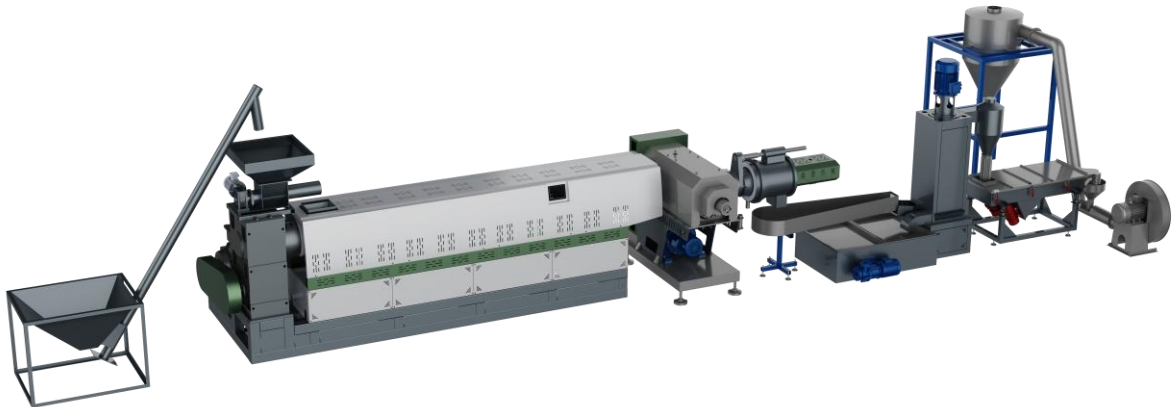


RHDJ150 Instructions Manual



Preface

Thank you for choosing our products. Before using them, please carefully read and understand all the contents in this manual to use the equipment correctly and reasonably. Incorrect usage may lead to dangerous accidents, cause malfunctions and shorten the service life of the machine.

I. Overview

1.The composition of water ring granulation production line:

Screw loader – Ration feeder - Extrusion system – Laser filter- Pelletizing system - Cooling and dehydration system - Air discharge conveying system

2. Application Scope:

It is mainly applicable to processing PE plastic granules, such as Washed or crushed HDPE flakes, PP flakes, etc.

3. Features:

The gearbox adopts a high-torque design, achieving noise-free operation and smooth performance. The special design of the screw tube and screw, after special hardening treatment, has excellent wear resistance and mixing performance, saving the time for hydraulic screen replacement, resulting in higher production capacity and lower power consumption. The design of vacuum exhaust or ordinary exhaust port can remove moisture and exhaust gas during the production process.

II. Technical Specifications

Model	100	120	150	180
Main extruder				
Screw Diameter	100mm	120mm	150mm	180mm
L/D (28-33:1)				
Power	75kw	90kw	132kw	185KW
Output	150~200kg/h	200~250kg/h	450~500kg/h	600~800kg/h

Note: Output is subject to the raw materials.

Motor power depends on the materials.

III. Installation

1. The extruder should be installed horizontally, and each anchor bolt should be firmly fixed to reduce vibrations during high-speed operation.
2. The water discharge chute of the dewatering machine should be aligned with the main machine.
3. The feed inlet for vibration separation should be connected to the discharge outlet of the dewatering machine.
4. The feed inlet of the pneumatic conveying pipeline should be connected to the discharge outlet of the vibration separation.
5. After all the equipment is installed in place, connect them to the control box according to the extension line markings of the main machine, and connect the power lines and grounding protection lines.
6. Install the cooling water pipes for the equipment.
7. After confirming the installation is correct, turn on the power supply, check if all the circuits are working properly.
8. Start the motors at low speed to check if the motor rotation direction is correct and if all parts are operating normally.
9. Before starting the main machine, preheat it. Once the temperature reaches the set value, let it stabilize for one hour before proceeding.
10. After confirming everything is correct, proceed with the normal startup steps.

IV. Equipment Operation Instructions

1. Preparations before startup

Before starting the machine, it is necessary to confirm that the wiring of each heating zone is correct.

Check the wiring of each motor to ensure it is correct and the rotation direction is correct.

Verify if there is sufficient lubricating oil in the reducer.

Check if there is any rubber material in the main machine barrel.

Confirm if there is any rubber material in the extruder barrel.

Check if there is an adequate amount of water in the water tank and if the cooling circulation water is turned on.

2. Temperature Control of Extruder

The temperature setting of the screw barrel and die of the extruder must be determined according to the required temperature of the rubber compound. Different rubber compounds require different temperatures.

The temperature can be set by pressing the "v" button to decrease and the "^" button to increase until it reaches the required temperature for processing the rubber compound.

Note: After the temperature reaches the set temperature required by the rubber compound, it must be kept at that temperature for more than 1 hour before starting to extrude the material.

3. Startup Operation

- Ensure all motor frequencies are set to zero before pressing the start button to turn on each motor gradually.

Startup Procedures

1. Inspect and open all water valves to guarantee sufficient water pressure.
 2. Preheating: Switch on the main power supply and activate all heaters for preheating. Once the die head reaches the set temperature, maintain constant temperature for half an hour.
 3. Material purging: Start the cutter first, then the main extruder, and adjust the main machine potentiometer to 40–50 Hz to begin feeding materials. When materials extrude from the die lip: stop feeding raw materials first, turn the main machine potentiometer back to zero and shut down the main extruder, then stop the cutter.
 4. Formal production startup:
 - ① Clean residual materials on the die lip, install the cutter and fasten bolts evenly. Fit the water jacket and chute.
 - ② Turn on the vibrating screen, dewaterer and water pump in sequence.
 - ③ Start the cutter and set its potentiometer to approximately 20 Hz; start the main extruder and adjust it to 50 Hz; start the compactor bin at 50 Hz, then the belt conveyor and vacuum pump.
 - ④ Adjust the frequencies of the main extruder and cutter according to material throughput.
- For main extruders equipped with frequency converters, increase

rotating speed slowly.

- Under normal working conditions, keep the main extruder running at maximum speed to achieve optimal output.
- Do not open the top cover while the compactor bin is in operation.
- Adjust the belt conveyor speed based on the current of the main extruder and compactor bin.
- Pellet size can be controlled by adjusting the cutter speed.
- Monitor pressure changes during startup to judge whether the filter screen needs replacement.

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4. Shutdown Operation

- Completely extrude all materials inside the extruder barrel before shutdown.

Shutdown Procedures

1. Stop feeding raw materials; shut down the belt conveyor after all materials on it are conveyed away.
2. Observe the sight window: if materials spiral upward with no feed left, turn the compactor bin potentiometer to zero and stop the bin.
3. Monitor the main machine ammeter and discharge outlet. When the current drops and stabilizes with barely any material extruding, reset the main machine potentiometer to zero, shut down the main extruder and turn off the vacuum pump.
4. Monitor the auxiliary machine ammeter; after the current falls and stabilizes, reset its potentiometer to zero and stop the auxiliary machine.
5. Turn the cutter potentiometer to zero and stop the cutter.
6. Shut down the water pump, dewaterer and vibrating screen.
7. Move away the chute, remove the water jacket and disassemble the cutter.
8. Cut off the overall power supply of the equipment.
9. Close all water supply valves of the machine.