
TYRE CHANGER

Operation instruction



catalogue

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introduction:

Thank you for purchasing our fully automatic tire dismantling machine. This machine is of the best quality. In order to operate correctly and extend the service time of the machine, be sure to read the instructions in each operation section of this manual carefully.

Parameter description of automatic tire dismantling machine:

“ Automatic tire dismantling machine model ” **and** the completeness of "identification of product", to make it easier to provide our technical services and to supply the required machine parts。 In order to make the use of this machine more clear and convenient, we provide the data of the automatic tire dismantling machine in the box below。 If there is a discrepancy between the data in this manual and the data in the label, the label data shall prevail.

This manual is an integral part of the process of using the machine. Before using automatic tire machine, carefully read the handbook of each part, especially the operation safety and machine maintenance this two parts.



Keep this manual to ensure that it is complete for future use !

1、instruction of the equipment



Figure 1

A-Tire head lift valve
B-Tire press head
C-Inflation meter
D-Square bar
E-Lead screw carrier
F-Tire retreading frame
G-oil-water separator
H-Tire shovel
I-Tire pressure rubber plate
K-Inflation pedal
L-Tire tread
M-Rotary pedal
N-Post tilting pedal
O-Work disc
P-Push and pull arm lock button
Q-Right hand lift valve
R-Shovel handle
T-Placenta excision
U-screw
V-Automatic tire tip
W-Automatic tire tip control valve
X-Auxiliary handle
Y-Upper cut placenta moving control valve
Z-Cut placenta moving control valve

Hazard warning sign

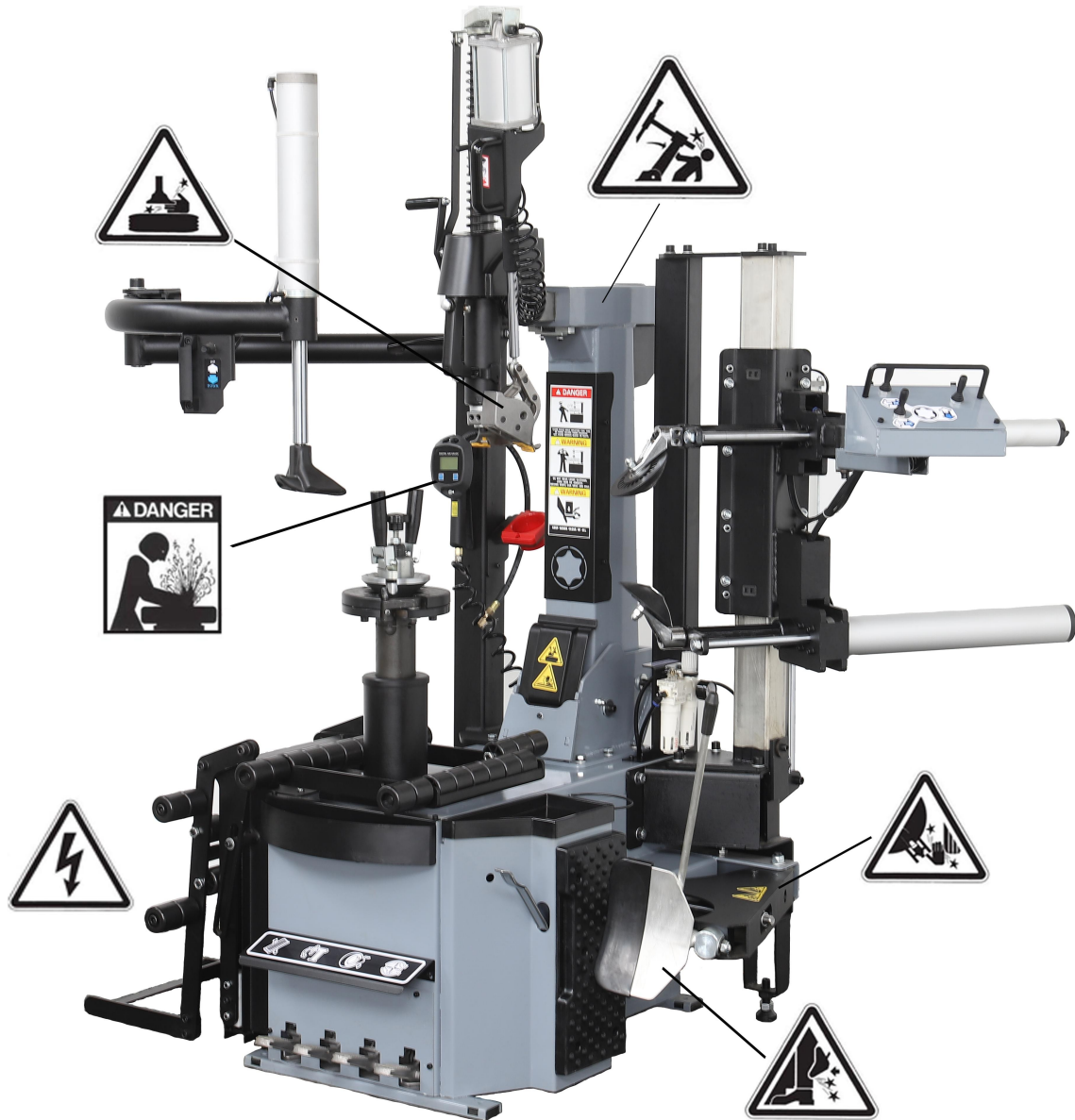


Figure 3

2、summary

2.1 instruction

- The fully automatic tire removal machine is designed and used to remove and install tires with sizes from 13 "to 26" and a maximum diameter of 1120mm.



Do not operate according to the instructions.

- The manufacturer shall not be liable for any damage caused by unreasonable operation not in accordance with the instructions.

2.2 safety operation rule



Tire removal machine is only suitable for trained professionals.

- The manufacturer is not responsible for any damage caused by changes made to the machine without the manufacturer's approval.
- If the user violates the safety regulations by disassembling the safety device of the machine and causing it to be damaged, the manufacturer will immediately cease its commitment to the safety of the machine.
- In the event of any damage to the safety warning sign throughout use, the customer may contact the manufacturer according to the number of the icon on page 2 to replace the missing icon as soon as possible.

3、transportation

- The tyre removal machine must be shipped in the original packaging, Place it according to the location indicated on the packing box.
- The packaged machine must be moved by a forklift with the corresponding lifting capacity. Refer to Figure 3 for the insertion direction of the car.

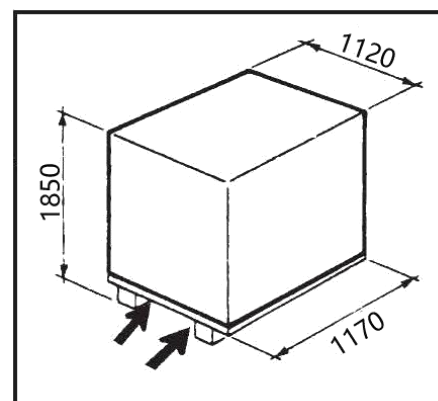


Figure 3

4、 test run



Before the machine is connected, determine whether the user's power and air supply are consistent with the requirements of the machine.

When the operating voltage of the machine needs to be changed, the terminal board can be adjusted appropriately. (Part 14 Circuit diagram)



Electrical system work must be carried out by professionals.

● The compressed air system is connected to the machine through a pipe joint on the oil mist (G) on the side of the housing. See Figure (5)

Connect the machine in the circuit, the circuit must conform to the operating rules of the fuse, ground wire, circuit breaker must be installed 30 ma.

Note: tire installed power plug should be prepared by the customers themselves, power plug rated current not less than 16 a, at the same time in accordance with the voltage of the machine.

4.1 debugging

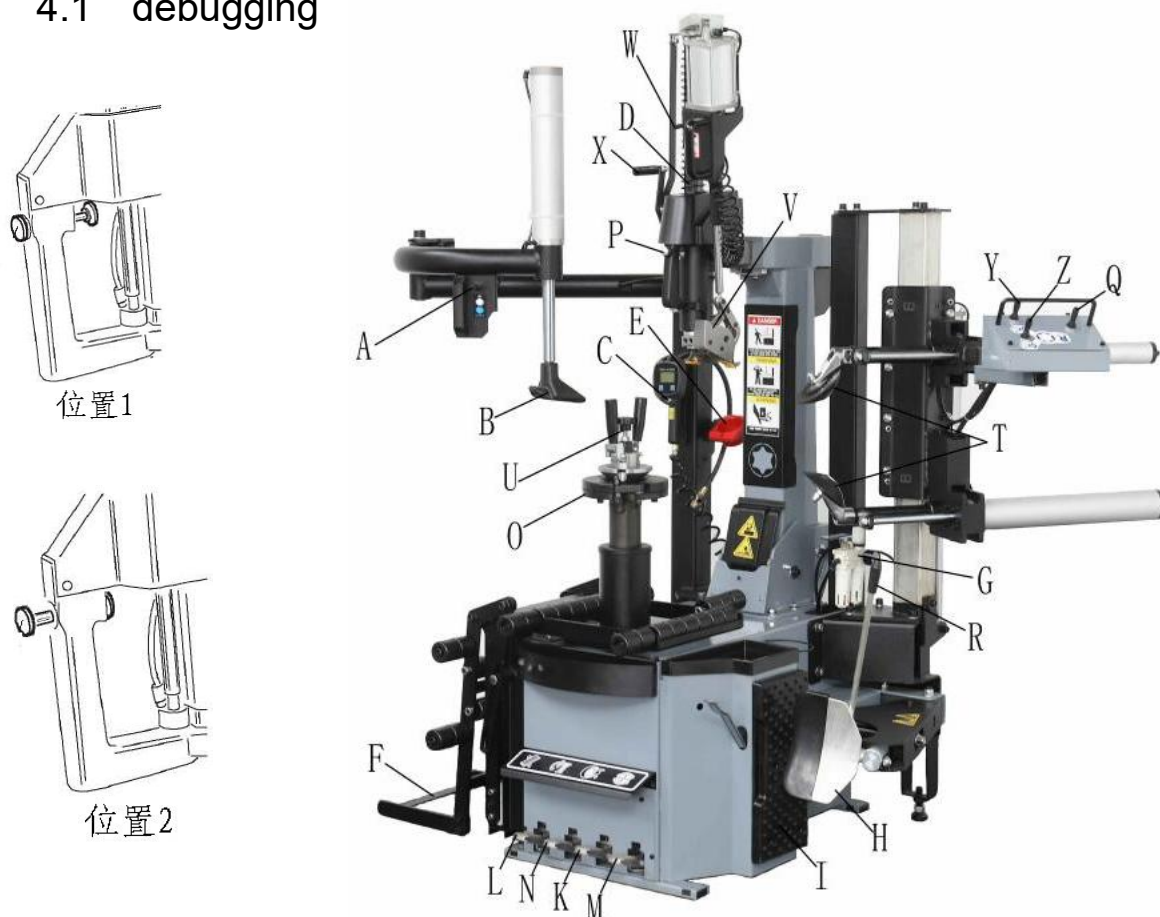


Figure 5

- Step on the pedal (M) and turn the working disk (O) clockwise. When the pedal is raised, the turntable should be turned counterclockwise.

Note: If the working disk is opposite to the specified rotation direction, the two wires of the three-phase plug need to switch positions.

- Step on the pedal (K) to activate the tire shovel device (H); When released, the tire shovel device returns to its original position.
- Step on the pedal (L), turn over the tire frame (F) to rise; Step on the pedal again and drop the tire frame back into position.
- Step on the pedal (N) The rear swing of the column tilts, and the column returns to its original position when the pedal is released.
- When the manual valve button (P) is in position 1, the hexagon bar and push-pull arm are locked, and the disassembly head is automatically located in the working position.
- When the manual valve button (P) is in position 2, the hexagon bar and push-pull arm are released.
- Press the exhaust valve button on (C) of the inflation pressure gauge to drain air from the line of the inflation pressure gauge.
- Pull the manual valve stem (A) upward, the tire head rises, pull down, the tire head drops.
- Pull the valve stem (Q) upward, the right power hand rises, pull down, the right power hand drops.
- Pull down the manual valve stem (W), automatic tire tilting hook out, pull up, automatic tire tilting hook upward reset.

5.1 Remove the tire



Before any operation, check that the tire has been drained of air. Make sure that the balance block on the balancing device has been removed from the rim.



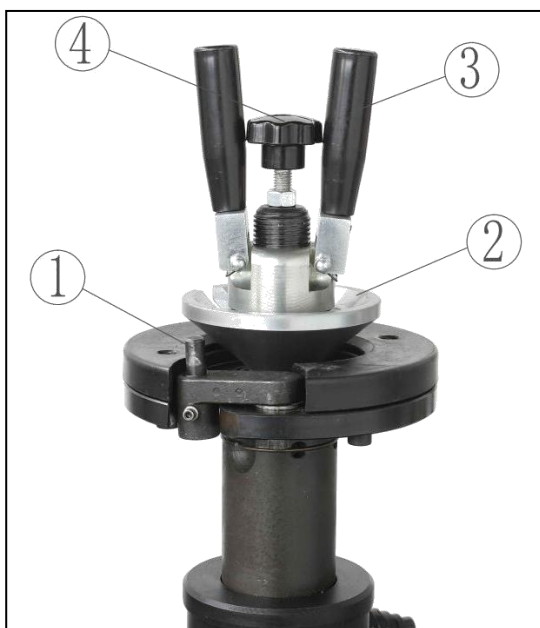
Ensure that the rear of the tire removal machine is empty before you can carry out the post swinging operation!

- Step on the pedal (N) to tilt the back of the column, exposing the space above the turntable.
- Apply a special lubricant to the rim.



No lubrication can cause damage to the rim.

- The locating pin (1) through the hub of a screw hole, work place your tires in the tray.
- The centring cone (2), screw and nut through the rim center hole quickly, wear the diskless centre.
- Screw the handle clockwise (4) half a circle, lead screw can be fixed in the diskless base.
- The centring cone (2) fixed in the center of the rim, use high speed nut handle (3) clockwise nut, locking rim.



Make sure the rim is locked with the clamp.



Don't put the hand on the tyre: if the hand on the rim and the mounting head, when operating arm back to work a place, may be damaged.

- Step on the pedal (N) and the column returns to its original position.
- When the manual valve button (P) is in position 2, pull the handle (X) down to move the hexagon bar (D) down and the disassembly head touches the rim.

- When the manual valve button is in position (1), the hexagon bar (D) and the push-pull arm are locked. During the locking process, the disassembly head can be automatically moved 2mm away from the rim in both vertical and horizontal directions.



Don't put the hand on the tyre: if the hand on the rim and the mounting head, when operating arm back to work a place, may be damaged.

- Pull the hand valve (Q) upward, move the right hand trochlea to move the placenta up, and the placenta is higher than the upper plane of the tire.
- Turn the hand valve (Y) to the left, move the upper cut placenta (T) to the rim edge, and turn the hand valve (Q) down so that the pulley drives the placenta down, pressing the tire edge under the rim groove.
- Pull down the manual valve (W), extend the automatic tire tip, so that the hook through the tire edge deep inside the tire upper layer, hook the tire.
- Pull the hand valve (Q) upward and move the right hand trochlea to the placenta up and away from the tire side.
- Pull the manual valve (W) upward, pull back the automatic tire tip, drive the tire edge to move upward, so that the wheel edge hangs outward on the disassembly head.

Note: If there is an inner tube, in order to avoid damage to the inner tube, the tire valve should be approximately 10cm away from the right side of the removal head (I) to begin the removal operation.



During the process of removing the tire, keep the hands and other parts of the body away from the moving parts as much as possible to avoid injury. Necklace, bracelet and loose clothing for operators is dangerous!

- Keeping the tire hook in the top position, press the pedal (M) and turn the dial (O) clockwise until the tire is completely removed from the rim. (Figure 7)
- If an inner tube needs to be removed, the inner tube can be removed by pressing the pedal (N) backward tilting arm without unlocking the arm.
- Repeat the same procedure on the other rim.

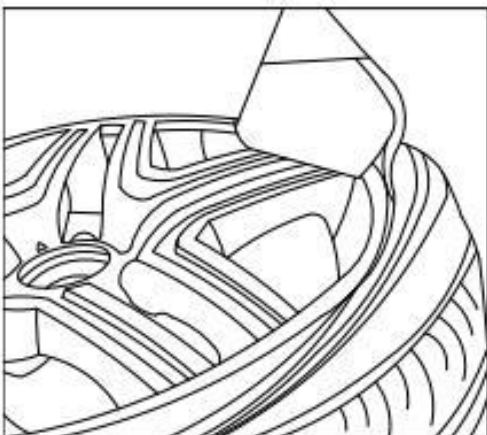


Figure 7

5.2 Tire fitting



Note: In order to prevent tire burst during the inflation process, it is very important to check the tire and rim, and pay attention to the tire assembly before:

- If the tire is damaged, do not install it.
- Whether the rim is dented or deformed. In particular, the alloy rim will have small cracks at the bump mark, which can not be distinguished by the naked eye, which will damage the durability of the wheel, so it will be dangerous during the inflation process.
- The diameter of the tire and the rim must match. Do not install a tire when you are not sure that the diameter of the tire is the same as that of the rim.

- In order to avoid tire damage and facilitate disassembly, it is necessary to apply lubricating fluid on the rim.
- Lock the rim on the turntable.



Ensure that the rear of the tire removal machine is empty before the rear swing operation of the column can be carried out.

Note: For the rim of the same size, it is not necessary to repeatedly lock or loosen the arm, just tilt the arm back in the working position or reset it.



Do not place your hand between the rim and the clamp to avoid personal injury.

- Move the tire so that the rim passes under the front of the disassembly head and along the disassembly head so that the rim is above the back of the disassembly head.
- Press the rim into the rim groove with the placenta cutting and the tire press head. Press the pedal (M) to turn the dial clockwise and the tire press head to follow until the rim is completely inside the rim. Lift the tire press head and complete the tire installation. (Figure 8)



In order to prevent accidents, the hand and body should be kept away from the operating arm when the turntable is running.

- Insert an inner tube if available. Repeat the above steps to install the upper rim of the tire.



During the operation of the removed or installed tire, the turntable is always rotated clockwise; If there is a counterclockwise rotation, it indicates that the turntable is faulty or the operator is wrong.

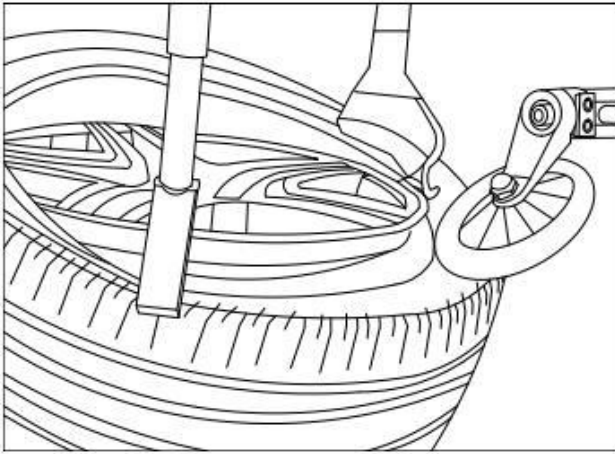


Figure 8

6、 air inflation



The inflating operation of the tire must be very careful, in strict accordance with the following instructions, if the tire suddenly burst, the design and structure of the tire removal machine is not able to protect the personal safety of the operator (or anything near the machine).

⚠ DANGER



- Tire blowout fracture or rim under pressure, operators are likely to cause severe damage and even death.
- Check that the rim size is the same as the tire size before installing the tire.
- Before starting to inflate, also check the use of the tire to see if there is any damage.
- When using the nozzle to inflate the tire, always check the inflation pressure.
- The maximum inflation pressure of all tires is 3.5bar. Never exceed the pressure recommended by the manufacturer.
- Keep your hands and body away from the tire as much as possible during the inflation process.

7、 repair and maintenance

Non-professional personnel are forbidden to carry out repair and maintenance operations.

- In order to extend the service life of the tire removal machine, it is necessary to carry out daily repair and maintenance according to the requirements of the manual.
- If the repair and maintenance is not carried out regularly, the operation and reliability of the machine can not be guaranteed, and even cause danger to the operator or people near the machine.



Disconnect the circuit from the gas supply and turn off the switch before performing any service operations. In addition, in order to make the pressure of air released from pipeline, it is necessary to on tire pressure pedal 3-4 times.

- The damaged parts shall be replaced by professional personnel with original spare parts in time.
- The private disassembly or replacement of safety devices (safety valves, regulating valves) violates the provisions of the State on work safety.



Special note: The manufacturer is not responsible for any damage caused by the user using parts from other manufacturers or due to disassembly or damage of safety devices

care and maintenance

- Clean the inside of the turntable weekly with a blow gun to prevent the formation of dirt; Apply a small amount of oil to the lead screw thread.
- The following maintenance operations are performed every 30 days:
 - Control the oil level in the oil mist, if the level is low, need to unscrew the oil cup F before adding.
Use only oils of the specified type ISO HG and viscosity ISO VG32, such as:
ESSO Febis K32, MOBIL Vacouline 1405, KLUBER32.
 - When pressing the tire pedal 3-4 times, check for oil droplets entering the oil cup G. If not, adjust screw D. (Figure 10)

Note: If the horsepower of the machine is not enough, follow the following steps to check the triangle belt of the motor: Disconnect the power supply before proceeding.

- Unscrew the 4 fixed screws and remove the left side protection plate of the semi-automatic tire removal machine.
- Special adjustment screw X on the motor support seat to tighten the triangle belt. (Figure 12)

Note: If the dismounting head is not locked or cannot be stopped 2mm above the rim, the locking plate of the operating arm needs to be adjusted, as shown in Figure 13.

If the disassembly head is too far away from the rim in the horizontal direction, adjust the adjusting screw of the locking plate of the push and pull arm as shown in Figure 14, so that the disassembly head is 2mm away from the rim in the horizontal direction.

Note: When cleaning or replacing the silencer that tilts open and closed on the control column (see Figure 15), the steps are as follows:

- 1) Unscrew the 4 fixed screws and remove the left side protection plate of the semi-automatic tire removal machine.
- 2) Unscrew the silencer in the pedal (N) system that controls the post tilting back to open and close.
- 3) Clean with compressed air nozzle, if damaged, replace with the same parts.

Note: When cleaning or replacing the muffler of the carrier lift (L), refer to Figure 15 and follow points 1 and 3 above

8、故障及排除方法

fault phenomenon	cause	elimination methods
The turntable spins in one direction	Universal steering switch damaged	Universal steering switch
The wheel doesn't spin	1. Triangle belt failure 2. Universal steering switch damaged 3. motor fault	1. Replace the triangle belt 2. Replace the universal steering switch 3. Replace the motor
Turntable jam	Triangle belt loosening	Adjust the tension of triangle belt
The fetal support rises/falls slowly	Silencer fault	Clean or replace
The wheel does not lock the rim properly	1. The lead screw nut is damaged 2. The screw thread is damaged	1. Replace the nut 2. Replace the lead screw
During the process of removing and assembling the tire, the disassembling head touches the rim	1. The locking plate is incorrect or damaged 2. The screws on the turntable clamp are loose	1. Adjust or replace the locking plate 2. Tighten the screws
The pedal cannot be positioned in the working position	Reset spring failure	Spring replacement
The tire press device is difficult to operate	1. The silencer is faulty 2. The cylinder sealing ring of the tire press device is damaged	1. Clean or replace the silencer 2. Replace the sealing ring

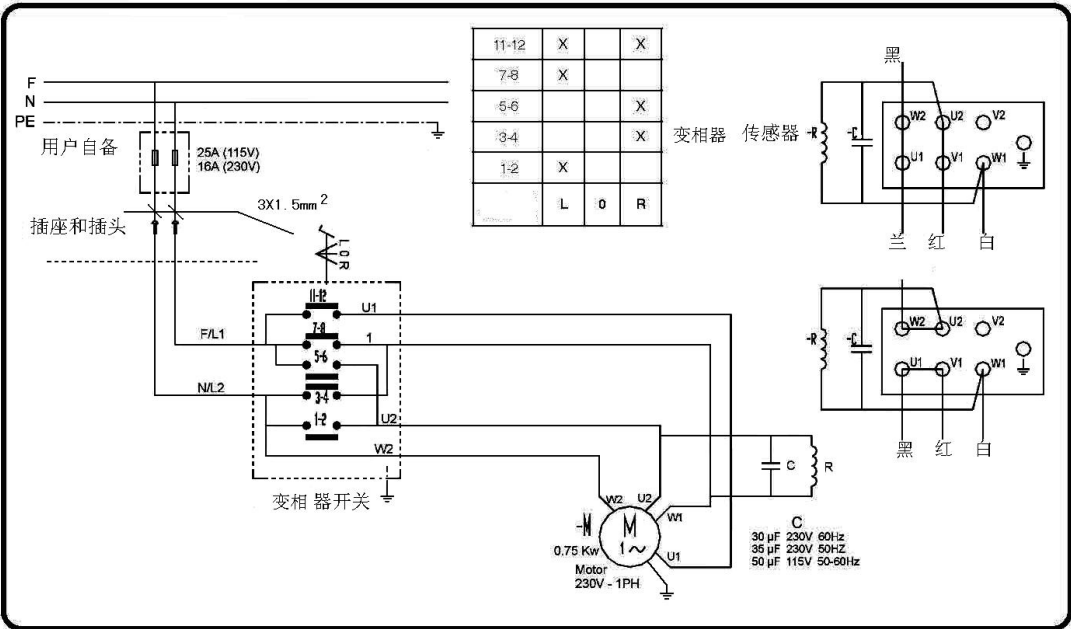
9、technical parameters

Characteristic point	Technical parameter
Applicable rim	13" --- 28"
Maximum tire width	355mm (12")
Maximum tire diameter	1120mm (44")
working air pressure	8bar-10bar(145 Psi)
Maximum inflation pressure	3.5bar
supply voltage	110V/220V/380V (3ph)
motor power	0.75kw/1.1kw
rotary speed	7 r/min
Maximum axis rotation	1200Nm~1500Nm
Tire press device pressure	2500kg
Machine dimensions	1780 X 1300 X 1990 (Normal state)
net weight	Standard model 365kg
Operating noise	<75dB (A)

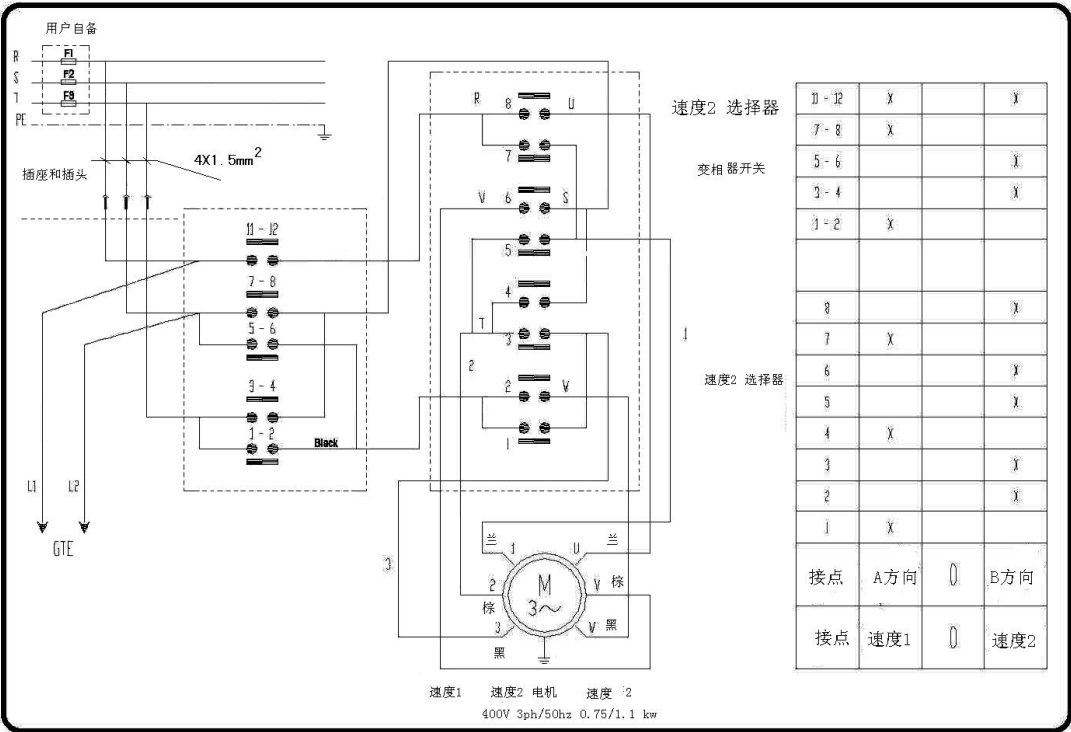
10、Circuit diagram and pneumatic connection diagram

10.1 circurt diagram

230V— 1 PH



400V- 3 PH - 2 速度



10.2 Pneumatic connection diagram

