Gage the bottom end of the insert with a bit gage. The bottom end is the one that has slots in it like for a straight screwdriver. They are **NOT** for that purpose! They are actually the cutting edges designed to size the hole to the correct diameter for the threads that follow. Use the bit that matches what the bit gage says, (or a wee bit slightly smaller but never larger). Most retail packaging actually gives the bore size right on the package somewhere.

For driving you need a bolt and nut that matches the insert's internal thread. Run the nut up the bolt about the same distance as the insert is long. Now thread the insert onto the bolt up to the nut. Now you can use the bolt to drive the insert home. If you are concerned about the nut marring your wood surface just put a flat washer between the nut and insert w/ a nylon frictionless washer under that washer. The insert will auto flush w/ the washer arrangement but will not rotate on the surface of the wood. Once the insert is seated just loosen the locknut and reverse the bolt out of the insert and you're done.

## Notes/tips:

After you drill the hole, use a chamfering bit to slightly ease the edge. This allows the insert to start easier.

paraffin wax the insert before inserting.

Prethread w/ a lag bolt that has the tip ground flat to cut threads for the insert for really dense wood...

For normal situations prethreading is not necessary..

Hole diameters for hard and soft woods are usually different. Soft being the smaller pilot hole

**Insert thread designs** are often different for hard or soft woods. End and face grain, likewise.

Remember, you can always make a hole larger.

Adding adhesive is a good idea. It makes the threads cut into the wood stronger. Buy a few extras and practice on some scrap.

## Knowledge Base & Engineering Resources