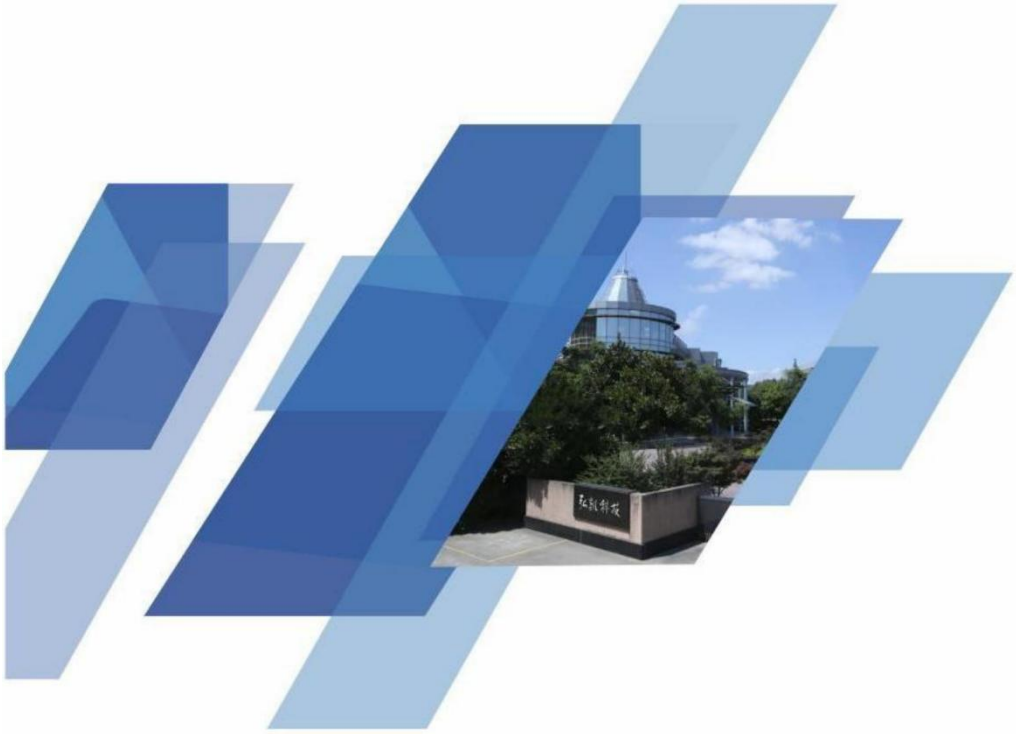
TECHMATION
Innovation in Motion

SCS500

Bending machine operation manual

V 1.20



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Preface

This is the SCS500 bending machine control system operation manual for bending machine operators. With the addition of new technologies and features, this manual may lag behind the control system, so please contact us for the latest updates in a timely manner.

We hope this operation manual will be of great help to you, and we also hope you will give us feedback on what you think should be improved to help us keep improving our products.

Please note that in order to protect our intellectual property rights, the contents of this manual may not be reproduced, modified, copied or transmitted to third parties in any way without our written permission, and this manual may not be used for third party designs.


WARNING: Failure to adequately understand the operation and settings of the machine may result in damage to the machine or injury to personnel. When operating the bending machine, it is important to follow safety guidelines to ensure the safety of the operator.

Version number	Update Description	Date
V1.17	Update pictures, add alert message description	2022/11/15
V1.18	Increase the position bending method and update the machine screen layout	2023/01/06
V1.19	Single-step function moves to the processing screen	2023/02/20
V1.20	Update pictures, Graphic Bending Editor	2023/07/20

Catalog

Chapter 1 Overview

1.1 Panel

The SCS500 panel is made of aluminum frame with 15" touch screen as shown in Figure 1-1.

Figure 1 -1 Schematic diagram of SCS500 system panel

Panel integrated "emergency stop button", "lighting switch", "motor start button" three buttons, as well as "USB port," "hand crank" and "buzzer" (side), "Hand crank wheel" and "buzzer" (side).

1、Emergency stop button: pressed in case of emergency, the machine stops all movements in an emergency.

2、Lighting switch: turn on and off the process lighting.

3、Motor start button: turn on and off the motor.

4、USB interface: insert U disk, save and restore product information, tuning parameters.

5、Hand crank wheel: Hand crank wheel can be used to manually control the direction and speed of movement of the selection axis.

6、Buzzer: It plays the role of prompting when operating the machine.

1.2 Main interface

After the system power-on and boot-up is completed, it enters the main page, as shown in Figure 1-2.

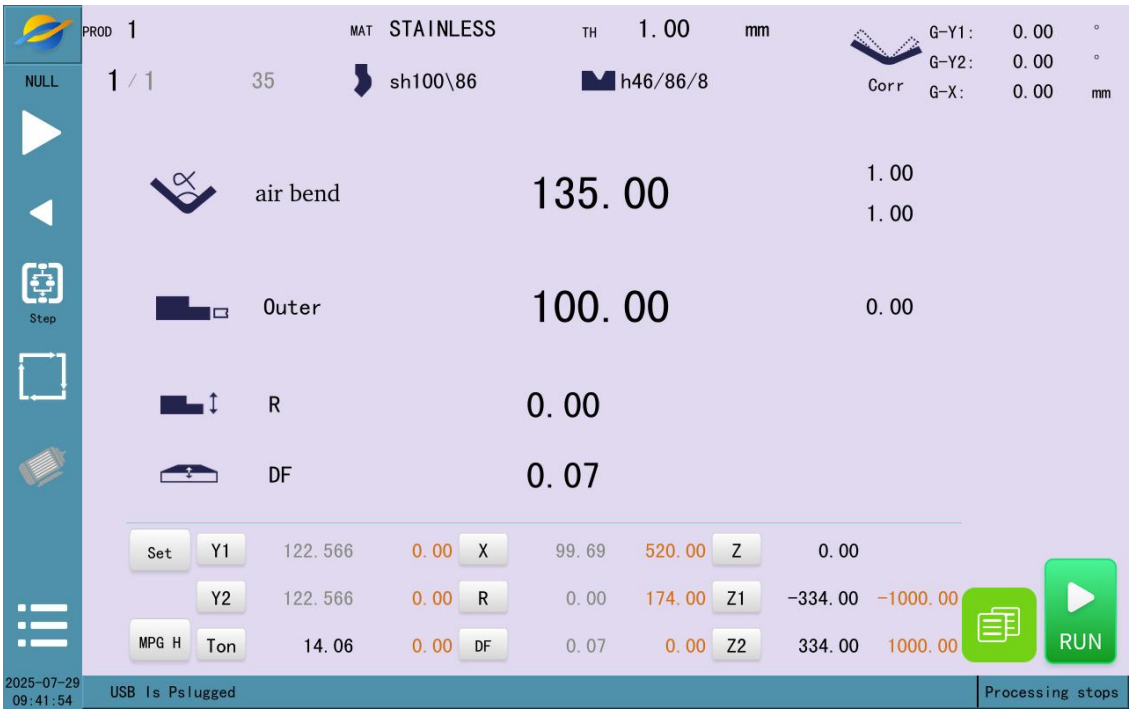


Figure 1-2 Main Page

As shown above, the screen is divided into 3 levels of structure, and in all screens, the location where each structure is located is fixed, only the content of the page differs.

1、On the left side is the function bar, including the left and right buttons  the power level login button , the  status display button  , the menu button  and the system date and time display.

2、Below Figure 1-3 is the prompt bar, the system is often blue, when the system alarm is red, click the red icon on the left to clear the alarm, clear the alarm must first

eliminate the corresponding error, click the button to take effect, otherwise the alarm will not be cleared. Clicking on the input box will also prompt the data ID and the upper and lower limits. The right side shows the current machine status, it will prompt the current machine to proceed to a certain step, and it will also prompt the pedal to wait when you need to step on the pedal.

Figure 1-3 Reminder bar page

3、Click on the power level login and enter your username and password before you enter the high power level and can see more of the page.

4、Menu bar: This system is divided into 6 menus according to the main functions, of which:

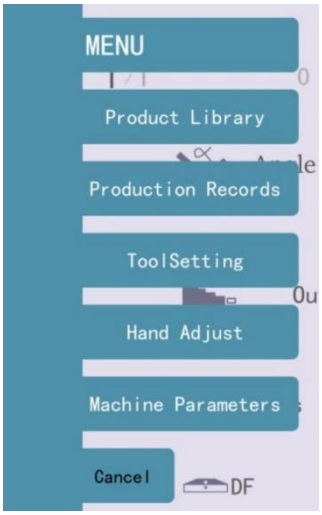


Figure 1-4 Menu bar page

Product library: products can be created, stored, read and deleted.

Production records: setting production targets and keeping production records.

Tool setting: Enter the tool setting interface to adjust the maximum opening after changing the mold.

Manual axis adjustment: In this screen, you can perform manual actions on individual axes.

Machine parameters: machine configuration, machine status and tuning parameters.

System settings: system time, data backup and recovery, alarm records, power level settings, etc.

5、Click the Status button: Display the communication status and axis status.

Axis status: The light shows green for open and normal status, red for abnormal status, and gray for closed status, followed by the current position of each axis.

DI: Displays the status of each point of the digital input channel that has been configured.

DO: Displays the status of each configured point of the digital input channel.

AI: Displays the actual value of the channel for which the analog input has been configured.

AO: Displays the actual value of the channel for which the analog output has been configured.

Connected status: Shows the connected status of each module, not connected is gray, with color is normal.

Motor: Click to turn on the motor enable and turn off the motor enable.

Search for reference: Click to start searching for the reference point of each axis, and then the search for reference status lights up in the connection status after completion.

Clear Error: When there is an alarm in the system, click this button to clear the alarm, or you can tap the small alarm icon in the alarm bar to finish clearing the alarm.

Figure 1-5 Status Page

1.3 Tool setting

In order to facilitate the user to install the mold and confirm the position of the lower dead point, the system provides the tool setting function. Click the "Tool setting" button on the "Status" screen to enter the tool setting screen (Note: the tool setting function will only take effect after the completion of the reference search). As shown in Figure 1-3.

Figure 1-6 Tool setting screen

Before tool setting, you need to confirm the Punch height, Die height and Die V depth. Enter the tool setting tonnage, click the "Tool setting start" button, the tool setting start button turns light blue and the tool setting start takes effect.

Select "high speed" gear, shake the hand crank wheel in clockwise direction, the slide will drive the Punch to slide down, the buzzer will beep intermittently at this time, when the Punch is close to the Die, select "low speed" gear, the slide will slow down, the Punch will slowly contact the Die and apply pressure. When the force reaches the tonnage of the tool, the buzzer will beep long, observe the force on the mold, adjust the mold and lock it.

If the deviation between the end point of tool setting and the theoretical end point is large, click the "Calibrate Maximum Opening" button to calibrate.

Press the backup pedal and the slider moves up.

Chapter 2 Product Library

Click "Products" in the menu bar to enter the product library, as shown in Figure 2-1.

No	Customer	ProductName	Material	TH	Punch	Die	Type	Steps	Date
1	1	1	STAINLESS	1	sh100\86	h46/86/8	Data	1	2025-07-28
2		4trew	SPCC	1	1234	1234	Data	1	2025-06-09
3	cust1	pro1	SPCC	1	h100/86	h46/86/8	Data	1	2025-05-08
4		rrr	SPCC	1	1234	1234	Data	2	2025-05-08
5		于破	SPCC	1	h100/86	h46/86/8	Data	1	2025-05-08
6		国月腌过阿大	钨钢	1	???	h46/86/8	Data	2	2025-06-09
7		用培	SPCC	1	h100/86	h46/86/8	Data	1	2025-05-08

<-- 1 /1 -->

Figure 2-1 Product Library

As shown in the figure above, the product library stores saved product information. The product information contains customer name, product name, Punch, Die, material, board thickness, work step, type and storage date. Tap the lower left menu button to bring up the menu:

1 、 Click the "New" button to automatically jump to the "Processing" screen, where you can edit blank product steps.

2 、Click the "Save" button, enter the customer’s name and product name in the pop -up window, and the product information in the "Processing" screen will be saved to the product library.

3 、Select a product and click on the "Delete" button, the product will be deleted from the product library.

4 、Select a product, click on the "Read" button, and the product will be read into the "Processing" screen.

Chapter 3 Free bending work step editor

Create a new or read product, enter the processing screen, and bend the work step. As shown in Figure 3-1.

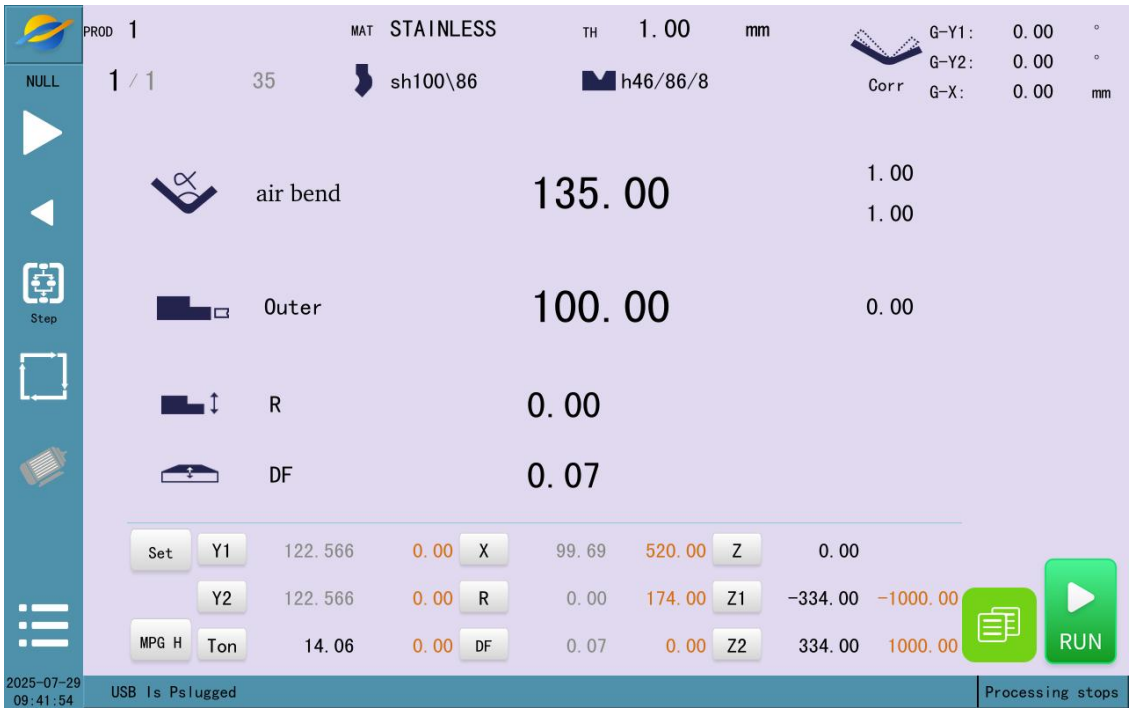


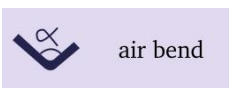
Figure 3-1 Processing screen

Punch: Click the Punch name to enter the Punch library to select a mold. Users can create, edit, delete and read molds in the Punch library, please refer to "**Chapter 6 Mold Library**" for details.

Die: Same as "Punch". The mold parameters set here are the system default mold.

Material: Click on the material name to select the processed material from the material library.

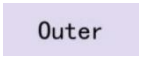
Plate thickness: Edit the material thickness.

Angle bending: click 

can choose "angle bending", "position

bending", "flat bending", "bottom bending "way. The back according to the different bending way to enter the corresponding angle or position.

Blocking: Click on  to select blocking or palletizing.

Outer Dimension: Click 

to select "Outer Dimension", "Inner Dimension", "x- axis position".

R-axis: Input the position of R-axis.

Deflection: Enter the position of the deflection.

Z-axis: input the position of Z-axis center point, since the calculation of Z1, Z2 position; X-axis: The position where the backstop moves horizontally in the vertical mold direction.

Large Arc: To be introduced later in "**3.1 Large Arc**".

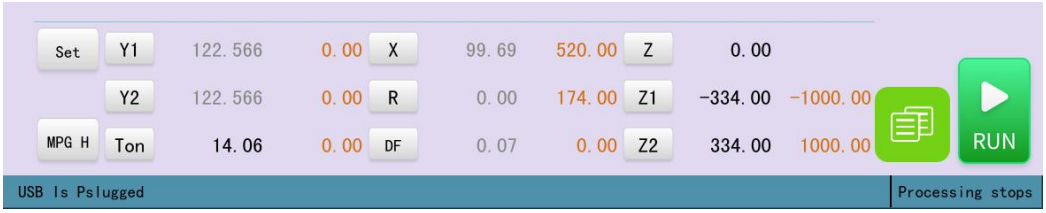
Clicking on the number of work steps brings up four buttons for adjusting the work steps, they are:

Insert: insert a blank line work step above the current work step.

Delete: delete the current work step, the following work steps are automatically moved up one line.

Upshift: exchange the position of the current work step with the previous work step.

Downshift: exchange the position of the current work step with the next work step.



Handwheel slow: Handwheel fast and slow rate switch button, used to adjust the speed of the handwheel action times.

Next to the axis name, the set position and the actual position of the axis are displayed in order. Switching the work step or modifying the current work stepparameter setting, you can observe the change of the set position, which is convenient to understand the influence of different parameters on the target position of the axis.

Y1/Y2 setting position and X setting position are automatically calculated by the system according to the parameters of "angle" and "X axis" set in the work step bar and cannot be modified directly. Tonnage, R setting position and Z1/Z2 setting position are automatically calculated by the system, but manual modification is allowed.

Tonnage: The system calculates the bending tonnage for the current work step.

R position R-axis default position 0.00mm, when the lower edge of the stopper finger is at the same level with the upper edge of the Die.

Z center: Block refers to the blocking position along the Die in the parallel direction. The default is the middle position. The Z center position can be adjusted manually, and the Z1 and Z2 setting positions will be adjusted to both sides in the same proportion according to the board width relative to the Z center position.

Y-axis curve: Used to view the Y-axis action curve.

Deflection: When processing products, the hydraulic compensation cylinder or mechanical compensation applies an upward force to the table to produce a certain amount of movement so that the bending angle remains consistent when processing large width products.

3.1 Large arc

The system provides a large arc bending function and treats the large arc bending as a work step. Click the detailed reference button on the left side of the machining start button  to enter the detailed reference interface as shown in Figure

3-3, select the "Large Arc" button of the current work step, and enter the large arc editing screen, as shown in Figure3-2.

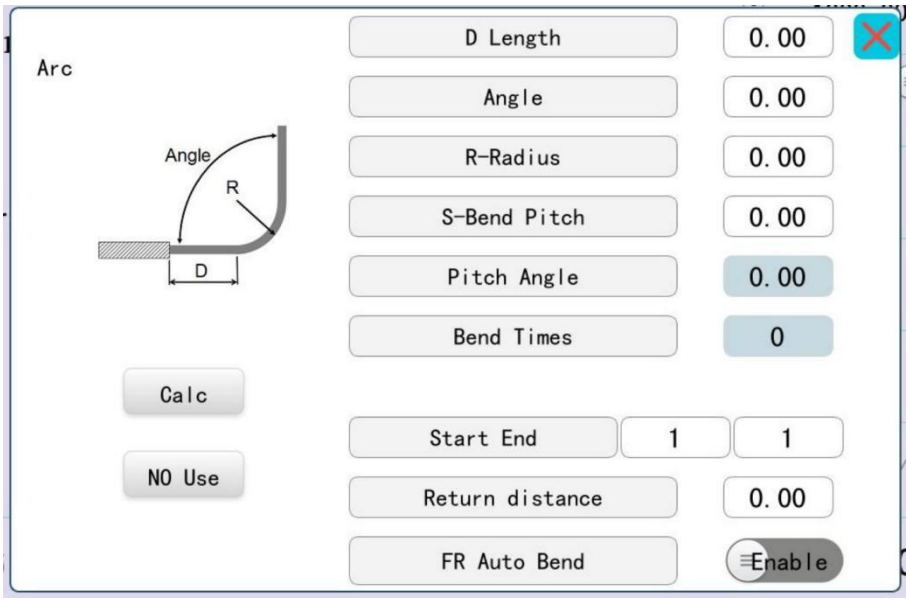


Figure 3-2 Large arc

Length: The length D, as shown in the figure, is the blocking X- axis distance of the last cut of the large circular arc.

Angle: Angle as shown in the figure, for the final angle to be rendered by the big arc.

Radius: The radius R, as shown in the figure, is the radius of the large arc.

Bending distance: The distance between two knives in a large arc, X near the machine movement.

By setting the above four parameters and clicking the calculation button, the system automatically calculates the number of bends and the bending angle of each cut and fine-tunes the bending spacing.

Start/End: Fold from the beginning of the first to the end of the first.

Rising distance: The sheet metal does not need to be taken out when bending large arcs, so the liftback distance can be set very small.

Automatic continuous: Keep the descending pedal depressed and do not release the foot pedal in the middle of the process inside the big arc. Click the "Valid" button, the button color becomes purple, and the large arc bending takes effect, as shown in Figure 3-1, Step 1.

3.2 Detailed reference

Detailed parameters and processing screen mode selection are detailed in this chapter..

Figure 3-3 Processing details Bending

method selection:

Free bending: The sheet is bent to the set angle by dropping the Punch to the desired depth, as shown in Figure 3-4. The system calculates the required Y-axis position to obtain the set angle. Free bending requires the Punch angle to be less than or equal to the Die angle, and the target angle to be larger than both the upper and Die angles.

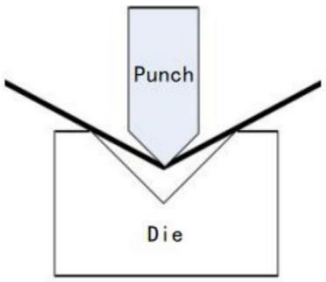


Figure 3-4 Free bending

Press bottom bending: The Punch will be folded into the bottom of the Die to get the required bending angle, as shown in Figure 3-5. The Y-axis position is the position of the bottom of the Die minus the plate thickness, which can be corrected by the correction value.

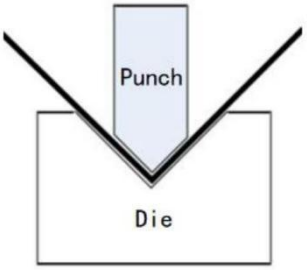


Figure 3-5 Pressed bottom bending

Flattening bending: the plate is bent into a sharp angle after the previous bending, using the flattening Punch, the sharp angle of the plate is flattened and the plate is folded, as shown in Figure 3-6 the Y-axis position is for the position of the pressure plate point minus the plate thickness, which can be corrected by the correction value.

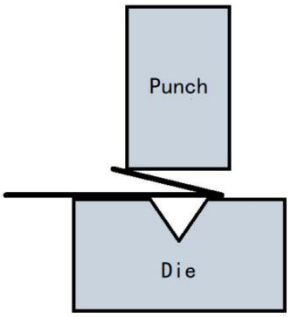


Figure 3-6 Flattening and bending

Press bottom flattening: like press flattening bending, the Y-axis position is for the position of the press plate point, which can be corrected by the correction value.

Dimensions: inner dimensions, outer dimensions. As shown in Figure 3-7.

The distance of the stopper end from the inside of the sheet metal at the bend, called the inner dimension.

The distance of the stopper end from the outer side of the sheet metal at the bend, called the outer dimension.

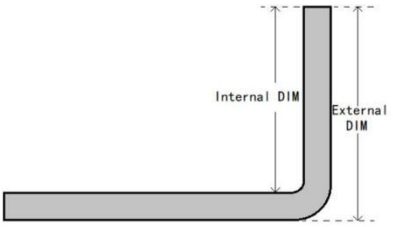


Figure 3-7 Dimensional diagram

The X-axis target position is calculated differently for the inner and outer dimensions because the inner side shrinks and the outer side extends when the sheet metal is bent. the X-axis target position is larger than the inner dimension and smaller than the outer dimension.

Rear blocking material: blocking and holding material. When the distance of X-axis is short, choose the blocking mode. When the X-axis is long, due to the gravity of the plate material downward tilt can choose the palletizing mode, the plate material will be placed on the blocking finger forward to hold. When you use the pallet mode, the system automatically calculates the target position of X-axis and R - axis in the pallet mode.

Retreat distance: The relative distance that the X-axis needs to retreat to avoid when the slider descends to the clamping point.

Clamping point: The position where the slider is just pressed against the plate.

Avoidance mode: You can choose 3 types of backstop avoidance mode; the avoidance position is set in the "avoidance" screen.

0: No avoidance is used

1: Move to the "X avoidance position" before the backstop movement.

2: Move to the "R avoidance position" before the backstop movement.

3: Move to "X avoidance position" and "R avoidance position" before the backstop movement.

Board width: The width of the sheet along the length of the mold.

Repeat: The number of times the current work step needs to be repeated.

Step change signal: When you click to switch to "use", after the Y-axis return stroke is finished, you need to step on the down pedal once before the backstop will start to move to the position set for the next step.

Step change delay: the delay time before switching to the next work step.

Slow distance: The distance between the speed change point and the platen point. If the current work step slow distance is 0, the "default slow distance" is used. If the default slow speed distance is also 0, the system default slow speed distance is used.

Holding time: The holding time after the end of bending. The "default hold time" is used when the hold time of the current work step is 0.

Rising distance: After bending, the Punch rises to the distance above the platen point. The "default liftback distance" is used when the liftback distance is 0 before the work step.

Work-in speed: speed during work-in, set by percentage.

Slow return speed: speed at slow return, set as a percentage;

Slow back distance: the distance of slow back up, when set to 0,slow back up is not used.

3.3 Single Step

On the machining screen, click the axis name at the bottom to activate the single - step debugging function, as shown in Figure 3-8. Single step is often used for machine tool debugging or simple machining of single pass bend.

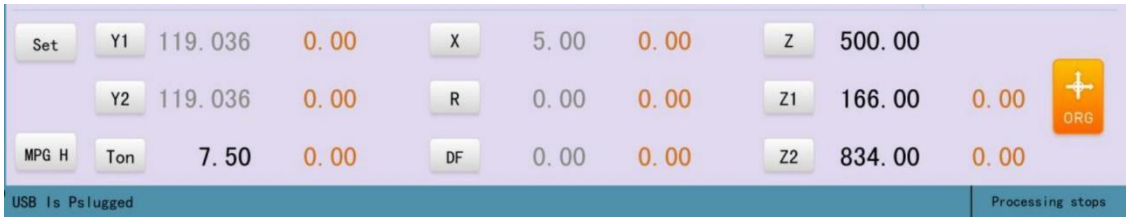


Figure 3-8 Single Step

Activate the Y1/Y2 axis, click the start button, the backstop will reach the set position. Depress the down pedal, after the slider moves to the set position, keep the down pedal in the depressed state, adjust the slider feed depth slowly by the hand

crank wheel, after reaching the expected position, click the set button to grip the current position to the set position.

Select any of the remaining axes, click the start button, and that axis moves to the set position. You can also move this axis position by hand crank wheel and click the set button to grab the current position to the set position.

Selecting Y1 or Y2 axis alone, it can be adjusted up and down individually by hand crank wheel. If the slider is found to be obviously tilted before seeking the reference, the slider can be adjusted to roughly horizontal state by this method.

3.4 Calibration

When there is a slight deviation of bending angle or size from the set value, you can use the correction function to correct it. In the processing screen, click the "Correction" button in the lower left corner to enter the correction, as shown in Figure 3-9.

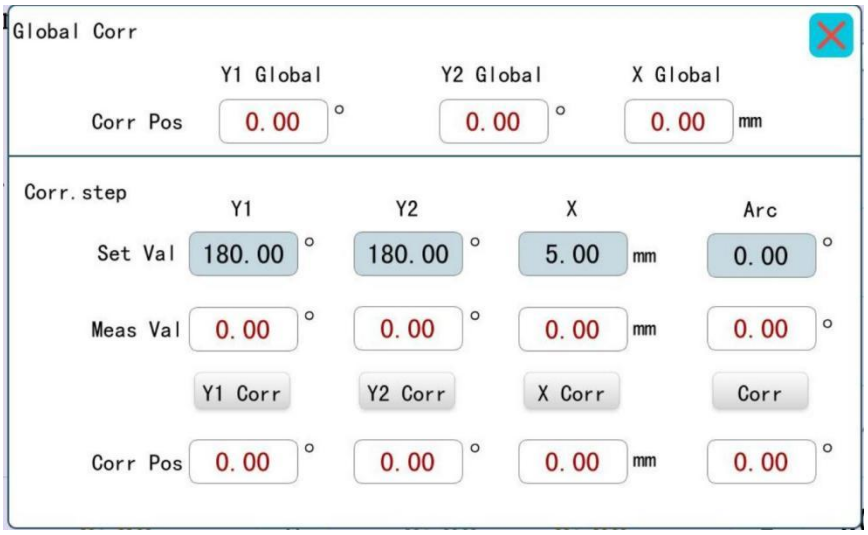


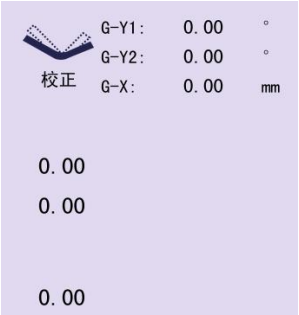
Figure 3-9 Calibration screen

Current work step correction value calculation: fill in the actual measurement Y1 angle, Y2 angle, X value into "measurement value", click "compensation Y1", "compensation Y2", "compensation X" above respectively, the system automatically calculates the current work step Y1 angle compensation value, Y2 angle compensation value, X axis position compensation value, "The system will automatically calculate the Y1 angle compensation value, Y2 angle compensation value and X axis position compensation value for the current work step.

If you want the compensation value to be applied to all steps of the current product, you can fill in the "Y1 global" compensation value, "Y2 global" compensation value and "X global" compensation values.

Global compensation and work-step compensation are superimposed to take effect, for example, Y1 global compensation value 1°, work-step Y1 compensation value 1°, the actual calculation of Y1 position,according to Y1 angle compensation 2°.

When no calculation is needed, you can directly enter the compensation angle or position directly in the upper right corner.



3.5 Process commissioning

When the bending angle is found to be poor after changing the tooling or material, the correction function introduced in the previous section can be used. You can also use process debugging to recommission the machine bending accuracy. On the main screen, click the "Process Debug" button to bring up the Process Debug window, as shown in Figure 3-10.

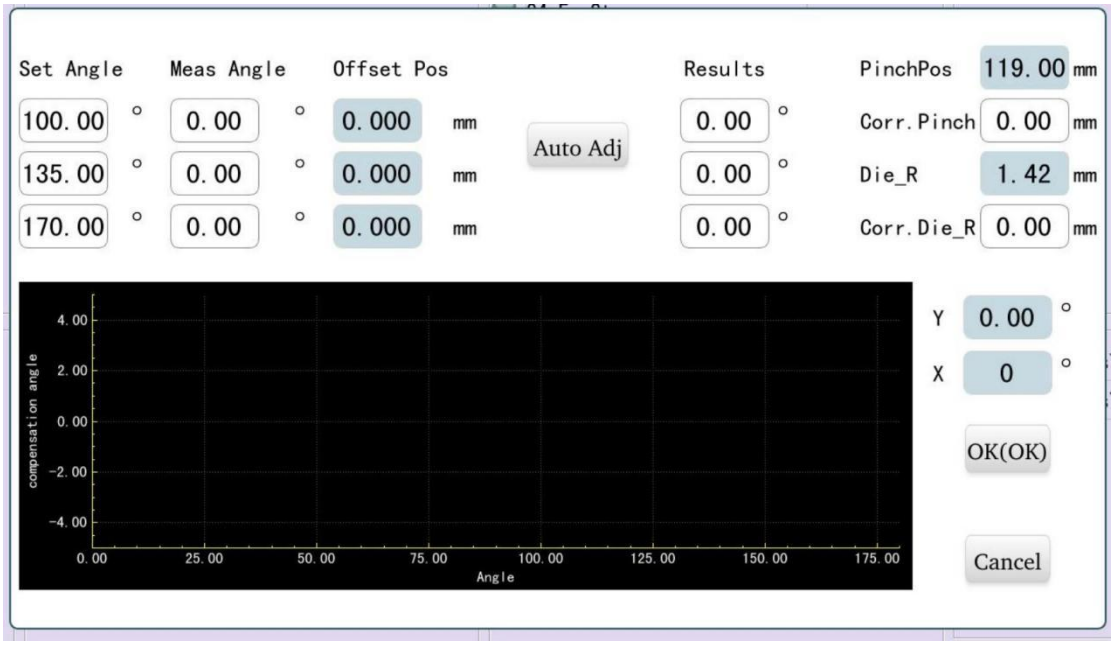


Figure 3-10 Process commissioning

Before process commissioning, three unused angles need to be folded, and it is suggested that they are 100°, 135° and 170°. It can also be other angles, and it is recommended that the angle interval be as large as possible to achieve good results.

As shown above, fill in the three sets of set angle and actual measurement angle into the corresponding input box, and click the "Auto Adjust" button. You can see the yellow eye-catching "Adjustment Result". If there is a big deviation between "Debug Result" and "Set Angle", the measurement angle is usually wrong, please measure again to confirm. Please measure again to confirm. If the adjustment result is satisfactory, click "OK" button, the system will automatically save the adjustment result, and the process commissioning is completed.

Chapter 4 Processing

4.1 Raw Management

Click "Production Record" in the menu bar to enter the production management screen, as shown in Figure 5-1.

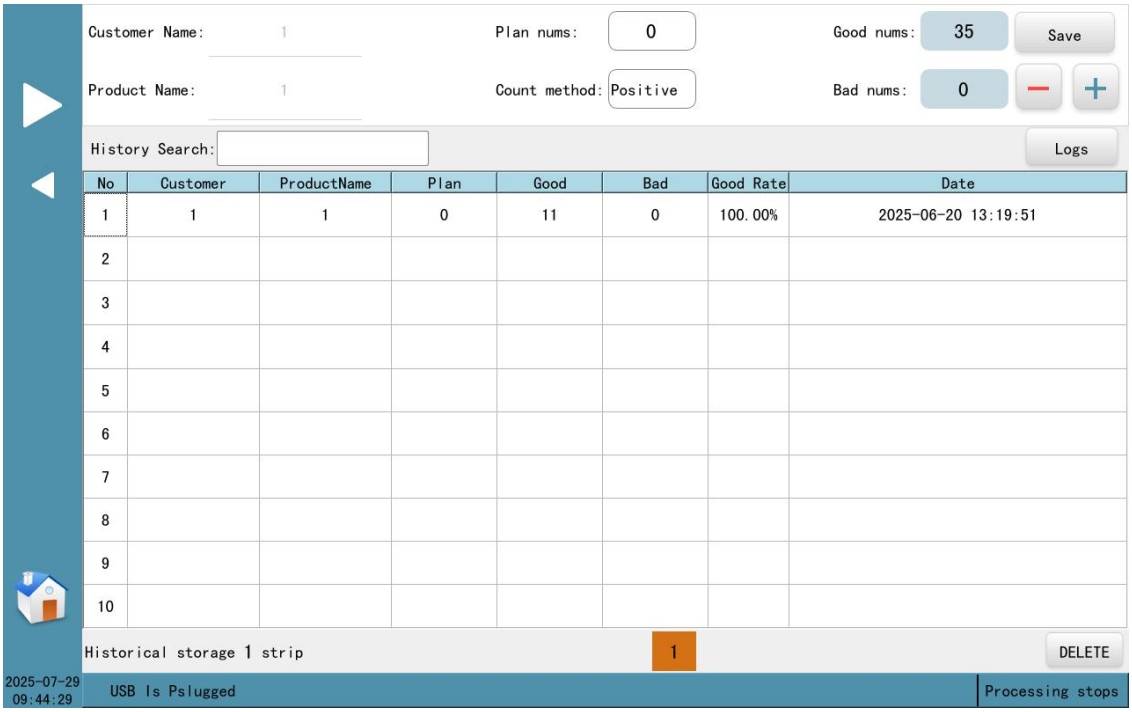


Figure 4-1 Production Management

As shown above, the customer's name and product name of the current product are displayed at the top.

Planned number: The number of current products planned to be processed.

Counting mode: operator can set positive count or negative count according to his custom. When positive counting is selected, the default product count starts from zero and the product count is increased by 1 for each product produced. when negative counting is selected, the default product count starts from the planned count and the product count is decreased by 1 for each product produced.

Number of good products: Number of processed minus the number of defective products.

Number of defective products: When the operator detects that the current product is not qualified, click the button "+" to add 1 to the number of defective products.Save: Click "Save" button to save the current product production as production record. The production record contains customer name, product name, planned number, good product number, defective product number, good product rate, production date and production log.

Production log: Production log statistics more detailed production information, production log contains product name, operator, start time, end time, processing number.

4.2 Processing

Click Back to return to the processing screen, as shown in Figure 4-2. For the convenience of the user, editing and processing are in the same screen. The red button at the bottom right corner is the "Start Processing" button, which is in editing mode before processing starts and in processing mode after processing starts.

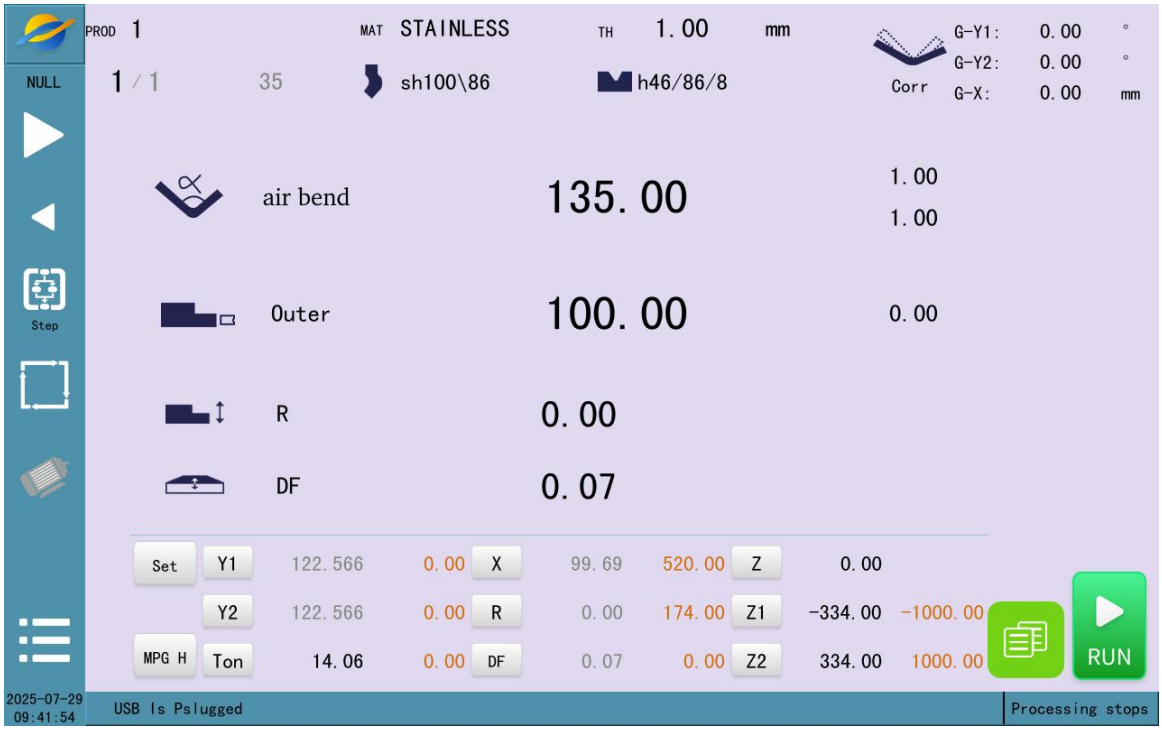
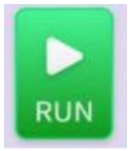


Figure 4-2 Processing screen

Edit the machining step or read the product, and after setting the schedule number in the production control screen, click the red button in the machining screen



to start machining.

The right side of the work step shows the current number of products processed:

Number of products: When the count is positive, the number of products produced is the number of products to be produced when the count is negative.

Repeat: The number of times the current work step has been repeated and the number of times it has been set to repeat.

Chapter 5 Mold Library

5.1 Punch library

In the "Machining" screen, click on the Punch name to enter the Punch library screen, as shown in Figure 5-1.

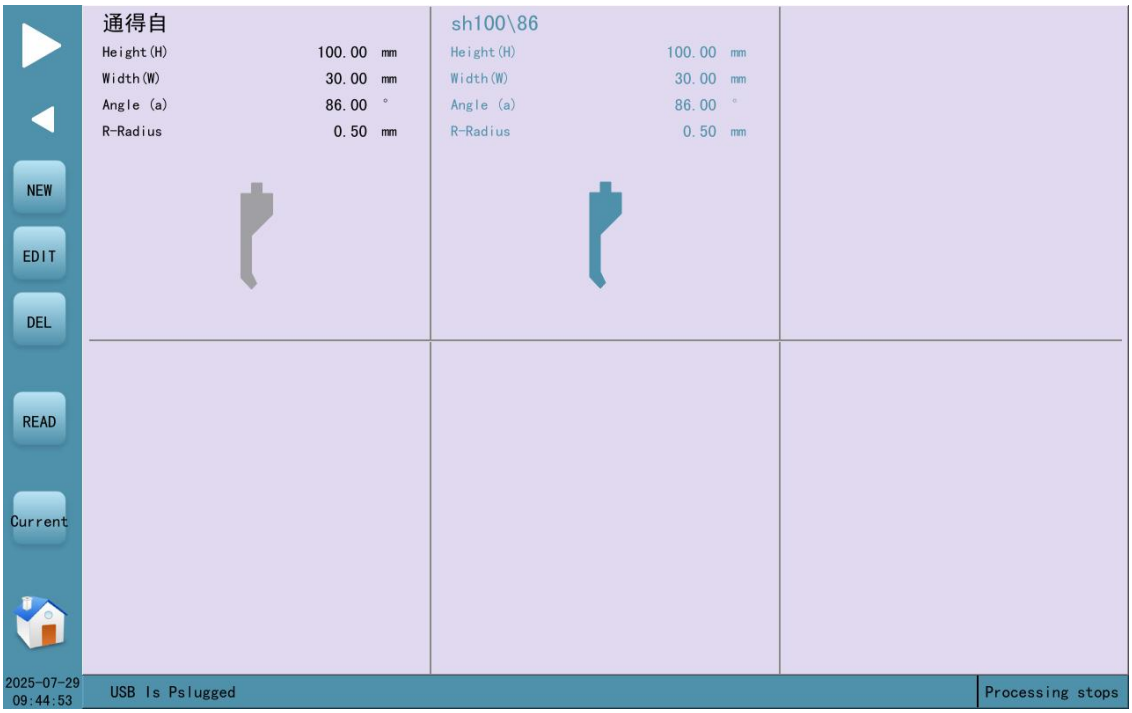


Figure 5-1 Punch library

The Top Model Library shows the list of top models saved in the system, which can be turned by the left arrow.

Click on the menu bar pop-up button.

New Click "New" to bring up various types of new Punchs; enter the editing interface as shown in Figure 5-2.

Edit : Click "Edit" to modify a parameter of the current Punch.

Delete : Select a top die and click "Delete" to delete the top die.

Read : Select a top die and click "Read" to read the selected top die into the current application.

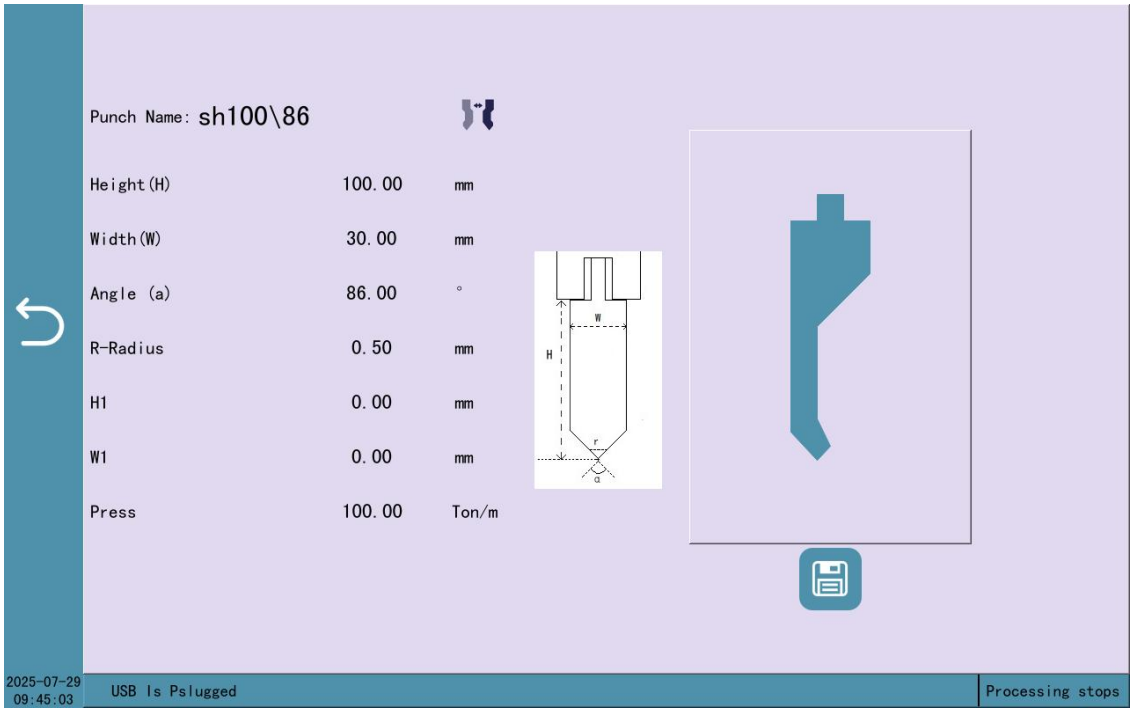


Figure 5-2 Punch Edit

5.2 Die library

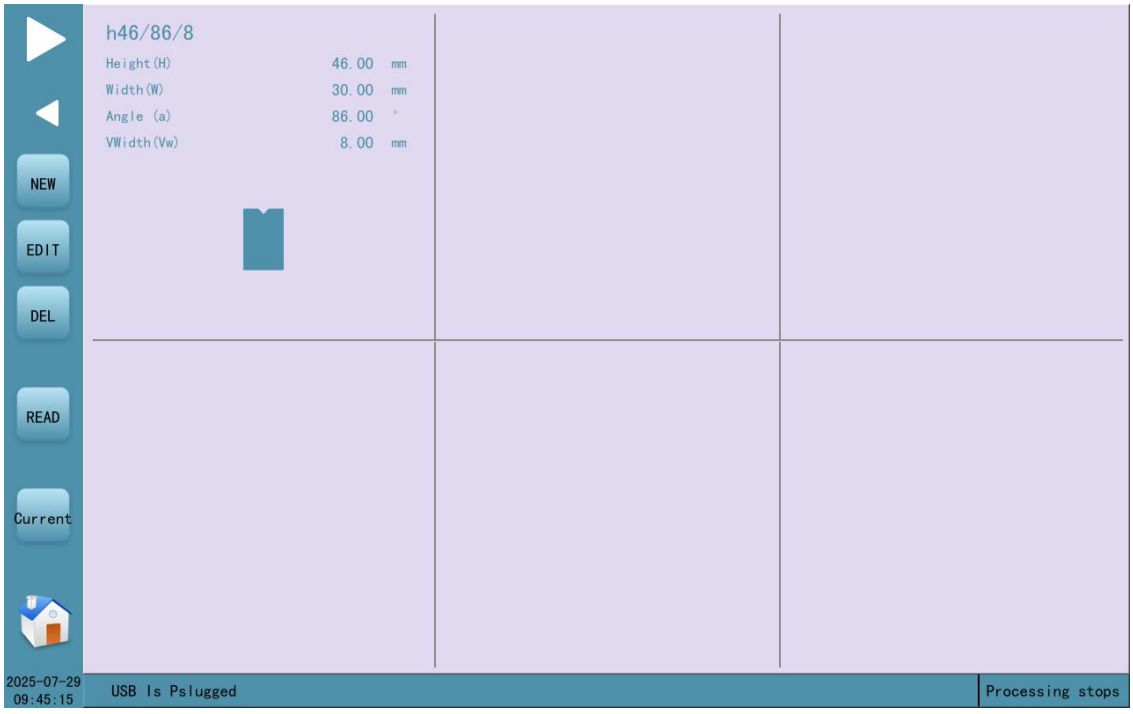


Figure 5-3 Die library

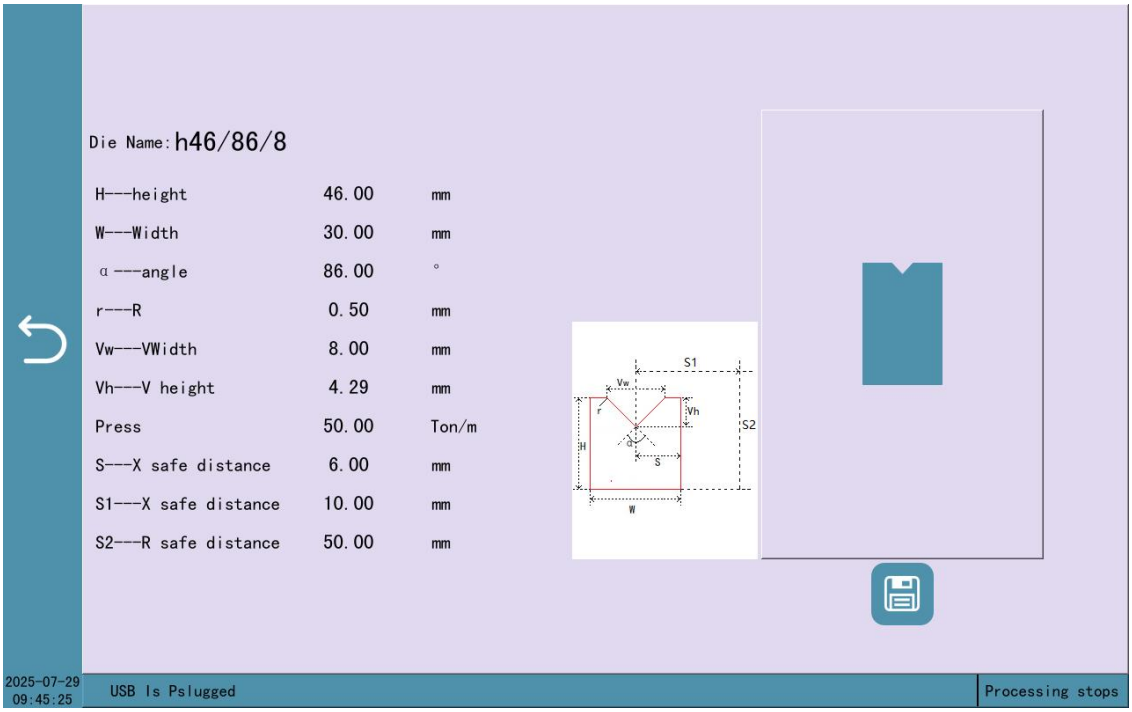


Figure 5-4 Die Edit

5.3 Material Library

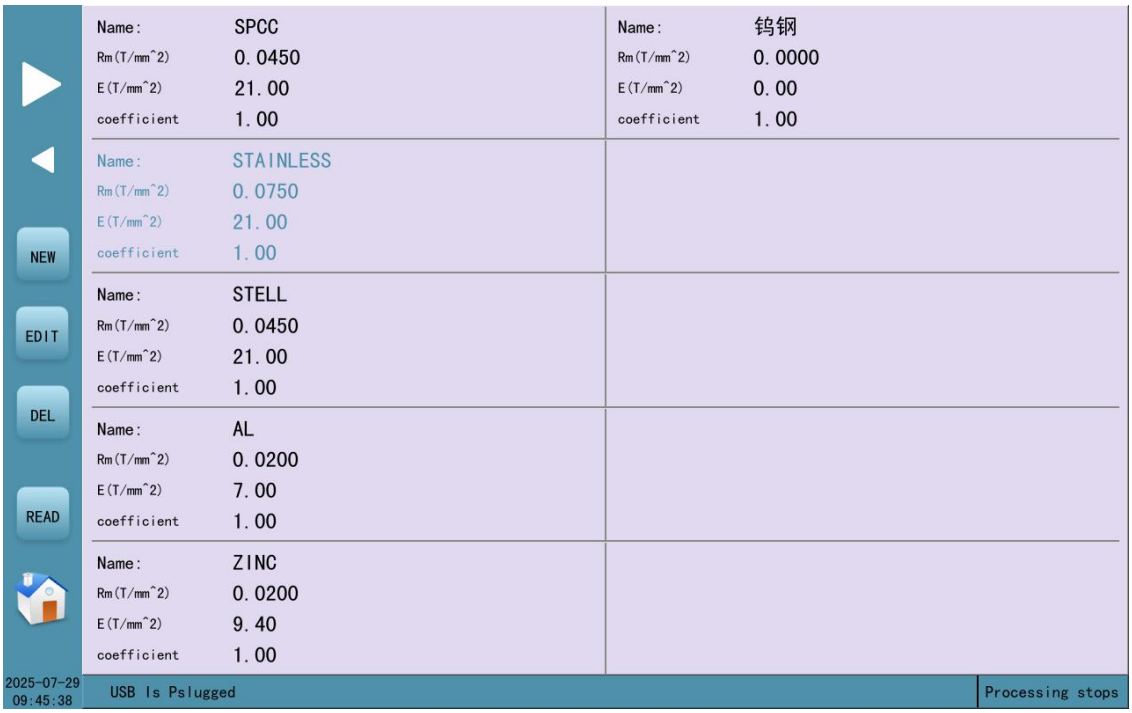


Figure 5-5 Material Library

Chapter 6 Machines

6.1 Machines

Click "Machine Parameters" in the menu bar to enter the machine screen, as shown in Figure 7-1.

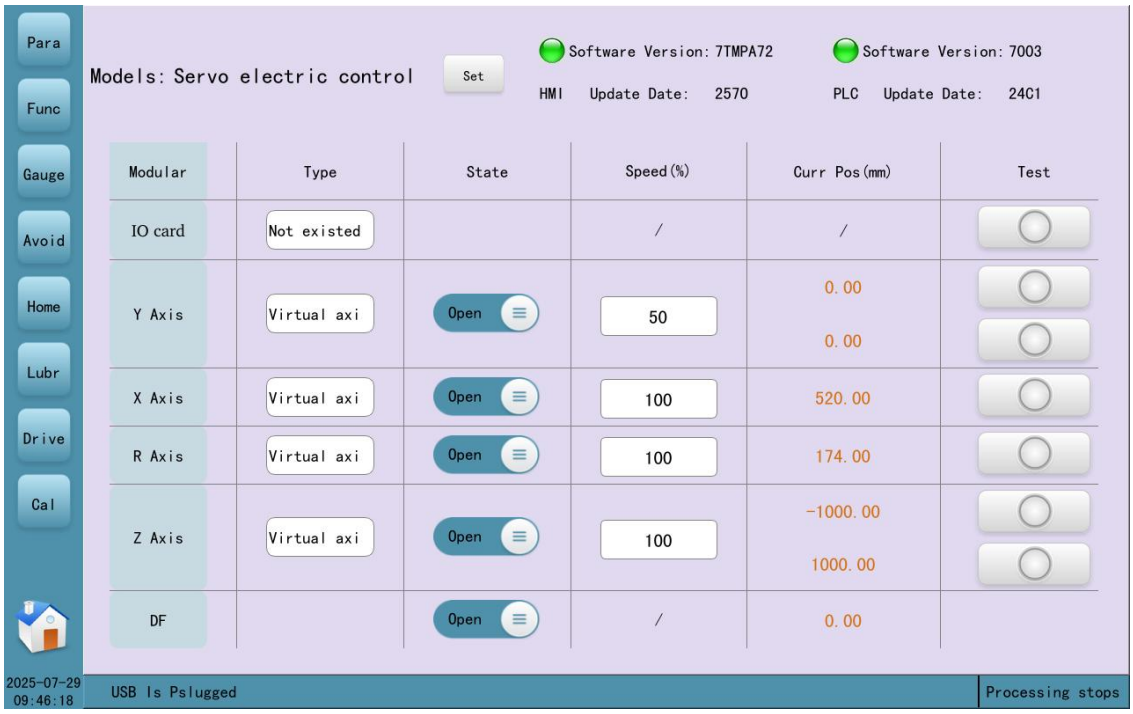


Figure 6-1 Machine screen

Machine type: "Servo valve-controlled bending machine", "servo pump-controlled bending machine", "servo-electric bending machine". Model selection to match the machine, after the machine to determine, cannot be modified!

Drive type: Not modifiable after the tuner is confirmed!

Effective state: To block an axis, select Off below the corresponding axis.

Speed setting: The speed of movement of any axis can be adjusted and set by percentage.

Test: When the motor is off, click the "Test" button to confirm the communication status of the device.

6.2 Input point status

Click the "DI" button in the upper right corner of the machine screen to enter the DI screen, as shown in Figure 6-2.

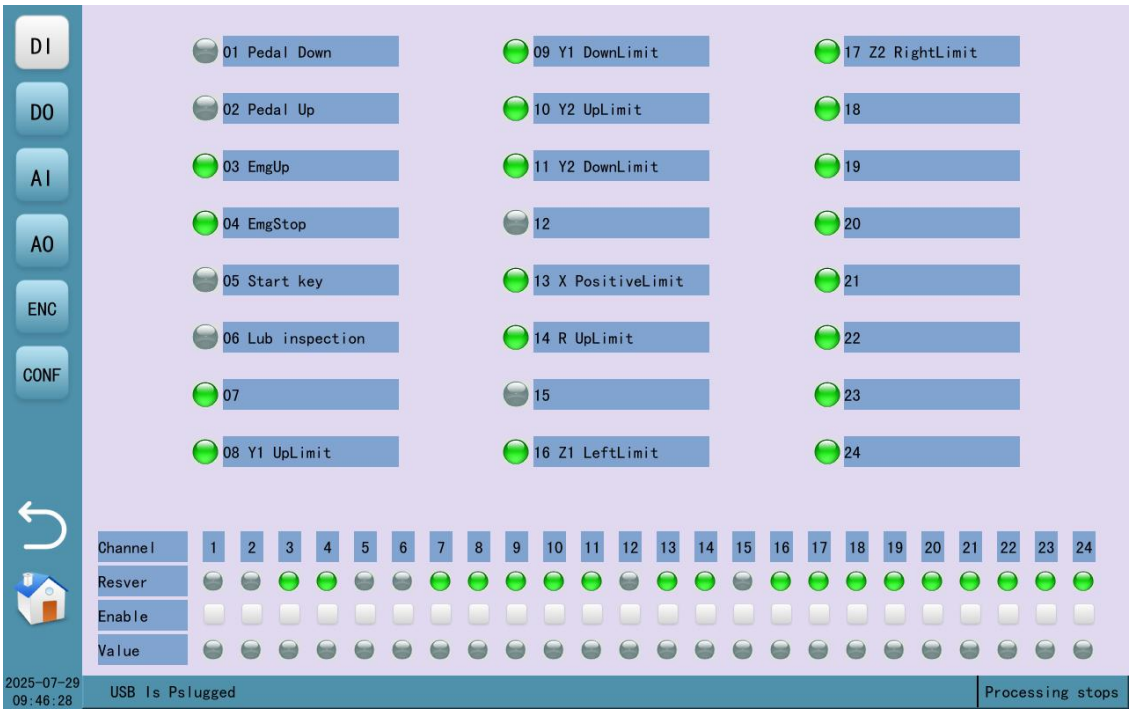


Figure 6-2 DI screen

The DI screen displays the status of the input point signal.

6.3 Output point status

Click the "DO" button in the upper right corner of the machine screen to enter the DO screen, as shown in Figure 6-3.

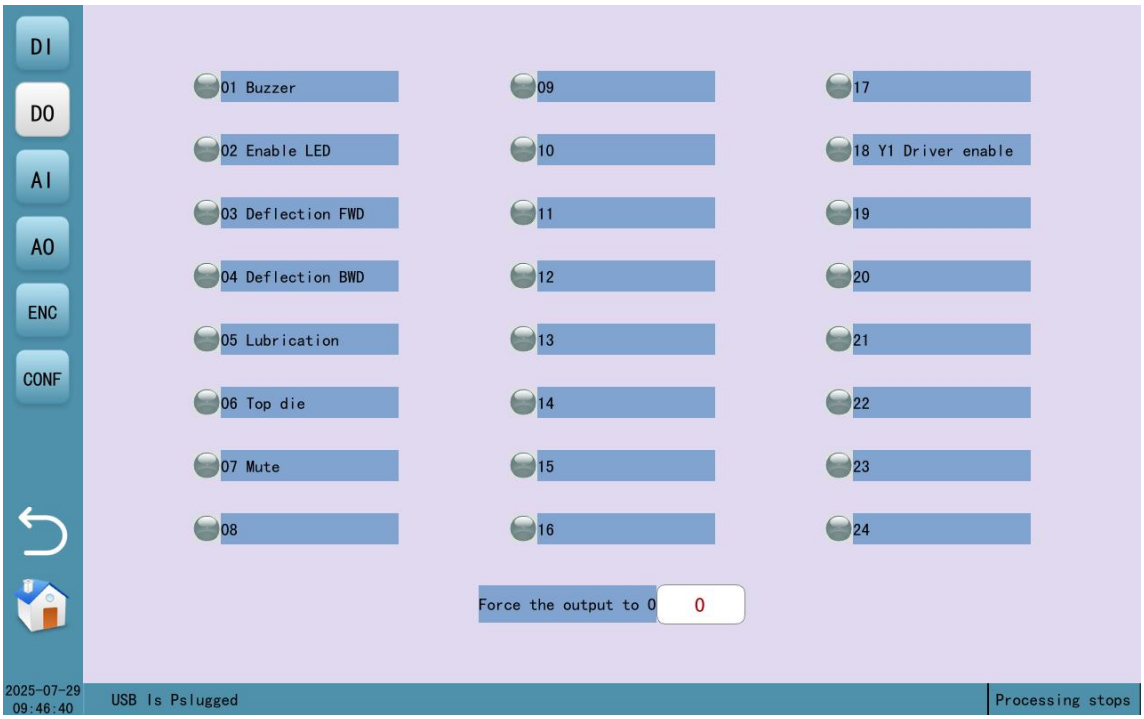


Figure 6-3 DO screen

The DO screen displays the output point signal status.

6.4 Reference Searching

Click the "Search" button on the right side of the machine screen to enter the search screen, as shown in Figure 6-4.

Fig. 6-4 The search screen

Y-axis reference point: Automatic correction of Y-axis reference point by tool setting and correction of maximum opening.

X-axis reference point: Decrease the X-axis reference point when the actual X position measurement is small. Conversely, increase it.

R-axis reference point: Decrease the R-axis reference point when the actual position of the stop value is low. Conversely, increase it.

Z1 axis reference point: When the actual position of the left block value is to the left, decrease the Z1 reference point. The opposite increases.

Z2 axis reference point: Decrease the Z2 reference point when the actual position of the right block value is to the right. The opposite increases.

Move position after search: The ready position that the axis needs to move to after the search is completed.

Zeroing: When an axis reference-seeking function is turned off, you can set its zeroing position and then click the zero button to change the actual position.

6.5 Machine parameters

Click the "Parameter" button on the right side of the machine screen to enter the machine parameter screen, as shown in Figure 6-5.

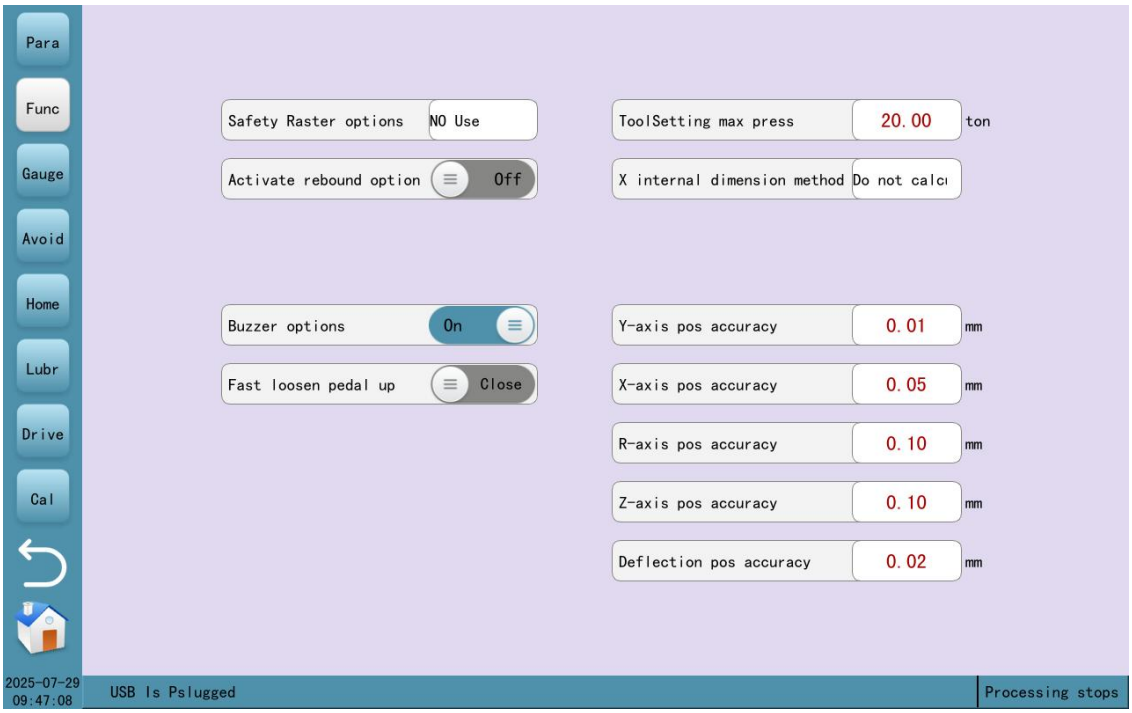


Figure 6-5 Machine parameters

Buzzer use option: You can select "Disable" to disable the buzzer from sounding during processing.

Allowed maximum parallelism: the maximum allowed value of slider tilt, when processing, Y1, Y2 position deviation is greater than this parameter, alarm Y axis tilt.

Auto-lift: When auto-lift is enabled, the slider will automatically lift back up after the pressure-holding is completed. When auto-lift is disabled, the slider rises back up after the pressure-holding is completed by releasing the descending pedal.

Backstop movement timing: When processing, the next backstop can choose to start movement in different states of this bending.

Pressurization completed, back up to slow speed position, back up completed.

Emergency backup position: press the emergency backup button, or press the backup pedal when processing, the position of the slider back up.

6.6 Blocking material

Click the "Block" button on the right side of the machine screen to enter the machine blocking screen, as shown in Figure 6-6.

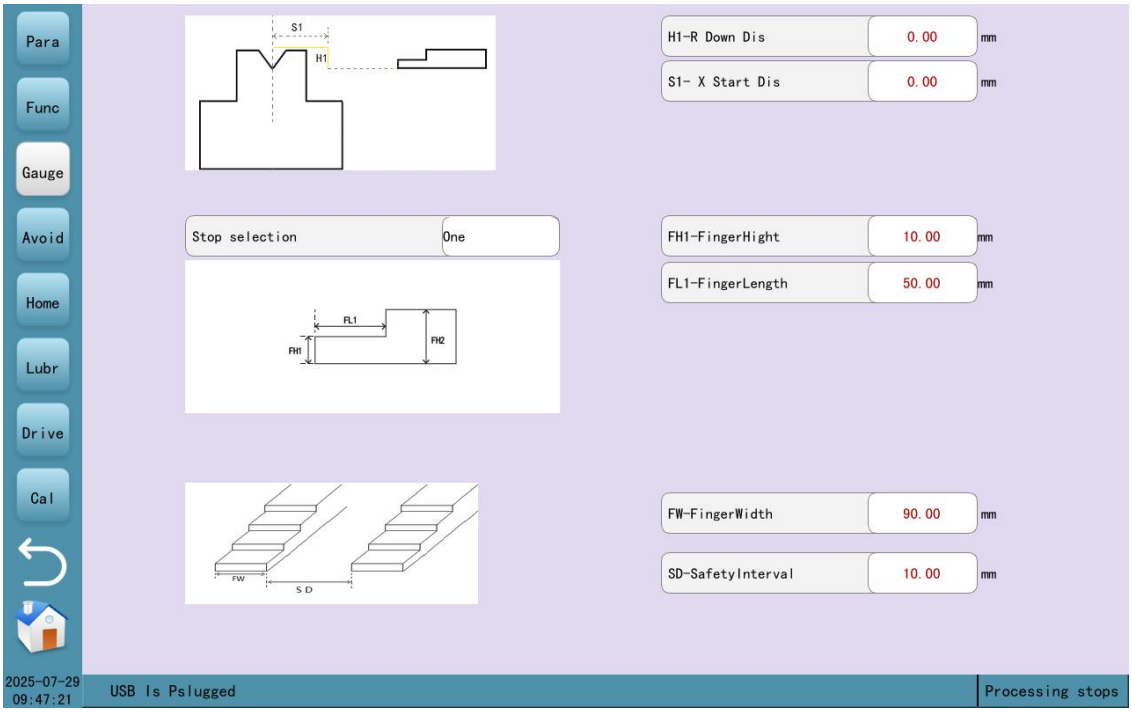


Figure 6-6 Material blocking screen

6.7 Avoidance

Click the "Avoid" button on the right side of the machine screen to enter the avoidance screen, as shown in Figure 6-7.

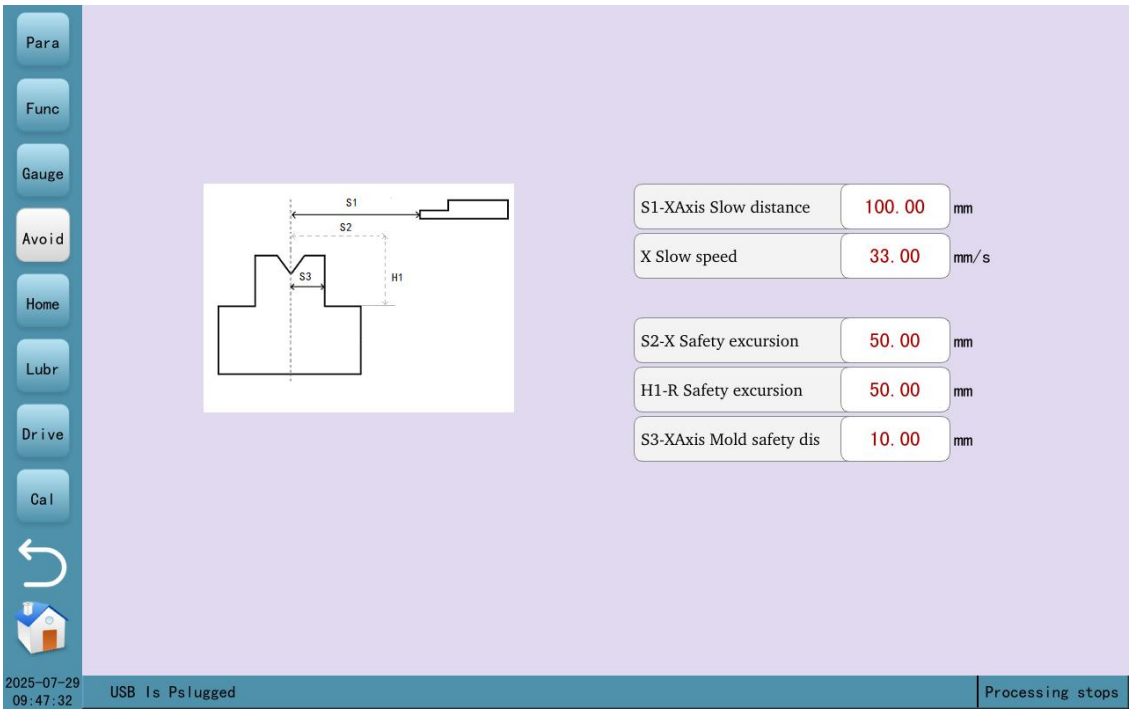


Figure 6-7 Avoidance screen

Chapter 7 System

Click the "System" button on the menu bar to enter the system screen, as shown in Figure 7-1.

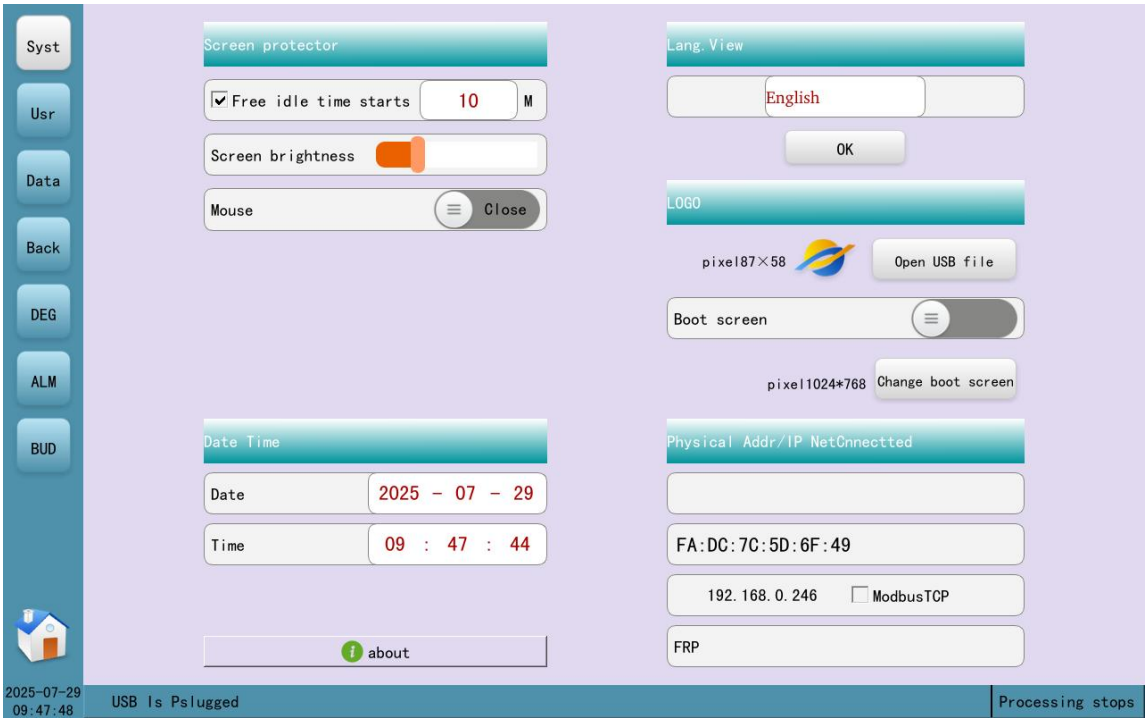


Figure 7-1 System screen

7.1 System parameters

Screen protection: Set how long the screen is left unattended and automatically enter screen saver mode.

Automatic logout: When you choose to use it, the power level is automatically logged out when you enter the screen saver.

Language: This system supports multi-language functionality, and it will take effect immediately after selecting confirmation.

Date and Time ：Modify the date and time, effective immediately. Modification is prohibited.

7.2 Backup Recovery

Click the "Backup" button to enter the system backup recovery page. As shown in Figure 7-2.

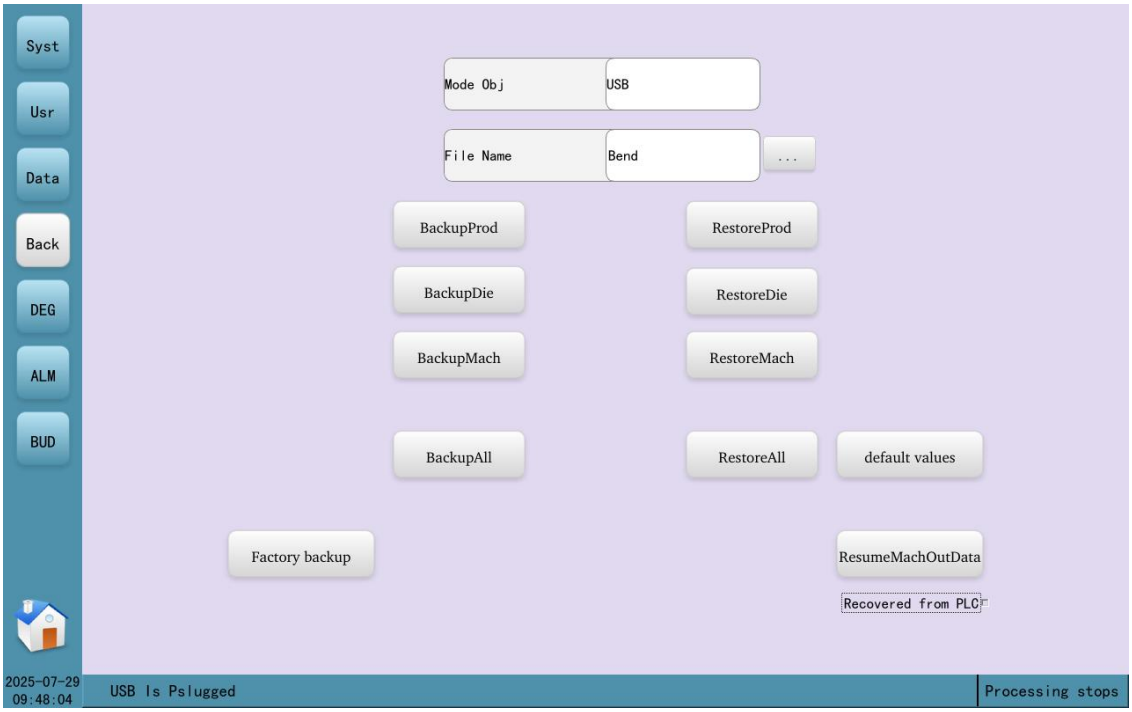


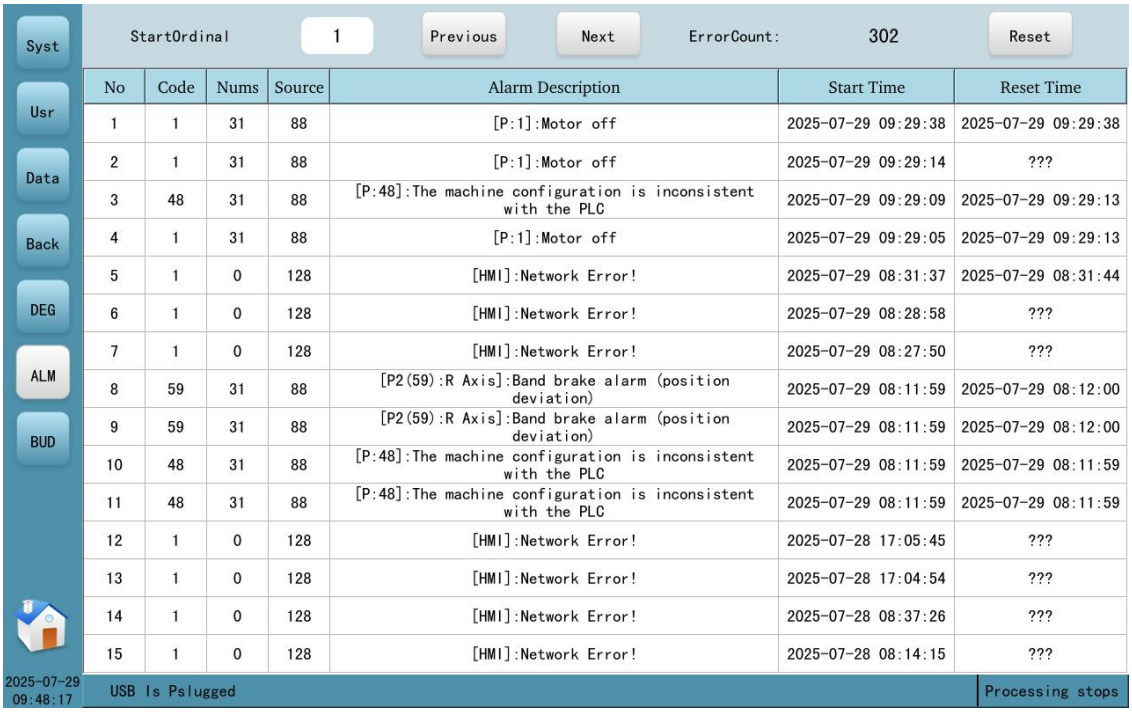
Figure 7-2 Backup screen

The backup function is divided into three independent backup modules: backup product, backup mold (including Punch, Die and material) and backup parameters (machine parameters and tuning parameters). You can choose to back up in the panel or in the USB flash drive.

The restore function is like the backup function, with three restore modules and the option to restore from the panel or from a USB flash drive.

7.3 Alarm logging

Click the "Alarm" button to enter the alarm logging screen. As shown in Figure 7-3.



No	Code	Nums	Source	Alarm Description	Start Time	Reset Time
1	1	31	88	[P:1]:Motor off	2025-07-29 09:29:38	2025-07-29 09:29:38
2	1	31	88	[P:1]:Motor off	2025-07-29 09:29:14	???
3	48	31	88	[P:48]:The machine configuration is inconsistent with the PLC	2025-07-29 09:29:09	2025-07-29 09:29:13
4	1	31	88	[P:1]:Motor off	2025-07-29 09:29:05	2025-07-29 09:29:13
5	1	0	128	[HMI]:Network Error!	2025-07-29 08:31:37	2025-07-29 08:31:44
6	1	0	128	[HMI]:Network Error!	2025-07-29 08:28:58	???
7	1	0	128	[HMI]:Network Error!	2025-07-29 08:27:50	???
8	59	31	88	[P2(59):R Axis]:Band brake alarm (position deviation)	2025-07-29 08:11:59	2025-07-29 08:12:00
9	59	31	88	[P2(59):R Axis]:Band brake alarm (position deviation)	2025-07-29 08:11:59	2025-07-29 08:12:00
10	48	31	88	[P:48]:The machine configuration is inconsistent with the PLC	2025-07-29 08:11:59	2025-07-29 08:11:59
11	48	31	88	[P:48]:The machine configuration is inconsistent with the PLC	2025-07-29 08:11:59	2025-07-29 08:11:59
12	1	0	128	[HMI]:Network Error!	2025-07-28 17:05:45	???
13	1	0	128	[HMI]:Network Error!	2025-07-28 17:04:54	???
14	1	0	128	[HMI]:Network Error!	2025-07-28 08:37:26	???
15	1	0	128	[HMI]:Network Error!	2025-07-28 08:14:15	???

Figure 7-3 Alarm screen

The alarm screen stores the last 200 alarms, and you can jump to the alarm display page by entering the "Display start number". Enter

1 in the "Reset" input box to clear the alarm record. Note! Do not clear alarm records at will.

7.4 Alarm troubleshooting

When an alarm occurs in the system, an alarm description will be displayed in the screen prompt bar. Please analyze the cause of the alarm and troubleshoot the problem in conjunction with the operation that caused the alarm.

The following is a list of some common causes of alarms and troubleshooting methods for reference:

Serial number	Alarm description	Alarm Checking
Err1	Motor not on	Click the START button or motor button to turn on the motor
Err2	Reaching the limit	Enter the single-step screen, move in the opposite direction by inching and leave the limiter
Err3	Both ends produce limits simultaneously	Check if the limiter is damaged or if there is an open circuit in the line
Err4	Wrong axis target position setting	Check if the target position is set to check the upper and lower limit range
Err5	No valid line found	There is an error in the current work step parameter input
Err7	Before action, Please seek reference	Enter the status screen, click on the search button and wait for the search to complete.
Err14	Y-axis tilt	Enter the single-step screen, inching orhandcranking the wheel to level the slider

Err16	Emergency stop button is pressed	Release the emergency stop button
Err17	Emergency rise button is pressed	Release the emergency rise button
Err21	Wrong setting of backstop position	Risk of collision with backstop material, check set-up parameters
Err30	IO card communication offline	Re-plug the communication cable between PLC and IO
Err34	Reaching the soft limit	Enter the single-step screen, inching in the opposite direction of movement
Err38	Security Monitoring	Check drive for alarms

Responsibility statement:

a. Even though our company has designed various protection measures in the controller, users should still set up appropriate protection devices in the controller application system to fully consider the possible losses due to the reliability of the controller.

b. The company declares that it does not assume any liability for all damages to persons and property caused by the reliability of the controller or other reasons, except for the controller itself.