LDA

Solutions for Life

Industrial dust collection

Clean your dust filters with a Pulse valve

A pulse valve is a special pneumatic valve designed to deliver short, powerful pulses of air. It is primarily used in dust extraction systems (for example, in filter houses or silos) to blow filter bags or cartridges clean. MAC's greatly improved technology increases efficiency and lowers the operating cost of your industrial dust filter installation.

- Eliminates failure points
- Reduces maintenance costs
- Makes conversion fast and easy
- Optimized for harsh environments
- Significantly reduces energy costs

Filter links:
Stof vóór het pulsen

Filter left:
Clearly less dust after pulsing

How does the Pulse valve work?

The spool is the moving part that controls the airflow within the valve. In a MAC PV, this spool is often vulcanized, meaning that an elastomer is permanently and firmly molded around the metal spool. That vulcanization is done with heat and pressure, so the elastomer adheres strongly to the metal.

In addition, the vulcanized design ensures reliable and fast movement, even at low switching pressures or in dusty/tough environments. This is one of the reasons MAC valves are popular in applications where high switching speed and robustness are required, such as pulse cleaning of filters or high-speed industrial automation.

20-30% higher expenses are in terms of energy costs to operate a diaphragm valve diaphragm valves tend to crack. Here are its consequences:

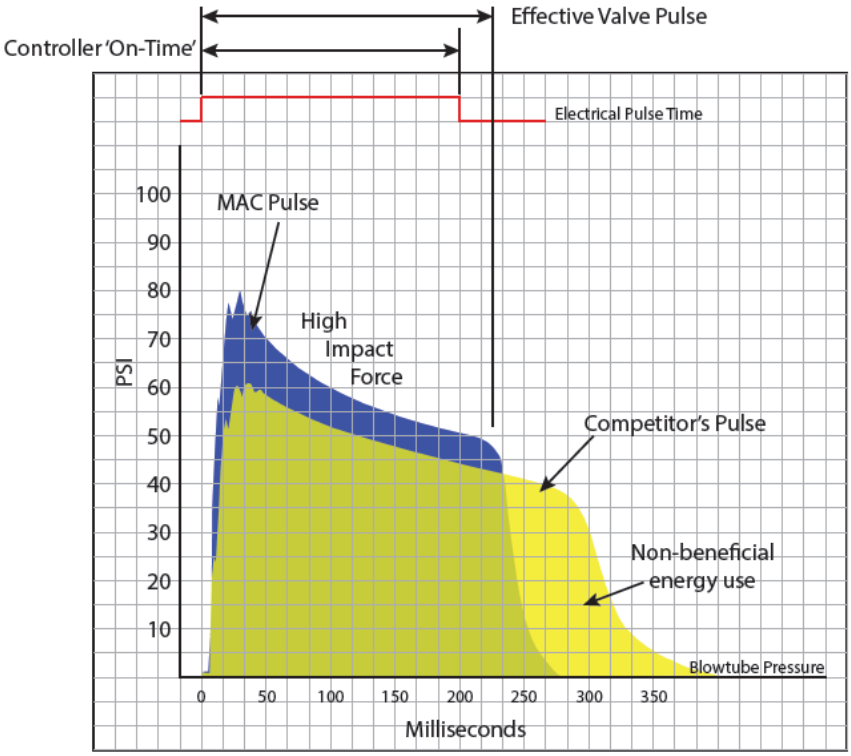
- A small leak can occur after the valve has been in place for only a very short time.
- Unnoticed, small leaks can result in increased costs
- The compressor supplying the air must compensate with more air: much higher operating costs.

MAC Valves avantages

- Balanced pilot technology provides fast, repeatable pulses.
- An internal air accumulator and main coil with spring is used to guarantee the return for times when the air supply may not be sufficient.
- D-seal technology isolates the spool: as a result of MAC Valves' innovative solution, contamination, sticking and burning of the spool are reduced and the valve lasts significantly longer.

Energy Savings

Whether you use a pulse/clean on demand system or a timed cleaning system , the effect on energy savings and valve life are significant. MAC Valves valves perform better and result in lower operating costs. The performance curve below illustrates the difference between the 2 types of valves.



Competitor diaphragm pulse graph produced from independent OEM study

High impact force:

- Better cleaning v.d. filters
- Fewer pulses
- Longer filter life
- Significant air savings

Self-cleaning of the valve:

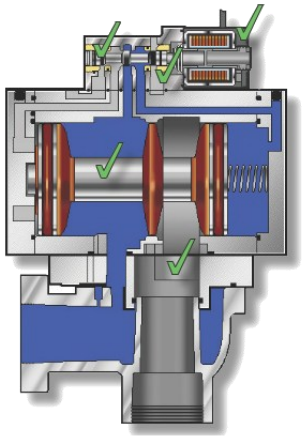
- Better cleaning of the valve
- Shorter pulses
- Air savings

Reliability:

- 4 way pilot
- Vulcanized slide
- No diaphragm

Mac Valves Pulse valve technology

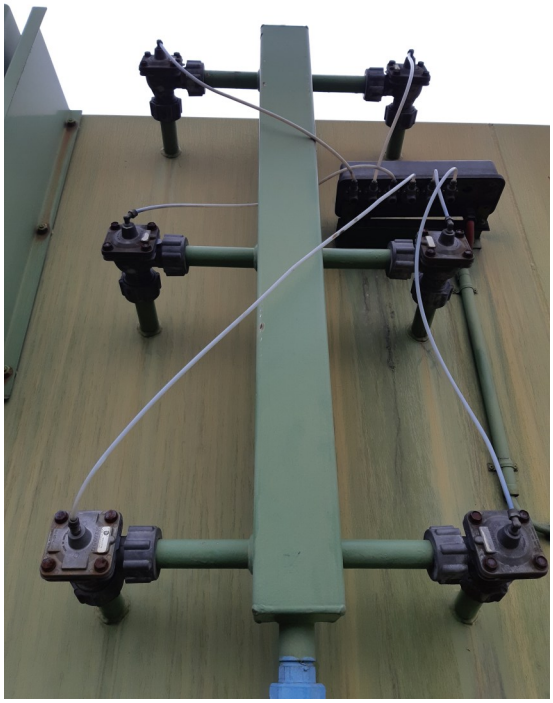
- Balanced design
- Vulcanized valve
- 4 way pilot
- High flow rate of main valve



Gevulkaniseerde spoel

Replacements of:

- Pneumatically actuated by pneumatically actuated.
- Eleckrically actuated by electrically actuated,
- Pneumatically actuated by electrically actuated.
- For specific valve mounting or valve bodies, MAC Valves possesses the necessary transition plates.



Membrane valve

Are you experiencing these common problems with your diaphragm valves?

1. Sticking and burns

Polluted air, the kind you are trying to eliminate, is passed through a unbalanced coil, which results in sticking and burn-through. Pulses become inconsistent.

2. Gasping and jamming.

Current valves have a small, fixed opening. Through research and development, the new realization is that that small opening is a design flaw. The clogs easily leads to valve jamming.

3. Energy consumption

A membrane design has several disadvantages. Membranes are prone to cracking and tearing over time. Cracks result in wasted air

4. Regular maintenance

Frequent routine maintenance is required , resulting in high operating costs.

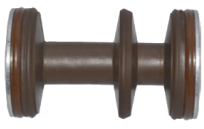
5. Valve failing

Diaphragm valves have a life of +/- 1 million cycles. MAV Valves Pulse valves have a service life of 10 million cycles

6. High energy costs

Membrane valves close a lot slower , resulting in significantly higher energy costs.

MAC Spool Design



- + 10 Million Cycles = Longer Life
- Wiping Action = Self Cleaning
- Balanced Design = Repeatable Purges
- No Ruptured Diaphragms = Less Wasted Air
- Viton Rubber = Harsh Environments

The benefits

Energy savings

Powerful air pulses mean fewer pulses, reducing energy costs with a flow meter, it can be proven in short order.

Stronger pulses

Weak pulses cause dust accumulation and reduced air flow. This increases consumption and air pollution. Strong pulses keep filters clean and air flows optimal.

Fewer safety concerns

Access to valves in dust extraction systems is often inconvenient and dangerous. Thanks to the long lifetime of MAC Valves valves, servicing becomes rarer.

Ease of use

Only MAC's 4-way pilot valve with high switching power offers manual operation to test pulses.

Lower costs

Membrane valves cause daily maintenance problems Mac's valves provide a better use of your labor force on the shop floor.

No conversion features

A wide selection of adapter plates provide a hassle-free replacement of your existing diaphragm to Mac Valves Pulse valves.

minimum filter slow

whether you use sleeve filters or cartouches, more efficient and effective

pulses lead to cleaner filters/bags.

fewer pulses extend their life, another way mac valves technology reduces costs.

Superior quality

Features of MAC Valves valves include: a cast aluminum body, stainless steel fasteners, an environmentally friendly coil and Viton® seals. All for extreme temperatures and chemical resistance.

Installation team

LDA has a specialized installation team with extensive experience in installing and replacing pulse valves. Whether it is an existing system that needs to be converted or a new system that is being put into operation, our technicians ensure an efficient and skilled execution. With professional tools and in-depth knowledge of dust extraction systems and filter systems, we guarantee a fast and reliable conversion. We ensure that your installation is shut down for as short a time as possible, with minimal impact on your production process. Choose LDA if you value fast, worry-free and technically correct assembly of your pulse valves.

Pulse Valves

PV03 series

Flow: 24.000 Nl/min

Temp Viton: -20°C—100°C

PV06 series

Flow: 53.200 Nl/min

Temp Viton: -20°C—100°C

PV07 series

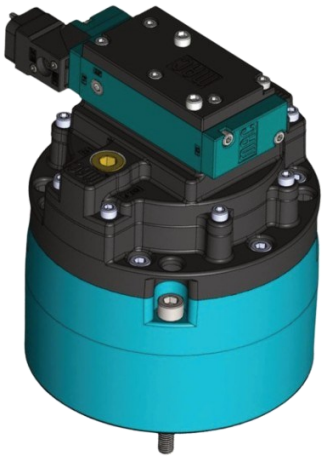
Flow: 70.000Nl/min

Temp Viton: -20°C—100°C

PV09 series

Flow: 10.000 Nl/min

Temp Viton: -20°C—100°C



PV10 series

Flow: 140.000 Nl/min

Temp Viton: -20°C—100°C

PV12 series

Flow: 175.000 Nl/min

Temp Viton: -20°C—100°C

Notes

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