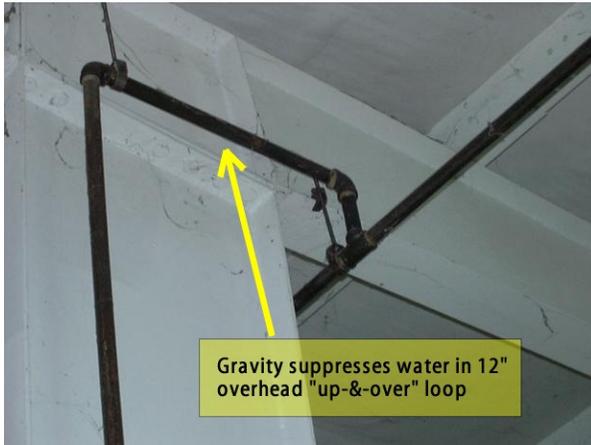


1) OVERHEAD LOOP FOR DRY COMPRESSED AIR

Accu-Router strongly recommends that there be a 12" up and over loop from the overhead airline coming down to a waist high tee. From the tee would be a horizontal tube to an airline coupler. From the bottom of the tee would be a two-foot drain leg with a petcock on the end. **This minor amount of plumbing will help keep water out of the spindles and other air driven devices. THIS EVEN APPLIES TO CUSTOMERS WITH ELABORATE DRYING SYSTEMS!**



2) USE THE RIGHT TOOL AND WATCH YOUR CHIP LOAD

Chip Load = feedrate / (rpm X # flutes)

Example: Feedrate is 1,200 inches per minute

The rpm is 24,000. The cutter is a 3-flute design.

$$1,200 \div (24,000 \times 3) = 1,200 \div 72,000 = .016$$

The load should be in the range of .015-.030. This will give you optimum tool life. Cutters typically break around the .030 mark. The cause of most tool breakage is that the gullet of the tool loads up, and the tool becomes a shaft.

Regarding tooling, we highly recommend the spiral-fluted solid carbide variety pictured above – diameters ranging from 3/8" (single sheet) to 1/2" (1.5" stack with roller holddown). A sharp plunge tip reduces entry load on the bearings, and a soft upspiral (11 degrees) with optional chipbreaker design evacuates debris and keeps everything running cool. **These tools can be more expensive but last 4x as long as carbide-tip tools before regrinding. Most importantly, they can prevent much more costly down time & spindle repairs!**



Solid carbide, 3-flute upspiral ruffler with plunge tip

3) WARM UP & OPERATING TEMPERATURE

Like a car, we recommend warming up your idle spindle at the start of a new shift – **3,600 rpm for 5-7 minutes**. Also, keep the chiller set at the optimal running temp of **80 degrees Fahrenheit**.

4) PROPER TOOL TIGHTENING

Improper (usually insufficient) tightening of the cutter in the tool holder can be very problematic, sending heat up the shaft that could damage the collet, bearings, or worse – and lead to costly down time. We recommend **80-100 ft lbs of torque on ISO-30 tool holders, 125-140 ft lbs on HSK 63F and standard collets, & 94-118 ft lbs for ER-32 (XR-25 high speed)**.

A simple torque wrench can eliminate guesswork. Accu-Router also offers a custom-fabricated tool changing station for securing your holder during the change operation.

QUESTIONS? CALL US FOR FREE APPLICATIONS SUPPORT – 800-239-5778