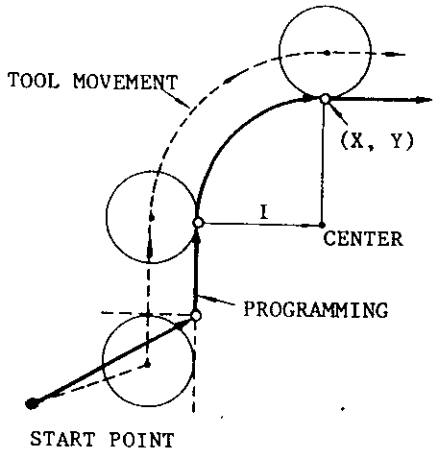
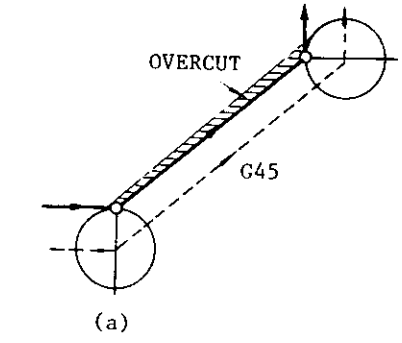


Note: When it is necessary to program 1/2 circle, assemble them using 1/4 circle.

Fig. 2.66



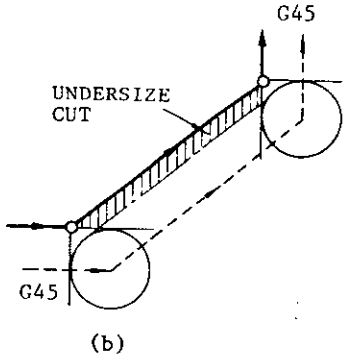


Fig. 2.67

9. When programming G45 to G48, the G code of 01 group can be given together in the same block. An input error occurs if instruction is given with other G codes.

10. When only movement by offset in the incremental designation (G91) is required, program "0" as the axis movement instruction.

```
G91 G01 G45 X0 Y0 D10 F... ;
```

... Movement is made in the positive direction along both X and Y axis by the offset value with D10.

```
G91 G00 G46 X0 D11 ;
```

... Movement is made in the negative direction along X axis by the offset value with D11.

It is meaningless to give a sign to "0."

NOTES:

- When G45 to G48 are programmed as the simultaneous movement instruction along two axes, extension or reduction is made in the two axes. Overcut or undersize cut will occur if this is applied to cutting. Keep this in mind. (Fig. 2.9.23.7)
- Even when the offset value is changed by MDI, the offset instruction previously programmed will not be affected. It becomes operable when G45 to G48 are programmed thereafter.
- This tool position offset can be applied in addition to the tool length offset.
- Mirror image can be applied to tool position offset. That is, it is possible to perform symmetrical cutting with this offset applied.
- Tool position offset is independent of G codes (G17/G18/G19) of plane designation.
- G45 to G48 can not be programmed in the canned cycles mode. An input error will occur if this is programmed.
- If G92 is programmed in the offset mode, programming of absolute zero point is made after the offset value is canceled from the designated axes. In principle, program G92 after returning the offset value to the original value by programming extension or reduction in the opposite direction.
- During automatic operation, the offset distance in each axis from the programmed end point by tool position offset can be displayed Refer to 4.3.2.3 DISPLAY OF TOOL OFFSET STATE: COMMAND (OFFSET).