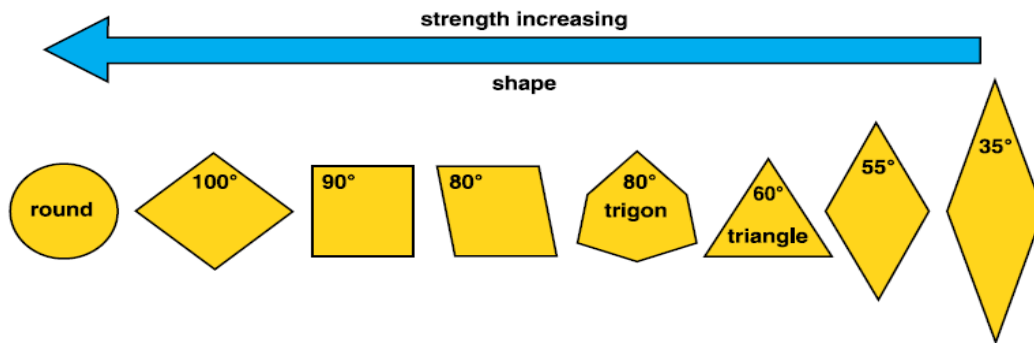


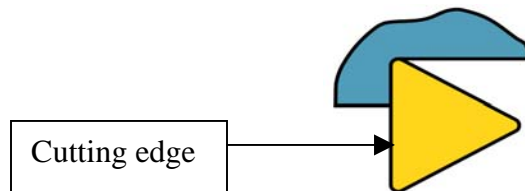


Technical Tip #150 – Insert Strength

Carbide inserts are designed in many different shapes to work their best in a variety of materials, based on their insert strength. The basic shapes listed from strongest to weakest are:

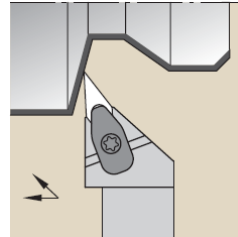
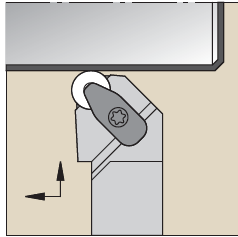


The size of the cross section between the cutting edge and the opposite side of the insert determines the difference in insert strength.



Knowing basic insert shapes and which are the strongest and weakest in each application can help you choose the right insert for your application.

For example, for straight heavy roughing, choose a round or square insert, rather than the 35-degree diamond shape. For a finishing profile application, choose a 35-degree diamond insert, rather than a round or square insert (see illustrations). In both applications, the shape of the insert best suits the application.



In all cases, the application will determine which insert style and shape works best. In most instances if you incorporate different inserts into the same application, you will achieve the best performance.

Remember that if you use the strongest insert possible for the application, you will increase tool life and productivity.