



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<br>Cast Iron Heads with Black Wrinkle Finish |       | 33H<br>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"          |
| 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<br>Cast Iron Heads with Black Wrinkle Finish |       | 33MH<br>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<br>Cast Iron Heads with Black Wrinkle Finish                  |       | 33MEH<br>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).

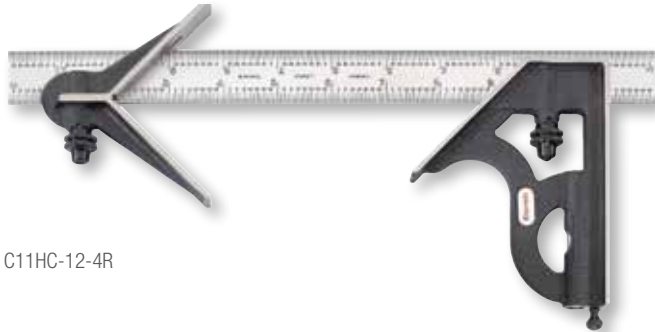


# COMBINATION SQUARES

## 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<br>Cast Iron Heads with Black Wrinkle Finish |       | 33HC<br>Forged and Hardened Steel Heads with Smooth<br>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<br>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<br>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<br>Quick Reading 50ths, 100ths | Regular<br>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<br>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<br>Quick Reading 50ths, 100ths | Regular<br>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<br>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<br>Quick Reading 50ths, 100ths | Regular<br>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<br>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<br>Quick Reading 50ths, 100ths | Regular<br>Satin Chrome |
| C11HC-24-16R                                      | 56377 | C33HC-24-16R   | 56407 |      |   |                         |

#### 150-600mm Combination Squares with Square and Center Heads

| 11MHC<br>Cast Iron Heads with Black Wrinkle Finish |       | 33MHC<br>Forged and Hardened Steel Heads with Smooth<br>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<br>Satin Chrome |
| C11MHC-150   | 56381 | C33MHC-150  | 56411 |       |                         |                         |
| 11MHC-300  | 56244 | 33MHC-300   | 56250 | 300mm | mm and 1/2mm Both Sides | Regular<br>Satin Chrome |
| C11MHC-300   | 56383 | C33MHC-300  | 56413 |       |                         |                         |
| 11MHC-600  | 56246 | 33MHC-600   | 56252 | 600mm | mm and 1/2mm Both Sides | Regular<br>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<br>Cast Iron Heads with Black Wrinkle Finish |       | 33MEHC<br>Forged and Hardened Steel Heads with Smooth<br>Black Enamel Finish |       | Size                 | Graduation   | Blade                   |
|---|-------|--|-------|----------------------|--|-------------------------|
| Cat. No.  | EDP   | Cat. No.   | EDP   |                      |  |                         |
| 11MEHC-300  | 50068 | 33MEHC-300   | 50222 | 300mm and<br>11-3/4" | 1/2mm and 32nds One Side; mm and 64ths<br>Reverse Side | Regular<br>Satin Chrome |
| C11MEHC-300   | 56387 | C33MEHC-300  | 56417 |                      |  |                         |
| 11MEHC-600  | 50075 | 33MEHC-600   | 50238 | 600mm and<br>23-1/2" | 1/2mm and 32nds One Side; mm and 64ths<br>Reverse Side | Regular<br>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, scribe, 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<br>Cast Iron Heads with Black Wrinkle Finish |       | 434 Sets<br>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 | 18"  | 16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths | Regular      |
|   |       | C434-18-16R**   | 51551 |      |  | Satin Chrome |
| 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 | 24"  | 16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths | Regular      |
|   |       | C434-24-16R**   | 51553 |      |  | Satin Chrome |

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

| 435M Sets<br>Cast Iron Heads with Black Wrinkle Finish |       | 434M Sets<br>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<br>Cast Iron Heads with Black Wrinkle Finish |       | 434ME Sets<br>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



9-12-4R

Supplied in protective case

| 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.)

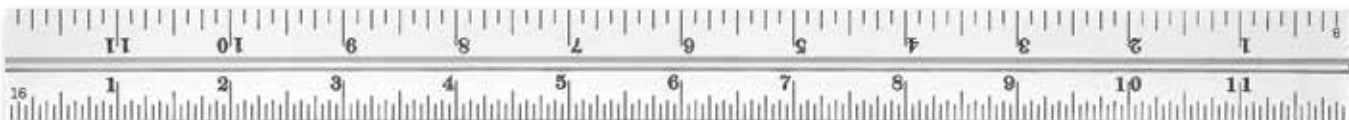
| Inch Blades Only for Combination Squares, Sets and Bevel Protractors |       |      |                           |  |              |
|--|-------|------|---------------------------|--|--------------|
| Cat. No.   | EDP   | Size | Approx. Width x Thickness | Graduation   | Finish       |
| B4-4R  | 50076 | 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)<br>18"<br>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)<br>18"<br>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"



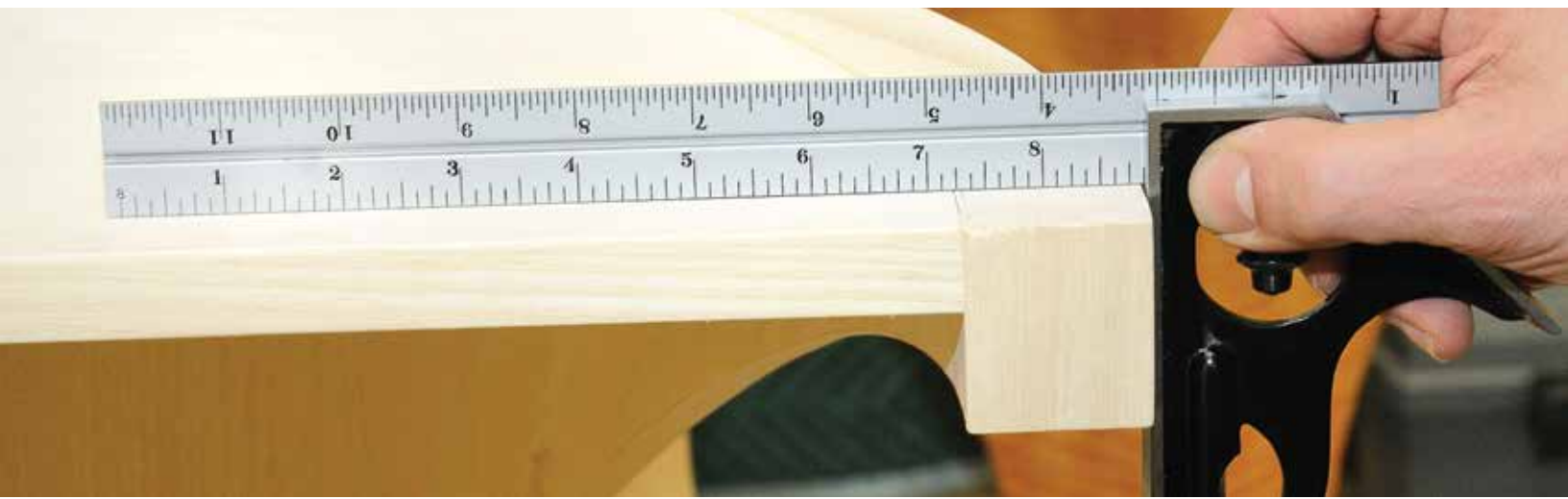
H11-1224



C33-1224



PR-1224S



# COMBINATION SQUARES

## 289 ATTACHMENTS FOR COMBINATION SQUARES

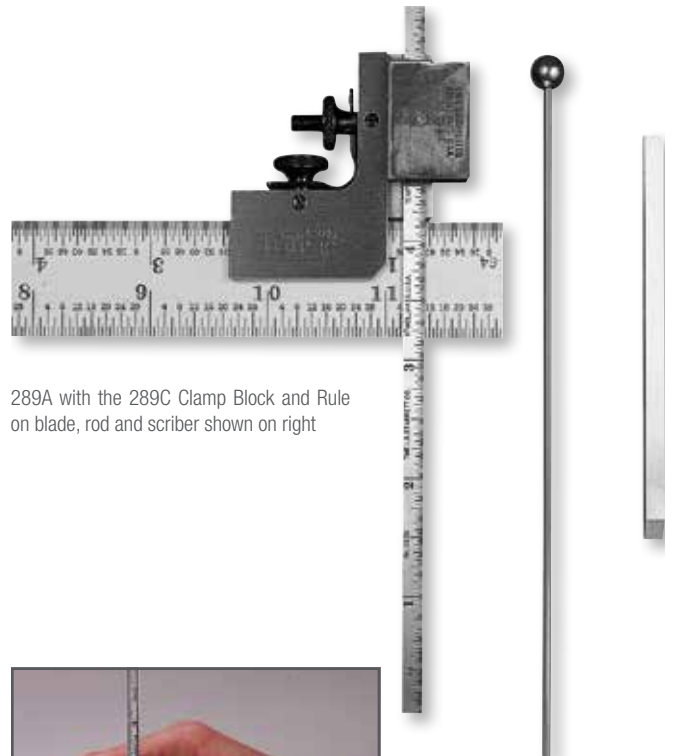
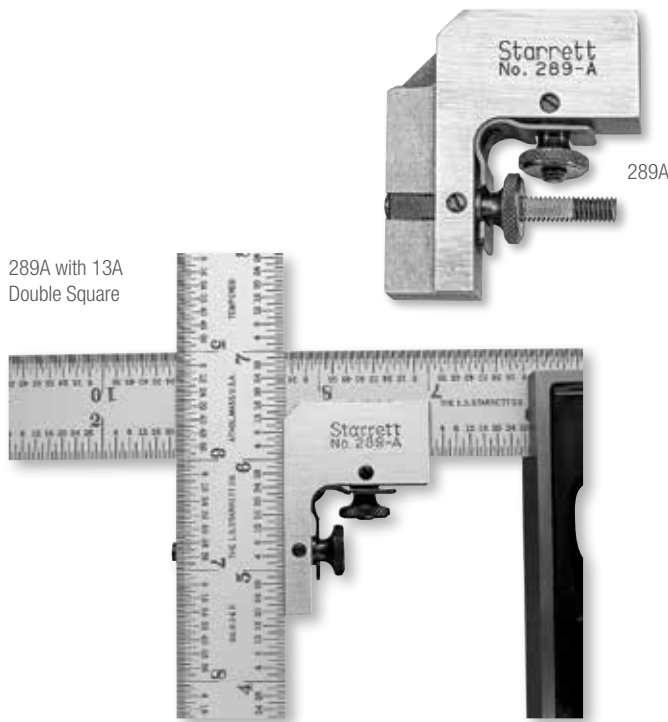
These attachments fit combination square blades 1" (25mm) wide and permit attaching rules, blades or thin steel try squares, up to 1" (25mm) wide, at right angles to the blade of the square for laying out key seats, centers, scribing horizontal lines, and measuring diameters. Available in two sizes listed 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 |



# 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 | 4 – 8ths, 6ths, 32nds, 64ths | With Square Head and Center Head |

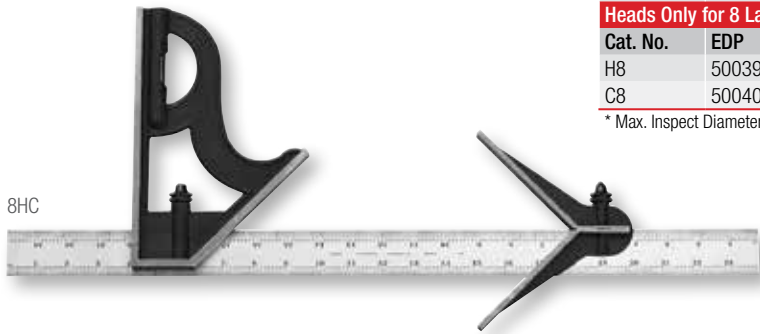
### Blade Only for 8 Large Combination Squares

| 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"



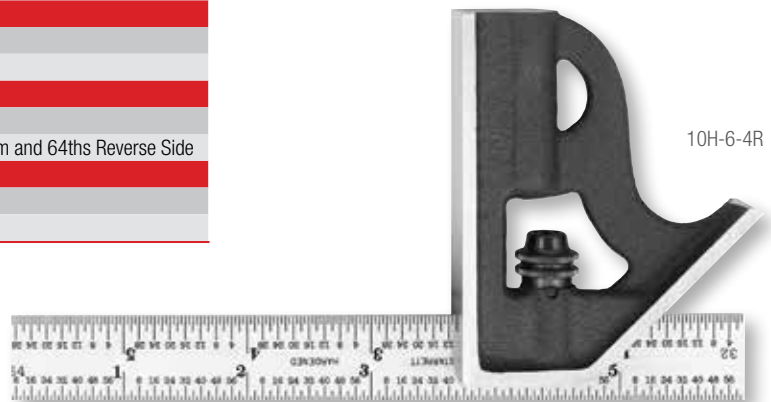
## 10 STUDENT COMBINATION SQUARES

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"

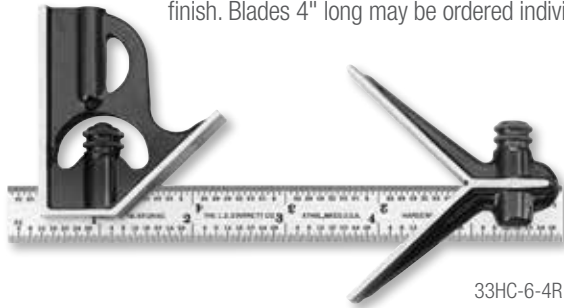


# COMBINATION SQUARES

## 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



### 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 |              | 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 |              | 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 |              |  |             |
| B33J-16R   | 50236 | 6"           | 16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths | Blade       |
| CB33J-16R* | 67101 |              |  |             |
| B4-4R      | 50076 | 4"           | 4R – 8ths, 16ths, Quick Reading 32nds, 64ths                           | Blade       |
| CB4-4R*    | 50077 |              |  |             |
| CB4-16R*   | 50078 |              | 16R – Quick Reading 32nds, 64ths, Aircraft Quick Reading 50ths, 100ths |             |

### 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"

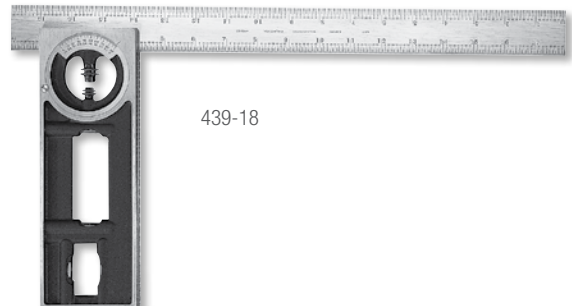
## 439 BUILDERS' COMBINATION TOOL

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.

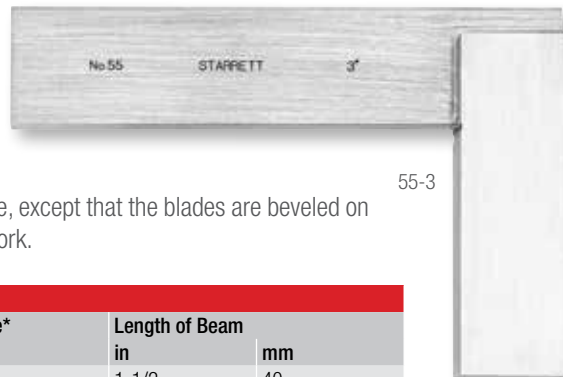
† Rack-type case.

‡ 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

SQUARES

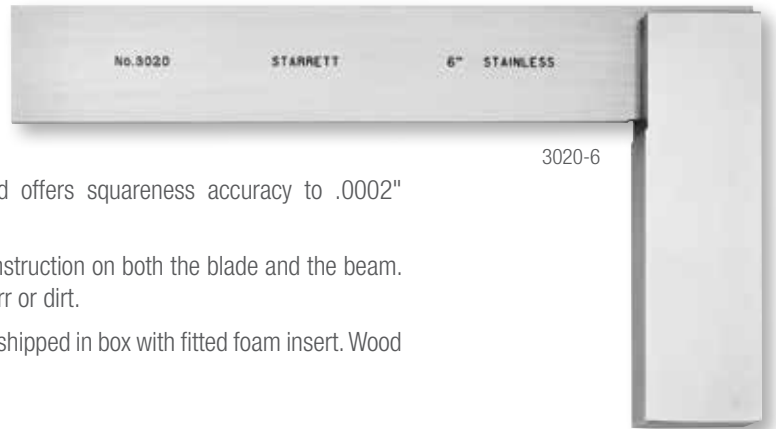
## 3020 TOOLMAKERS' GRADE STAINLESS STEEL SQUARES

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.



3020-6

### 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

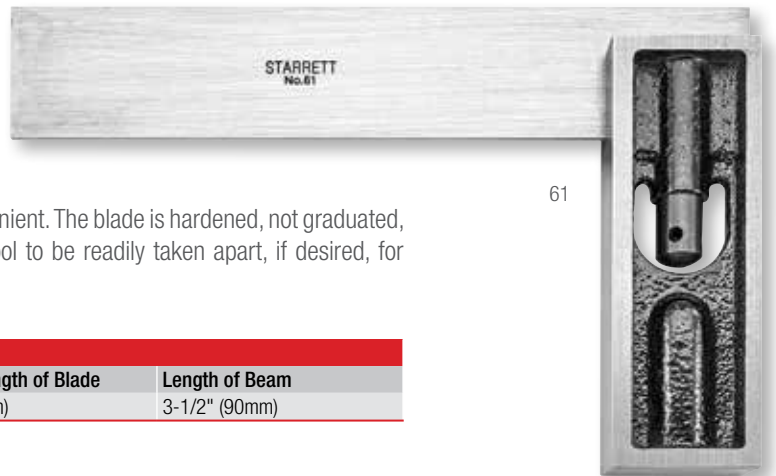
| Cat. No. | EDP   | Description                   |
|----------|-------|-------------------------------|
| S3020Z   | 12229 | Complete Set of all 4 Squares |

\* 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

### 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

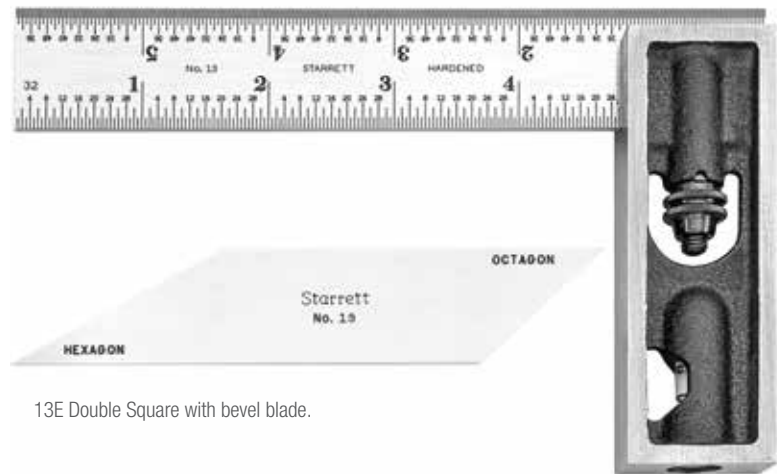
These squares are very popular with machinists, toolmakers, and patternmakers. The sliding blades are adjustable making it practical for a wide variety of uses. The faces of the head are ground square, and the 6" (150mm) size has a level.

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

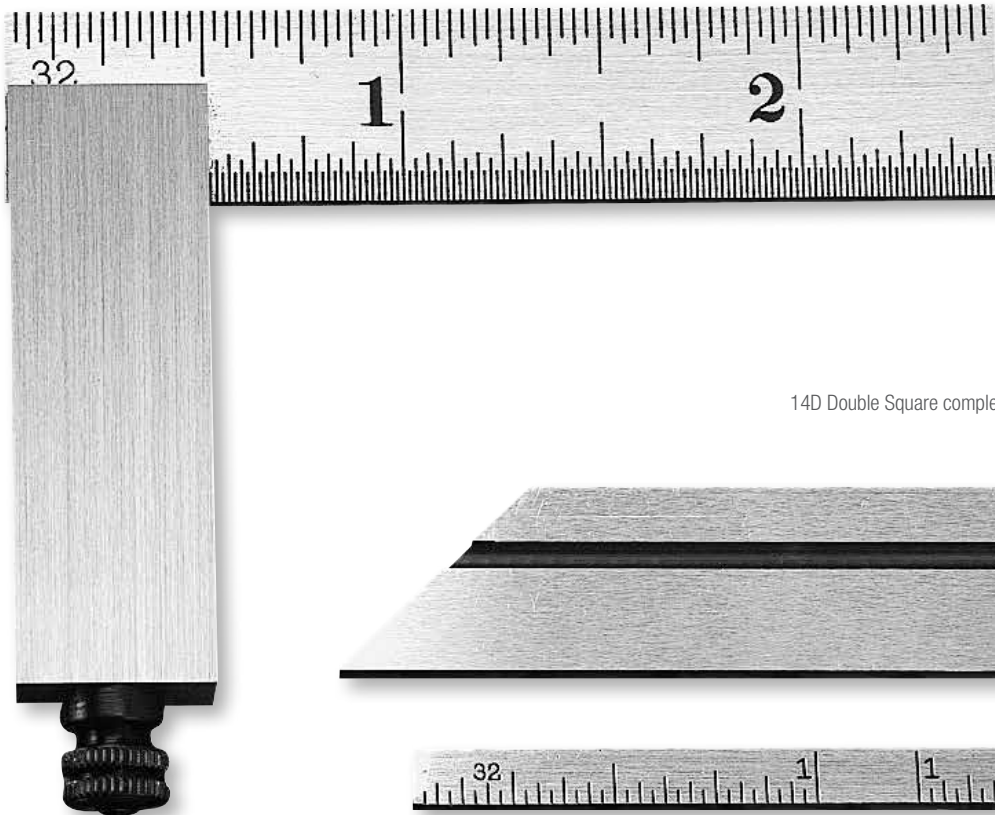
### 2-1/2"/50MM

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.

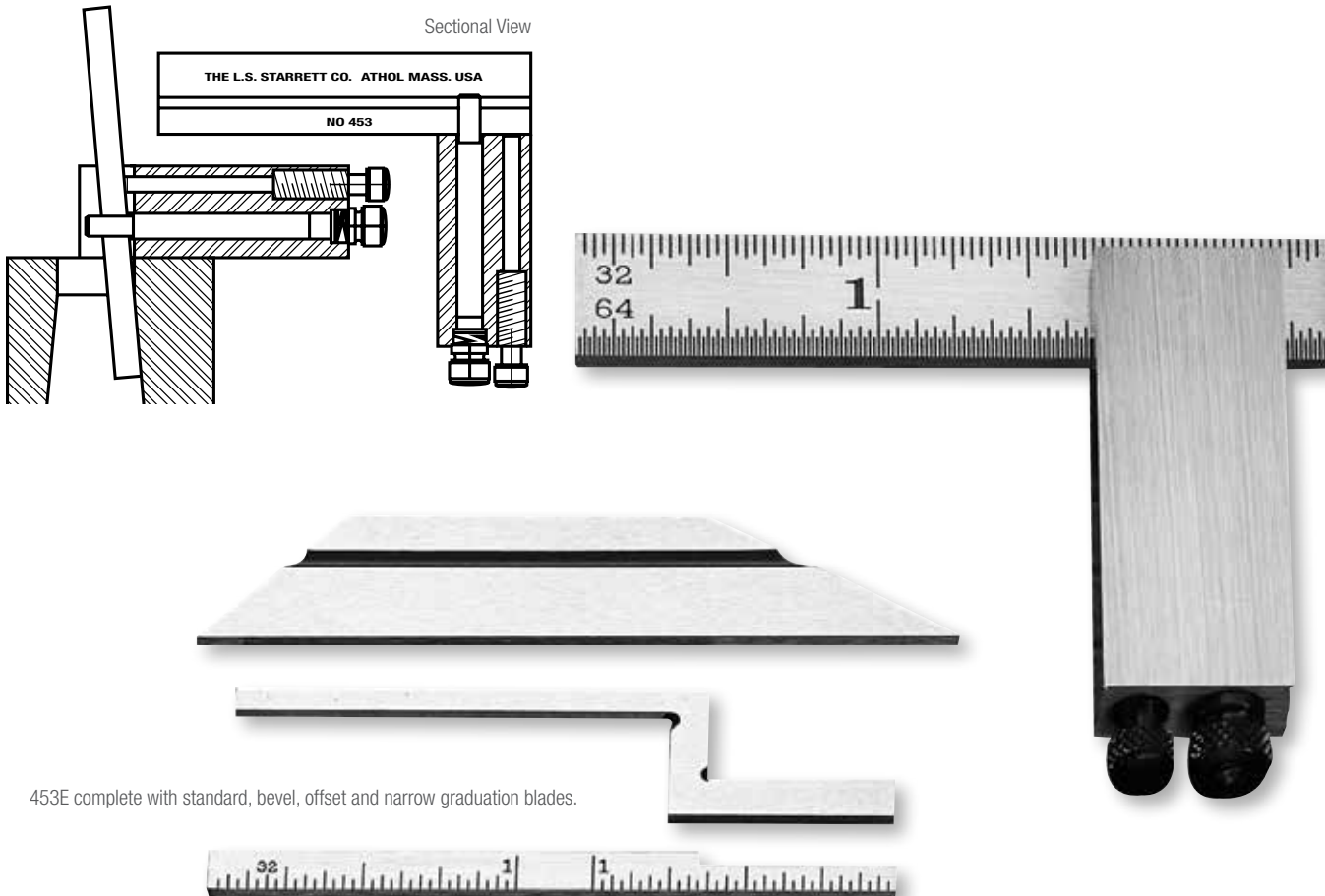
The inch reading blade is graduated on one side, upper edge in 32nds, lower edge in 64ths and the millimeter reading blade is graduated in millimeters and 1/2 millimeters.

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.

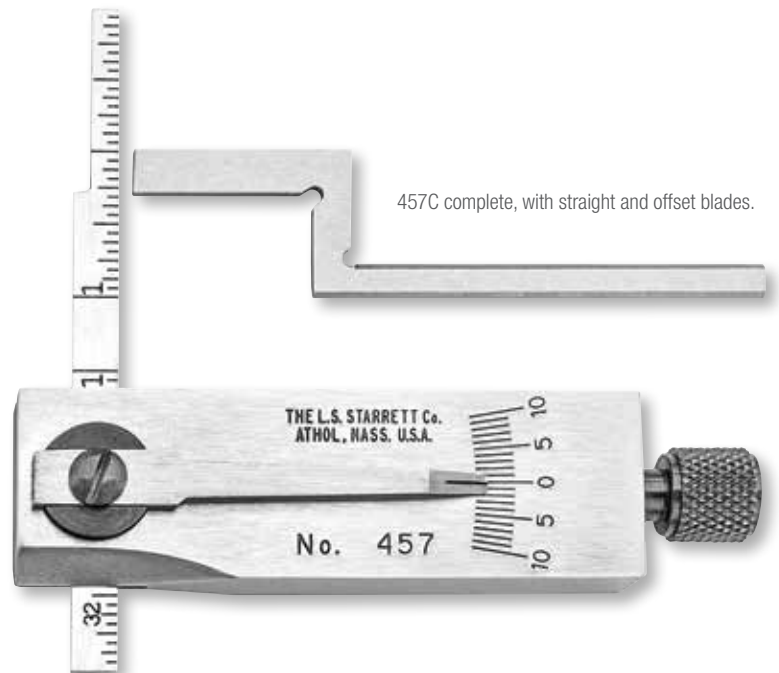
The graduated blade has 32nds of an inch on one side, and 64ths on the other. It is 5/32" (4mm) wide over a length of approximately 1-5/8" (41mm) and cut away at one end to a width of 3/32" (2.4mm).

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.

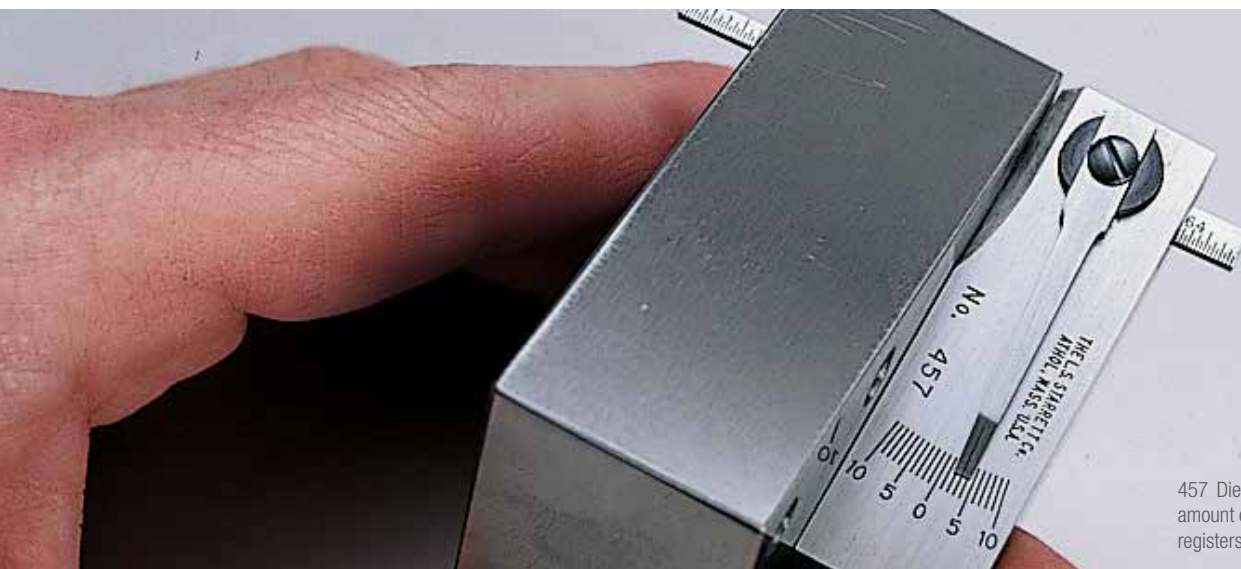
The beam is beveled adjacent to the blade so that the blade is readily visible when checking in holes, slots, etc. Blades and beams are hardened and ground.

#### 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.