EDGE TECHNOLOGIES

Revision 8

Rebel Ecofeed

OPERATIONS MANUAL

V-65 Series
SHORT BAR FEEDER
REBEL-V-65E/LE-A

MANUAL FOR USE AND MAINTENANCE

REV. 08 DATE：2016/06/01 COD：BRV104032

S/H

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1. GENERAL INFORMATION

Please read the Manual carefully before operating bar feeder.

1.1 Contents of the manual

The feeder manufacturer provides this manual, which is an essential part of the integrated products. Please act according to the indication of the manual in order to assure operators' safety as well as the machines', and greatly achieve economic efficiency and to get the best output of the machine's capability. The important part is printed in boldface, and included the following marks:

Warning：

Hazard! It is possible to hurt you seriously, please be careful.

Watch out-Precautions：

For preventing the accident or the loss of property, you should take precautions.

Important information：

Special important know-how information

Please take use of the table of contents, you will quickly find the information you need.

The mark shown in the manual means that the machine should be operated by a qualified and expert operator. As to the other operation shall be handled by a qualified personnel or professional operator of bar feeder.

1.2 The label of manufacturer and bar feeder

A. Name of manufacturer

B. Model(Type)

C. Serial Number

D. Manufacture Date

E. Weight of Machine

F. Pneumatic Pressure

G. Rated Voltage

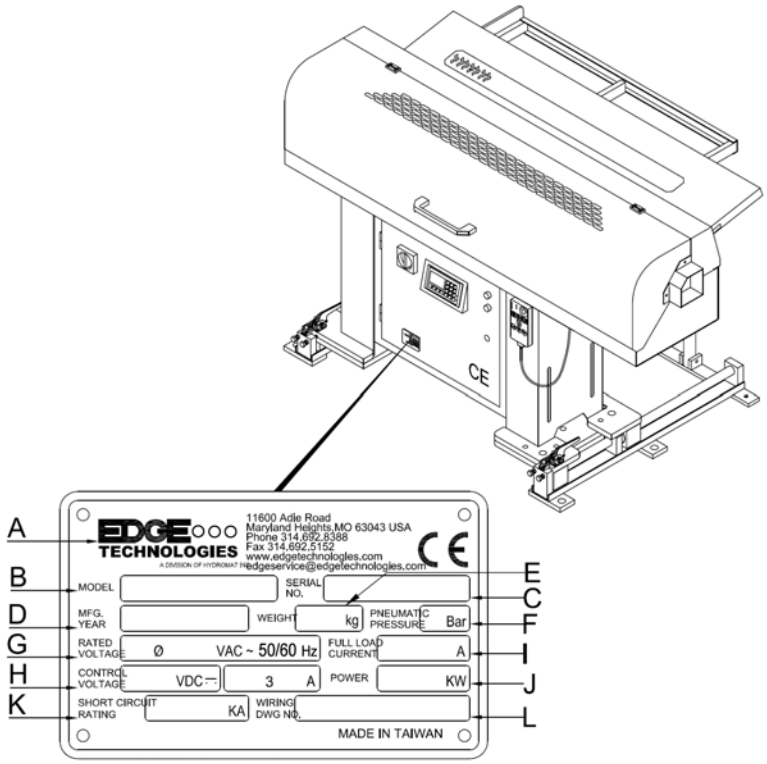
H. Control Voltage

I. Full Load Current

J. Power

K. Short Circuit Rating

L. Wiring Drawing Number



1.3 Support of technique

If you need any support of technique, you can inquire the service center in the appendix at anytime.

INFORMATION：

When you need the support of technique, please refer to the label on the bar feeder. Tell us the data of the bar feeder.

2. DATA OF TECHNIQUE

2.1 Introduction of the bar feeder

The V-65E/LE-A is designed for full automatic lathe to auto feeds material, the bar feeder is suitable for digital control sliding headstock lathe and fixed headstock lathe. The program of the P.L.C system can control the bar feeder running with the lathe at the same time. Operator can set parameters by the interface of man machine directly.

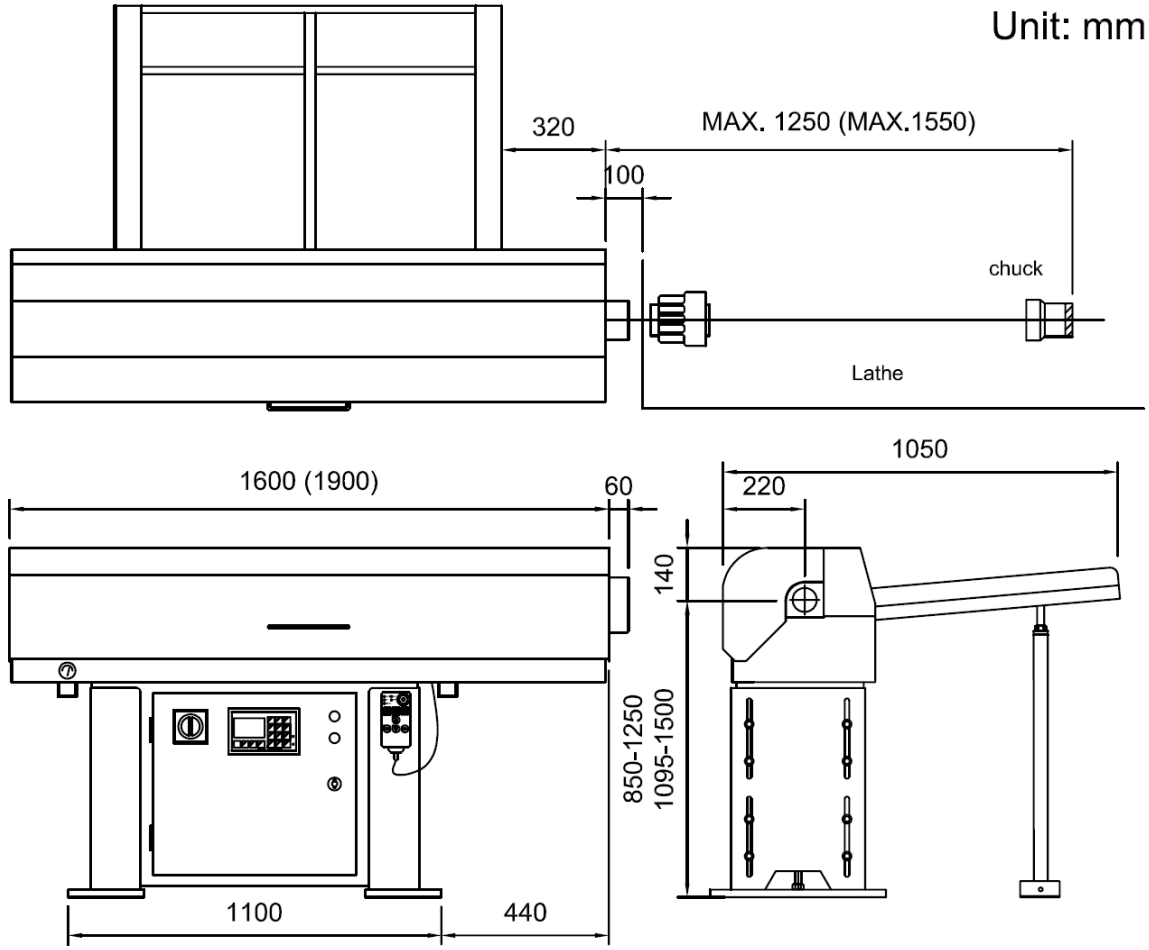
The remote control box is easily to be operated.

The bar feeder can feed circular material and any other forms of material. While the lathe is running, the guide channel is closed completely; meanwhile, the lubricating oil is poured into the guide channel. Therefore, noise and shake can be reduced while the material is rotated in high speed.

Furthermore, the lubricating oil also can reduce the temperature resulted from friction so the surface of material can't be damaged. The remnant material will be pushed out off the guide channel by the push bar or the next material.

The instructions and legends of the manual are edited according to the operator stands at the left side of the lathe.

2.2 Machine size



2.3 Description

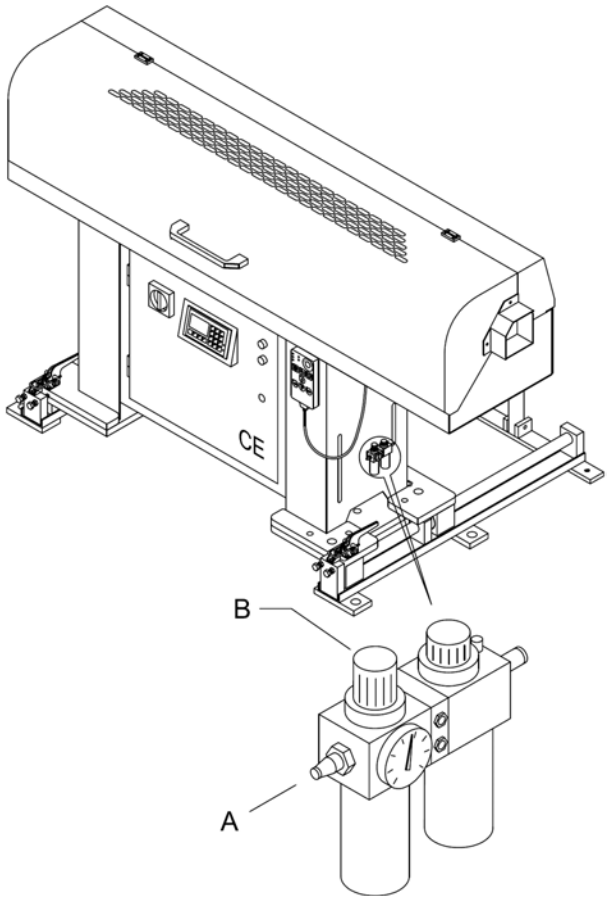
	V-65E-A	V-65LE-A
Diameter of bar	Ø5 mm ~ Ø65 mm	
Length of bar	max.1250 mm Bar length depends on spindle length.	max. 1550 mm Bar length depends on spindle length.
Spindle height	850 mm ~ 1250 mm	
Extend spindle height	1095 mm ~ 1500 mm	
Weight	250 kg	280 kg
Air supply	5 ~ 7 kg / cm^2	
Power supply	220 / 380V 0.4A 50 / 60Hz	

2.4 Compressed air supply and power supply

2.4.1 Compressed air pipe minimum Ø 8mm. Minimum pressure 6 kg/cm^2. Compressed air consumption about 50L/H.

2.4.2 Put the air supply tube into (A). Then pull and turn around the knob (B) and set the pressure at 6kg/cm^2.

2.4.3 Power supply 220V/380V，50/60Hz.



3. TRANSPORTATION

Hazard—warning：

Transportation and hoist (please refer to the item 3.2.1 of following weight table) You have to sure the crane; forklift or other related tools could take the weight. Using the proper equipment to move and hoist the machine should be led by the expert personnel.

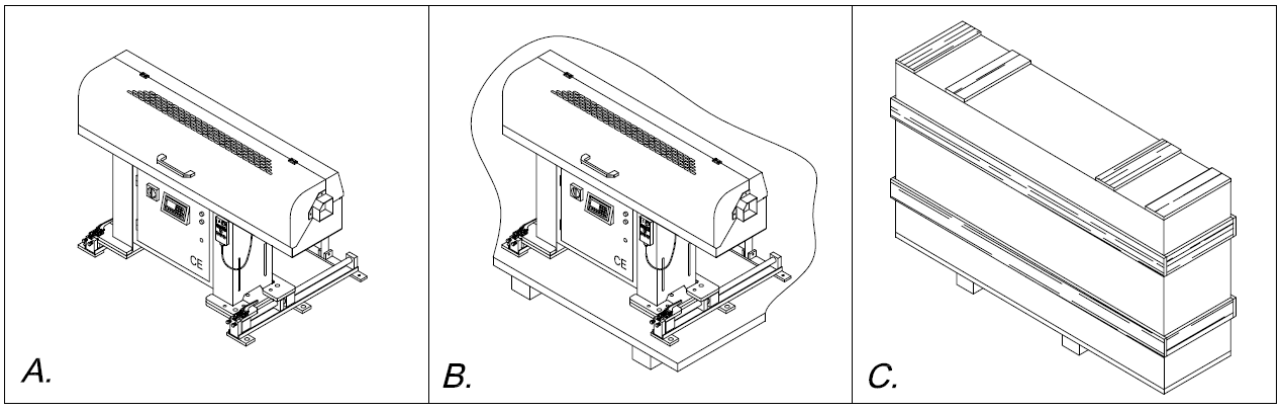
3.1 Packing the Feeder

There are three kinds of packing Feeder：

A. Unpacking.

B. On the pallet: Put the feeder on the pallet and wrap PE membrane around the feeder.

C. Packing with wooden box**:** The Feeder was packed with wooden box and wrap PE membrane around the box.

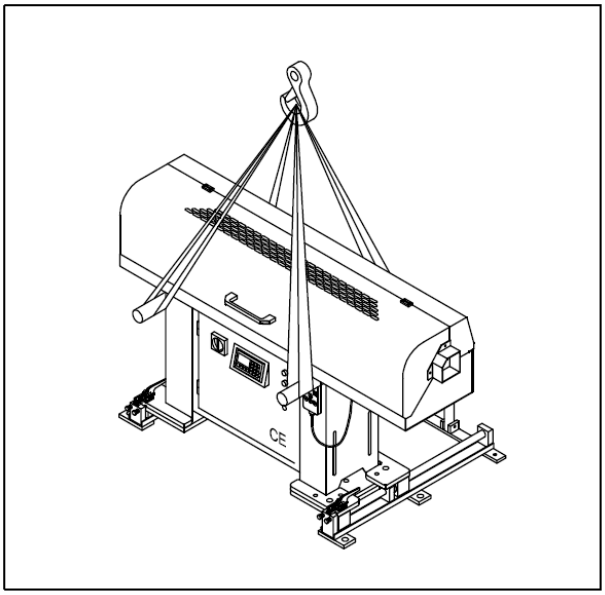


3.2 Transportation and hoist

3.2.1 Unpacking hoist

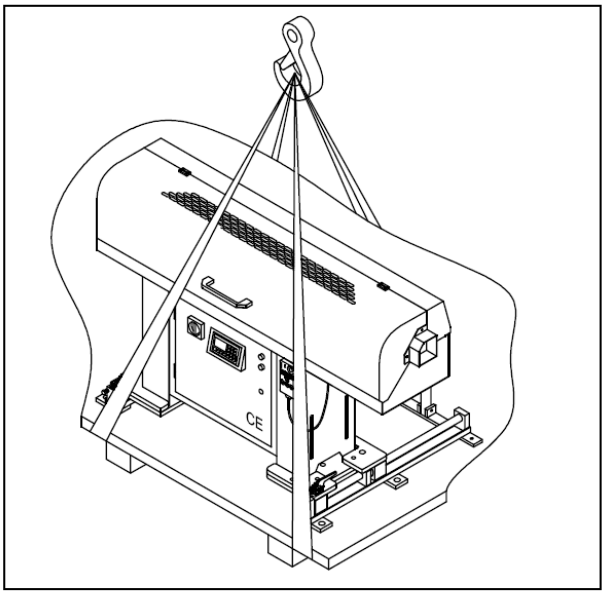
Putting two steel bars (Diameter：30mm, Length: 1M) under the bar feeder, using suitable steel ropes which are able to bear the weight to hoist the bar feeder.

V-65E-A	250kg(NET)	300kg
V-65LE-A	280kg(NET)	370kg



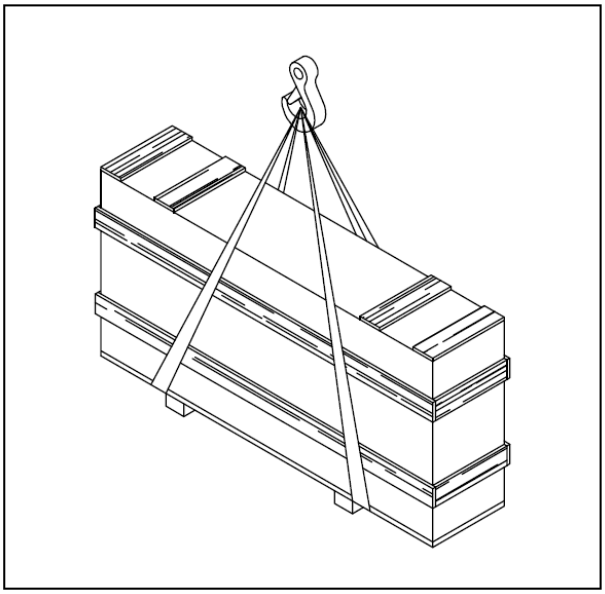
3.2.2 On the pallet

Using suitable steel ropes which are able to bear the weight to hoist the bar feeder.



3.2.3 Packing with wooden box

Using suitable steel ropes which are able to bear the weight to hoist the bar feeder.



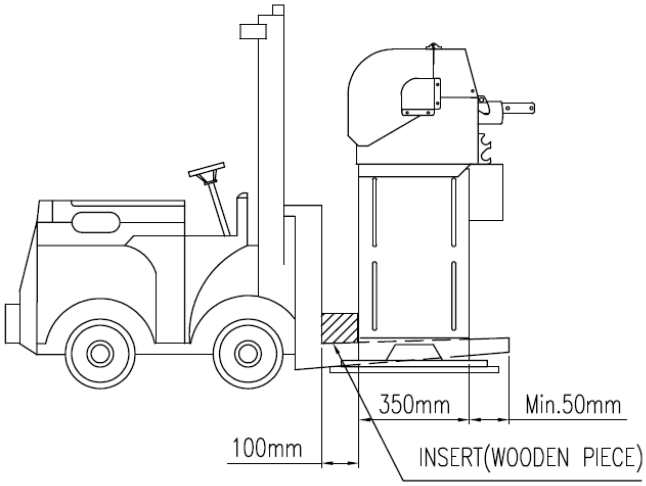
3.3 Forklift transportation

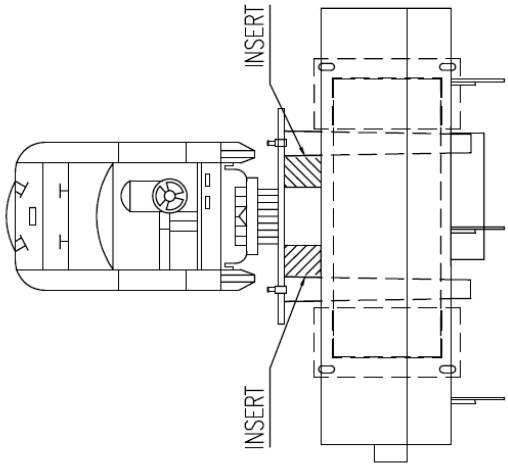
3.3.1 Safety regulation moved by forklift

1. The operator of forklift should have been trained.
2. Select the suitable forklift.
3. Make sure the weight and the center of gravity of the machine.
4. The forks should extend under the full length of the machine body during transportation.
5. Be sure the balance and don't lift too high.
6. Be careful when climbing or descending down a slope.
7. Be sure all wire connections have been removed before moving.
8. Someone should to guide the operator of the forklift.
9. Forklift truck must be a minimum of 7 tons capacity.
10. Make sure that forks do not touch any delicate part of the machine.
11. Make sure machine is in balance.

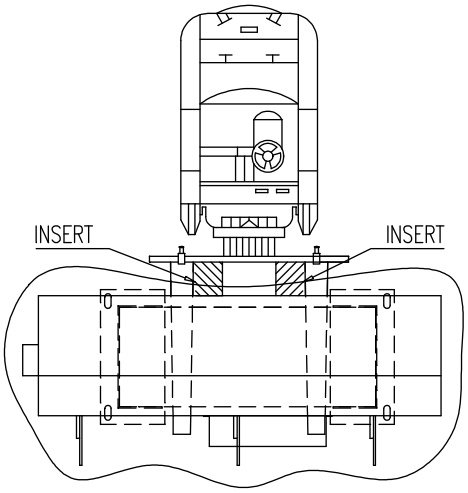
(Note) Machine weight approx.：V-65E-A------ 250kg (506lbs)
V-65LE-A---- 280kg (594lbs)

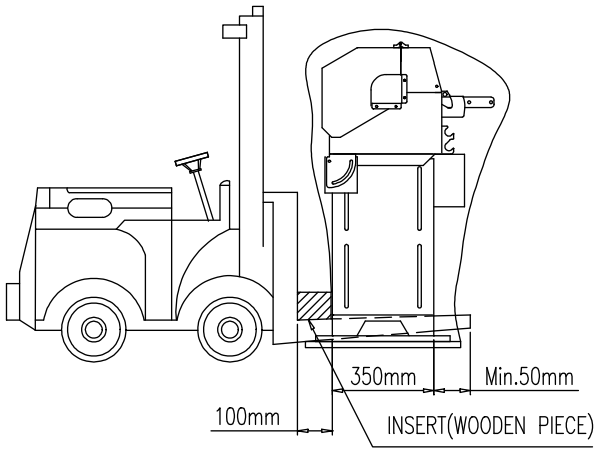
(1) Unpacking hoist





(2) On board transportation



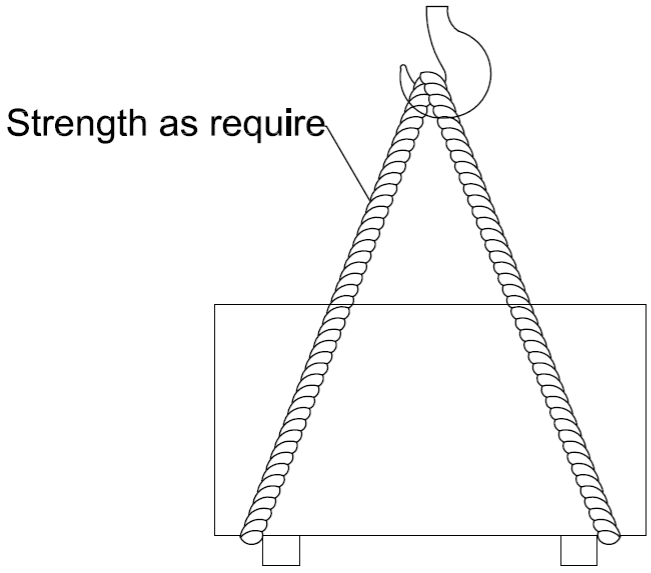


(3) Wooden transportation

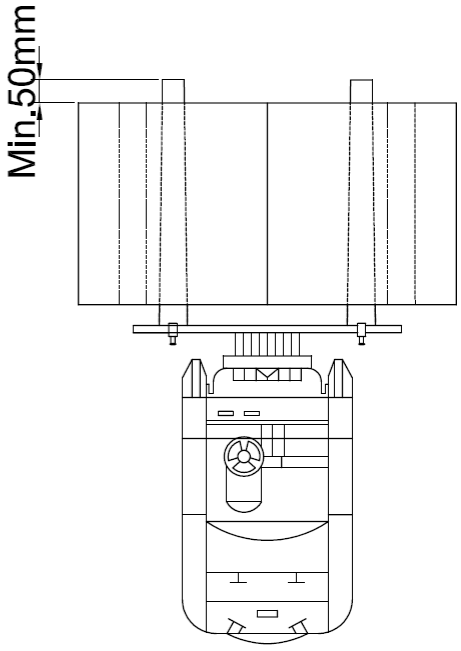
Machine weight approx.：V-65E-A------ 300kg (660lbs)

V-65LE-A---- 370kg (814lbs)

A. Moved by crane

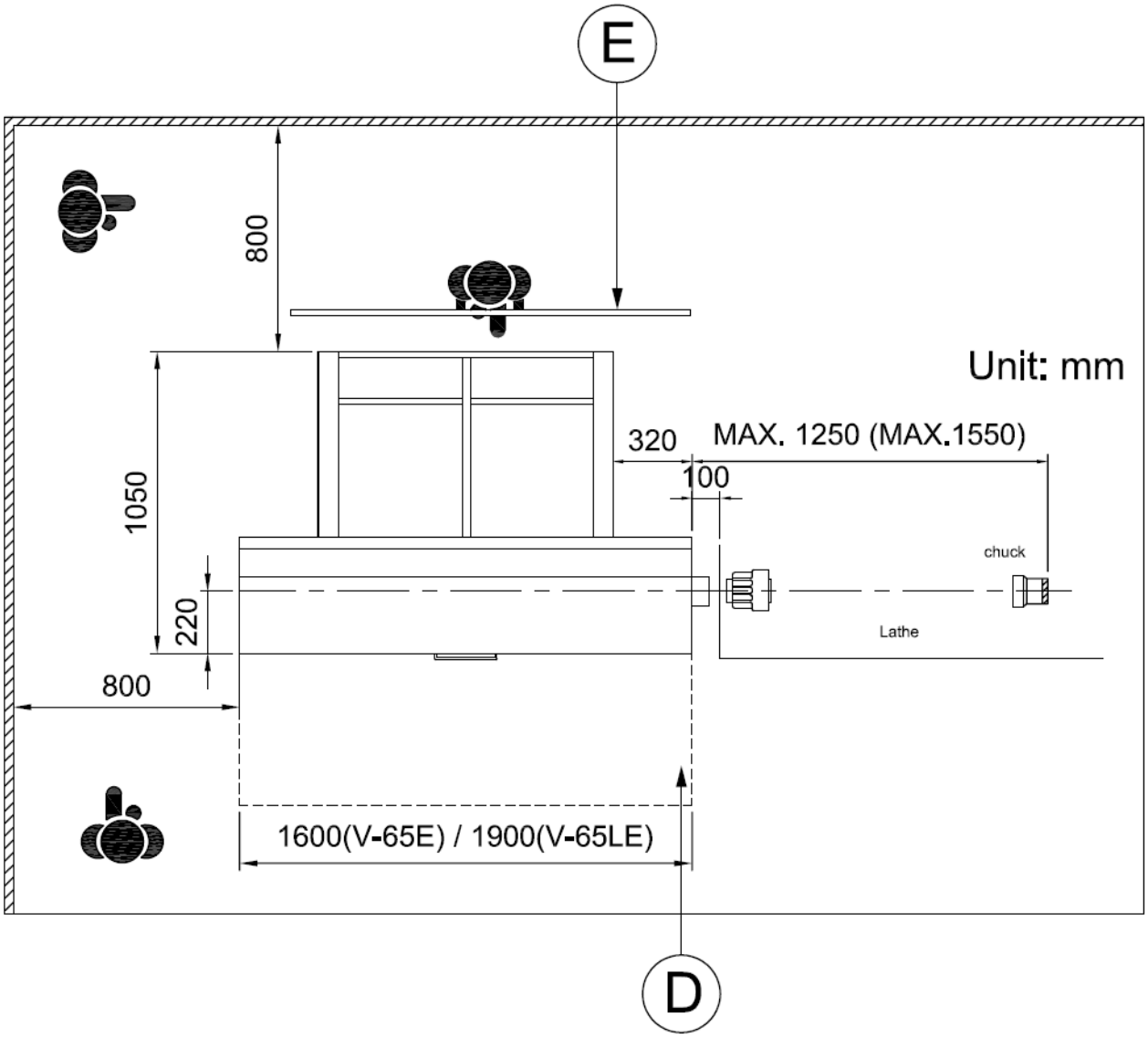


B. Moved by forklift



3.4 Installation area

In order to fix the feeder securely, the floor must be flat and firm.
According to the operation of the feeder to reserve a suitable area in advance.
Area：(D-operator area)，(E-supply area)，The space must be enough to avoid the feeder caused crashed by the operator.
The area of installation needs to have suitable lighting, outlet and compressed air joint.
The feeder can’t adapt to explosive surrounding.



4. INSTALLATION

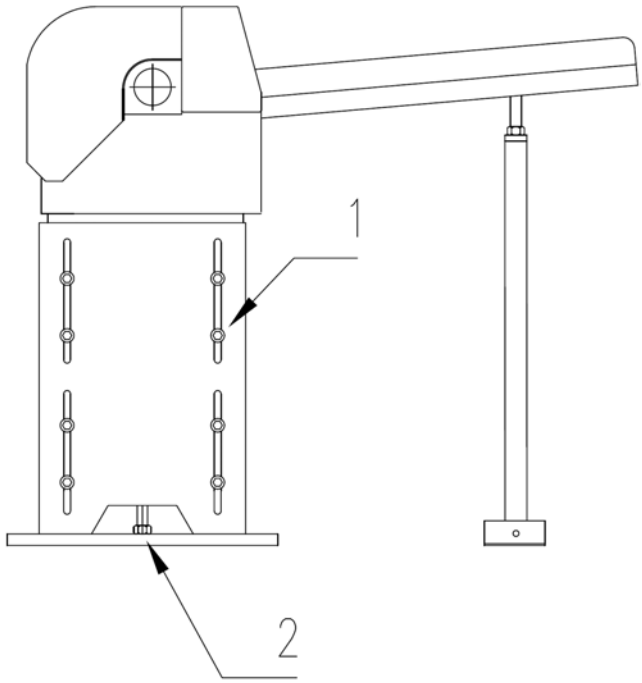
4.1 Bar feeder — Installation

Before installing the bar feeder, the spindle of the lathe must be horizontal and the Lathe is fixed on the ground strongly.

4.2 Adjustment of height

4.2.1 Disengage the screw（1）.

4.2.2 Adjust the screw（2）and shift from up to down. Adjust the height to a straight line between the center of the bar feeder and the center of the lathe.



4.3 Initial position

4.3.1 Distance between V-65E/LE-A and CNC-lathe

In order to use the automatic bar feeder in the best possible way you should see to it that the distance between the CNC-lathe and the bar feeder is not too short!!

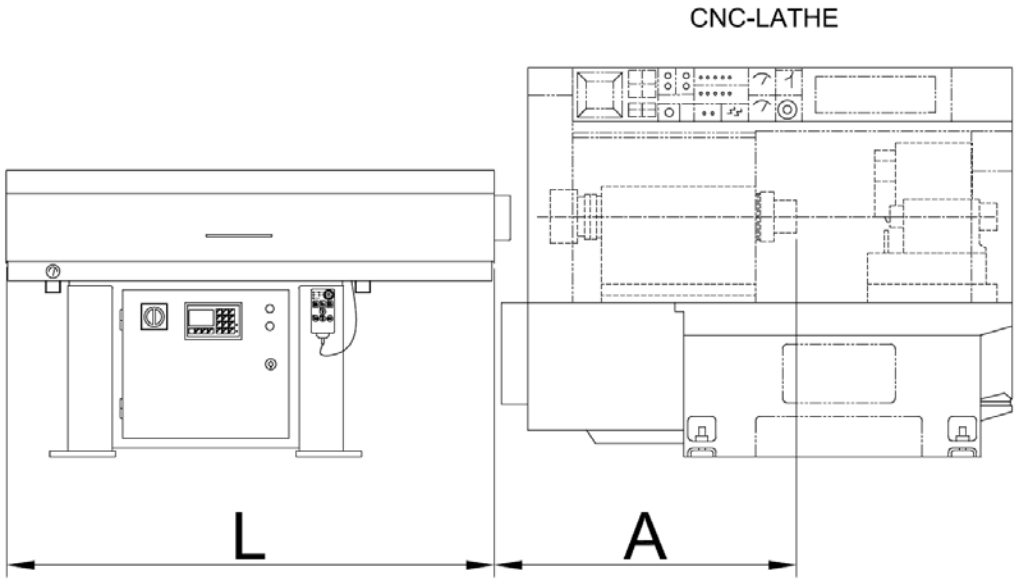
You may; however, load only bars whose length equals the spindle length of the CNC- lathe. The bar stock has to be fed completely into the lathe spindle.

The bar feeder, however, must not be too far from the CNC-lathe.

The Max distance between CNC-lathe and bar feeder can be seen from the following drawing.

If 1250mm should not be enough, you have to install a V-65LE-A to replace V-65E-A.

! IMPORTANT ! Be careful that – if several chucking devices are available-the max. Distance will never be exceeded.



	L	A
V-65E-A	1600mm	Max.1250mm
V-65LE-A	1900mm	Max.1550mm

4.4 Directional adjusting

! IMPORTANT !

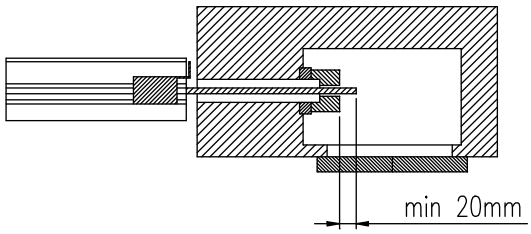
During directional adjusting the push bar must not touch the lathe spindle!!

The height must have been adjusted roughly beforehand and has to be readjusted if necessary.

The direction has to be adjusted rather exactly as the adjusting range for precision adjusting is limited.

Adjusting: You should be able to see through the spindle from the chuck and move the push bar forwards.

If the push bar does not go through the middle of the spindle, go back to final position " –Z " and adjust the bar feeder afterwards. Then check the direction of the push bar and repeat checking until the push bar is adjusted exactly.



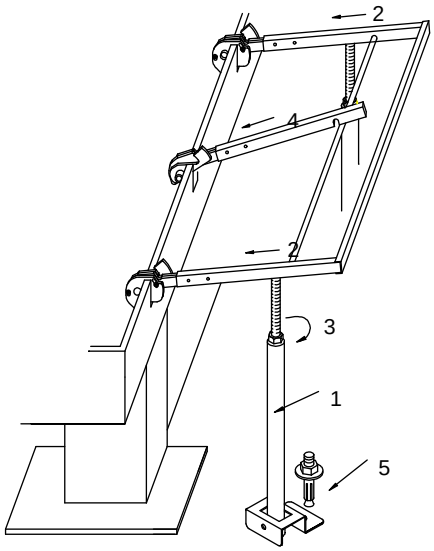
4.5 Mounting of the feeder frame

4.5.1 First, put the lever into support tube（1）.

4.5.2 The support profile fixed with the extension（2）and fastened in the suitable height with screw（3）.

4.5.3 Then the middle support profile fixed with the extension（4）.

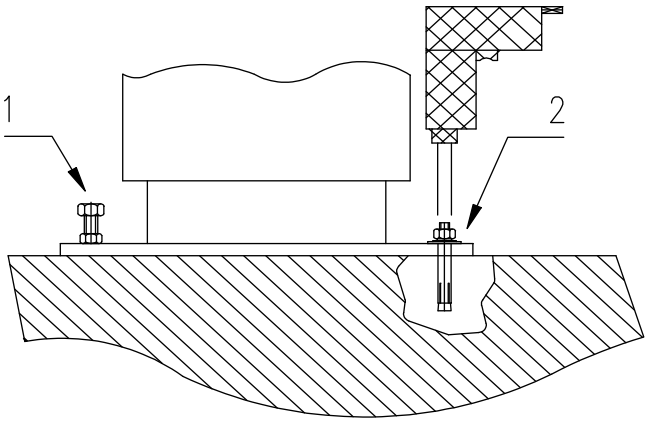
4.5.4 Finally securing with the screw（5）.



4.6 Securing and fastening of the bar feeder

4.6.1 Rotate 4 ground-screws（1）to touch the ground, and fix the nuts.

4.6.2 Drill ground（2）with drill bit Ø19mm（¾”）, and fix the spindle-screw.



4.7 Accessories installation

4.7.1 Axial displacement (optional)

4.7.1.1 Place two woods (height: about 10cm) under the bar feeder.

4.7.1.2 Place axial displacement by each side under stands of the bar feeder (axial displacement has two parts: right part and left part)

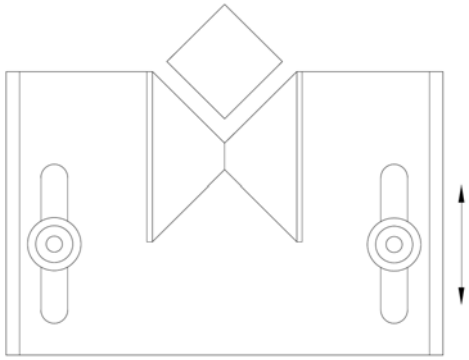
4.7.1.3 Push the stands to the end of axial displacement and fix. And then take woods away.

4.7.1.4 Drill ground with drill bit Ø 19mm（¾”）of bit, and fix the spindle-screw.

4.7.2 Auxiliary support stand (optional)

4.7.2.1 Place a bar on V-type holder and spindle of the lathe.

4.7.2.2 Place Auxiliary support stand in front of the bar feeder and then lift Auxiliary support stand to touch the bar and fix the screws.

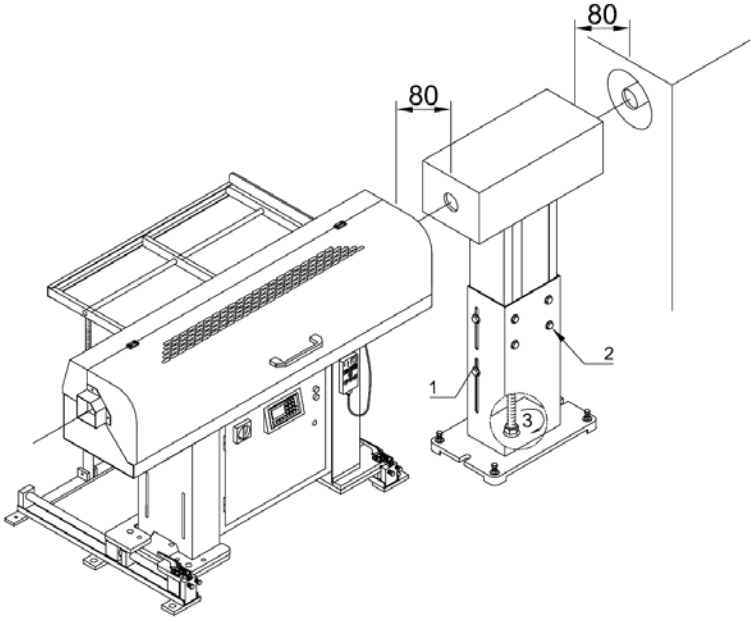


4.7.3 Auxiliary support stand (optional)

4.7.3.1 Place Auxiliary support stand between bar feeder and lathe.

4.7.3.2 Loose screws（1）and（2）, adjust screws（3）to suitable height so that the push bar into the center of the guide tube is accurately.

4.7.3.3 Tighten screws（1）and（2）.



4.7.4 Spindle liners

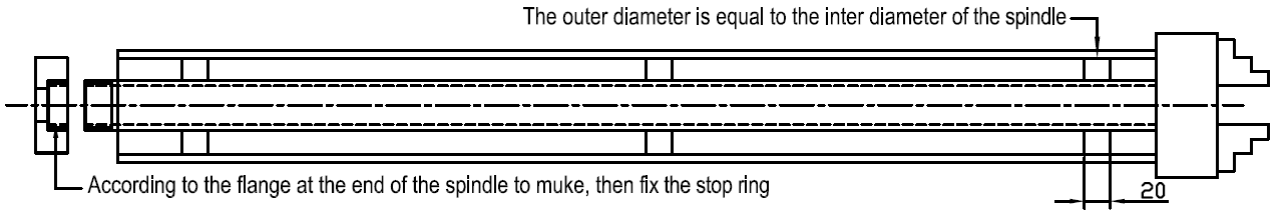
4.7.4.1 How to select correct spindle liners：

The inner diameter of the spindle has to be adjusted to the outer diameter of the bar stock. According to our experience, the diameter of spindle of blank bar stock should be bigger by 3mm to 5mm than the diameter of bar stock.

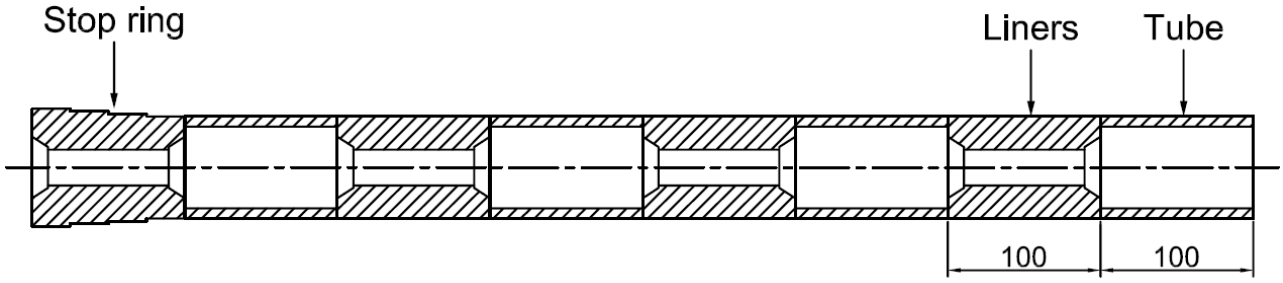
Even black bar stock can be machined by spindle liners.

4.7.4.2 How to make two kinds of spindle liners:

1 Iron tube：Choose tubes which internal diameter is bigger by 3mm to 5mm than the material to make.



2 PE：Choose PE or Teflon to make according to the following method.

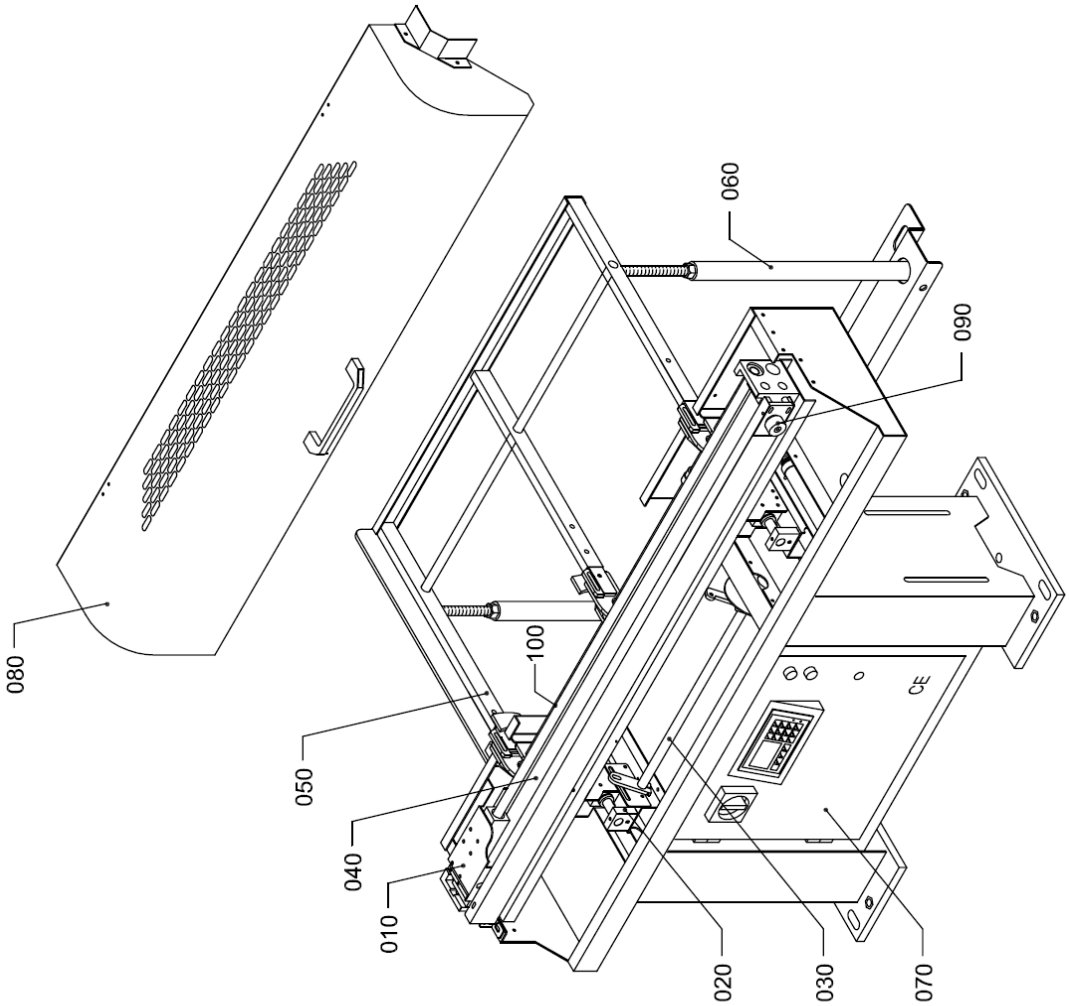


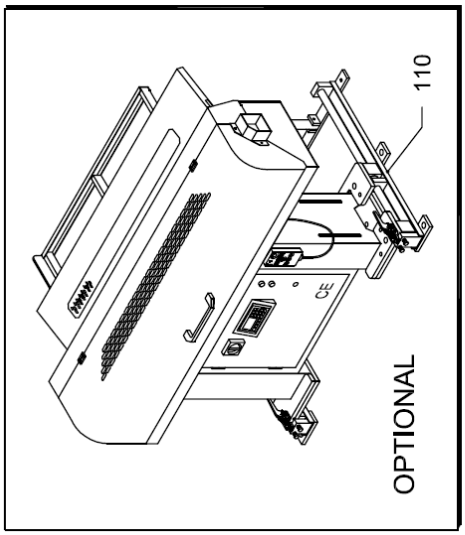
1. Tube：The thickness of the tube is 2mm to 3mm
2. Liners：Internal diameter of the lines should be bigger by 3mm to 5mm than the material.
3. Stop ring：In order to fasten the liners, the stop ring would be accorded with the inter diameter of the spindle to can make in the form of ladder.
4. When feeding different sizes of material, exchange the liners and stop ring.

※ The tube and the diameter of the liners must be smaller by 3mm to 5mm than the inter diameter of the spindle which prevent the tube was expanded.

5. ADJUSTMENTS AND SETTING

5.1 Structure of the bar feeder





010	FRAME DEVICE
020	BRACKET DEVICE
030	CHANGEOVER
040	BAR PUSHER
050	FEEDING-EXTRACTION CONTROL DEVICE
060	FRAME
070	STAND
080	COVER
090	COUNTER DEVICE
100	AIR PRESSURE DIAGRAM
110	SLIDING RAIL (OPTIONAL)

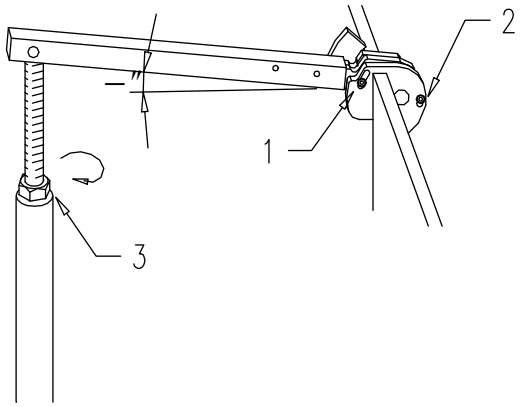
5.2 Adjustment and selection of the bar feeder

5.2.1 Adjustment of lever system

5.2.1.1 The inclination of the feeding frame depends on the kind of bar stock used： round bar stock：α about 5˚ ~ 8˚ hexagonal bar stock：α about 20˚ Disengage screw (1) and (2).

5.2.1.2 Adjust screw (3) to suitableαangle. The material can smooth to fall down.

5.2.1.3 Tighten screws (1) and (2).



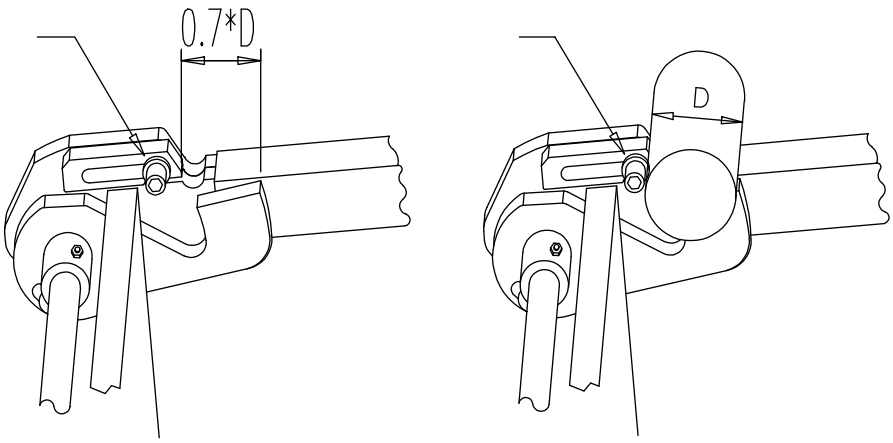
5.3 Adjustment of bar stop

5.3.1 Disengage screws I each.

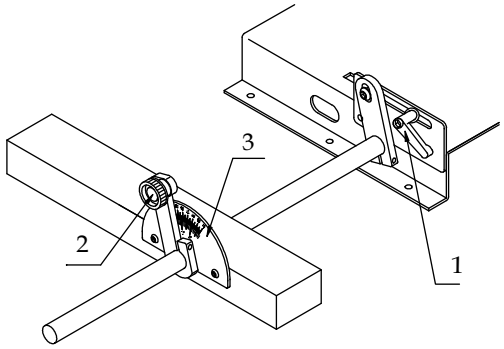
5.3.2 Adjust bar stop so that only I bar is loaded.

5.3.3 Tighten screws I.

5.3.4 Switch into manual mode , and go to position.



5.4 Adjustment of bar diameter



5.4.1 Turn to the manual position , and press until it is lighted.

5.4.2 Swing the handle (2) to adjust the graduation as same as the diameter of bar on a graduated meter (3).

5.4.3 Screw tightly the fixing-handle (1) on both sides.

5.4.4 Press until it is lighted, put a piece of material in V-type vessel.

5.4.5 Try to push forward the material into the spindle, and check the condition of adjustment.

※ Follow the step of 5.4.1, you may adjust again if any.

5.4.6 Move out the material, press until it is lighted, the adjustment is completed.

5.5 Adjustment of push bar pressure:

According to chart at the pneumatic unit.
Recommended values:

to ø10mm	3 kg/cm^2
ø10-30mm	3-4 kg/cm^2
from ø30mm	4-6 kg/cm^2

5.6 Selection of push bar:

The push bar has to be adjusted to the bar diameter：

Push bar	Bar stock
ø6mm	to ø15mm
ø12mm	ø15-25mm
ø20mm	from ø25mm

Changing of push bar：

※ remove headless PIN 2 from borne bushing；

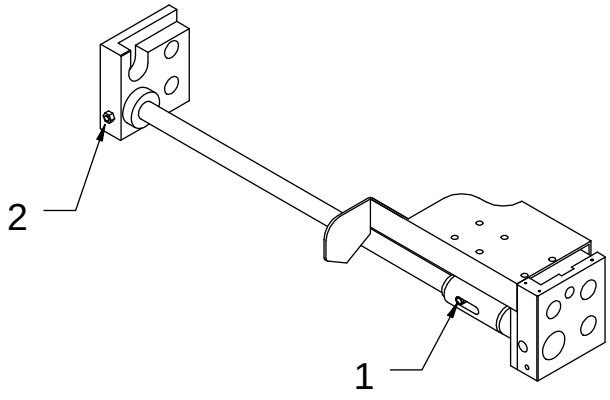
※ remove headless PIN 1 from fixing device；

※ shift borne bushing towards interior of bar feeder and remove push bar；

※ take desired push bar from cover and mount in opposite order；

※ store removed push bar in the frame；

!IMPORTANT! The headless PIN for the fixing device must not exceed clutch sleeve!



5.7 Optimizing remnant

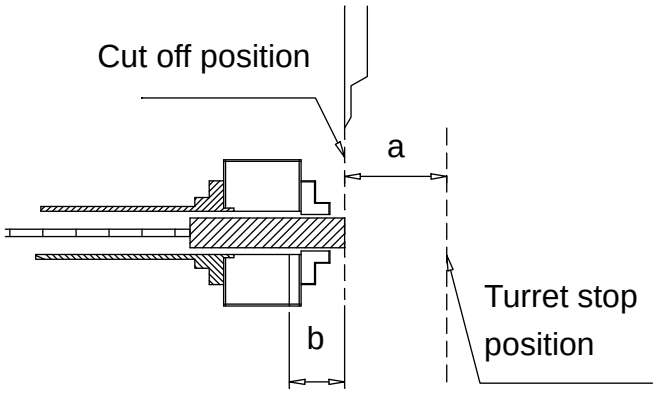
By observing the following items the remnant length will be reduced to a minimum:

5.7.1 ※ Exact adjustment of bar end.

5.7.2 ※ Machining and cutting off very close to chuck.

5.7.3 ※ Optimum breaking down of long bars.

Optimum breaking down:



A ..... max breaking down of bar length

L ..... bar stock length

bar stock length per work piece

a ..... (length of work piece + facing length + cutting off width)

b ..... minimum chucking length

M ..... number of work pieces/bar

K ..... broken down bar length

Example：A bar (3200 long) is to be broken down in an optimum length.

EX：

A＝1200mm

L＝3200mm

a＝75mm

b＝40mm

M = (A - b) / a

= (1200 – 40) / 75

= 15.5

Each bar can produce 15 finish products.

K = M × a + b

=15 × 75 + 40

=1165

The bar stock (3200mm long) will be broken down into the following pieces:

Two pieces 1165mm each and one piece 870mm long.

The remnant of the 3200mm long bar is 40mm + 40mm + 45mm = 125mm

5.8 Maintain notice-key switch

5.8.1 If the safety cover is open, the bar feeder can't use the automatic mode, but it still can be use manual mode.

(1) Need to use the automatic mode when the safety cover is open. Please turn the key-switch 

to "OFF". The bar feeder can be use the automatic mode.

(2) If the bar feeder alarm and you have eliminated the breakdown. And then need to use the automatic mode, please close the power.
Turn the key-switch to "ON" 

, and close the safety cover. Then open the power and it can be operation on automatic mode.

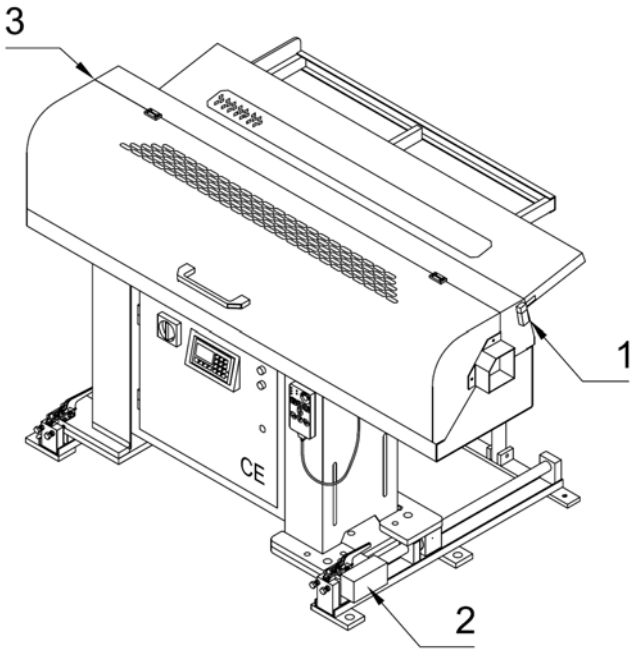
! IMPORTANT! The key-switch has to turn to "ON" 

, --otherwise the program can't to determine alarm to be directed against the safety cover.

5.8.2 Check the safety-switch location
When LCD display "cover not close", please check 3 safety-switches (show as in Fig) whether they go back to the location. Then press "F3" at the same time and the bar feeder can be working in normal.

(Note)

1. In normal running, please don't open the safety cover lest to cause alarm.
2. Please don't pull out the connect plug from the remote control box lest to cause alarm.



6. OPERATIONS AND ILLUSTRATIONS

6.1 Material preparation

Caution & prevention

Please don't put the material out of standard.

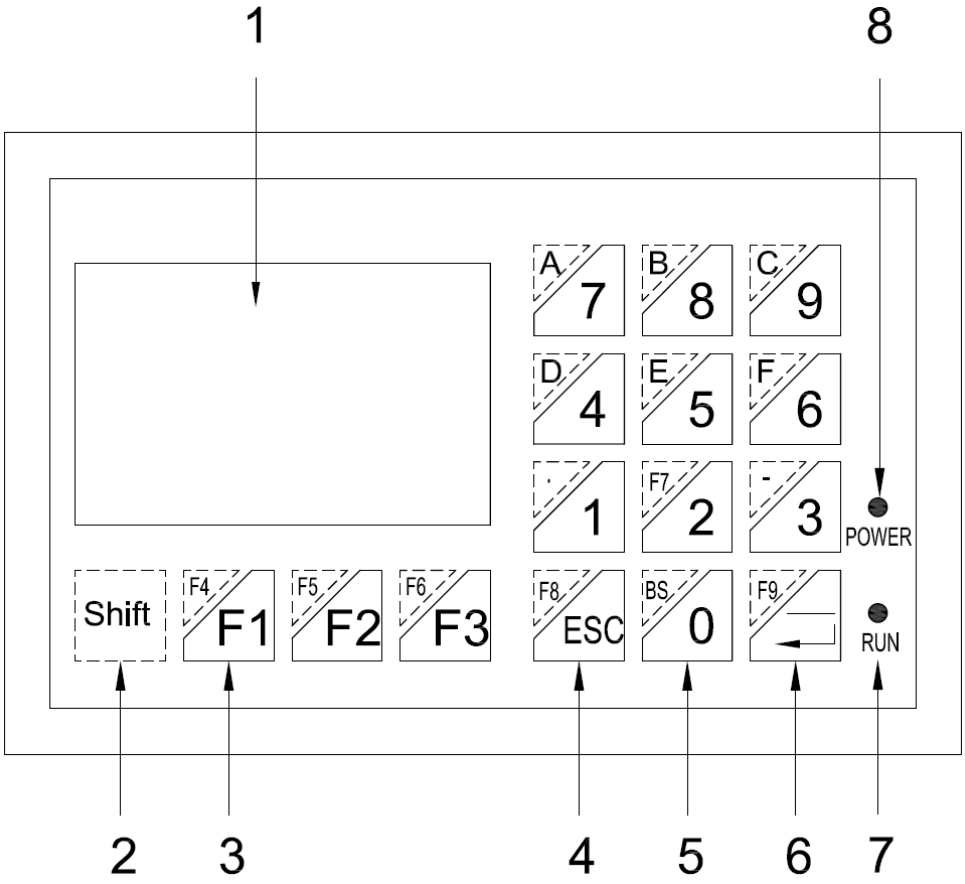
List1—The max length of material

Type	Mod	Max length mm
V-65E-A	1600	1250 Bar length depends on spindle length.
V-65LE-A	1900	1550 Bar length depends on spindle length.

The flatness of material must be within 0.5mm/M.

6.2 Operation description

6.2.1 H/M function description



NO.	Function
1	LCD Display area
2	Shift
3	Function
4	ESC
5	Number
6	Enter
7	Run light
8	Power light

6.2.1.1 Monitor function description：

Shift–display：Press the key according to the indication on the display.

（1） F1 ：Page up

（2） F2 ：Page down

（3） F3 ：Back main contents

6.2.1.2 Set up an input for numbers：

（1） Input numbers from 0~9, input the numbers as your request.

（2） Press F9 again, the input is finished. If you want to give up the input that you set, press F8 ESC for give up.

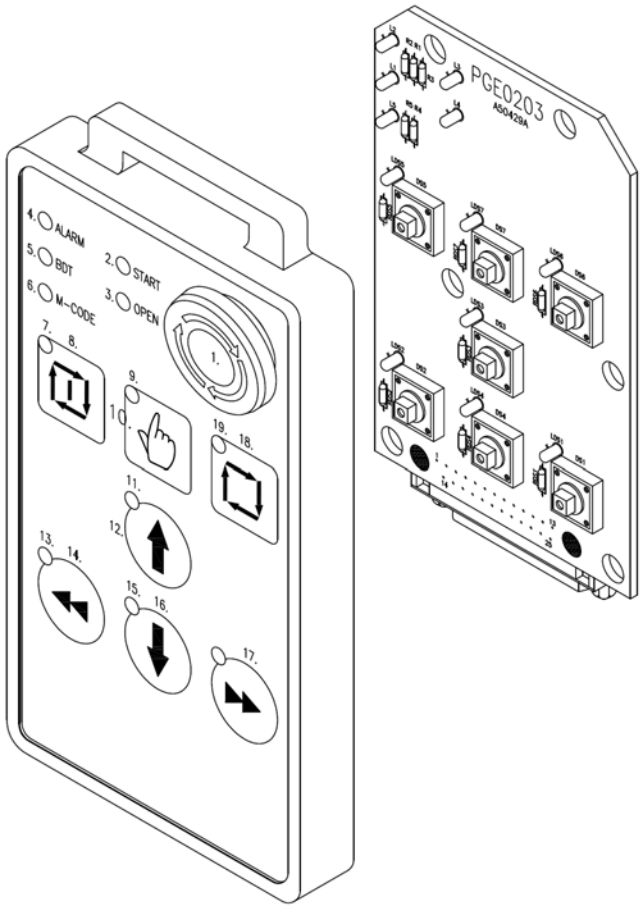
6.2.1.3 Usage of key from F1-F9：

（1） Select F1-F3, please press these three keys directly.

（2） Select F4-F9, please press and hold Shift key, and then select other keys as you want.

6.2.2 The function and operation of keys

6.2.2.1 Description of button and indication light

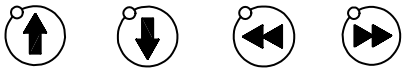


NO.	Code	Function	NO.	Code	Function
1	ES1	Emergency stop	11	LDS3	Clamping in light
2	L3	Start light	12	DS3	Manual clamping in/out
3	L4	Chuck open light	13	LDS2	+Z light(left)
4	L2	Alarm light	14	DS2	-Z Key
5	L1	Bar end light	15	LDS4	Shift light
6	L5	M-Code light	16	DS4	Shift keying
7	LDS5	Automatic start light	17	DS1	+Z Key
8	DS5	Automatic start	18	DS6	Automatic mode
9	LDS7	Manual mode light	19	LDS6	Automatic mode light
10	DS7	Manual mode			

6.2.3 Description of operation：

Manual operation:

Turn to the manual position  ; the following 4 keys can start operating.



Select Auto start-point：

- No material in the spindle：

  When  is lightened, it is under manual mode. At this time please press  until original point of push bar to lighten, press  loading a new bar to V channel. When  and  are lightened, please press  and  , then start to change the bar automatically.

- Material in the spindle：

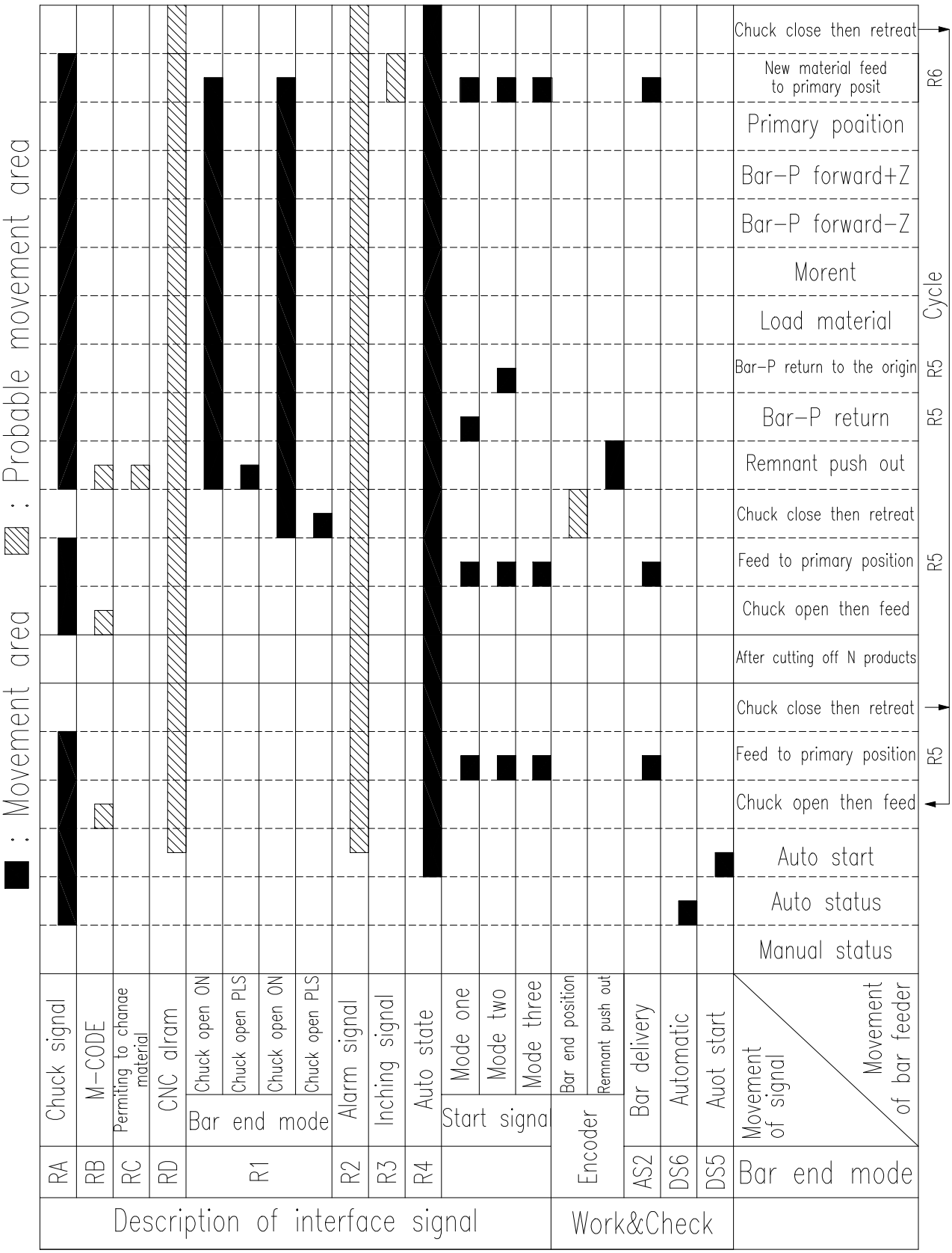
  When  is lightened, it is under manual mode. When  is lightened, at this time please press  and  , then start to manufacture automatically.

When you press the emergency stop, the power supply of motor will be shut off and it will show “Bar feeder emergency stop” on the human machine screen.

In Auto operation, if press the emergency stop or shift to manual or shut off power supply, it will be quitting of automatic mode. If you want to return to Auto operation, please return the emergency stop to the original status, and press automatic  , then press the start-key  .

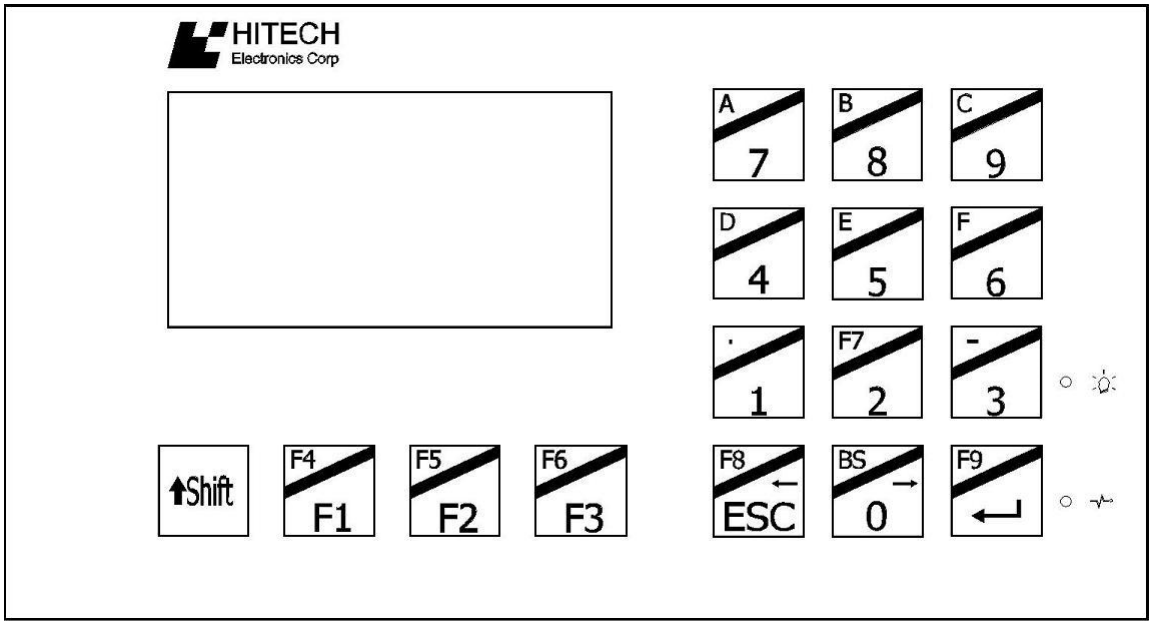
If the position of push bar cannot be in Zero while the push bar move backward in the origin please. Press   , then 3S will proceed the origin regression.

6.2.4 Working cycle—CNC lathe



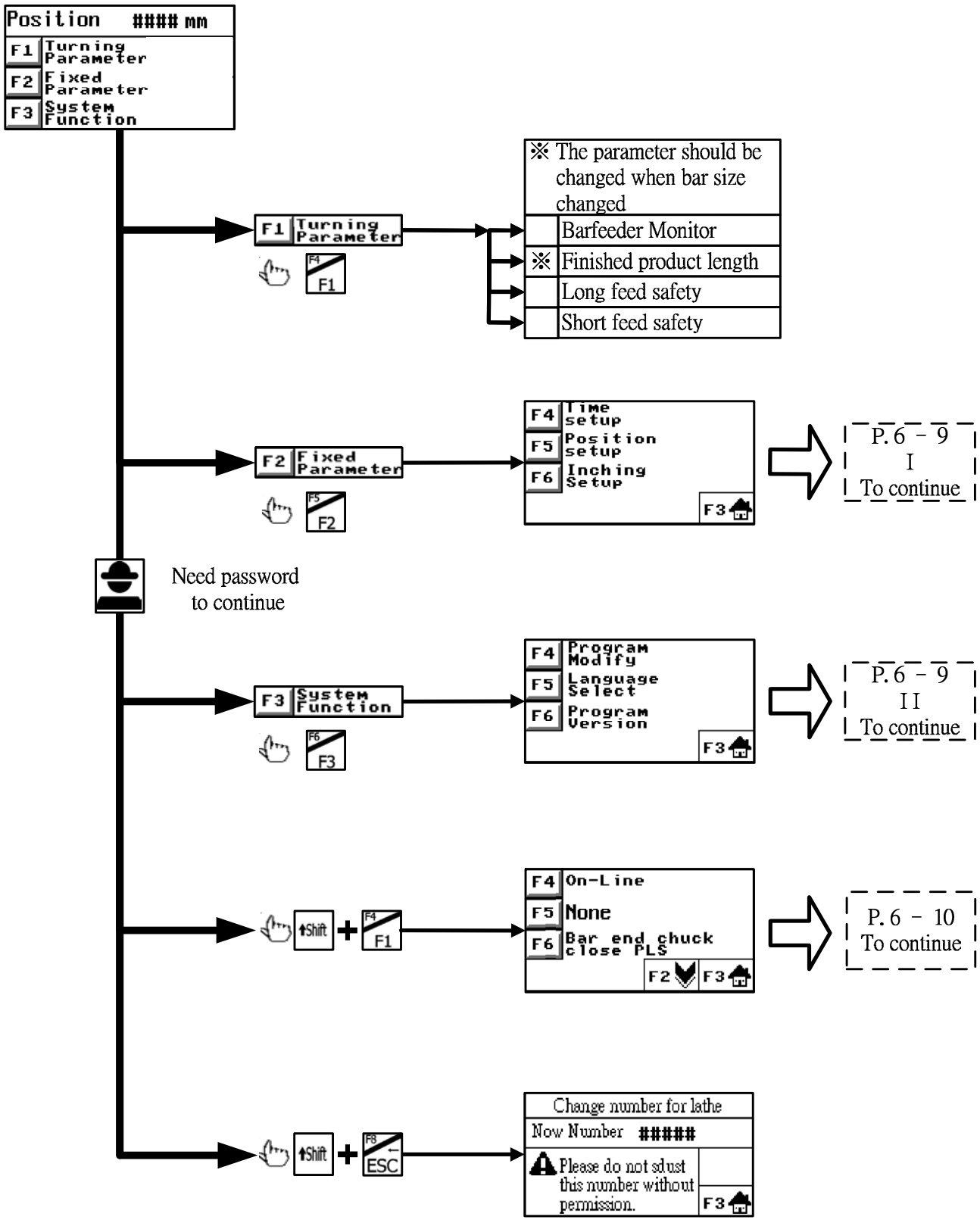
6.3 Description of settings and parameter

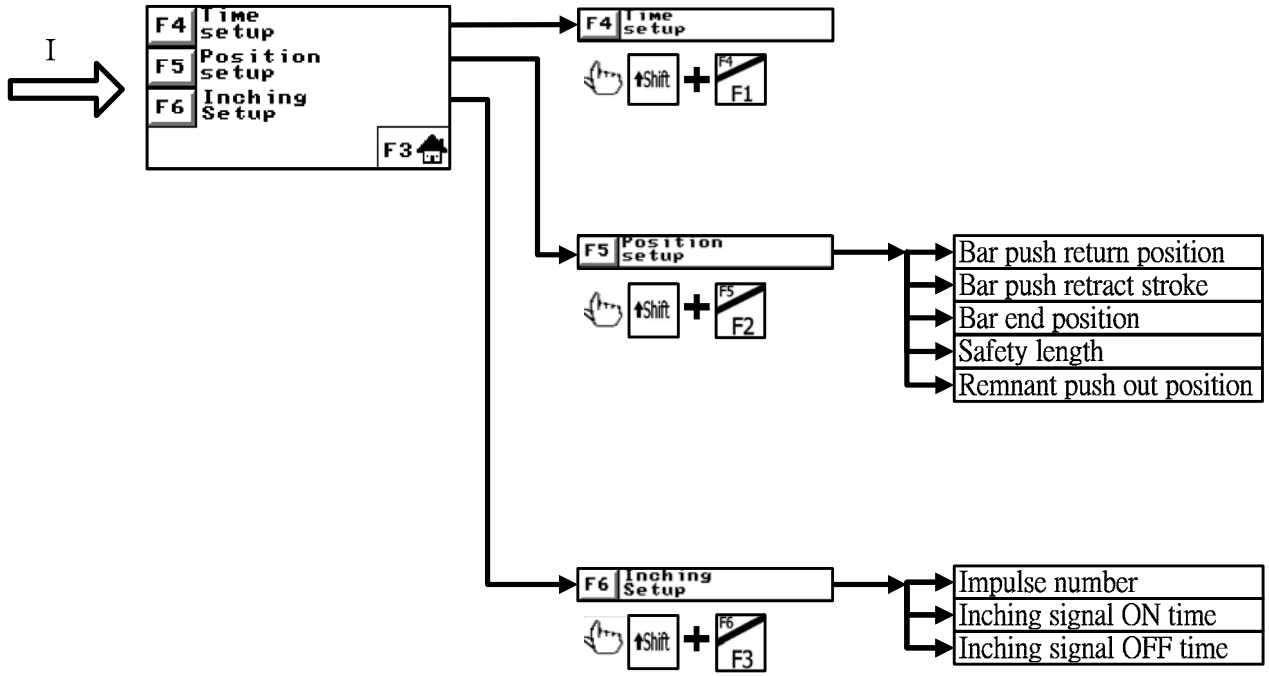
6.3.1 HMI Program selection

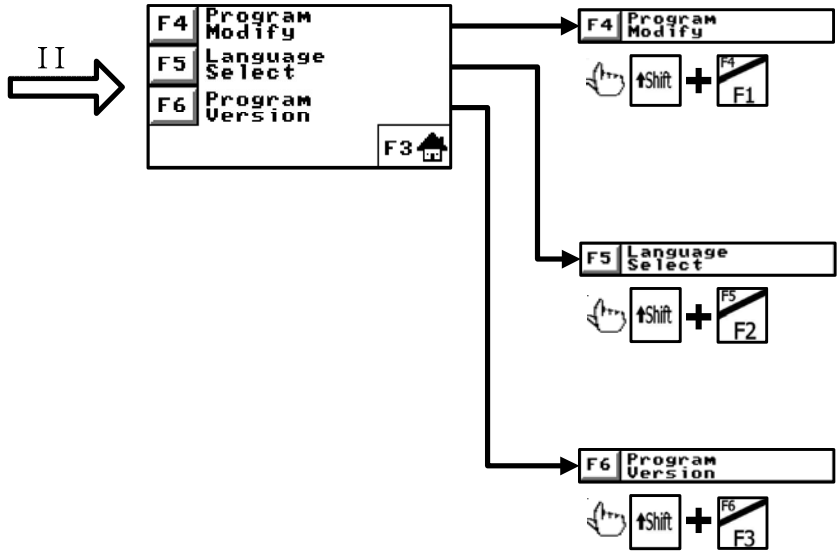


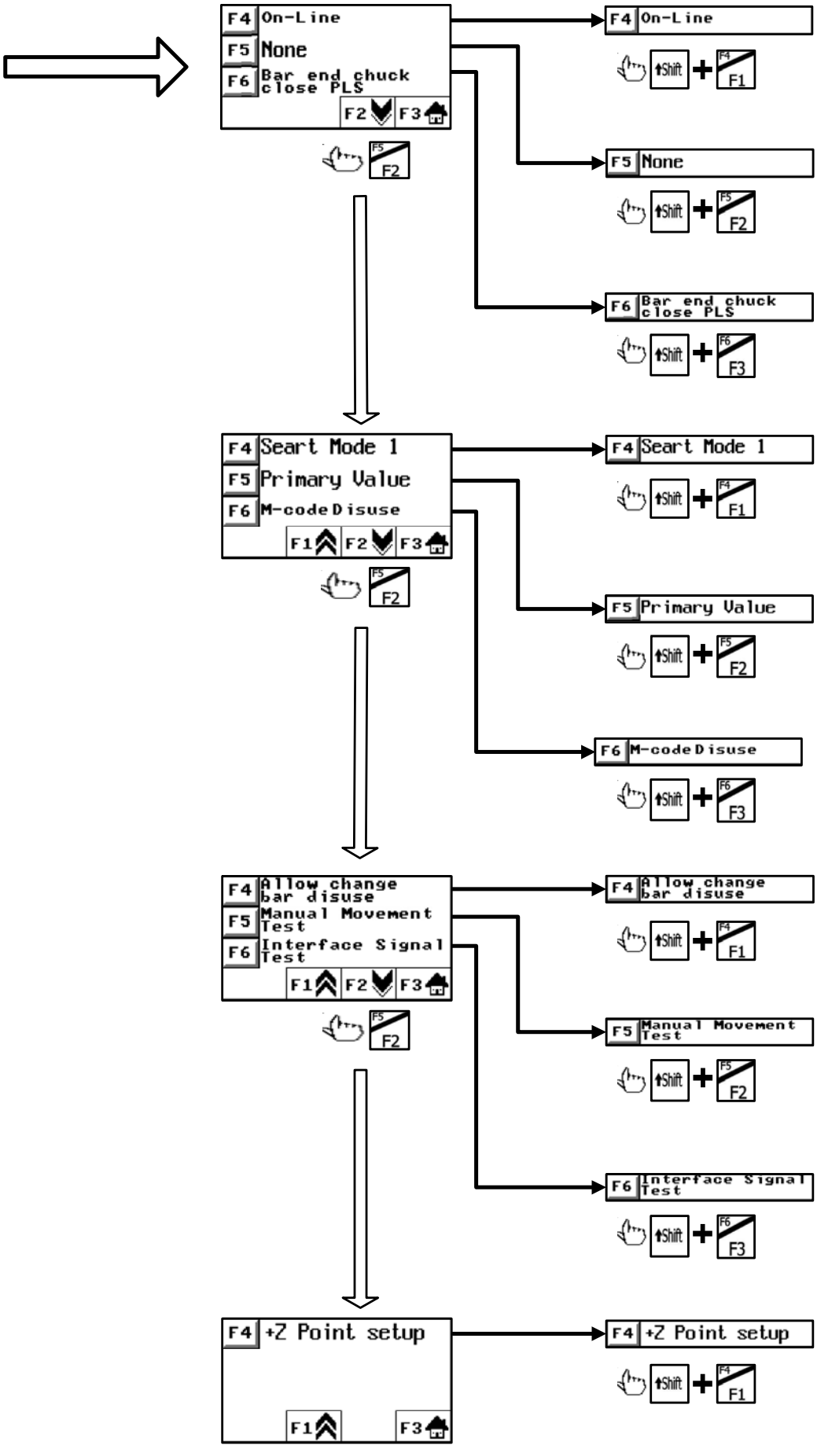
1. F1 F1 **Press the key :** F4 F1
2. F2 F2 **Press the key :** F5 F2
3. F3 F3 **Press the key :** F6 F3
4. F4 **Press the key :** Shift + F4 F1
5. F5 **Press the key :** Shift + F5 F2
6. F6 **Press the key :** Shift + F6 F3
7. F7 **Press the key :** Shift + F7 2
8. F8 **Press the key :** Shift + F8 ESC
9. F9 **Press the key :** Shift + F9

6.3.2 Parameter picture driftage



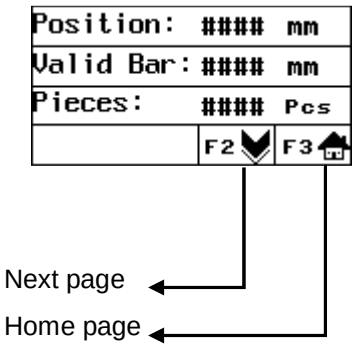

I
F4 Time setup
F5 Position setup
F6 Inching Setup
F3
F4 Time setup
↑Shift + F4 F1
F5 Position setup
↑Shift + F5 F2
Bar push return position
Bar push retrast stroke
Bar end position
Safety length
Remnant push out position
F6 Inching Setup
↑Shift + F6 F3
Impulse number
Inching signal ON time
Inching signal OFF time


II
F4 Program Modify
F5 Language Select
F6 Program Version
F3
F4 Program Modify
↑Shift + F4 F1
F5 Language Select
↑Shift + F5 F2
F6 Program Version
↑Shift + F6 F3

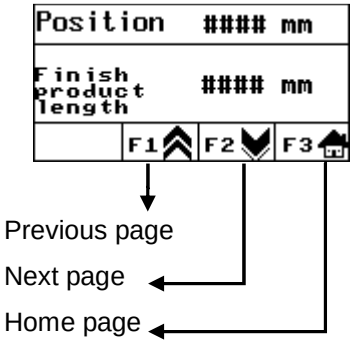

F4 On-Line
F5 None
F6 Bar end chuck close PLS
F2
F3
F5 F2
F4 On-Line
Shift + F4 F1
F5 None
Shift + F5 F2
F6 Bar end chuck close PLS
Shift + F6 F3
F4 Seart Mode 1
F5 Primary Value
F6 M-code Disuse
F1
F2
F3
F5 F2
F4 Seart Mode 1
Shift + F4 F1
F5 Primary Value
Shift + F5 F2
F6 M-code Disuse
Shift + F6 F3
F4 Allow change bar disuse
F5 Manual Movement Test
F6 Interface Signal Test
F1
F2
F3
F5 F2
F4 Allow change bar disuse
Shift + F4 F1
F5 Manual Movement Test
Shift + F5 F2
F6 Interface Signal Test
Shift + F6 F3
F4 +Z Point setup
F1
F3
F4 +Z Point setup
Shift + F4 F1

6.3.3 Description of settings and parameter

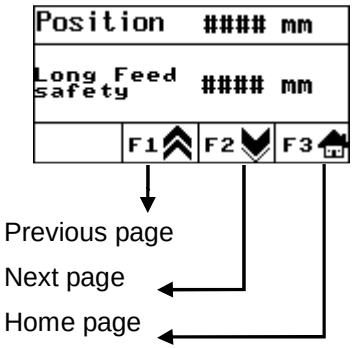
6.3.3.1 Turning parameter



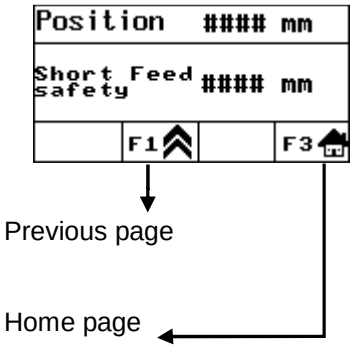
Parameter description：This monitor can watch present working status at any time. Watch item： 1：Push bar present position. 2：Remain effective working length of material. 3：Remain to wait for working quantities of work piece.			
1.2M Generally value：	NO	Setting range ：	NO
1.5M Generally value：	NO	Setting value ：	NO



Parameter description：The finished product length will be the workpiece length adding the cutter thickness. This parameter setting may affect the bar end setting. Setting method： Input the required length. For example： Workpiece 47mm + thickness of cutter 3mm = The finished product length 50mm. So we will set finished product Length to be 50mm.			
1.2M Generally value：		Setting range ：	0~500
1.5M Generally value：		Setting value ：	



Parameter description：This parameter setting will let feed material more stable and ensure the material to be sent to request location. But if no need to use this function that you can set it to be “0” directly. Setting method： This parameter will be finished product length to add 5 mm automatically after finished product length setting. This parameter can also be set finished product length to add tolerance. Ex： Finished product length + Tolerance = Long feed safety. Refer to figure 1：			
1.2M Generally value：		Setting range ：	0~500
1.5M Generally value：		Setting value ：	



Parameter description：This parameter setting will let feed material more stable and ensure the material to be sent to request location. But if no need to use this function that you can set it to be “0” directly.

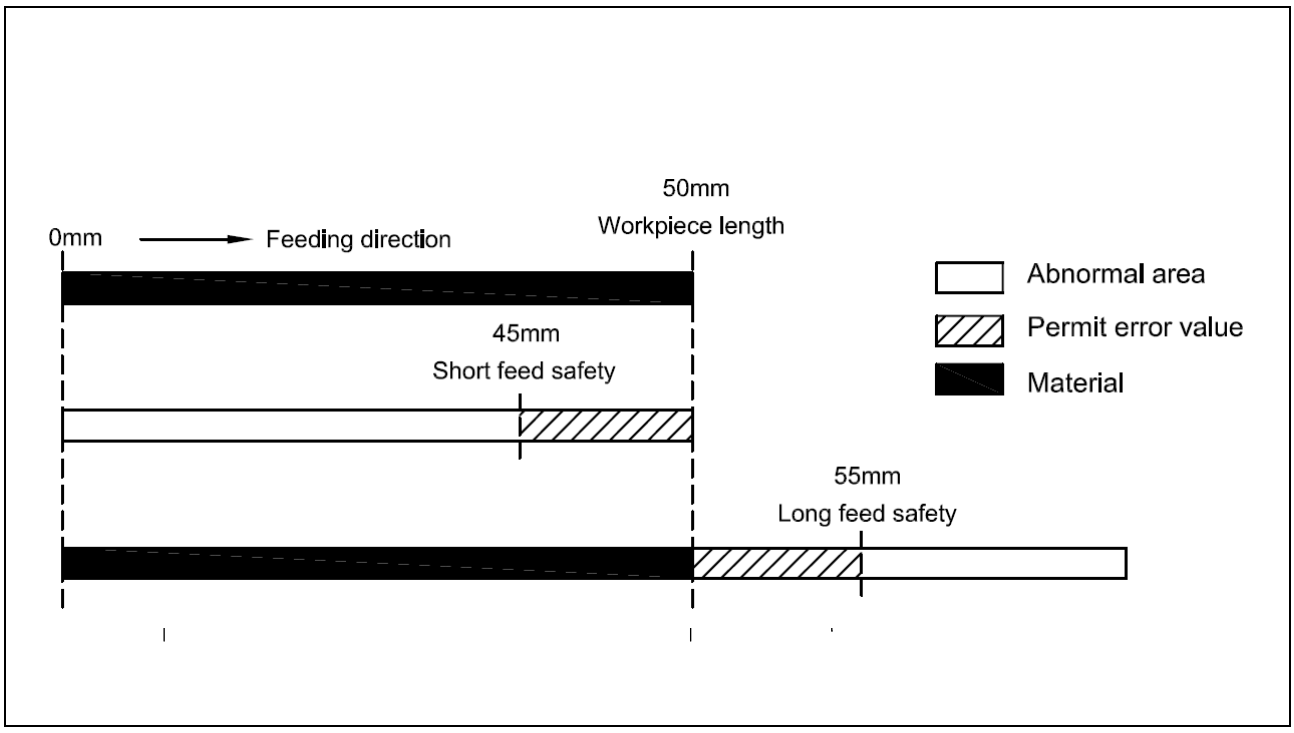
Setting method： This parameter will be finished product length to deduct 5 mm automatically after finished product length setting. This parameter can also be set finished product length to deduct tolerance.

Ex： Finished product length - Tolerance = Short feed safety.

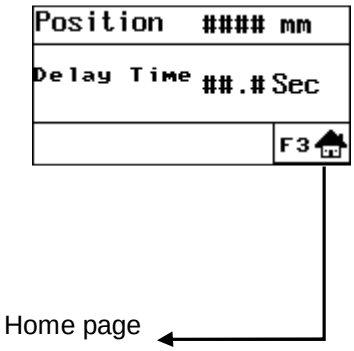
Refer to figure 1：

1.2M Generally value：	Setting range ： 0~500
1.5M Generally value：	Setting value ：

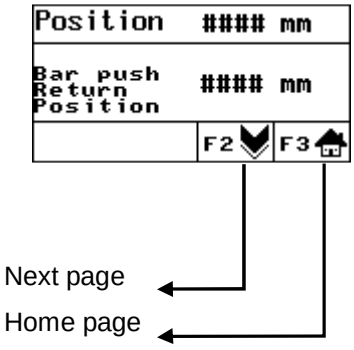
(Figure 1)



6.3.3.2 Fixed parameter / enter password“258”

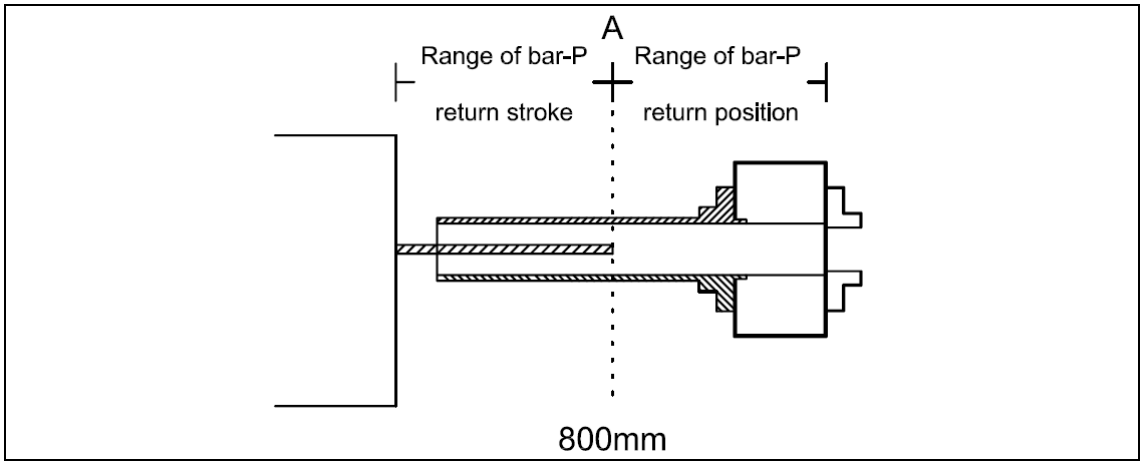


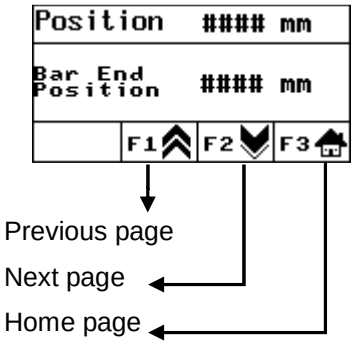
Parameter description：In order to prevent the material be pushed backward by the chuck while the chuck is closed and cause the material too short. Therefore, setting the parameter to delay the time of push bar retreat, but the time can’t be set too long, or else when the chuck be closed and spindle began to rotate, the chuck will crash with the push bar, and cause the damage of the push bar.	
Setting method： Enter the value directly that the push bar needs to be delayed.	
1.2M Generally value：	Setting range ： 0~10
1.5M Generally value：	Setting value ：



Parameter description：If bar pusher position is over than setting value that pusher will retreat to setting position when chuck close. In order to prevent friction and vibration caused from pusher going into the lathe spindle too long.	
Setting method： By manual operation let the bar pusher move into the spindle inside around 1 / 3 of its length. To ensure not to touch the spindle and input the current position.	
For example ： If the value of parameter is set to 800mm and the bar pusher is out of the A area, the bar pusher will retract to 800mm after chuck closed.	
Reference figure 2：	
1.2M Generally value：	Setting range ： 0~1700
1.5M Generally value：	Setting value ：

(Figure 2)





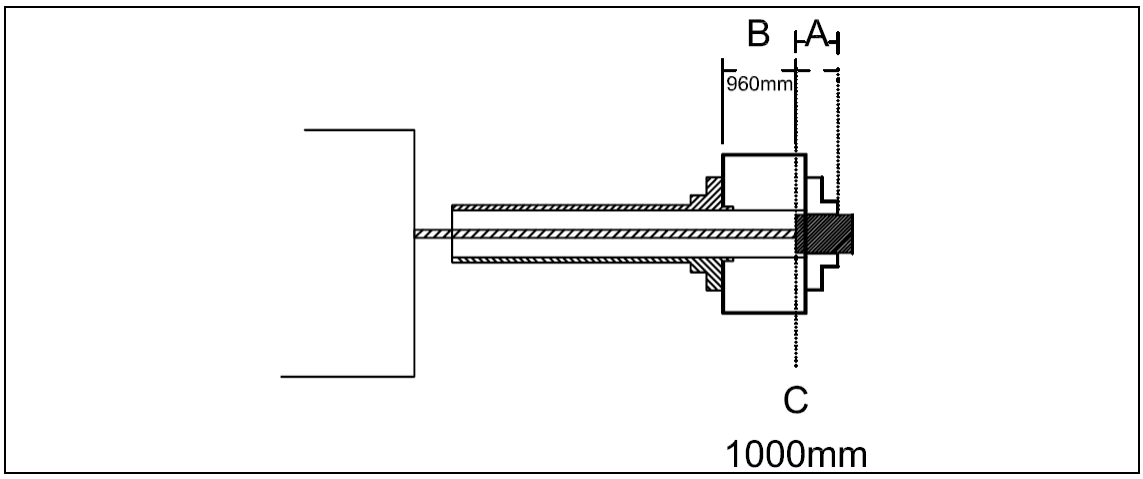
Parameter description：This position is the maximum working limit. If pusher position value is bigger than bar end setting that bar feeder will offer a bar end signal to notice lathe to prepare loading new bar material

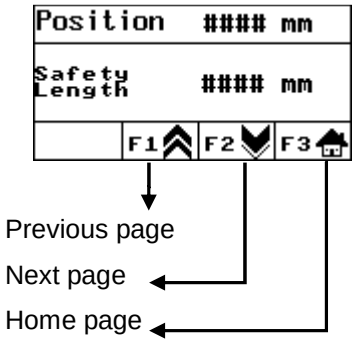
Setting Mode for fixed lathe：In the manual mode let pusher into lathe spindle until 5~10mm before lathe chuck . Then confirm the value of monitor to input it to be bar end position.

Ex： Reference figure 3, the distance of A is about 30 mm , C is the parameter of “Bar End Position”. If the length of product is 40 mm, the area of bar end range is 960 mm to1000 mm.

1.2M Generally value：	Setting range ： 0~1700
1.5M Generally value：	Setting value ：

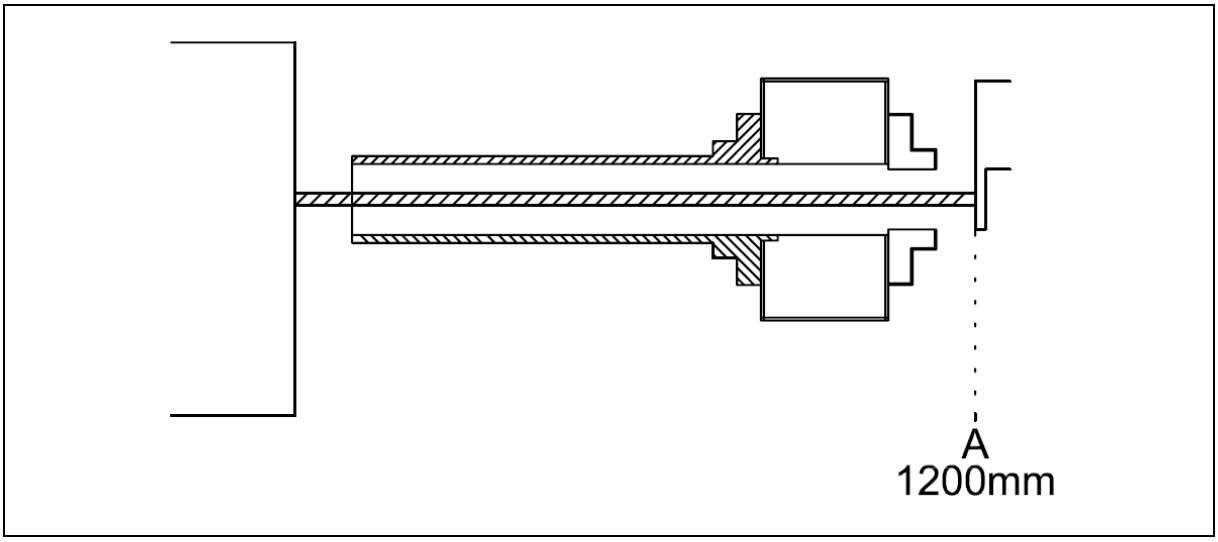
(Figure 3)

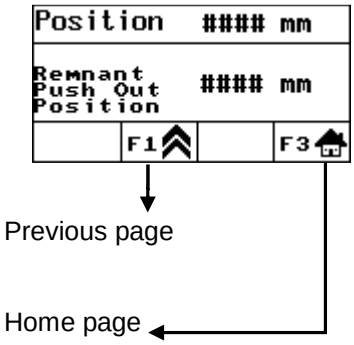




Parameter description：Chuck facing position is the distance between cutters facing detection to cutter facing position. We cannot know if the new bar material has been pushed to chuck facing position until loading a new bar material. Setting method： To measure the distance between chuck facing detection position and cutter position after center adjustment. Ex： Reference figure 4,push the bar pusher to the turret(position A),if the value display on Man Machine is 1200mm, so that 1700mm is the value of “Facing position”.	
1.2M Generally value：	Setting range ： 0~1700
1.5M Generally value：	Setting value ：

(Figure 4)





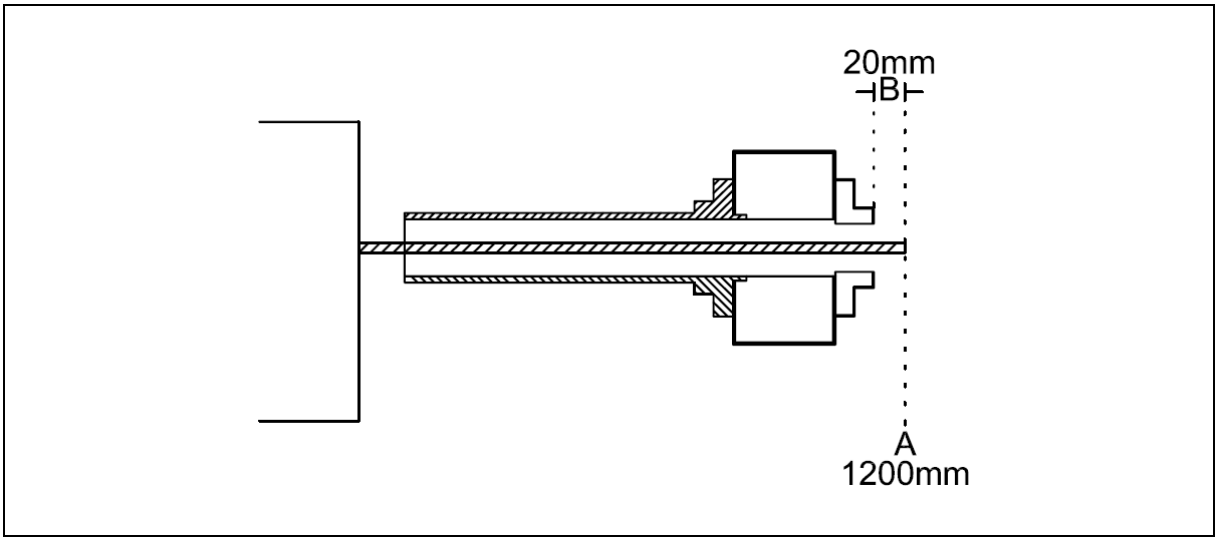
Parameter description：This distance is the position that bar pusher pushes out the remnant into the lathe.

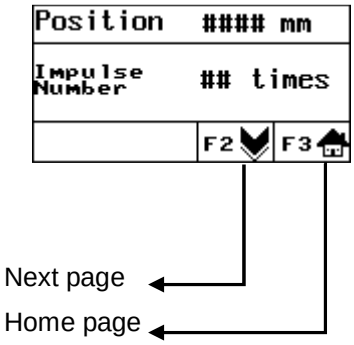
Setting method： Push the pusher to exceed chuck position 20mm by manual operation. Then confirm the value showing in monitor and input this value.

Ex： Reference figure 5 ,the distance of B is about 20mm ; The Position A is about 1200mm for the parameter of “Remnant Push out position.

1.2M Generally value：	Setting range ： 0~1700
1.5M Generally value：	Setting value ：

(Figure 5)

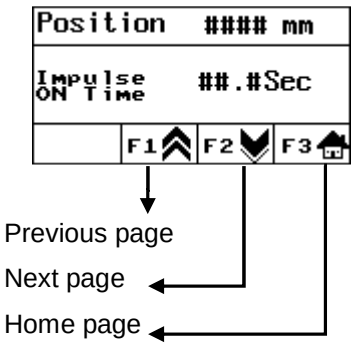




Parameter description：If the pusher cannot push the new bar material to chuck facing position because it is blocked or other reasons that the pusher will have inching movement. But if it exceeds setting frequency that bar feeder will Alarm.

Setting method： Input the required frequency.

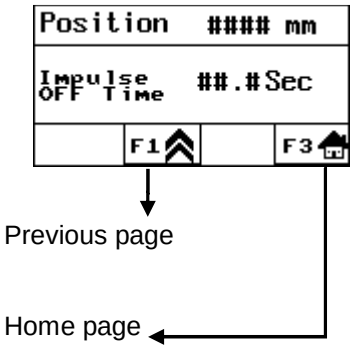
1.2M Generally value：	Setting range ： 0~50
1.5M Generally value：	Setting value ：



Parameter description：Set the starting time (ON) of bar pusher inching moves so that the chuck of lathe will move at the same time during bar feeder changes new bars.

Setting method： Input required time.

1.2M Generally value：	Setting range ： 0~10
1.5M Generally value：	Setting value ：

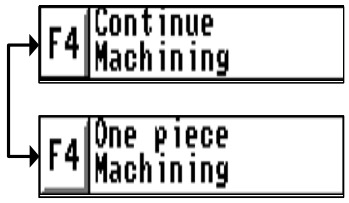


Parameter description：Set the ending time (OFF) of bar pusher inching moves so that the chuck of lathe will stop moving at the same time during bar feeder changes new bars.

Setting method： Input required time.

1.2M Generally value：	Setting range ： 0~10
1.5M Generally value：	Setting value ：

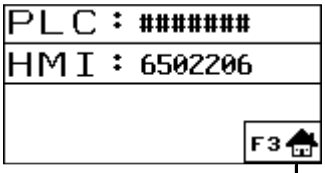
6.3.3.3 System function / enter password“258”



Parameter description：This function according to the necessaries of the operator provides selections to them. “Continue machining” means the quantity of a new material can be machined over one piece. But if a new material can be machined to one piece only, which named “One Piece Machining”.	
1.2M Generally value：	Setting range ： NO
1.5M Generally value：	Setting value ：

Home page

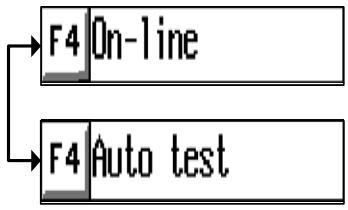
Parameter description：This bar feeder provides multi languages to select according to different requirements. At present provide： Chinese character/English / Simplified Chinese character	
1.2M Generally value：	Setting range ： NO
1.5M Generally value：	Setting value ：



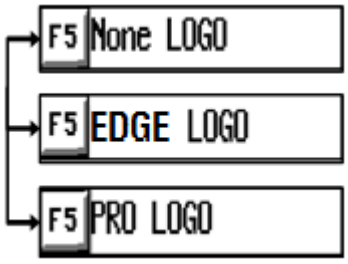
Home page

Parameter description：To verify the version number of PLC and HMI programs.	
1.2M Generally value：	Setting range ： NO
1.5M Generally value：	Setting value ：

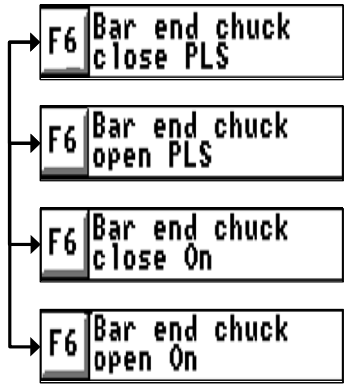
6.3.3.4 Particular program modify / enter password “258”



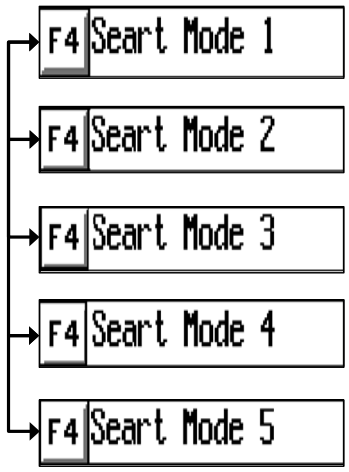
Parameter description：This function can shift the bar feeder connect with the lathe or auto test.		
1.2M Generally value：	Setting range ：	NO
1.5M Generally value：	Setting value ：	



Parameter description：This function can shift the Logo on the screen of the man machine.		
1.2M Generally value：	Setting range ：	NO
1.5M Generally value：	Setting value ：	

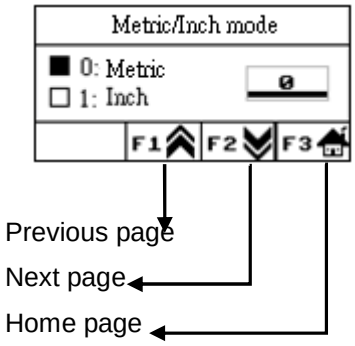


Parameter description：This is the bar feeder required a bar end signal to send the timing for CNC program, relative to the description of sequence, please refer to the description of sequence of movement signal in article 6.2.3.		
1.2M Generally value：	Setting range ：	NO
1.5M Generally value：	Setting value ：	



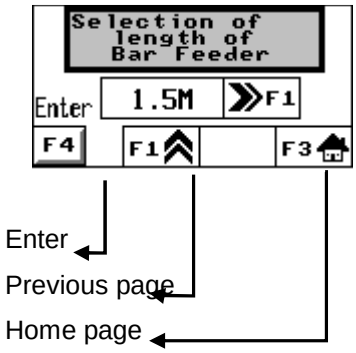
Parameter description：This is the bar feeder required a start signal to send the sequence for CNC program, relative to the description of sequence, please refer to the description of sequence of movement signal in article 6.2.3.

1.2M Generally value：	Setting range ：	NO
1.5M Generally value：	Setting value ：	



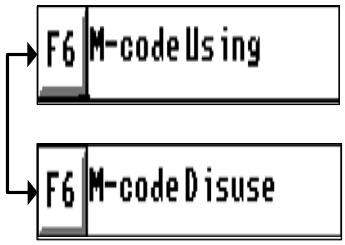
Parameter description：Please confirm the value of PLC input and output. Then transfer their unit to mm or inch.

1.2M Generally value：	Setting range ：	NO
1.5M Generally value：	Setting value ：	



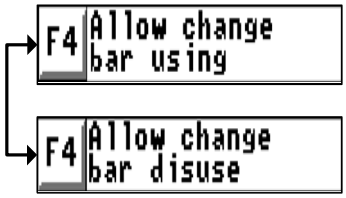
Parameter description：Set all parameters to factory value. Select the correct length of bar feeder to proceed. Otherwise may cause problems.

1.2M Generally value：	Setting range ：	NO
1.5M Generally value：	Setting value ：	



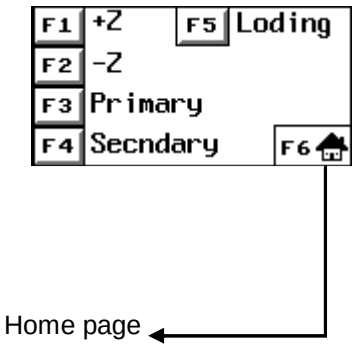
Parameter description：The lathe gives a feeding signal to the bar feeder are two modes:
1. Chuck Signal 2. M-Code.
If the interface of lathe and bar feeder only connect “Chuck Signal”, please set for “0: M-Code No Use”.
If the interface of lathe and bar feeder connect “Chuck Signal” and “M-Code”, please set for “1: M-Code Use”.

1.2M Generally value：	Setting range ： NO
1.5M Generally value：	Setting value ：



Parameter description：The lathe gives a changing bar signal to the bar feeder are two modes:
1. Chuck Signal 2. Permit to change bar signal.
If the interface of lathe and bar feeder only connect “Chuck Signal”, please set for “0: Permit to change bar signal No Use”.
If the interface of lathe and bar feeder connect “Chuck Signal” and “Permit to change bar signal”, please set for “1: Permit to change bar signal Use”.

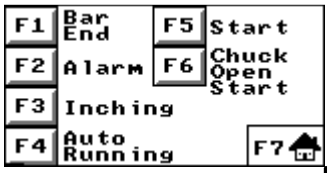
1.2M Generally value：	Setting range ： NO
1.5M Generally value：	Setting value ：



Parameter description：The monitor display as Y0~Y4 on the screen when operating F1~F5, therefore it advantage to according to the PLC output.
F1：＋Z (Y0) F3：Primary (Y2)
F2：–Z (Y1) F4：Secondary (Y3)
F5：Loding (Y4)

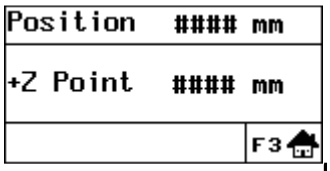
Note： When operating primary and secondary function, it must backward to the max for the next operation.

1.2M Generally value：	Setting range ： NO
1.5M Generally value：	Setting value ：



Home page

Parameter description：This parameter allow technician to test each signal output on interface is continued to lathe. Setting method： To executive this parameter must be under manual mode both lathe and bar feeder or could cause danger.	
1.2M Generally value：	Setting range ： NO
1.5M Generally value：	Setting value ：

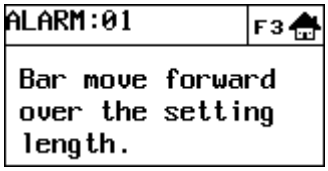
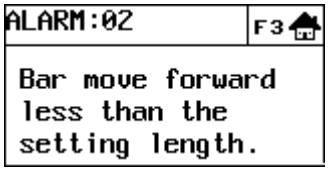
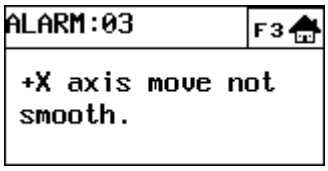
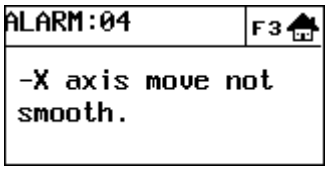
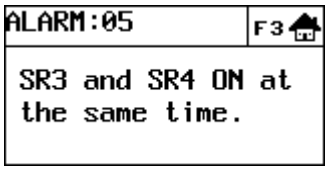
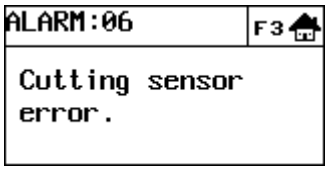
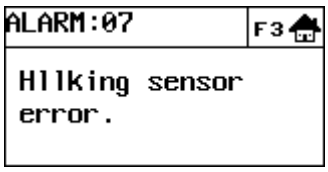
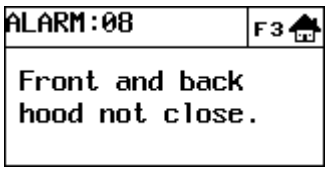


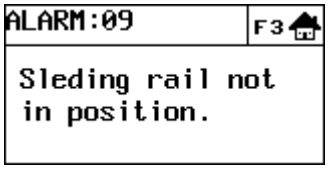
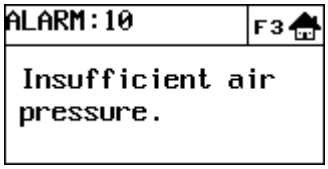
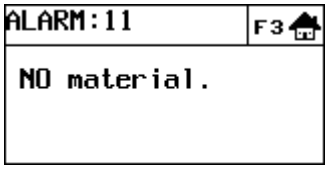
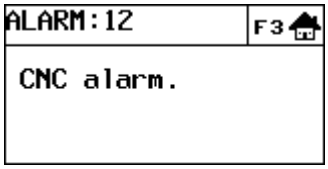
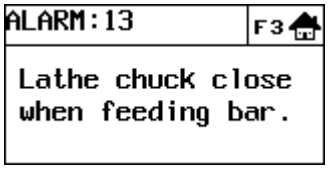
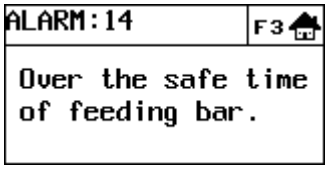
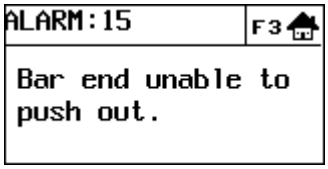
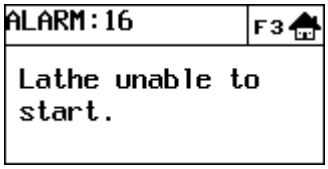
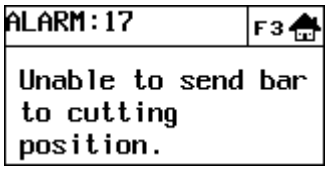
Home page

Parameter description：+Z point (It has been set up in the factory.) (1) It is the last position for loading. (2) To send the feeding bar to the last position at a time from the secondary position, at this moment, the present digit minus 5 that is the +Z point value.	
1.2M Generally value：	Setting range ： 1200~1700
1.5M Generally value：	Setting value ：

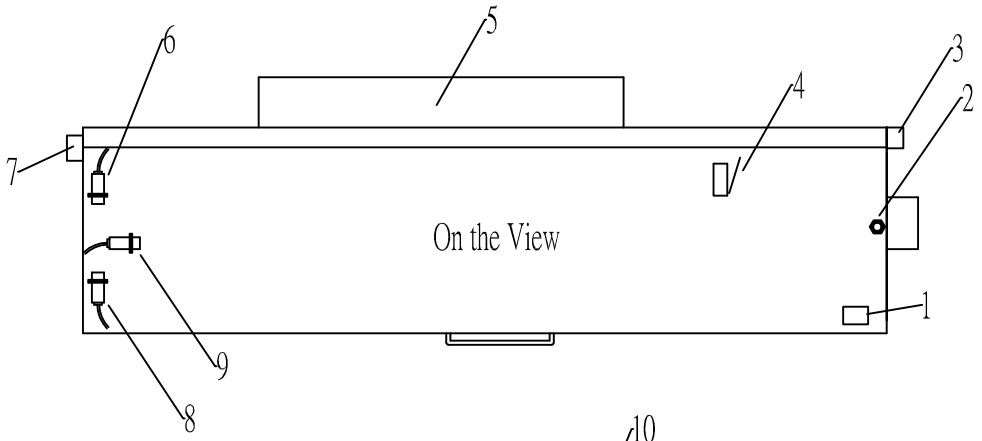
6.4 Refer alarm message

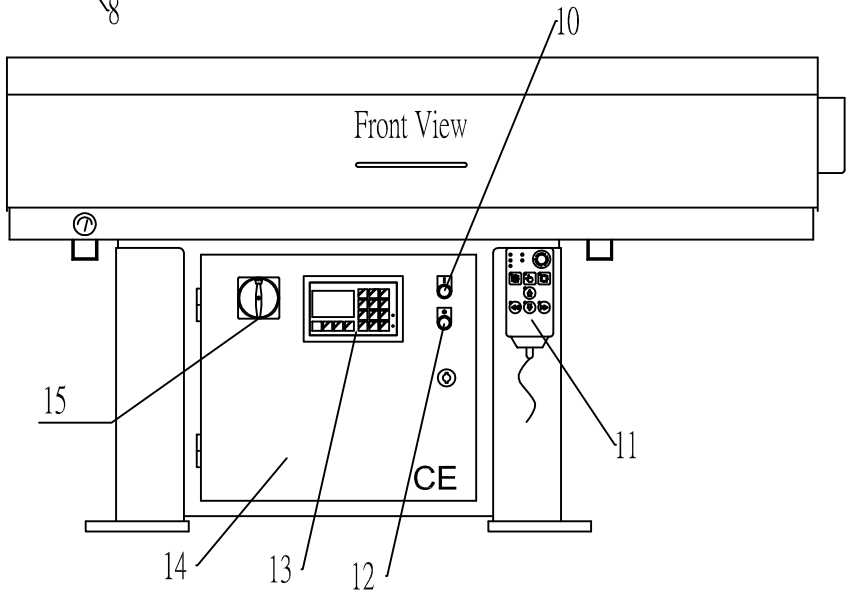
6.4.1 HMI Alarm Message

ERROR / CAUSE	CURE
	※ Please check the value of long feed safety is correct ※ Check the turret whether at correct position of stopping material
	※ Please check the value of short feed safety is correct ※ Check the turret whether at correct position of stopping material.
	※ Check compressed air whether enough. ※ Pull out the tube of the combination unit and then insert the tube again.
	※ Check compressed air whether enough. ※ Pull out the tube of the combination unit and then insert the tube again.
	※ Please refer to electrical diagram (P.01), check SR3 andSR4 whether have foreign metals adhere to them.
	※ Please refer to electrical diagram (P.01), check LS2 whether be jammed by any foreign object.
	※ Please refer to electrical diagram (P.01) , check LS1 whether be jammed by any foreign object.
	※ Please refer to electrical diagram (P.01), LS3 and LS4 are operative while SS1 is opened. ※ Please close the covers.

ERROR / CAUSE	CURE
	※ Please refer to electrical diagram (P.01) , LS5 is operative while SS1 is opened. ※ Please push the bar feeder to correct position of working.
	※ Check the pressure of the compressed air. ※ Please refer to electrical diagram (P.02), check AS1 whether breakdown.
	※ Please check whether have any material on the bar feeder or in the spindle.
	※ Before machining, please solve the alarm of CNC.
	※ Please check the start signal sent from the bar feeder whether correct of CNC's sub-program.
	※ Please check whether the bar feeder feeding smoothly。 ※ Please check whether the new material is lodged out of the spindle.
	※ When the program of the CNC runs to sub-program, check whether the return stroke of axis Z is enough to push out remnant. ※ Check whether the value of "Remnant push out" is correct, Setting method refer to(page6-17)
	※ Please check whether the interface signal code R5 Relay has motion. ※ Check whether the lathe receive the signal from R5 Relay.
	※ Please check the setting of facing position. Please refer to (page 6-16)

A4





NO.	PART NO.	CODE	NAME
1.	J311701	SS1	SAFETY SWITCH
2.	J310403	LS2	DETECT MATERIAL
3.	J311801	LS4	DETECT BACK COVER
4.	J311201	LS1	DETECT FOR LOADING
5.			SOLENOID VALVES(refer P.04)
6.	J310308	SR3	DETECT PRIMARY POSITION
7.	J311801	LS3	DETECT THE FRONT COVER
8.	J310309	SR4	DETECT MOVEMENT
9.	J310307	SR2	DETECT -Z POINT
10.	J311502	PB1	POWER ON SWITCH
11.			CONTROL BOX (REFER TO P.03)
12.	J311503	PB2	POWER OFF SWITCH
13.	J210502	HMI	HUMAN MACHINE INTERFACE
14.			REMOTE CONTROL BOX
15.	J310501	CS1	POWER SWITCH

BAR FEEDER TYPE: V-65E-CE-A

LATHE NAME:

LATHE TYPE:

EDGE TECHNOLOGIES
A DIVISION OF HYDROMAT INC

FIRST DATE	REVISION DATE	MAIN VOLTAGE	SIGNAL VOLTAGE	PAGE
2013 / 08 / 30	2016 / 03 / 31	220 VAC 3-PHASE	24VDC	P. 01

DRAWN BY:

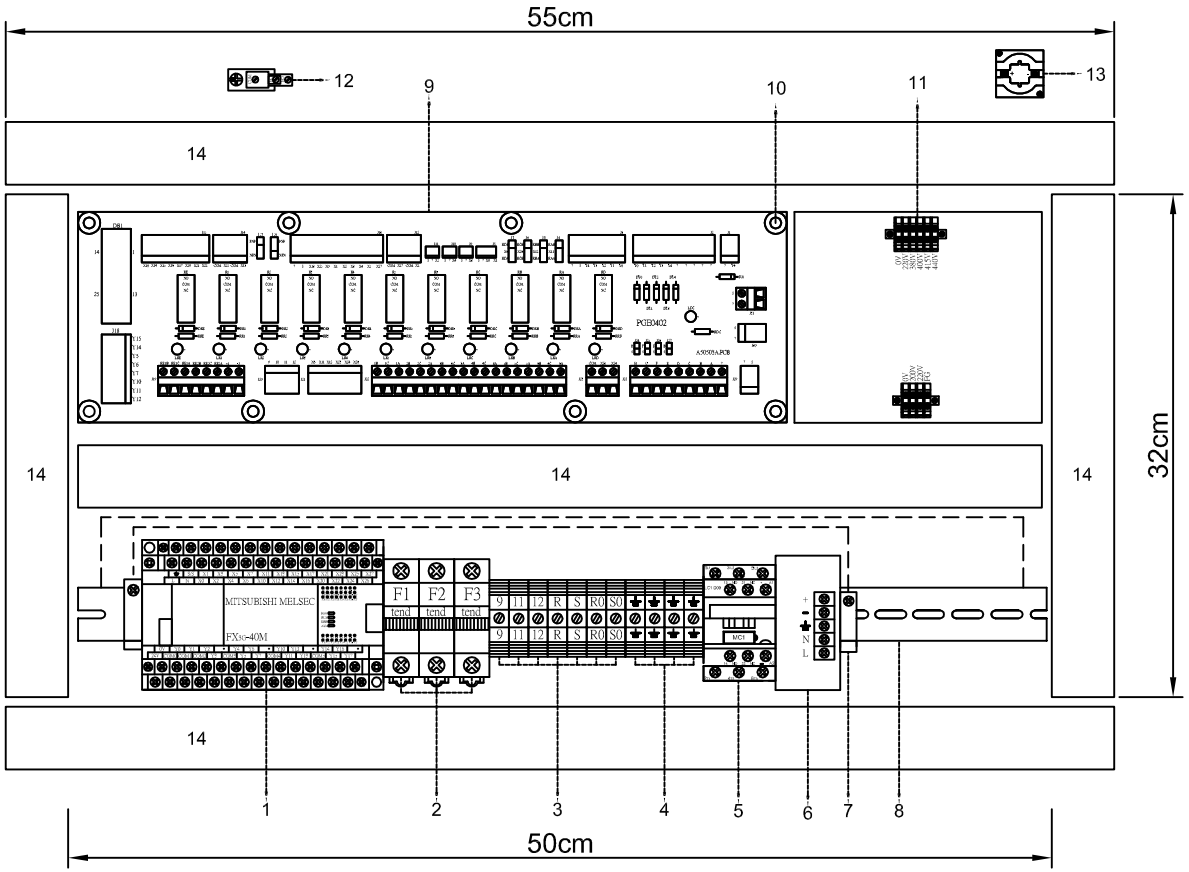
CHECKED BY:

DESCRIPTION: Machine electricity position

DRAWING NO.: JV-65EA1(CE)(MIX)-EG

VERSION: B0

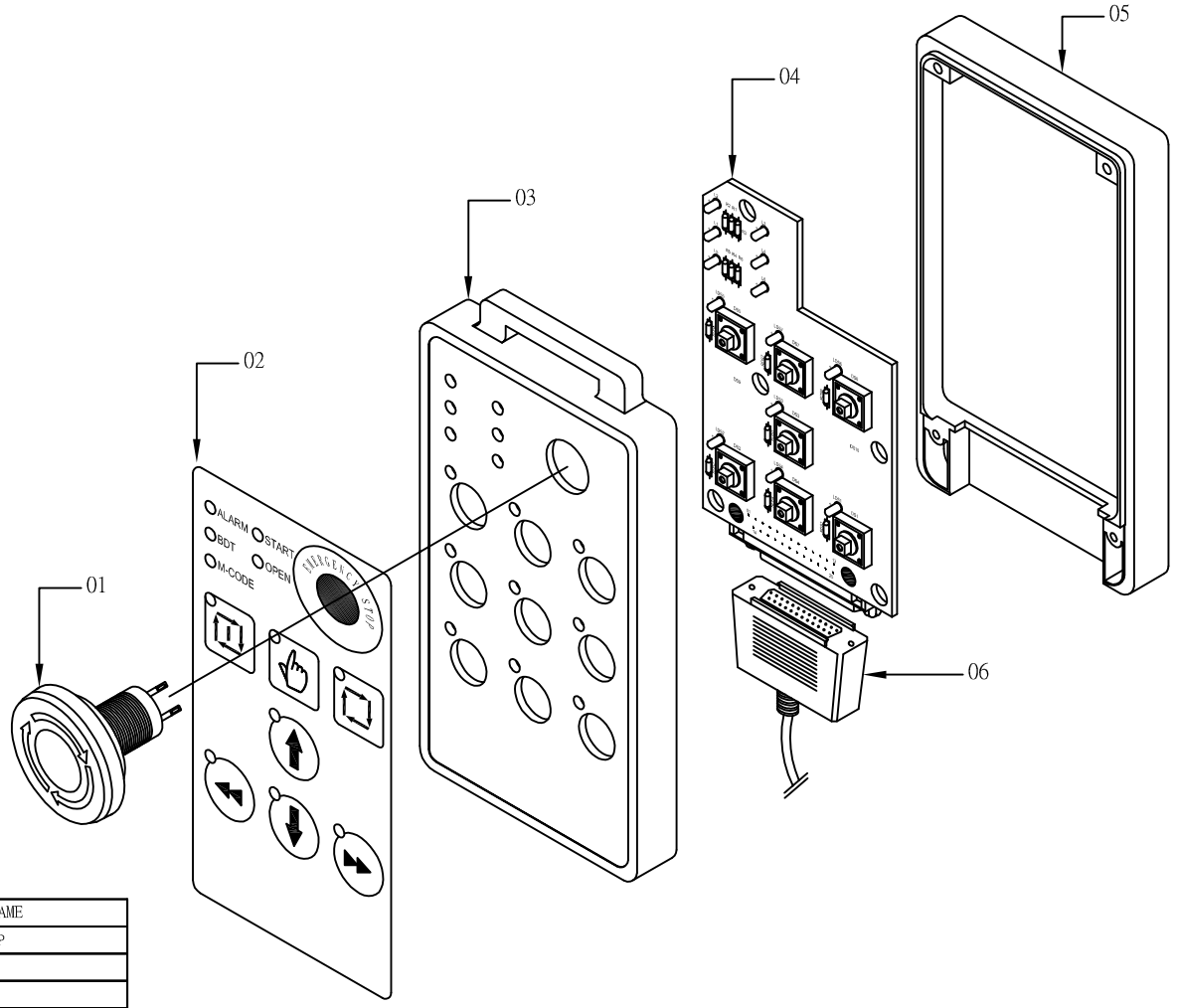
A4

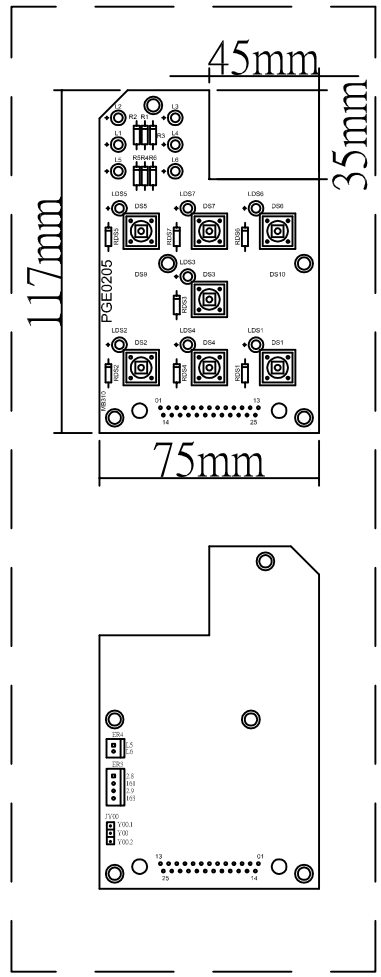


NO.	PART NO.	CODE	NAME	NO.	PART NO.	CODE	NAME
1.	J221010	PLC	PROGRAMMABLE LOGIC CONTROLLER	9.	J511400	MPCB	MAIN PC RELAY BOARD
2.	J312102	F1 F2 F3	FUSE BLOCK	10.	J631101		Spacer BS-19A
	J312103	F1 F2 F3	FUSE (10x38mm 4A)	11.	J110504	TR	TRANSFORMER
3.	J610501	TB	TERNINAL BLOCKS(Gray)	12.	A12120300	AS1	DETECT PRESSURE
4.	J610502	TB	TERNINAL BLOCKS(Green)	13.	J312200	BZ	BUZZER DC24V
5.	J312702	MC	MAGNETIC CONTACTOR	14.	J620302		WIRING DUCT
6.	J230101	PS	POWER SUPPLY				
7.	J631401		Brake Pads				
8.	J630801		Aluminum rails 35mm				

BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 02
LATHE NAME		DRAWN BY	CHECKED BY	DESCRIPTION: Distribution of Electric parts		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG		VERSION: B0

EDGE TECHNOLOGIES
A DIVISION OF HYDROMAT INC





NO.	PART NO.	CODE	NAME
01	J310702 + J460340	ES2	EMERGENCY STOP
02	G91120401		PASTER
03	G91120500		TOP
04	J510400	MPCB	PC BOARD
05	G91120600		BOTTOM
06	J420600		CABLE

BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 03
LATHE NAME		DRAWN BY	CHECKED BY	DESCRIPTION: DECOMPOSITION OF REMOTE CONTROL PENDANT		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG		VERSION: B0

EDGE TECHNOLOGIES
A DIVISION OF HYDROMAT INC

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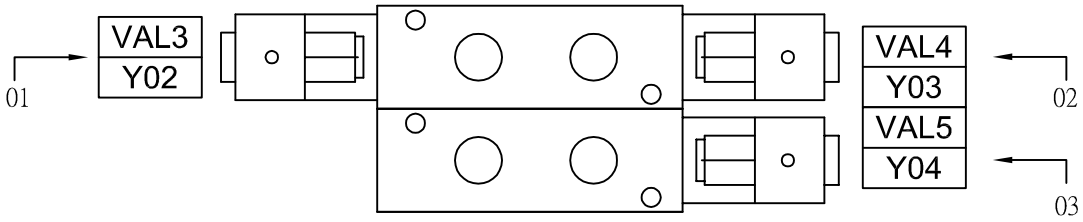
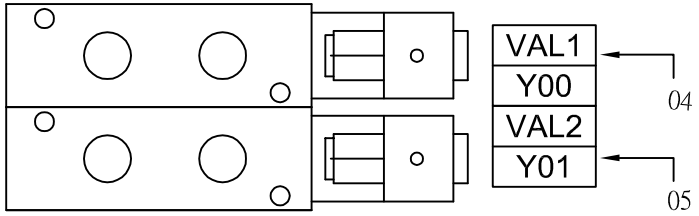
SOLENOID VALVE DIAGRAM 1

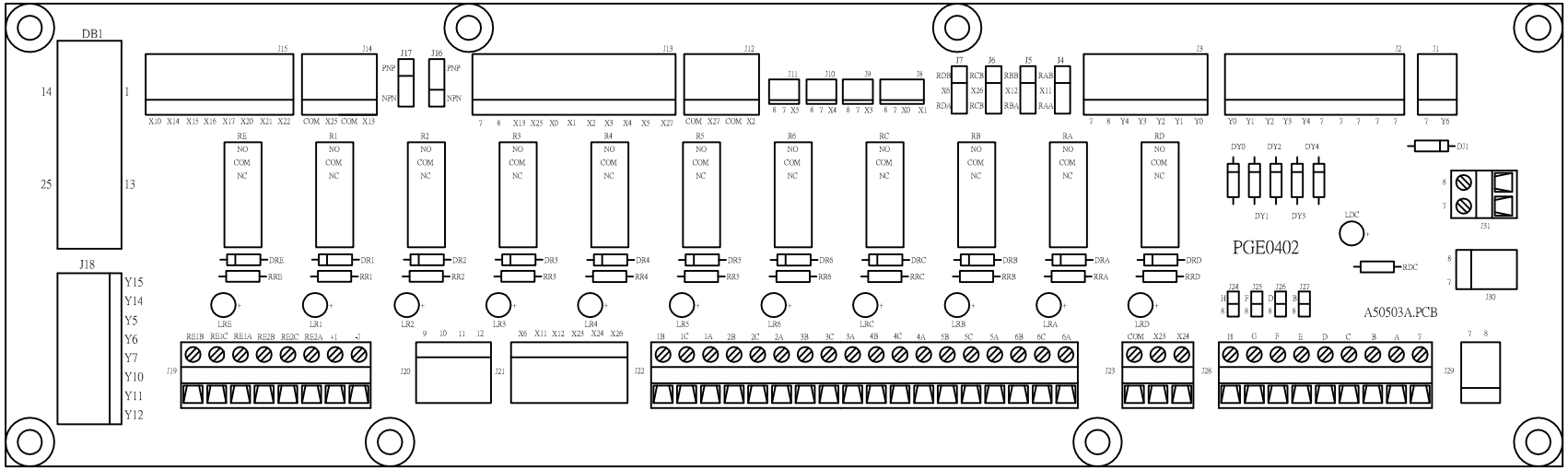


SOLENOID VALVE DIAGRAM 2



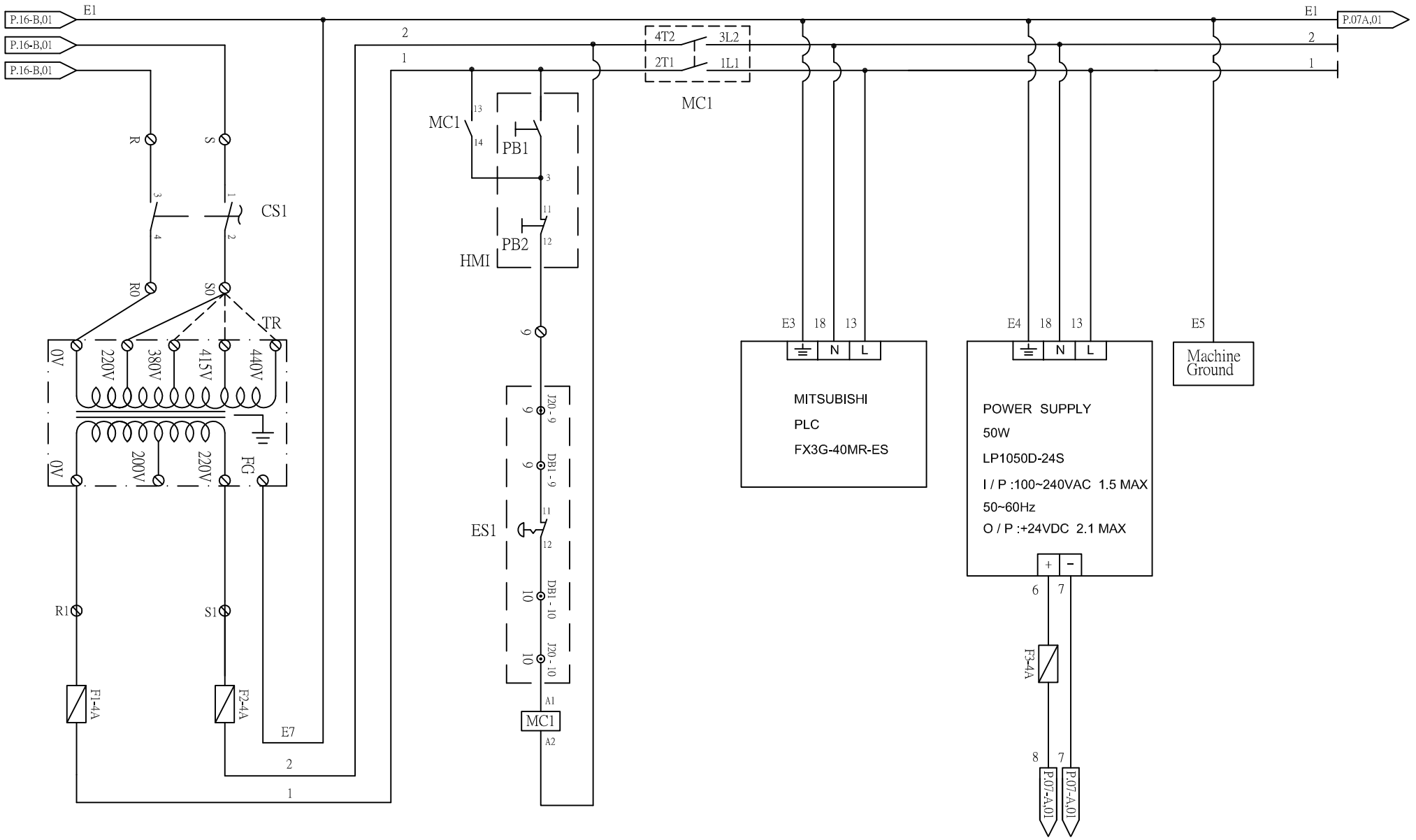
NO.	PART NO.	CODE	NAME
01	A12120200	VAL3	MOTION OF PRIMARY POSITION
02		VAL4	MOTION OF MOVING
03	A12120100	VAL5	MOTION OF LOADING MATERIAL
04	A12120100	VAL1	BAR-PUSHER FORWARD +Z
05	A12120100	VAL2	BAR-PUSHER BACKWARD -Z

BAR FEEDER TYPE: V-65E-CE-A	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC	FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 04
LATHE NAME		DRAWN BY	CHECKED BY	DESCRIPTION: Solenoid valves position		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG		VERSION: B0

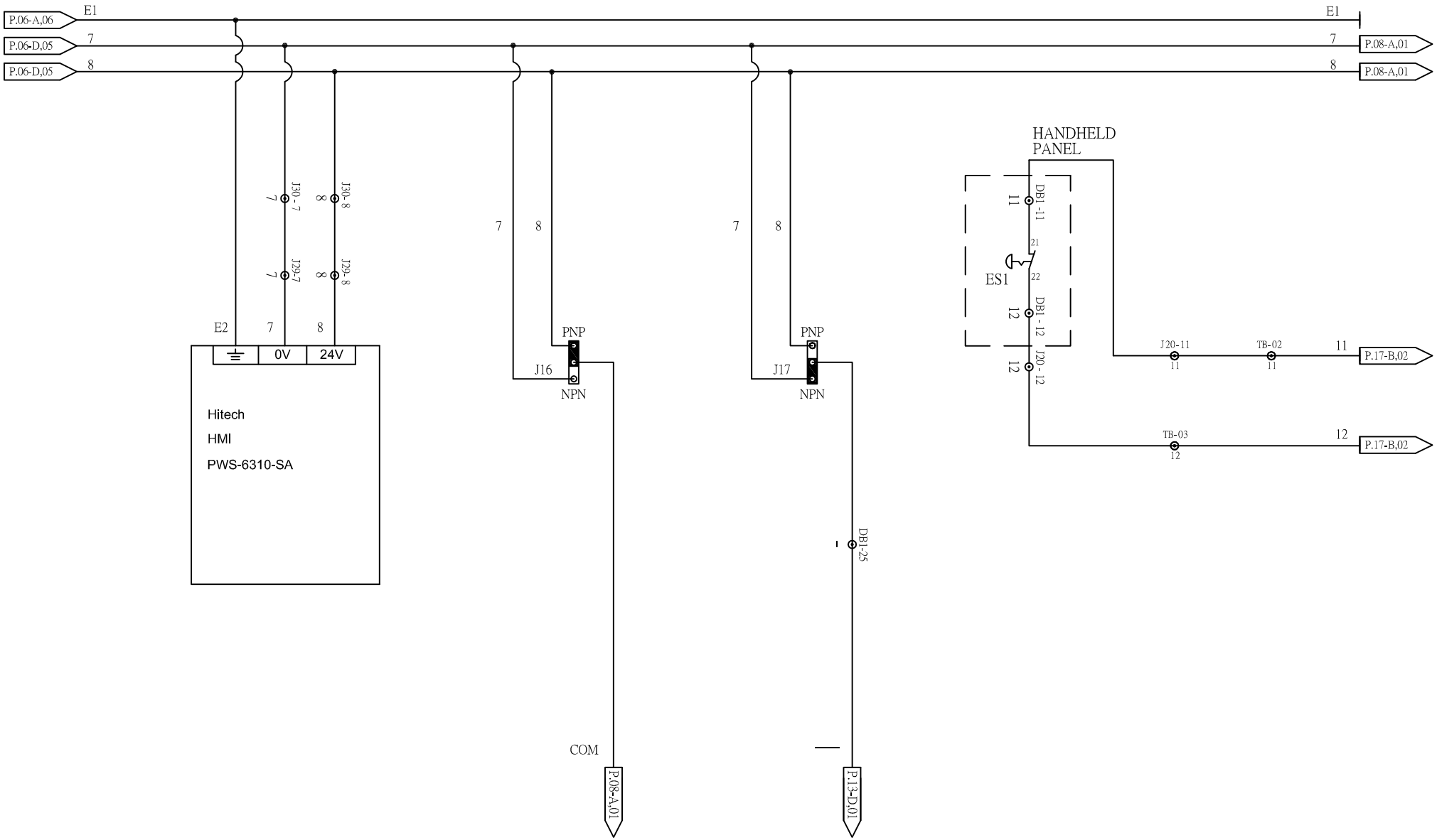


NO.	PART NO.	CODE	NAME
01	J310201	R1~R16	Relay

BAR FEEDER TYPE: V-65E-CE-A	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE / SIGNAL VOLTAGE: 24VDC / PAGE: P. 05
LATHE NAME			DRAWN BY	CHECKED BY	DESCRIPTION: Main PC board
LATHE TYPE					DRAWING NO.: JV-65EA1(CE)(MIX)-EG / VERSION: B0

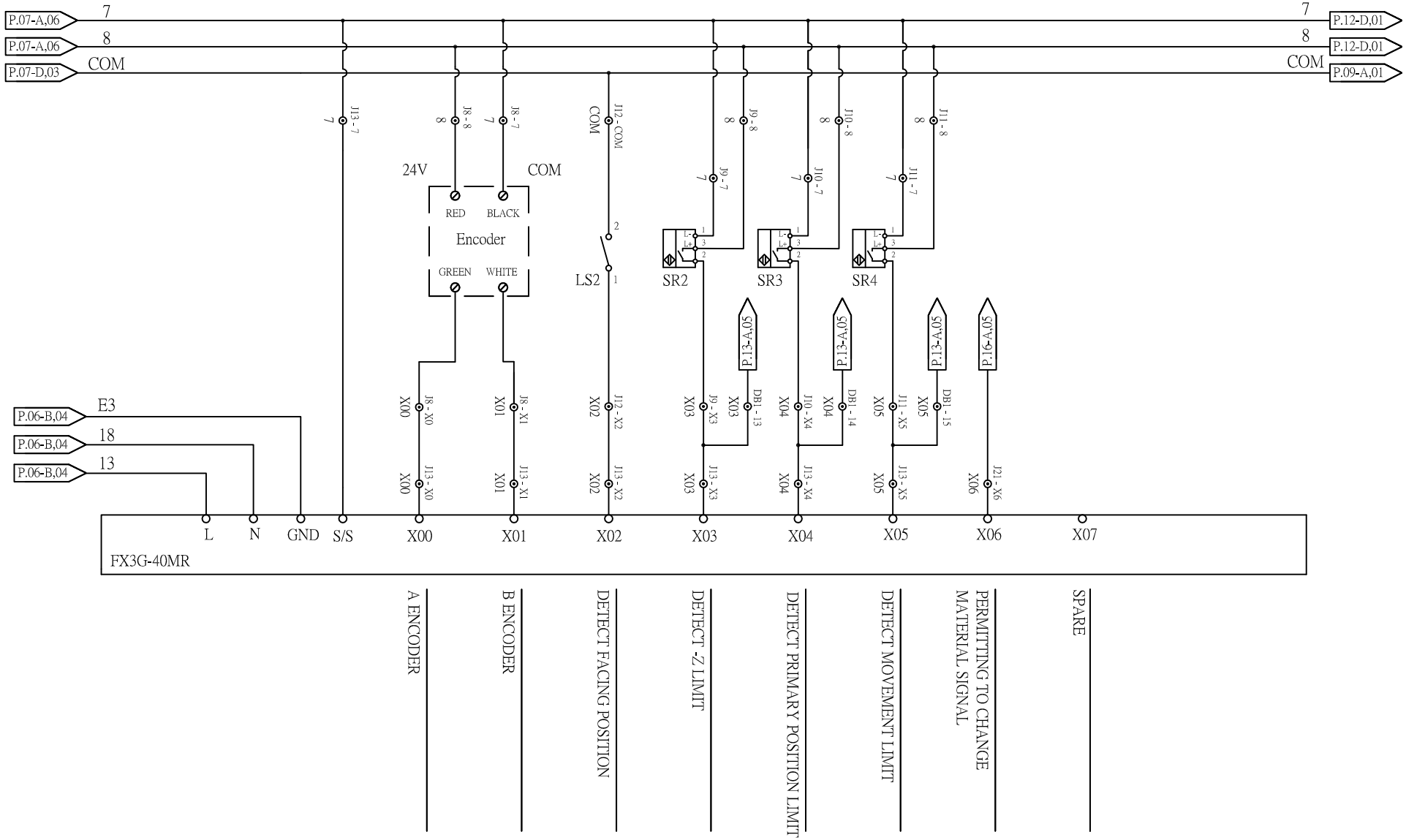


BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 06
LATHE NAME	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC	DRAWN BY	CHECKED BY	DESCRIPTION: Main circuit 1		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0	



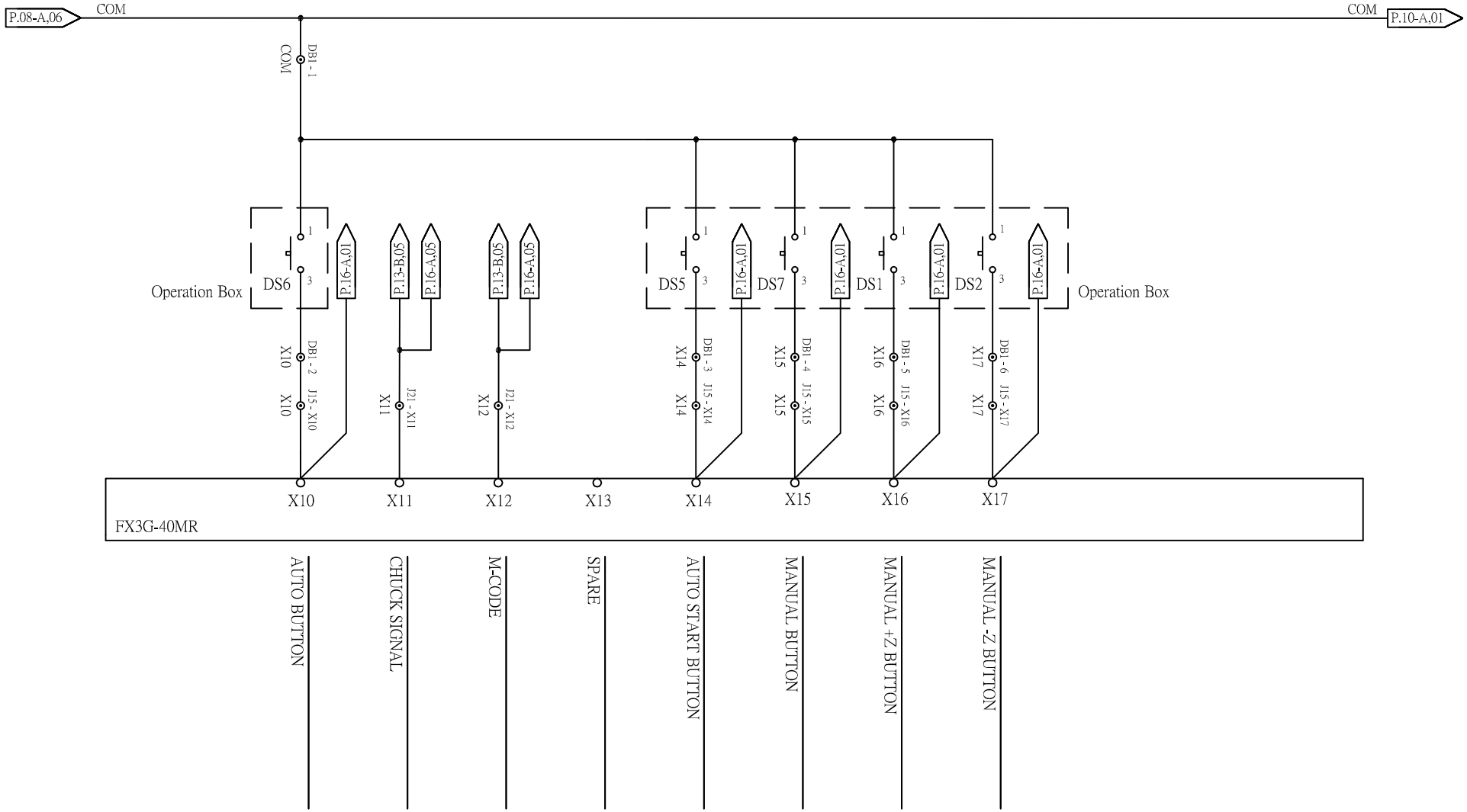
BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 07
LATHE NAME		DRAWN BY	CHECKED BY	DESCRIPTION: Main circuit 2		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG		VERSION: B0

EDGE TECHNOLOGIES
A DIVISION OF HYDROMAT INC



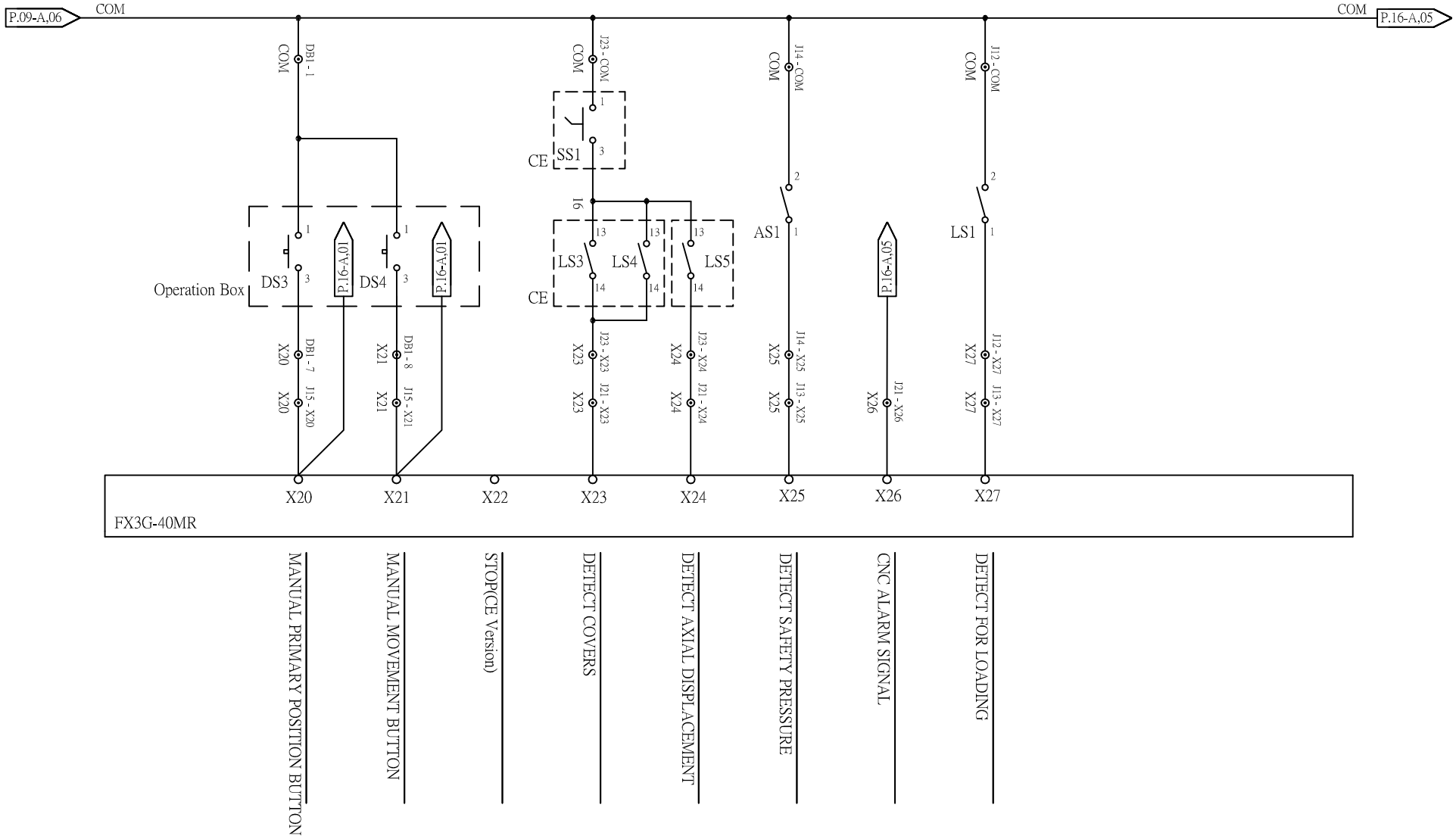
BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 08
LATHE NAME		DRAWN BY	CHECKED BY	DESCRIPTION: PLC INPUT		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG		VERSION: B0

EDGE TECHNOLOGIES
A DIVISION OF HYDROMAT INC

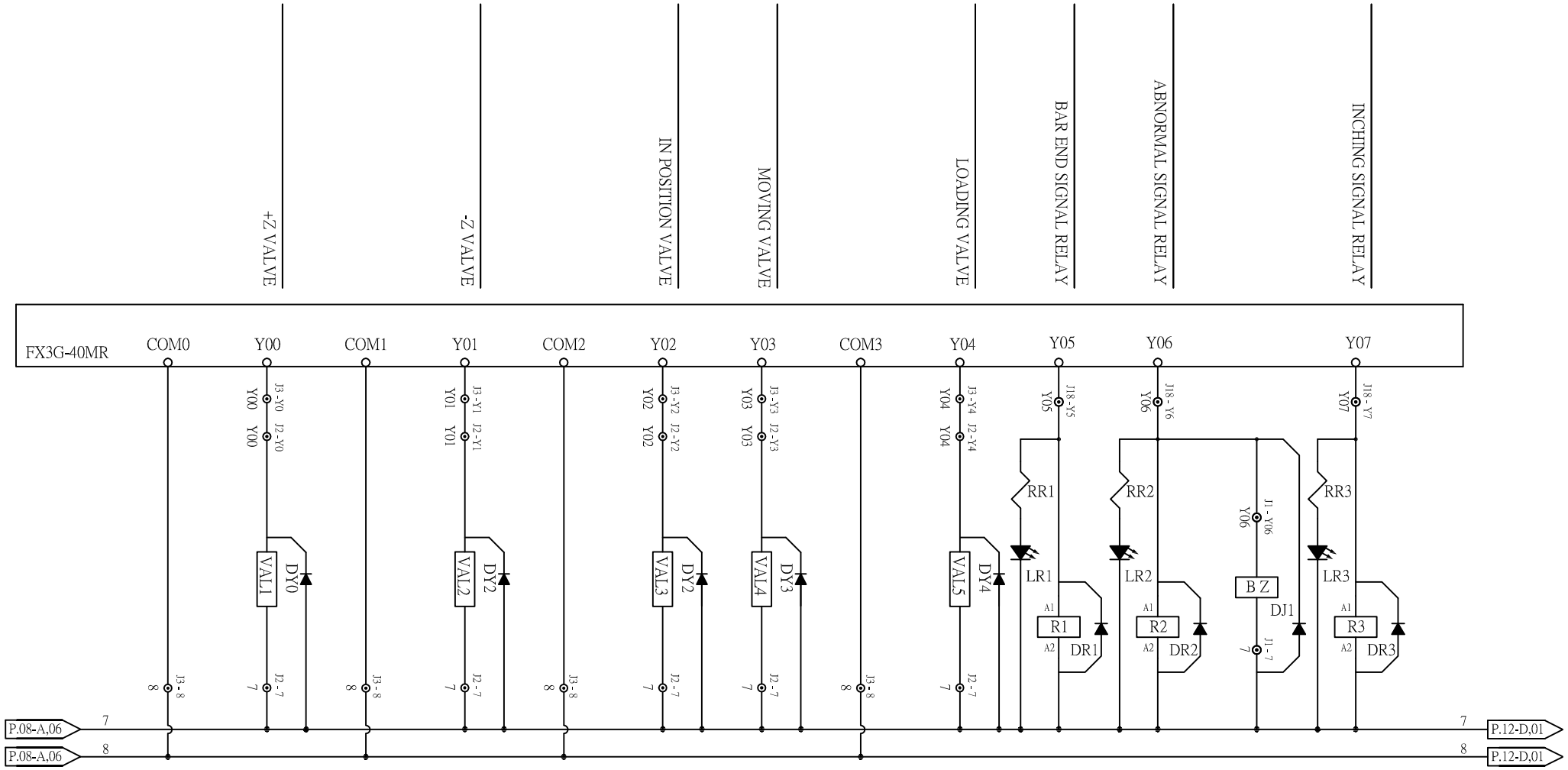


BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 09
LATHE NAME		DRAWN BY	CHECKED BY	DESCRIPTION: PLC INPUT		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG		VERSION: B0

EDGE TECHNOLOGIES
A DIVISION OF HYDROMAT INC

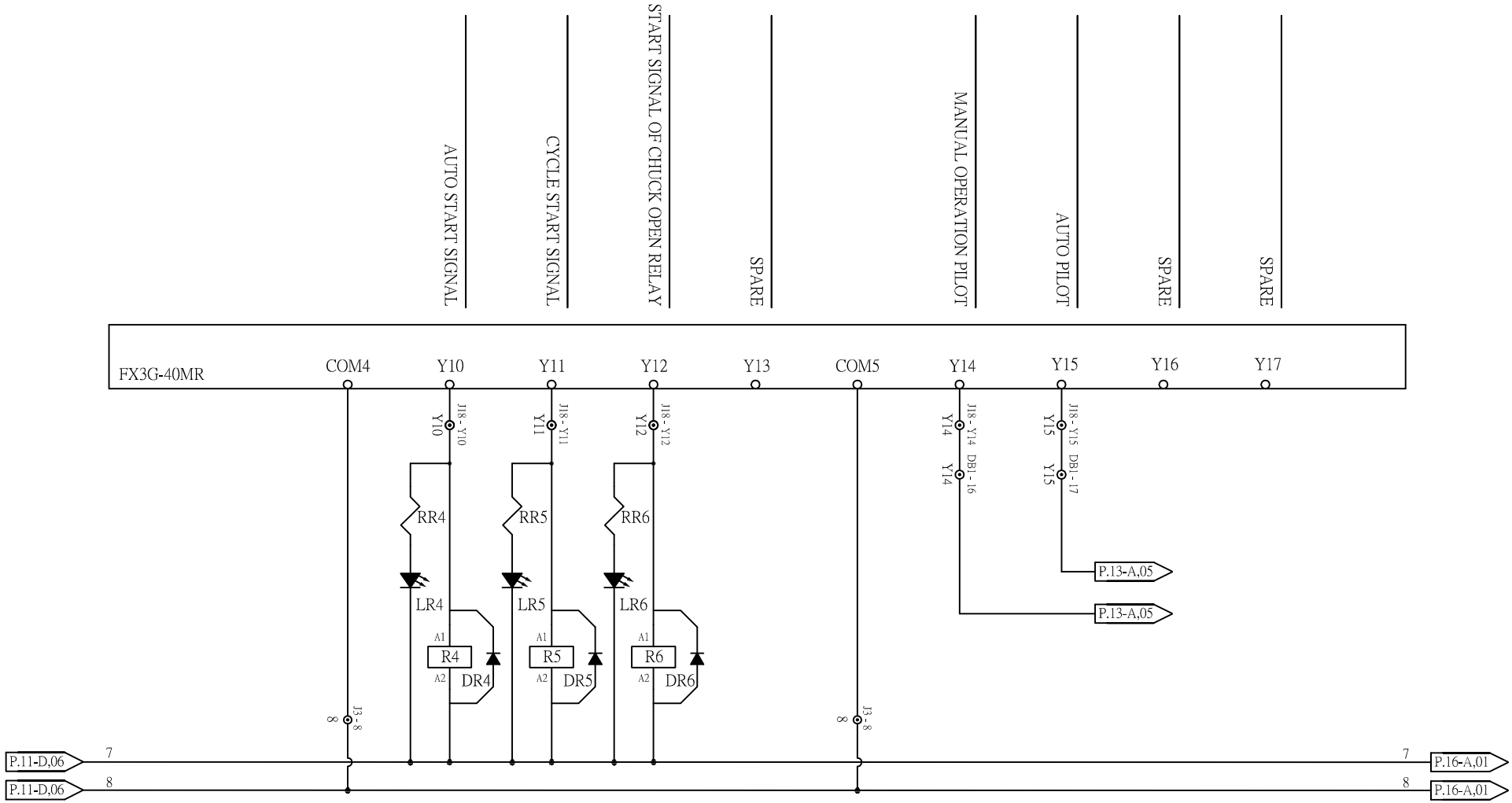


BAR FEEDER TYPE: V-65E-CE-A	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 10
LATHE NAME			DRAWN BY	CHECKED BY	DESCRIPTION: PLC INPUT		
LATHE TYPE					DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0	

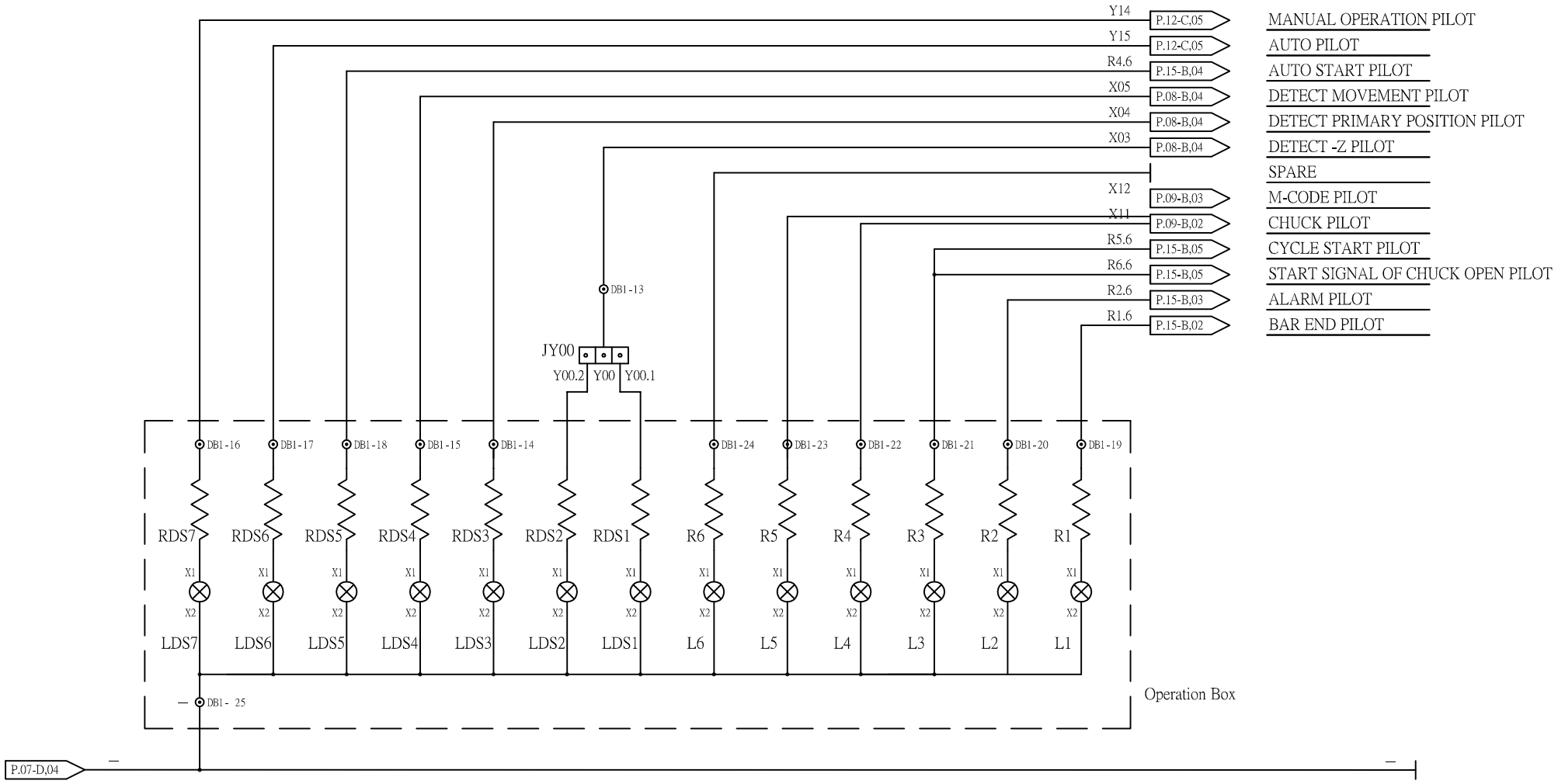


BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 11
LATHE NAME		DRAWN BY	CHECKED BY	DESCRIPTION: PLC OUTPUT		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG		VERSION: B0

EDGE TECHNOLOGIES
A DIVISION OF HYDROMAT INC

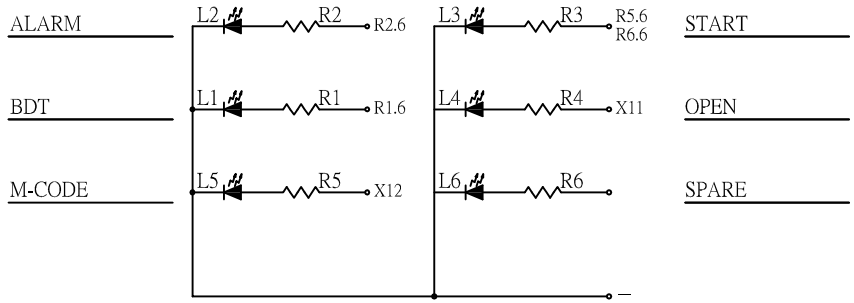


BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 12
LATHE NAME	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC	DRAWN BY	CHECKED BY	DESCRIPTION: PLC OUTPUT		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0	

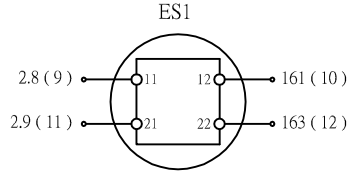


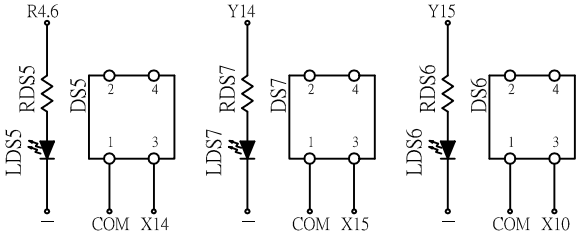
BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC
LATHE NAME:	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC	DRAWN BY:	CHECKED BY:	DESCRIPTION: LED circuit of Remote control pendant	
LATHE TYPE:				DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0

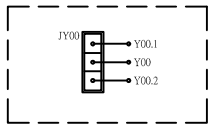
PAGE: P. 13

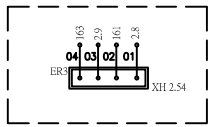


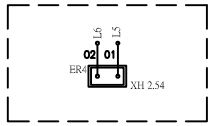
PGE 0205 KEY BOARD

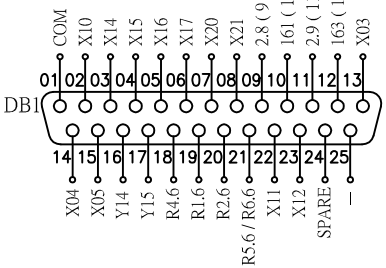


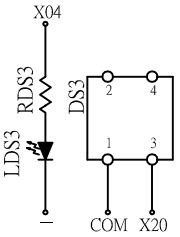


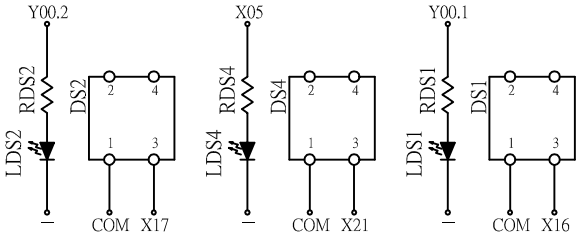




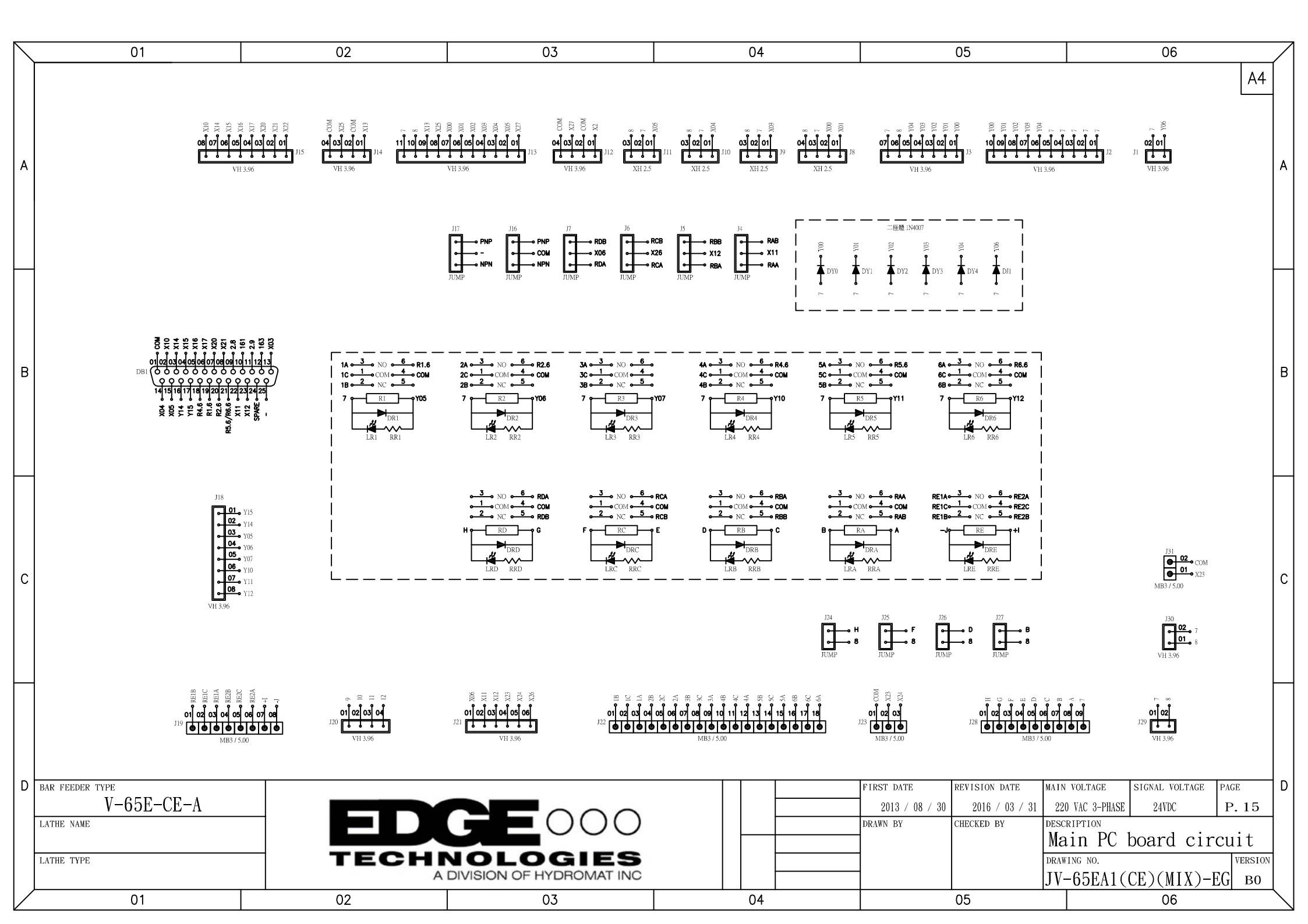




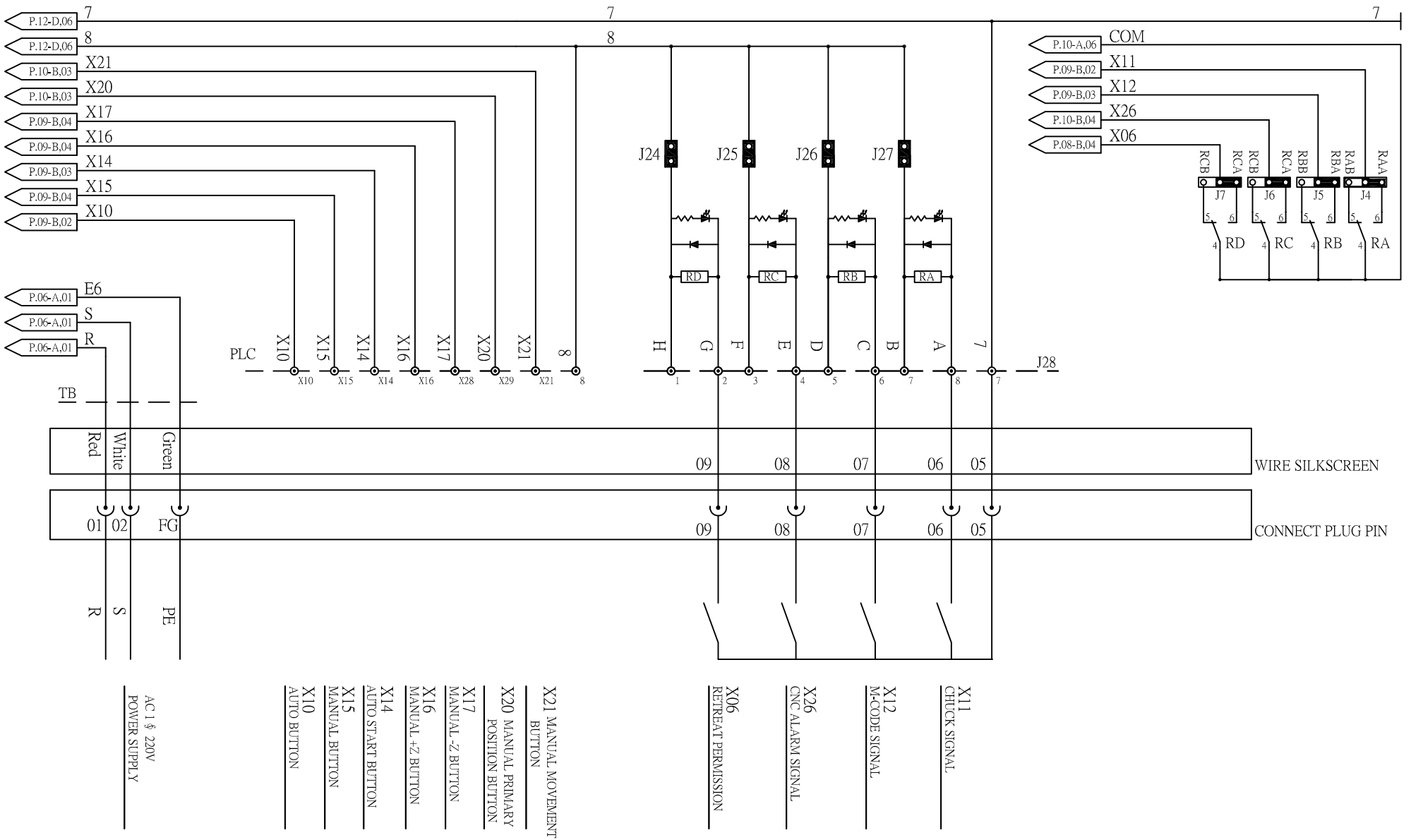




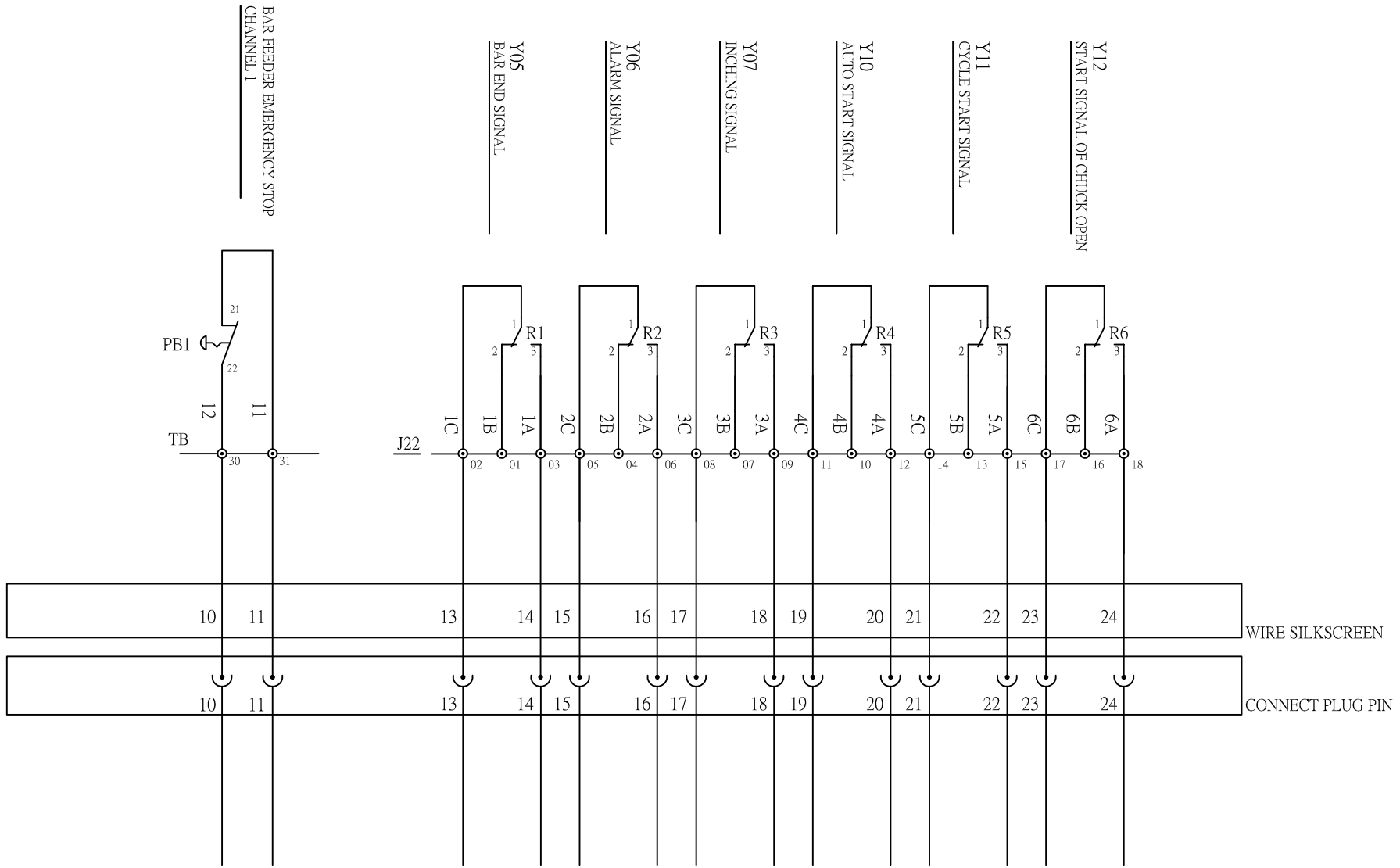
BAR FEEDER TYPE: V-65E-CE-A	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC
LATHE NAME			DRAWN BY	CHECKED BY	DESCRIPTION: PC board circuit of Remote control pendant	PAGE: P. 14
LATHE TYPE					DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0



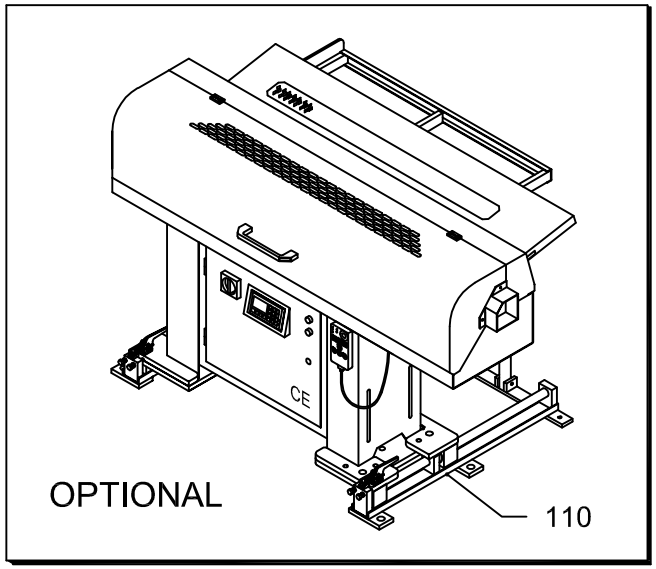
BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 15
LATHE NAME	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC	DRAWN BY	CHECKED BY	DESCRIPTION: Main PC board circuit		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0	

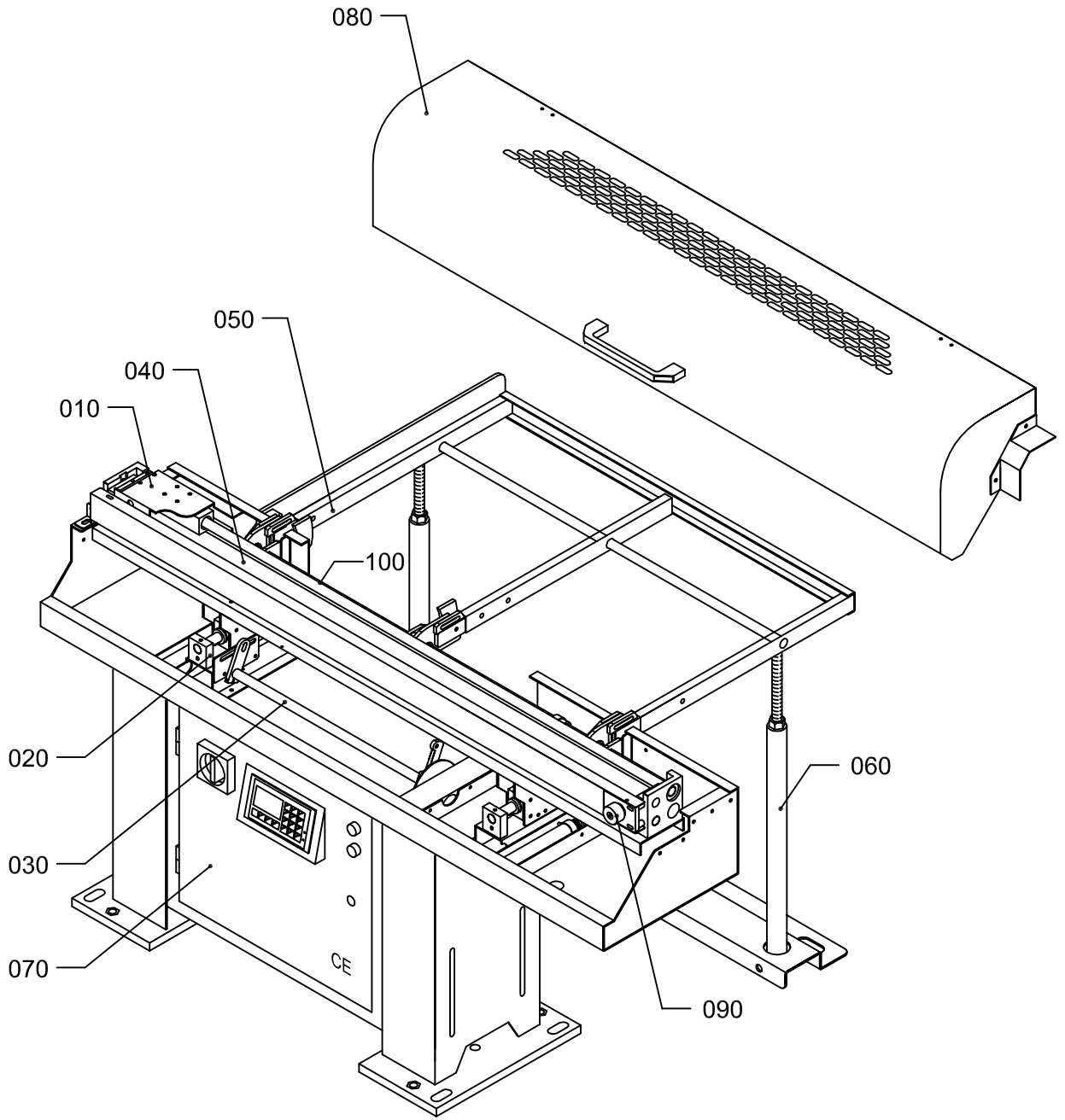


BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 16
LATHE NAME	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC	DRAWN BY	CHECKED BY	DESCRIPTION: Interface 1		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0	

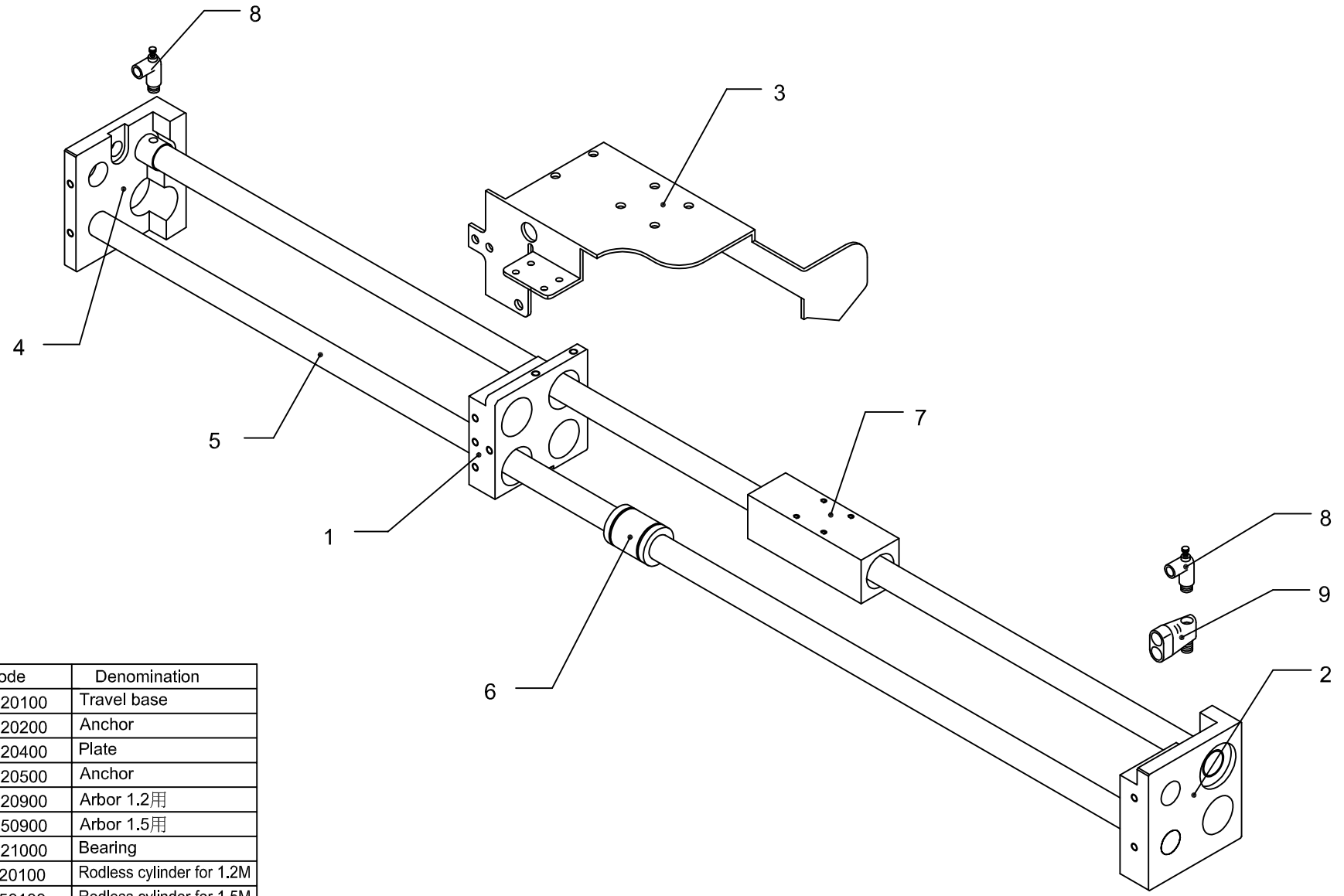


BAR FEEDER TYPE: V-65E-CE-A		FIRST DATE: 2013 / 08 / 30	REVISION DATE: 2016 / 03 / 31	MAIN VOLTAGE: 220 VAC 3-PHASE	SIGNAL VOLTAGE: 24VDC	PAGE: P. 17
LATHE NAME	EDGE TECHNOLOGIES A DIVISION OF HYDROMAT INC	DRAWN BY	CHECKED BY	DESCRIPTION: Interface 2		
LATHE TYPE				DRAWING NO.: JV-65EA1(CE)(MIX)-EG	VERSION: B0	

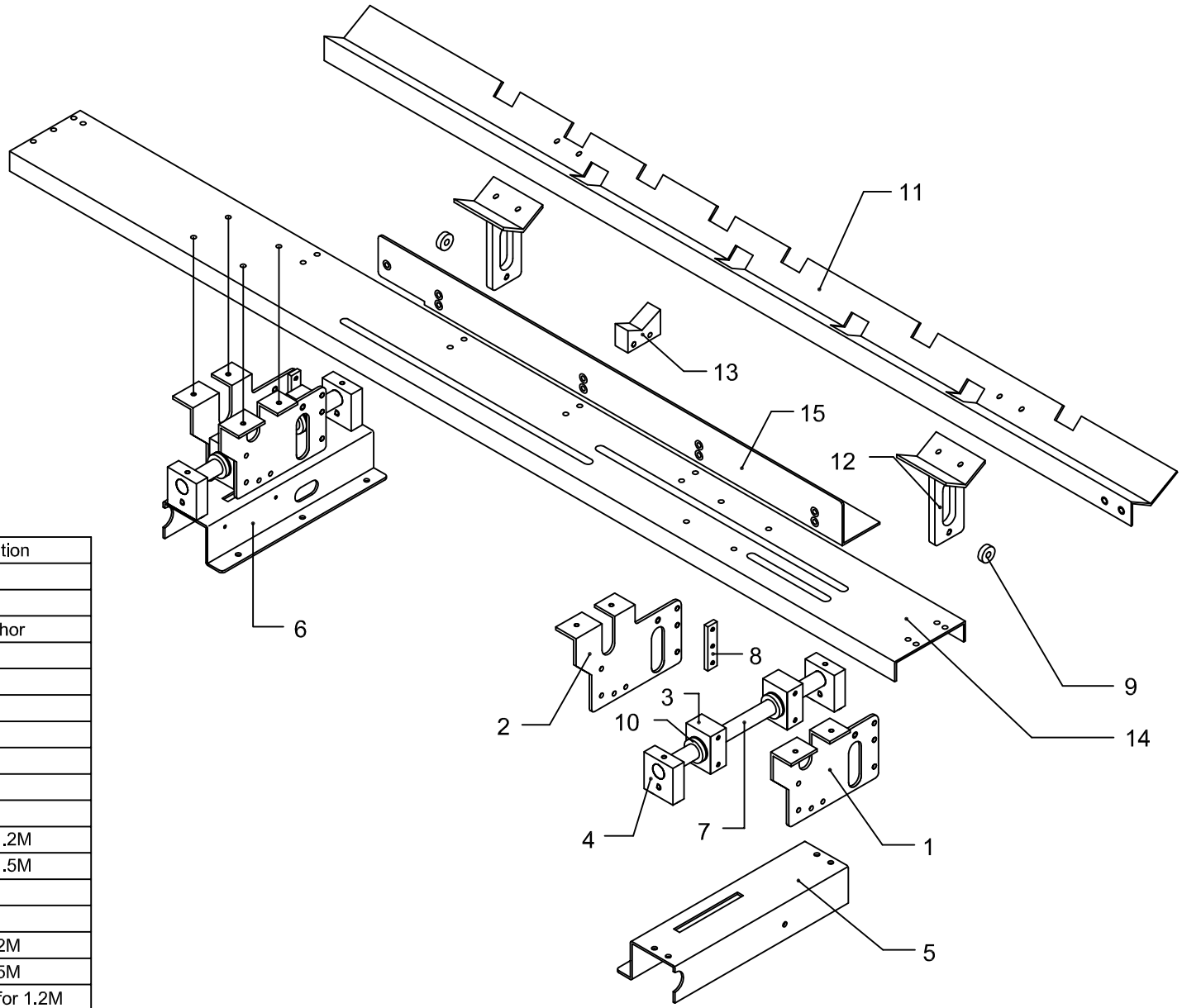




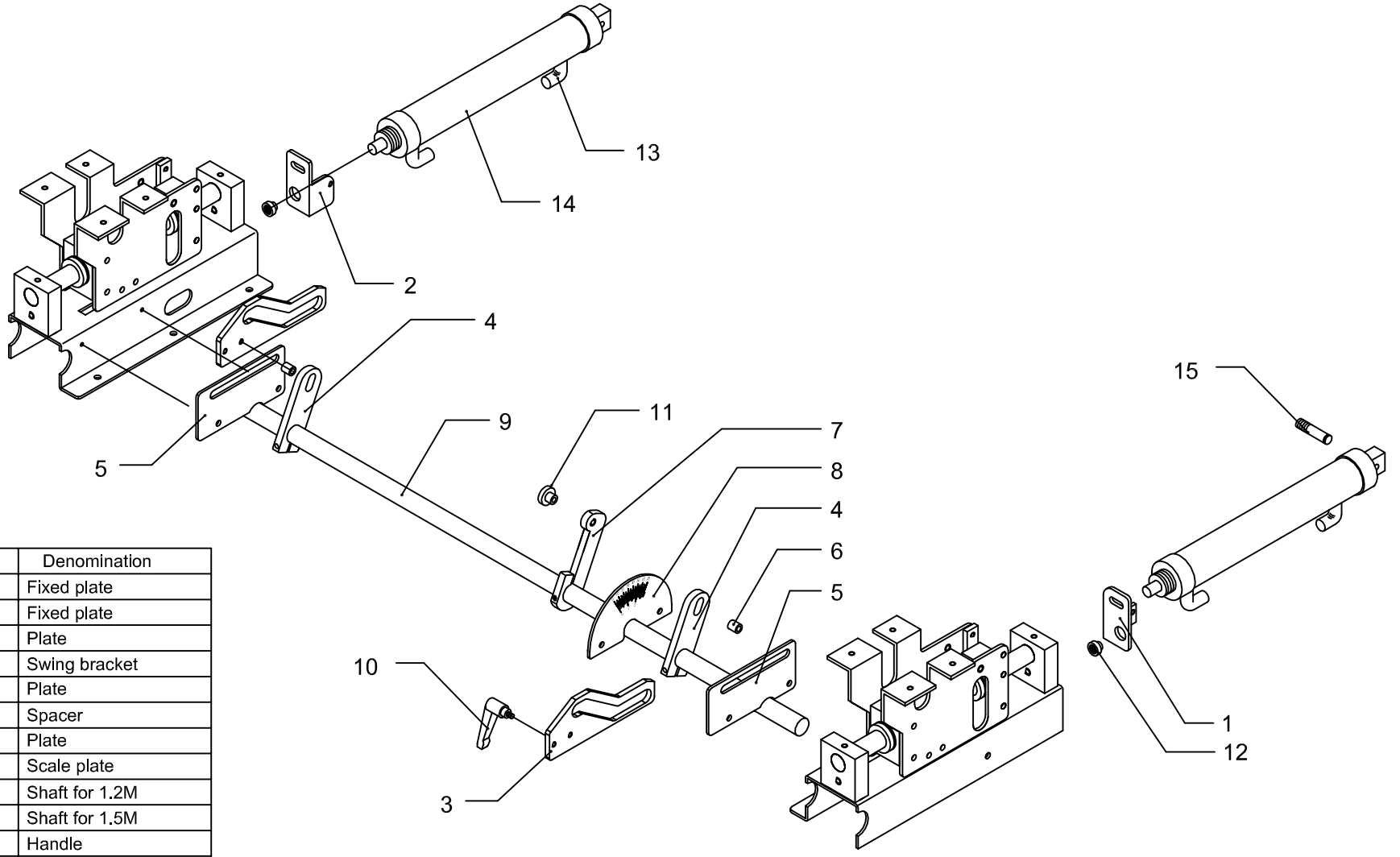
010	FRAME DEVICE
020	BRACKET DEVICE
030	CHANGEOVER
040	BAR PUSHER
050	FEEDING-EXTRACTION CONTROL DEVICE
060	FRAME
070	STAND
080	COVER
090	COUNTER DEVICE
100	AIR PRESSURE DIAGRAM
110	SLIDING RAIL (OPTIONAL)



N.	Code	Denomination
1	G51120100	Travel base
2	G51120200	Anchor
3	G51120400	Plate
4	G51120500	Anchor
5	G51120900	Arbor 1.2用
5	G51150900	Arbor 1.5用
6	G51121000	Bearing
7	A11120100	Rodless cylinder for 1.2M
7	A11150100	Rodless cylinder for 1.5M
8	A12130100	Flow regulator
9	A12120400	Sensor fitting

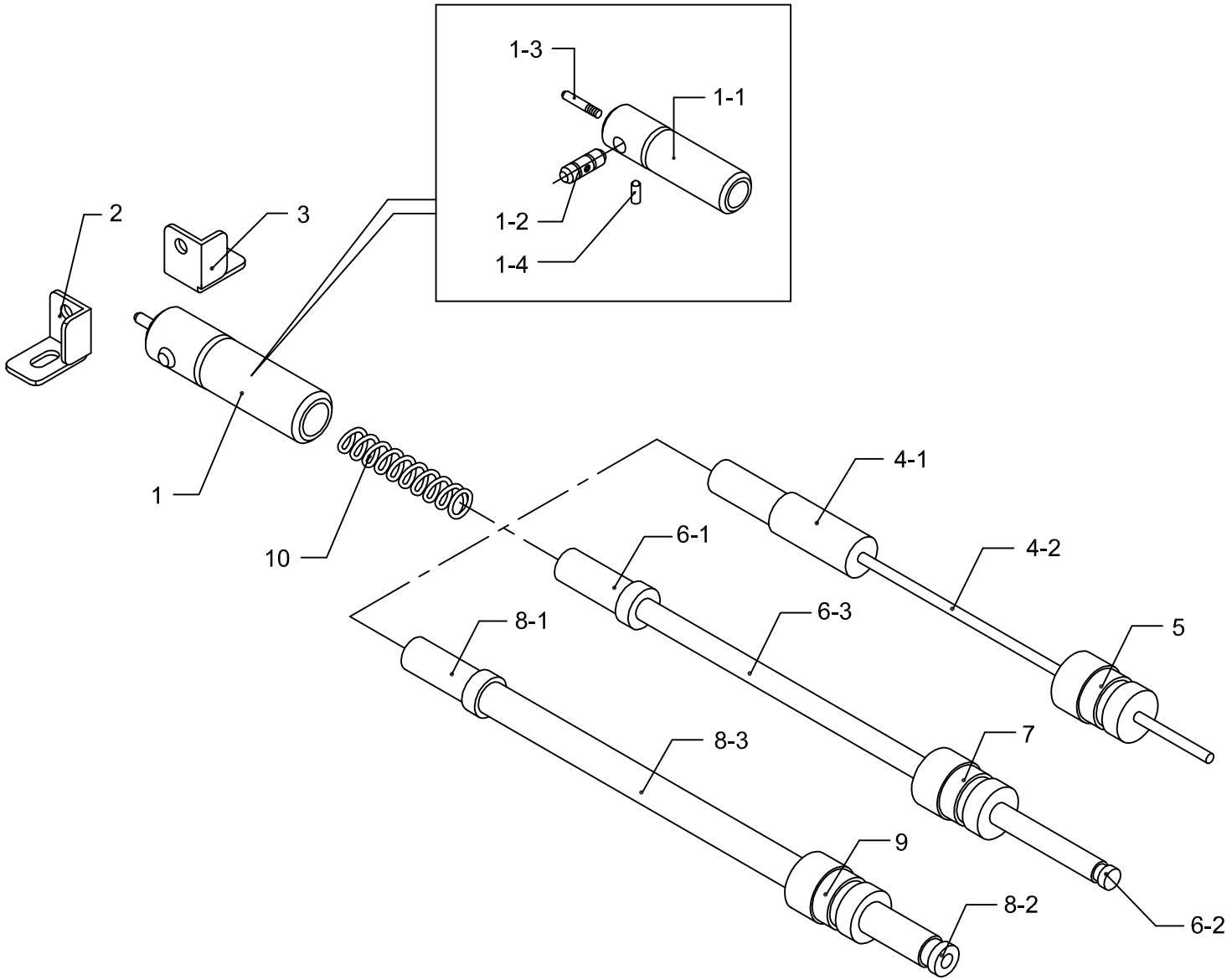


N.	Code	Denomination
1	G52120100	Support
2	G52120101	Support
3	G52120200	Bearing anchor
4	G52120400	Anchor
5	G52120500	Anchor
6	G52120501	Anchor
7	G52120700	Arbor
8	G52120900	Plate
9	B608ZZ	Bearing
10	G51121000	Bearing
11	G54120100	V Plate for 1.2M
11	G54150100	V Plate for 1.5M
12	G54120200	Plate
13	G54120300	Anchor
14	G71120101	Beam for 1.2M
14	G71150101	Beam for 1.5M
15	G71120400	Sheel steel for 1.2M
15	G71150400	Sheel steel for 1.5M



N.	Code	Denomination
1	G52121400	Fixed plate
2	G52121500	Fixed plate
3	G53120110	Plate
4	G53120200	Swing bracket
5	G53120300	Plate
6	G53120400	Spacer
7	G53120500	Plate
8	G53120600	Scale plate
9	G53120700	Shaft for 1.2M
9	G53150700	Shaft for 1.5M
10	G53120800	Handle
11	G53120900	Knob
12	G52121600	Spacer
13	A13120300	Bended connector
14	A11110100	Piston cylinder
15	G61121300	Bolt

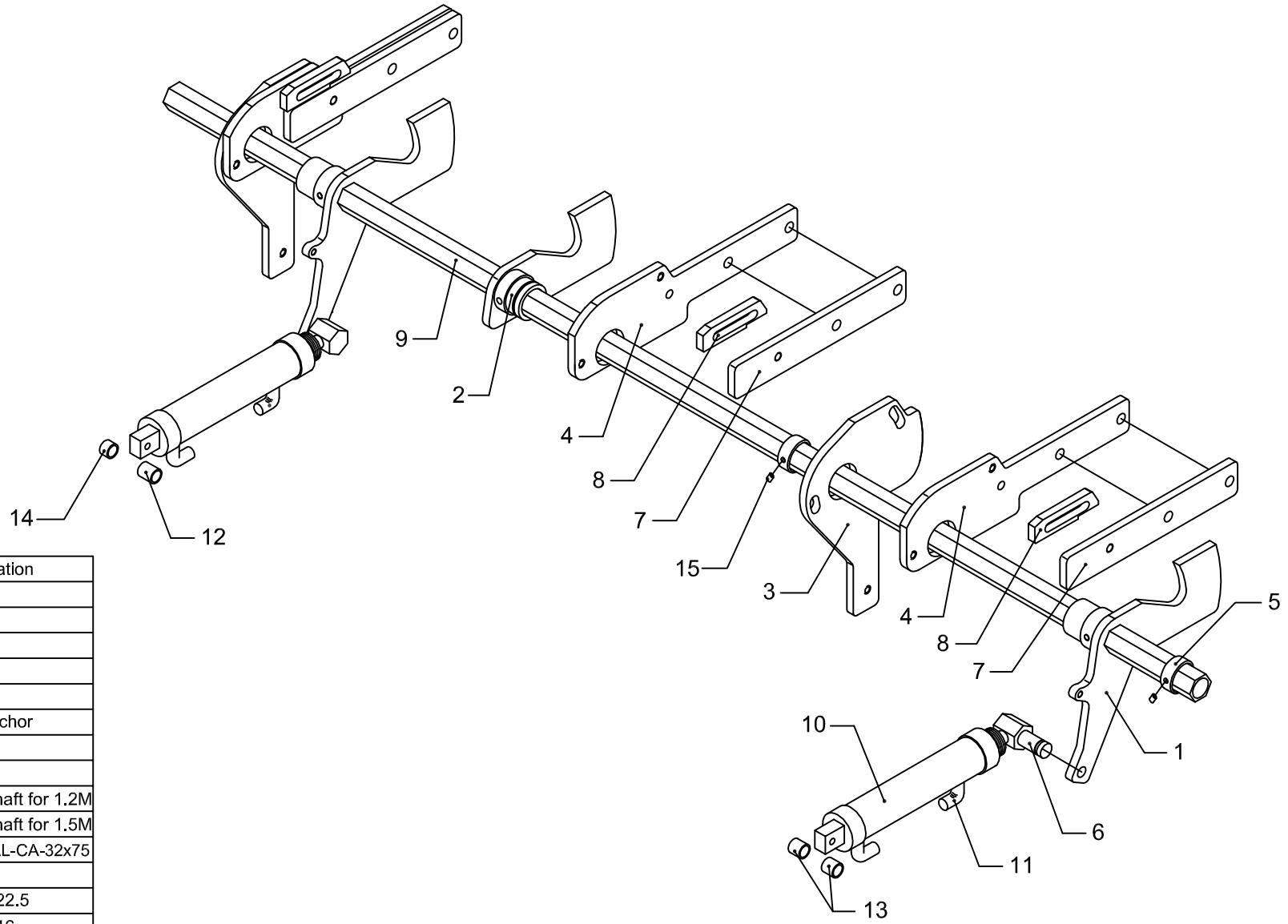
N.	Code	Denomination
1	G55120110	Support
1-1	G55120100	Support
1-2	G55120200	Rod
1-3	G55120300	Arbor
1-4	G55120900	Steel ball
2	G55120400	Plate
3	G55120401	Plate
4	G55120500	Push bar for 1.2M
4	G55150500	Push bar for 1.5M
4-1	G55120501	Anchor rod
4-2	G55120503	Bar for 1.2M
4-2	G55150503	Bar for 1.5M
5	G51120306	PE rod
6	G55120600	Push bar for 1.2M
6	G55150600	Push bar for 1.5M
6-1	G55120601	Anchor rod
6-2	G55120602	Piston
6-3	G55120603	Bar for 1.2M
6-3	G55150603	Bar for 1.5M
7	G51120312	PE rod
8	G55120700	Push bar for 1.2M
8	G55150700	Push bar for 1.5M
8-1	G55120701	Anchor rod
8-2	G55120702	Piston
8-3	G55120703	Bar for 1.2M
8-3	G55150703	Bar for 1.5M
9	G51120320	PE rod
10	G55120800	Spring



V-65E

BAR PUSH

Tab. 040 1



N.	Code	Denomination
1	G61120100	Plate
2	G61120200	Plate
3	G61120301	Plate
4	G61120400	Plate
5	G61120500	Spacer
6	P53200400	Cylinder anchor
7	G61120700	Plate
8	G61120800	Plate
9	G61120900	Hexagon shaft for 1.2M
9	G61150900	Hexagon shaft for 1.5M
10	A11110100	Cylinder MAL-CA-32x75
11	A13110100	L type joint
12	G61121000	Spacer L=22.5
13	G61121100	Spacer L=16
14	G61121200	Spacer L=9
15	G53120400	Spacer L=12

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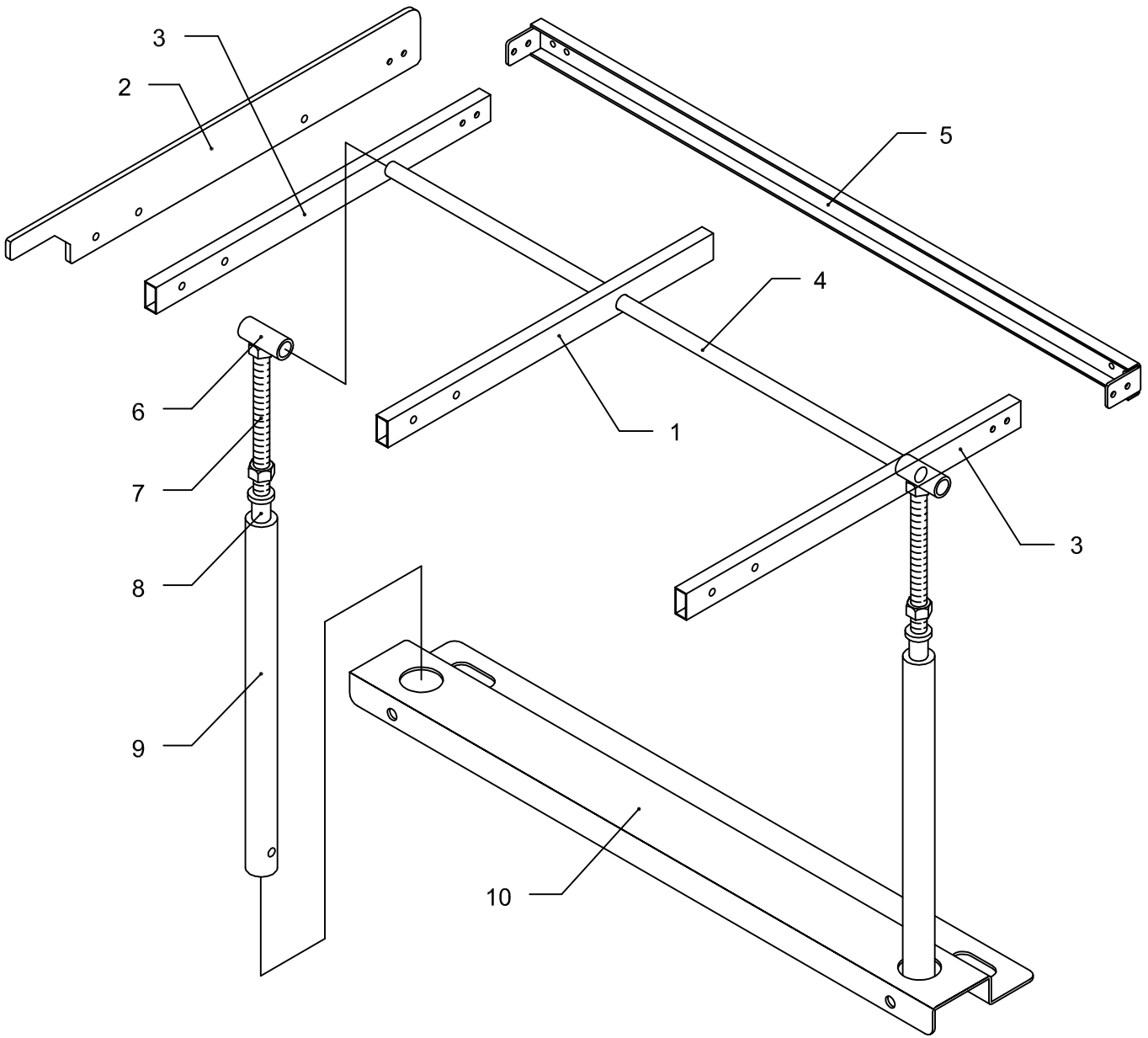
FEEDING-EXTRACTION CONTROL DEVICE

Tab. 050 1



N.	Code	Denomination
1	G62120100	Support
2	G62120200	Plate
3	G62120300	Plate
4	G62120400	Bar for 1.2M
4	G62150400	Bar for 1.5M
5	G62120500	Plate for 1.2M
5	G62150500	Plate for 1.5M
6	G62120600	Spacer
7	G62120700	Thread bar
8	G62120800	Spacer
9	G62120900	Support
10	G62121000	Plate

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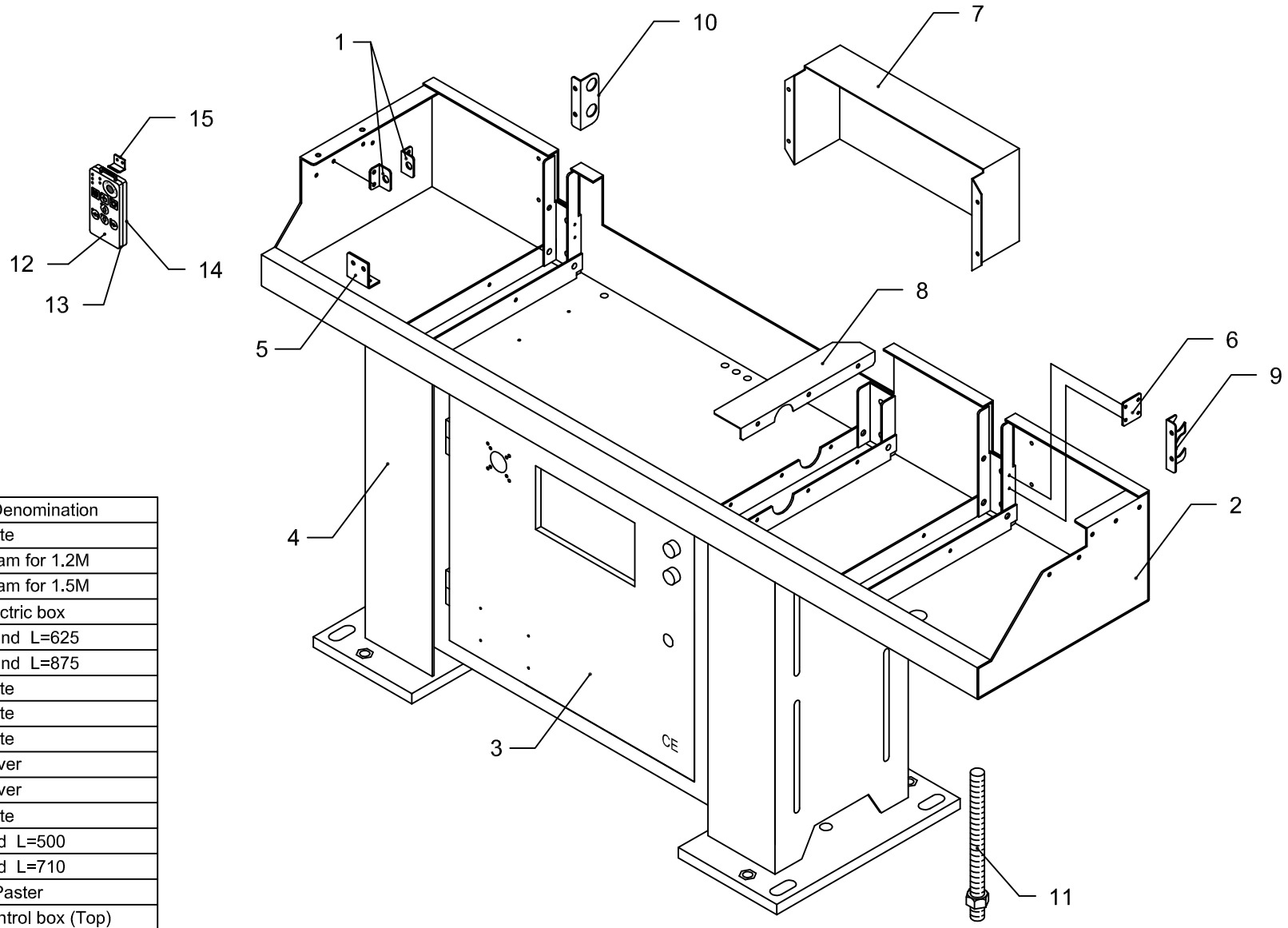
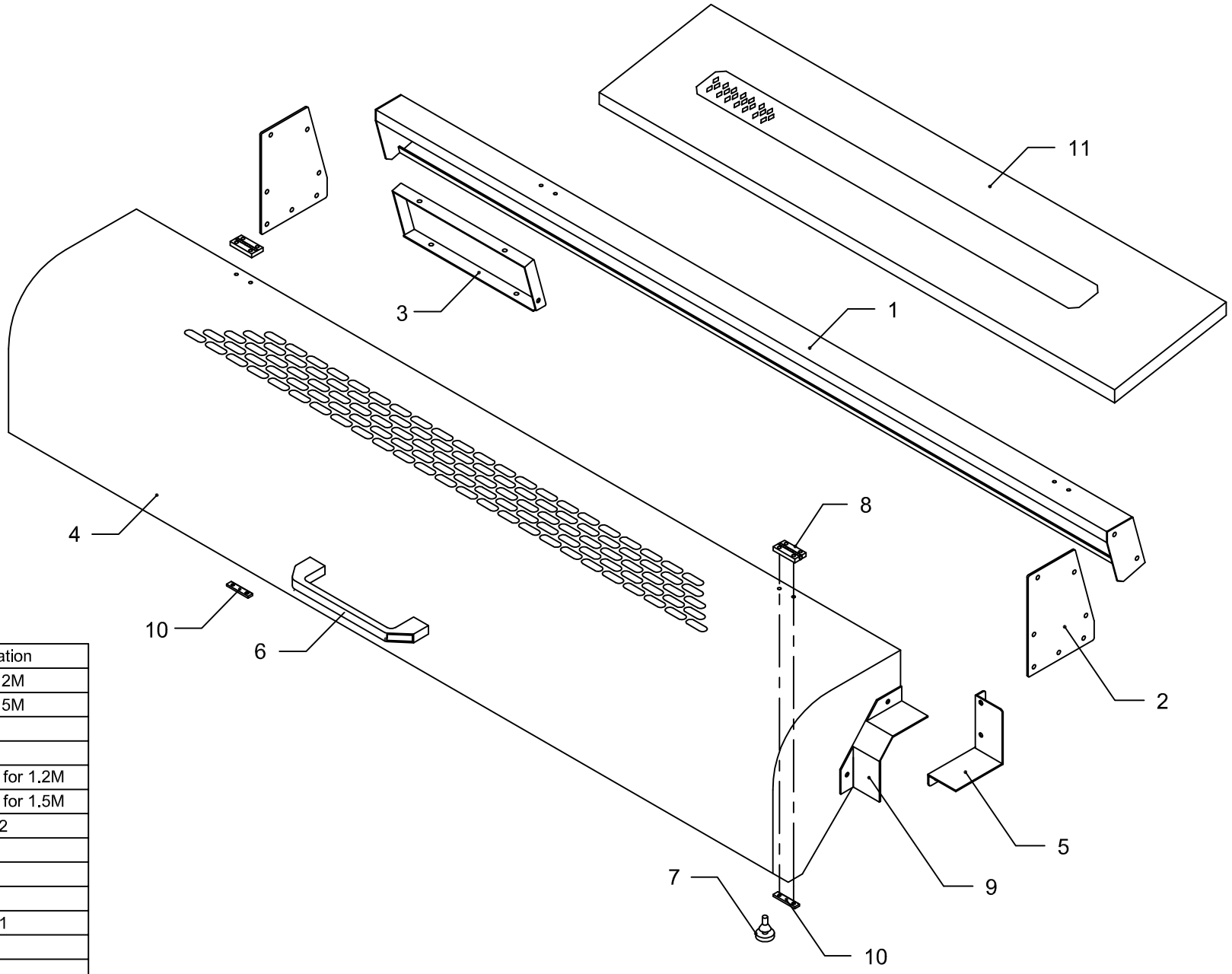
FRAME

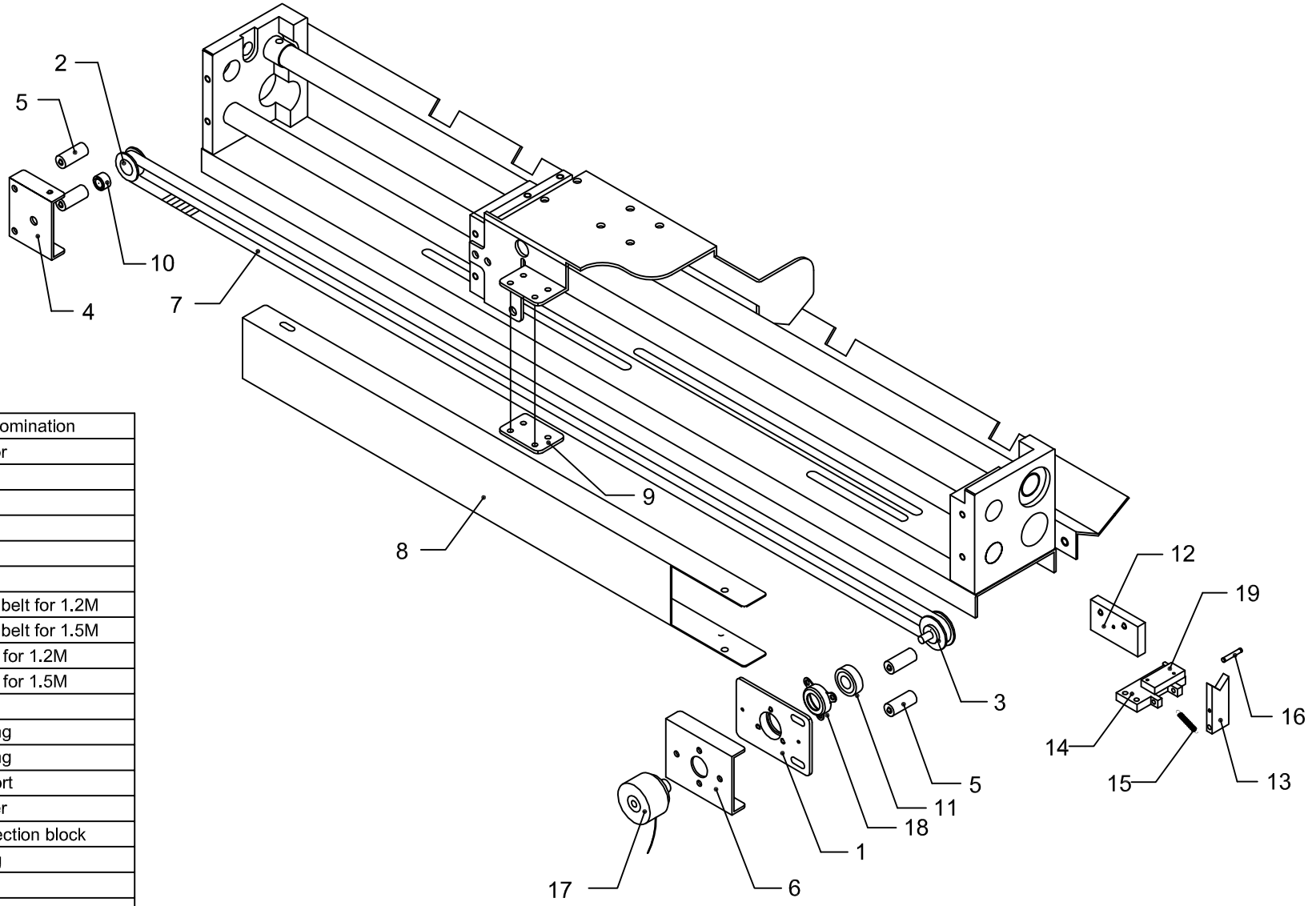
Tab. 060 1



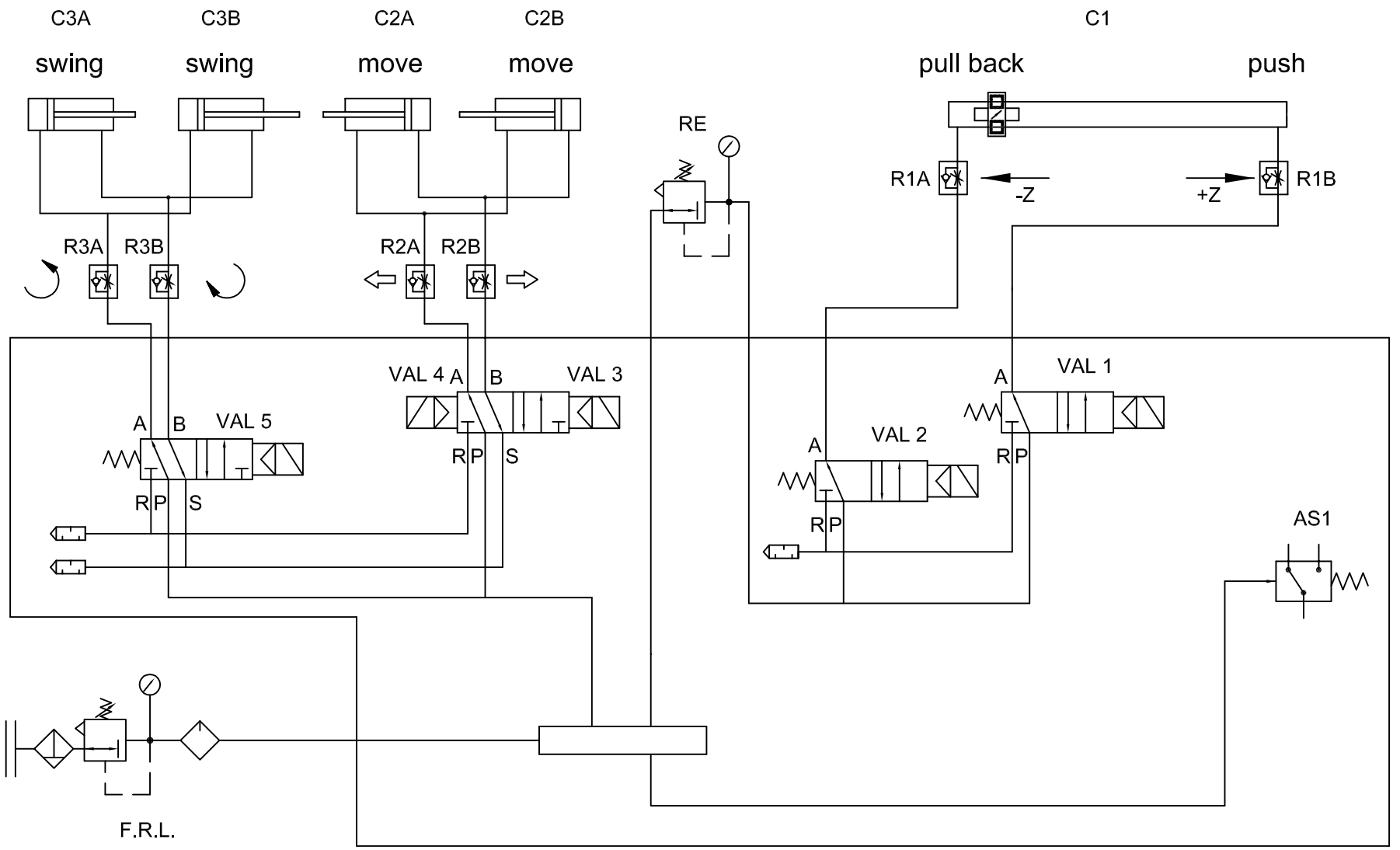
N.	Code	Denomination
1	G71120300	Plate
2	G72120100	Beam for 1.2M
2	G72150100	Beam for 1.5M
3	G72120300	Electric box
4	G72120400	Stand L=625
4	G72120410	Stand L=875
5	G72120500	Plate
6	G72120600	Plate
7	G72120700	Plate
8	G72120800	Cover
9	G81120700	Cover
10	G81120800	Plate
11	G62120701	Rod L=500
11	G62120700	Rod L=710
12	G91120400	V-Paster
13	G91120500	Control box (Top)
14	G91120600	Control box (Bottom)
15	G91120700	Plate



N.	Code	Denomination
1	G81120100	Cover for 1.2M
1	G81150100	Cover for 1.5M
2	G81120200	Side plate
3	G81120300	Side cover
4	G81120400	Front cover for 1.2M
4	G81150400	Front cover for 1.5M
5	G81120500	Front plate 2
6	G81120900	Handle
7	G81121000	Anchor
8	G81121111	Hinge
9	G81120402	Front plate 1
10	AV51BA3500	Plate
11	G94150200	Cover



N.	Code	Denomination
1	G93121100	Anchor
2	G93120200	Pulley
3	G93120300	Pulley
4	G93120400	Plate
5	G93120500	Arbor
6	G93121200	Plate
7	G93120700	Tooth belt for 1.2M
7	G93150700	Tooth belt for 1.5M
8	G93120800	Cover for 1.2M
8	G93150800	Cover for 1.5M
9	G93120900	Plate
10	B608ZZ	Bearing
11	B6000ZZ	Bearing
12	G92120200	Support
13	G92120300	Rocker
14	G92120400	Connection block
15	G92120600	Spring
16	G92120700	Arbor
17	J230302	Encoder
18	S41150200	Bearing support
19	J310403	Micro Switch



V-65E

AIR PRESSURE DIAGRAM

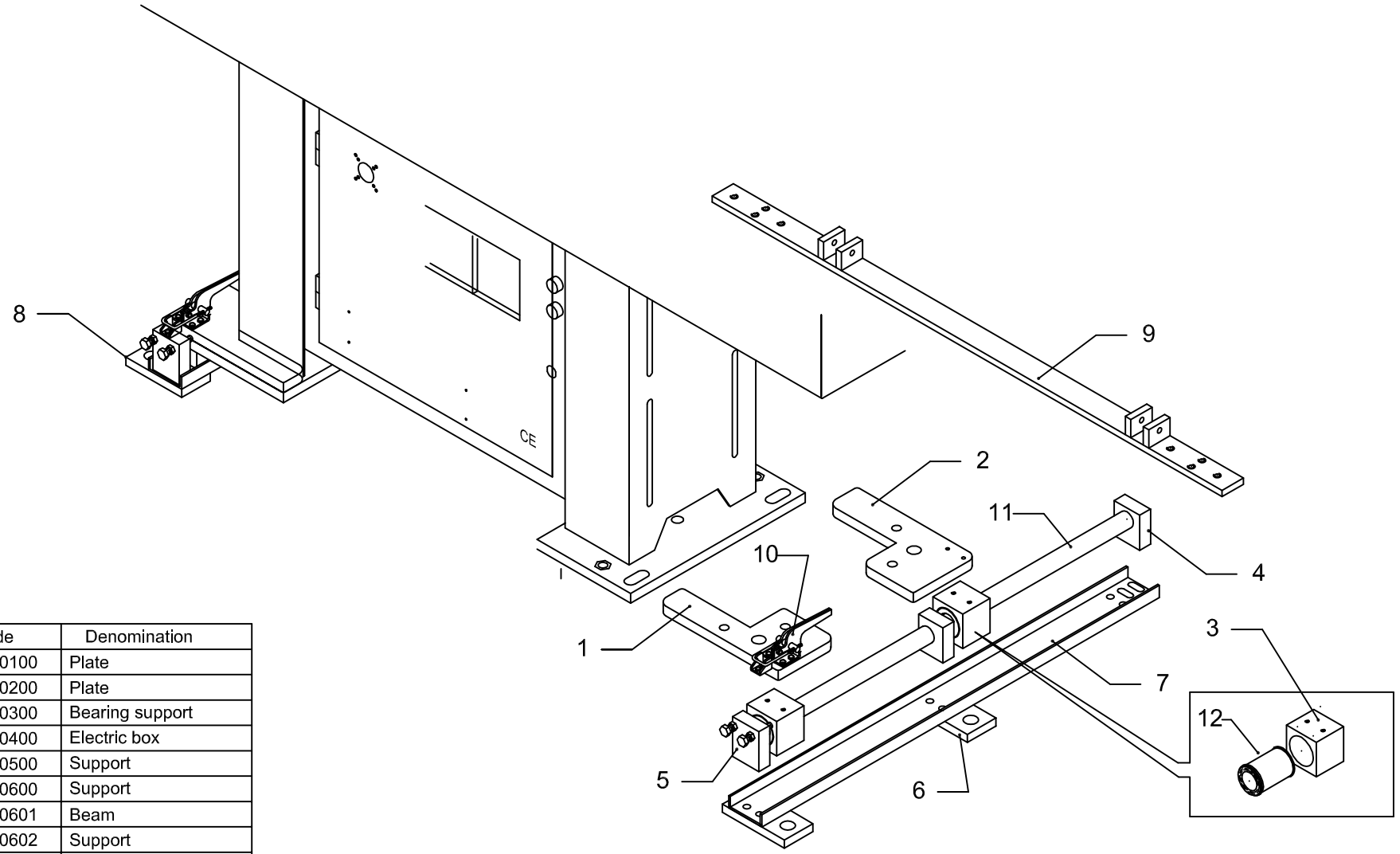
Tab. 100 1

V-65E

AIR PRESSURE DIAGRAM ITEM

Tab. 101 1

Item designation	Description and function	Technical data	Quantity	Supplier	Suppliers reference	Remarks
F.R.L.	FILTER,REGULATOR, LUBRICATOR	1.0-10kgf/cm^2	1	AIRTAC	AFC-2000	
RE	REGULATOR	1.0-10kgf/cm^2	1	NIHON SEIKI	CSR-08-G	
AS1	PNEUMATICALLY-ACTUATED ELECTRICAL MICROSWITCH	1.5-8kgf/cm^2	1	FESTO	PE-1/8-1N	
VAL 1	3/2 WAY VALVE	DC24V	1	AIRTAC	4V210-08	VLMH9465
VAL 2		DC24V	1			VLMH9465
VAL 3	4/2 WAY VALVE	DC24V	1	AIRTAC	4V220-08	VLMH9465
VAL 4						
VAL 5	4/2 WAY VALVE	DC24V	1	AIRTAC	4V210-08	VLMH9465
C1	RODLESS CYLINDER	7 bar	1	FESTO	DGO-25-1300 PPV-A-B	ISO 6432
C2A	PISTON CYLINDER	1.0-9.9kgf/cm^2	1	AIRTAC	MAL-CA32*75	ISO 6432
C2B			1			ISO 6432
C3A			1			ISO 6432
C3B			1			ISO 6432
R1A	FLOW REGULATOR	1-10 bar	1	AIRTAC	JSC 6-01	ISO 9001
R1B		1-10 bar	1			ISO 9001
R2A		1-10 bar	1			ISO 9001
R2B	FLOW REGULATOR	1-10 bar	1	AIRTAC	SPA-6	ISO 9001
R3A		1-10 bar	1			ISO 9001
R3B		1-10 bar	1			ISO 9001



N.	Code	Denomination
1	G73120100	Plate
2	G73120200	Plate
3	G73120300	Bearing support
4	G73120400	Electric box
5	G73120500	Support
6	G73120600	Support
7	G73120601	Beam
8	G73120602	Support
9	G73120700	Plate
10	G73120800	Bolt
11	G73120900	Arbor
12	BLB30UU	Bearing

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SLIDING RAIL (OPTIONAL)

Tab. 111 1

EDGE TECHNOLOGIES

Rebel Ecofeed

OPERATIONS MANUAL

Revision 8

Technical data subject to change without notice

EDGE TECHNOLOGIES ○ PRODUCTIVITY SOLUTIONS PROVIDER
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