

# **Dual Tool 100 Length Sensor Application Note**



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This application note describes operating a High-Z, RaptorX, or T-Rex milling machine using dual Tool 100 Length Sensors.

It is important to read the "Operating Manual for the Tool 100 Length Sensor" document in its entirety before reading this document. Then read this document in its entirety before attempting installation and operation.

### Requirements For Dual Tool 100 Length Sensor Operation

- Two Tool 100 Length Sensors
- Dual Tool 100 Length Sensor Adapter, part number 400500
- The "Operating Manual for the Tool 100 Length Sensor" document
- The operating manual for your milling machine



#### **Basic Installation**

Following the appropriate sections found in the "Operating Manual for the Tool 100 Length Sensor" document, mount the first Tool 100 Length Sensor for automatic tool length compensation; the second as an aid for setting Z0 of a job.

It is a good idea to label each Tool 100 Length Sensor. For instance, the one used for automatic tool length compensation can be called "Automatic"; the one used as an aid for setting Z0 of a job can be called "Z0".

The Dual Tool 100 Length Sensor Adapter may be mounted on the T-Groove outside the cutting area or any location where it is out of the way, the Tool 100 Length Sensor wires can be connected to it, and its wire can be plugged into the milling machine. Underneath the milling machine is often a good location as this allows all of the wires to be kept out of the way.

Connect the two Tool 100 Length Sensors to the Dual Tool 100 Length Sensor Adapter and the Dual Tool 100 Length Sensor Adapter to the milling machine's Tool 100 Length Sensor plug. You can find the location of the Tool 100 Length Sensor plug in your machine manual.

Clean up any wires, ensuring that they are free of the cutting area of the milling machine. You may wish to use cable ties to "clean up" any excess wire.



#### Set up

Set up the Tool 100 Length Sensor labelled "Automatic" for automatic tool length compensation following that "work flow" found in the "Operating Manual for the Tool 100 Length Sensor" document.

Set up the Tool 100 Length Sensor labelled "Z0" as an aid for Z0 of a job following that "work flow" found in the "Operating Manual for the Tool 100 Length Sensor" document.

You are done!

Once set up this way, one never needs to move the "Automatic" Tool 100 Length Sensor. This ensures job accuracy and precision.