

## Information Sheet

### Tool Sharpening Overview

#### Grinding wheels

Silicon carbide

Normally grey in colour and used for sharpening solid carbide or carbide tipped tools.

Will wear down with use and needs to be dressed to maintain optimum performance.



Aluminium oxide

Can be grey or white in colour. Grey wheels are for general purpose grinding including mild and high carbon steels.

White wheels are used for sharpening high speed steel tools.

Will wear down with use and needs to be dressed to maintain optimum performance.

See photo above

Cubic boron nitride (CBN)

CBN is second only to diamond in hardness. These wheels are used for sharpening high speed steel and carbide tools.

They do not wear will use ie they keep their original shape.

Wheels are expensive and very heavy so a quality grinder is needed to operate with these wheels.



## Wheel dressing

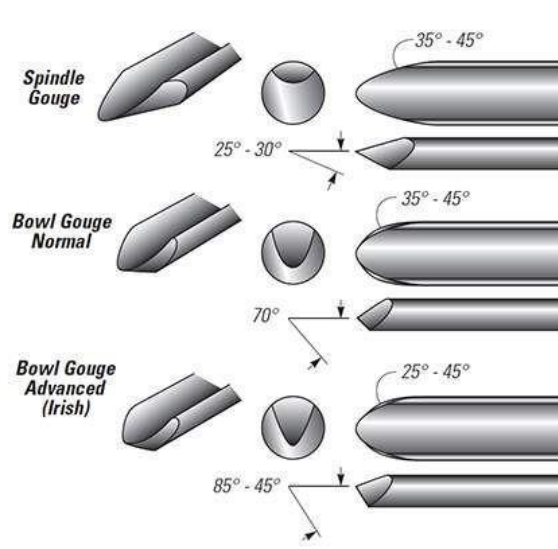
Wheels can be dressed using a purposely designed tool made from grey cast iron or a diamond impregnated dresser. The tool is moved across the face of the wheel parallel to the axis to create a clean face.



## Gouge profiles

In general gouge profiles are referred to as:

- Conventional
  - Long grind (Irish grind, Ellsworth grind)
  - Fingernail grind
- However these terms have become clouded over time.



## Tool rests

Shop made or from tool suppliers. A cost effective means of obtaining consistent results when sharpening. The wooden blocks have a boss on the underside which fits into a groove on the toolrest and governs the angle the tool is presented to the wheel.



## Sharpening jigs

There are numerous jigs available to purchase. The club uses a TruGrind jig produced by Woodcut. These jigs allow tools to be sharpened to a consistent form with minimal loss of tool steel.



Water cooled and lubricated. Tend to be expensive but produce a superb and consistent edge on your tools



## Belt systems

Expensive but produces excellent results.



