The first thing you will often think about when diamond grinding is not going fast enough is “do I have to get different diamonds?” This is not always the best for the budget or even possible especially when you may be working on a weekend.

So the question is; how can we make what you have got work for you?
First, let’s look at some of the variables we are dealing with and why this has happened to you. It is a known thing that every slab is different, even areas within the same slab can vary from easy to grind to hard to grind. Here we describe what is actually happening and why we need different grades of diamonds and grades of matrix to make machines work.

The main thing that causes a diamond to stop cutting is that the matrix that holds the diamond chips is not wearing out fast enough to keep fresh diamonds exposed and the diamond chips lose their edge. this means that the diamond chip ends up not protruding out of the segment and therefore rounding off and not cutting the concrete or stone… hence, the grinding process slows down a lot.

Faster diamonds or diamonds that cut faster have a features common to them. Changing the following variables within the disc or blade and segments mounted on them creates a faster cut.

- Diamond chip size; mostly there is 16# through to 150# sizes available
- Segment number, using a diamond disc with less segments means that there is more pressure per segment applied to the cutting surface. This wears the matrix faster and exposes the diamond chips.
- Softer Matrix that holds the diamond chips. this means that the matrix will wear at the same rate as the diamond chip or slightly faster meaning there is always a fresh edge to the diamond itself.

There are a few things you can do to speed up your diamonds without investing any money in faster diamonds. Here are a few tips that you can try. You can try more than one of these at a time to grind or cut faster.

- Turn your dust extraction down.
- This will leave the dust from the grinding process under the head and this creates wear to the matrix of diamond segment exposes the diamond chip again.
- Add weight to the head of the grinder if the power available permits.
- This will put more pressure on each segment and wear out the matrix to expose the diamond chips.
- More pressure per segment helps wear the matrix at the same rate as the diamonds wear.
- The extra weight does little to the wear factor of the diamond chips.
- Use soft bond tooling with less segments to overcome the issue.

- The softer bond refers to the matrix not the diamonds. the result of softer bond is that the matrix wears out faster and keeps the diamonds fresh and exposed.
- Throw a little bit of sand (or dust from previous grinding work) onto the slab.
- This will wear the matrix away which will increase the chance of opening up the diamonds again.
- In the case of a wet cut saw, this could be as simple as turning the water feed down so that the water becomes a slurry and does not wash away the dust. Be careful to still control airborne dust.
- Add a misting of water to the concrete.
- This will make a slight paste between the diamonds and the concrete which will increase the chance of opening up the diamonds again.
- Grind or cut on a soft concrete slab to open up fresh diamonds.
- Using a known soft slab or even a paver can open the diamonds up again so they have a fresh edge.
- Reverse the rotation if that function is available
- Reversing the rotation of the machine can change the dynamics of the way the diamonds are being worn out and give a fresh edge to the diamonds.