

Trouble shooting in drilling

Occurrence of trouble	Cause of trouble	Countermeasures
Drill will not enter workpiece	1. Drill is dull. 2. Lip relief too small. 3. Too thick a web.	1. Grind lip relief sufficiently. 2. Grind web thinning. 3. Choose a drill with narrow web.
Margin chipping	1. Oversized bush.	1. Choose the suitable bush for drill diameter
Cutting lip breaks	1. Lip relief too much. 2. Feed too heavy.	1. Grind lip relief sufficiently. 2. Decrease feed rate.
Tang breaks	1. Imperfect fit between taper shank and socket. 2. Burred or Badly worn sockets.	1. Clean the dirt or chips in sockets. 2. Change the worn sockets to new ones.
Drill breaks in brass	1. Unsuitable drill 2. Flutes clogged with chips	1. Choose the suitable drill for work material.
Chipping of drill center	1. Lip relief too much. 2. Feed too heavy.	1. Grind lip relief sufficiently. 2. Decrease feed rate.
Hole oversize	1. Unequal angle or length of edges. 2. Loosen spindle.	1. Resharpening point, choose correct drills. 2. Tighten spindle sufficiently.
Outer corners break down.	1. Cutting speed too high. 2. Hard spots in work material. 3. Flutes clogged with chips. 4. Drill is too worn.	1. Grind point to suit work material. 2. Decrease the feed rates. 3. Resharpening early before too worn.
Large chip of one flute and small chip of other flute	1. Improperly ground point. 2. Only one lip doing all the cutting	1. Properly grind point. 2. Grind point with same point angle and length of lip
Hole rough	1. Improperly ground point. 2. Unenough coolant supply 3. Too much feed. 4. Fixture not rigid.	1. Properly grind point. 2. Supply coolant enoughly. 3. Decrease the feed rate. 4. Tighten the fixture or replace.