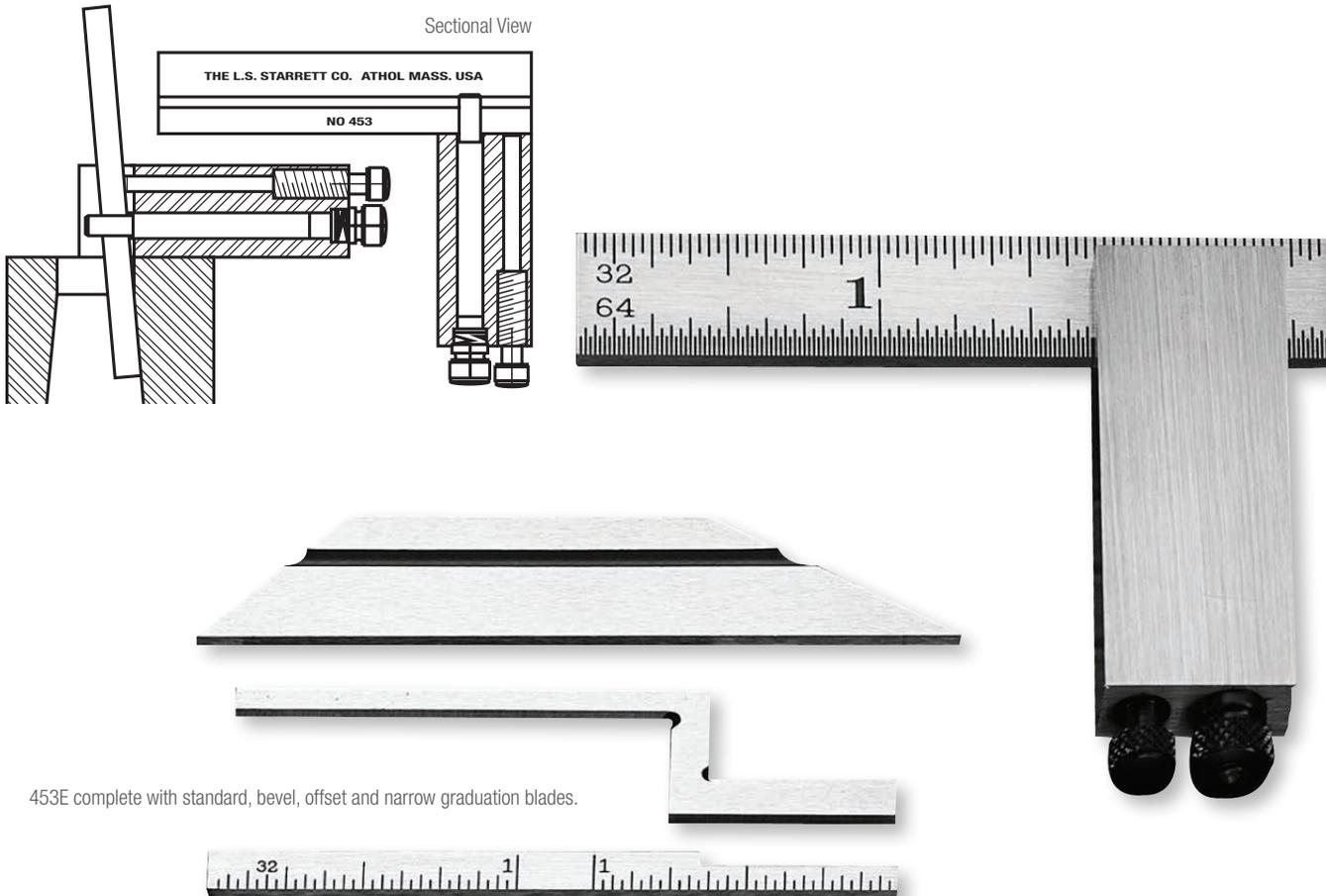
The inch reading blade is graduated on one side, upper edge in 32nds, lower edge in 64ths and the millimeter reading blade is graduated in millimeters and 1/2 millimeters.

The bevel blade is approximately 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 approximately 1-5/8" (41mm) and cut away at one end to a width of 3/32" (2.4mm).

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

453 Inch Reading Diemakers' Squares – Graduation 32nds, 64ths			
Cat. No.	EDP	Size	Description
453A	52345	2-1/2"	With Standard Graduated Blade
453C	52347		With Standard, Narrow Blades
453E	52349		Complete With Standard, Bevel, Narrow and Offset Blades
453EZ	52351		Complete With Standard, Bevel, Narrow and Offset Blades in Case
453M Millimeter Reading Diemakers' Squares – Graduation mm and 1/2mm			
Cat. No.	EDP	Size	Description
453MA	52346	50mm	With Standard Graduated Blade
453MC	52348		With Metric Standard, Narrow Blades



453E complete with standard, bevel, offset and narrow graduation blades.



DIEMAKERS' SQUARES

457 IMPROVED DIEMAKERS' SQUARE WITH ANGULAR ADJUSTMENT

10°-0°-10°

The 457 Improved Diemakers' Square is a highly useful tool for tool and diemakers, especially for measuring die clearances. It is also very handy for patternmakers to check angles and drafts on patterns.

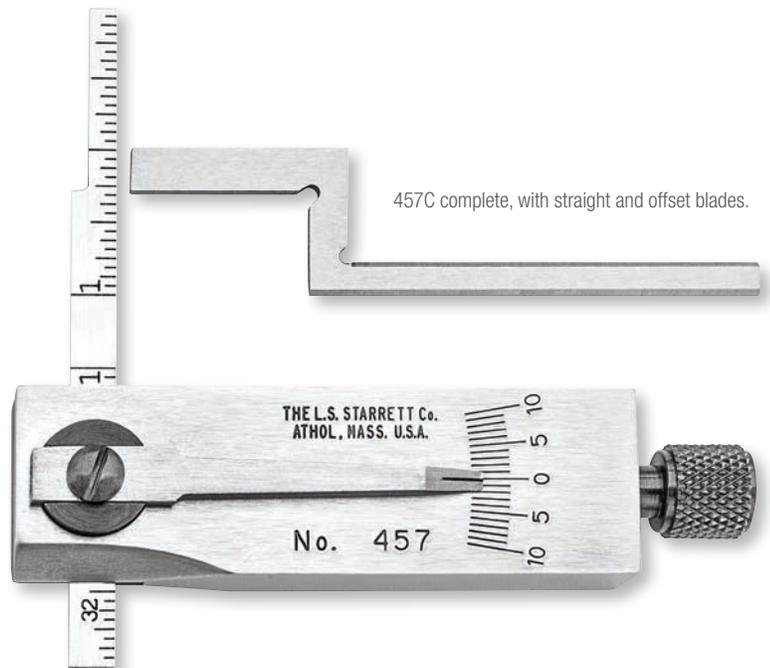
The beam of this square is graduated to show the setting in degrees of the blades. Blades can be set for any angle up to 10°, either side of 0° and the angle is indicated by the line on the pointer.

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).

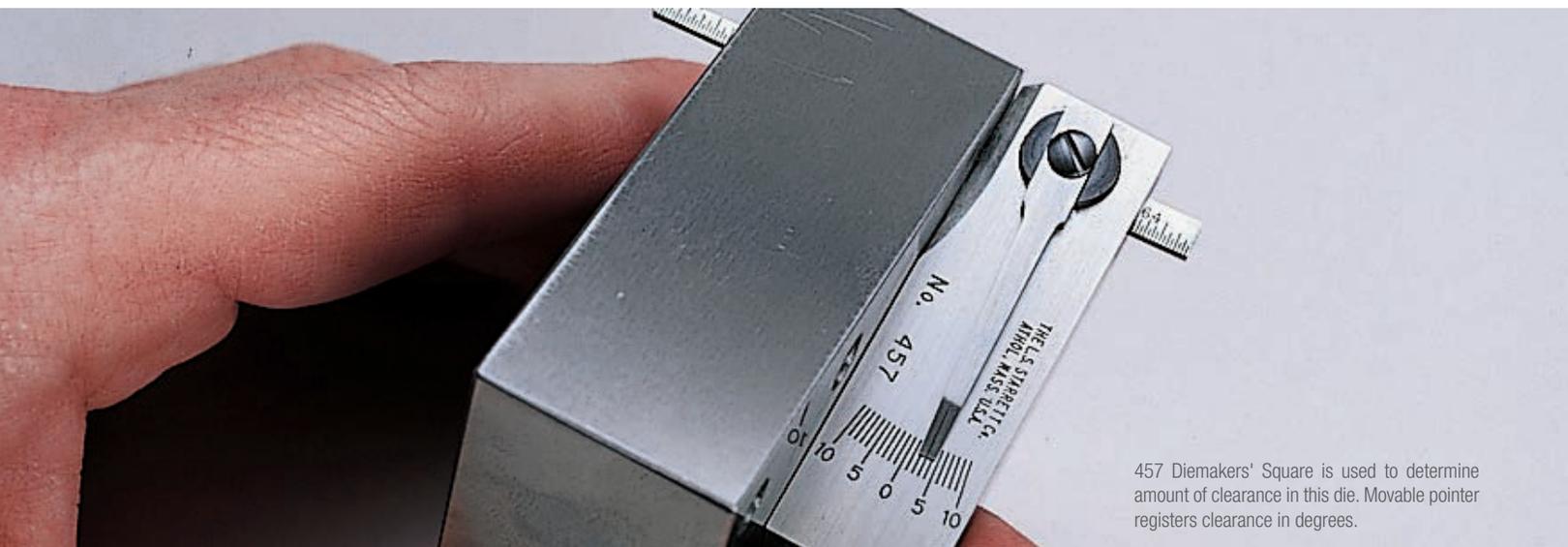
The offset blade, which is used where it would be impossible to insert the straight blade, protrudes from the square about 1-1/2" (38mm). It is 1/8" (3mm) wide and both sides of each edge are beveled to give visual line contact.

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°		
Cat. No.	EDP	Description
457A	52428	With Straight Blade Only
457C	52429	Complete, with Straight and Offset Blades



457C complete, with straight and offset blades.



457 Diemakers' Square is used to determine amount of clearance in this die. Movable pointer registers clearance in degrees.