

Common Issue - Datum Holes in Wrong position

Common root causes that may lead to a varying result when running a datum test

Contents

Comments

See winMulti - Running a Datum test for instructions on how to produce the datum holes



...If the datum holes vary after running multiple tests, the issue cannot be resolved by changing parameters.

Datum holes in wrong position - Root Causes

Common Symptoms	Root Cause	Description	Solution
Y and Z axis wandering randomly	Backlash in ring	The R axis pinion to main ring gear is worn and giving backlash	Mesh the gears Replace R axis pinion assembly
	Cutter not inserted in collet correctly	Cutter is wobbling in the spindle collet	Fit correctly
X axis datum position wandering	Profile end not square	The end of the profile is not square and therefore tricky to measure. On machines with a laser on the saw, this is not a problem on machines without a laser, the "Trimstart" option should be enabled to trim the bar end square	If laser is not fitted, ensure trimstart is on
	Cutter not inserted in collet correctly	Cutter is wobbling in the spindle collet	Fit correctly
	Gripper not set up correctly	Gripper mechanics are worn or incorrectly set up	Ensure gripper setup is correct See Gripper Mechanical Setup
Y or Z axis jumps exactly 5 or 10mm out	Datum Sensor in wrong position	The datum system has a "zero pulse" on every leadscrew turn. The position of the sensor may be on the borderline of this zero pulse Sometimes the datum jumps to the next zero pulse, hence the datum jumps by one turn of the leadscrew	Move the datum sensor by 2mm in either direction.
X axis jumps 30-40mm in either direction	X axis Zero pulse in wrong position	The datum system has a "zero pulse" on every motor turn. The position of the sensor may be on the borderline of this zero pulse Sometimes the datum jumps to the next zero pulse, hence the datum jumps by one turn of the motor - equating to around 35mm ...Often caused after an X axis motor is removed and replaced	Rotate the motor on the gearbox by 90 degrees