

**FLEX SHAFT ACCESSORIES: ANDY'S PICKS**  
**Part 1**  
**DRILLS • BURS • LUBRICATION • MANDRELS**

**Drilling**

- Drill adaptor with 3/32" shank (for quick release handpiece)
  - Rio: bad reviews
  - Otto Frei: #128.217
- Drill bits with 3/32" shanks in various sizes (for quick release handpiece)
  - Rio: #349081
  - Otto Frei: #F28.5841
- Standard twist drill
  - Any high-speed steel (HSS) bit

**Lubrication (drills, burs, etc.)**

- Cartridge cakes with holder
  - Rio: #117006
  - Otto Frei: N/A

**Mandrels: 3/32" (2.35mm) shank**

- Screw mandrel
  - Rio: #333108
  - Otto Frei: #143.128
- Screw mandrel (reverse thread)
  - Rio: #333020
  - Otto Frei: N/A
- Point (tapered threaded) mandrel
  - Rio: #333021
  - Otto Frei: #143.122
- Snap-on mandrel
  - Rio: #333127
  - Otto Frei: #110.740
- Split (slotted) mandrels
  - Tapered
    - Rio: #333132
    - Otto Frei: #111.309
  - Straight
    - Rio: #333130
    - Otto Frei: #111.308
  - Jumbo
    - Rio: #333136
    - Otto Frei: #111.305
- Rubber cylinder / cartridge roll mandrel
  - Rio: #337162 (1/8" shank)
  - Otto Frei: #111.171
- Pin-polishing mandrels
  - Rio: #333126 (fits 3mm pins)
  - Otto Frei: #110.241 (select for 2 or 3mm)

## **Burs**

### **Recommended Shank Size: 3/32" (2.35mm) shank**

This size is the most common size used. If you are using a #30 (adjustable) handpiece, the size matters less; if you are using a quick change, you need to buy the shank size that fits the collet of your handpiece: 1/8" or 3/32".

## **Materials**

Tungsten vanadium

- The most common; used in drill bits and burs
- Less hard but less expensive
- Uniformly cut and calibrated (by machine)
- Great for most uses, including stone setting
- Available in six packs and graduated sets

### **High-speed steel (HSS)**

- The best for jewelers' drill bits; great for burs
- Harder, longer lasting, but more expensive; great for higher speeds
- Cut by hand; less uniform from bur to bur
- Can be re-sharpened, but will come back smaller
- Great for many uses (general through stone setting)
- A bit more coarse
- Available by the piece and in graduated sets

## **Carbide**

- Very sharp and hard; great for hard materials like 18k white gold
- Expensive
- Can be brittle

## **Diamond**

- Will cut anything
- Less expensive brands can wear out quickly
- Best for use with ceramics, glass, enamels, and hard alloys

## **Common Brands**

Tungsten vanadium

- Busch
- Fox
- Lynx
- Dentsply Maillefer

**High-speed steel (HSS)**

- Spearhead
- Rio (only through Rio Grande)