

Description

Pneumatic diaphragm valves for dust collector systems that use a counter-current jet of compressed air to clean sleeve filters, cartridge filters, sintered metallic filters.

Made with superior quality raw materials, die-cast aluminium body with threaded connectors for input and output connections.

Stainless steel pilot unit, screws and washers.

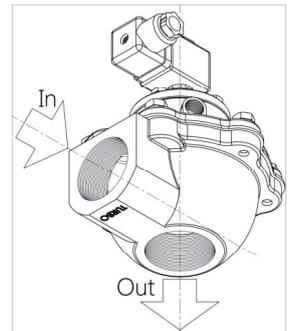
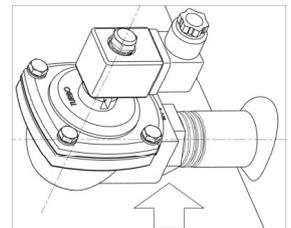
Available in versions with built-in pilot and coil or as pneumatically remote controlled valve.

Smaller valve versions have a single membrane, 1½" ones are always double membrane.



Assembly

- Screw the lock nut that holds the valve in place in its seat on the threaded stub.
- Spread a layer of gas-tight sealing paste for removable joints on the tank stub threads.
- Screw the valve onto the tank using the threaded connector marked In, secure it in place by tightening the lock nut with 20 Nm torque.
- Screw the lock nut onto the air cannon threaded pipe stub to secure the valve.
- Spread a layer of gas-tight sealing paste for removable joints on the air cannon pipe threads.
- Screw the air cannon pipe onto the threaded connector marked Out the bottom part of the valve.



Warning

During maintenance or replacements, cut-off power before starting work.

Make sure the tank is not pressurized and fully empty.

Inform department personnel that power and pressure are cut-off to avoid any accidental start-up.



Maintenance and Repairs

Once a month, make sure the valve correctly opens and closes.

For versions with built-in pilot and electric drive, check connection integrity and coil connector seal.

For remotely controlled versions, check pneumatic connection integrity.

Diaphragm Replacement

- Unscrew the screws that secure the cover, remove it from its housing to access the diaphragm.
- Remove the diaphragm.
- Insert the new diaphragm, adhering it to the valve body perimeter.
- The disk facing up and rivet with air passage hole in its housing.
- Mount the diaphragm spring that must be housed on the disk centred on the rivet.
- Replace the cover over the diaphragm, refer to the housing for the rivet with the air passage hole.
- Screw in and tighten the screws with the following torque:
 - M6 7 Nm torque
 - M8 16 Nm torque
 - M10 32 Nm torque.

Pilot and Coil Replacement

- Unscrew the nut at the top of the coil.
- Unscrew the pilot unit from the valve cover.
- Replace worn parts.
- Reassemble the pilot unit guide sleeve, mobile core with gasket facing down, tighten with 6 Nm torque.
- Insert the coil in the pilot unit and tighten the nut with 8 Nm torque.

Faults

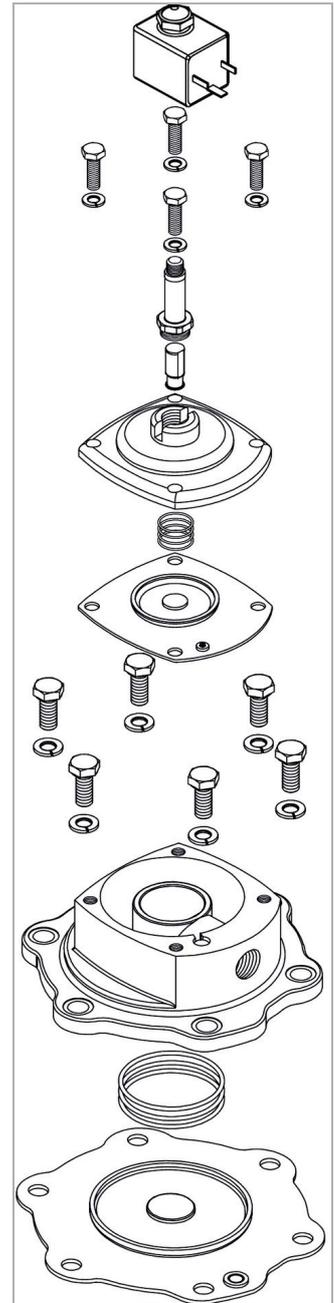
The Valve does not work

- ⇒ No coil power.
- ⇒ The power supply is insufficient or out of tolerance, it must be $\pm 10\%$ of the rated value.
- ⇒ Tank air pressure insufficient.
- ⇒ Pilot unit blocked, impurities prevent movement.

The Valve does not close

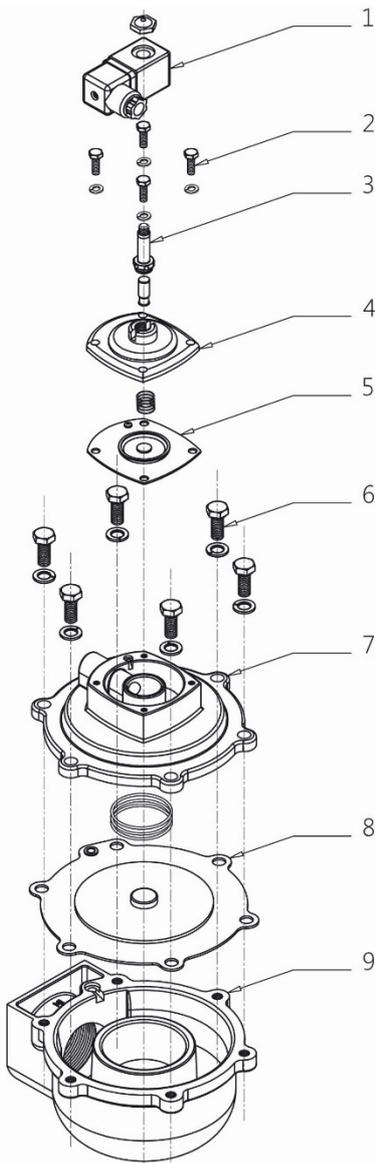
- ⇒ The electric signal is always on and keeps the coil energized.
- ⇒ Pilot unit blocked, impurities prevent movement.
- ⇒ Tank air pressure too high.
- ⇒ High pressure in the air cannon pipe.
- ⇒ Damaged diaphragm.
- ⇒ Damaged diaphragm spring.
- ⇒ Loose cover fastening screws.

Before pressurizing the circuit, start the valve several times to check correct operations.



For correct operations

- ⇒ The power voltage must be $\pm 10\%$ of the rated value printed on the back of the solenoid coil.
- ⇒ System compressed air pressure must be between 0.5 ÷ 7.5 Bar.
- ⇒ The diaphragm valve must be connected to systems that supply dry compressed air, with low solid particle residue, water and oil.
- ⇒ The tank volume must be proportionate to the valve air consumption.

List of Exploded Parts


Pos.	Description
1	Coil - Connector - Nut with Gasket
2	Screws - Washers
3	Pilot Unit
4	Pilot cover
5	Secondary diaphragm
6	Screws - Washers
7	Main Cover
8	Main Diaphragm
9	Valve body