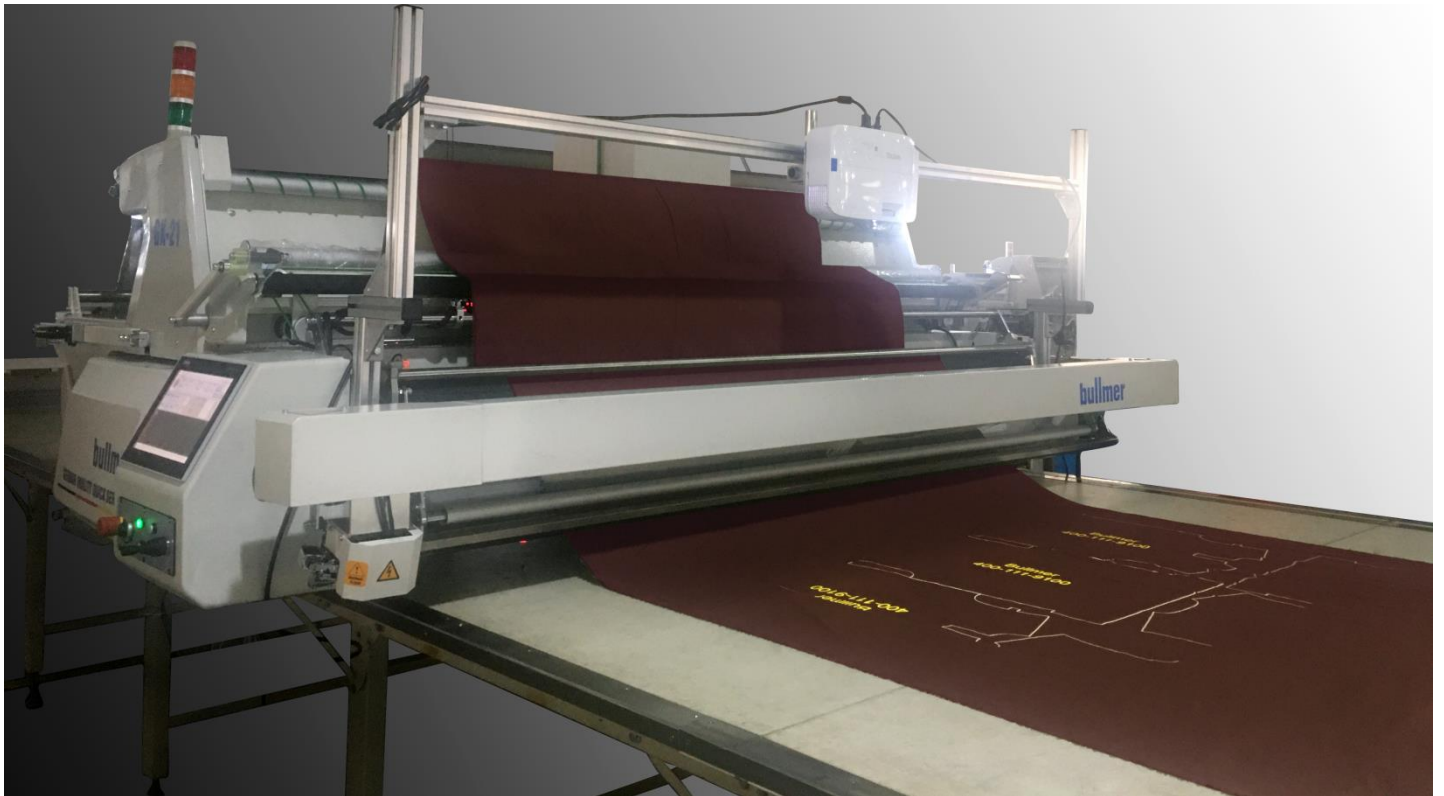# BULLMER

The Machine For GK-S Model

Operation Instruction

Read a handbook please detailedly before handling a machine

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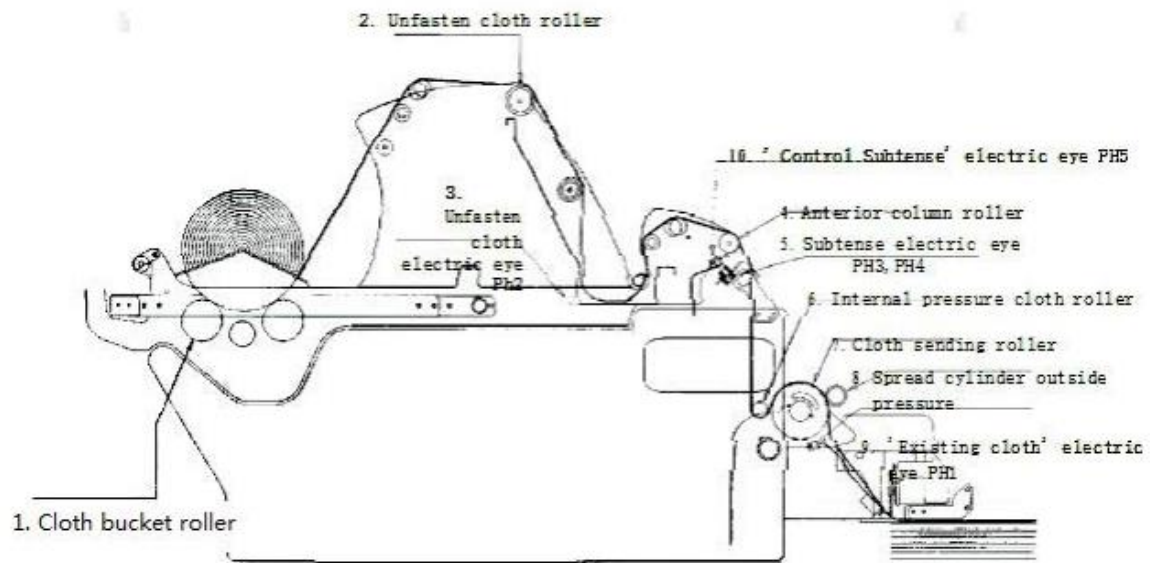
Pay Attention To Before Operation :
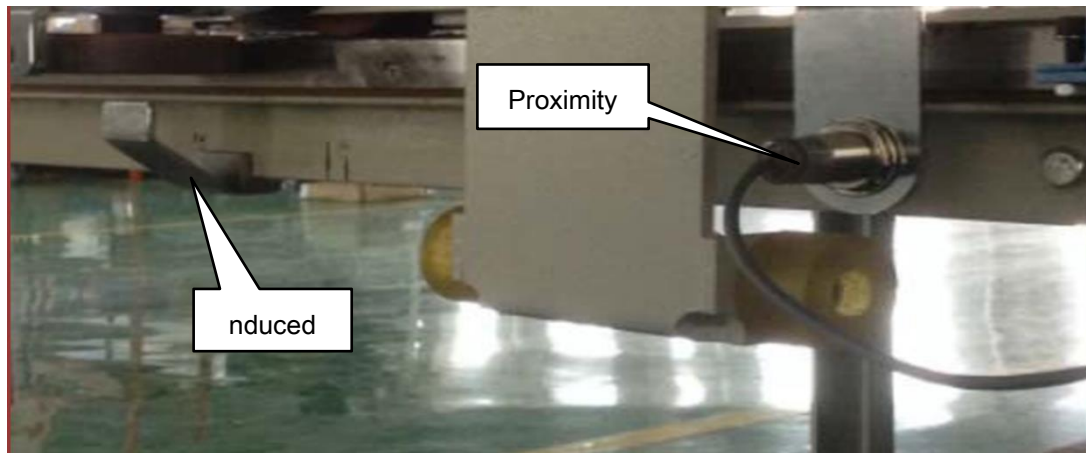
When proximity switch goes to left and passes through induction point, the current position returns to 0. This is the benchmark point of machine calculating position.returns to 0. This is the benchmark point of machine calculating position.Every time when proximity switch goes to left and passes through induction point, the current position will be returned to 0.When a machine uses more than two cutting beds, after moving by bed A to B,The

first necessary action is : Connect power-power transmission-press it ⊠ (release the brake),Gently push the machine from the right to the left (from the front to the back) to make proximity switch pass through induction point.Then the machine can determine its own benchmark position.

For sudden power failure during operation, the machine will stop sliding under the weak status.So, the benchmark position will run away and not in the original position,for this situation, after again power transmission,Must let the machine return to original position by inch move way, and re-run againThe proximity switch passes through return-to-zero point from the right to the left to let machine re- determine its own benchmark position.

The machine will stop and not act as long as any swithch is faulty.
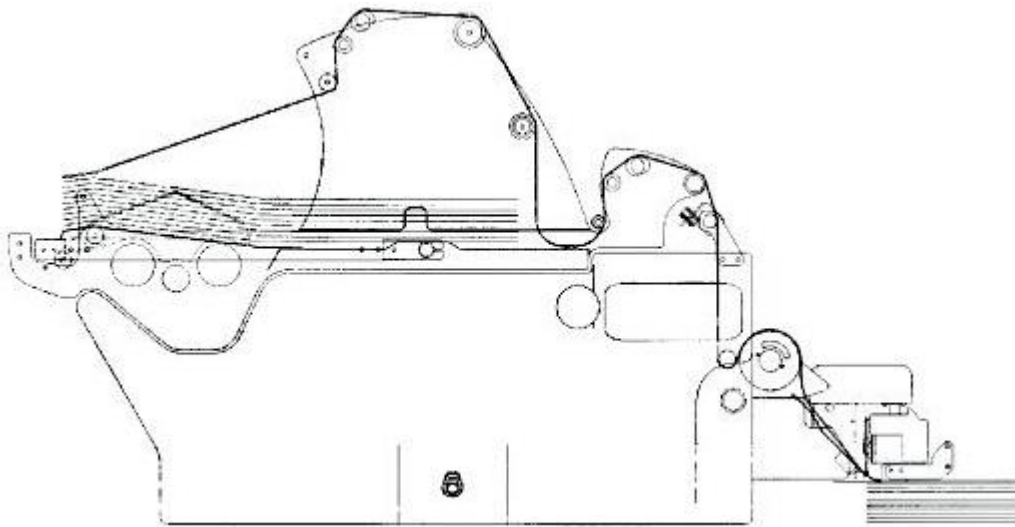
Normal Operation :

2. Unfasten cloth roller

10. 'Control Subtense' electric eye PH5

3. Unfasten cloth electric eye Ph2

4. Anterior column roller

5. Subtense electric eye PH3, PH4

6. Internal pressure cloth roller

7. Cloth sending roller

8. Spread cylinder outside pressure

9. 'Existing cloth' electric eye PH1

1. Cloth bucket roller

Rewinding Cloth:

Place as the above figure.
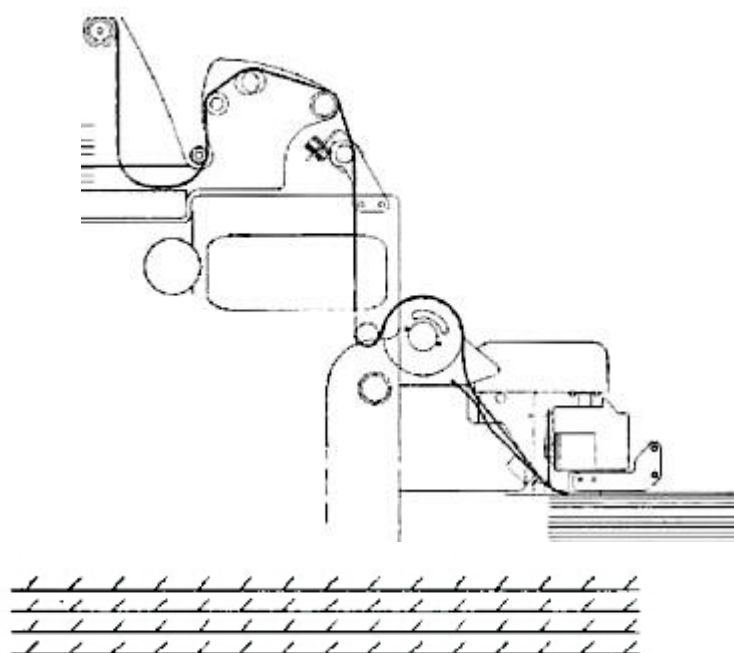
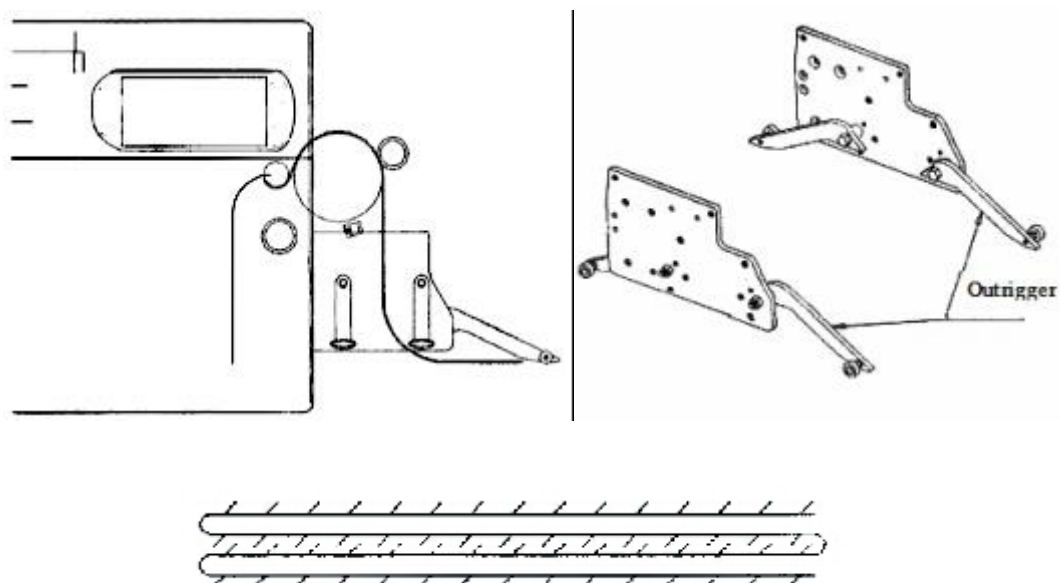When spreading the necessary keys [icons] are [icons]

Folding yard cloth:

place as the above figure. When spreading the necessary keys are:

Single Spreading

Hang up cutting group and plug connector,the spreader will automatically enter into *Single*

*Spreading* mode,and don't have to do any other setting

Outrigger

Double Spreading

Remove the cutting group and install the outrigger,the spreader will automatically enter into *Double*

Spreading mode

Doublespreading : needs to use two-end pressure device, the back-end device should push forward and

be fixed the front point with bolt. (For single spreading, not needs back-end device, when double

spreading should pull to bottom and be fixed the back point.)

Normal Operation:
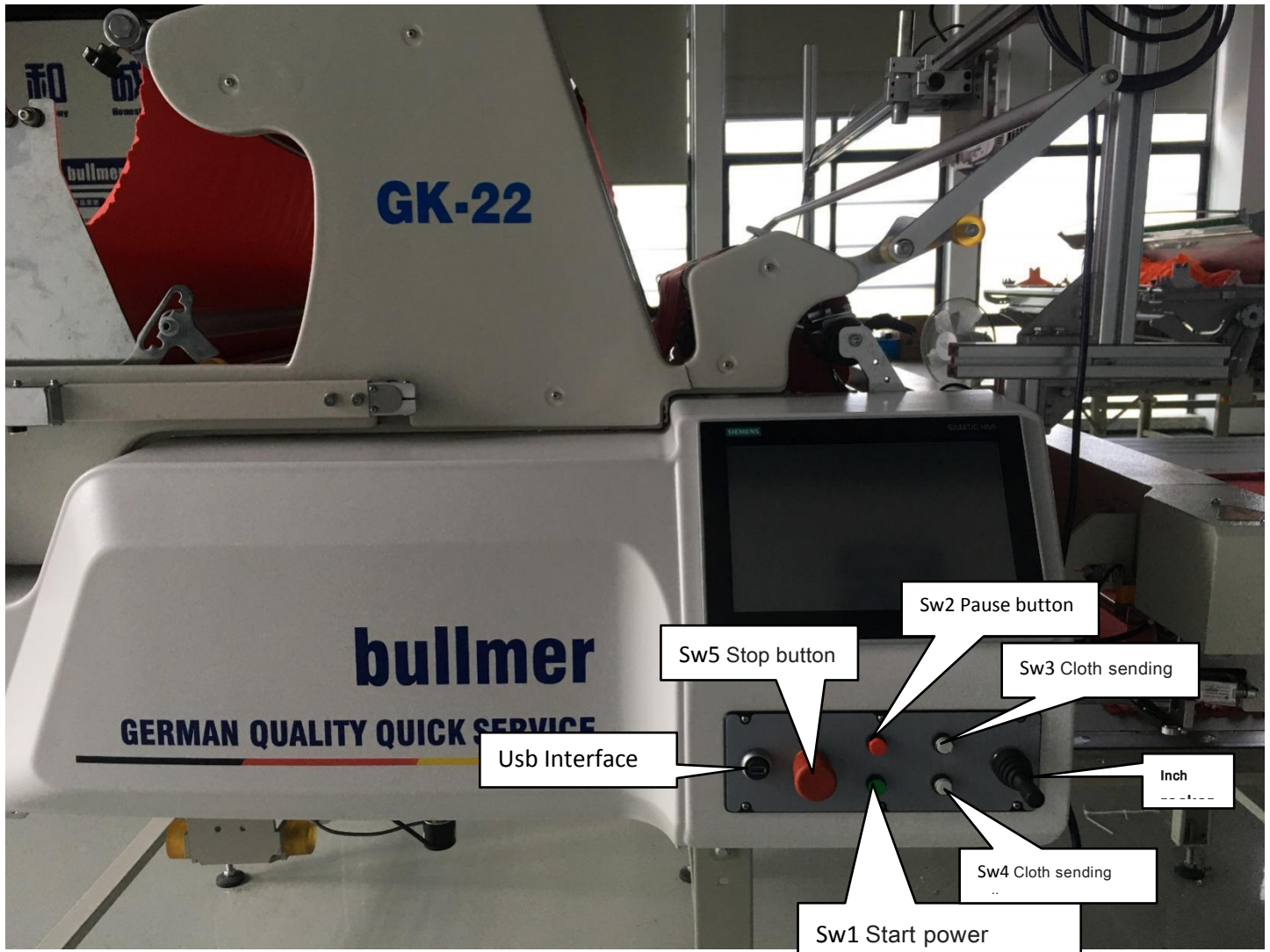
Sw1 「Start power button」 : Start power.

SW2 「Pause button」 ： Press the machine to pause any action。

SW3 「Cloth sending roller」 : Counterclockwise rotate button manually.

SW4　「Cloth sending roller」 : Clockwise rotate manually. During spreading, the cloth sending roller will rotate with the　machine's movement. Under the static status, if need to rotate　cloth sending roller, please use these　two buttons.

SW5　「Stop button」　: Stop button.Besides,two sides of cutting bed have set stop　cables, pulling the cables is the same　with pressing stop button.(Stop cables are the most commonly used stop devices)

【Inch rocker】 ：Manually move the rocker for the machine.Pull right travel(forward)to the right;pull left travel (backward)to the left,and move forward in the direction of the rocker at a constant speed.Pull upwards-rise; Pull downwards-fall.

Normal Operation :

	Machine No	Order No	Starting Time	Marker length	Preset layers	Spreading layers		
Exit	001		2020-12-17		0	−	0	+
	Operator No	Cloth No	Over Time	Current length	Length(mm)	Execute scaning settings	Finish order	
	admin		2021-10-11 14:11:00	0	0			

订单号	订单日期	面料编号	长度
99911	2020-03-21 9:51	323435	7777
8888	2020-05-25 22:13	676767	8888
12314	2020-06-19 8:47	888787	222
2432432	2020-12-23 11:35		334
20201223	2020-12-23 11:41	蓝布	1222

Left stop

Right stop

Type the length of the tab

Type the number of layers

Defect records

Save defect

Confirm the defective

Automatic

0   0   0

Loose   Tight

	Mac			Marker length	Preset layers	Spreading layers		
Exit	001		2020-12-17		0	−	0	+
	Operator No	Cloth No	Over Time	Current length	Length(mm)	Execute scaning settings	Finish order	
	admin		2021-10-11 14:03:00	0	0			

14:01:37 Connect:Failed to connect PLC, p ... er the network is connected

| 1	2	3	Backspace
4	5	6	0	Cancel
7	8	9	.	OK

Click at the version length to display the numeric keypad. After typing the desired number, press enter to determine the "pull length". Unit: mm 1m = 1000mm

Click at the number of layers to display the numeric keypad. After typing the required number, press   enter to confirm the number of layers.

Press and hold for 3 seconds

Marker length | Preset layers | Spreading layers | Present position

Execute scaning settings | Finish order
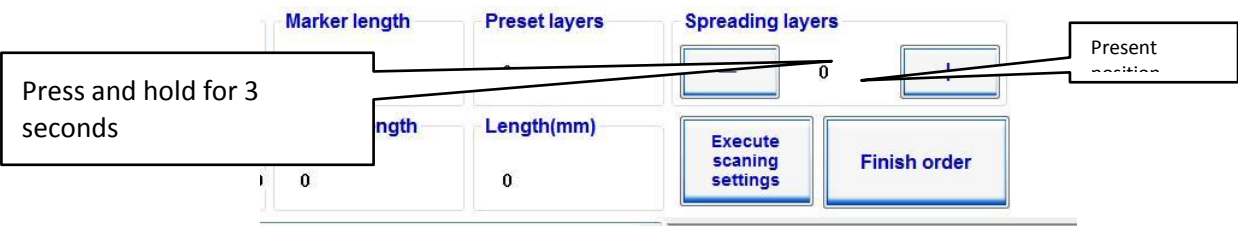
Teaching mode: set the cloth length. When you don't know the exact cloth length, move the machine to the desired position, as shown in the figure,After holding the current position for three seconds, the current position will be set to the length of the page.

Normal Operation:

| Exit | Machine No 001 | Order No | Starting Time 2020-12-17 | Marker length 0 | Preset layers 0 | Spreading layers — 0 + |
| | Operator No admin | Cloth No | Over Time 2021-10-11 14:11:00 | Current length 0 | Length(mm) 0 | Execute scaning settings | Finish order |

订单号	订单日期	面料编号	长度
99911	2020-03-21 9:51	323435	7777
8888	2020-05-25 22:13	676767	8888
12314	2020-06-19 8:47	888787	222
2432432	2020-12-23 11:35		334
20201223	2020-12-23 11:41	蓝布	1222

Left stop | Right stop

Defect records | Save defect | Confirm the defective

Automatic | 0 | Loose | Tight

Rewinding cloths are placed into bucket and controlection [icon] [icon] by , or

[icon] [icon]

The piece of cloth will not use buckettion key [icon] → [icon] [icon] , and cancel ON to make bucket not operate.

20

Cloth Sending Button

⟶ Under the cloth sending status, when the machine moves, thecloth sending roller will send out cloth downwards by rotation.
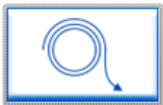
⟶ Not sending cloth,though the machine moves, but the cloth will not be   sent out.
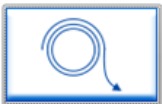
Press it ⟶   Press it ⟶

Automatic   Press automatic key and the spreader will enter into automatic spreading status. When the cloths are all set, confirm the direction be correct and then press the key to spread.

Normal Operation:

Exit	Machine No 001	Order No	Starting Time 2020-12-17	Marker length	Preset layers 0	Spreading layers
(clock)	Operator No admin	Cloth No	Over Time 2021-10-11 14:11:00	Current length 0	Length(mm) 0	Execute scaning settings / Finish order

订单号	订单日期	面料编号	长度
99911	2020-03-21 9:51	323435	7777
8888	2020-05-25 22:13	676767	8888
12314	2020-06-19 8:47	888787	222
2432432	2020-12-23 11:35		334
20201223	2020-12-23 11:41	蓝布	1222

Left stop / Right stop

Defect records / Save defect / Confirm the defective

0 0 0

Automatic

Loose Tight

Cutting Button

When the machine stops, press [scissors icon] to carry out cutting action for one time.

If the cutter head doesn't stop at fixed position due to emergency stop, press [scissors icon] ake the head return to fixed position.When press the cutting button for manual cutting, the layer number value is   unchanged.

Call buck   Inch   move

20

When press the cloth will roll back with low speed. When press

 the cloth will roll out with low speed.

 The key of knife stone

Press The blade rotates and then gently

millstone to sharpen according to the set time.

 Release Brake key

 Press Release brake, can gently push and move machine by

hands.

 Press Brake locks and need to big strength to push machine.

Speed for
Automatic goes to left

peed for
Automatic goes to right

LIFT   RIGHT

Normal Operation:

Exit	Machine No	Order No	Starting Time	Marker length	Preset layers	Spreading layers		
	001		2020-12-17		0	−	0	+
	Operator No	Cloth No	Over Time	Current length	Length(mm)	Execute scaning settings	Finish order	
	admin		2021-10-11 14:11:00	0	0			

订单号	订单日期	面料编号	长度
99911	2020-03-21 9:51	323435	7777
8888	2020-05-25 22:13	676767	8888
12314	2020-06-19 8:47	888787	222
2432432	2020-12-23 11:35		334
20201223	2020-12-23 11:41	蓝布	1222

Left stop   Right stop

卷布

Defect records
Save defect
Confirm the defective

0   0

Automatic

0

Loose   Tight

Layer
lattice

Exit	Machine No	Order No	Starting Time	Marker length	Preset layers	Spreading layers		
	001		2020-12-17		0	−	0	+
	Operator No	Cloth No	Over Time	Current length	Length(mm)	Execute scaning settings	Finish order	
	admin		2021-10-11 14:11:00	0	0			

订单号	订单日期	面料编号	长度
99911	2020-03-21 9:51	323435	7777
8888	2020-05-25 22:13	676767	8888
12314	2020-06-19 8:47	888787	222
2432432	2020-12-23 11:35		334
20201223	2020-12-23 11:41	蓝布	1222

1.Press Layer mumber grid for 3 second to let all layer number grids return to 0.

Normal Operation:

Left-end Point Stop Key

If you need to stop operation when completing the next cloth, press and the machine will stop at left-end point after completing this cloth.

Height

Set Value Of Automatic Rising

0
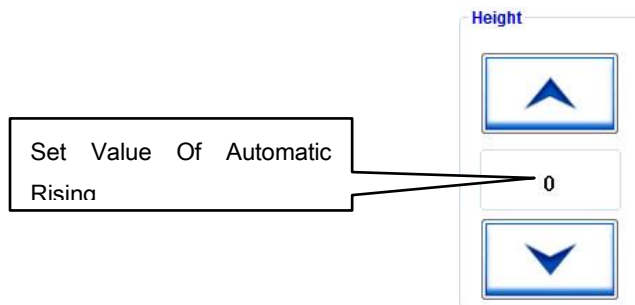
Automatic rising quantity.According to cloth thickness to set automatic rising quantity to make rising height is consistent with cloth stack height. Automatic rising will automatically rise one time when completing cutting during automatic spreading.

Cutting speed

Cut length

Cutting speed

0

0

Cut length
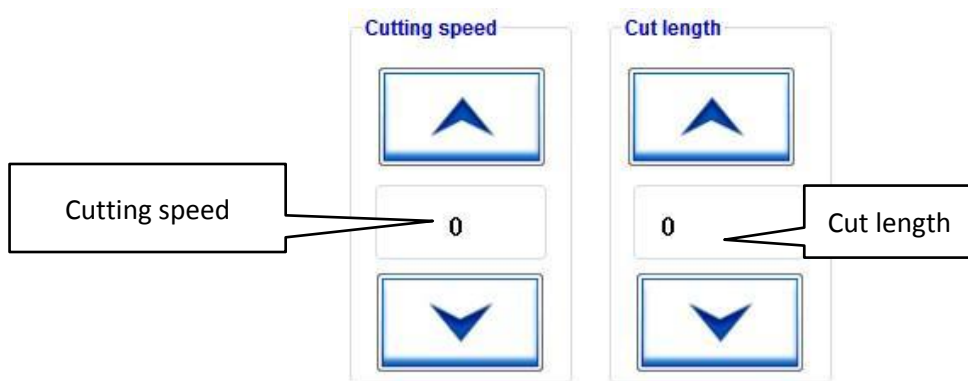
Cutting button 2: Press this button for manual cutting, the layer number will add 1. According to cloth nature and width to set cutting speed and length to make them well cooperate with.

Press this button for single pull mode.

Double spreading mode of hanging cutter group not automatically cut, and spreading mode of cylinder cloth using double
-roller device

Press this button to double pull and double cut mode.

This interface is the operation interface.

This interface is the interface of some function switches and general parameters.

This interface is the view layout interface, which can view the clipping layout data.

This interface is the parameter interface.

This interface is an alarm interface, which can check the status of each input and output port of PLC and whether each alarm signal is triggered.

Function interface:

Single pull right spit cloth	0	MS		Single pull left reclaim	0	MS
Double pull right spit cloth time	0	MS		Double pull left spit cloth time	0	MS
Double pull left recovery distance	0	MM		Double pull right recovery distance	0	MM
Automatic sharpening time	0	MS		Automatic sharpening layer	0	Layers

	1	2	3	4	5	6	7	8	9	10
Uniform speed	0	0	0	0	0	0	0	0	0	0
Bucket accelerat	0	0	0	0	0	0	0	0	0	0
Bucket decelera	0	0	0	0	0	0	0	0	0	0

Height 0
Cutting speed 0
Cut length 0

Cable start switch
Automatic knife sharpening switch
Adjustable tension switch

Edge drawing device switch
Monitor lift switch

The secondary
parameter
Return

Left stop
Right stop

Defect records
Save defect
Confirm the defective

0

Automatic

Single pull right spreading time

Single pull left spreading time

Tight

Single pull right spit cloth In single pull mode, when this button is triggered, the cloth laying set moves to the right, spits out more cloth at the end, and starts laying cloth.

Single pull left reclaim In the single pull mode, when this button is triggered, the cloth laying set will walk to the left, spit out more cloth at the end, and start cloth laying.

Cable start switch When this button is triggered, pull the cable switch for 3 seconds and the machine will automatically pause. If this button is not triggered, it will be in an emergency stop state.

Automatic knife sharpening switch When this button is triggered, the machine will grind the tool according to the set number of automatic grinding layers, and the grinding time is controlled by the automatic grinding time.

Adjustable tension switch When this button is triggered, the machine will automatically adjust the tightness value according to the fabric tightness reading to make the cloth laying effect better.

Edge drawing device switch When this button is triggered, the edge setting device will automatically run edge setting according to the machine motion state.

Monitor lift switch When this button is triggered, the lifting height can be monitored.

Two way cloth spreading right spreading time: in double pull mode, the cloth spreading shall travel to the right and more spreading time shall be given to the end, and the cloth shall be spread to the left at the beginning.

Left spreading time of two-way spreading: in the double pull mode, the spreading time shall be more when

walking to the left and reaching the end point, and the spreading time shall be to the right at the beginning.

Two way paving right recovery distance: in the two-way paving mode, the distance before the end point of the right row of paving is recovered first, and the cloth is paved to the left after reaching the end point.

Left recovery distance of two-way paving: in the two-way paving mode, the distance before the end point of the left row of paving is recovered first, and the cloth is paved to the right after reaching the end point.

自动 **Sharpening time:** set the sharpening time when the automatic sharpening button is enabled.

Automatic sharpening layers: when the automatic sharpening button is enabled, set the number of cloth cutting layers before sharpening once.

Layout interface:

Exit	Machine No	Order No	Starting Time	Marker length	Preset layers	Spreading layers		
	001	2432432	2021-10-11 14:16:33		0	− 0 +		
	Operator No	Cloth No	Over Time	Current length	Length(mm)	Execute scaning settings	Finish order	
	admin		2021-10-11 14:19:00	0	0			

Left stop / Right stop

Defect records / Save defect / Confirm the defective

0 0 Automatic

0 Loose Tight

卷布
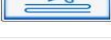
Dispatched job order Press this button to jump to the dispatch list interface.

Confirm the defective When the layout is open, when the defect point is detected, the machine will run to the defect point position and roll back the fabric, and the machine will be in a suspended state. When the customer presses this button, the machine will automatically cut the cloth and run forward. The front of the cutting piece involved in the defect point will be laid and patched, and then continue to lay the cloth.

Automatic Press down to lay cloth automatically.

Save defect Select a defective piece in the layout, and the selected defective piece will be green. Click this button to save the defective piece record.

Defect records Click this button to view all defect information

Marker Click this button to select the cutting layout of the paved fabric.

Simple troubles hooting:

Status	Reason	Countermeasure
Cutting blade does not rotate	1.Fuse F2 burnt 2.Amaged circuit board 3.Worn motor brushes or rotors	1.Check the fuse. 2.Open the cutter to measure whether the cutter output plug has a DC voltage of about 24V. If not, replace the circuit board. 3.The service life of the motor is about 1.5-3 years. It is recommended ~~to replace the whole motor~~
Opposite cloth table does not move	1.Fuse F2 burnt 2.Damaged circuit board 3.Opposite motor failure	1.Check fuse 2.Cover the sensor and measure whether there is 24V DC voltage on the opposite output plug. If not, replace the circuit board. 3.This motor is not easy to break down ~~without being hit~~
Unable to turn	1.Thermal electric translation tripping in 2.Open circuit of power	1.Open the electromagnetic contactor shell and press the back return lever
☐ Press automatically unable to walk automatically	OP relay is abnormal. OP must be in On state. Press wire rope et OP power down Machine stop ↓ OP continuous power off = unable to walk automatically	OP power supply via limit switch of emergency stop steel cable . 1.Check if there is any cloth cutting bag or trolley pressing on the wire rope. 2.The angle deviation of the limit switch at the end of the steel cable is too large or fails. 3.Refer to P / 14 for broken wire. 1.axis 2.Screw 1. Loosen the limit switch when the angle deviation is too large; 2、The screw repins let the axis spring back to the original point

Safety precautions:

1. The machine can only be operated after being trained by our technical service personnel; Please read this manual carefully before operating the machine.

2. When operating the machine, the operator must pay attention to the yellow warning sign on the machine and shall not extend his hand to the dangerous area.

3. When the machine is running, do not move within 0.5m from both sides of the machine.

4. When operating a machine without an anti-collision sensor, do not move in the area within the limits of the front and rear of the machine.

5. During the automatic operation of the machine, it is forbidden to increase or decrease the speed of the section. If this operation is required, it needs to be operated in manual mode.

6. The line shall not be dismantled or replaced without the permission of relevant technicians of our company. In case of any accident, bear the consequences!

Maintenance:

Figure1

Figure2

Figure3

Basic Maintenance:

1.Chain:Add Lubricant And Adjust Elasticity

For lubricant of chain, 40# machine oil is advisable,addingonceevery2 months,note

Not excessive to avoid greasy dirt.

If lacking of oil,the chain is easy to wear.(The above figure's chain is the chain must add oil,don't add for the other chains)

2.Clean Dust

One week at least clean once with air gun and cleaning is the first step of high -quality work.

3.Clean surface dirt of wheels

The surface dirt of wheels is attached dirt,more dirt easily causes slip to make length not accurate.