

# Choosing a 6" Combination Square

Yes, there are more than three 6" combination squares on the market. But of the many varieties available we prefer to purchase one quality square, rather than buying multiple inexpensive tools every time it rusts or, well, goes out of square.

Woodworkers need an accurate, durable square. We chose three brands that are sold with just the basic body and blade. All have cast steel bodies, rather than forged and hardened bodies. The hardened steel versions are more expensive, and after speaking with company representatives we feel comfortable that the cast bodies will provide reliable service for woodworking.

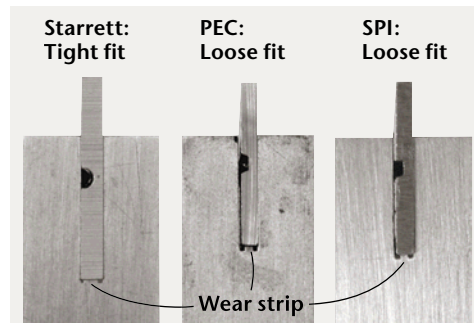
Each of the squares has four scales etched on the blade ( $\frac{1}{8}$ ths,  $\frac{1}{16}$ ths,  $\frac{1}{32}$ nds and  $\frac{1}{64}$ ths), and includes a scratch awl and spirit level.

We tested each square for accuracy in both the 90° and 45° aspects (out of the box) then ran the blade through the head 100 times to check for any wear and change in accuracy. We saw no changes in accuracy after the wear testing.

Beyond accuracy, we looked at ease of use (how smoothly the blade could be moved and reversed), and also visibility and legibility of the scales on the blade.

To be highly recommended the tool had to be accurate and easy to use. Only one of the three squares met that criteria: Starrett. And because accuracy is the primary reason for using a square, the other squares' accuracy issues make it impossible to recommend them. **WM**

— David Thiel



The more accurate the fit of the blade into the body, the less chance of a loose fit affecting accuracy and operation. A narrower wear strip will likely wear faster, changing the accuracy of the square in a shorter period of time.

## 6" Combination Squares

Highly Recommended



<b>BRAND</b>	Starrett (mfg in USA)
<b>PRICE</b>	\$56.90
<b>BODY THICKNESS</b>	$\frac{3}{4}$ "
<b>BODY FACES</b>	$1\frac{15}{16}$ ", $\frac{63}{64}$ ", $2\frac{63}{64}$ "
<b>BLADE WIDTH</b>	$\frac{23}{32}$ "
<b>CONTACT</b>	978-249-3551 or starrett.com

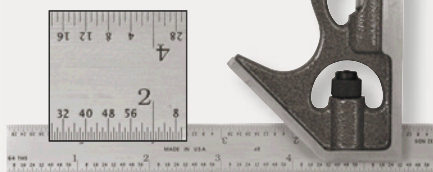
**COMMENTS** While the most expensive of the three squares, the Starrett has the benefit of being accurate in both the 90° and 45° tests.

The surface of the body was in excellent shape with a quality casting and a clean, well-finished surface. The blade was easy to read, with a surface finish that seemed to shrug off fingerprints. The etchings were crisp and legible in all scales.

The blade-to-body fit was excellent with just enough clearance to offer a smooth movement in the body. The Starrett also employed a locking bolt that held the tang in proper orientation, making it easy to fit the blade back into the body. The Starrett also uses an oversized knurled locking knob for easier use.

At first glance the SPI and Starrett squares are very similar. But when you look close and put them to work the differences become obvious. For accuracy and ease of use your money is best spent with the Starrett.

Not Recommended



<b>BRAND</b>	PEC Tools (mfg in USA)
<b>PRICE</b>	\$42.58
<b>BODY THICKNESS</b>	$\frac{19}{32}$ "
<b>BODY FACES</b>	$1\frac{27}{32}$ ", $1\frac{7}{64}$ ", $2\frac{15}{16}$ "
<b>BLADE WIDTH</b>	$\frac{23}{32}$ "
<b>CONTACT</b>	310-787-4500 or productsengineering.com

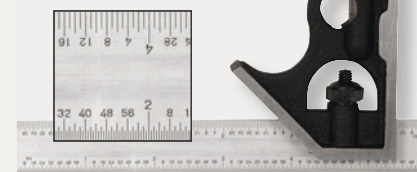
The PEC square proved accurate in the 90° test to both sides of the blade, but was off  $\frac{1}{10}$ th of a degree in the 45° test.

The surface of the body was discolored with the start of some rust and showed some slight pitting. The blade has decent markings that are finely etched, but in the  $\frac{1}{32}$ nd and  $\frac{1}{64}$ th scale there wasn't enough height differentiation on the marks to make the numbers easily readable, as you can see above.

The blade-to-body fit was loose, and movement of the blade was OK, but short of smooth. It required some extra finesse to replace the blade in the body. This was due to the loose fit of the blade and the loosely aligned locking bolt. The knurled locking knob was smaller in diameter than the cast head, making it harder to grasp and turn.

While a better choice than an economy square, it should still be accurate and easy to use.

Not Recommended



<b>BRAND</b>	SPI (Swiss Precision Instruments) (mfg in China)
<b>PRICE</b>	\$37.95
<b>BODY THICKNESS</b>	$\frac{21}{32}$ "
<b>BODY FACES</b>	$1\frac{13}{16}$ ", $1\frac{1}{8}$ ", $2\frac{29}{64}$ "
<b>BLADE WIDTH</b>	$\frac{25}{32}$ "
<b>CONTACT</b>	888-774-8200 or swissprec.com

The SPI square was out of square in the 90° test by  $\frac{1}{64}$ " over the 6" length of the blade, but only on one side of the blade. We checked the blade for parallelism and found no problem. We concluded that the center groove on the blade was off and the lock bolt tightening in the groove threw off the one side – strange. The SPI was accurate in the 45° test.

The surface of the body was in better shape than the PEC, including the casting quality. The blade is finely etched, but as with the PEC the line height and the numbers made it difficult to differentiate the markings from one another.

The blade-to-body fit was loose and the blade moved stiffly in the body. A dangling locking bolt also made replacing the blade in the body somewhat awkward. The oversized knurled locking knob made grasping and turning relatively easy.

Priced slightly less than the PEC square, the SPI is made better than the PEC, but it still has readability issues and its accuracy is a concern.