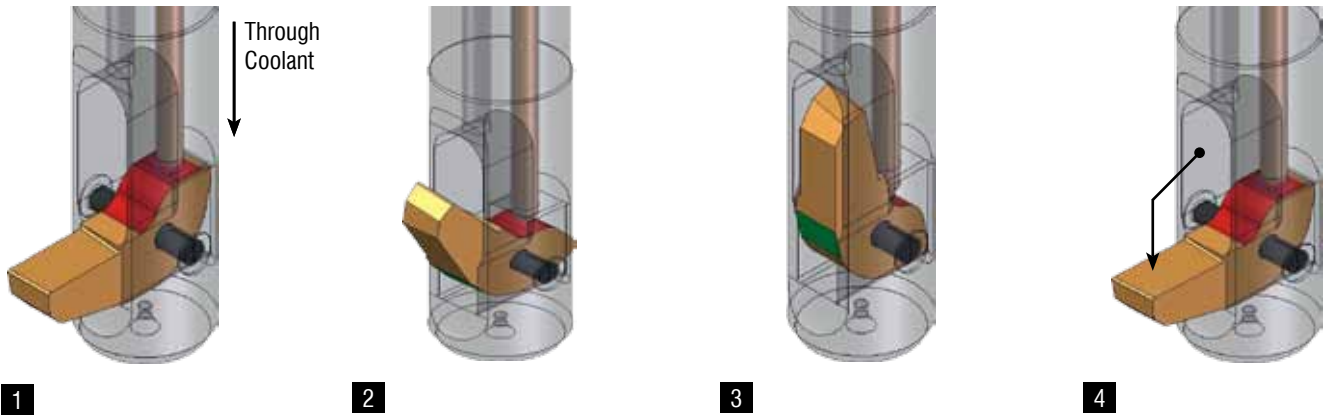


Blade Working Principle



- 1 With the coolant on, the control pin is forcing the blade (red color) to retract into the blade housing.
- 2 The control pin, while still under coolant pressure, supplies pressure to the back of the blade which forces the blade to fully retract.
- 3 The control pin holds the blade in the retracted position and the tool may be moved in the axial direction (Z-axis) through the hole.
- 4 Turn off the through coolant and start the spindle rotation at the recommended activation speed. With centrifugal force the blade will swing out into working position. The through coolant may be turned on when the cutting blade is in full contact with the work piece. When the counterbore operation is finished the through coolant is turned off, the insert exits the counterbore. Reactivate the through coolant, the blade will retract again.

CNC Machine Requirements

BSF Tools require a minimum 280 PSI (approximately 19.3 BAR) and 2000-5000 RPM to properly activate. Typical spotface diameter tolerances of +/-0.1 mm (0.004"). The recommended tool diameters should be 0.004"-0.016" below the minimum hole diameter. All materials can be machined but special considerations should be given to interruptions and long chipping materials. All tools are ground with large cylindrical shanks with h6 tolerances. Proper tool holding may include hydraulic, mill chuck or precision collet holders. Coolant filtration required (<25µm).