



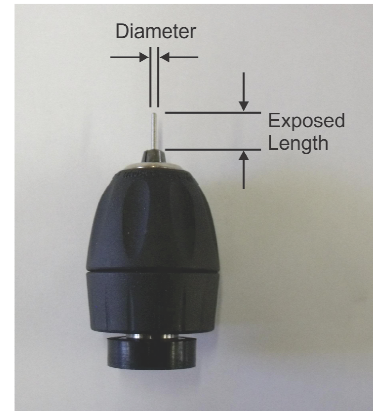
## Arbor Press Magnetic Pin Press Chuck Tool PART NUMBER: APMT0.375

**Mathews Engineering**  
2931 N. Webster Ave  
Indianapolis, IN 46219

*Diameter and Exposed Length*

### **Instructions: Wear safety glasses when using this tool!**

Use this 3/8" key-less chuck to hold press out pins for your arbor press. The pin chuck assures that your press pin is held perpendicular to the pressing force. The back of the chuck has a powerful neodymium magnet that hold the pin chuck to the underside of a 1" square arbor. (The chuck will also work on larger arbors.) The chuck is designed to hold drill-rod press tools up to 3/8" and has an internal back stop that transfers the pressing force to the press out pin. When loading the press out pin, insert it all the way into the chuck and tighten the chuck. This is a very useful shop tool for pressing out bearings, roll pins, hinge pins, dowel pins, etc. Also useful for holding round items on any magnetic surface or vertically on a surface plate.



## *Arbor Press Tool Tips and Tricks*

This press tool comes with a starter set of steel dowel rods. It is possible to cut additional pins from drill rod or from dowel rod. The cut ends can be dressed flat and smooth with a standard bench grinder.

A backing surface has been permanently formed into the bottom of the chuck. Make sure that press pins are inserted all the way in and are backed by the backing pin. If the press pin is not inserted completely the chuck jaws will generally not provide enough holding force. **Super magnets are brittle so force should be applied to the steel perimeter of the magnet cup. Avoid applying force directly to the magnet. For this reason, arbors less than 1" square or 1" round are not recommended.**

The amount of force that a particular rod can withstand before bending is proportional to the square of its diameter but is also a function of the "exposed length" from the end of the chuck.

Small diameter rods are fragile. Use them carefully and have spare rod material available as needed. Excessive exposed length may result in pin bending. Always use the minimum exposed length needed to get the job done.

Difficult jobs may require stepped application of progressively longer pins. For example, a jammed roll pin may require a pin with short "exposed length" to get it started then a longer pin to push it all the way through. Cases like this will require fabrication of appropriate press out pins.

Unusual pin diameters can be fabricated by turning down an oversize pin against a grinding wheel. This can be done by mounting the oversize drill rod in an electric drill and pressing it lengthwise against a grinding wheel while simultaneously spinning the pin with the electric drill.

This arbor press tool is excellent for quick set-ups but remember that magnetic force is all that is holding the tool in place and only a limited amount of side force can be tolerated. Whenever possible strive to press directly downward while minimizing side to side forces. The tool may be used with or without the rubber boot. The rubber boot provides extra resistance against side slip and keeps the magnet clean but will slightly reduce the magnetic holding force.

For extra resistance against bending, hardened rod may be used but may shatter under high load. In all cases wear eye protection, use caution, and obey applicable shop safety rules.

**Do not exceed 1500 lbs. of force and take extra caution when using high press force.**