



# ACE

technical reference

## COMMON DRILL PROBLEMS AND CAUSES

PROBLEM	CAUSE	RECOMMENDATION
OUTER CORNERS BREAK DOWN	RPM TOO HIGH, POOR LUBRICATION, CLOGGING, TOO MUCH FEED, POOR LIP RELIEF	REDUCE SPEED AND FEED, CHECK LIP RELIEF
CUTTING LIPS CHIP	FEED TOO HIGH, LIP RELIEF TOO HIGH	REDUCE FEED, CHECK LIP RELIEF
CRACKS IN CUTTING LIPS	RUNNING TOO HOT, TOO QUICKLY COOLED WHILE SHARPENING	REPOINT DRILL, CHECK FEED AND SPEED, CHECK LUBRICANTS
DRILL BREAKS	POINT IMPROPERLY GROUND, TOO MUCH FEED, DRILL IS DULL, FLUTES CLOGGING, BACKLASH IN DRILL PRESS	CHECK FOR PROPER POINT, CHECK FEED, INSPECT DRILL PRESS
TANG BREAKS	IMPERFECT FIT BETWEEN TAPER SHANK AND SOCKET, FLUTES CLOGGED	CHECK FOR WORN SOCKET, CHECK FOR PROPER DRILL
DRILL BREAKS WHEN DRILLING BRASS	FLUTES CLOGGING, WRONG DRILL	REPLACE WITH PROPER DRILL
DRILL SPLITS UP CENTER	TOO MUCH FEED, NOT ENOUGH LIP RELIEF	REDUCE FEED, CHECK FOR PROPER LIP RELIEF
DRILL WILL NOT ENTER WORK	DULL DRILL, NOT ENOUGH LIP RELIEF, WEB TOO HEAVY, REVERSE CHISEL	RESHARPEN DRILL, CHECK LIP RELIEF, THIN WEB, CHECK CHISEL ANGLE
ROUGH HOLE	DULL POINT, NO LUBRICANT, LOOSE FIXTURE	REPOINT DRILL, CHECK FOR PROPER LUBRICANT, CHECK SETUP RIGIDITY
OVERSIZED HOLE	UNEQUAL LENGTH ON CUTTING LIPS, LOOSE SPINDLE	REPOINT DRILL, MEASURE FOR EQUAL LENGTH CUTTING LIPS, INSPECT SPINDLE
UNEQUAL CHIP SIZE ONE FLUTE TO THE OTHER	DRILL BECOMING DULL	RESHARPEN DRILL, CHECK FOR PROPER DRILL
CHIPS CHANGE WHILE DRILLING	POINT IS NOT GROUND PROPERLY, ONE LIP IS CUTTING MORE THAN THE OTHER	REPOINT DRILL, MEASURE FOR EQUAL LENGTH CUTTING LIPS, CHECK FOR EQUAL LIP RELIEF