NEOG Series

central granulator

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NEOTEC

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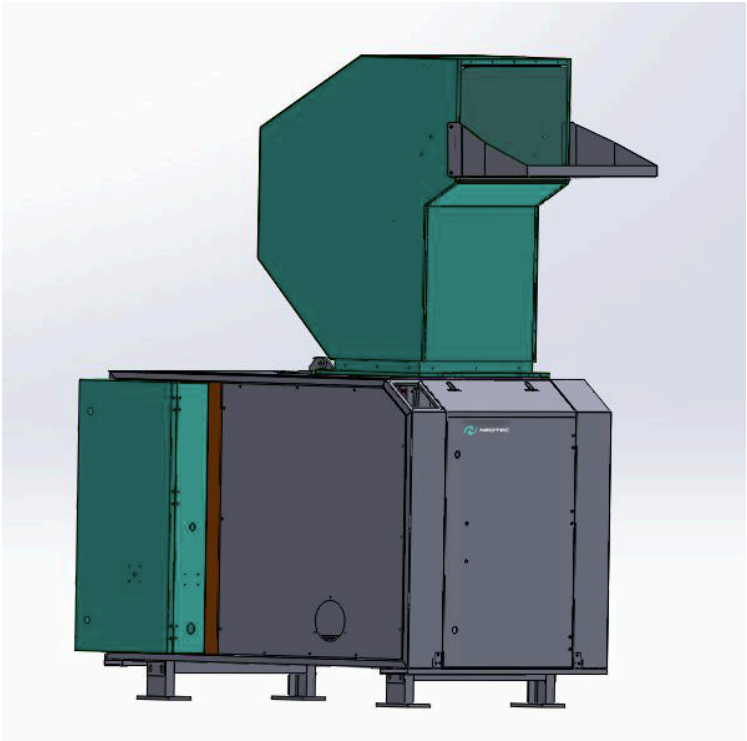
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1. Overview

Read the instruction manual carefully before installing and using this machine to avoid personal accidents or damage to the machine.

The NEOG series powerful crusher is suitable for polystyrene, modified polystyrene (ABS), polypropylene (PP), modified polystyrene (EVA), polycarbonate (ballistic rubber), cellulose (celluloid), polystyrene Crushing of PVC, PU, nylon, rubber and various rubber and plastic products. It has a wide range of uses in industries such as daily necessities, toys, household goods, electrical parts, and building materials.



sound-proof type NEOG-3550

1.1 Brief description of structure and characteristics

structure：

1. Feeding box: welded by high-quality steel plate, and equipped with interlayer to reduce noise (silent double-layer structure).

2. Base: Composed of body, screen, screen frame, etc.

3. Transmission system: It is composed of main shaft, movable blade, fixed blade, belt pulley, flywheel, motor, etc.

4. Machine foot: It is composed of high-quality channel steel and casters.

characteristics：

1. The machine frame is made of high-grade cast steel, which is not easy to break.

2. Replaceable claw blade design, strong cutting forces, reduces the load of the motor, and exerts the crushing effect.

3. Special design, no skipping, large feed inlet, double-layer sound insulation (silent double-layer structure), low noise, quieter than ordinary crushers.

4. The standard screen mesh is φ8mm, and the optional size is φ6mm, φ10mm, φ12mm, etc.

5. The barrel is made of stainless steel and equipped with wheels. Easy to clean and move, durable.

6. Equipped with safety protection devices to ensure the safety of operators.

7. This machine adopts alloy cutters made of imported steel, with high hardness, high strength, especially sturdiness and durability. It can crush all kinds of soft and hard materials easily and has strong crushing ability.

8. The hopper and the screen are separable design, it is easy to wash the machine and change the screen.

9. Imported adjustable bearings are used to ensure smooth and normal operation.

10. The control box is equipped with imported contactors and overload protection and electrical interlocking to protect the safety of motors and cutters.

11. You can choose different types of knives and screens with various apertures.

12. The machine feet are equipped with pulleys for easy movement (below NEOG-15HP).

All machine maintenance work should be completed by professional maintenance personnel. The instructions in this book are applicable to on-site operators and maintenance personnel.

In order to avoid damage to the machine and harm to people, no one is allowed to make any changes to the inside of the machine unless authorized by our company, otherwise the company will not fulfill its promise.

Our company has good after-sales service. During your use, if there is any problem to be solved, please contact our company or the dealer.

1.2 Machine specifications

1.2.1 Machine specifications

table 1-1： Machine specifications

Specifications								
Model	NEOG-2524(8	NEOG-2532(8	NEOG-2540(8	NEOG-2548(8	NEOG-3550(8	NEOG-3560(8	NEOG-5070(8	NEOG-5080/8P)
Motor Power(kW)	4(5.5)	5.5(7.5)	7.5(11)	11(15)	15	22	37	55
Main Axis Rotating Speed(r.p.m)	415	415	415	415	415	415	415	415
Type of Blade	9crsi	9crsi	9crsi	9crsi	9crsi	9crsi	9crsi	9crsi
Type of Blade(○)	○SKD-11	○SKD-11	○SKD-11	○SKD-11	○SKD-11	○SKD-11	○SKD-11	○SKD-11
Number Of Fixed Blades	2(2)	2(2)	2(2)	2(2)	2(2)	2(2)	2(2)	4(4)
Number Of Rotating Blades	9(3)	12(3)	15(3)	18(3)	21(6)	24(6)	27(6)	33(6)
Dia. Of Screen Mesh (mm)	8	8	8	8	8	8	10	10
Cutting Chamber(mm)	250x240	250x320	250x400	250x480	350x500	350x600	500x700	500x800
Max Smashing Capacity(kg/hr)	80~200	120~300	180~400	250~500	350 ~ 500	500 ~ 700	500 ~ 1000	600~1100
Noise Level dB(A)	65~75	65~75	75~85	80~85	80~85	80~90	90~100	90~100
Motor Recycling System	○	○	○	○	○	○	○	○
Full Receiver Alarm Device	○	○	○	○	○	○	○	○
Dust Separator	○	○	○	○	○	○	○	○
H (mm)	1350	1350	1350	1350	1700	2000	2000	2320
W (mm)	700	780	860	1200	1600	1800	2100	2200
D (mm)	1150	1150	1320	1320	1100	1250	1300	2850
Weight(kg)	350	400	500	750	1300	1600	2300	2800

1) The voltage specification of the machine is: 3Φ, 400V, 50Hz.
2) The above specifications are subject to change without notice.
3) For non-silent type, add (B) after the model, add (H) after increasing the motor power, add (P) after the blade type.

1.3 Safety rules

To avoid personal injury and damage to the machine, please follow the safety rules in this manual. When operating this machine, the following safety rules must be observed.

1.3.1 Safety signs



Electrical installation should be done by a professional electrician.

The main switch and control switch must be turned off during machine maintenance.



Caveat!

High voltage danger!

This label is attached to the shell of the electric control box!



Caveat!

Be careful!

This label indicates that you should be careful there!

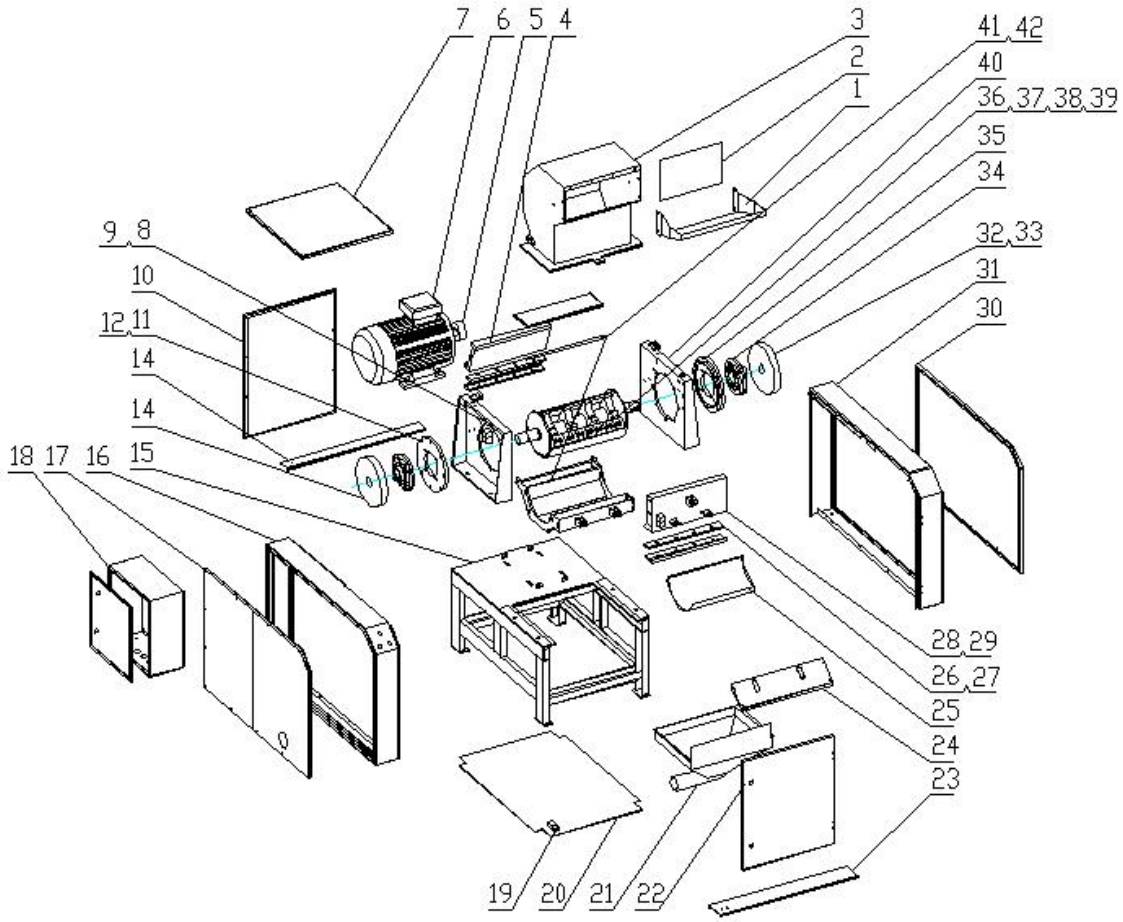


Note!

All screws for installing electrical components in the electric control box are all tightened no need for regular inspection!

2. Structural features

2.1 sound proof type structure diagram



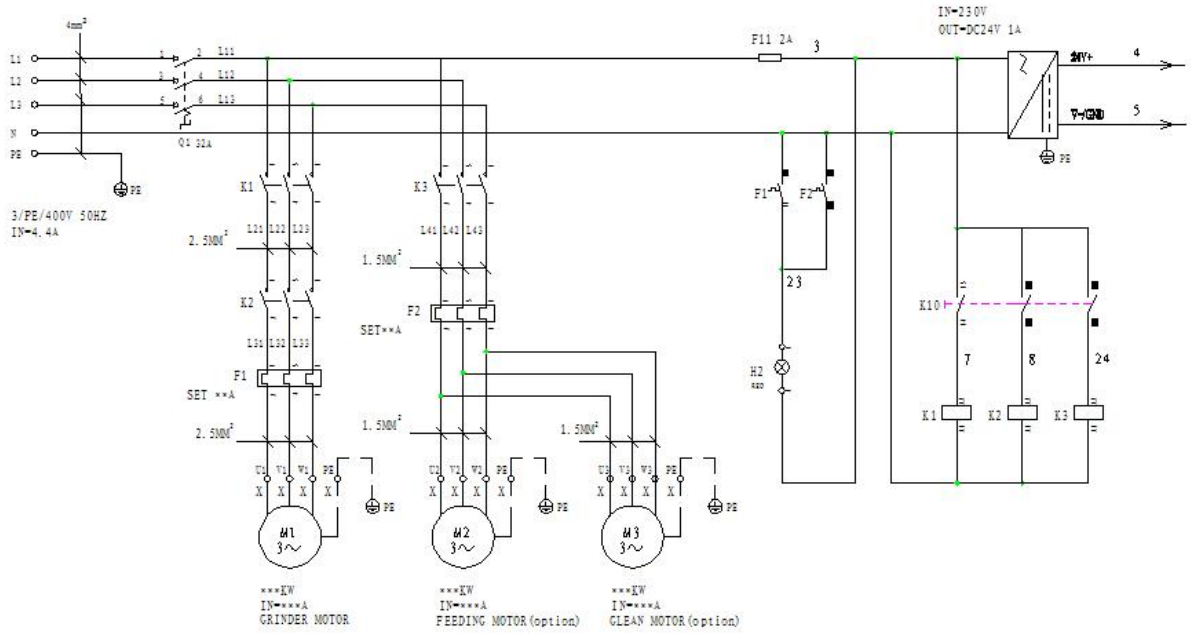
Name of main parts <Refer to the structure drawing>

NO.	name	NO.	name	NO.	name
1	Feed port	**16**	Left rack	**31**	Right rack
2	Baffle plate	**17**	Left cover	**32**	Big pulley
3	Feed box	**18**	control box	**33**	Belt
4	Back plate of crushing chamber	**19**	Safety switch 2	**34**	Right bearing
5	Small pulley	**20**	Bottom acoustic panel	**35**	Right bearing seat
6	Motor	**21**	Collection box	**36**	Moving blade

7	Rear upper cover	**22**	Front door panel	**37**	Blade holder
8	Left plate of crushing chamber	**23**	Front fixed plate	**38**	Blade shaft
9	Safety switch 1	**24**	Front upper plate	**39**	End plate
10	Rear cover	**25**	Screen	**40**	Right plate of crushing chamber
11	Left bearing seat	**26**	Fixed blade	**41**	Feed box shaft
12	Left bearing	**27**	Fixed blade press block	**42**	Screen frame
13	Rear fixed plate	**28**	Front panel of crushing chamber		
14	Counterweigh t wheel	**29**	Safety switch 3		
15	Bottom frame	**30**	Right cover		

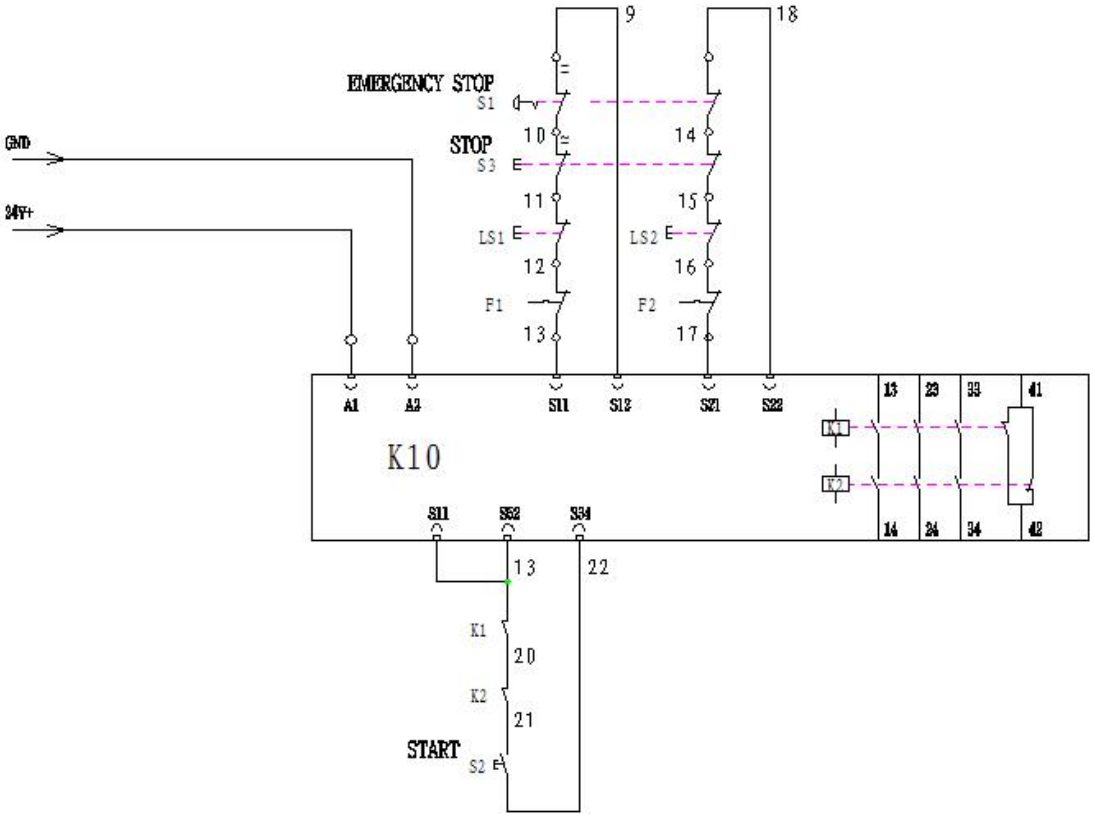
2.2 Circuit diagram

2.2.1 Main circuit diagram -CE(400V)



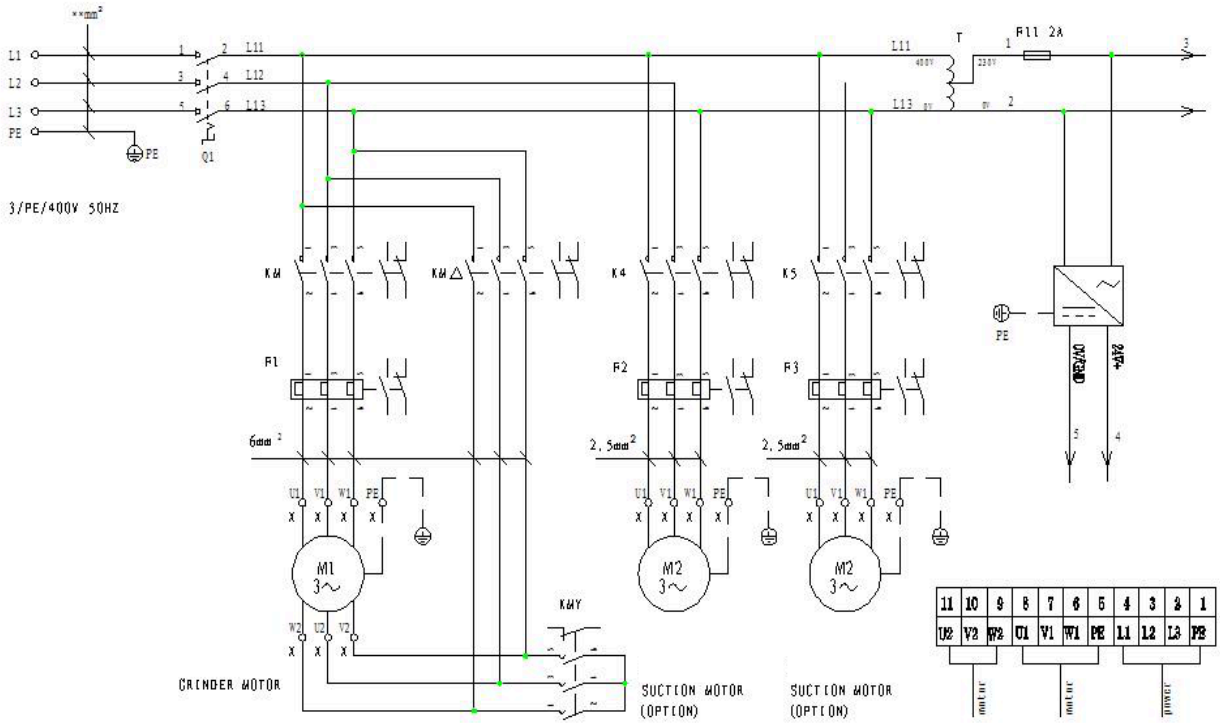
draw 2-1：Main circuit diagram (400V)

2.2.2 Control circuit diagram -CE



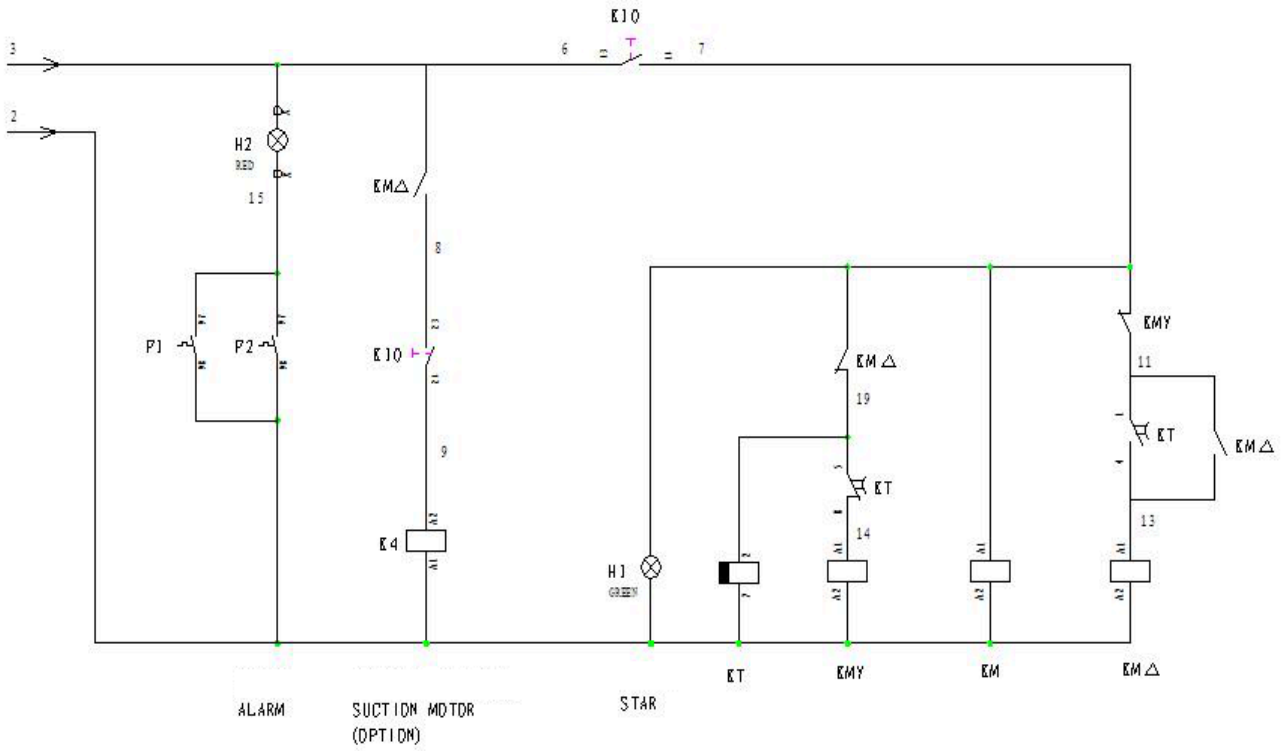
draw 2-2： Control circuit diagram

2.2.3 Main circuit diagram -delta-CE(400V)



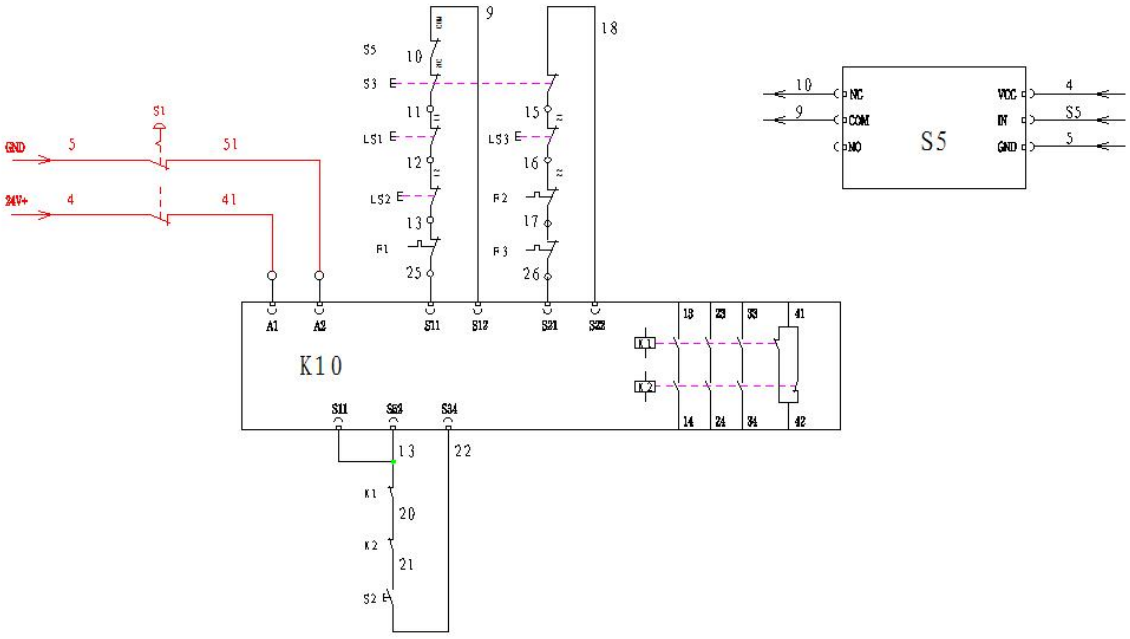
draw 2-3：Main circuit diagram (400V)

2.2.4 Control circuit diagram 1



draw 2-4： Control circuit diagram

2.2.5 Control circuit diagram 2



draw 2-5： Control circuit diagram

3. Installation and debugging

 Note!

Before installation, please read this chapter carefully, you must install in the following order!

The power connection of the shredder must be done by a professional electrician!

3.1 Circuit connection

NEOG series is connected to AC 3Φ 400V 50Hz power supply and ground wire.

 Caveat!

Before connecting the power cord, please make sure that the power switch is off!

3.2 Installation

1. An effective ground wire should be connected. The grounding resistance is not more than 5 ohms.
2. Turn on the power supply as required (380V, 50HZ, 415V, 50HZ, 220V, 60HZ).

3.3 Debug

1. Wipe clean the anti-rust coatings of the relative moving parts of the product, and add appropriate amount of lubricant.
2. Check and tighten the blade to prevent loosening.
3. Check the inside of the machine body and remove foreign objects such as screws, nuts and other hard objects to avoid damage to the tool.
4. Rotate the flywheel by hand to check the gap between the moving and fixed knives in the base.
5. Check whether the transmission system is flexible.
6. Start the power supply idling and check whether the motor rotation direction is correct. (If the direction is opposite, just connect the wires R and S)

4. Use and operation

4.1 Operating instructions

1. Open the box and verify that there is no non-crushed material in the base.

2. Press the "Start" button (green) to turn on the power supply, and run for 5 minutes to confirm that there is no abnormal sound and the operation is normal, and then put in the crushed materials.

3. The crushed material should not be too large, it should be processed into small pieces before being crushed in the machine.

4. When feeding materials, there should be a certain interval time (for example, after the materials to be fed enters the cutting state, put in the second batch.)

5. If the main wheel is stuck (the motor stops rotating), press the "stop" button (red) immediately, and restart after processing.

Precautions：

1. The operator should be familiar with and understand the performance of the machine and the relevant requirements of this manual before proceeding.

2. Before shutting down, check whether the power supply is consistent, and the ground wire must be connected firmly.

3. Check whether there are broken objects in the base.

4. Check whether the movable knife and fixed knife screws are fastened firmly.

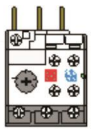
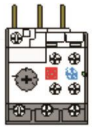
5. Broken objects should not be too large.

6. When feeding the material, it must not be continuous and the interval time is 20 seconds.

7. When the machine makes abnormal noises, it should be shut down immediately for inspection.

8. When the motor suddenly stops rotating (stuck), it should be stopped immediately and checked and dealt with. When the manual dial rotates freely, it can continue to start.

5. Troubleshooting

common error	Causes	elimination method
Power on, the motor does not run	Power failure or motor failure	Check the power cord, fuse or motor
The motor stops suddenly	The spindle is stuck by a hard object	Open the machine cover, put down the screen holder, check and remove hard objects
Can not shred	The motor rotates in the opposite direction, and the size of the broken object is too large	Check and re-wire before putting
The motor generates heat and the work efficiency is low	Insufficient voltage, improper gap between moving and fixed blades, blunt blades, angle changes, and blade cracks	Check the power supply, sharpen or replace the knife
can not start	1. No power supply or damaged cable switch 2. The safety switch fails 3. The top is not tightly closed	1. Check power supply and cable switch 2. Repair or replace the safety switch 3. Close the top cover tightly
Motor noise and high temperature	1. Material overload 2. The motor is not working properly or damaged	1. Ensure that the materials are not overloaded 2. Repair the motor
Always burn insurance after booting	Short circuit	Check the line
Motor overload alarm	1. Wrong current setting	After adjusting the set current value, press the Reset button on the load device 
	2. Lack of phase	After checking the wiring, press the Reset button on the load device 

6. Repair and maintenance

 Note!

All maintenance must be done by professional personnel to avoid personal injury and damage to the machine.

6.1 Daily maintenance

Daily maintenance	Weekly maintenance	Seasonal maintenance
Check for foreign objects in the working cavity before shift	Check whether the transmission part is abnormal	Bearing seat cleaning and oiling
Use wire to clean the inner gaps of the lower ends of the flanges on both sides to remove dust and foreign objects	Clean the powder room	Check the power cord and magnetic start
Check whether the knife is loose	Check whether the tool is tight and whether the screws in the machine layer are loose	Check whether the V-belt has changed and adjust
Lubricate each lubrication point	Check tool wear	Sharpening, fixed knife
Clean machinery after shift	Cleaning machine	Clean up oil and keep clean

 Note!

When checking the power cord, the main power should be cut off.

1. Whether the motor rotation direction and voltage are correct.

2. Before feeding, pay attention to whether there are metal objects in the plastic material, such as screws, nuts, nails, etc., so as to avoid unnecessary damage to the cutter blade.

3. Check whether the various parts of the machine are damaged regularly, such as whether the blade fixing screw is loose, whether the blade is dull or chipped, whether the pulley and flywheel are stable, etc., and regularly refuel the bearings.

(Reference date: once every three months is the best)

4. When the machine is running, do not open the control box, the protective cover, touch the rotating part of the machine, and extend the hand into the hopper to avoid danger.

5. Model: For pulverizers above NEOG-50, cooling water must be added from both sides of the end cover to prevent the bearing from generating high temperatures during operation, and to ensure that the bearing works normally and is durable.

6. This crusher cannot crush materials with a thickness of more than 20mm to avoid damage to the machine.

7. The electrical parts should be waterproof to avoid the danger of short-circuiting the power supply.

The following conditions are not covered by the warranty:

1. Shredder cutter.
2. It is abnormal use, such as unstable voltage, violation of operating standards, etc.
3. Disassemble or modify the machine by itself.

6.2 Maintenance record sheet

6.2.1 Machine data

model _____ S/N. _____ MFG. date _____

voltage _____Φ_____V frequency _____ Hz gross power _____ kW

6.2.2 Installation check

Electrical Installation

☐ Voltage check V _____ Hz _____

☐ Fuse specifications:1 phase _____A 3 phase _____A

☐ Power phase sequence check