

## 2.9.21 TOOL RADIUS COMPENSATION C (G40, G41, G42)<sup>†</sup> (CONT'D)

### EXAMPLE

```

G17 G01 G41 X... Y... D... F... ;
X... Y... ;
.
.
.
X... Y... ;

G04 P1000 ;
X... Y... ;
.
.
.
.
.
X... Y... ;
Z... ;
Z... ;
X... Y... ;
.
.
X... Y... ;

G40 X... Y... ;

```

Block  
in co  
(Whe  
two,

Blocks without movement  
in compensation plane.  
(When these blocks are within  
two, machining is made smoothly.)

If no movement instruction is programmed in three continuous blocks, offset in the block immediate before them is made on the normal line at the end point. Where movement in the compensation plane cannot be programmed in

three or more continuous blocks for retracting in the third axis or the like, and offsetting on the normal line is not satisfactory, a dummy block can be inserted by I, J or K.

### EXAMPLE

Diagram illustrating the arrangement of blocks in a 3D coordinate system:

- XY plane (Top):** Blocks N001, G17, G01, G41, X..., Y..., D..., F...; N002, X..., Y...; N010, X..., Y... are arranged in the XY plane.
- Dummy block:** A horizontal line indicates a dummy block between the top XY plane and the Z axis.
- Z axis:** Blocks N012, Z...; N019, Z... are arranged along the Z axis, with a note "3 blocks or above".
- XY plane (Bottom):** Blocks N020, X..., Y...; N029, X..., Y... are arranged in the XY plane.
- Connections:** A dashed line connects block N020 to the Z axis area, indicating a relationship or transition.

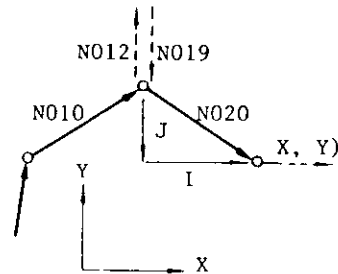


Fig. 2.45