

INSTALLATION GUIDE

Rapid Broken Tool Cycle for NC2 NUM 10x0

Subroutine List:

This Rapid Broken Tool Cycle kit uses two subroutines:

%9000	Parameter Clear L907, L912 and L925
%9001	Rapid Broken Tool Cycle

Number of 'L' Parameters used:

The Rapid Broken Tool Cycle uses the standard 'L' parameters (L900 to L913, L925 and L198).

Standard 'L' parameters L907, L912 and L925 are used for input.

Inputs used

The inputs are used as follows:

H = h

h= Broken tool tolerance, measured from the bottom of the tool. Default input is 0.5mm

Z = z

z= Clearance plane. This defines the first move in the Z-axis, relative to the **ACTIVE WORK OFFSET**, before moving to the laser beam measuring position. The tool also returns to this position after the cycle has finished. If the laser beam is positioned higher than the defined clearance position, then the clearance plane value is modified to position the end of the tool above the NC2, prior to moving to the laser beam measuring position. The tool also returns to this position after the cycle has finished.

If the Z=z input is not used, then the first and last moves will be to the Z-axis reference position.

M = m

m= Alarm Flag. No input then machine stops with alarm. M=1 then no alarm is generated and parameter L198 is set to 1.

All input parameters are optional

Call line:

G77 H9000 will set L parameters L907, L912 and L925 to a value of 99999999

Call line:

H=h Z=z M=m G77 H9001 will load input parameters and run the Rapid Broken Tool cycle

Machining program here

.	<i>End of cutting routine</i>
G77 H9000	<i>Clear input parameters to 99999999</i>
Z=50.	<i>Set input parameters</i>
G77 H9001	<i>Tool will retract to 50mm above the current Work Offset zero point in the Z axis, position above the XY axis measuring position, then position the tool point into the laser beam by the 0.5mm default distance to check the tool.</i>
	<i>It will then return to a position 50mm above the Work Offset zero point</i>
	<i>If the laser beam is above the Clearance Plane then the program will adjust the Clearance Plane value to a suitable value above the beam to prevent any collisions during the cycle.</i>
G0 Z100.	<i>Continue with cutting program .</i>