

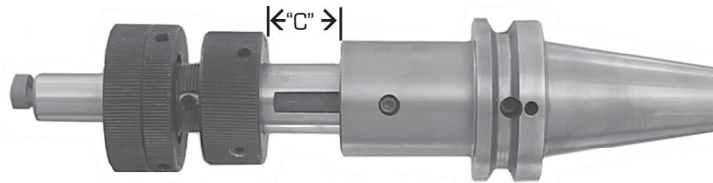
MAXWELL AUTOMATIC BACKFACE TOOL - SERIES 180

- **BACK FACING**
- **BACK SPOTFACING**
- **BACK COUNTERBORES**
- **BACK CHAMFERING**

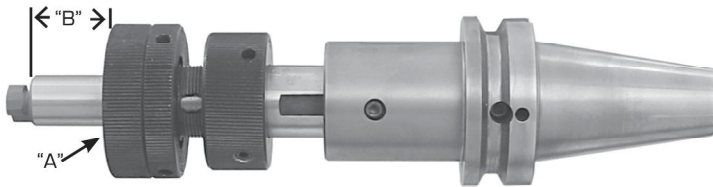
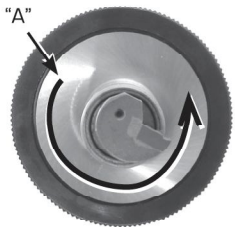
- Generate the backface instead of a plunge cut
- Tools pilot in the bore to ensure perpendicularity/concentric backface
- Designed close to the cut for maximum support
- Less cycle time / improved surface finish / longer tool life



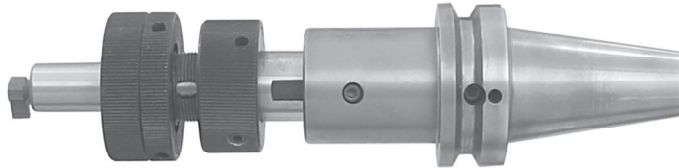
HOW THE BACKFACE TOOL WORKS



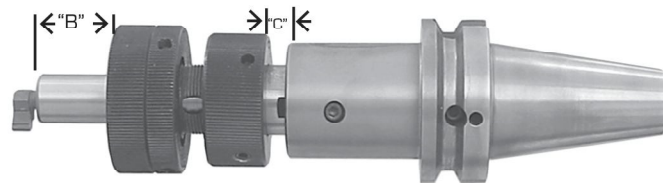
With the spindle rotating, the backfacing tool is inserted into the bore - at this time the cutting tool is retracted and will fit down the bore.



When the required tool depth "B" is reached, the stop bearing "A" on the tool contacts the work surface. As the spindle (and tool) rotate, the shank continues to feed forward.



This action forces the cutting tool to rotate out, exceeding the bore diameter, and cutting to begin. Feeding forward continues until the desired backface diameter is reached.



Adjusting the stop bearing/tool depth "B" allows the cut location to vary. Adjusting the shank/actuation assembly movement "C" allows the cut depth to vary as well.

The depth and diameter can vary almost infinitely.

Production operation is exceedingly simple - After inserting the toolholder start the spindle rotation. then:

- 1) Feed the entire unit into the work at a rapid approach rate.
- 2) Reduce the spindle speed to the recommended feed for cutting and with the spindle still rotating, feed the spindle forward until the desired backface diameter is reached.
- 3) Retract the spindle (with the spindle still rotating) at either a high speed facing rate or a full rapid return rate.

This tool requires only three distinct motions - rapid approach - cutting feed - and rapid retract . At no time do you have to stop or reverse the spindle.

