

FANUC Series *0i* - MA
MANUAL GUIDE *0i*

1. What is MANUAL GUIDE 0i ?

- It is a conversational programming feature with simple operations. It has “Advanced canned cycle”, which supports various machining of fixed pattern, “Contour programming”, which supports entering contour form powerfully, “G-code assistance” and “M-code assistance”.

Available both on 10.4” and 8.4 ”color LCD

Series 0i-MA
MANUAL GUIDE 0i

Advanced canned cycle

Contour programming

G-code assistance

M-code assistance

```

PROGRAM (EDIT)                                00001 N00000
01 S X-20. Y0. ;
02 R20. I0. J0. ;
03 R R10. ;
04 X49.81 Y-4.358 A-5. ;
05 R R10. ;
06 R50. I0. J0. ;
07 R R10. ;
08 X63.64 Y-63.64 A-45. ;
09 R R10. ;
10 R90. I0. J0. ;
11 R R20. ;
12 A195. ;
13 X-20. Y0. R20. I0. J0. TL;
EDIT **** *X 18.203 Y -8.284
[ LINE ] [ ARC ] [ ARC ] [ CORNER ] [ CHAMF. ]
  
```

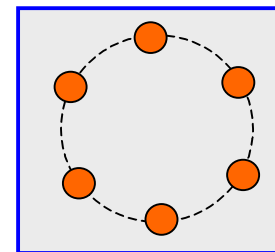
Example of Contour programming
screen

2. Advanced canned cycle

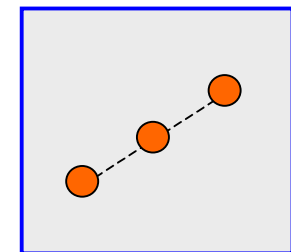
❑ Entering and actual machining of various fixed pattern parts can be done easily

Canned cycle machining for milling

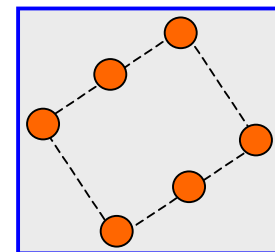
- 1) Hole drilling (Drilling, Deep hole drilling, Tapping, Boring)
- 2) Hole position pattern (Circle, Line, Rectangular, Grid)
- 3) Surface machining (Rectangular)
- 4) Pocket machining (Circle, Rectangular)
- 5) Side machining (Contour form by line and circle)
- 6) Slot machining (Line)



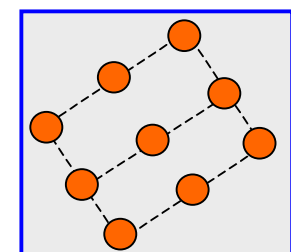
Hole position (Circle)



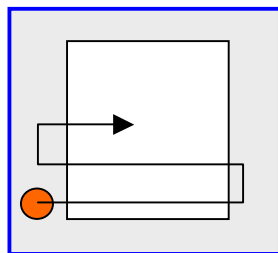
Hole position (Line)



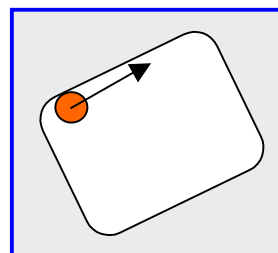
Hole position (rectangular)



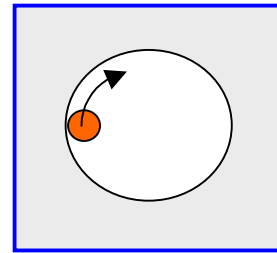
Hole position (Grid)



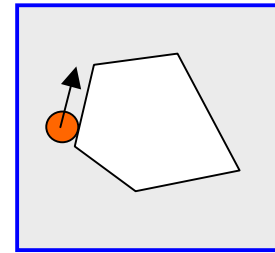
Surface machining (Rectangular)



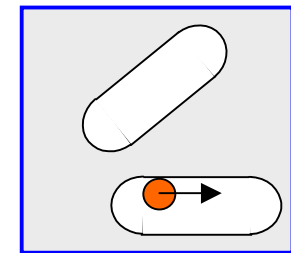
Pocket machining (Rectangular)



Pocket machining (Circle)



Side machining

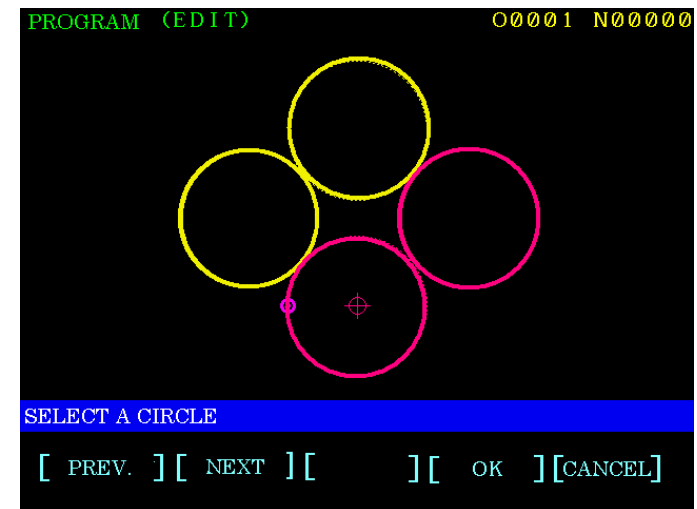


Slot machining (Line)

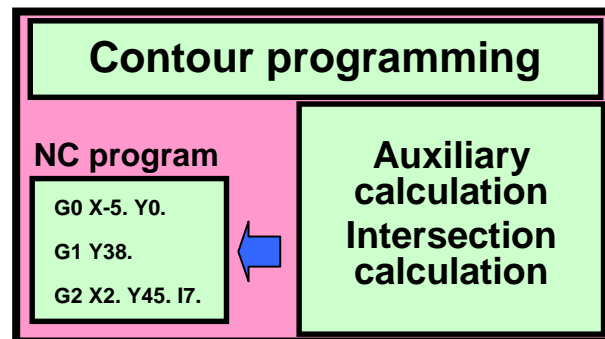
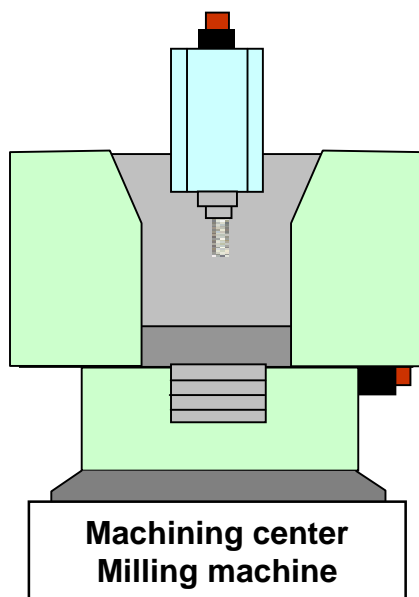
3. Contour programming

□ Contour figures program with lines and circles can be entered easily

- 1) Powerful figure calculating features such as 10 blocks pending
- 2) Auxiliary calculation features
- 3) Simple operations by menu and guidance
- 4) Entered contour forms are converted into ISO-code program
- 5) The aimed figure can be selected on a selecting guidance



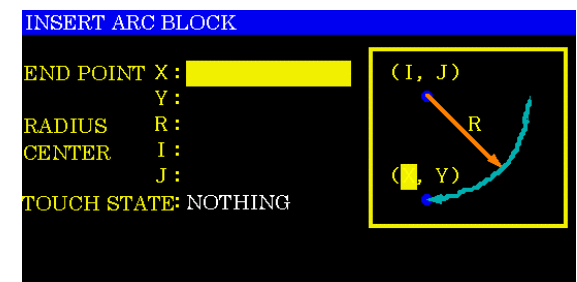
Example of selecting guidance



NC machining



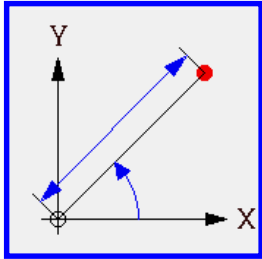
Pocket calculator for figure calculation



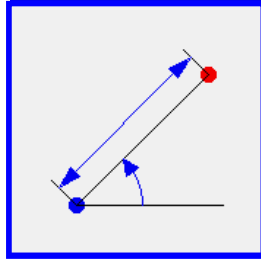
Example of figure data screen

Auxiliary calculation

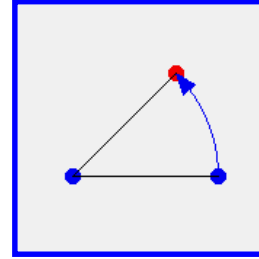
- 11 types of auxiliary figure calculation are available



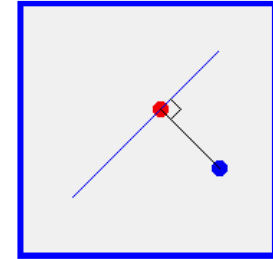
Point by polar coordinate



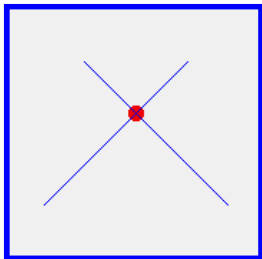
Point by angle and distance from a point



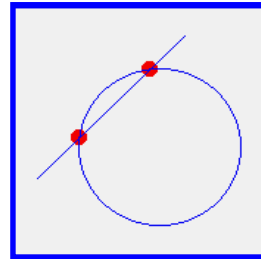
A rotated point



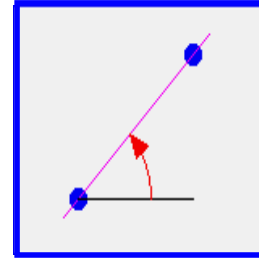
Nearest point of a line



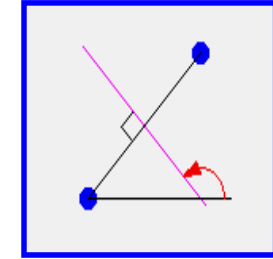
Intersection between 2 lines



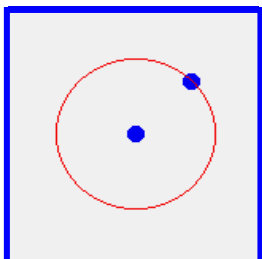
Intersection between line and circle



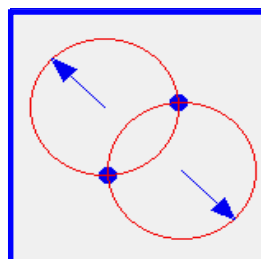
Angle of a line passes 2 points



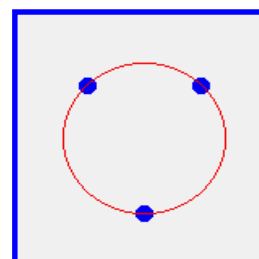
Angle of perpendicular line passes 2 points



Circle with center passes a point



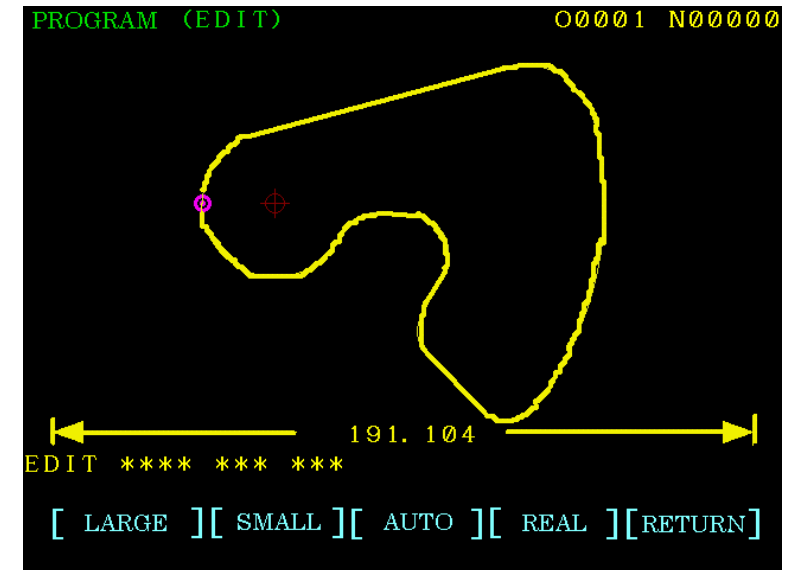
Circle of radius R passes 2 points



Circle passes 3 points

Displaying entered form

- ❑ Entered contour form can be check easily by enlarging / reducing / moving / automatic scaling



Example of graphical displaying screen

Pocket calculator type calculation

- ❑ At inputting a numeric data, pocket calculator type calculation is available
 - + , - , × , ÷
 - SIN θ 、 COS θ 、 TAN θ
 - \sqrt{x}

4. G-code / M-code assistance

□ Easy inputting of G-code and M-code is available by using G-code and M-code assistance screen

1) Modification and addition of new item of a M-code assistance screen are available by macro executor

```
PROGRAM (EDIT)                                00001 N00000
M-CODE MENU
M08 COOLANT ON
M09 COOLANT OFF
M19 SPINDLE ORIENTATION
M30 PROGRAM END
M48 SPINDLE OVERRIDE ON
M49 SPINDLE OVERRIDE OFF
M75 WORK CRAMP
M76 WOR UNCRAMP
M80 DOOR OPEN
M81 DOOR CLOSE

M-CODE=
WHEN INPUT M30, ENTER 30 AND PUSH [OK]
EDIT **** * 10:34:49

[      ][      ][      ][CANCEL][ OK ]
```

Example of M-code assistance screen