

## Heavy Hole Cutters spinning off Arbor after Drill stops

During testing we encountered a problem with our very large size and heavy TCT hole cutters with our XL Arbor Adapters where the drill brake would stop the chuck abruptly and the heavy hole cutter with its mass would continue to spin and unthread itself from the arbor adapter. The problem was drill specific and the ones with the stronger braking mechanism were the ones most likely to spin off a heavy weight hole cutter when the operator stopped the drill.

We resolved the matter by using a simple wave washer or belleville washer between the arbor adapter and the hole cutter. The wave washer applied enough tension to keep the hole cutter from spinning off but not so much tension that the hole cutter could not be taken off by hand.

A wide range of belleville spring washers were tested and the ones with a 1.40 inch OD and rated at 484 pounds of force (or load deflection) to flatten the washer worked the best. The 1.40 OD washers worked better than the 1.25 OD regardless of the pounds of force needed to flatten them.

We include the CRV style washers (wave type) in our XL Arbor Adapter kits.

Sources for the wave or Belleville spring washers include:

Century Spring in Los Angeles, CA 800.237.5225

Fan Disc Corporation in Sun Valley, CA 818- 767-1886. Fan Disc item M361813 has the 1.40 OD and a deflection rating of 400 lbs. and should work well in most applications.

Grainger and Fastenal also sell Belleville wave type spring washers.