

2.9.25 WORK COORDINATE SYSTEM SETTING (G52 to G59)† (CONT'D)

- If a G53 command is executed with the machine lock function on, the current value displayed changes sequentially until the command value corresponding to the machine lock function off state will be displayed. If the machine lock function is switched on and off during the execution of G53 blocks, correct positioning can not be achieved. However, when a complete G53 block is executed with the machine lock function off, correct positioning is achieved as programmed, even when the machine lock function is switched on and off before that block.
- G53 commands should be given in the G90 mode. If they are given in the G91 mode, the command values are regarded as G90 mode values.
- When work coordinate systems are to be changed with any of the G54 through G59 commands, the program should be so written that a new coordinate system will be set up in the G90 mode and the basic coordinate system will be reset in the G90 mode.
- If a G53 command is given while the tool length compensation or tool position offset function is on, the tool offset value is deleted temporarily. Generally, when giving a G53 command, the tool length compensation and tool position offset commands should be canceled in advance.
- When any of the commands G54 through G59 is given while the tool length compensation or tool position offset command is on, the compensation remains effective. Generally, when any of the commands G54 through G59 is to be given, the tool length compensation or tool position offset command should be canceled in advance.

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G43 Z0 H01 ; ... COM Z100
G54 ;
G90 Z1000 ; ... COM Z1100

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Z 1300 in incremental shift

G54 shift: Z = 300

Offset: H01 = 100

- If G92 is given during execution on the work coordinate system set up by G54 through G59, G54 through G59 or the basic coordinate system is shifted so that the current position is to be a shifted position by G92, G92 should not be used in G54 to G59 modes in general.

2.9.26 UNIDIRECTIONAL APPROACH (G60)†

This function is effective to position the tool at high accuracy.

• G60 X... Y... Z... ;

With this command, the tool moves and stops at the specified position. If the tool approaches the stop position in the direction specified by the parameter (#6014), it overtravels the stop position by the amount specified by parameters (#6062 - #6065) once, and then returns to the specified position to stop.

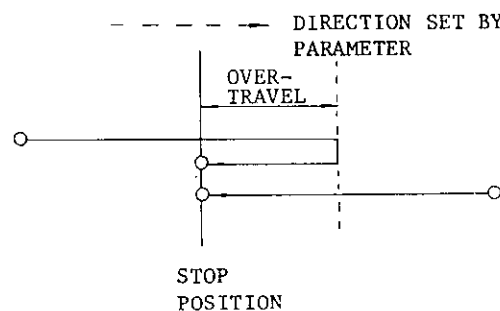


Fig. 2.76