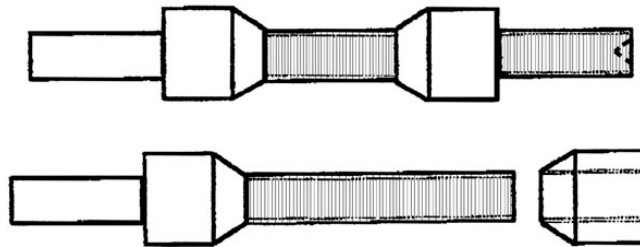


TIP 19 — A Simple Cone Mandrel/Ross Heitt

A cone mandrel is a very effective device for holding a part that has a hole drilled through it. It could be used to hold an R/C car wheel, a flywheel, a gear blank, etc. The part is secured between the tapers of the mandrel, which allows access to both sides and the outer circumference without having to change the setup. For the Sherline lathe a good size would be a shaft of about 1/4" to 5/16" in diameter. The cones are about 5/8" to 3/4" diameter with a 60° cone. Use a fine thread on the shaft and try to get a good, snug thread fit between the shaft and the collar. Center drill a 60° hole in one end for the live center point. The driven end is held in a collet or chuck. Both cones can be threaded or one can be fixed to the shaft with a set screw or pin.



A cone mandrel is a quick way to hold parts with a hole through the center.