

Increase Productivity • Work Efficiently • Optimize Tool Performance

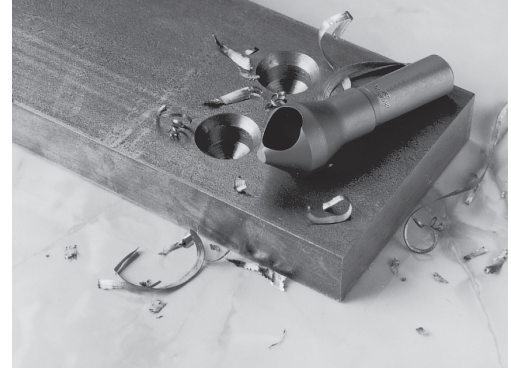
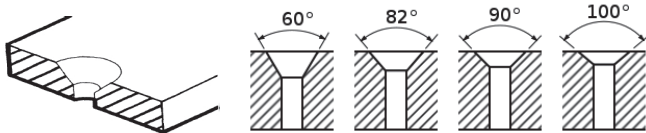
A countersink is a cutting tool, which cuts a conical hole into an object. The most popular application for countersinks is to de-bur an existing hole to allow a bolt or screw to sit flush against the workpiece surface. Countersinks can also be a convenient tool for removing burrs left over from drilling or tapping applications.

Choose The Right Size Countersink (Diameter)

- > A simple rule of thumb is to choose a countersink which is 50% larger than the diameter of the hole
- > Countersink diameter = 1.5 x bolt size (hole) diameter
- > Ex: For a 1/4-20 bolt, multiply the diameter (.250) x 1.5 = .375. This equates to a 3/8" countersink.

Choose The Right Size Countersink (Angle)

- > Angle is based on the screw or bolt type being used
- > 82° is most common

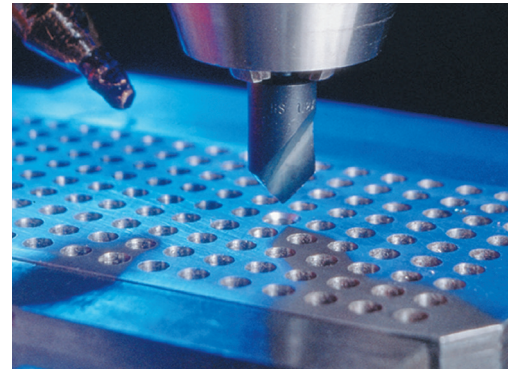


Calculate Countersink Speeds

- > Countersinking is usually performed at 1/3 the RPM of drilling

Speed Formula:

$$\frac{\text{SFM (surface feet per minute)} \times 3.82 / \text{Countersink Diameter (decimal equiv)}}{3}$$



Material	Surface Feet / Minute (SFM)	Sample Calculations for 1/4" Countersink Speed (RPM)
Aluminum	200 - 250	(225 (SFM) x 3.82 / .2500) / 3 = 1,146 RPM
Mild Steel	100 - 110	(115 (SFM) x 3.82 / .2500) / 3 = 586 RPM
Stainless Steel	30 - 100	(65 (SFM) x 3.82 / .2500) / 3 = 381 RPM

BruteLube Cutting Fluid & Wax

BruteLube Is Recommended When Countersinking Steel Alloys, Especially In Machining Applications

Using BruteLube Enhances Tool Heat Resistance. Operators Will Experience Smoother Cuts, Longer Tool Life, And Increased Production.

