

Ask Tech - Getting the Most out of a Grinding Disc

In our continuing effort to create a reference for our customers on troubleshooting information, below please find our problems for this issue. If you clip this section or just keep this page in a file, it will build a troubleshooting reference for your use in the future. These check lists are good regardless of what type of material you are sanding, as they are problem oriented in regard to the abrasive/machinery as opposed to work piece based.

We run quite a few tests in our business against competitors grinding discs. Did you know that simple alterations could change the results dramatically? Here are a few things that can greatly affect the efficiency of a grinding disc.

1. SPEED: The maximum operational speed on the grinding disc must not be exceeded. This is an obvious point, but slower speeds can be equally as damaging. The grinding discs have been developed so that the maximum operational speed achieves the greatest efficiency. This means that this rated speed gives the most amount of stock removal compared with the amount of wheel wear. A lower selected speed has a considerable effect on the working manner of the discs because they will tend to "jump" or "bounce". This can cause the discs to become uneven in wear and abrasive grit is torn out of the bonding.

2. POWER: In order to maintain a high speed during the operation it is necessary to have plenty of power. In less expensive grinders, motors are designed below proper strength. This usually causes the wheel to slow down when pressure is applied to the work piece. Placing the blame on the grinding disc is a common error. Sometimes a disc with a softer bond will solve the problem because the cut rate will be much faster; however, the grinding disc will have a shorter life.

3. ANGLE: The angle that a grinding disc needs to be applied to the work piece is 35 degrees. NOT 10-15 DEGREES! Extended trials have shown that an applied angle of 35 degrees provides the most efficient disc wear and amount of stock removal. By lowering the angle of application, a thin and tapered edge is created at the edge of the disc. If the grinding angle is then slightly altered the thin edge can no longer withstand the grinding pressure and breaks up.