103 FUNCErrorSeekXFailed

This error can usually be identified and repaired by the machine operator.

This error occurs when the X limit sensor cannot be detected when seeking the X origin. This occurs when doing function 12 or when the machine first starts up. It can also occur if the system is setup for auto squaring and the second X sensor is not installed or not working.

It can also occur if the gantry is not moving and it does not reach the sensor. Eventually the machine will stop and show an error 103.

Review the following possibilities:

Gantry appears to move properly and crashes into the end of the machine

In this case the motion is fine but something is going wrong with the sensors.

When seeking the X sensor the machine's gantry should move towards the front of the machine and located the sensor and position itself. If the machine is set up for auto squaring there are two sensors, one on each side of the machine. Both must be functioning. When it is not working you will generally get the gantry banging at the front of the machine.

The first thing to do is to locate the X sensor(s) and the targets. These are located under the gantry legs. Check if they are working by putting a piece of metal in front of them. There is a light on them that should light up. You can also use function 820 which will show the sensors "live". As you bring a key or screwdriver close to them you should see the first label go "ON" and "OFF". If the sensor does not work then you need to replace it.

Another common problem is that the sensor is too far away from the target. It should be 1-2 mm or about 1/16 of an inch. If it is too far away then the sensor will not "see" it.

The problem also may be that you have set your machine for auto squaring and there is no auto squaring sensor installed. Check function 811. This turns auto squaring on and off. Turn auto squaring off and give function 12 a try.

If further help is required call AXYZ customer service and obtain a service ticket. You will need to supply the engineering support technician with an activity log.

Gantry moves but does not make to the end of the machine

This usually means there is a configuration problem. Review the calibration and machine size to make sure it is correct. Contact Customer Service if assistance is required.

The gantry is grinding and trying to move but doesn't move correctly

In this case the machine is trying to move the gantry but it is jammed and cannot move. After a while the machine stops trying and shows an error 103.

In this case look for something jamming up the machine. Look at the pinions, rack, and transmissions to something blocking the motion. Clear any jams.

Another possibility is that one of the bearing has failed and is creating too much friction therefore jamming the motion. Grease the bearings.

Turn off the machine and push it by hand to ensure it can move. Compare the resistance to the carriage or Y axis.

The gantry seems "floppy"

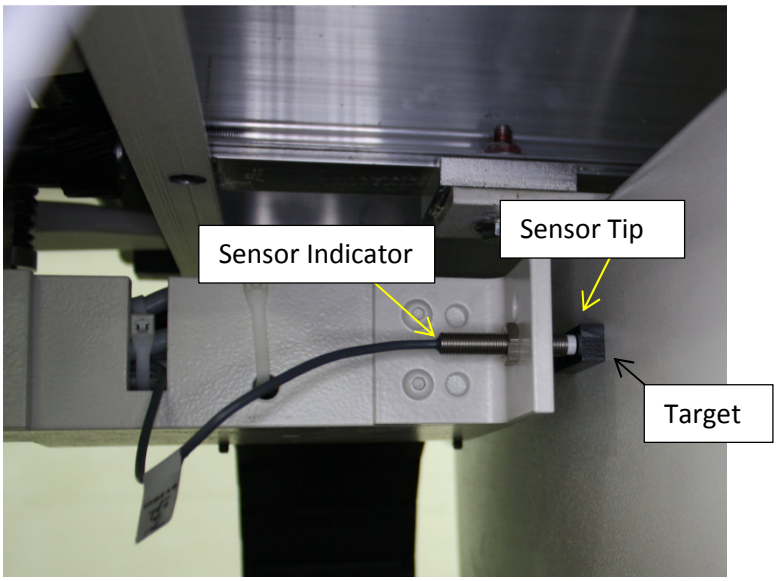
There is a motor at each end of the gantry driving the gantry from both ends. If one of these motors or drives has failed then the gantry will seem floppy as it moves. Generally it will result in an error 103.

The first thing to check for is a mechanical problem like a broken belt or slipping pulley or transmission. If this is the problem then you can usually hear the motor spin without the gantry moving.

If you cannot hear anything and the gantry is flopping or not moving then the problem could be a blown fuse or a bad drive or connections.

In this case contact customer service for additional assistance.

X Sensor Location and Target

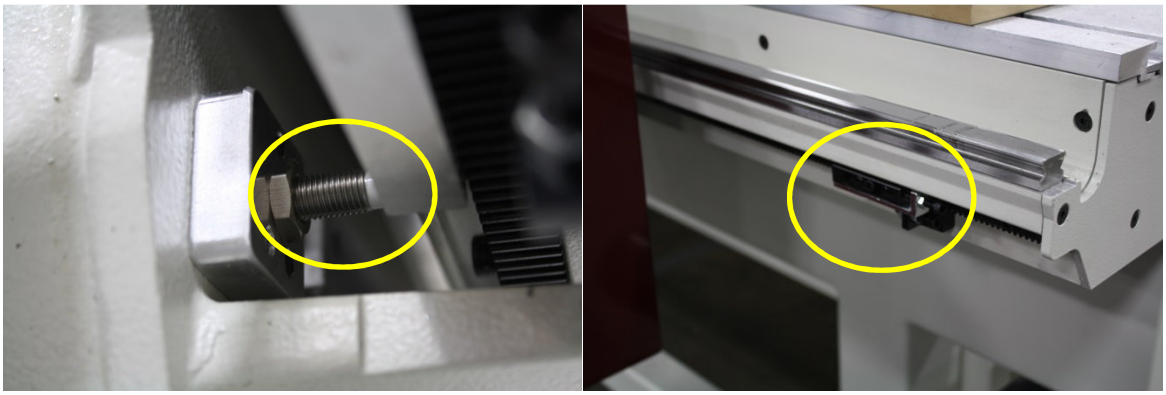


The X sensor is located under the right gantry leg near where the wiring comes into the gantry. This is the view from behind the gantry. The white sensor tip is shown over top of the target mounted on the table frame.

The sensor can be tested and triggered by placing the flat of a screwdriver over the white tip. The sensor indicator should light up when it is powered on and working.

Auto squaring sensor and target location:

The auto squaring sensor is located in the left hand gantry leg near the bottom of the leg. It is on the same side as the tool changer and opposite to where the operator console is. The left picture shows the sensor and the right picture the adjustable target. To operate properly the sensor must come within 1-2 mm of the target.



If you open the gantry cover the back end of the sensor is visible with the indicator light. The sensor can be tested by triggering it by placing a screwdriver flat over the white tip of the sensor. The orange indicator light should come on indicating the sensor is triggered.