# APPENDIX - 3 STORED LEADSCREW ERROR COMPENSATION

This function automatically compensates for leadscrew error on each axis according to the compensation data set by parameter and is effective after completion of reference point return. The compensation data are made on the distances between the reference point on each axis and specified points.

Compensation axes: X, Y, Z and 4th axes (including rotary axis)

No. of correction points: 512 Max.

Compensation base point: Reference point

Compensation interval: 6000 Pulses or more

Data setting system: Absolute/incremental (Set by Parameter #6039$_{D2}$)

Compensation value:

Minimum compensation unit: 1 pulse (least output increment)
Compensation multiplication: X13 max.
One-time-compensation value: 15 pulses max.
(Compensation multiplication)

Note 1:

Regardless of absolute/incremental setting, the difference between neighboring compensation values should be (15 pulses x compensation multiplication) and below.

Note 2:

Maximum set value in case of absolute setting is ±127 pulses. Compensation multiplication is taken on this value.

Note 3:

No. of correction points on each axis can be arbitrary as far as the total compensation points are within 512.

Note 4:

Where the 4th axis is a rotary axis, operation is possible within ±200 revolutions maximum.

Table 3.1

| | Axis | Parameter # | Functions |
|---|---|---|---|
| Compensation interval | X to α | #6642 to #6645 | 6000 OR MORE<br>"1" = 1 pulse |
| Absolute/incremental setting switchable | | #6039$_{D2}$ | "0" = Incremental setting<br>"1" = Absolute setting |
| Compensation reference no. | X to α | #6334 to #6337 | Value of parameter # of compensation on each point minus 8000 will be written |
| Compensation max point | X to α | #6322 to #6325 | |
| Compensation min point | X to α | #6328 to #6331 | |
| Compensation value on each point | X to α | #8000 to #8511 | -15 to +15 (Incremental setting)<br>"1" = 1 pulse |
| Compensation multiplication | X to α | #6068 to #6071 | 0 to 3<br>"1" = 1X |