

Tool length -measurement and compensation

The screenshot shows the 'Parameter' dialog box with the 'Length compensation' tab selected. The 'Z length' section lists 10 tools, each with a value of '+ 0.00'. The 'Length sensor position' section shows 'I221 Surface sensor = LPT2 Pin11' and coordinates X: '+ 19.10', Y: '+ 119.10', and Z: '+ 60.00'. The 'autom. length compensation' checkbox is checked. Other checkboxes for 'Length check after tool change', 'Fast move to sensor with brake', and 'Save measured tool lengths' are unchecked. The 'OK', 'Abort', and 'Save...' buttons are at the bottom.

Parameter-Tools-Tool length compensation

These setting options are only visible if the function length measurement and compensation is activated in *Basic Settings-Accessories*.

Z-axis length

The lengths of the tools used are defined here. Normally, the boxes cannot be edited, however, the values are registered automatically when the tools are measured. The length difference used by the compensation function is calculated on the basis of these parameter values.

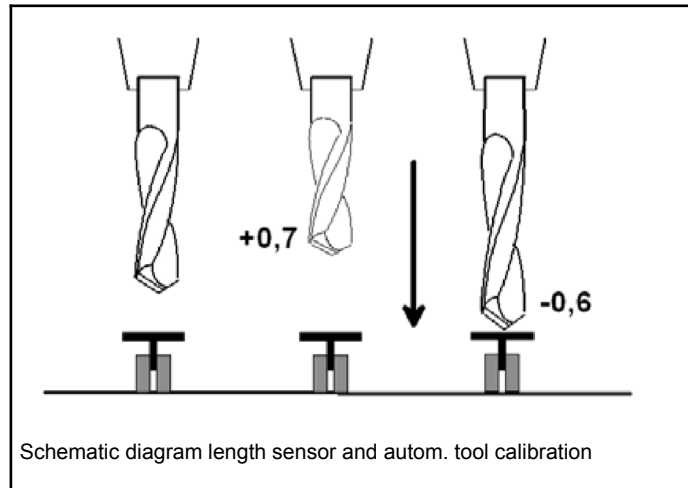
Sensor position

Automatic ascertainment of length

The length sensor must be a switch or a button which can be moved from above and is switched when contact is made or is encountered

These parameters define a position above this sensor in absolute machine coordinates. When measuring, **WinPC-NC** moves to this positions and then lowers the tool slowly until the sensor is switched.

The distance moved is adopted in the parameters as tool length.



Automatic length correction

This parameter activates automatic tool length compensation. Having a separate parameter to enable this function makes it possible to restrict compensation to projects in which it is really needed.

Tools are not automatically measured after being changed. Instead, this measurement must be explicitly selected using the MEASURE TOOL function before each tool is used.

Length check after tool changed

This parameter enables WinPC-NC to perform a tool length check after each tool change.

Fast move to sensor with brake

To speed up the process you can activate the two step measurement and force **WinPC-NC** to move to the sensor with fast manual speed, brake the movement, reject the tool over the sensor and do the measurement in a second step precisely.

Save measured lengths as parameter

Activating this parameter means that **WinPC-NC** saves all measured lengths in the parameter file. These measured lengths are restored when the project is started again. This is useful while working with various lengths without measuring each time.
