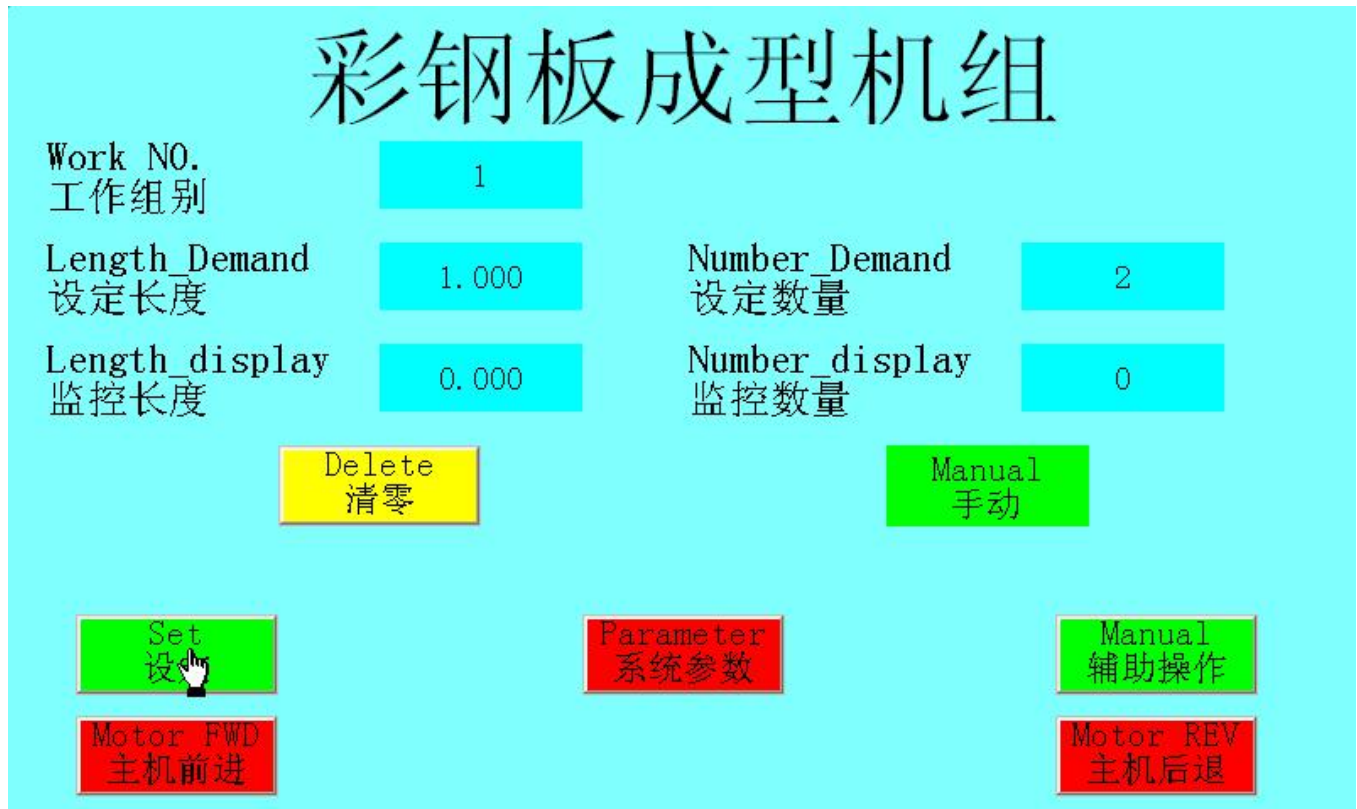


# Color steel roll forming machine Operation directions

All the operation of this equipment are finished on the touch screen, the definite operation is as follow down.

When the equipment have electricity,system first enter the monitor screen.



Please press the **Set** key to enter the setup screen. Operator set one group data(length and number ) according to the request.For example:Now we plan to process five sets of profiles.

- 1、 Please press the **Set** key and then can enter setup screen,set the user tech data(length and number) as picture.

Length_Demand01 设定长度01	1.000 m	Number_Demand01 设定数量01	2
Length_Demand02 设定长度02	1.500 m	Number_Demand02 设定数量02	3
Length_Demand03 设定长度03	2.000 m	Number_Demand03 设定数量03	2
Length_Demand04 设定长度04	2.500 m	Number_Demand04 设定数量04	5
Length_Demand05 设定长度05	15.000 m	Number_Demand05 设定数量05	10

2、Press the length data area, the number keyboard will show automatic, input the setting length and press the confirm key, then input is finished.(if make a mistake in inputting, press the CR key to input again. The same, press the number data area, it can input the number data.(this number show the quantity of the color sheet of the length).

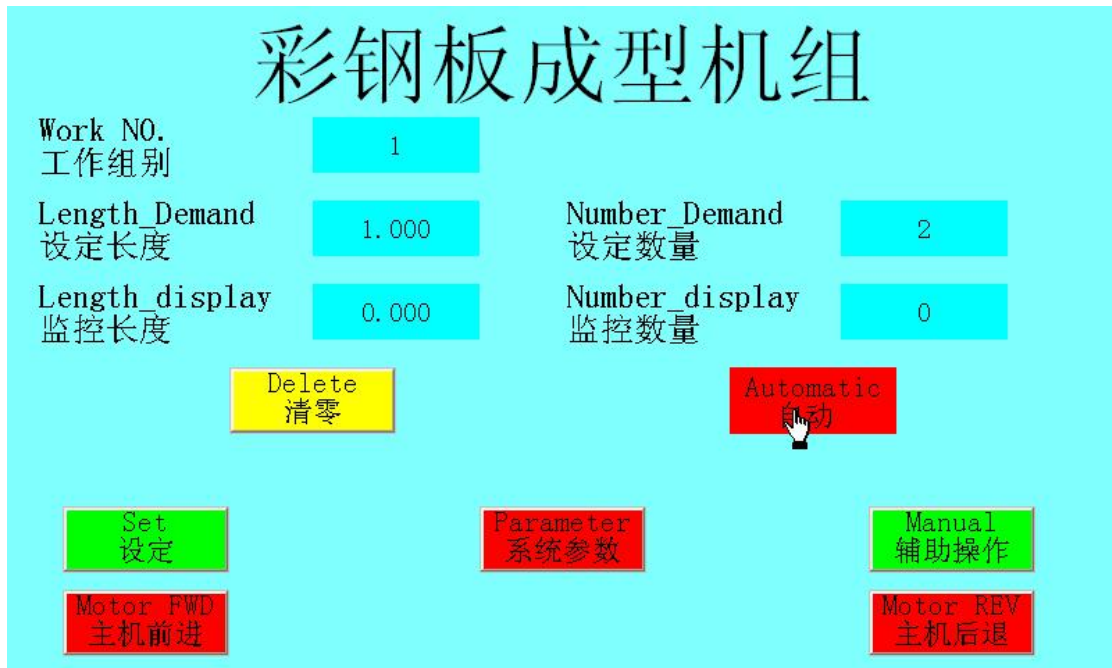
2、After setting the data, be sure to press the confirm **Confirm** key, otherwise the computer can't confirm, the machine will not woke normally. After set the data, press the stop button, and then press the **Back** key to return to the setup screen.

In the monitor screen, press the **Manual** key and put the equipment in automatic state, and then press the start button, the equipment will begin to work automatically.

## 彩钢板成型机组

Work NO. 工作组别	1	Number_Demand 设定数量	2
Length_Demand 设定长度	1.000	Number_display 监控数量	0
Length_display 监控长度	0.000		

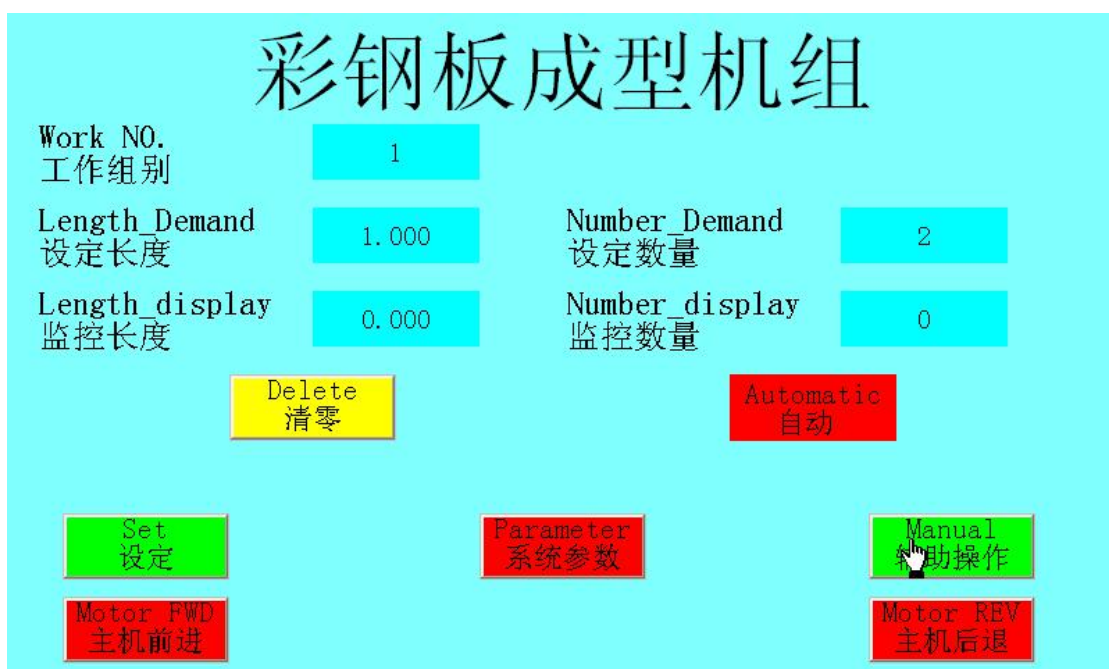
After cutting state



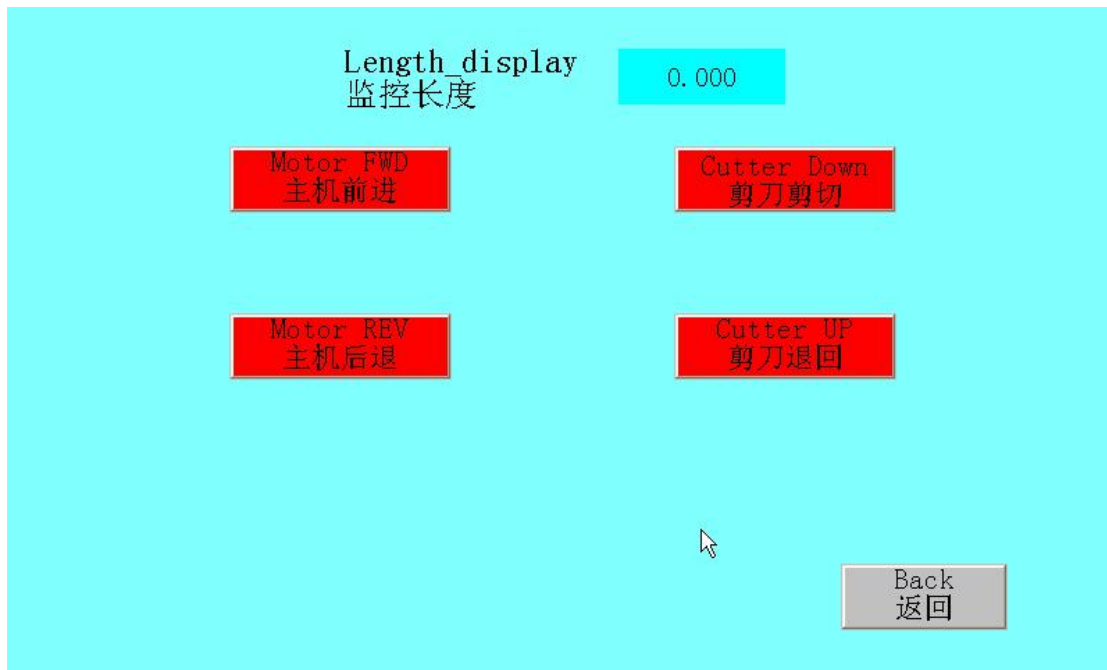
**Attention:**

The program has testing function to avoid the loss because of the deviation of the length ratio: When the display length of each first sheet reaches the setting length, the machine will stand by. After the worker confirms the length is no problem, press the start button, the machine will work automatically.

If need to manual operate, press the **Manual** key to enter the manual screen, and then complete the relevant manual operation



enter manual screen after cutting



1、 Brake distance: due to the different thickness of material, the down speed time have difference, it will be the difference in length, suggest that when try the machine, cut one piece first, survey the length, according to the length in fact (Fact Length) and showing length (Display Length) to adjust the length ratio, so be sure the length of sheet accurate after cutting. If the length display too long, the break distance should be increased. If it's shorter, the distance should be finish. When setting, press the data area of the Brake Distance, input the relevant data on the small keyboard. (E.G: length display is 8mm longer than the setting length, the break distance should increase 8mm) , this setting number is affect the veracity length,



when it is setting, at the not change the processing way, it should not be changed.

2、 Length Ratio: because of the surface quality of sheet and thickness is difference, so the friction coefficient of the check distance roller and surface of sheet maybe have warp, this warp maybe lead to friction problem when check the distance, and because of machining of the check distance roller and install angle, those problem will lead to the theoretic dia of roll is difference of fact. So we suggest the customer that when you find such problem please amend it by yourself.

Please input fact length 安定 display length when you amend it, press **Cal** will finish the Para.

3、 The rest part of parameter is for system parameter, it is adjust by manufacture engineer, customer cannot change it.

4、 special illustration:

The touch screen is easy to broken, can't knock off some heavy, we suggest you use the pencil with some eraser head to touch it, one is can't make mistake and second is can't break the touch screen.

#### Familiar malfunction and disposal

This is set of equipment can check malfunction by itself. When the equipment have malfunction, system will change to malfunction diagnosis menu to clue to equipment have malfunction, and at the same time the equipment out of the automatic running state(once have happen the malfunction, it will show the malfunction diagnosis, press the stop button after get gid of the malfunction, then the prompt will disappear in automatic.

If it have error showing

Error showing details	Probable reason	Processing method
Check SB3	Dear-stop reset	Revolve the dead-stop button
No Set Data	No setting data	Set the length, number
Check SQ1 OR YV2	Cutter not reach lower limit	Check if the relevant travel switch over down
Check SQ2 OR YV3	Cutter not reach upper limit Check	Check if the relevant travel switch over up
Check U1	Motor of forming machine	Check whether the power supply is normal or heavy load

If it don't have error showing

Error appearance	Probable reason	Processing method
Touch screen not display but the transducer was connect power	1、 fuse plug core born out 2、 power run short of phase	1、 change the fuse plug core 2、 check whether 3 phase all 380V
Hydraulic station do not start	1、 lack of one phase 2、 the ac contactor lack of phase	1、 check whether 3 sets of main contact of ac contactor connect in good condition,

		<p>otherwise it should be replace time .</p> <p>2、 check whether 3 phase all 380V</p>
Main machine can't forward	<p>1、 cutter haven up to limit</p> <p>2、 journey switch was broken</p>	<p>1、 manual operate the punching cutter and mould return back, let PLC input point X7, X9, XB bright ( let the punching and cutting mould up to the upper limit, check the travel switch whether close)</p> <p>2、 change the travel switch</p>
Cutter can't cut	<p>1 、 hydraulic motor reversal</p> <p>2 、 hydraulic oil not enough</p> <p>3 、 hydraulic electromagnetic valve was block</p> <p>4 、 hydraulic station seep oil.</p>	<p>1 、 change the run-in-wire of hydraulic station</p> <p>2、 add the hydraulic oil</p> <p>3、 change the electromagnetic or wash it valve core</p> <p>4、change the sealing element of the oil pump</p>
Touch screen not display length	<p>1、 Para of roll diameter too small.</p> <p>2、 X0、 X1 signal wire relax.</p> <p>3、 X0、 X1 signal wire was connect in opposite direction.</p> <p>4、 encoder was broken</p>	<p>1、 1、 check the Para of roll diameter whether have mistake setting, otherwise should regain to 1.0000 and then regulate again</p> <p>2、 check X0、 X1 input point of PLC whether flash in turn.</p> <p>3、 adjust the X0、 X1 signal wire after manual cut.</p> <p>4 、 change a new encoder(model : OMRON E6B2—CWZ6C 600P/R 2M</p>
The length is not same and error is big comparatively	<p>1 、 shaft joint of encoder was broken or relax.</p> <p>2: check distance roll haven't clamp the sheet</p> <p>3: check distance roll's install position is not right</p>	<p>1 、 check the shaft joint of encoder. Please fix up it in time or change a new one</p> <p>2、 install a new one</p> <p>3、 adjust check distance roll's position</p>

transducer give an alarm continually	1、load of body machine is too heavy 2、transducer was broken	1、change a new big power transducer or a big reducer 2、maintain it or change a new one
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### Notice:

1. Connect the hydraulic station and main machine depend on the drawing, U 1、V 1、W 1 connect the main machine, U 2、V 2、W 2 connect oil pump.
2. Run-in-wire pressure connect alternating current 3 8 0 V、3 phase ( $\pm 1 0 \%$ ) 。
3. 3. The PLC cabinet is damp proof ( 3 5 – 8 5 % R H ) , circumstance temperature 0 – 4 0 °C 。
4. The touch screen is fragile, when it is carried, please protects it carefully, and can't operate it with hard things.

### Main components list

Components code	Name and type	manufacturer
U1	Transducer V1000/A1000	YASKAWA
PLC	PLC FPX-L30R/60R	PANASONIC
HMI	Touch screen	MCGS
GB	Encoder E6B2-CWZ6C 600P/R	OMRON
SQ	Proximity switch TL-Q5ME1	OMRON

### Main parameters of transducer (V1000)

parameters code	parameters name	parameters data
C1-01	acceleration time	3.0
C1-02	deceleration time	2.0
C6-01	load type	00

d1-02	low frequency	15.00
d1-03	intermediate frequency	30.00
d1-04	high frequency	50.00
E1-01	rated supply voltage	the local power grid voltage
E1-13	rated output voltage	motor rated voltage
E2-01	rated current	motor rated electric current

### Main parameters of transducers (A1000)

parameters code	Parameters name	Parameter data
C1-01	acceleration time	3.0
C1-02	deceleration time	2.0
C6-01	lode type	00
d1-03	low frequency	10.00
d1-05	intermediate frequency	30.00
d1-07	high frequency	50.00
E1-01	rated supply voltage	the local power grid voltage
E1-13	rated output voltage	motor rated voltage
E2-01	rated current	motor rated current