SF -2300S fast operation manual

SF-2300S flame/plasma CNC system fast operation manual::

The first chapter system operation panel

【F1】-【F8】: Function keys, under different interface, with the corresponding prompt functions

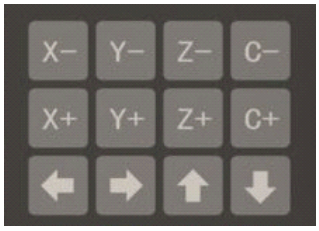
【PgUP】: Under the code interface is up page key,

【PgDn】: Under the code interface is down page button;

【F↑】: to speed up the speed;

【F↓】: to slow down speed;

【1】—【9】: Numeric keys, According to the screen prompt control the corresponding output;



Mobile cutting torch or move the cursor around;

The enter key to confirm the input value or select the project;

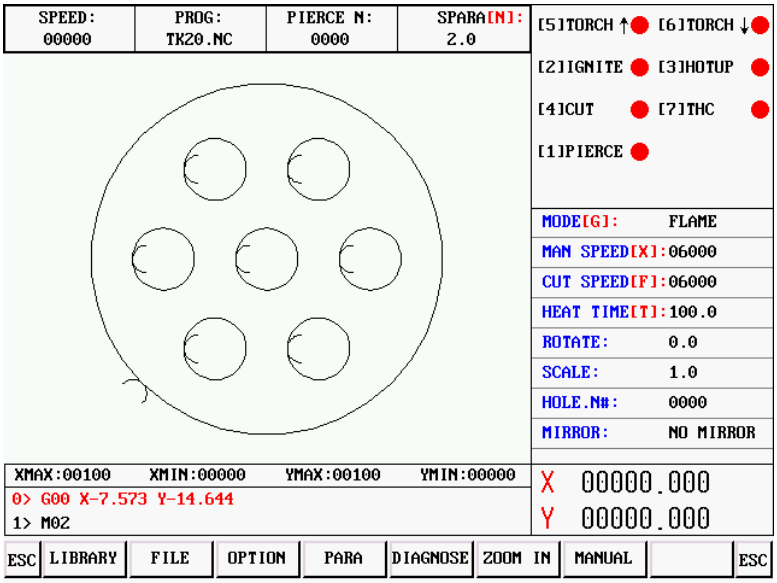
Escape key to exit the current interface or deselect;

Function switch, press the button to open the corresponding function;


The blank space key, press button to enter automatic processing interface under the main interface,;

The second chapter main interface

After the system is powered on, interface is shown in figure:



Under the main interface, press "F1" - "F8" corresponding to the following functions: :

[F1]: Gallery, enter can choose commonly used 24 kinds of graphics libraries, most have die size and pore size.

[F2]: file, enter can choose the native file, U disk file, edit, import and export operation, etc.

Options:

[F3] :Option, the machining parts for mirror, rotate, starting point, rotation correction, scaling, parts, etc.

[F4] : parameters. All parameters can be set up in this.

"F5" : diagnosis, input and output diagnosis, system Settings, emptying storage file, reduction, the I/O custom parameters.

[F6] : graphics zoom, zoom in graphics, view the perforation, as well as cutting information display.

[F7]: manual, manual mobile machine, coordinate system reset, the back, select the breakpoint.

[G] : set the cutting mode, the optional flame, plasma, demonstrates three modes.

[X] : set manual movement speed.

[F] : set up automatic cutting speed.

[T] : set the preheating time delay.

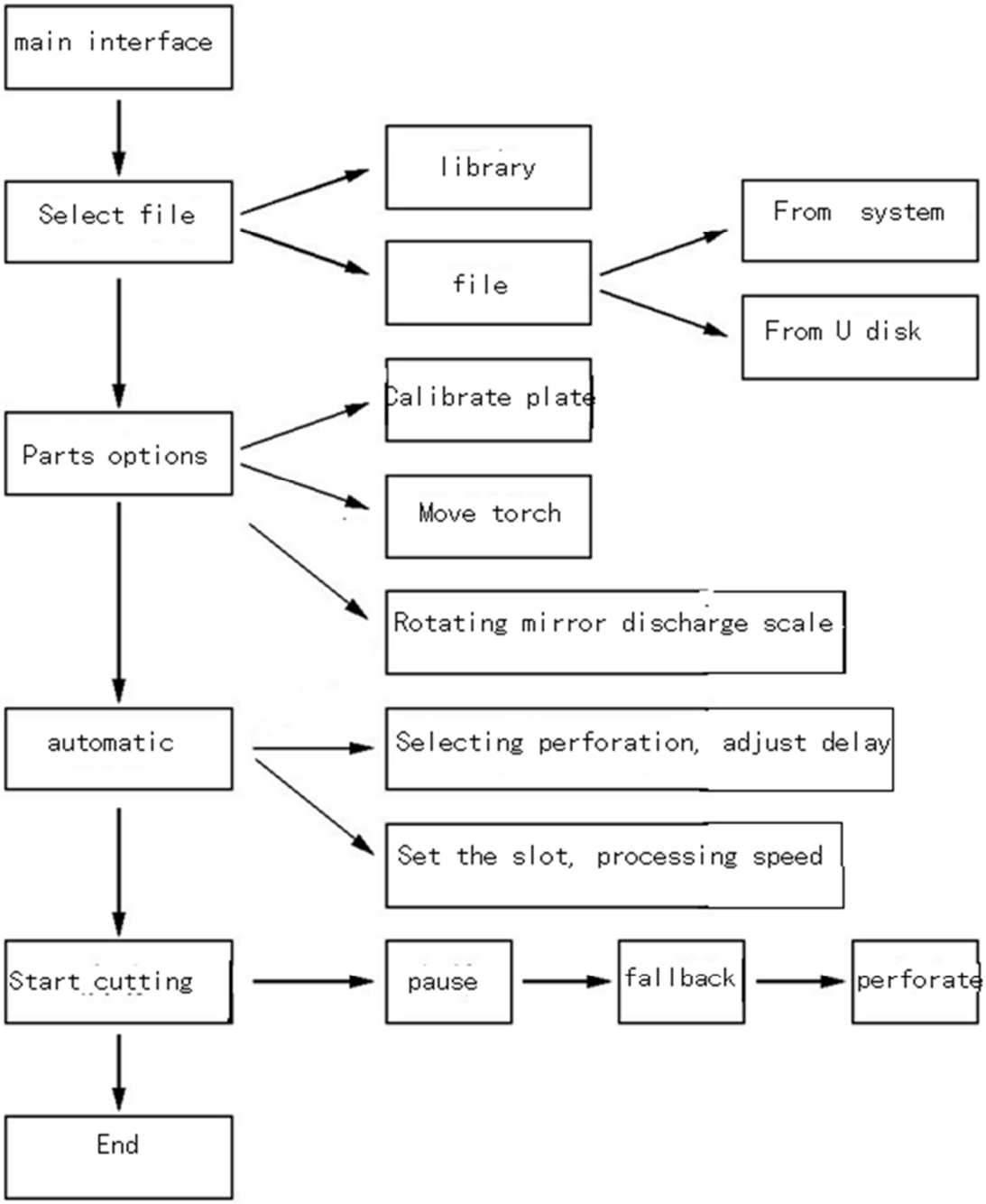
[N] : before the start of the cutting operation, you can set the slot siz

e  start the cutting

: Pause or stop cutting

The third chapter cutting process

Automatic cutting process diagram

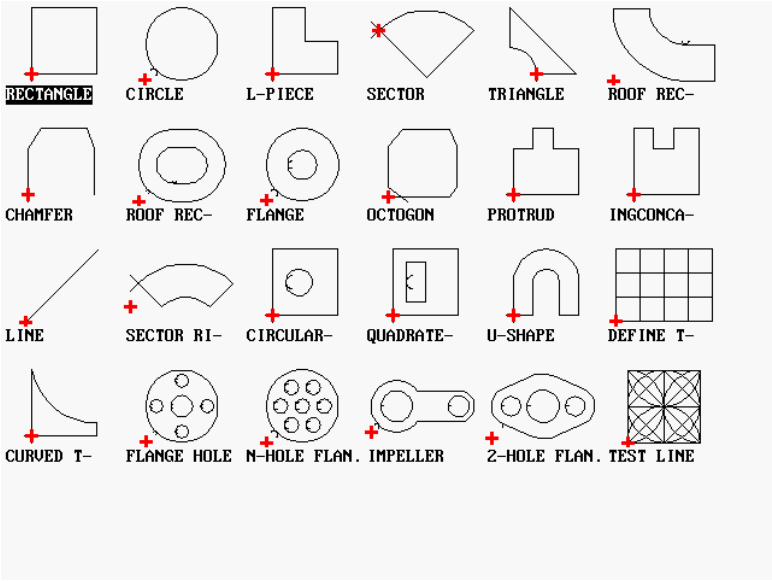


The first section selection processing graphics

This system can select from gallery selection system processing graphics and users from the U disk or storage area to the graphics processing

3.1.1 Library function

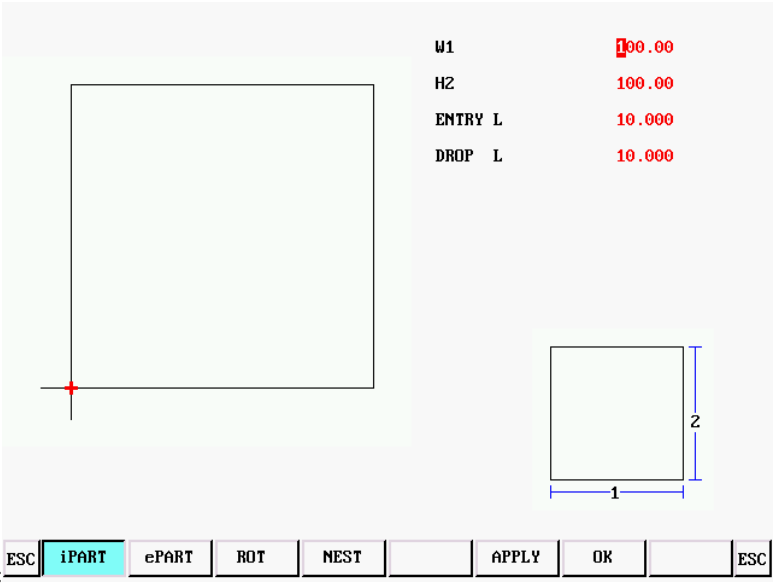
System main interface press "F1" button to enter gallery features, main picture below



Selection of graphical parts

At present this system provides 24 graphic unit, press the direction key【↑】【↓】【←】【→】mobile highlight cursor, choose the required graphics, key confirmation, the confirmation of graphics parameters into the interface

Graphical interface parameters

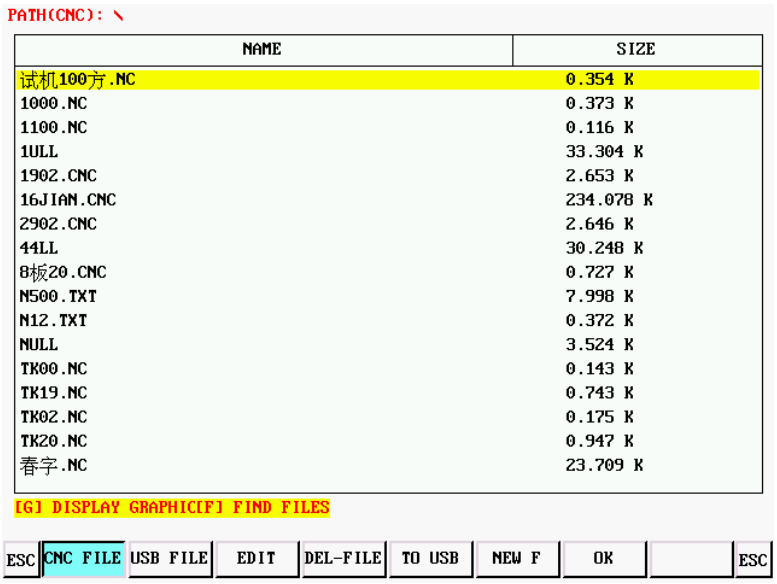


Press the direction key【↑】【↓】【←】【→】Move highlighting the cursor, modify graphics parameters，Press【F1】-【F4】Choose graphically，Rotation discharge。Press【F6】Submit the modified parameters，Press【F7】Confirm the cutting current graphics，Confirmed the system automatically returns to the switch on the main interface, and displays the graphics editor。

3.1.2 Processing file selection

Under the main interface press【F2】, into the interface of File management

As shown in the figure below。



F1 CNC file into the hard disk file list, as shown, the system list file list

F2 USB file documents show U disk directory

F3 EDIT Edit the current cursor file

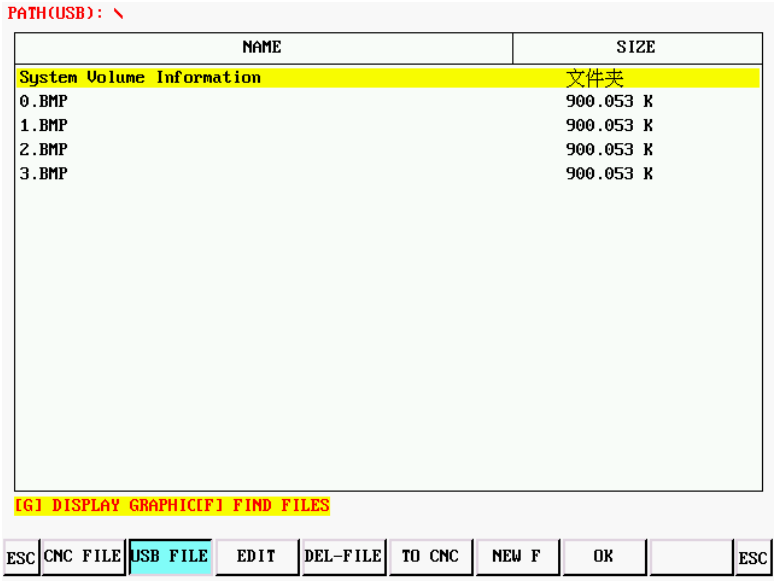
F4 DEL-FILE Delete the current cursor file

F5 COPY TO USB The current cursor file is copied to the external usb drive

F6 NEW FOLDER Can create a folder under the root directory

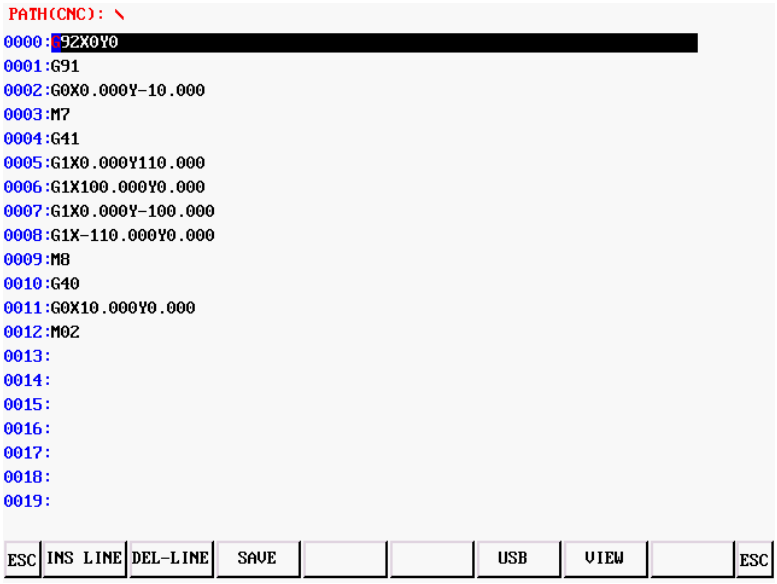
F7 OK Make sure the current cursor processing file, and exit to the main meeting。

Read U disk file



Under the file management interface, press【 F2】into the Usb file interface, in the interface,【 F5】Automatically from the "copy to usb flash drive" into "copy to the native". In the choice to the corresponding cutting code file, press【 F5】the system will automatically save the file to the file.

Edit the current file

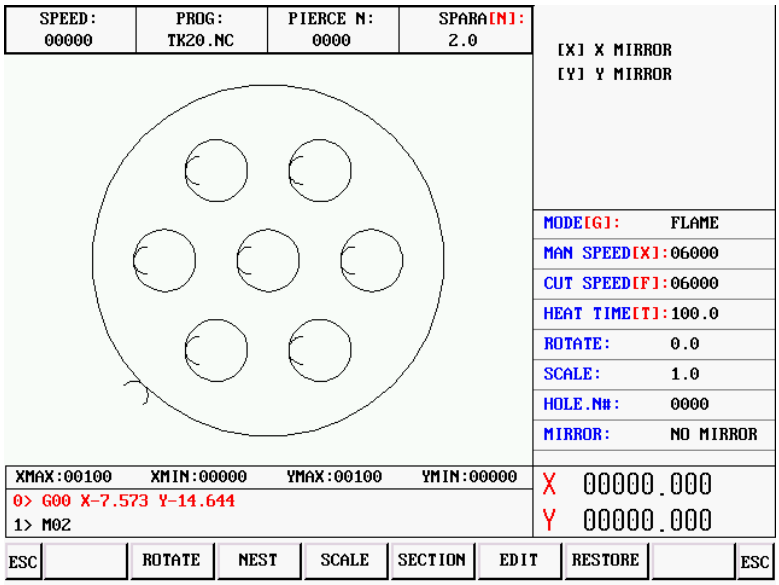


Under the file interface, move the cursor to the need to edit the file name, press【 F3】Edit the file。

When editing code, press【 F1】Can be inserted in the current edit line, press【 F2】Delete the current line 。press【 F3】Create a new file, press【 F4】Create a new folder。

3.1.3 Parts option function

Under the main interface, press 【F3】， into the Parts option interface



【 F2】： Rotation correction, can use plate leveling function and manual rotation function

ROTATE：entering rotation correction interface, mobile cutting torch to plate production start position, press【 F1】Set the starting point, the system coordinates automatically reset, and then move the cutting torch to the side to the other corner of the plate on the same side board, press【 F2】SET The end, the system automatically rotating graphics.After the completion of the correction, if prompted to return to the starting point, if the press【 ENTER】key，Then the system will return to the correction of the starting position, if press 【 ESC】 Then the system without any operation, returns to the graphical interface。

【 F3】： NEST， For simple discharge machining parts。

【 F4】： SCALE，Scaling set processing parts

【 F5】: SECTION，Choose from any perforation PM processing
【 F6】: EDIT
【 F7】: RESTORE，Cancel all operations, restore the graphics to the original state。
【 X】: Graphics to the X axis image
【 Y】: Graphics to the Y axis image

The second section setting processing parameters

3.2.1 Need to set the following parameters before processing:

Cutting pattern [G] press the key 

Patterns To switch between in the flame cutting, plasma and presentation;

Cutting speed [F] press the key 

Modify the numerical change cutting speed， Press enter to confirm

Manual speed [X] press the key 

Modify the numerical change cutting speed，Press enter to confirm

slot [N] press the key 

Modify the numerical change slot size，Press enter to confirm

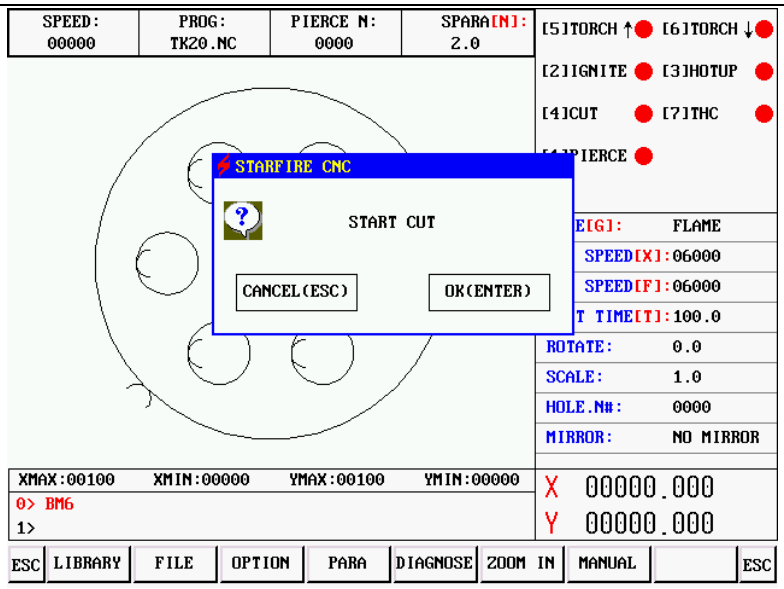
Preheat time delay [T] press the key 

Modify the numerical change preheat time delay，Press enter to confirm

3.2.2Under the main interface press  Enter the processing interface

3.2.3 Start processing

After selecting machining parts, and finish machining parameter is set, press the key  , System interface, the diagram below:



At this point, press the 

Start automatic processing，press  Exit the processing，Back to the main interface

During processing, can press 

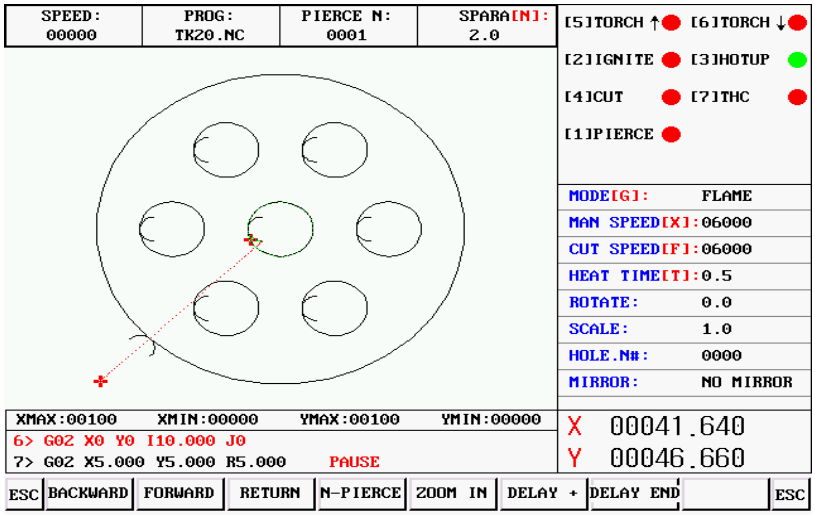
Adjust the processing speed.Click 1% deceleration, long press 10% deceleration。

The fourth chapter machining process

In the process of the content of this chapter is to introduce the processing needs of processing

4.1 Suspend operations

During processing, flame failure, interruption of arc voltage, or other need to suspend the case, press  System to stop working, and interface as follow:



【 F1】: BACKWARD ， Cutting nozzle along the trajectory of the original cut back。

【 F2】: FORWARD， Cutting along the cutting path forward;

【 F3】: RETURN， Cutting nozzle return to the starting point, namely the starting point of the workpiece。

【 F4】: N-PIERCE，

【 F5】: ZOOMIN

【 F6】: DELAY+， Increase the preheating time, increased to 10 seconds at a time。

【 F7】: DELAY END， End of preheating, skip the rest of the preheating time，

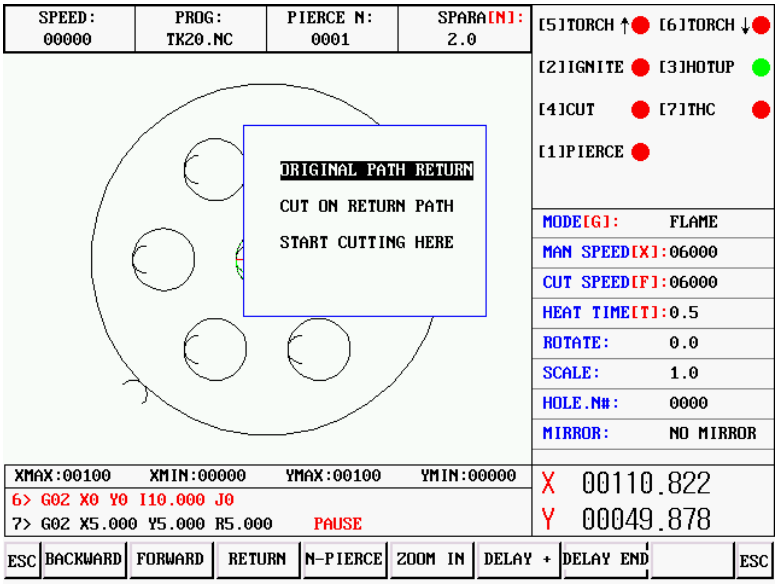
Note: press【 F7】 end the preheating time delay，The end of the current only delay, not log into the system, if you need memory the preheating time delay time for system, press end time delay (memory)at the same time), start punch processing

Press Choose to change the speed， modify The values ， press Enter to confirm。

After the completion of the modified,press To continue processing。

4.2 Change perforation position or cutting position after the pause

Mobile cutting after the pause, press start again , appear the following interface



Press Choose corresponding function， Press Run the corresponding action

1）ORIGINAL PATH RETURN

Return to adjust the starting point at the speed of G00, in this waiting for further operations; At this point according to the corresponding high voltage function keys (such as ignition, preheated perforation, open cutting operations such as oxygen).Suggestion: after preheating, and then press "punch" key, then the system starting from the breakpoint position to continue processing.

2）CUT ON RETURN PATH

Again in the first punch, cutting speed along a straight line from the current position to adjust the starting point, don't stop according to the original path to continue processing, a bit like epitaxial perforation, perforation point more smooth;

3) START CUTTING HERE

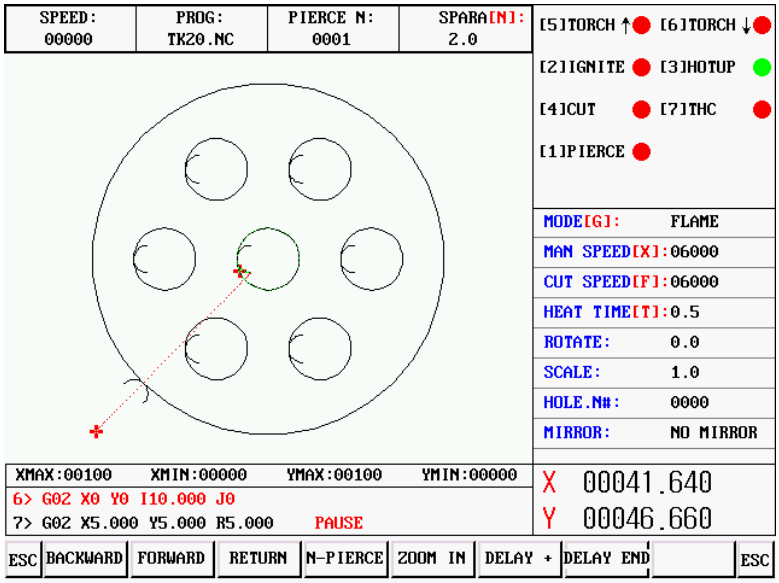
First perforation, adjust the current coordinates is suspended, the coordinates of the original trajectory continue processing, in order to realize the transfer function of perforation.

Note: (2) and (3) before operation, should be fully preheat (fire), because a but chose operation, punch right away.

Normal practice should be first preheating (fire), then press the "start" key.

4.3 The original track back processing

In processing for failing to cut through, need to the original track back, is as follows:



Pause, slow down the running system, the system shows "pause" tag, and presented the following figure.

Press 【F1】System to perform the original track back, back speed set in the parameter - speed - back.

Press 【F2】In the back, on the basis of the original trajectory.In the process of back, if do not meet the need of position, can press 【 pause 】 again, repeat the above process, until it is right.

Meet G00 (arrived at a piercing point) back;

In the process of back, meet G00 suspended (reach a piercing point) system, the operator can choose is to continue to back, or forward;

The operation of back to back

Back to the designated place,

For preheating, then press punch, began to processing

under the condition of the flame， cutting torch up, open oxygen , cutting torch down, system continues to run.

under the condition of plasma， arc open, wait for after the arc, the system to continue running.

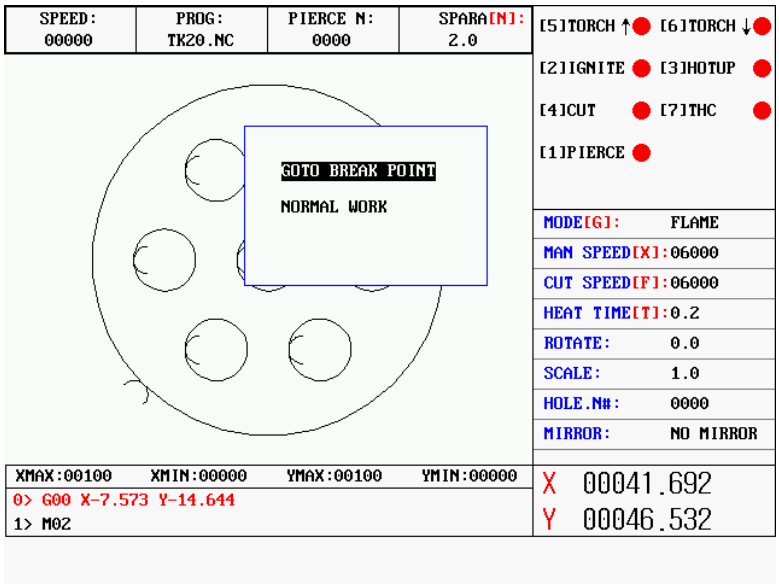
The above operation can be repeated, until get the desired effect.

4.4 Breakpoints recovery and restore power

4.4.1. Breakpoints recovery

Power failure in the system for suspension or for processing, the system will automatically save the current cutting torch position for a breakpoint.The breakpoint will be permanent, whether to turn it off or not.

1） automatic recovery, after the power switch on, the system will prompt the diagram below



Choose breakpoints recovery， Press "start" button, the system breakpoint began to recover。

2） Entered manually, as long as the current process does not change, can press[F6] find breakpoint function, back to the main interface and then press "start" button, system breakpoint began to recover.

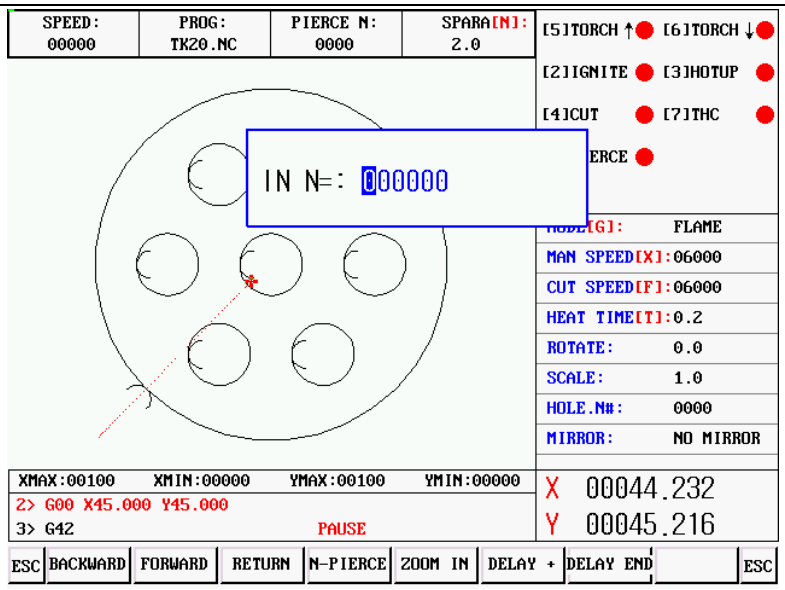
Both breakpoints recovery and restore power, are not allowed to change, the Angle of rotation, scaling, the conditions of the system will automatically save, not affected by the switch machine).Otherwise the system may find the breakpoint.

4.5、 Choose section code function

4.5.1、Start the function

Passage function to specify system, arbitrary section from the program (or a piercing point) start the processing.

Press "F4" selecting optional perforation function, the system shows the diagram below:



Perforated dot at this point: direct input, and press enter after confirmation, the system will automatically cutting torch orientation to punch points

Press start from the current point to start cutting

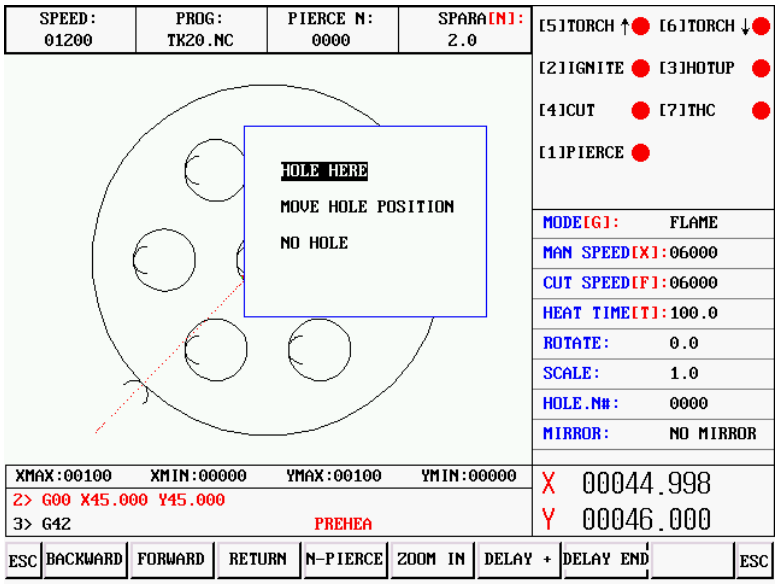
4.6、The edge of the thick plate perforation

In the automatic processing, need to use edge perforation method for thick plate processing。

edge of the perforation of the method is: will be in front of the punch cutting torch to move to the edge of the plate recently.

Start preheating, when after the preheating, press【start】key，Cutting along a straight line and the selected cutting speed cutting to punch, cutting processing again.

USES the edge notch, the first change parameter control menu of edge notch choice to 1 (said to choose effective).So every hole, the first prompted the diagram below:



Location perforation

System position and perforation, for inner hole in common use

Select Edge of the hole

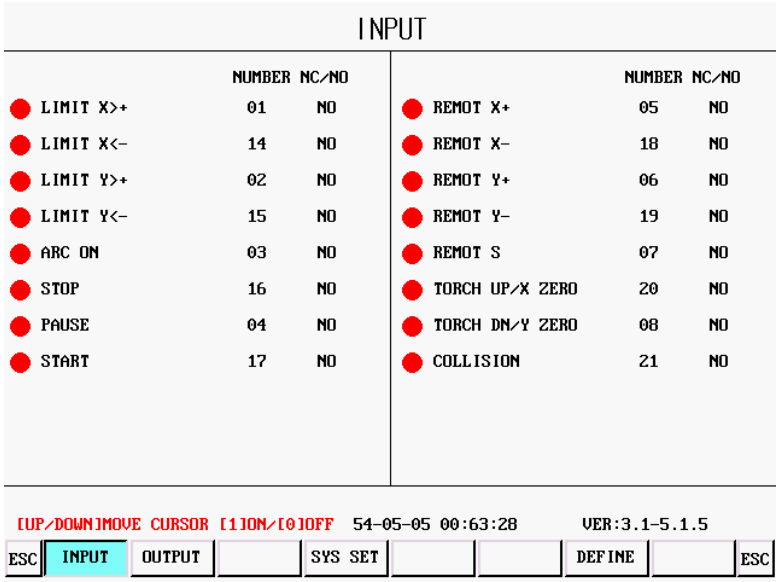
1) The operator can press【↑】【↓】【←】【→】, Adjust the position of the cutting torch to the outer limits of the steel plate, start preheating;
2) When after the preheating, press【start】key, Cutting along a straight line distance and the selected cutting speed to punch, cutting processing again.

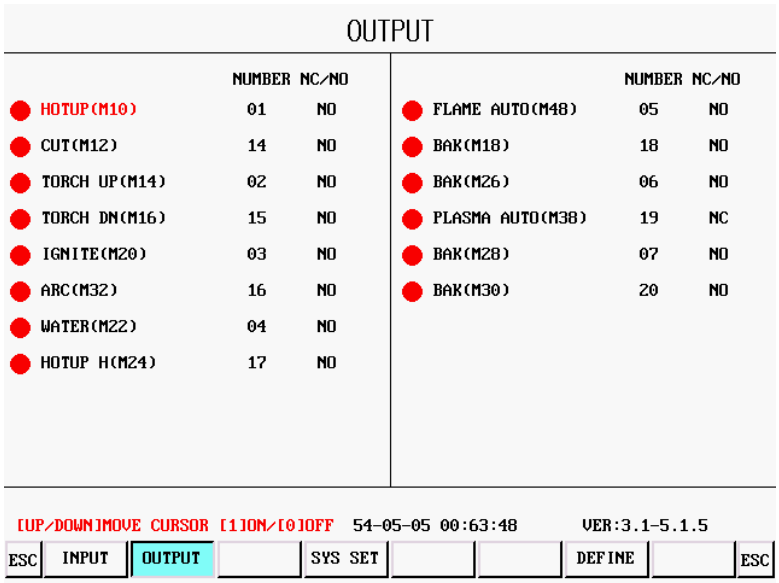
Don't perforat

No perforation, system run directly from the current perforation position.Blank line to the next hole, a new perforation tip.

The fifth chapter interface definitions

5.1, definition



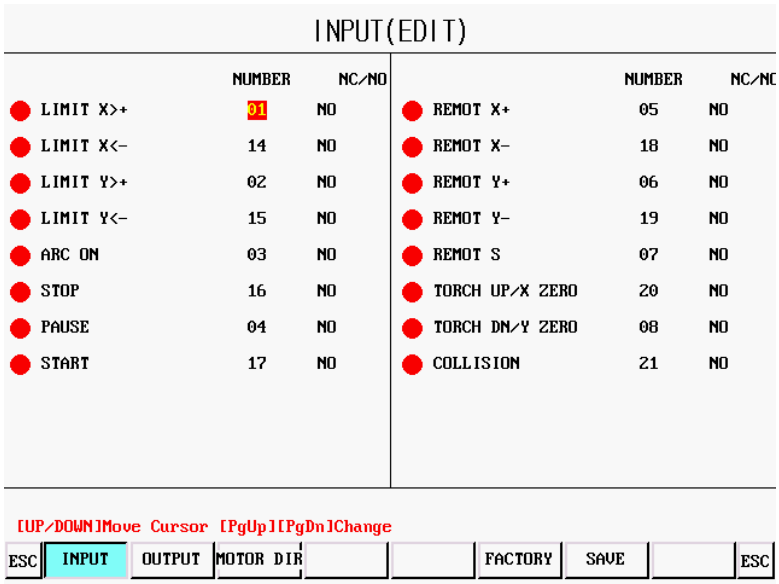


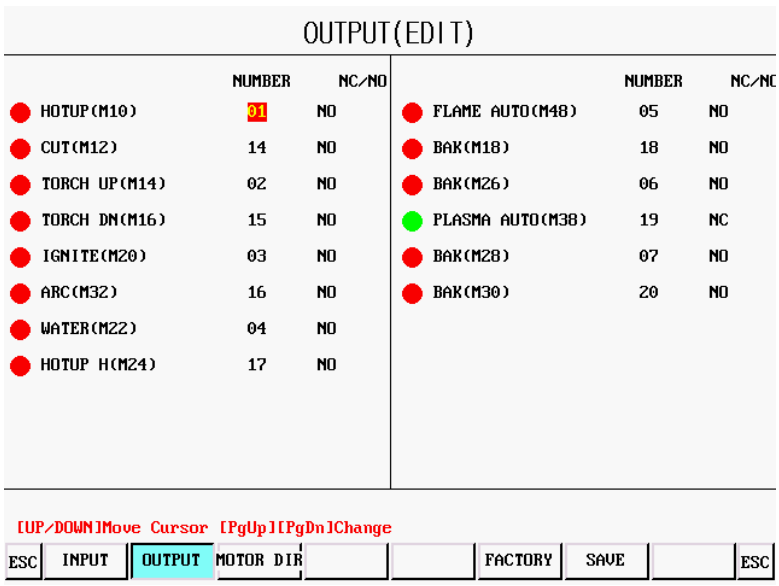
【序号】和【常开常闭】均可进入 IO 定义界面进行修改（**密码：** 1928）。

Above, [number] is plug number marked on foot,[normally open normally closed] is the default state of the signal.

[Serial number]and [normally open normally closed] all can enter the IO defined interface modifications (code: 1928).

5.2 feet modification



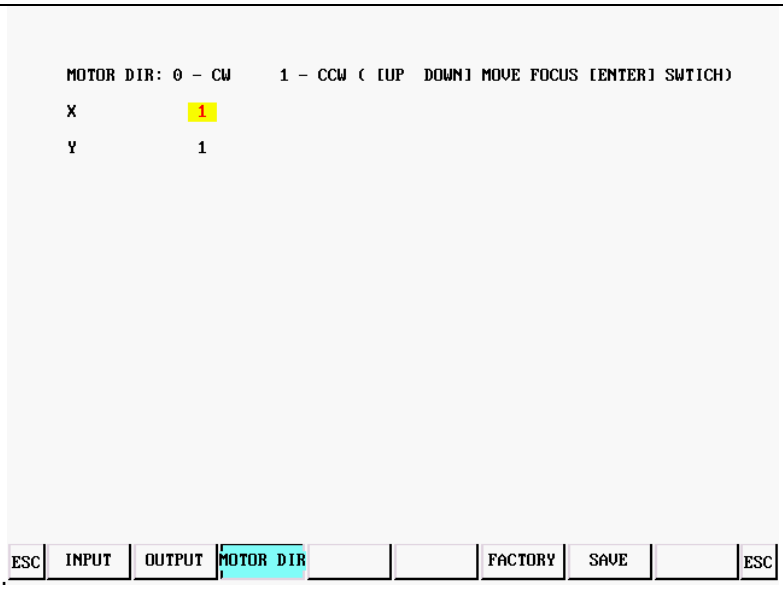


1) The above definition for IO interface, press【→】【←】【↑】【↓】Move the cursor, press the【PgUp】【PgDn】Modify the Settings of the serial number and normally open normally closed state, finished, press【SAVE】。

2) To restore the factory value: press this button can return the serial number of the factory status (code: 1928).

5.3、Modify the motor running direction

If the machine tool running direction and system coordinates display direction, can modify the motor direction



In the figure above, press【↑】【↓】Move the cursor, press the【Enter】Switch direction, finish , press【SAVE】