

Truing Large Centerless Diamond Grinding Wheels

Large centerless diamond grinding wheels 12" diameter x 3" wide 14" diameter x 4" wide and 16" diameter x 4" wide and larger require truing and squaring initially and periodically when mounting to the centerless grinding machine.

Begin first by getting the wheel as close to T.I.R. (Total Indicator Runout) by rotating or tapping the wheel closer by hand on the balancing wheel adapter. Move the wheel 1/6th of a turn incrementally against a solid object on the centerless grinder to reduce the T.I.R. as much as possible. It may also be necessary to move the wheel adapter on the tapered nose of the spindle 1/6th of a turn. Then when the diamond wheel is as close as possible mark the front of the spindle and a corresponding witness mark on the wheel adapter. Should the wheel be removed this is where it should be remounted.

After getting the T.I.R. closer tighten all the bolts on the wheel adaptor flange and the fastener which holds the wheel adaptor to the spindle.

Using a round piece of cold roll steel which has been case hardened, i.e.: 1045, 1145, 5160, and/or La Salle Steel Stress Proof grind it at the infeed rate of .010 (.005 per side). The steel rod should be 1-1/2" diameter approximately 8" to 12" long. Grind wet and feed it slowly through the machine till the resin bonded diamond grinding wheel has stopped chattering and grinds smoothly.

With a 1" square x 10" long 220 grit aluminum oxide dressing stick dress the wheel. Turn off the power and as the wheel slows down to a stop, shove the stick against each of the 1" diamond wheel sections till it stops. This will erode the bond and expose the diamond particles. Do not move the stick sideways when dressing ... only plunge straight in lightly.

In order to feed the 1-1/2" diameter bar of steel into the wheels angle the regulating wheel so that the opening is wide enough.

If there is a lot of carbide stock to be centerless ground use a wider regulating wheel than the diamond grinding wheel.

The small amount of steel ground to true up the diamond wheel will not harm the carbide swarf content. Do not grind any other steel or other metals on this centerless grinder so as to alter the percent of carbide swarf. The reclaim of the carbide swarf will pay for the new wheel cost.

For further information and a review of your application call our Technical Service Department at 800 227-5905.



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