

LEADSCREW ERROR

Leadscrew backlash may be compensated when reversing the direction of movement. The amount of backlash compensation to be applied is set by the parameter BACKLASH.

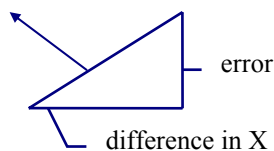
Sometimes, an additional analog pulse may be needed to recover the possible backlash when reversing the axis movement. Machine parameter BAKANOUT sets the value of this analog voltage pulse and BACKTIME sets its duration.

Leadscrew error compensation is activated by setting the machine parameter LSCRWCOMP=on for those axes. The parameter NPOINTS (number of points) affected by this type of compensation.

Considerations:

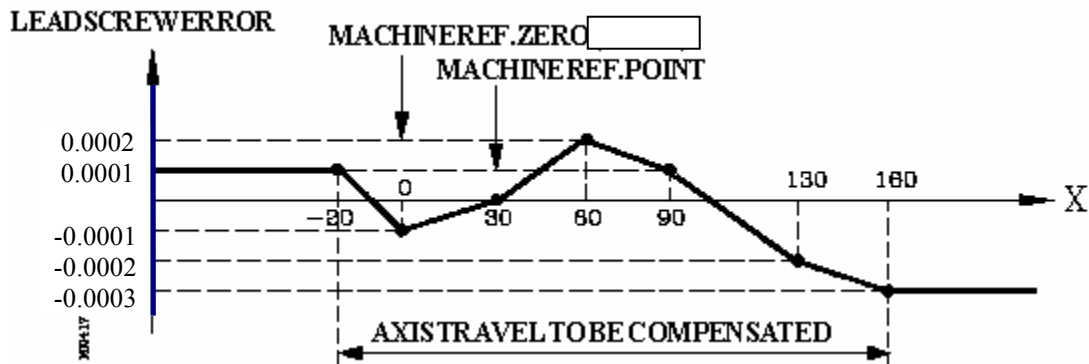
- 1) Axis points start from the most negative to the most positive
- 2) For points outside the compensation zone, CNC will apply compensation values corresponding to table point closest to them
- 3) Machine reference point must be assigned an error of zero. This point is the home reference (marker pulse) with the parameter assigned a value of 30.
- 4) You cannot have the leadscrew error table on, if you are not using all the points.
- 5) Error difference between two consecutive points must not be greater than the distance between them.

(maximum slope =100%) -----error < difference of X



Programming example:

The X axis ballscrew must be compensated for between X-20 and X160 according to leadscrew error graph below.



P001	X-20	EX 0.0001
P002	X0	EX -0.0001
P003	X30	EX 0
P004	X60	EX 0.0002
P005	X90	EX 0.0001
P006	X130	EX -0.0002
P007	X160	EX -0.0003