

Rotary Valve

Instructional Manual

➤ **Introduction**

- This machine is designed for either dust unloading or batcher system. The air-tight design can nest continuously during negative pressure dust collecting. It is also equipped with gauging and frequency conversion functions, enabling batching adjustments, and easy operation and maintenance.

➤ **Primary Technical Parameters**

- Operating pressure =-500mmAq~+500mmAq
- Range of operating temperature: -50 degree~150 degree
- Material: FC-20 or FCD、SUS-304、SUS-316, can also be treated with Teflon for rust-prevention.

➤ **Operational Principles and Features**

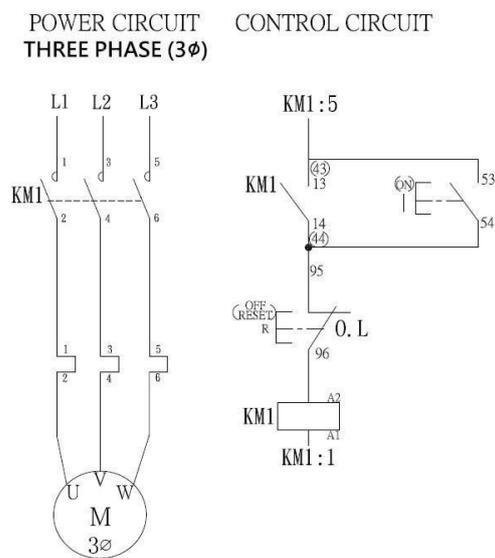
- Driven by motor via decelerator, to propel blades on blade wheels to spin within the main structure, allowing materials to fall onto the blades from the leak hopper. The material would then be spun downward by the blade until it exits, ensuring a uniform and stable feeding.
- The distinguishing feature is the adoption of air-tight wool felt at the axle. This ensures an air-tight environment during nesting. The decelerator is fitted with precision gear, making the structure more compact, thus enabling a higher transmission efficiency and bearing capacity, and allowing horizontal transmission or vertical direct drive installation.
- The main structure were treated with cylinder boring, such that the space between blades and valve can be adjusted based on needs/use. The life expectancy of the valve is also extended due to blades' low rotary speed and good wear-resistivity.

➤ **Transport and Installation**

- Please be cautious during transport and installation.
- Handle with care at all times. Avoid rain, collision, and jolts.
- To avoid accidents, do not spin blade wheels with hands.

- Foreign materials should be cleared off the machine to avoid valve distortion or blade jamming, which could lead to serious consequences such as valve malfunction or valve system failure.
- This valve is a uni-directional valve. Please pay special attention to the direction of the valve's entry/exit points during installation. The direction of the valve cannot be installed in reverse.
- Cable connected to the motor should comply with electro-technical guidelines.
- To prevent burning and fire hazard, surge protector and short circuit device will be required if installing on connectors.

Circuit Protection:



➤ **Operational Guidelines and Procedures**

- **Check**
 - ◆ Check if decelerator oil is at the indicated level. If oil level is below the indicated level, replenish till the level shown.
 - ◆ Check chain tension. Tension must be just right. If the tension is too low, valve will be unstable and the chain may come off; if the tension is too high, load on decelerator would increase and cause more wear on the chain. Otherwise, adjust the bolt for the decelerator (applicable to chain models).
 - ◆ During operation, the nesting valve power must be turned on before Silo Barrel. When turning off the machine, the Silo Barrel power must be turned off first. Turn off the nesting valve power only after all materials have been expelled from the nesting valve.
- **Inching Test**
 - ◆ The equipment should be inch-tested before actual materials were loaded.

Check the spinning direction of the axle or the chain to see if they are the same as those indicated on the cover guard. If the direction is not the same, adjust the motor cable connection sequence.

- ◆ After confirming the direction of the spin, run the equipment for 30 minutes without load, and check to see if there are any abnormality; if the equipment is running smoothly; if there were overheating in the equipment and decelerator; is the chain's operation stable? Was the chain dislodging? Etc.
- ◆ Test the equipment with load and observe to see if there were any abnormality, if the operation is stable; is there overheating in the equipment and decelerator; if the chain operation stable, was there any chain dislodging, etc. After 30 minutes, were there any leaks?
- Open the cover guard before use to check the tightness of the chain. Periodic checks should be carried out during operation; at the same time, appropriate oil should be applied to the chain and the sprocket. (Applicable to chain models).

➤ **Ordering Information**

- When ordering, please provide your desired nesting valve's material, power level, and volume. Please also let us know the material you wish to use the equipment on, form of transportation, environmental temperature the equipment would be operating under. We would provide you with the best suggestions and information accordingly. You may also request the "Nesting Valve Specification Inquiry Form (Customer Selection Form)" from us.
- For decelerator our products would be equipped with, you can choose between antiknock and high efficiency models. Major motor suppliers: TECO or Tatung. Major decelerator suppliers: TECO, Chin-Fong Machine Industrial Co. Ltd., Li-Ming Machinery, Li Xiang Machinery. We can only customize based on client requests.
- The size and model shown in the catalogue are the basic model. We can also customize the design based on client's unique needs.



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