

SPECIAL FUNCTIONS MOTOR TEST

The MOTOR TEST special function is used for ascertaining the optimum speed settings. A window displays all parameters relevant to the step calculation.

motor test

The required values can be entered in the parameter boxes, after which a test run can be performed immediately in order to check all parameters.

Clicking the Move button causes **WinPC-NC** to move the selected axis continuously forwards and backwards. By listening to and observing the movement, it is easy to tell whether the parameters are correct for the axis, or whether additional corrections are needed to the speed or ramp length. The test run is cancelled by pressing the ESC key or clicking the Stop button.

Optimum parameters

The optimum values for an axis have been achieved if the motor starts up quickly without step losses, and is still able to develop sufficient torque at maximum speed

*Step -by-step
setting*

Step-by-step procedure for testing X/Y and Z-axis :

1. Switch off the ramp length and slowly increase the start/stop speed until the motor stalls. Then reduce the speed value by 30-40%.
2. Test the ramp length with various values. You have achieved a good value if the motor starts up quickly without stalling.
3. Increase the rapid speed in stages. The motor should run quickly while still developing sufficient torque.

Having ascertained the values, you can store them as parameters for the axis in question. All parameters and their functions are explained in a subsequent chapter.

The optimum parameters for a stepper motor axis depend on many factors, e.g. the motor characteristic, the type of drive used (spindle or belt) and the load to be moved.

It is absolutely impossible to draw any conclusions from the ascertained values for one axes regarding the max. speed of the total plant system or regarding the possibly reachable speeds during the job performance.
