

CROWN SPRING ANGLE

Do not make this difficult... it is really very simple! :-)

Why is the Crown Spring Angle Important?

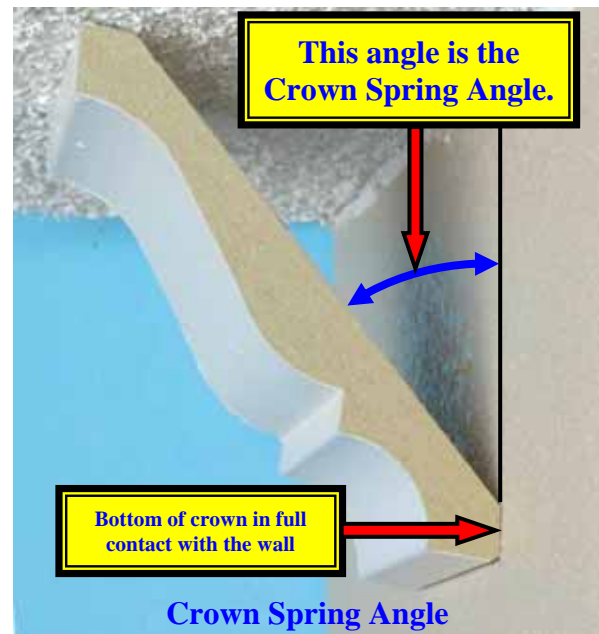
The crown spring angle tells you how your crown molding was manufactured. The crown spring angle and the corner angle is all you need to know in order to make the perfect cut each and every time. Each piece of molding purchased for a job **must** have the exact same crown spring angle.... *this is always true.*

Definition of Crown Spring Angle

The crown spring angle is the angle measured from the back of your crown molding to the wall when holding the bottom of your crown molding firm against the wall (in full contact with the wall).

Note: You can use either edge of your crown molding as the bottom. You chose which edge you want to install as the bottom and measure the crown spring angle using the edge you call the bottom of the crown molding.

This means, each piece of crown molding has two spring angles depending on the edge you choose as the bottom of the crown molding.



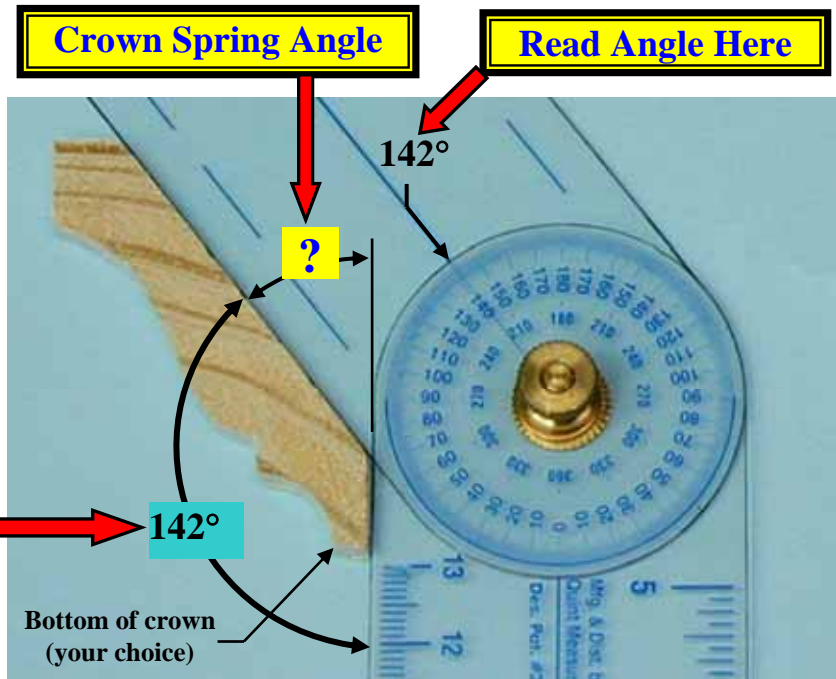
Tip: Take your 7" True Angle® tool with you when purchasing your crown molding and measure the crown spring angle of each piece of crown molding. Make certain that each piece has the exact same crown spring angle. Why? Crown molding often gets mixed up at the store and even though the crown molding may have the same profile and width the crown spring angles may be different.

How to measure your Crown Spring Angle.

To measure your crown spring angle use your 7" True Angle® tool and measure each piece of your crown molding to make sure they all have the **exact** same spring angle.

1. Decide which edge of your crown you will use as the bottom (your choice).

2. Place your 7" True Angle® tool as shown in the photo to the right and measure the angle that the back of the crown makes with the bottom back edge of the crown.



3. The 7" True Angle® tool shows a measured angle of 142°. To find the crown spring angle, subtract the measured angle from 180°.

$$\text{The Crown Spring Angle} = 180^\circ - 142^\circ = 38^\circ .$$

I have purchased 52/38 crown molding. Does this mean that I have 38° crown spring angle or a 52° crown spring angle depending on which edge I choose as the bottom? No! Not at all. Why? When you purchase a 2x4 piece of lumber you actually get a 1.5"x 3.5" board. The 2x4 term is called a nominal dimension. Crown molding is very much the same way. So, regardless of your crowns nominal description (52/38, 45/45, 40/50.... etc.) you should always measure your crown spring angle to know exactly what you have.

The most common error in cutting crown molding is using the wrong crown spring angle. Double check your crown spring angle...make sure you know your exact spring angle and that each piece of crown you purchased is the same (see page 34 in the book on how to measure crown spring angle).

Note: There are two common spring angles, 38° and 45°.

However, there are many others. **Also,** some crown that is labeled as 38° or 45° spring angle crown are undercut, when milled at the factory, up to 3°. This results in an actual crown spring angle of 35° or 42°. This 3° difference will result in about a 1.5° change in your miter and blade tilt settings. If you are using 5" crown, you will have about a ¼" gap at the ceiling (the larger the crown the wider the gap). I also provide extra tables for free download (PDF format) that contain 12,000 saw settings (miter and blade tilt settings vs. corner angle and crown slope angle) to deal with the odd spring angles or undercut crowns. See Chapter 5 (page 50) for details of where to download the extra tables or go to www.compoundmiter.com/extratables.

Do Not Assume you know your crown spring angle.....measure it exactly (each piece)and then check your measurement again!!!!

Very Important: The **charts and tables** in the book contain columns labeled **CROWN SLOPE ANGLE**. The **crown spring angle** is ***not*** the same thing as the **crown slope angle!** **Again, The crown spring angle is *not* the same thing as the crown slope angle!** You will use the crown spring angle to **calculate** the crown slope angle.

Do not use your measured Crown Spring Angle in the charts and table in the book. Use the calculated Crown Slope Angle.

Remember the crown spring angle only tells you how your crown molding was milled at the factory..... you will then use the **crown spring angle** to calculate the **crown slope angle** (see page 38 or help file "Crown Slope Angle").

Sincerely yours
Wayne Drake, President
CompoundMiter, Inc.