

# 5 Bit Drilling Set

The #PKSTONESET Drilling Set is designed to ease drilling issues associated with stone pen blanks, such as PennStone™ and Tru-Stone. This system solves common issues such as end chipping and blowouts which are caused by heat and waste build up in the hole.

This system features two carbide tipped pilot bits designed to go through stone like material to create a pilot hole. This holes can then be expanded with either a standard grind bit, or a PennState Acrylic Point bit (strongly recommended for larger holes). **DO NOT USE BRAD POINTS WITH THIS SYSTEM.**

Included in the system is is everything needed to drill holes up to 10mm:

- 1/4" Pilot Carbide Bit
- 3/8" Pilot Carbide Bit
- 7mm standard grind drill bit
- 8mm standard grind drill bit
- 3/8" standard grind drill bit



## Using the #PKSTONESET System (please read and understand all steps prior to drilling)

- When cutting blanks, measure an extra 1/2" of material so that any minor chipping can be removed during blank trimming.
- Select the appropriate Pilot Bit for your desired tube size. (Refer to Chart)
- Mount your blank in your preferred drilling method and proceed to drill.
- When drilling, use light pressure and proceed slowly – do not attempt to drill through quickly! As you near the end, it is especially important that you exit the blank slowly.
- Once the pilot hole has been drilled. Select your drill bit for your final size and put it in your drill chuck.
- Carefully line up the drill bit with the pilot hole, making sure the angled tip is touching the hole in several spots will help with this.
- Start to drill through with the new bit. Again, use light pressure and proceed slowly, especially towards the end of drilling. Once the drill has made it through, you should have a perfect hole with little to no edge chipping.

Tube Size	Pilot Bit	Final Bit Standard Grind or Acrylic Point Style
7mm	1/4" Carbide	7mm
8mm	1/4" Carbide	8mm
3/8"***	1/4" Carbide	3/8"
10mm	3/8" Carbide	None Needed
25/64"	3/8" Carbide	None Needed
Larger than 25/64"	3/8" Carbide	Standard Grind <b>-Acrylic Point Style preferred</b>

**\*\*NOTE:** That the 3/8" Carbide Bit drills a hole larger than 3/8", therefore we specify first drilling with a 1/4" Carbide, then with a 3/8" standard bit.

### Turning tips for stone blanks:

Take your time and with a few precautions, you will have no trouble producing projects with this beautiful material. It is best to use Carbide turning tools – The edge of steel tools will dull quickly.

A good practice is to trim off the corners prior to turning. The impact of the corners hitting the tool can lead to blowouts of the material. Always try to use turning techniques that cut the material instead of scraping the material – this puts less stress on the blank to reduce cracking.

