

Trouble	Possible Cause	Hou to do
Drill Breaks	Spring or back lash in press or work Too little lip relief Speed too low in proportion to the feed Dull drill Improper chip clearing	Test press and work for rigidity and alignment Regrind properly increas e speed or decreas e feed Sharpen drill Correct application
Outer Corner Breakdown	Material being drilled has hard spots, scale or s and inclusion Too much speed Improper cutting compound	Correct application Reduce speed Use proper cutting compound
Drill Breaks in Brass or Wood	Chips clog up flutes	increase speed. Use drills designed for these materials.
Cutting Lips Chipped	Too much feed Too much lip relief	Reduce feed Regrind properly
Cracking or Checking in Cutting Edges	Heated and cooled too quickly while grinding or while drilling Too much feed	Warm s lowly before using. Do not throw cold water on hot drill while grinding or drilling. Reduce feed
Hole Too Large	Unequal angle or length of the cutting edges or both Loos e spindle	Regrind properly Tests pindle for rigidity
Only One Lip Cutting Drill Splits Up Center	Unequal length or angle of cutting lips or both Too little lip relief Too much feed	Regrind drill properly Regrind with proper relief Reduce feed
Rough Hole	Rough Hole Dull or improperly ground drill Lack of lubricant or wrong lubricant improper s et-up Too much feed	Regrind properly Lubricate or change lubricant Check s et-up Reduce feed