

MARKALINE Carbide Burrs

There are two primary reasons why tools are usually damaged.

1. A brand new Carbide Burr is taken out of the package, put in a grinder and then a lot of down pressure is used on the work surface.
The flutes of a brand new Burr are very sharp, and the initial contact with the work surface should be **light** to allow the tool to "break in".
2. A dull tool is used past it's useful life, and the excessive down pressure results in fractured carbide or a broken shank.

Carbide Burr Technical Information

Operating Data

Carbide burrs are chucked into die grinders and used in hand operations. Therefore, feed rates and pressure depend upon the working conditions and experience of the operator.

Experienced operators adjust feed and pressure to achieve desired results. However, there are a few guide- lines to remember.

Avoid using so much pressure that grinder speed is reduced. This will cause the burr to overheat and prematurely dull.

Maximise the area of contact with the work-piece, the finish improves when more length of the cutting edge engages the work.

Avoid contacting the work piece with the shank of a burr, as this can cause the tool to overheat and weaken or even destroy the brazed joint.

Dull burrs should be replaced with a new or resharpened tool before it becomes damaged.

Dull burrs cut slowly, requiring the operator to apply more pressure to the grinder. This can cause damage to the burr and/or grinder that can be far more costly than the cost to resharpen or new burr.

Lubricants can be used with carbide burrs to improve lubricity and prevent chip loading.

A liquid wax or synthetic lubricant is most effective. A common method is to periodically dip the burr in the wax or lubricant.

Speed and Die Grinders

High speeds are essential for efficient and economical use of a carbide burr.

At high speeds there will be less tendency for chips to build up in the flute. Also, the burr will cut more freely in corners or pockets, and reduce the chances of jamming or wedging.

These last two factors are the biggest reason for shank breakage.

Carbide burrs should operate between 1,500 and 3,000 **surface feet per minute**.

Using these guidelines, a grinder can be selected that will efficiently work with a fairly broad range of burr sizes. For example, a 30,000-RPM grinder can be used with a 3/16" to a 3/8" diameter burr.

A 22,000-RPM grinder will be satisfactory for burrs ranging from 1/4" to 1/2". However, for most efficient operations, the grinder should be specified with consideration given to the diameter that will be most often used. Also, proper maintenance of air and grinding systems is vital. If a 22,000 RPM grinder bogs down too often, your useable RPM is actually much less. Therefore, we recommend checking air pressure often, as well as the seals in the die grinder.

Correct speeds are important to achieving desired removal rates and work-piece finish. Increased speeds will improve finishes and tool life.

Lower speeds may remove material more rapidly, but may also cause overheating, bouncing, and premature failure. Different cuts are also available to slow or increase speed removal rates.

