

Shaper tool bits

Cutting Tools. Tool bits are ground to suit the work. The shank is gripped in the holder and the minimum amount of point exposed for practical requirements. The face is that part of the point against which the chip rolls off the work.

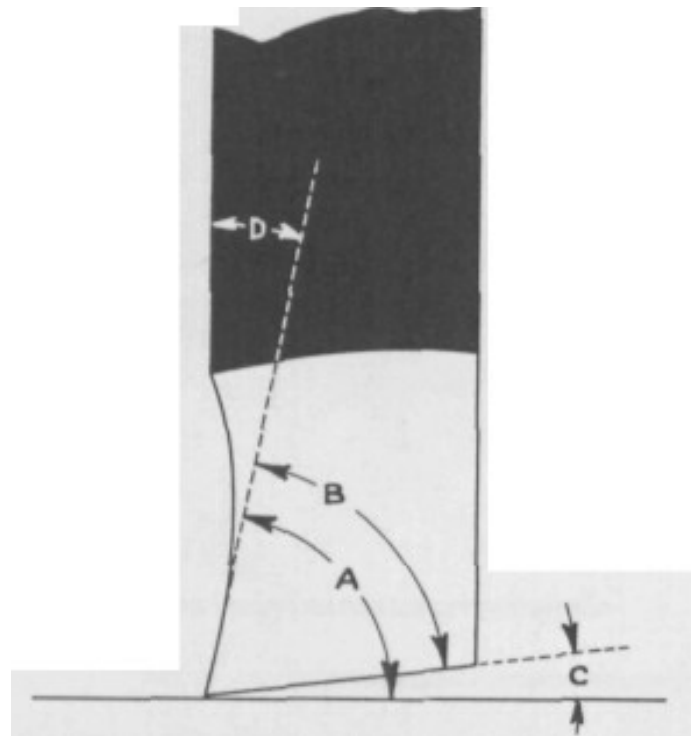
The cutting edge is the edge which separates the chip from the work. This includes the side cutting edge, the nose radius, and the end cutting edge.

The shape of the tool is the shape of the tool as presented to the work.

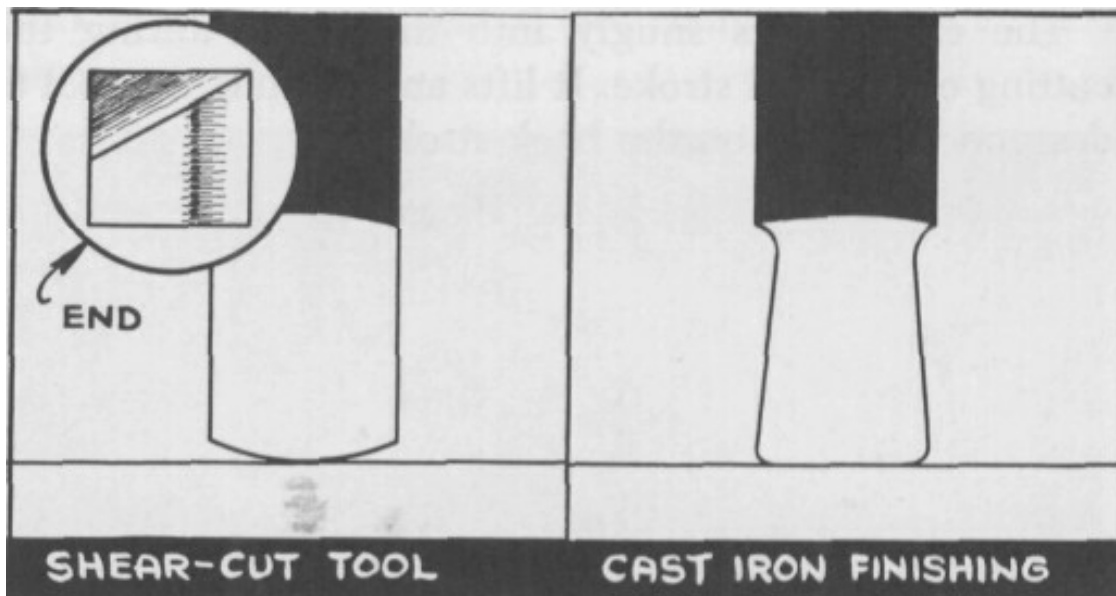
The cutting angle is the angle between the face of the tool and the surface being machined.

The end relief is the angle which the point makes with the face of the work. It provides clearance.

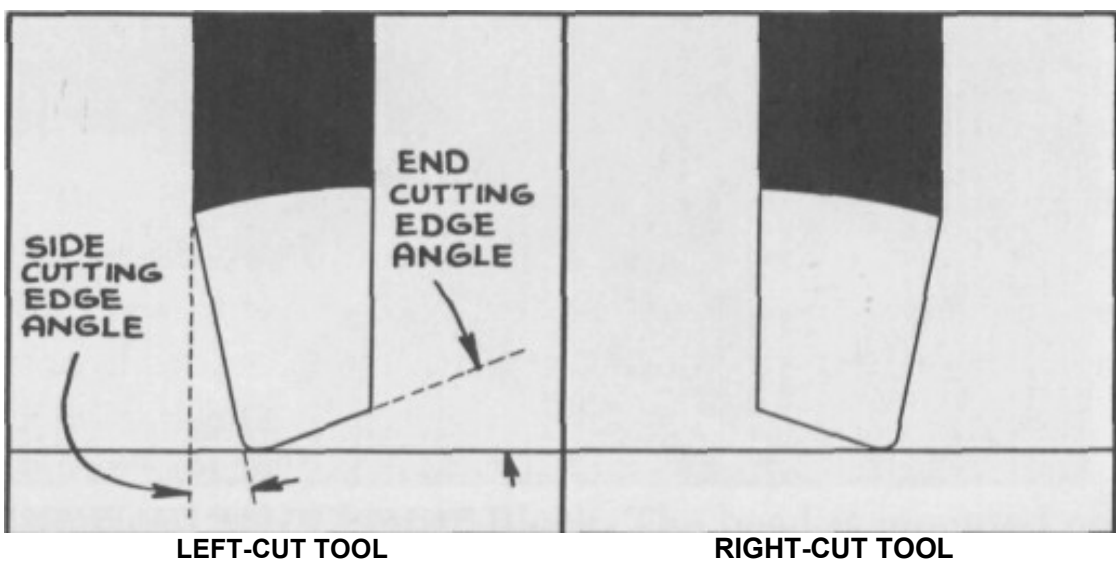
Tools may be ground for one special job, such as keyways in steel and cast iron



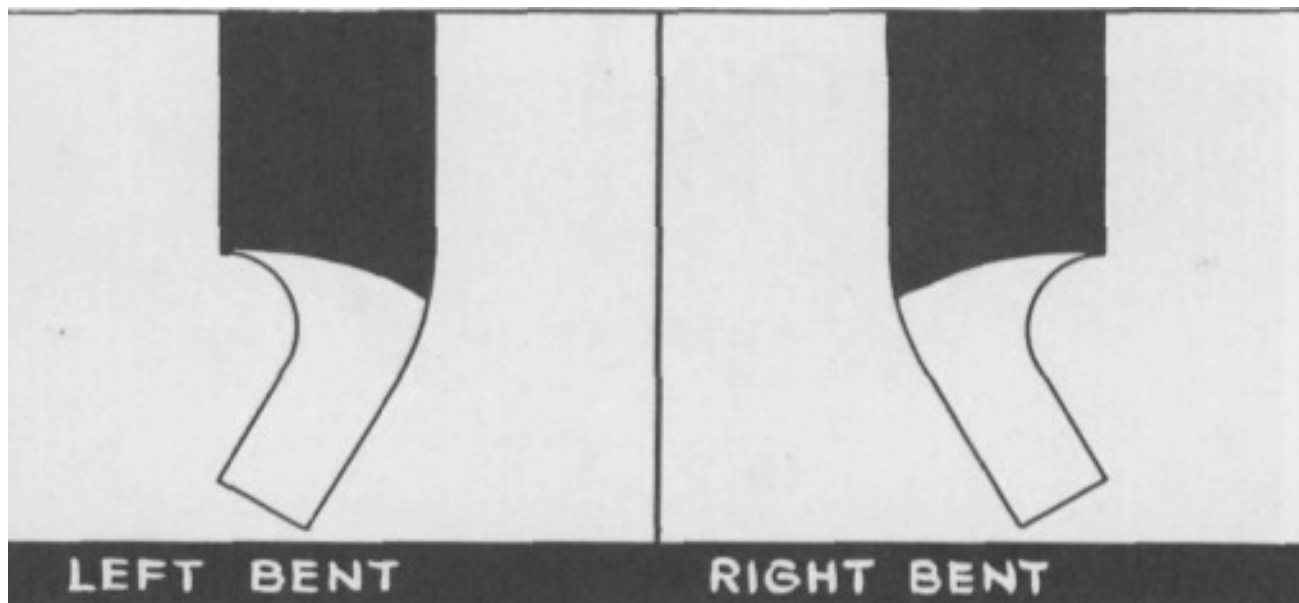
A- CUTTING ANGLE
B - LIP ANGLE
C- END RELIEF
D- BACK RAKE



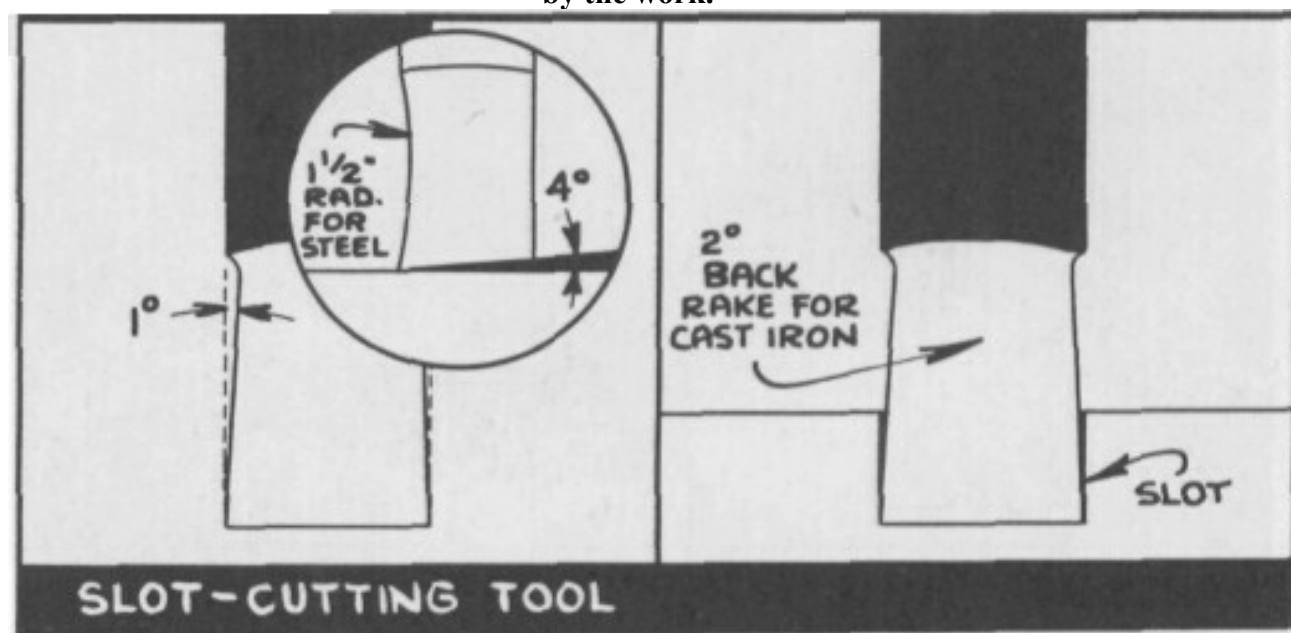
A round nose tool is used to rough cut cast iron or steel. It is also used for a finish cut on steel. A tool with a flat end is popular for finishing cast iron.

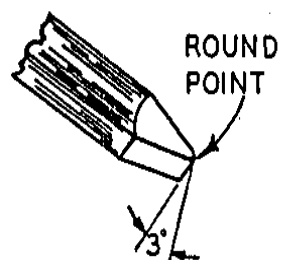


A left-cut tool has the cutting edge on the left when looking at the face. A right-cut tool is the reverse.

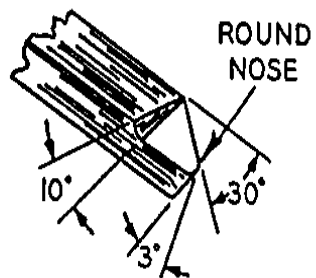


Bent tools are made either left or right, as required by the work.

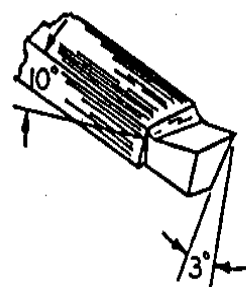




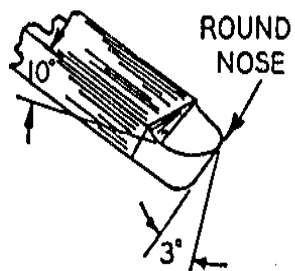
NARROW ROUGH



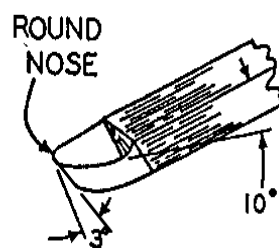
OFF SET ROUGH - R. OR L.



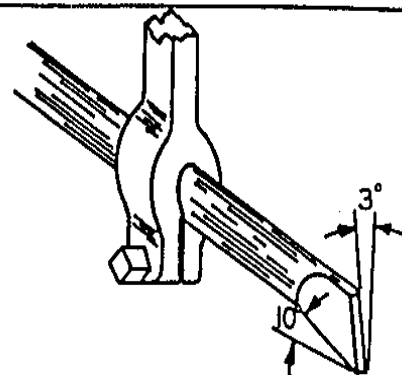
BROAD FINISH TOOL



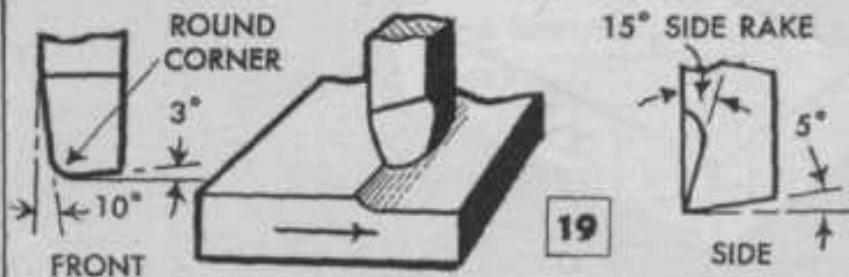
BOTTOM ROUGH- RIGHT



BOTTOM ROUGH - LEFT



INSIDE KEYWAY TOOL



19 ALL-PURPOSE: USE FOR ROUGHING. OR FINISHING. CUTS LEFT, ONLY. WORK MOVES TO RIGHT



20 ROUND NOSE: HAS BACK RAKE ONLY. CUTS EQUALLY WELL RIGHT OR LEFT



21 FINISHING: BACK RAKE ONLY. CUTS LEFT OR RIGHT WITH LEADING EDGE TILTED UP