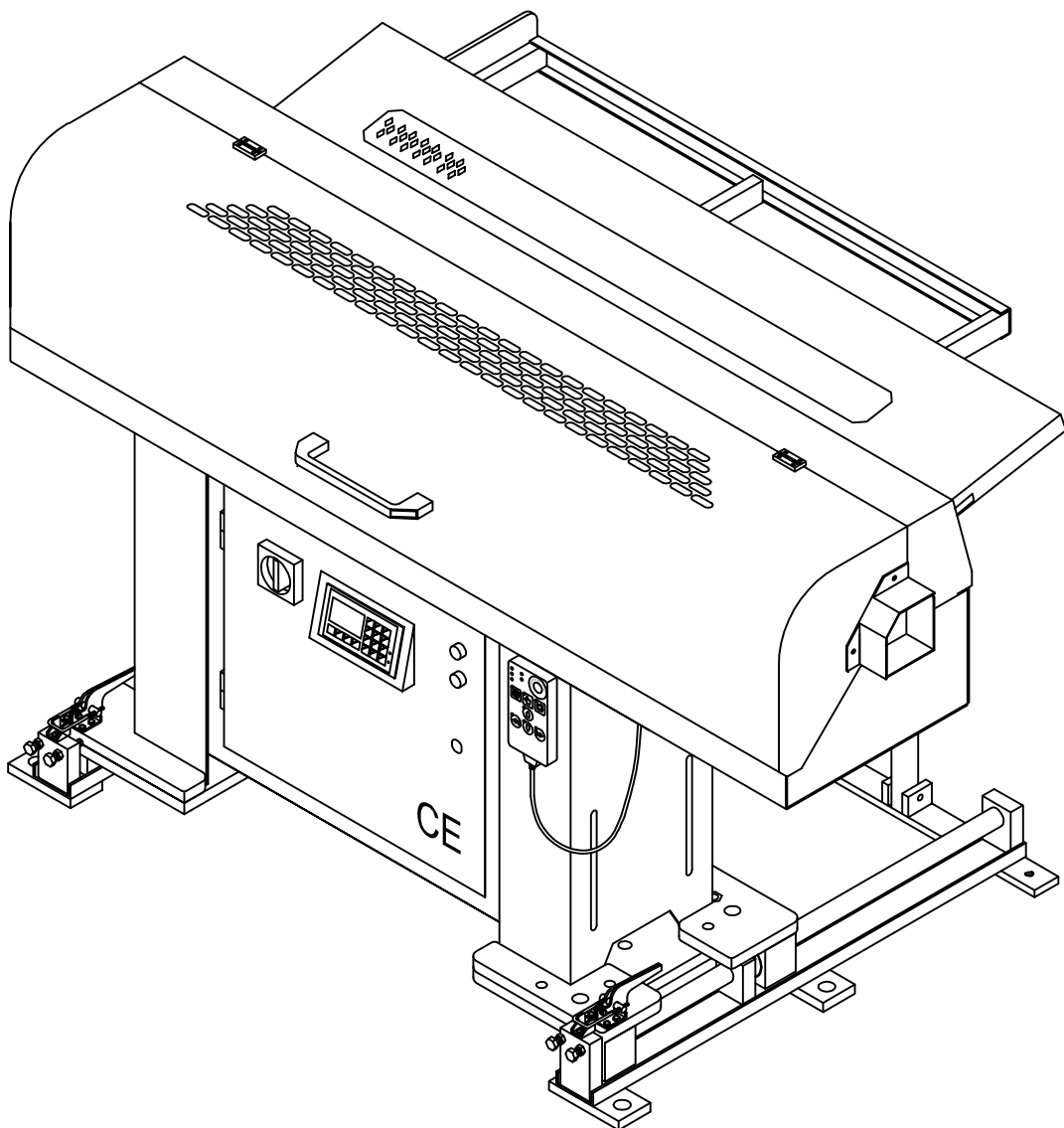


REBEL-V65E/LE
Operation Manual



High loading speed
Special development of design

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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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CONTENT (INDEX)

1 GENERAL INFORMATION

| | | |
|-----|--|-----|
| 1.1 | Contents of the manual ----- | 1-1 |
| 1.2 | The label of manufacturer and bar feeder ----- | 1-2 |
| 1.3 | Support of technique ----- | 1-2 |

2 DATA OF TECHNIQUE

| | | |
|-----|--|-----|
| 2.1 | Introduction of the bar feeder ----- | 2-1 |
| 2.2 | Machine size ----- | 2-2 |
| 2.3 | Description ----- | 2-2 |
| 2.4 | Compressed air supply and power supply ----- | 2-3 |

3 TRANSPORTATION

| | | |
|-----|--------------------------------|-----|
| 3.1 | Packing the Feeder ----- | 3-1 |
| 3.2 | Transportation and hoist ----- | 3-2 |
| 3.3 | Forklift transportation ----- | 3-3 |
| 3.4 | Installation area ----- | 3-5 |

4 INSTALLATION

| | | |
|-----|--|-----|
| 4.1 | Bar feeder ----- | 4-1 |
| 4.2 | Adjustment of height ----- | 4-1 |
| 4.3 | Initial position ----- | 4-2 |
| 4.4 | Directional adjusting ----- | 4-3 |
| 4.5 | Mounting of the feeder frame ----- | 4-4 |
| 4.6 | Securing and fastening of the bar feeder ----- | 4-4 |
| 4.7 | Accessories installation ----- | 4-5 |

CONTENT (INDEX)

5 ADJUSTMENTS AND SETTING

| | | |
|-----|--|-----|
| 5.1 | Structure of the bar feeder ----- | 5-1 |
| 5.2 | Adjustment and selection of the bar feeder ----- | 5-2 |
| 5.3 | Adjustment of bar stop ----- | 5-2 |
| 5.4 | Adjustment of bar diameter ----- | 5-3 |
| 5.5 | Adjustment of push bar pressure ----- | 5-3 |
| 5.6 | Selection of push bar ----- | 5-4 |
| 5.7 | Optimizing remnant ----- | 5-5 |
| 5.8 | Maintain notice-key switch ----- | 5-6 |

6 OPERATIONS AND ILLUSTRATIONS

| | | |
|-----|---|------|
| 6.1 | Material preparation ----- | 6-1 |
| 6.2 | Operation description ----- | 6-2 |
| 6.3 | Description of settings and parameter ----- | 6-7 |
| 6.4 | Refer alarm message ----- | 6-23 |

7 ELECTRICAL CIRCUIT DIAGRAM

8 PARTS LIST

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

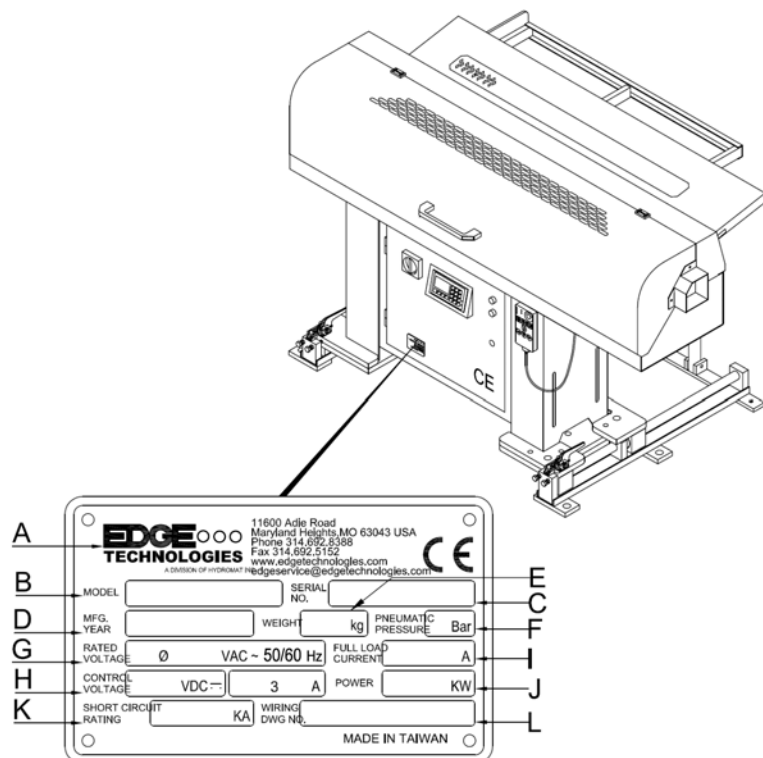
Please take use of the table of contents, you will quickly find the information you need.



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.

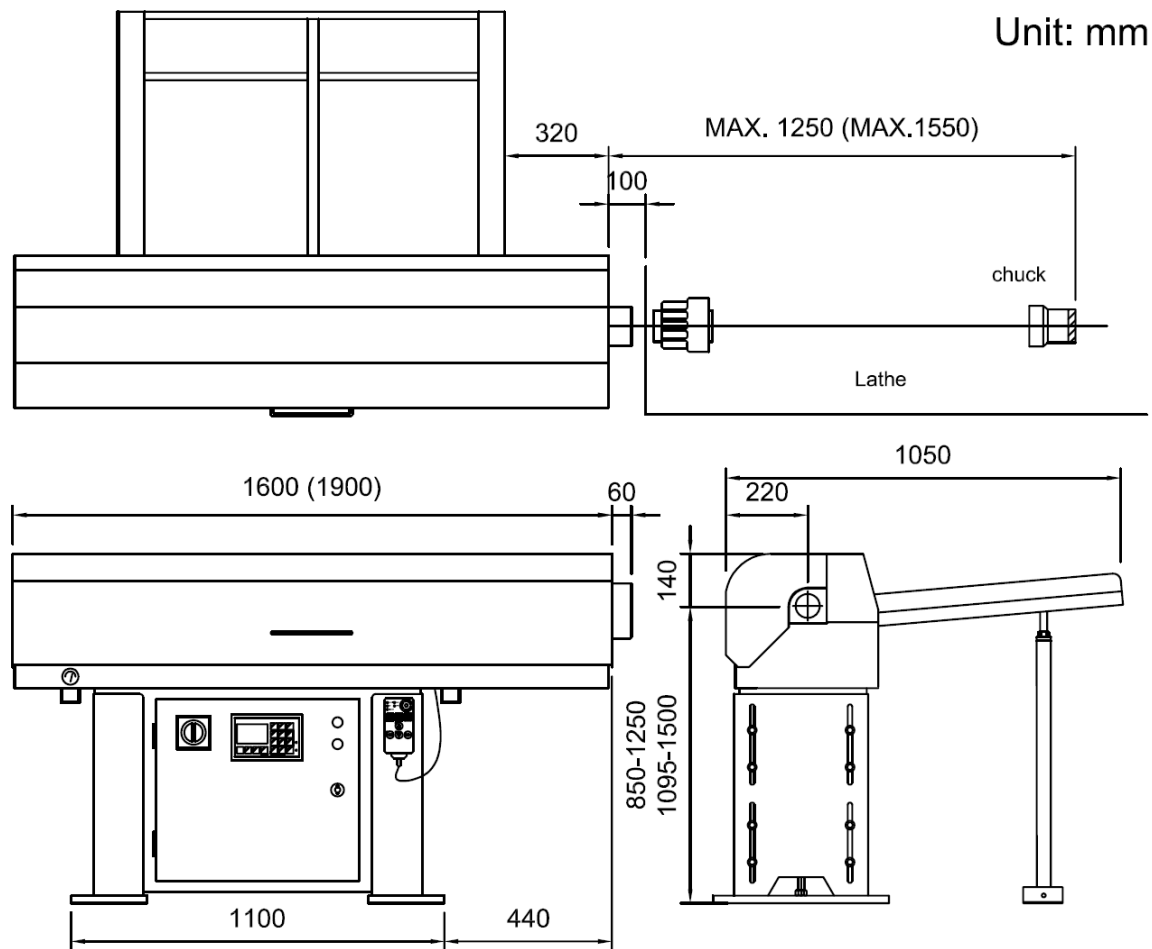
The remote control box is easily to be operated.

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

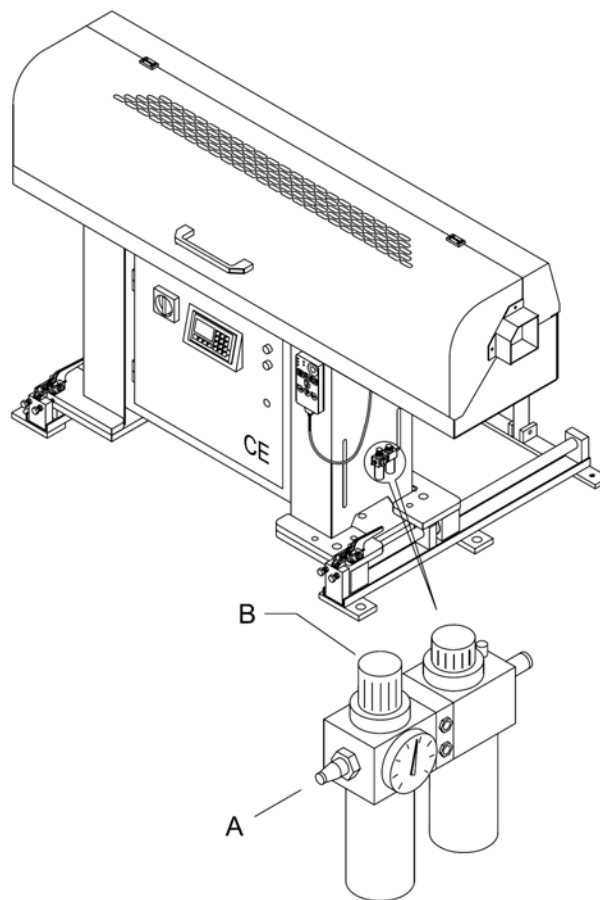


2.3 Description

| | 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 \varnothing 8mm. Minimum pressure 6 kg/cm². 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/cm².
- 2.4.3** Power supply 220V/380V , 50/60Hz.



3. TRANSPORTATION



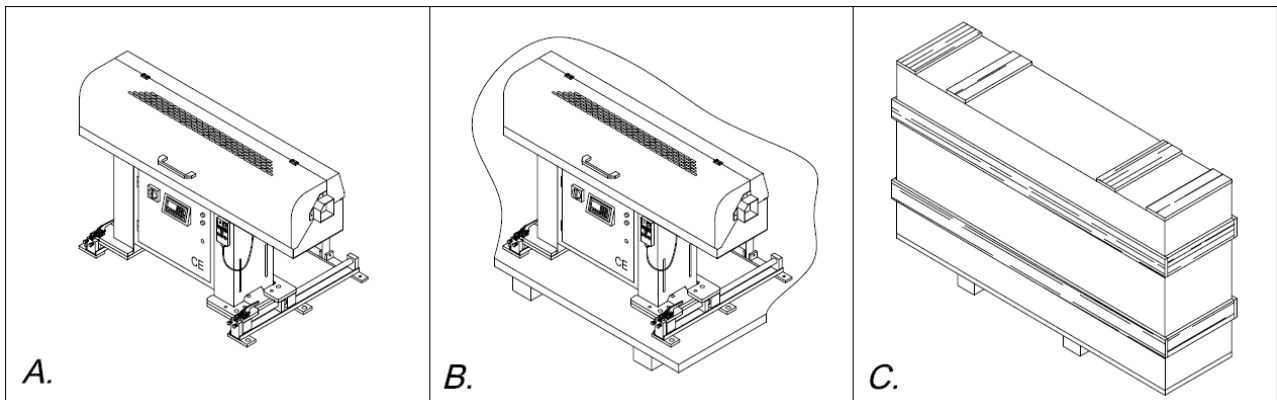
Hazard—warning :

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.

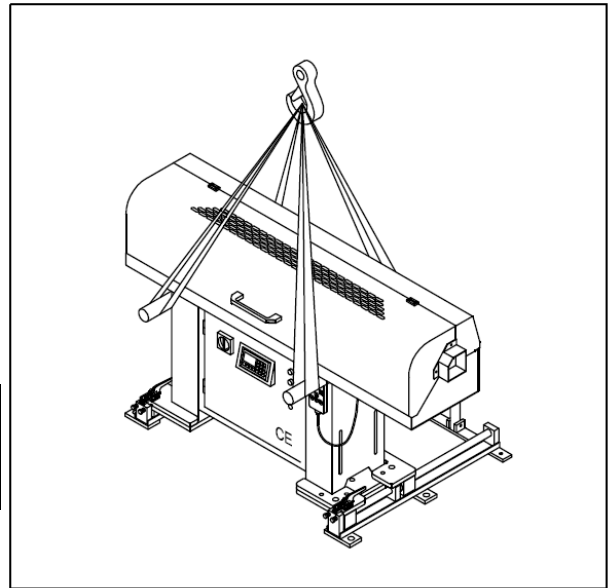


3.2 Transportation and hoist

3.2.1 Unpacking hoist

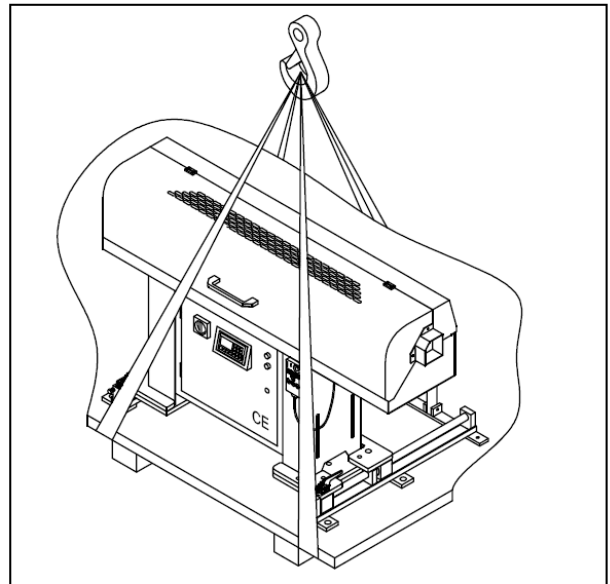
Putting two steel bars (Diameter : 30mm, Length: 1M) under the bar feeder, using suitable steel ropes which are able to bear the weight to hoist the bar feeder.

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



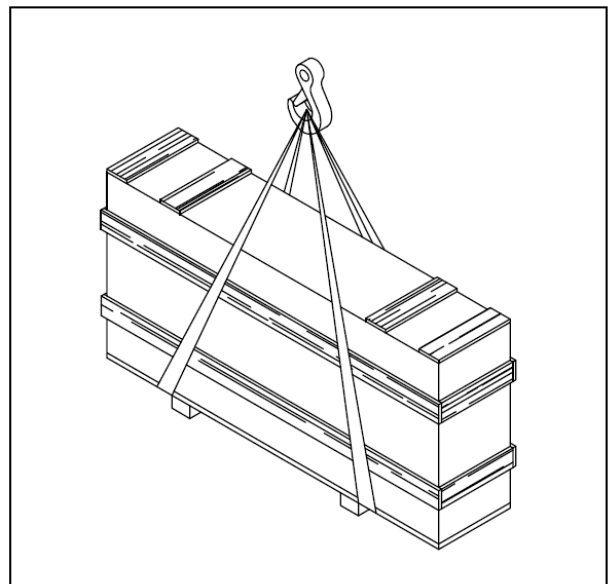
3.2.2 On the pallet

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

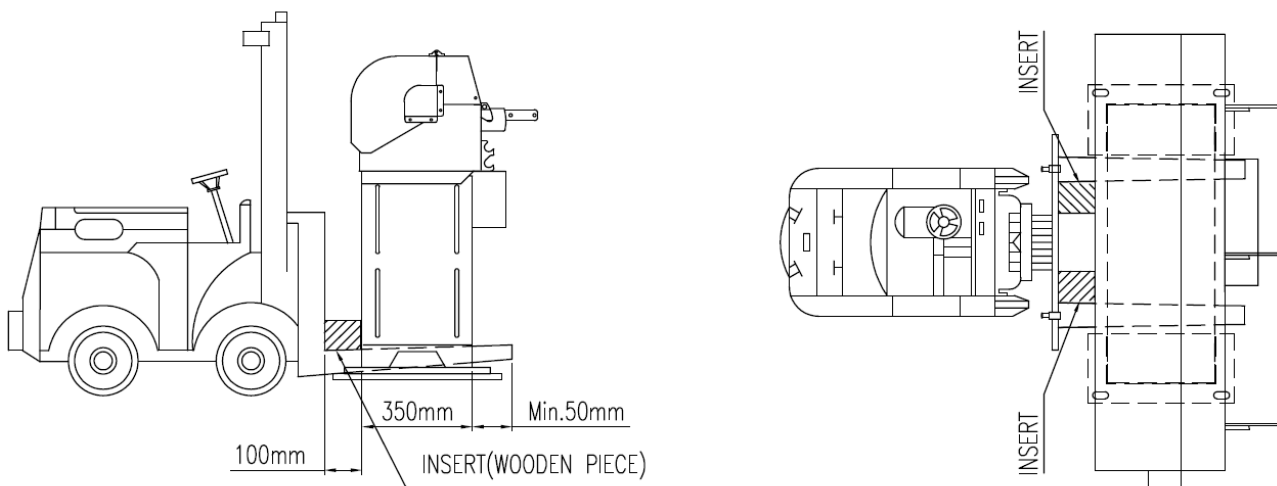
3.3.1 Safety regulation moved by forklift

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.

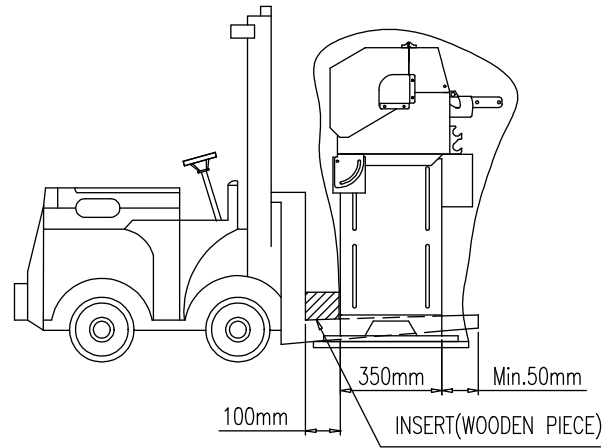
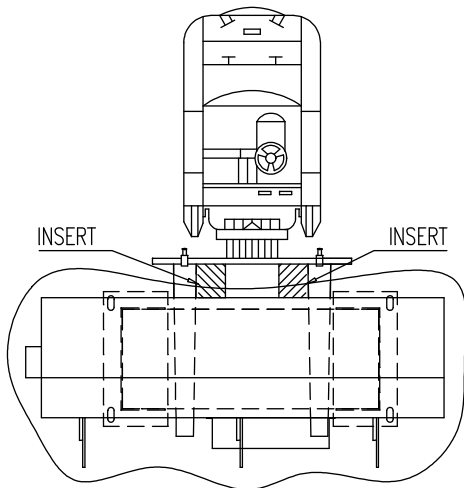
(Note) Machine weight approx. : V-65E-A----- 250kg (506lbs)

V-65LE-A---- 280kg (594lbs)

(1) Unpacking hoist



(2) On board transportation



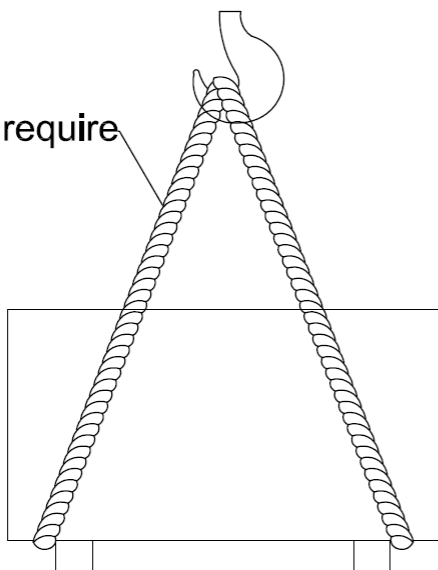
(3) Wooden transportation

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

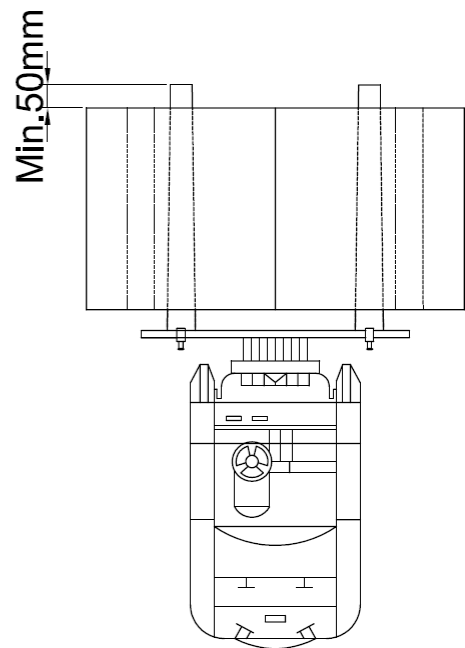
V-65LE-A---- 370kg (814lbs)

A. Moved by crane

Strength as require



B. Moved by forklift



3.4 Installation area

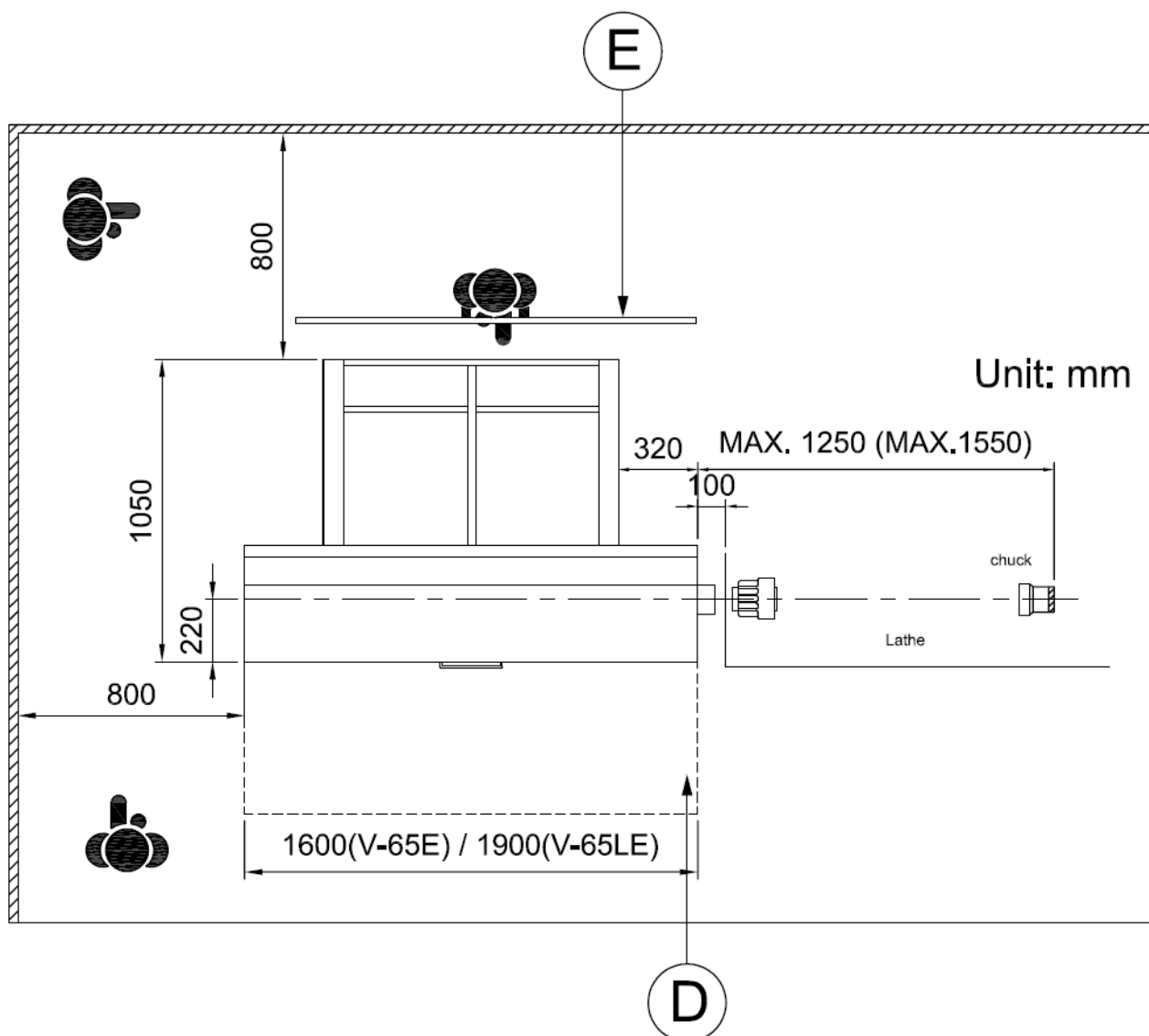
In order to fix the feeder securely, the floor must be flat and firm.

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

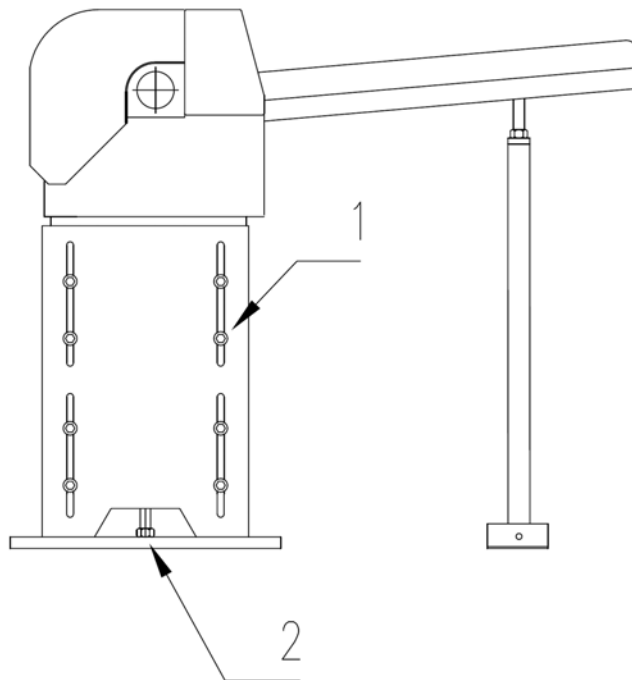
4.1 Bar feeder — Installation

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!!

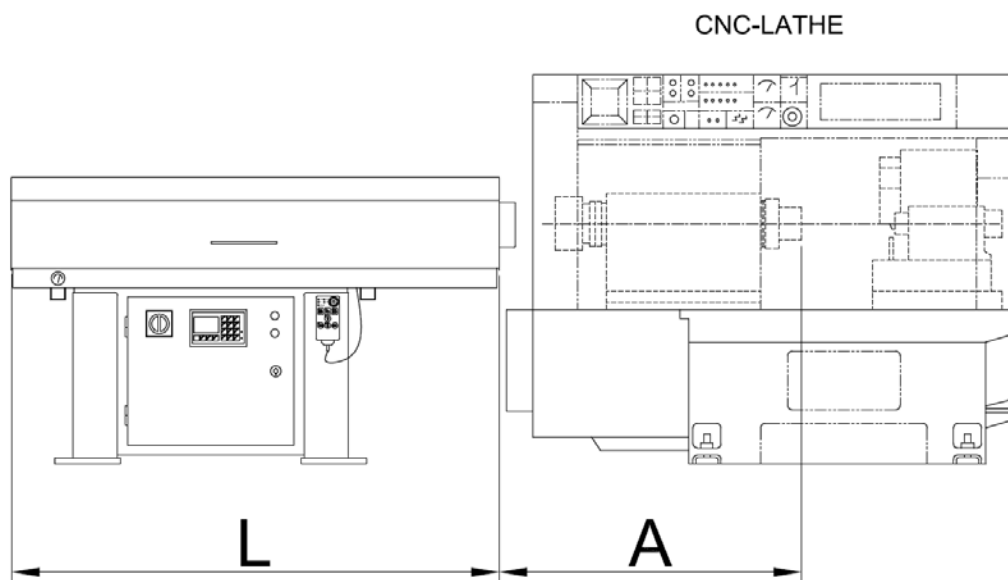
You may; however, load only bars whose length equals the spindle length of the CNC- lathe. The bar stock has to be fed completely into the lathe spindle.

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 !

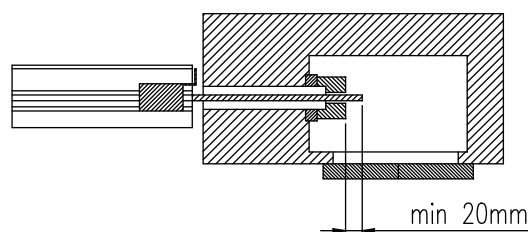
During directional adjusting the push bar must not touch the lathe spindle!!

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.



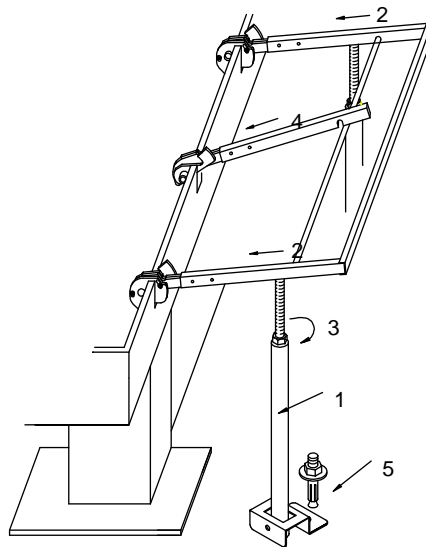
4.5 Mounting of the feeder frame

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) .

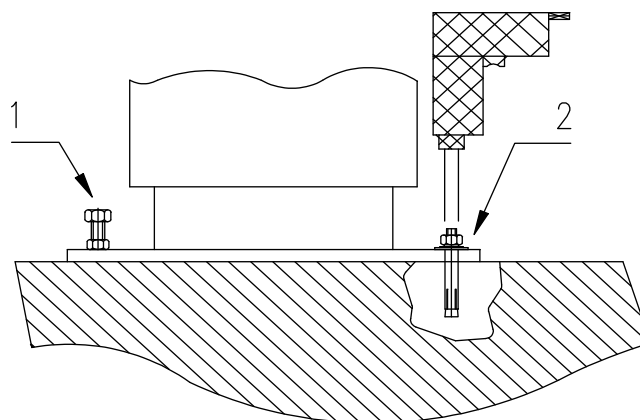
4.5.4 Finally securing with the screw (5) .



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 $\varnothing 19\text{mm}$ ($\frac{3}{4}$ ") , and fix the spindle-screw.



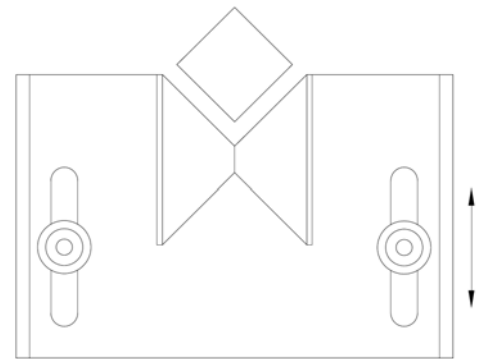
4.7 Accessories installation

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 $\varnothing 19\text{mm}$ ($\frac{3}{4}$ ") of bit, and fix the spindle-screw.

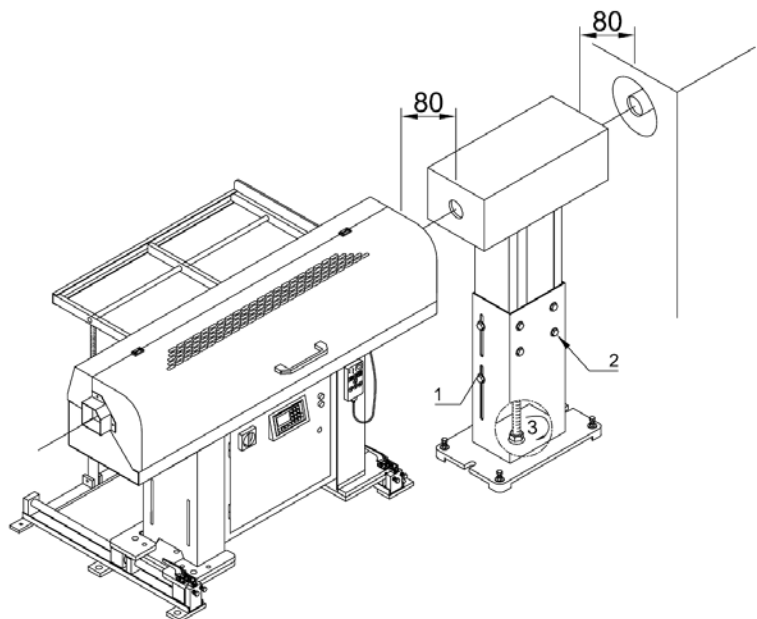
4.7.2 Auxiliary support stand (optional)

- 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

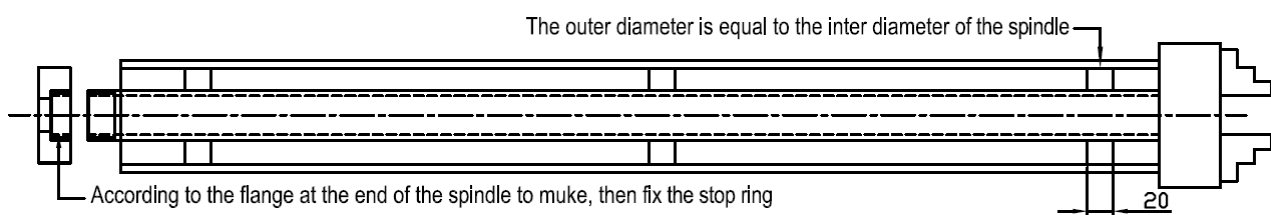
4.7.4.1 How to select correct spindle liners :

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.

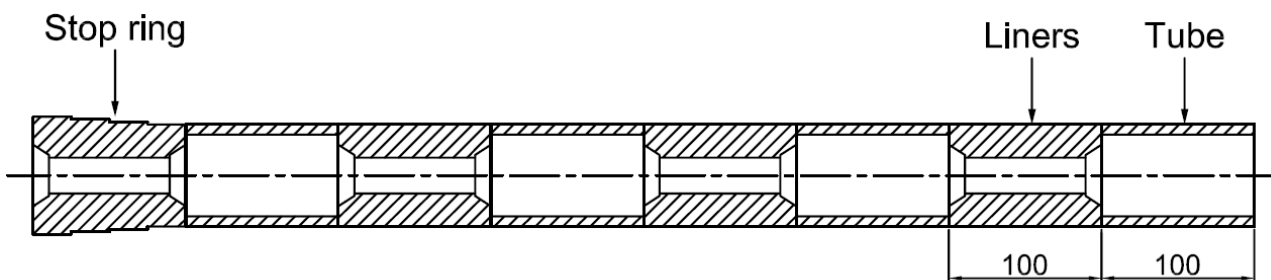
Even black bar stock can be machined by spindle liners.

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.



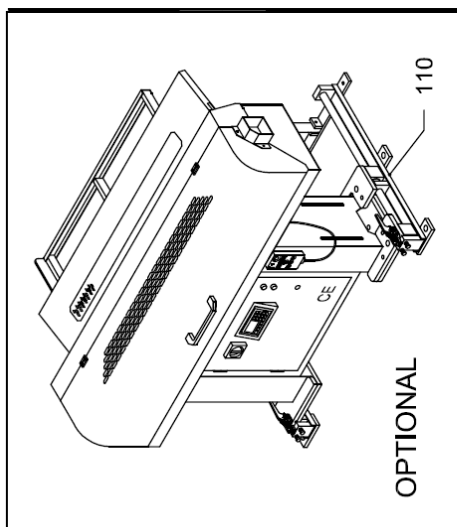
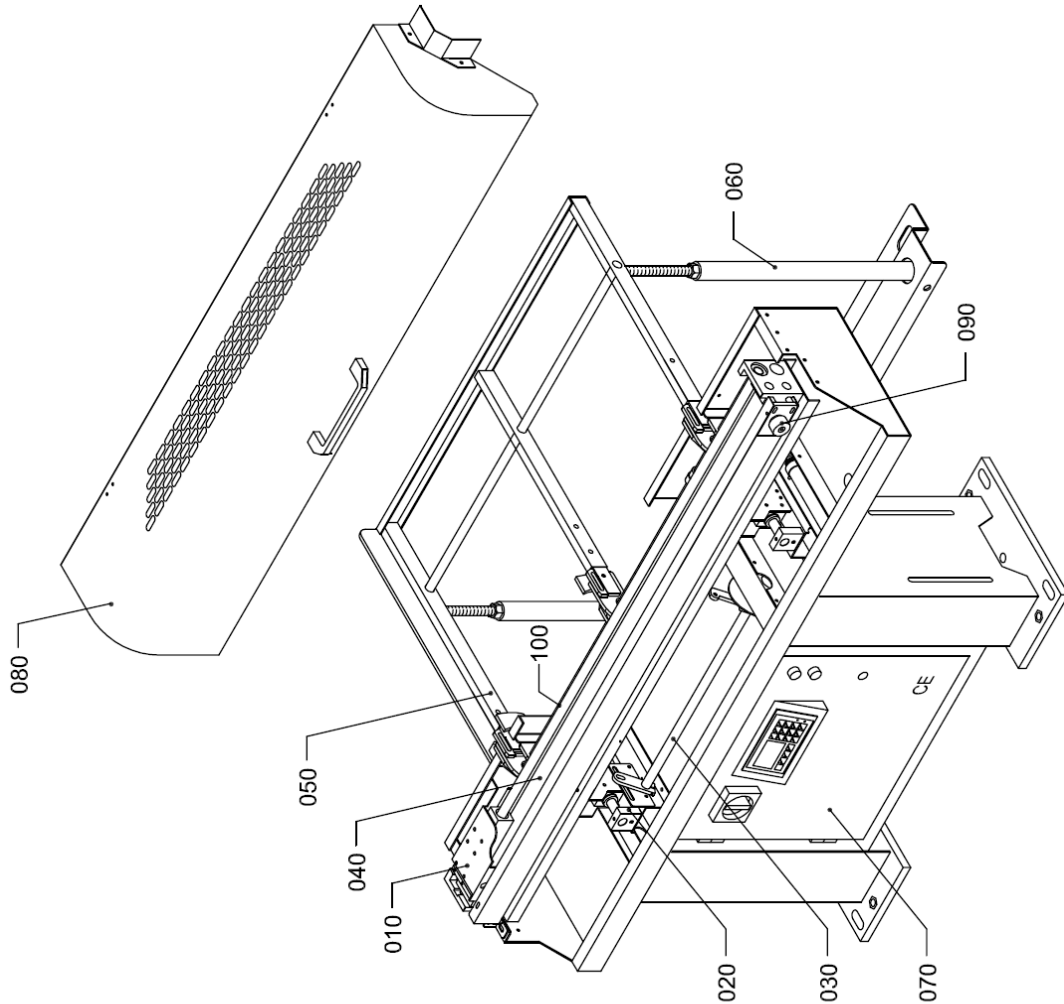
- 2 **PE** : Choose PE or Teflon to make according to the following method.



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

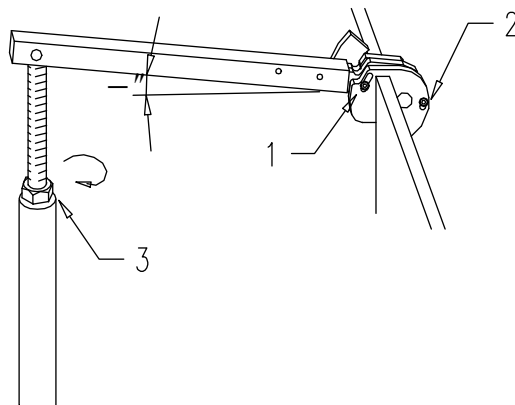
5.2 Adjustment and selection of the bar feeder

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 $5^\circ \sim 8^\circ$ hexagonal bar stock : α about 20° Disengage screw (1) and (2).

5.2.1.2 Adjust screw (3) to suitable α angle. The material can smooth to fall down.

5.2.1.3 Tighten screws (1) and (2).





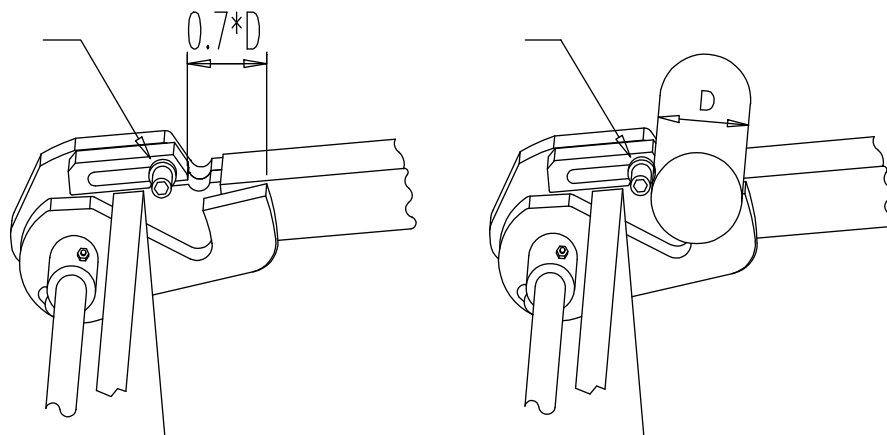
5.3 Adjustment of bar stop

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.

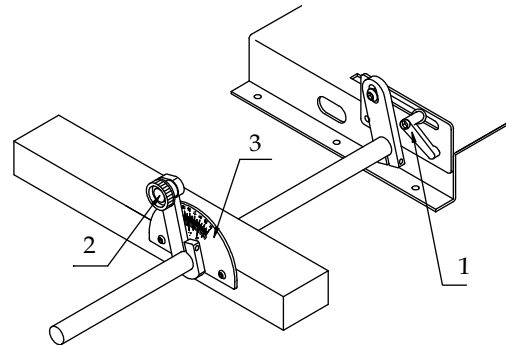
5.3.4 Switch into manual mode  , and go to  position.




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 $\varnothing 10\text{mm}$ | 3 kg/cm ² |
| $\varnothing 10\text{-}30\text{mm}$ | 3-4 kg/cm ² |
| from $\varnothing 30\text{mm}$ | 4-6 kg/cm ² |

5.6 Selection of push bar:

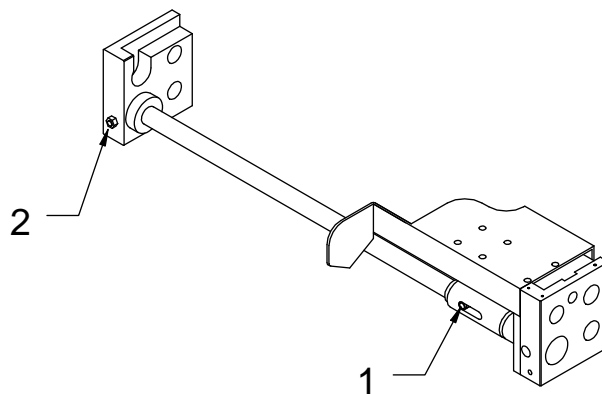
The push bar has to be adjusted to the bar diameter :

| 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!

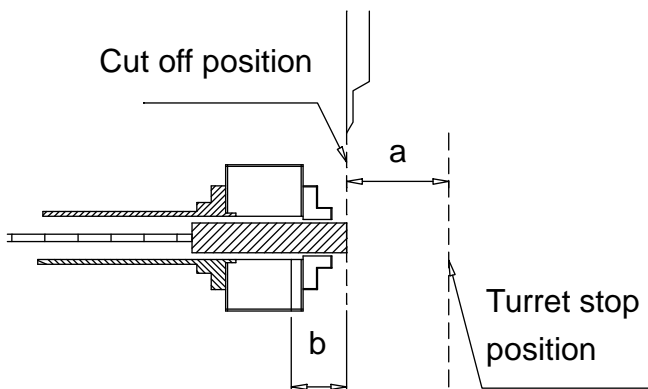


5.7 Optimizing remnant

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 :

$$A = 1200\text{mm}$$

$$L = 3200\text{mm}$$

$$a = 75\text{mm}$$

$$b = 40\text{mm}$$

$$M = (A - b) / a$$

$$= (1200 - 40) / 75$$

$$= 15.5$$

Each bar can produce 15 finish products.

$$K = M \times a + b$$

$$= 15 \times 75 + 40$$

$$= 1165$$


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.

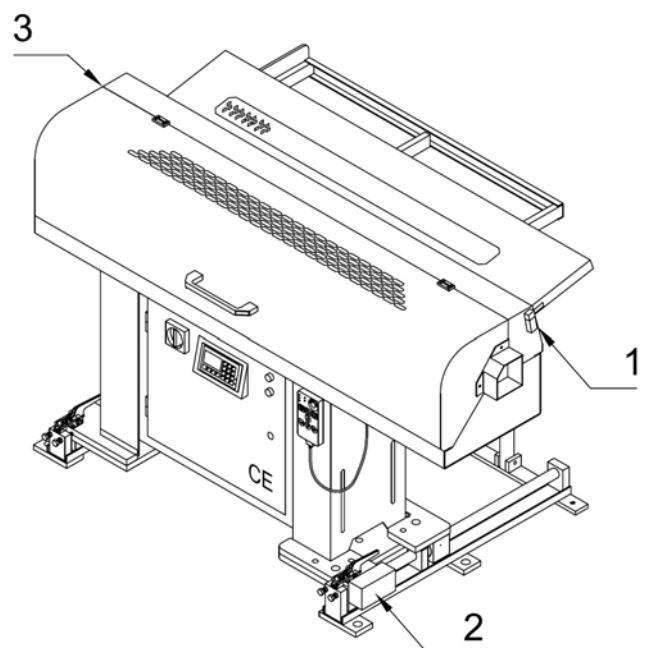
! IMPORTANT! The key-switch has to turn to "ON" , --otherwise the program can't to determine alarm to be directed against the safety cover.

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.

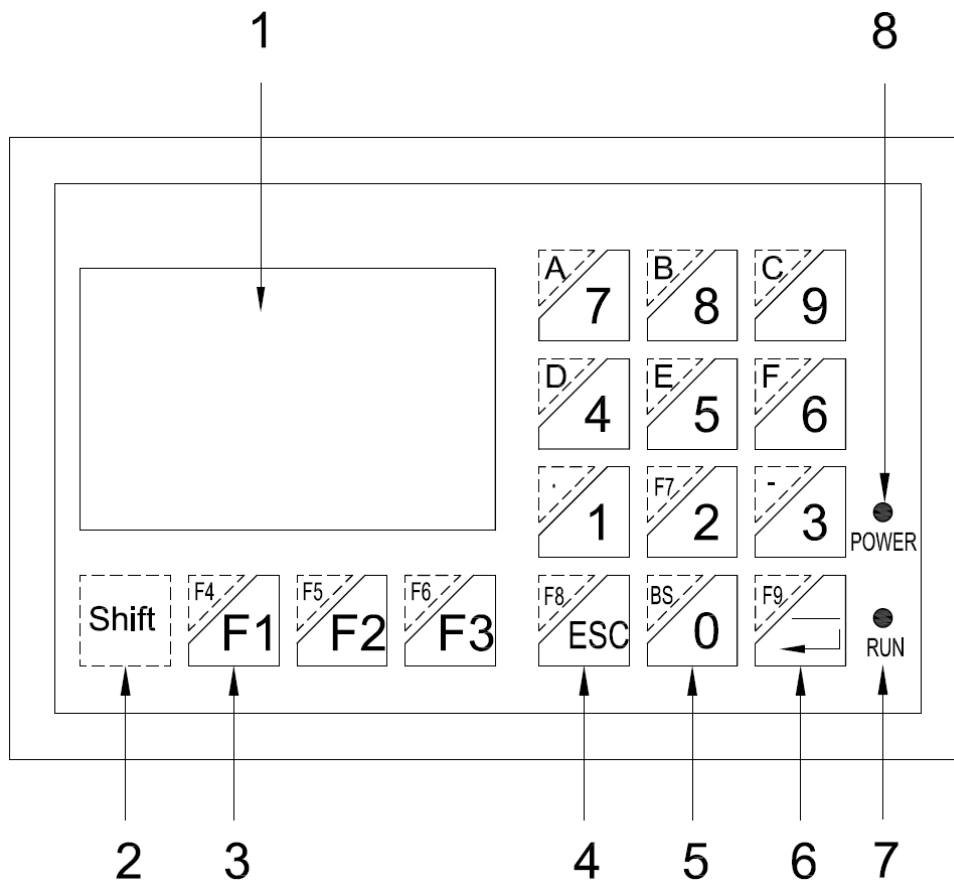
List1 — The max length of material

| 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

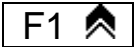
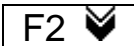
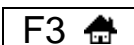
6.2.1 H/M function description





| 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 :

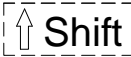
Shift–display : Press the key according to the indication on the display.

- (1)  : Page up
- (2)  : Page down
- (3)  : Back main contents

6.2.1.2 Set up an input for numbers :

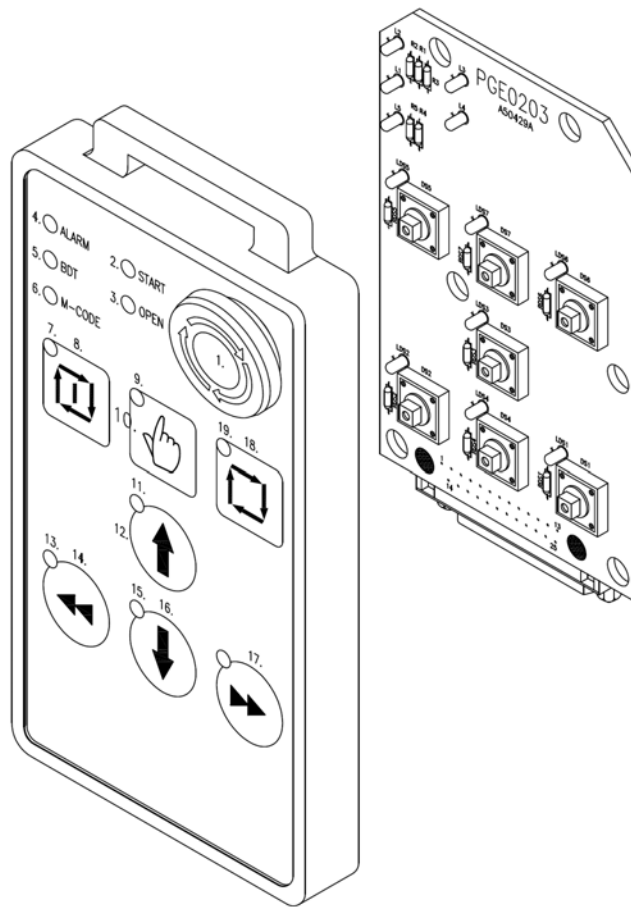
- (1) Input numbers from 0~9, input the numbers as your request.
- (2) Press  again, the input is finished. If you want to give up the input that you set, press  for give up.

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  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 :

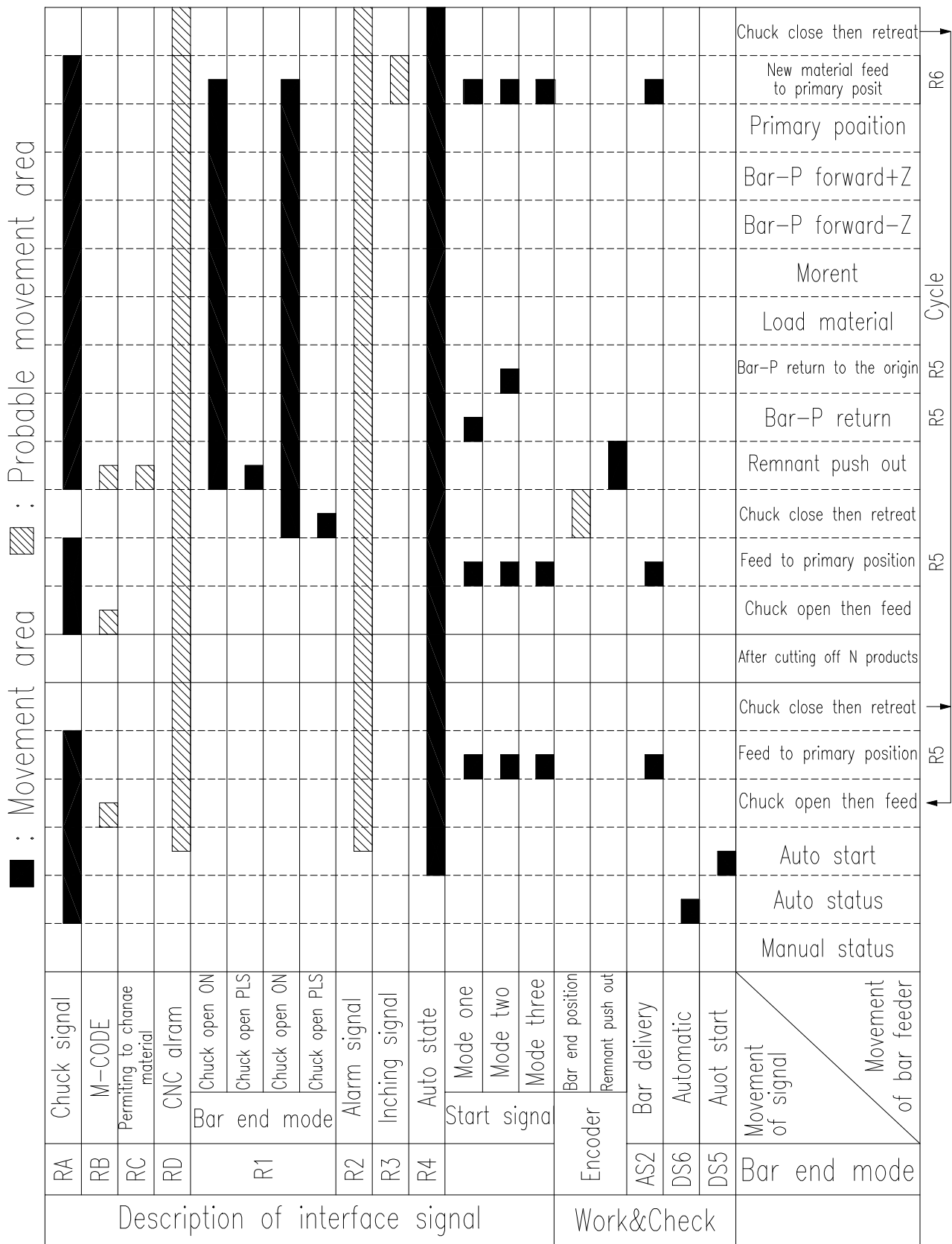
When  is lightened, it is under manual mode. When  is lightened, at this time please press  and , then start to manufacture automatically.

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 .

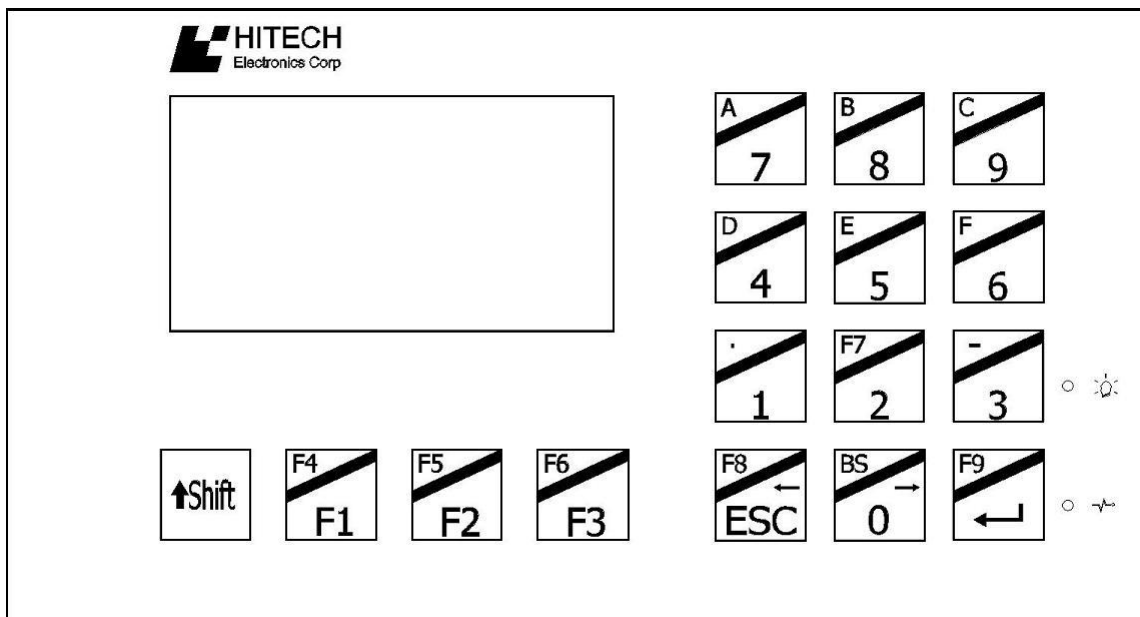
If the position of push bar cannot be in Zero while the push bar move backward in the origin please. Press  , then 3S will proceed the origin regression.

6.2.4 Working cycle—CNC lathe



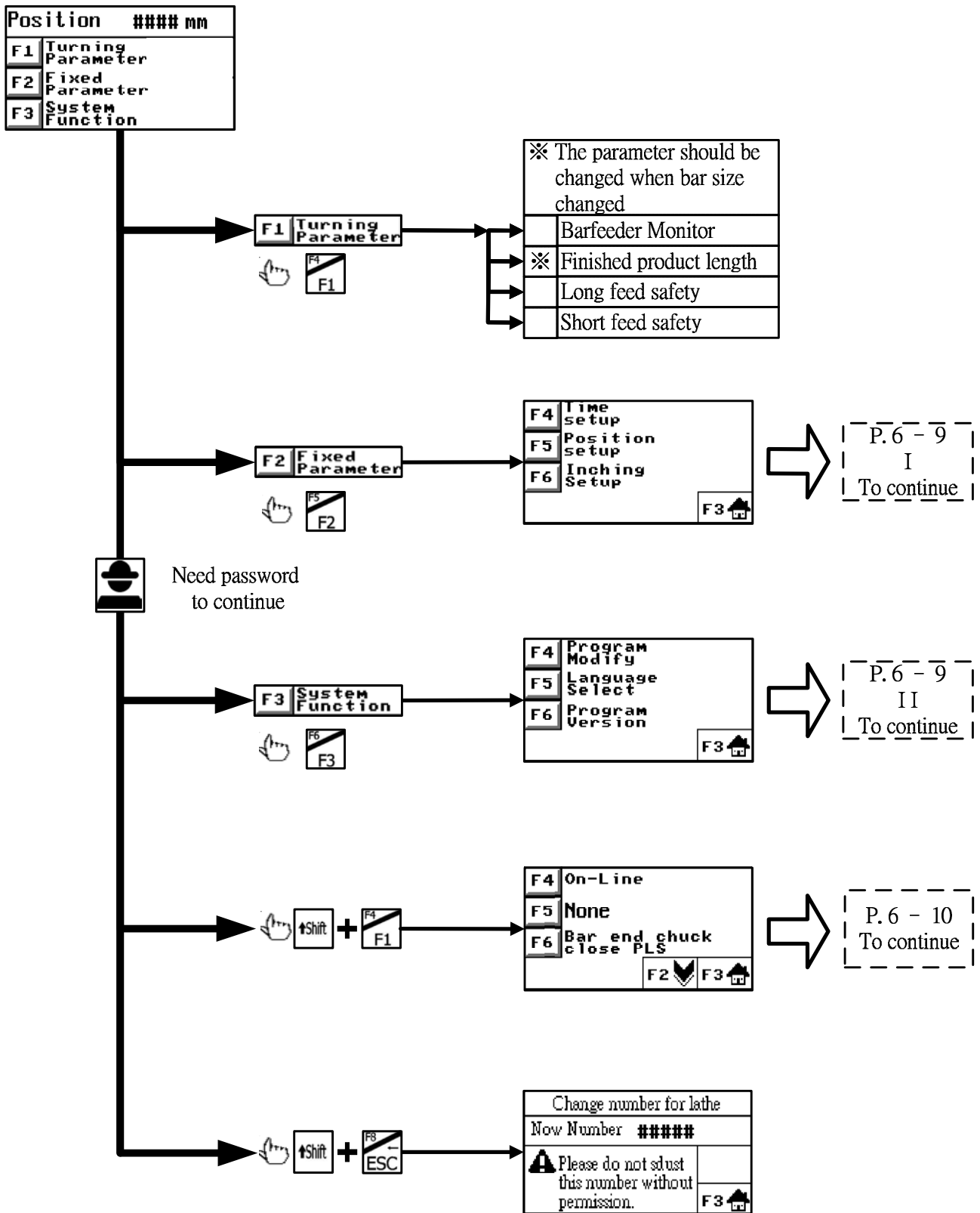
6.3 Description of settings and parameter

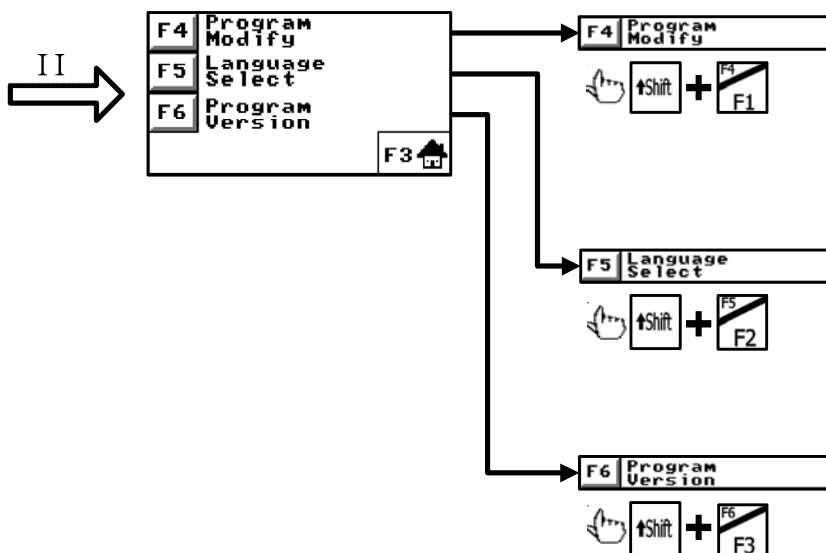
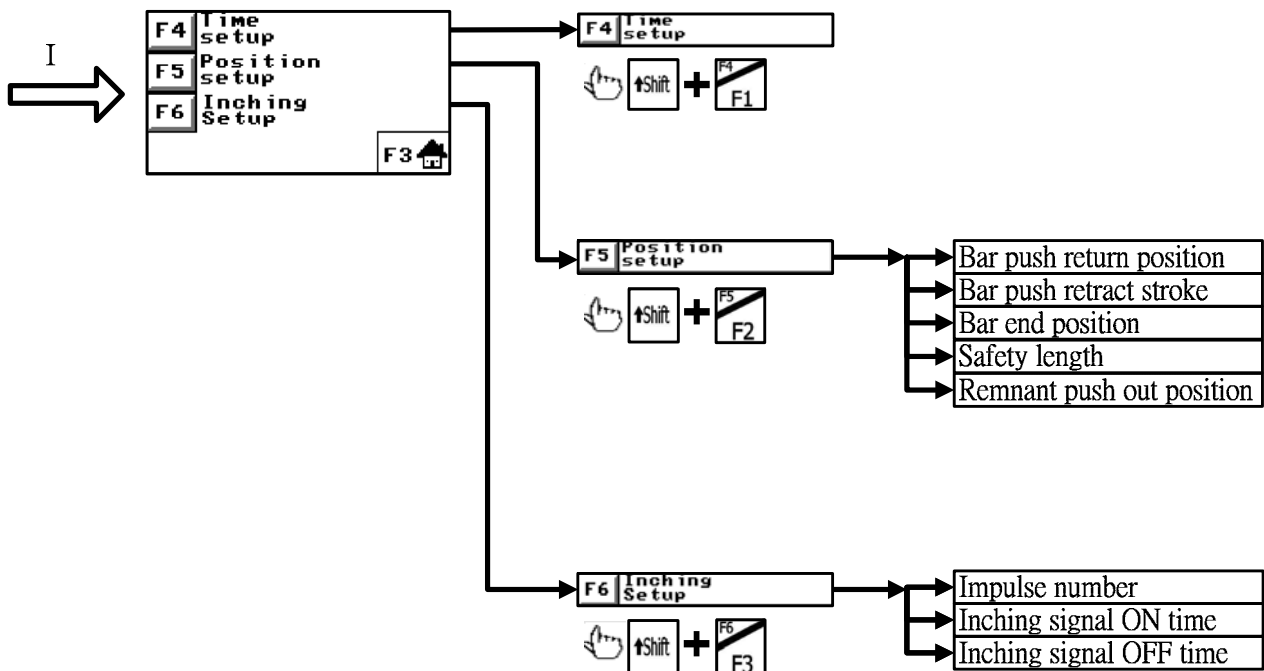
6.3.1 HMI Program selection

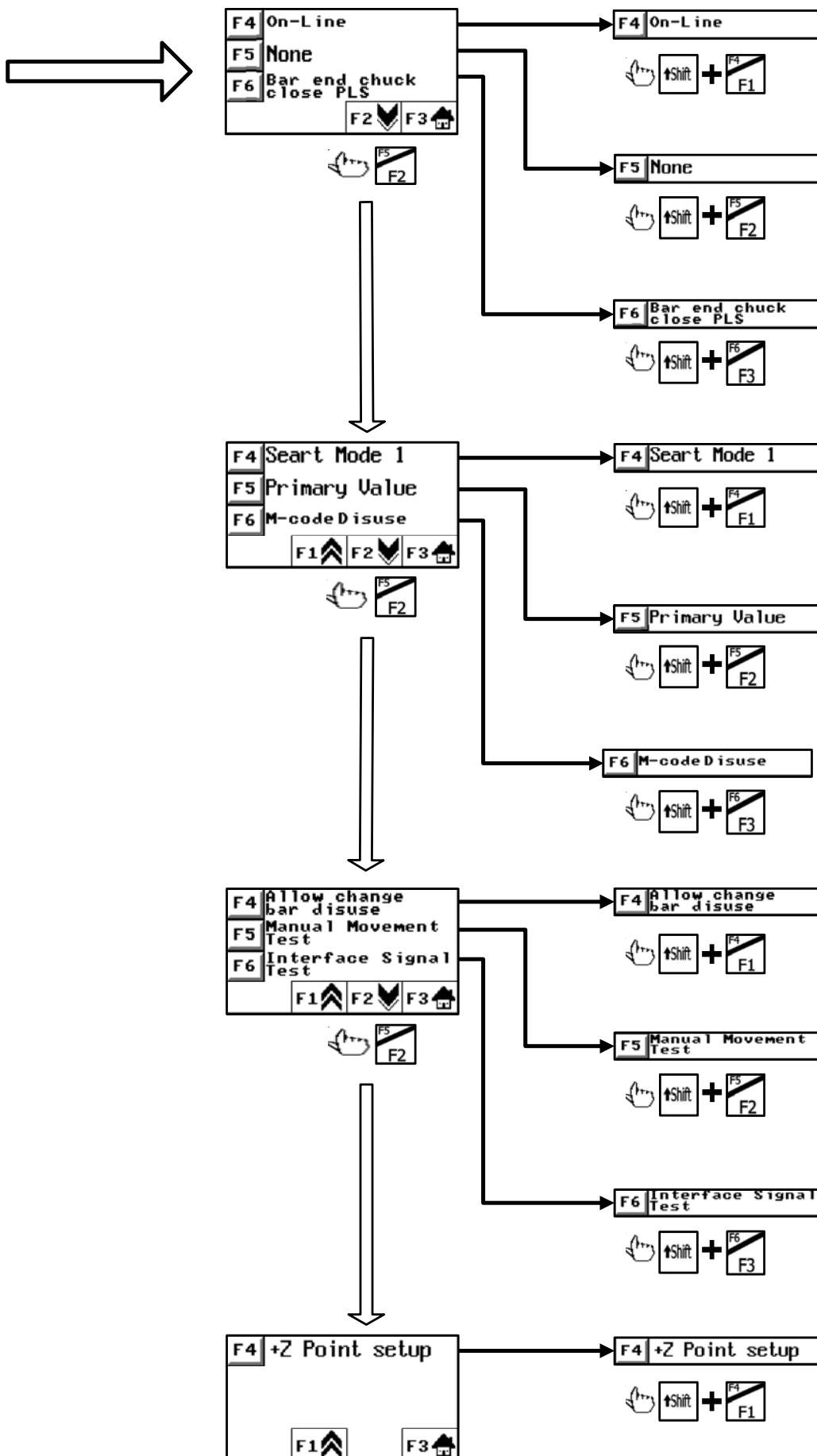


1. Press the key :
2. Press the key :
3. Press the key :
4. Press the key :
5. Press the key :
6. Press the key :
7. Press the key :
8. Press the key :
9. Press the key :

6.3.2 Parameter picture driftage







6.3.3 Description of settings and parameter

6.3.3.1 Turning parameter

| | |
|---------------------|-------|
| Position: ##### mm | |
| Valid Bar: ##### mm | |
| Pieces: ##### Pcs | |
| | F2 F3 |

Next page

Home page

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 |
|------------------------|----|-----------------|----|

| | |
|--------------------------------|----------|
| Position ##### mm | |
| Finish product length ##### mm | |
| | F1 F2 F3 |

Previous page

Next page

Home page

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 :
 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 : |
|------------------------|-----------------|

| | |
|---------------------------|----------|
| Position ##### mm | |
| Long Feed safety ##### mm | |
| | F1 F2 F3 |

Previous page

Next page

Home page

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.

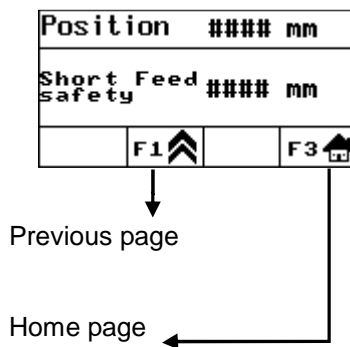
Setting method :
 This parameter will be finished product length to add 5 mm automatically after finished product length setting. This parameter can also be set finished product length to add tolerance.

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 :

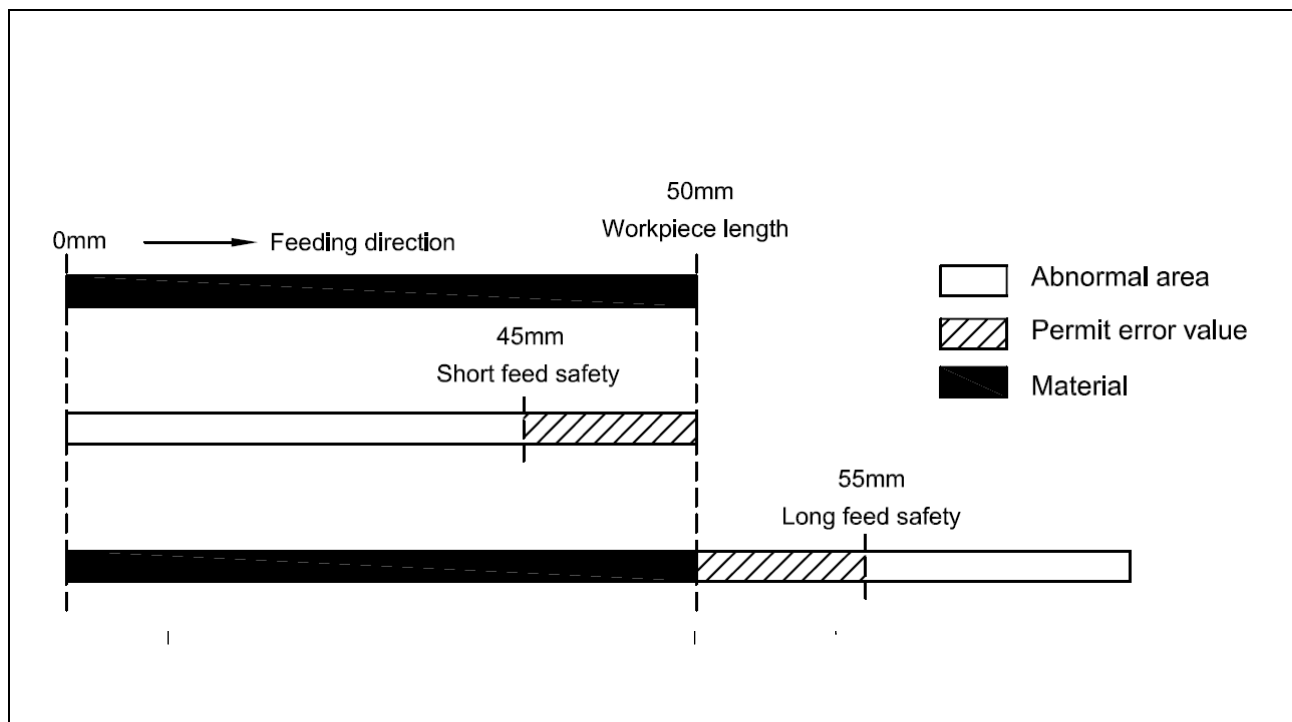
Ex :

Refer to figure 1 :


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. Finished product length - Tolerance = Short feed safety.

| | | |
|------------------------|-----------------|-------|
| 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”



| | |
|------------|--|
| Position | #### mm |
| Delay Time | ##.# Sec |
| | F3  |

Home page

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 : |

| | |
|--------------------------|---|
| Position | #### mm |
| Bar push Return Position | #### mm |
| | F2  F3  |

Next page

Home page

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.

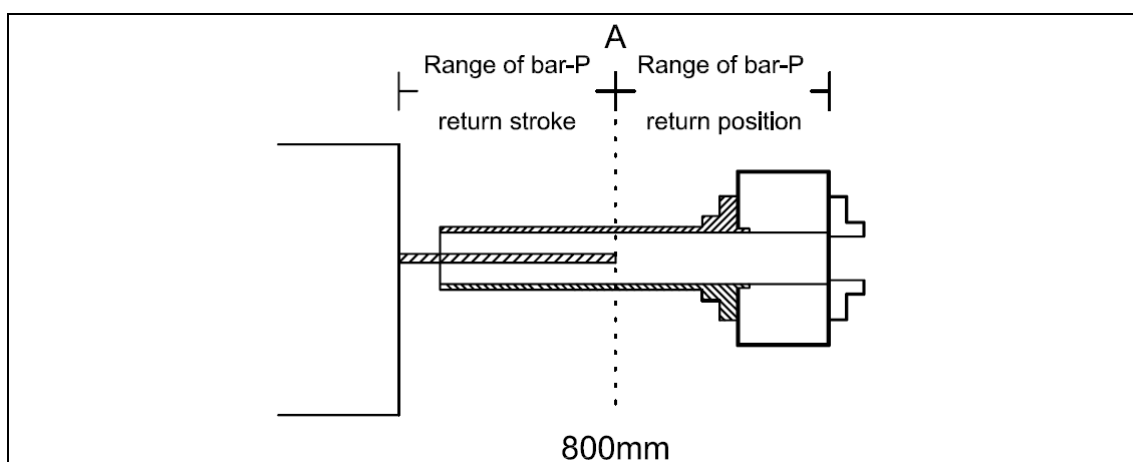
Setting method : By manual operation let the bar pusher move into the spindle inside around 1 / 3 of its length. To ensure not to touch the spindle and input the current position.

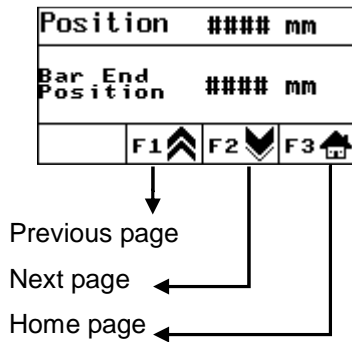
For example : If the value of parameter is set to 800mm and the bar pusher is out of the A area, the bar pusher will retract to 800mm after chuck closed.

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 to 1000 mm.

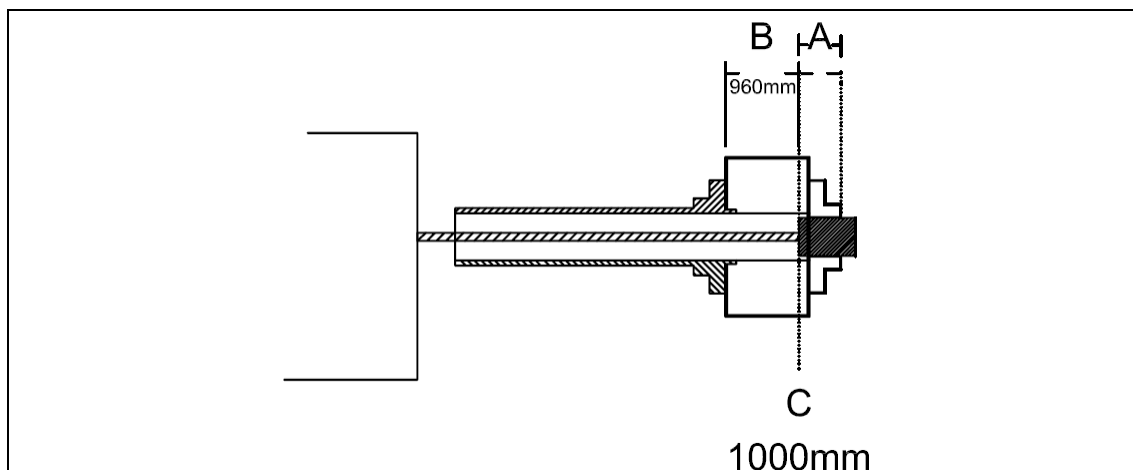
1.2M Generally value :

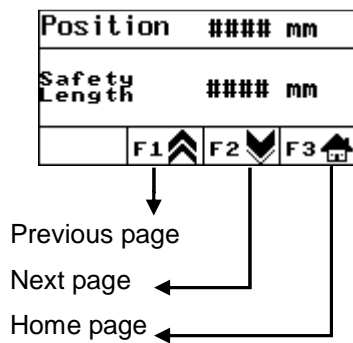
Setting range : 0~1700

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 :

Ex :

To measure the distance between chuck facing detection position and cutter position after center adjustment.

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".

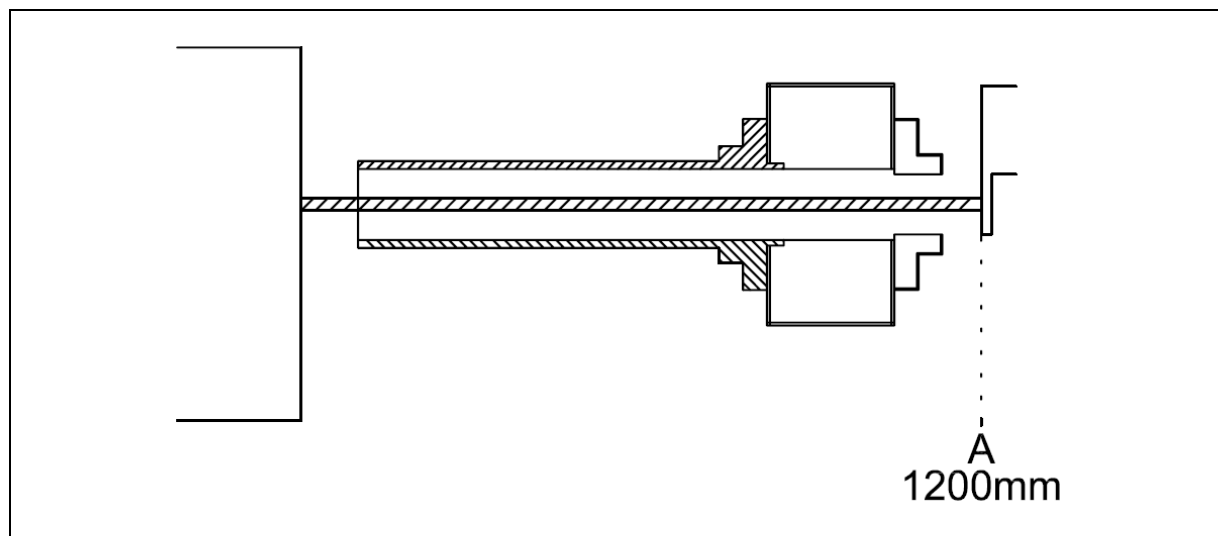
1.2M Generally value :

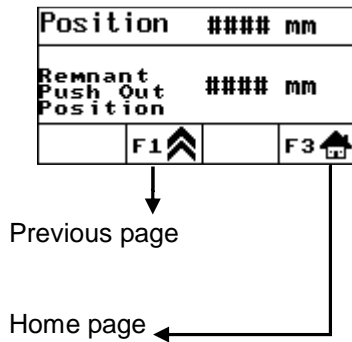
Setting range : 0~1700

1.5M Generally value :

Setting value :

(Figure 4)





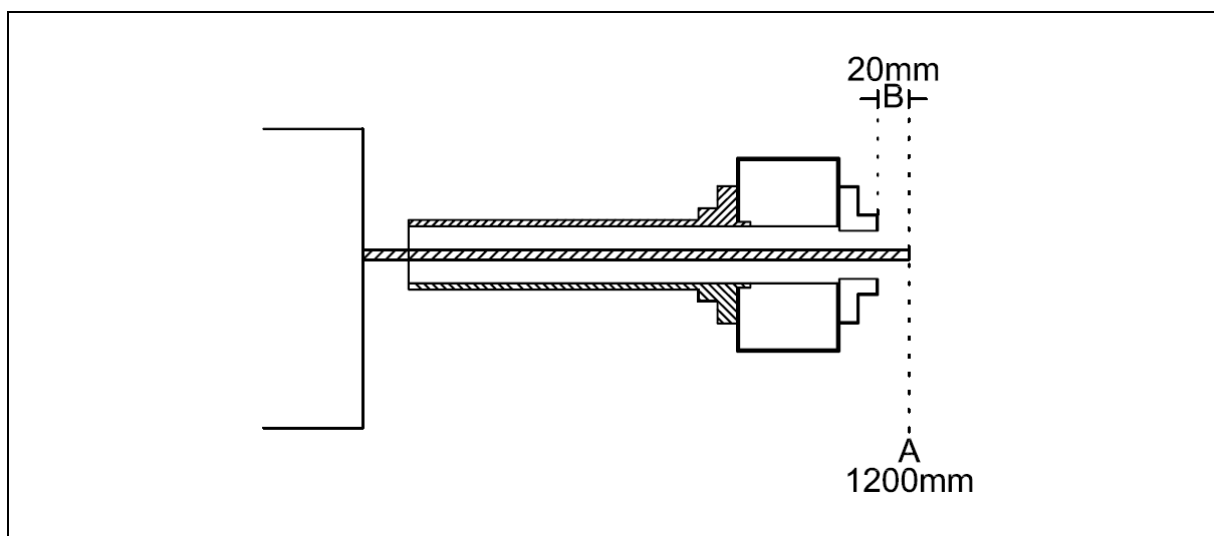
Parameter description : This distance is the position that bar pusher pushes out the remnant into the lathe.



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)



| | |
|----------------|---|
| Position | #### mm |
| Impulse Number | ## times |
| | F2  F3  |

Next page




Home page

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 : |
|------------------------|-----------------|

| | |
|-----------------|--|
| Position | #### mm |
| Impulse ON Time | ##.#Sec |
| | F1  F2  F3  |

Previous page

Next page



Home page

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 : |
|------------------------|-----------------|

| | |
|------------------|---|
| Position | #### mm |
| Impulse OFF Time | ##.#Sec |
| | F1  F3  |

Previous page

Home page

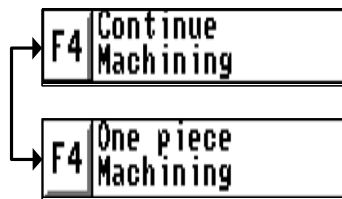
Parameter description : Set the ending time (OFF) of bar pusher inching moves so that the chuck of lathe will stop moving at the same time during bar feeder changes new bars.

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 necessities 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”.

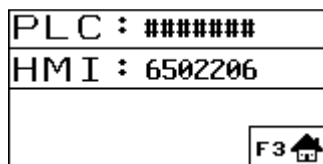
| | |
|------------------------|--------------------|
| 1.2M Generally value : | Setting range : NO |
| 1.5M Generally value : | Setting value : |



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 : |

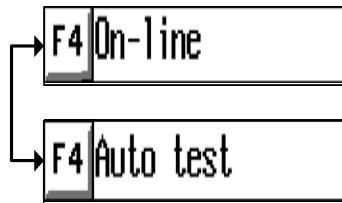


Home page

Parameter description : To verify the version number of PLC and HMI programs.

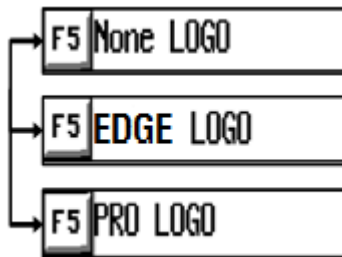
| | |
|------------------------|--------------------|
| 1.2M Generally value : | Setting range : NO |
| 1.5M Generally value : | Setting value : |

6.3.3.4 Particular program modify / enter password “258”



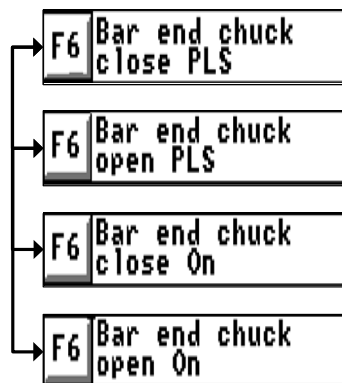
Parameter description : This function can shift the bar feeder connect with the lathe or auto test.

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



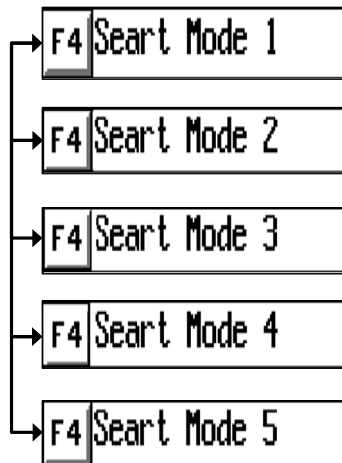
Parameter description : This function can shift the Logo on the screen of the man machine.

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



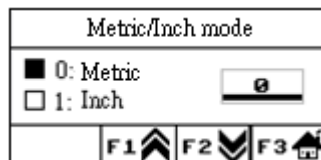
Parameter description : This is the bar feeder required a bar end signal to send the timing for CNC program, relative to the description of sequence, please refer to the description of sequence of movement signal in article 6.2.3.

| | |
|------------------------|--------------------|
| 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 : |



Previous page

Next page

Home page

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 : |



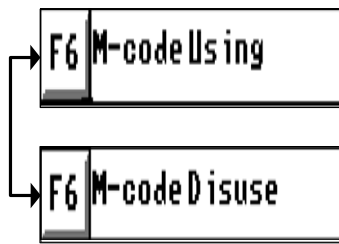
Enter

Previous page

Home page

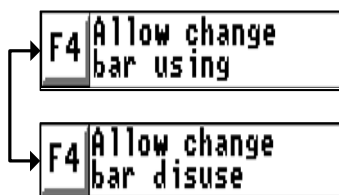
Parameter description : Set all parameters to factory value. Select the correct length of bar feeder to proceed. Otherwise may cause problems.

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



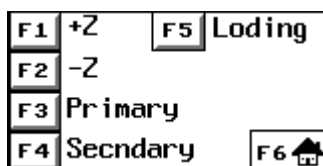
Parameter description : The lathe gives a feeding signal to the bar feeder are two modes:
 1. Chuck Signal 2. M-Code.
 If the interface of lathe and bar feeder only connect "Chuck Signal", please set for "0: M-Code No Use".
 If the interface of lathe and bar feeder connect "Chuck Signal" and "M-Code",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




Home page ←

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 : | |

| | | | |
|----|-----------------|----|---|
| F1 | Bar End | F5 | Start |
| F2 | Alarm | F6 | Chuck Open Start |
| F3 | Inching | | |
| F4 | Auto Running | F7 |  |


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 : |
|------------------------|-----------------|

| | |
|----------|--|
| Position | #### mm |
| +Z Point | #### mm |
| | F3  |

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 |
|------------------------|---------------------------|

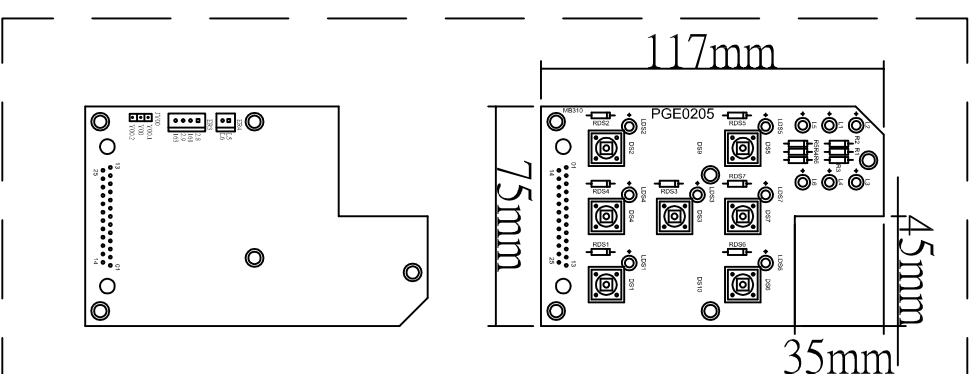
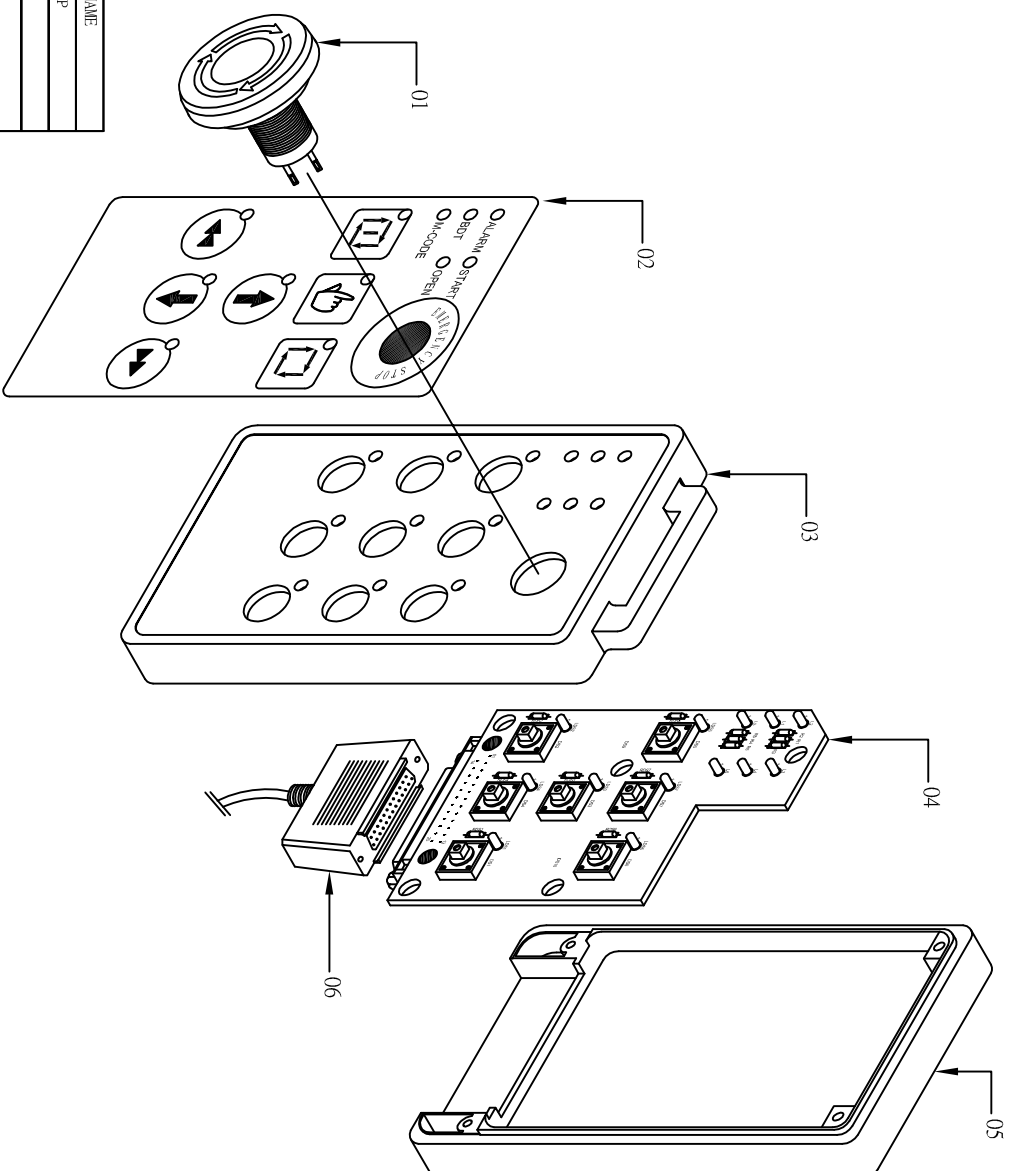
| | |
|------------------------|-----------------|
| 1.5M Generally value : | Setting value : |
|------------------------|-----------------|

6.4 Refer alarm message

6.4.1 HMI Alarm Message

| ERROR / CAUSE | CURE |
|---|--|
| <div>ALARM:01</div> <div>F3 </div> <div>Bar move forward over the setting length.</div> | <ul style="list-style-type: none"> ※ Please check the value of long feed safety is correct ※ Check the turret whether at correct position of stopping material |
| <div>ALARM:02</div> <div>F3 </div> <div>Bar move forward less than the setting length.</div> | <ul style="list-style-type: none"> ※ Please check the value of short feed safety is correct ※ Check the turret whether at correct position of stopping material. |
| <div>ALARM:03</div> <div>F3 </div> <div>+X axis move not smooth.</div> | <ul style="list-style-type: none"> ※ Check compressed air whether enough. ※ Pull out the tube of the combination unit and then insert the tube again. |
| <div>ALARM:04</div> <div>F3 </div> <div>-X axis move not smooth.</div> | <ul style="list-style-type: none"> ※ Check compressed air whether enough. ※ Pull out the tube of the combination unit and then insert the tube again. |
| <div>ALARM:05</div> <div>F3 </div> <div>SR3 and SR4 ON at the same time.</div> | <ul style="list-style-type: none"> ※ Please refer to electrical diagram (P.01), check SR3 and SR4 whether have foreign metals adhere to them. |
| <div>ALARM:06</div> <div>F3 </div> <div>Cutting sensor error.</div> | <ul style="list-style-type: none"> ※ Please refer to electrical diagram (P.01), check LS2 whether be jammed by any foreign object. |
| <div>ALARM:07</div> <div>F3 </div> <div>HiIking sensor error.</div> | <ul style="list-style-type: none"> ※ Please refer to electrical diagram (P.01) , check LS1 whether be jammed by any foreign object. |
| <div>ALARM:08</div> <div>F3 </div> <div>Front and back hood not close.</div> | <ul style="list-style-type: none"> ※ Please refer to electrical diagram (P.01), LS3 and LS4 are operative while SS1 is opened. ※ Please close the covers. |

| ERROR / CAUSE | CURE |
|---|---|
| ALARM:09 F3  Sliding rail not in position. | ※ Please refer to electrical diagram (P.01) , LS5 is operative while SS1 is opened. ※ Please push the bar feeder to correct position of working. |
| ALARM:10 F3  Insufficient air pressure. | ※ Check the pressure of the compressed air. ※ Please refer to electrical diagram (P.02), check AS1 whether breakdown. |
| ALARM:11 F3  NO material. | ※ Please check whether have any material on the bar feeder or in the spindle. |
| ALARM:12 F3  CNC alarm. | ※ Before machining, please solve the alarm of CNC. |
| ALARM:13 F3  Lathe chuck close when feeding bar. | ※ Please check the start signal sent from the bar feeder whether correct of CNC's sub-program. |
| ALARM:14 F3  Over the safe time of feeding bar. | ※ Please check whether the bar feeder feeding smoothly . ※ Please check whether the new material is lodged out of the spindle. |
| ALARM:15 F3  Bar end unable to push out. | ※ 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) |
| ALARM:16 F3  Lathe unable to start. | ※ Please check whether the interface signal code R5 Relay has motion. ※ Check whether the lathe receive the signal from R5 Relay. |
| ALARM:17 F3  Unable to send bar to cutting position. | ※ Please check the setting of facing position. Please refer to (page 6-16) |



| NO. | PART NO. | CODE | NAME |
|-----|-------------------|------|----------------|
| 01 | J310702 + J460340 | E52 | EMERGENCY STOP |
| 02 | 691120401 | | PASTER |
| 03 | 691120500 | | TOP |
| 04 | J510400 | MCB | PC BOARD |
| 05 | 691120600 | | BOTTOM |
| 06 | J420600 | | CABLE |

| D | BAR FEEDER TYPE |
|---|-----------------|
|---|-----------------|

V-65E-CE-A

[illegible]

LATHE TYPE

| |
|------------|
| FIRST DATE |
|------------|

2013 / 08 / 30

DRAWN BY

REVISION DATE

2016 / 03 / 31

| |
|------------|
| CHECKED BY |
|------------|

VOLTAGE

AC 3-PHASE

GNAL. VOLTAGE

24VDC

PAGE

03

DESCRIPTION DECOMPOSITION OF

REMOTE CONTROL PENDANT

DRAWING NO.

JV-65EA1 (CF) (MIX)-EQ

| | |
|---------|--|
| VERSION | |
|---------|--|

BO

01

02

03

04

05

90

EDGE ○○○
TECHNOLOGIES
A DIVISION OF HYDROMAT INC.

A DIVISION OF HYDROMAT INC.

01

02

03

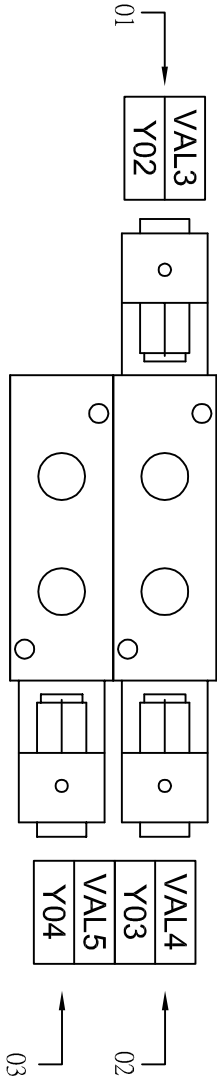
04

05

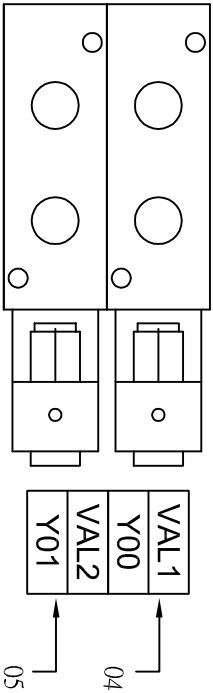
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A4

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

LATHE NAME

LATHE TYPE



FIRST DATE

2013 / 08 / 30

DRAWN BY

REVISION DATE

2016 / 03 / 31

CHECKED BY

MAIN VOLTAGE

220 VAC 3-PHASE

SIGNAL VOLTAGE

24VDC

PAGE

P. 04

DESCRIPTION

Solenoid valves position

DRAWING NO.

JV-65EA1(CE)(MIX)-EG

VERSION

B0

01

02

03

04

05

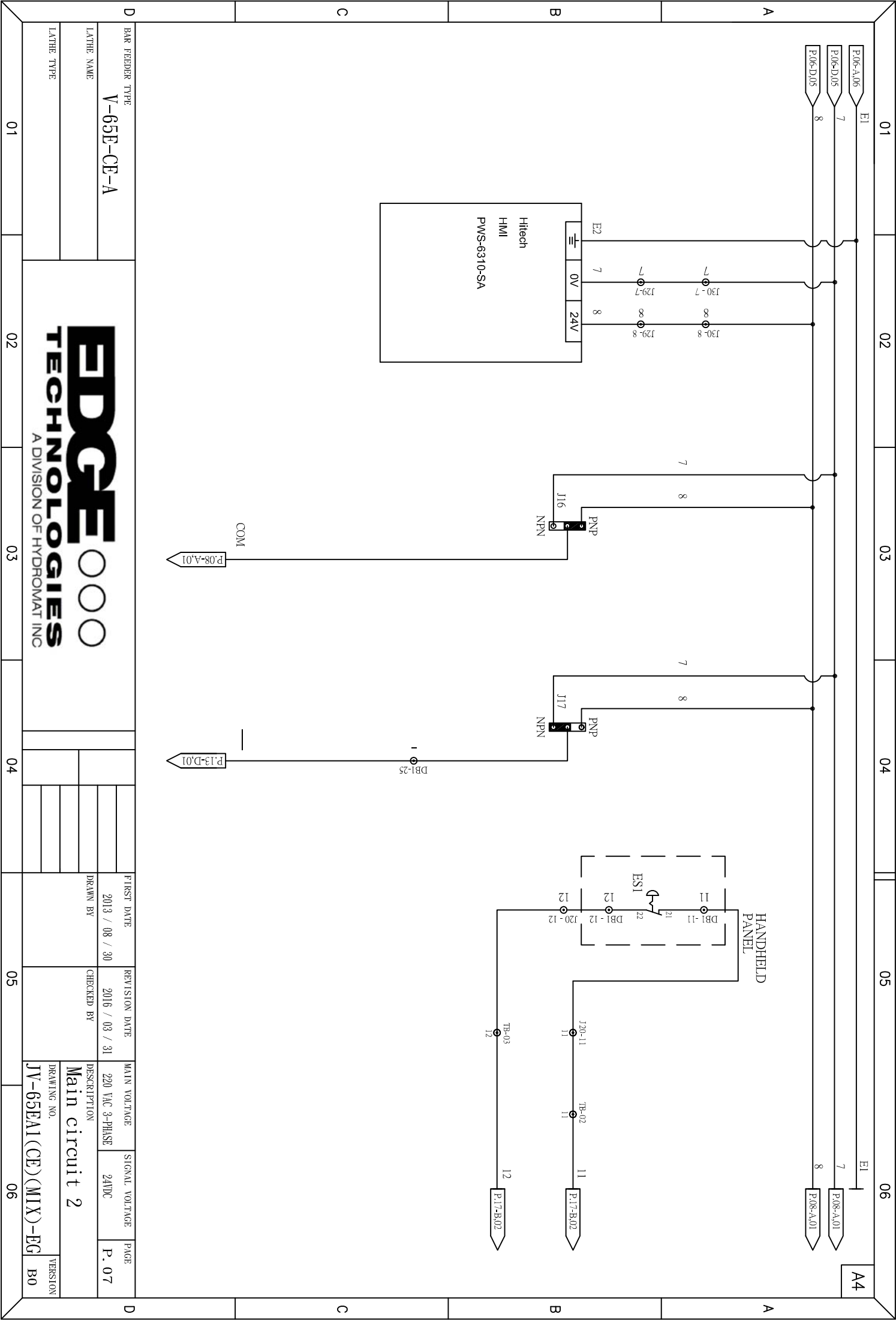
06

B

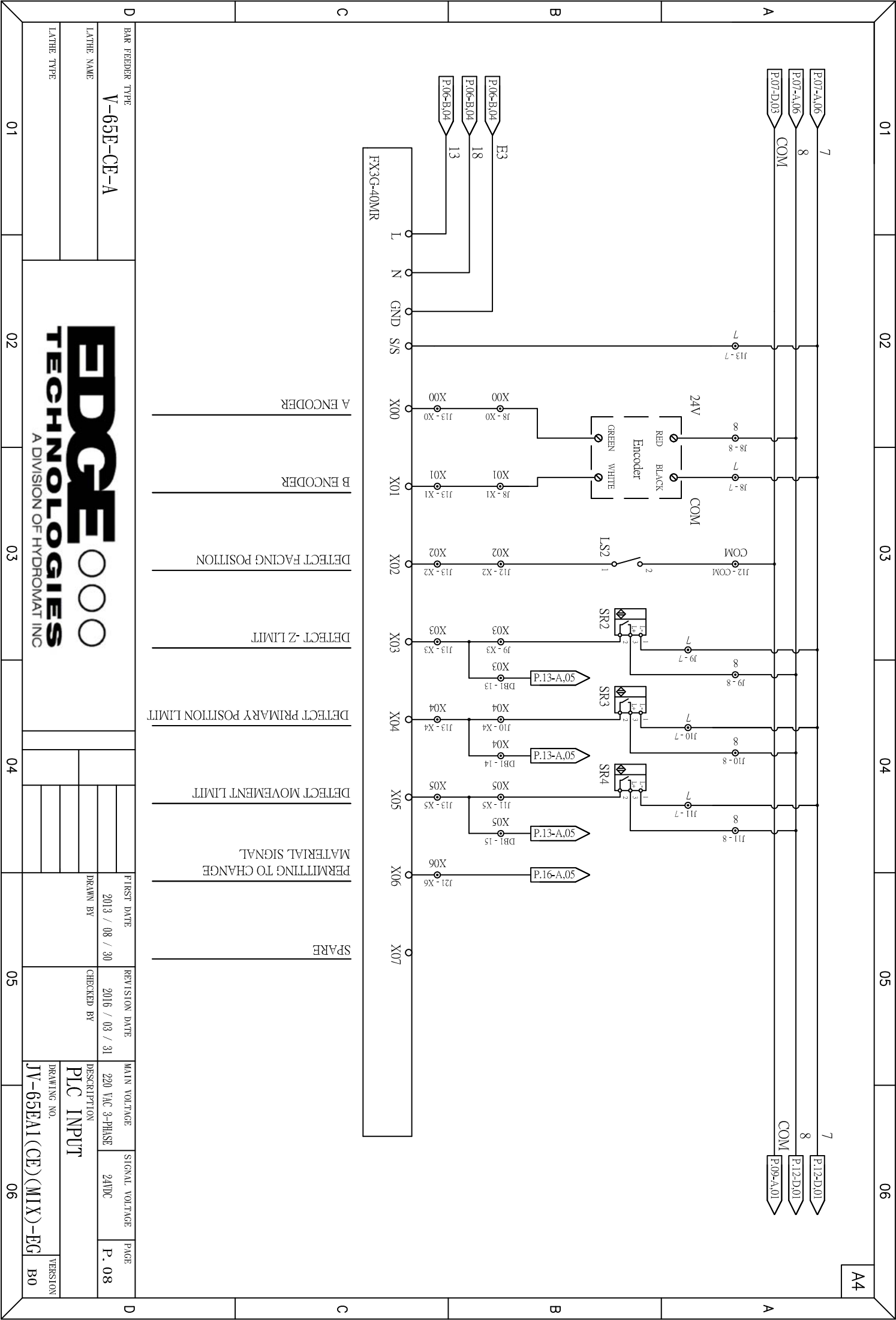
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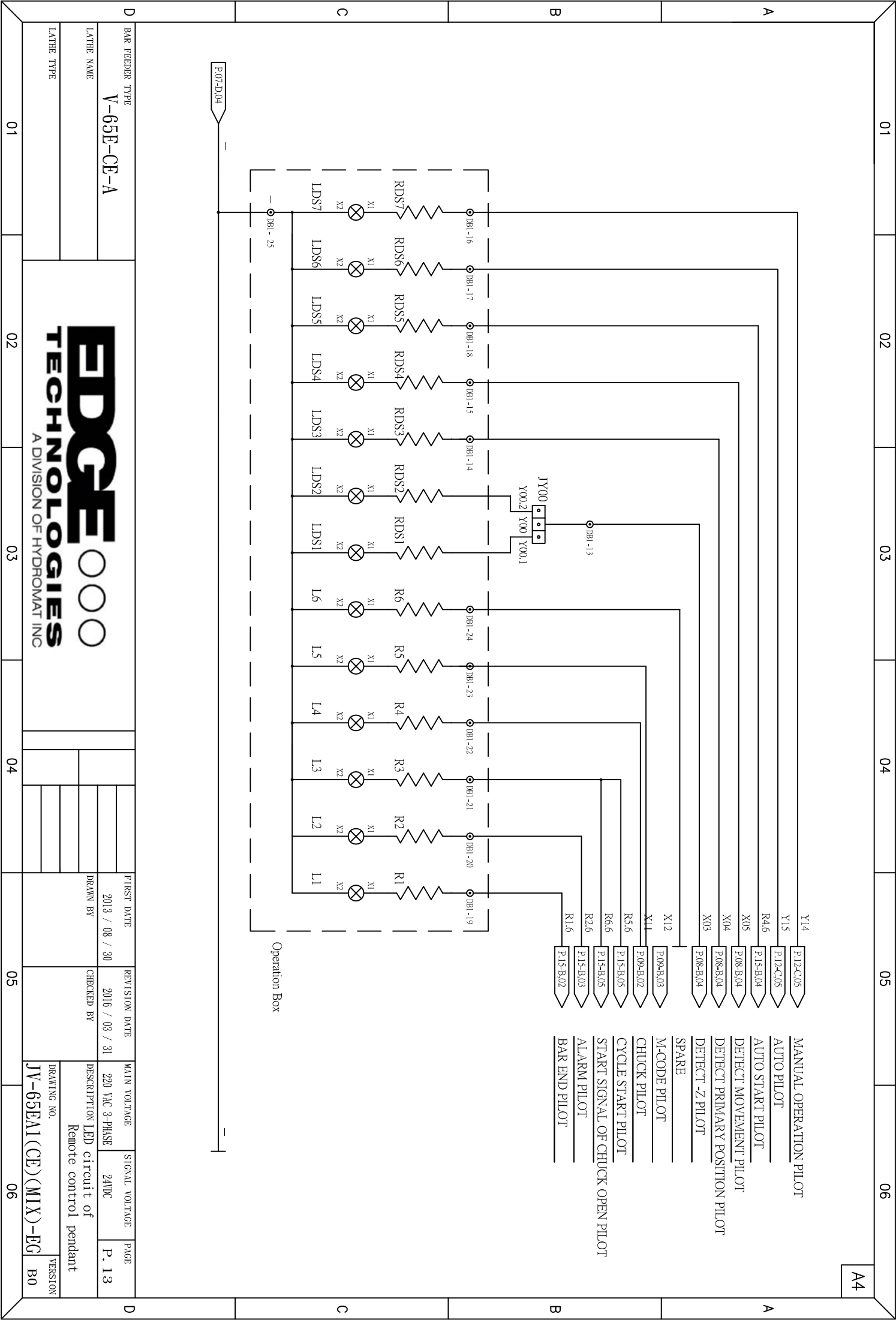
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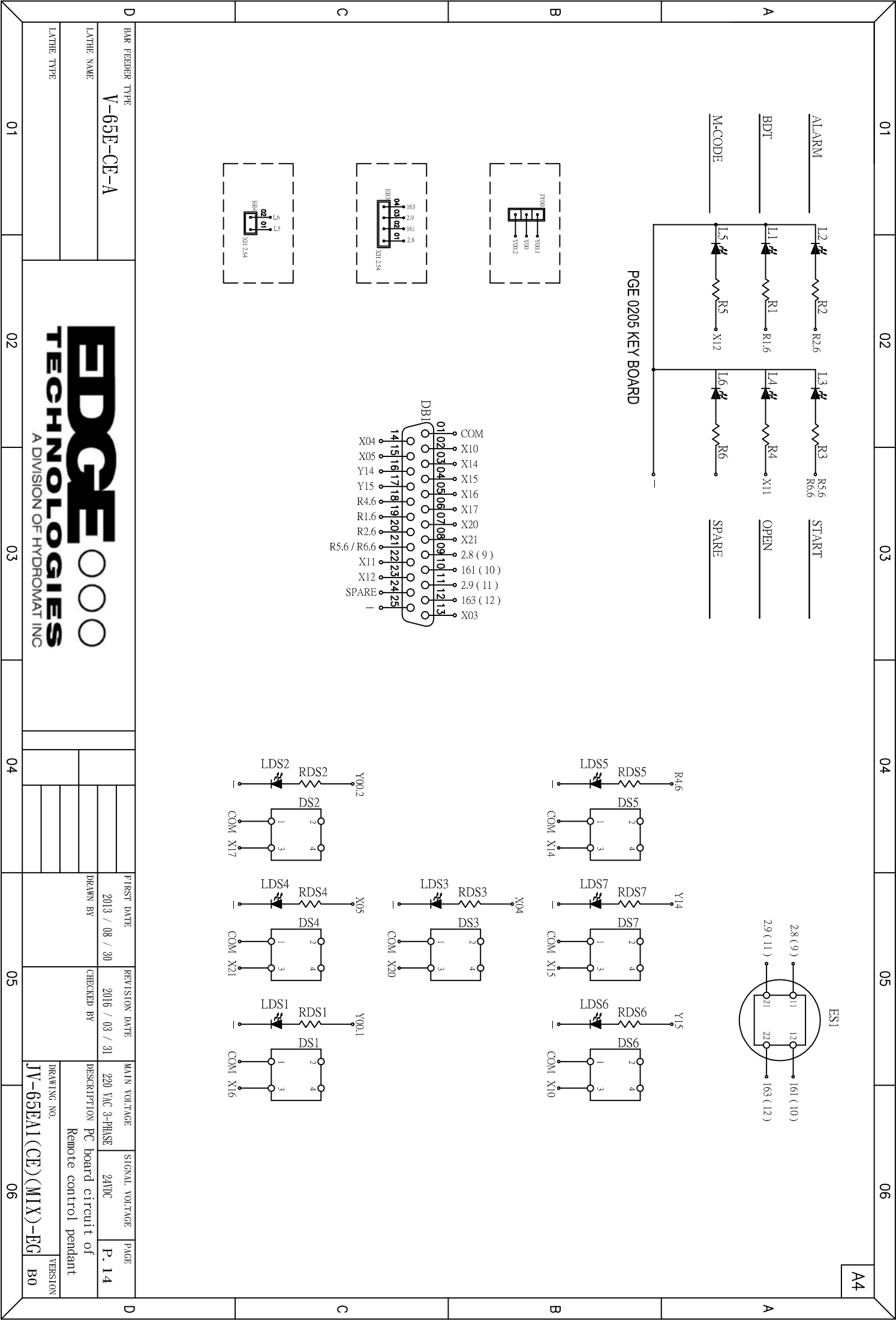
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| D | | BAR FEEDER TYPE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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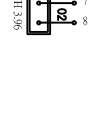
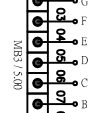
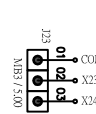
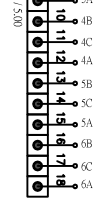
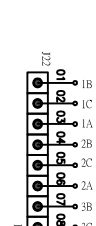
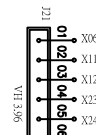
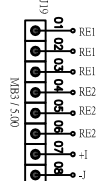
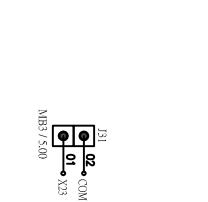
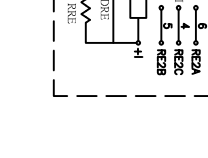
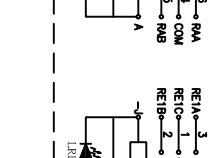
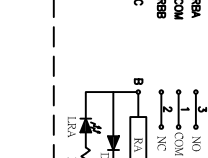
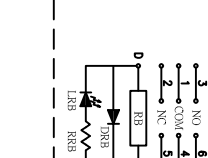
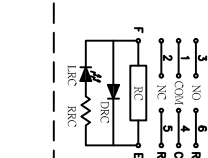
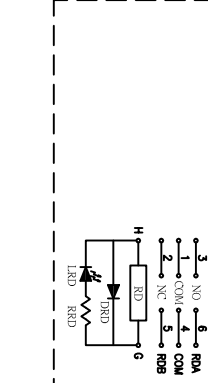
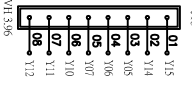
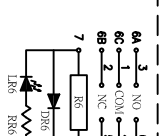
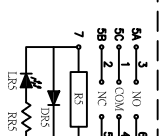
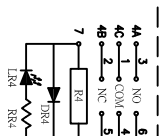
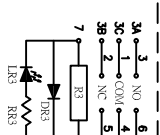
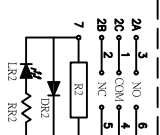
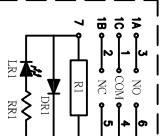
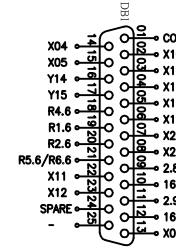
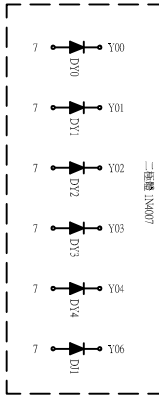
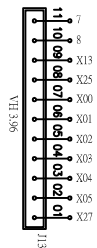
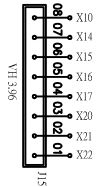
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A4



BAR FEEDER TYPE

LATHE NAME

LATHE 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

DESCRIPTION

Main PC board circuit

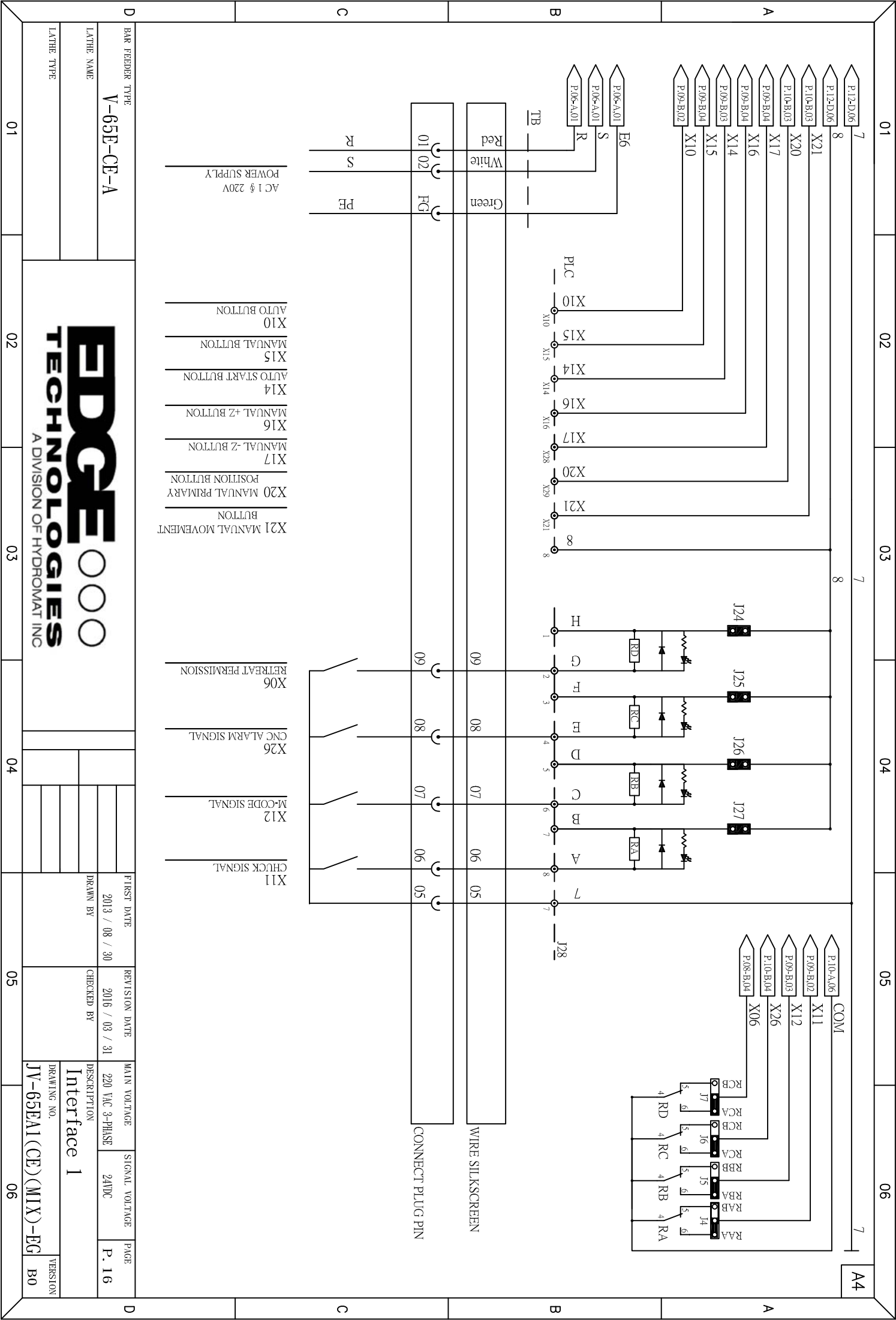
DRAWING NO.

JV-65EA1(CE)(MIX)-EG

VERSION

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WIRE SILKSCREEN

CONNECT PLUG PIN

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AC 1 Φ 220V

POWER SUPPLY

AUTO BUTTON

MANUAL BUTTON

AUTO START BUTTON

MANUAL +Z BUTTON

MANUAL -Z BUTTON

POSITION BUTTON

X20 MANUAL PRIMARY

X21 MANUAL MOVEMENT

RETREAT PERMISSION

X26 CNC ALARM SIGNAL

M-CODE SIGNAL

CHUCK SIGNAL

01

02

03

04

05

06

BAR FEEDER TYPE

V-65E-CE-A

LATHE NAME

LATHE TYPE

EDGEC 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. 16

DESCRIPTION

Interface 1

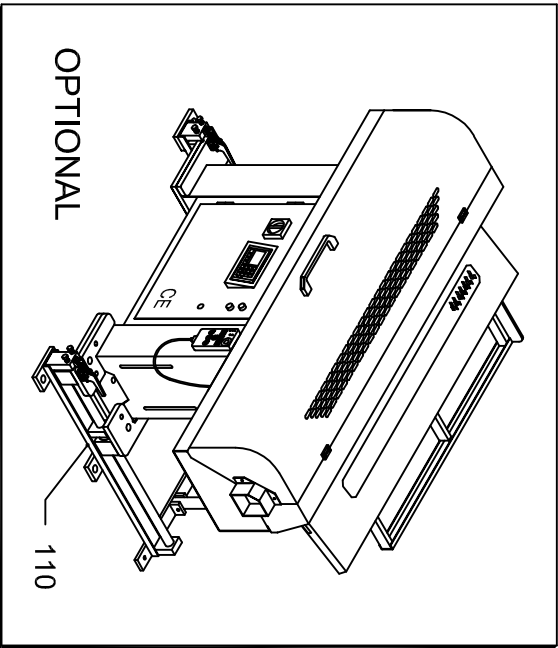
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JV-65EA1(CE)(MIX)-EG

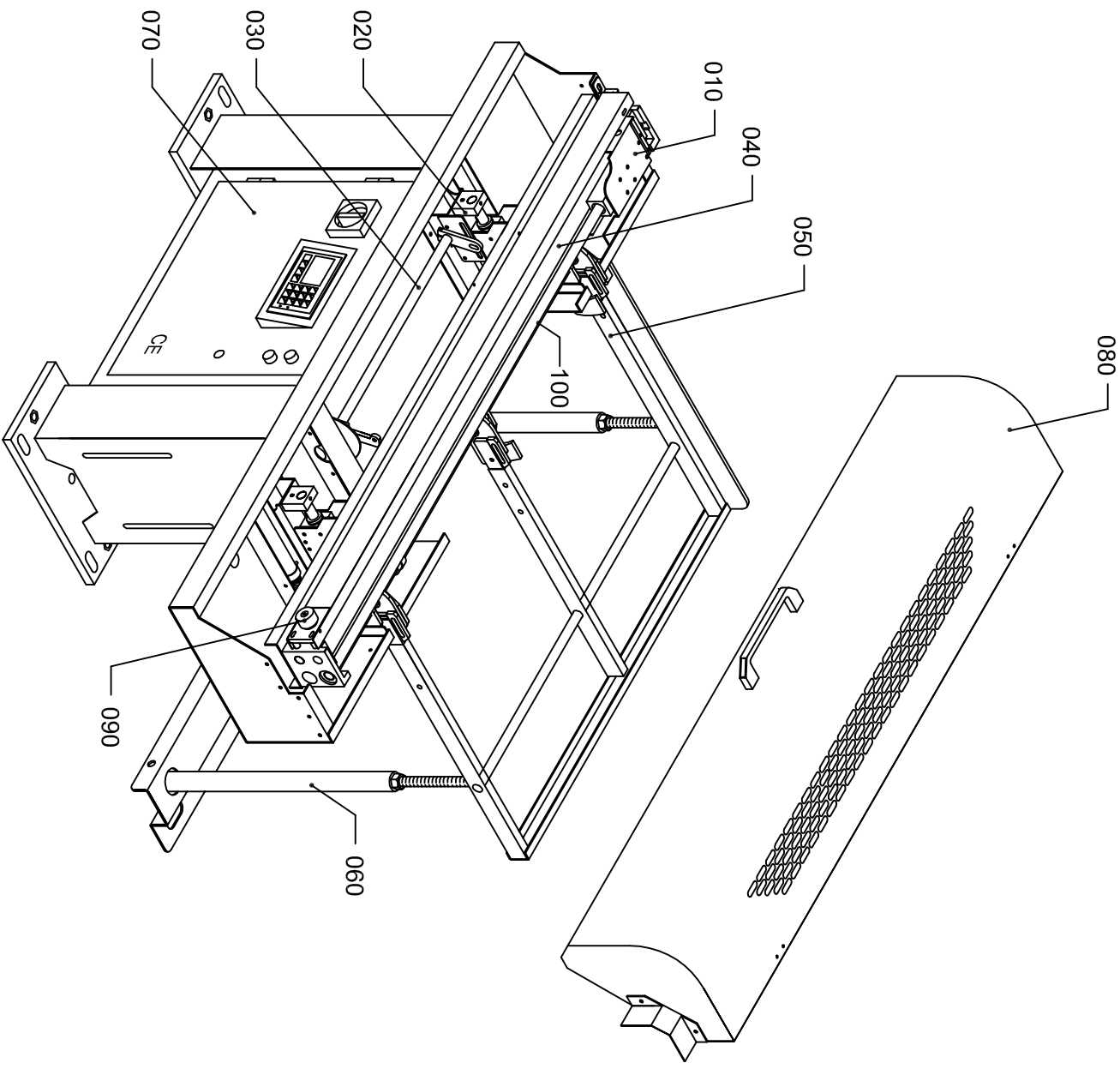
VERSION

B0

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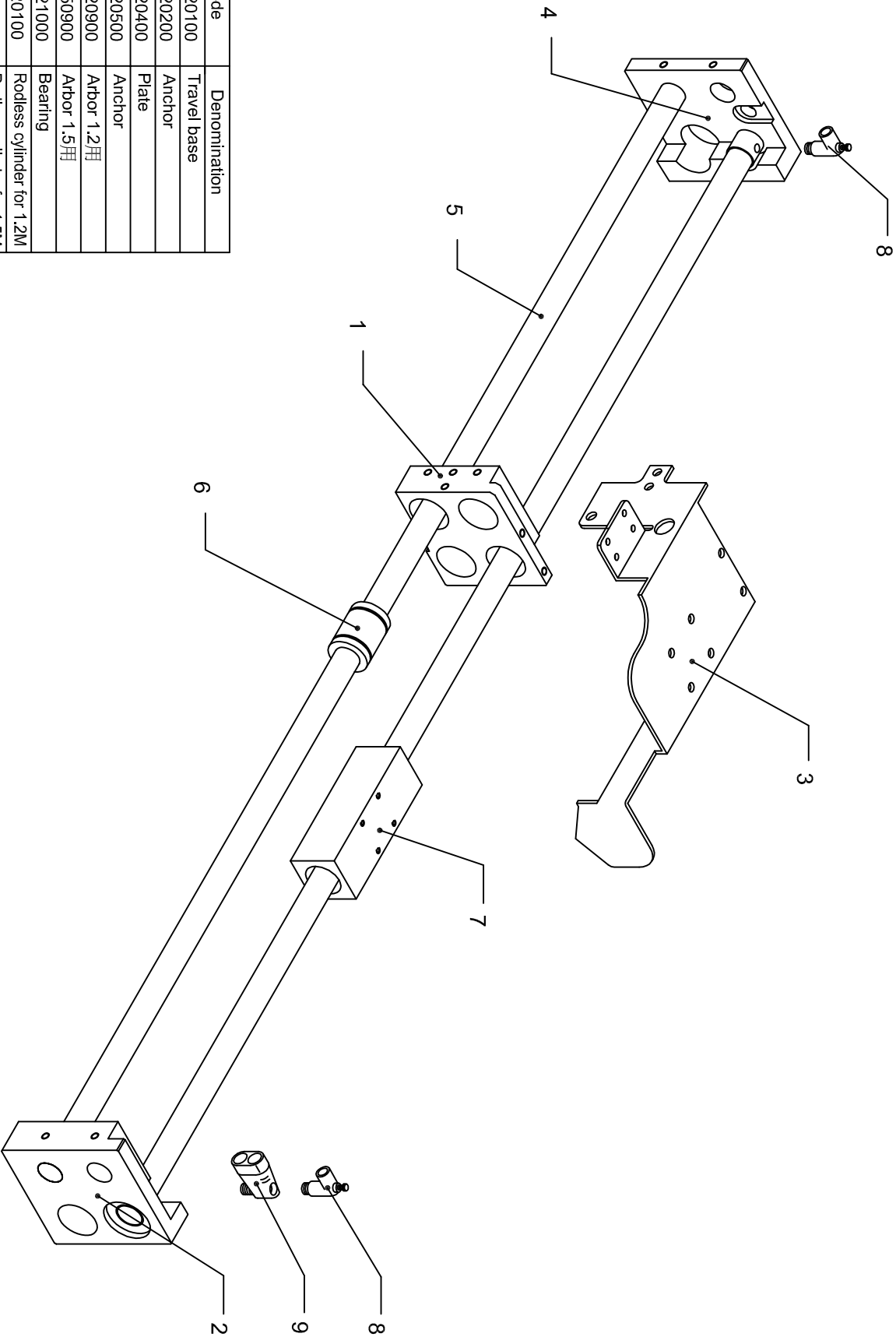
| | |
|-----|--------------------------------------|
| 010 | FRAME DEVICE |
| 020 | BRACKET DEVICE |
| 030 | CHANGEOVER |
| 040 | BAR PUSHER |
| 050 | FEEDING-EXTRACTION CONTROL DEVICE |
| 060 | FRAME |
| 070 | STAND |
| 080 | COVER |
| 090 | COUNTER DEVICE |
| 100 | AIR PRESSURE DIAGRAM |
| 110 | SLIDING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



V-65E

PICTURE INDEX

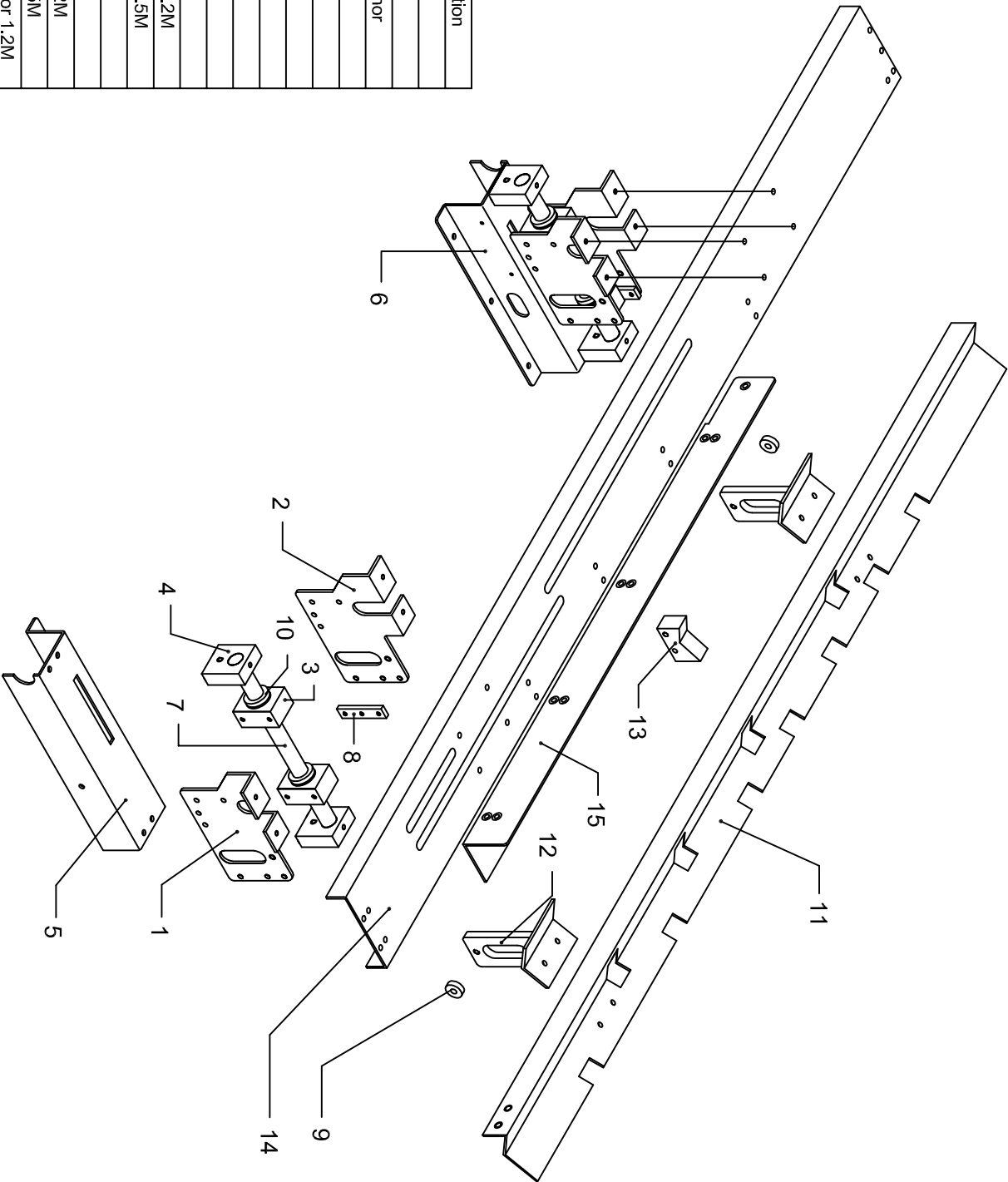
| N. | Code | Denomination |
|----|-----------|---------------------------|
| 1 | G51120100 | Travel base |
| 2 | G51120200 | Anchor |
| 3 | G51120400 | Plate |
| 4 | G51120500 | Anchor |
| 5 | G51120900 | Arbor 1.2用 |
| 5 | G51150900 | Arbor 1.5用 |
| 6 | G51121000 | Bearing |
| 7 | A11120100 | Rodless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



V-655E

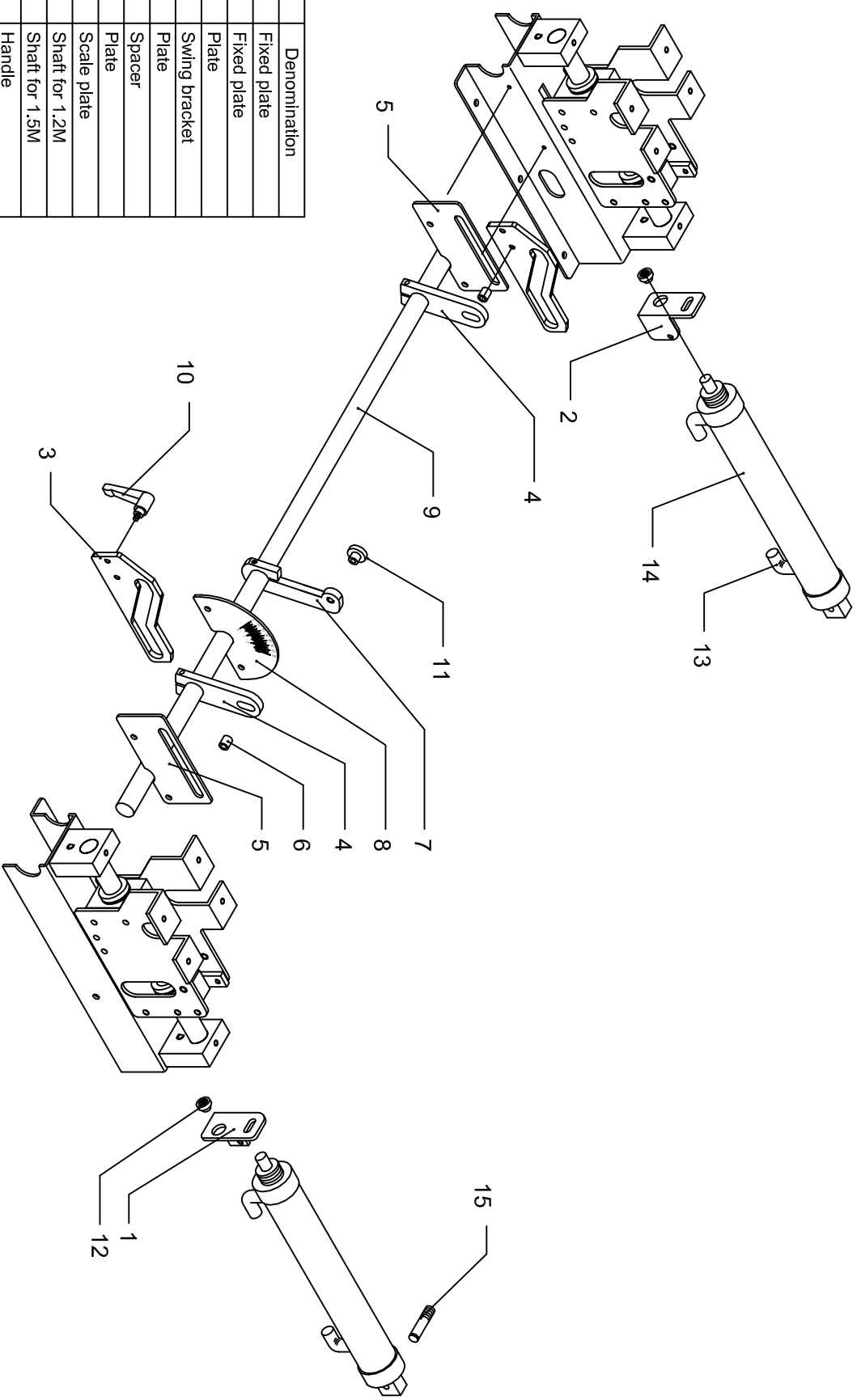
FEEDING DEVICE

| 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 |



V-65E

BRACKET DEVICE

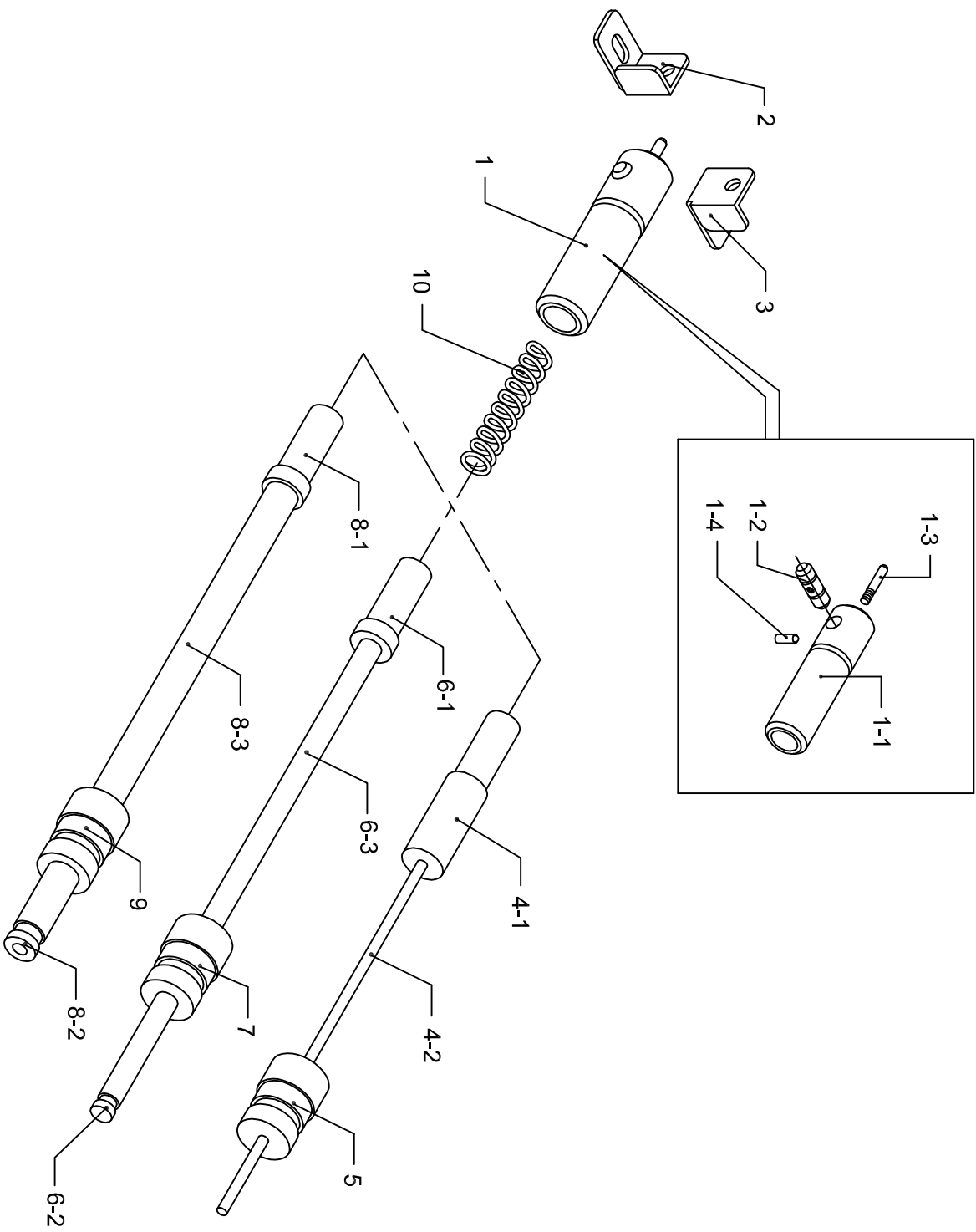


| N. | Code | Denomination |
|----|-----------|------------------|
| 1 | G52121400 | Fixed plate |
| 2 | G52121500 | Fixed plate |
| 3 | G53120110 | Plate |
| 4 | G53120200 | Swing bracket |
| 5 | G53120300 | Plate |
| 6 | G53120400 | Spacer |
| 7 | G53120500 | Plate |
| 8 | G53120600 | Scale plate |
| 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 |

V-65E

CHANGEOVER

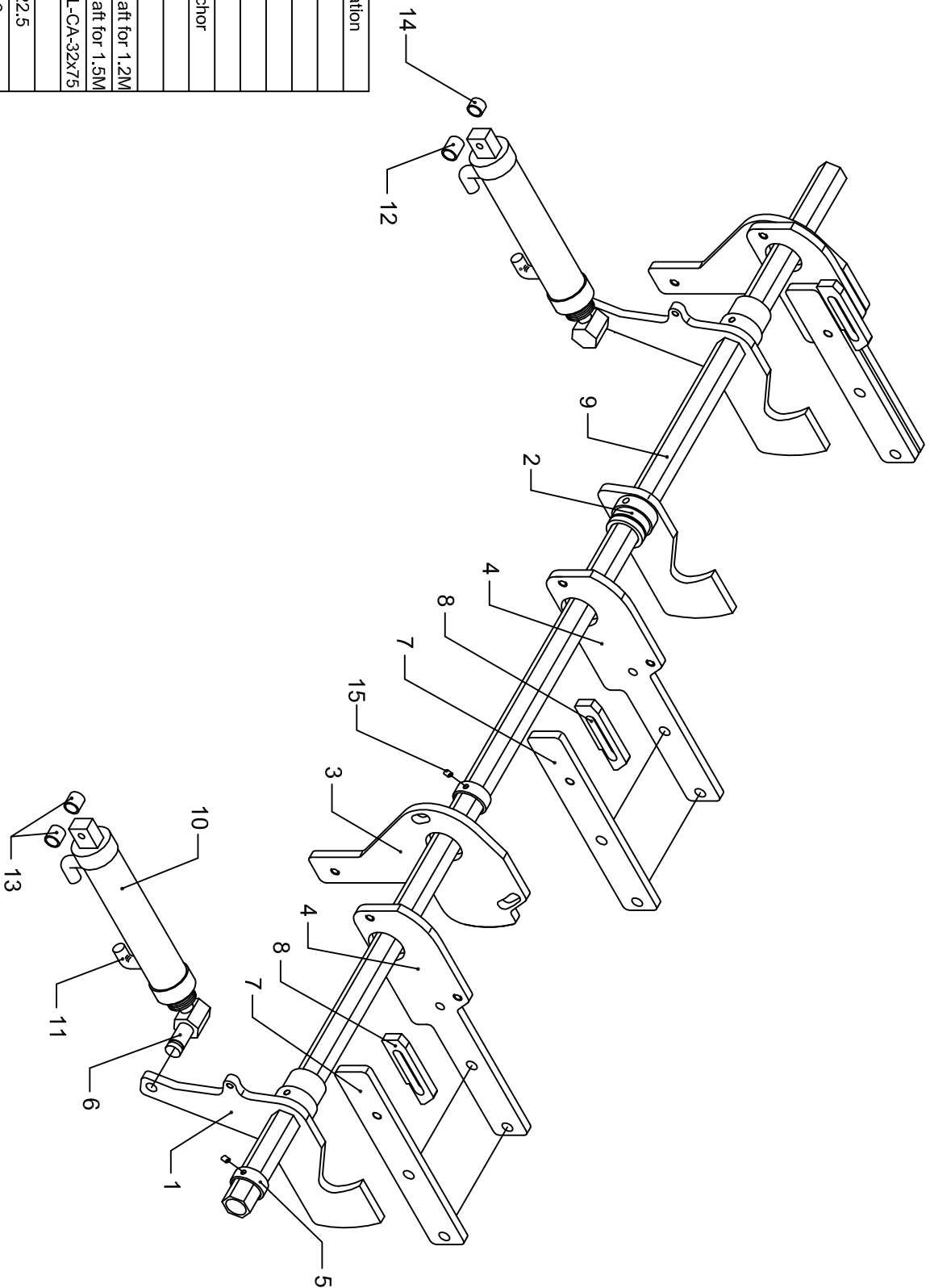
| N. | Code | Denomination |
|-----|-----------|-------------------|
| 1 | G55120110 | Support |
| 1-1 | G55120100 | Support |
| 1-2 | G55120200 | Rod |
| 1-3 | G55120300 | Arbor |
| 1-4 | G55120900 | Steel ball |
| 2 | G55120400 | Plate |
| 3 | G55120401 | Plate |
| 4 | G55120500 | Push bar for 1.2M |
| 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

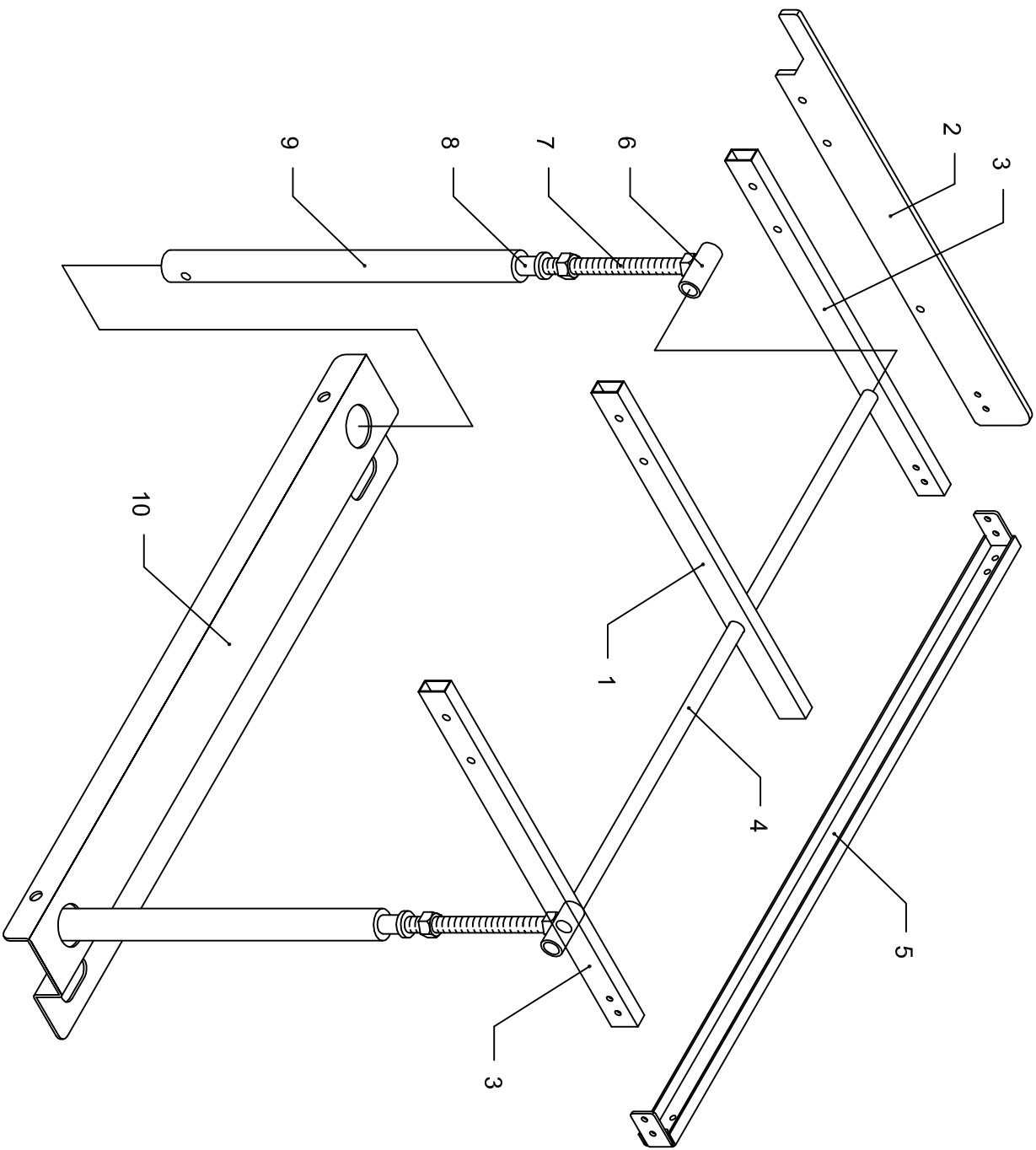
| N. | Code | Denomination |
|----|-----------|------------------------|
| 1 | G61120100 | Plate |
| 2 | G61120200 | Plate |
| 3 | G61120301 | Plate |
| 4 | G61120400 | Plate |
| 5 | G61120500 | Spacer |
| 6 | P53200400 | Cylinder anchor |
| 7 | G61120700 | Plate |
| 8 | G61120800 | Plate |
| 9 | G61120900 | 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 |



V-65E

FEEDING-EXTRACTION CONTROL DEVICE

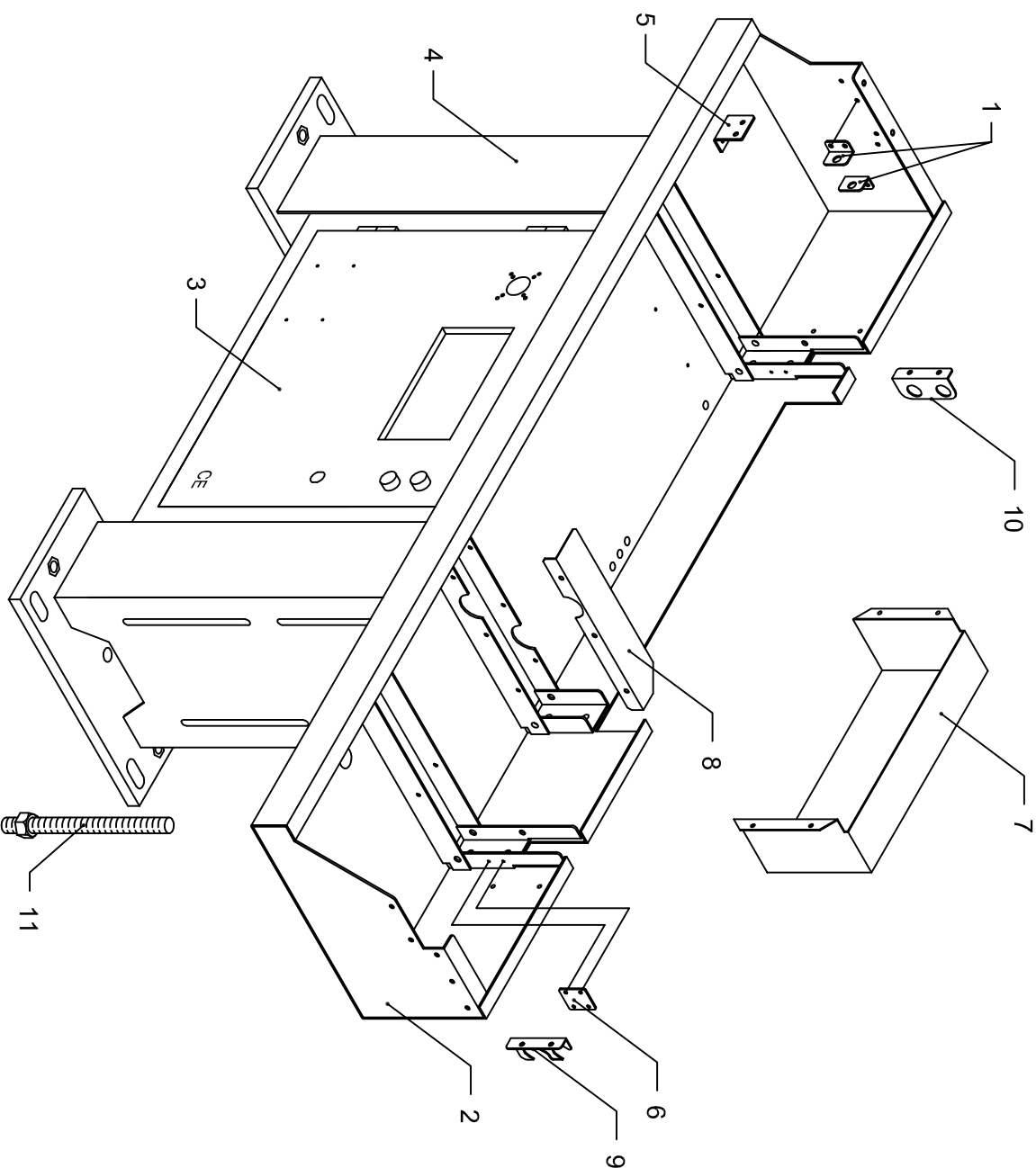
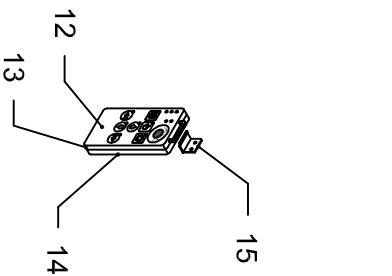
| N. | Code | Denomination |
|----|-----------|----------------|
| 1 | G62120100 | Support |
| 2 | G62120200 | Plate |
| 3 | G62120300 | Plate |
| 4 | G62120400 | Bar for 1.2M |
| 4 | G62150400 | Bar for 1.5M |
| 5 | G62120500 | Plate for 1.2M |
| 5 | G62150500 | Plate for 1.5M |
| 6 | G62120600 | Spacer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



V-65E

FRAME

060 1

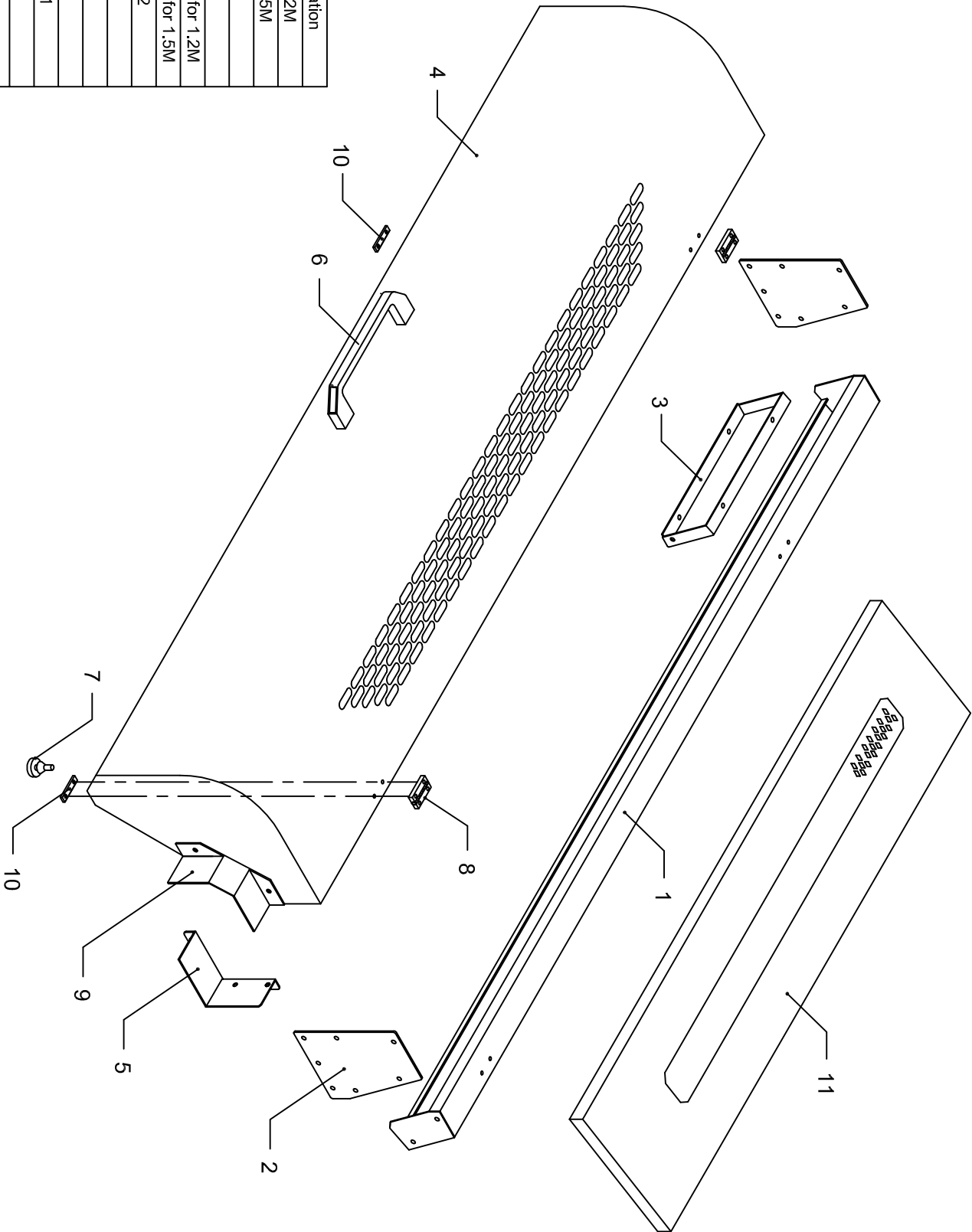


| N. | Code | Denomination |
|----|-----------|----------------------|
| 1 | G71120300 | Plate |
| 2 | G72120100 | Beam for 1.2M |
| 2 | G72150100 | Beam for 1.5M |
| 3 | G72120300 | Electric box |
| 4 | G72120400 | Stand L=625 |
| 4 | G72120410 | Stand L=875 |
| 5 | G72120500 | Plate |
| 6 | G72120600 | 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 |

V-65E

STAND

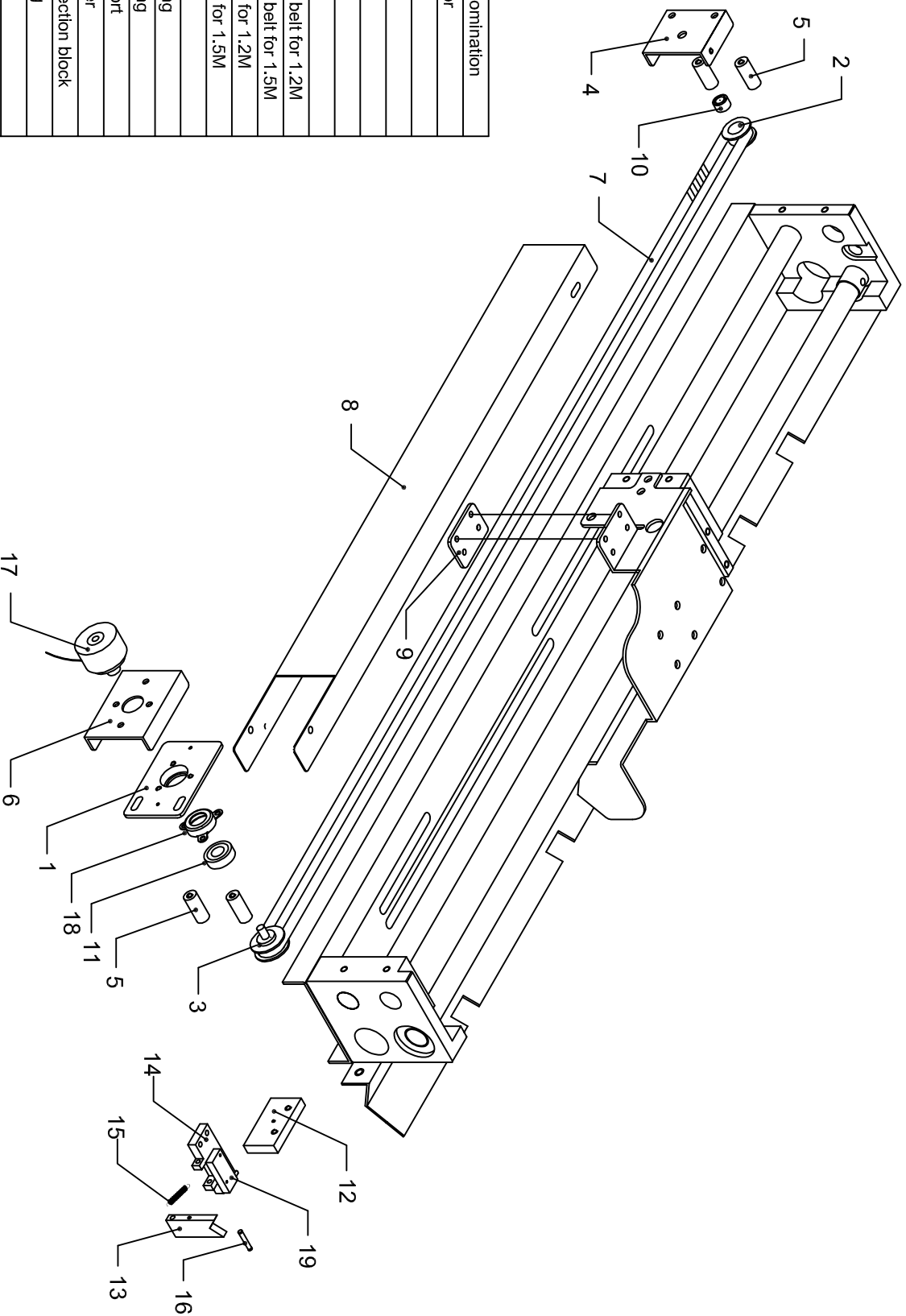
| N. | Code | Denomination |
|----|------------|----------------------|
| 1 | G81120100 | Cover for 1.2M |
| 1 | G81150100 | Cover for 1.5M |
| 2 | G81120200 | Side plate |
| 3 | G81120300 | Side cover |
| 4 | G81120400 | Front cover for 1.2M |
| 4 | G81150400 | Front cover for 1.5M |
| 5 | G81120500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



V-65E

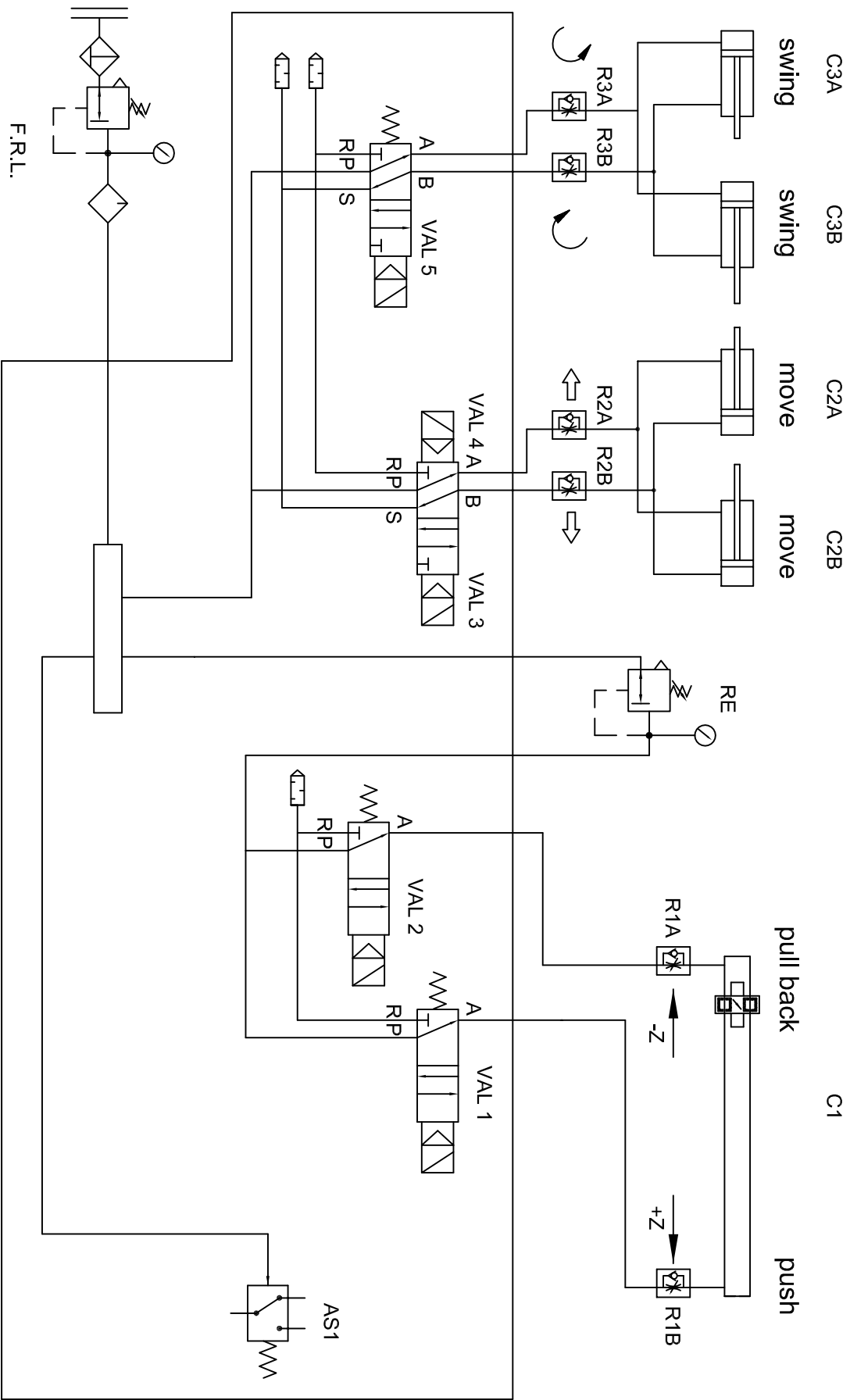
COVER

| 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

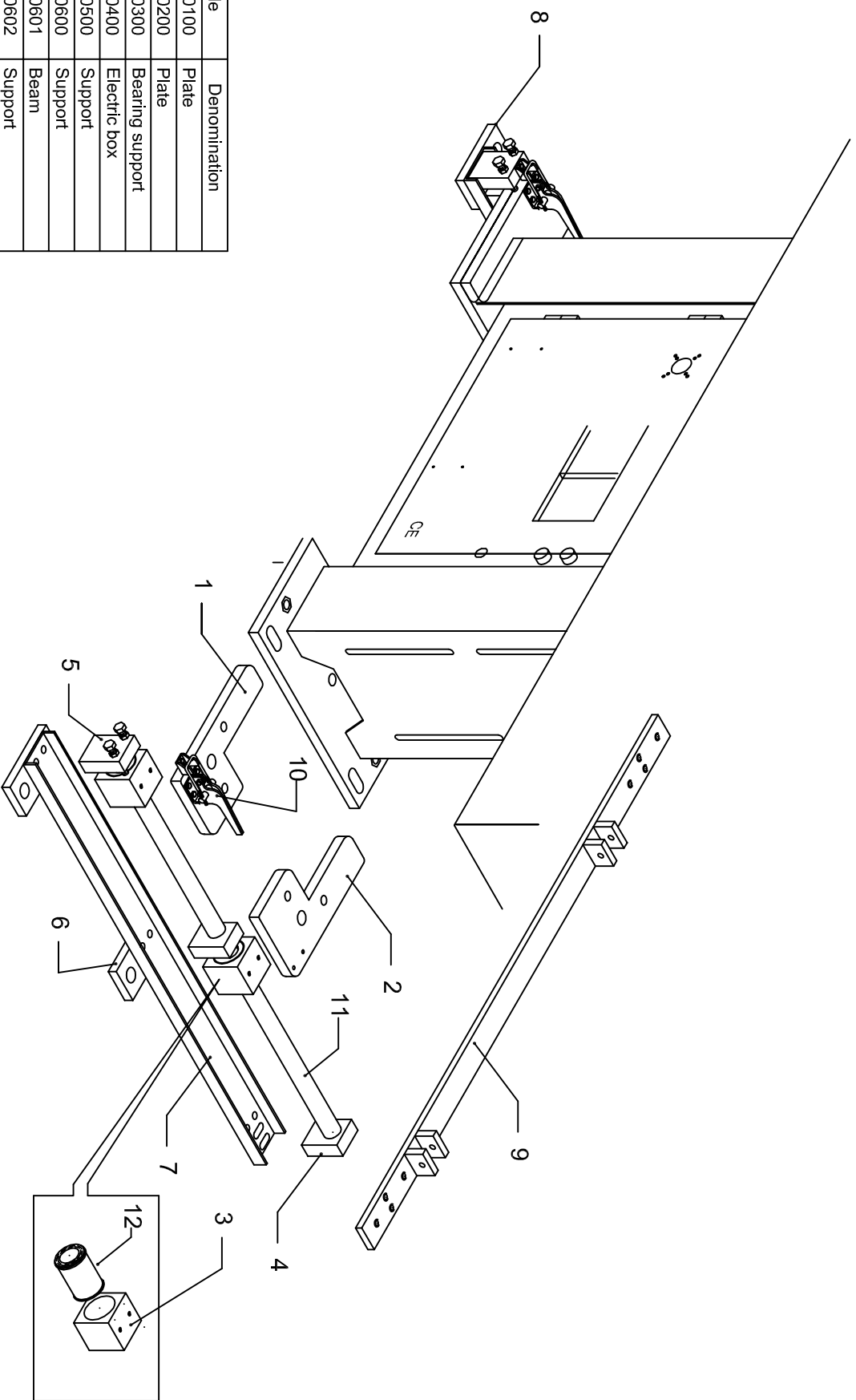
COUNTER DEVICE



V-65E

AIR PRESSURE DIAGRAM

| 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 | VLHM9465 |
| VAL 2 | | DC24V | 1 | | | VLHM9465 |
| VAL 3 | 4/2 WAY VALVE | DC24V | 1 | AIRTAC | 4V220-08 | VLHM9465 |
| VAL 4 | | | | | | VLHM9465 |
| C1 | RODLESS CYLINDER | 7 bar | 1 | FESTO | DGO-25-1300 PPV-A-B | ISO 6432 |
| C2A | PISTON CYLINDER | 1.0-9.9kgf/cm ² 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 |

V-65E

SLIDING RAIL (OPTIONAL)

Tab.

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