



# Fluid Control

Our product brands:

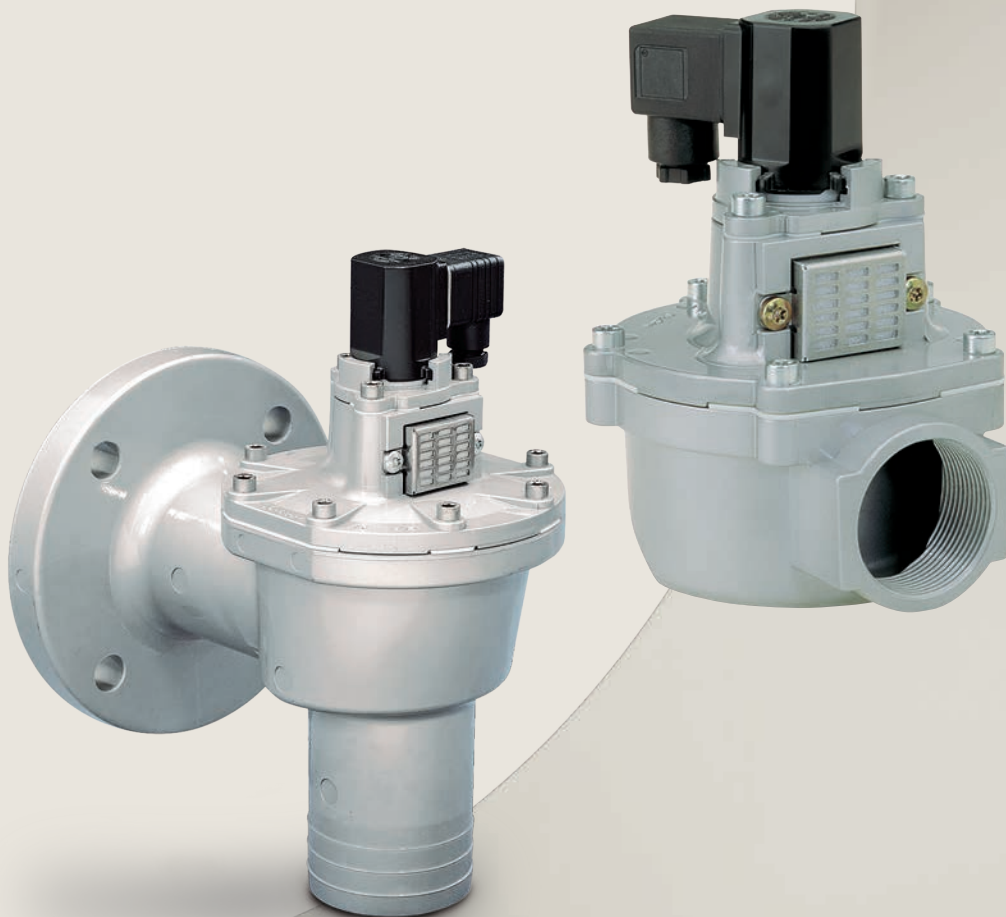
IMI Buschjost

IMI FAS

IMI Herion

## Dust Collector Valves

### Speed saves Energy



Breakthrough  
engineering for  
a better world

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# Breakthrough engineering for a better world

We create breakthrough solutions which accelerate the safety, reliability and performance of everyday processes. Our valves and complete system solutions control liquids and gases, enabling machine builders to improve design functionality and keep safety and sustainability at the forefront of innovation.

For over 80 years, we have helped our customers improve the reliability and efficiency of their machines for diverse end markets. Working in close customer partnership, we continuously push the boundaries of technology, offering a wide selection of components and tailored solutions. Meeting equipment manufacturers' needs includes everything from helping provide traceability for consumers, to reducing waste in critical resources and delivering a premium cup of coffee.

Through flexible, scalable and agile innovation, we help our customers solve their current challenges and create competitive advantage for the future.

Breakthrough engineering you can count on.

# Powerful Dust Collector Valves

Wherever dust and dirt particles accumulate – for example when mining coal, lime and rock – efficient filter systems are needed. They ensure that only purified and pollutant-free air is returned to the atmosphere – to protect both people and nature.

The way filter systems work follows a simple basic principle: The contaminated air is fed into the system, and the dust and dirt particles in it stick to the filter media, where they form a so-called filter cake. Various methods are available for cleaning the filters. Probably the most effective is the air-blasting technique: a short, intensive pulse of compressed air is directed into the filter element, loosening the filter cake, which can then be removed.

IMI Buschjost dust collector valves have been developed to make filter cleaning as efficient as it is economical. These are equipped with an innovative TPE diaphragm, which is constructed in one piece and works without pressure springs. Thanks to this design, the valves

achieve extremely fast opening and closing times – and this is exactly what matters: Only when the valves open within a few milliseconds and the compressed air pulse reaches the setpoint as quickly as possible does the filter cake completely detach – ensuring the filter media are re-available for further cleaning process at full capacity. Vice versa: Only when the valves close again as quickly as possible can unnecessary compressed air consumption and the associated increase in operating costs be avoided.

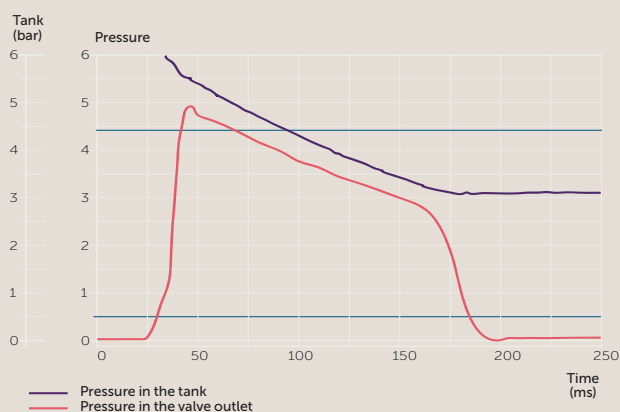
## Product Highlights:

- Reduced compressed air consumption
- Also suitable for increased operating pressures up to 12 bar
- Solenoid change without tools (Twist-on®)
- Fast response times thanks to one-piece and springless TPE diaphragm
- CE marking
- Can be used in extreme temperature ranges as well as for low-pressure and vacuum applications
- Integrated silencer as standard
- High flow rate
- Frost-proof solenoid system
- High corrosion resistance (optional)
- Ex-protection (optional)

## Measurement protocols:

(Example)

Article number:	8296600.8171.02400
Port size:	G 1 1/2
Tank volume:	32 dm <sup>3</sup>
Reservoir pressure:	6 bar
Electrical pulse:	50 ms
Pulse length:	165 ms
Max. pressure:	4.9 bar
Pressure quotient:	82.0 %
Reservoir pressure drop:	2.9 bar
Volume / Impulse:	85.3 Ndm <sup>3</sup>
Pressure rise time 10-90:	13 ms
Opening time:	38.5 ms
Closing time:	133.7 ms



# Options & Variants

## Solenoids



Twist-on®



Solenoid 8000



Ex-Solenoid

## Diaphragms



Standard



Temperature



Low pressure



Integrated air purge

## Connections



Flange version



Flange version



Tank assembly

## Bodies



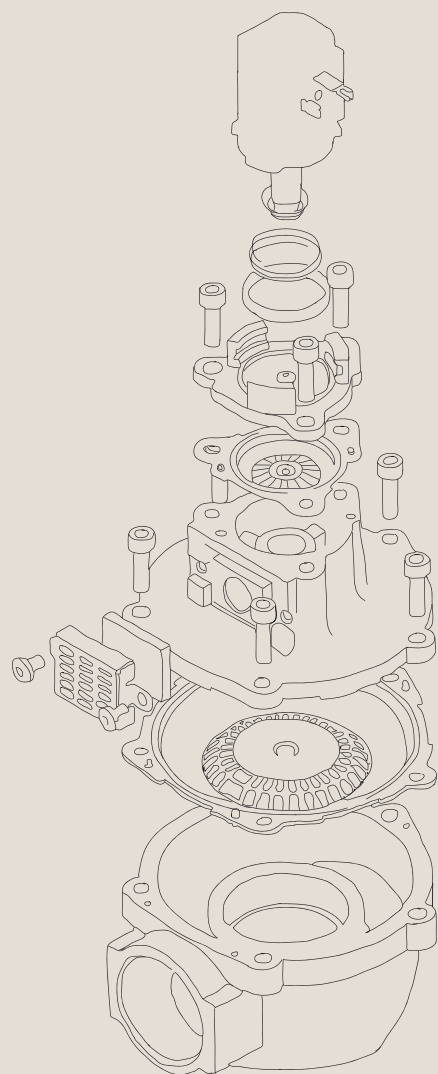
Aluminium



Stainless steel



Special coating





# Applications



Environment



Lime Industry



Pharmaceutical Industry



Coal mining



Chemical Working Industry



Primary Industry









# Intensive Compressed Air Pulses for optimum Cleaning Results


For more than 50 years, IMI Buschjost dust collector valves have been synonymous with the highest quality and efficient cleaning. Based on advanced technical expertise, many years of experience and a feel for trends and topics that move the industry, IMI Buschjost valves are continuously developed.

Over the years, new improvements have been made for example to the diaphragm seal, control holes and housing geometry: Deflection and flow resistance could thus be significantly reduced through a constructive adaptation of the valve housing, which in turn has decisively improved the flow rate. Depending on the series, the Kv value of a IMI Buschjost dust collector valve is around 30 % higher than the values of comparable valve designs on the market.

IMI Buschjost dust collector valves also achieve excellent results in pressure rise time, which is decisive for the efficiency of cleaning: The pressure pulse reaches its maximum after only a few milliseconds, which means the valves open around 25 % faster than comparable products. Equally decisive for the cleaning result is the pressure drop in the valve: The smaller the difference between the pressure at the valve outlet and the internal tank pressure when the valve is fully open, the less operating pressure is required – and

the better the energy balance of the entire system. Over the course of development, the pressure drop in IMI Buschjost valves has been reduced by an effective 15 %. With these properties, the dust collector valves thus ensure excellent cleaning results while at the same time reducing compressed air consumption – and ultimately also lowering operating costs.

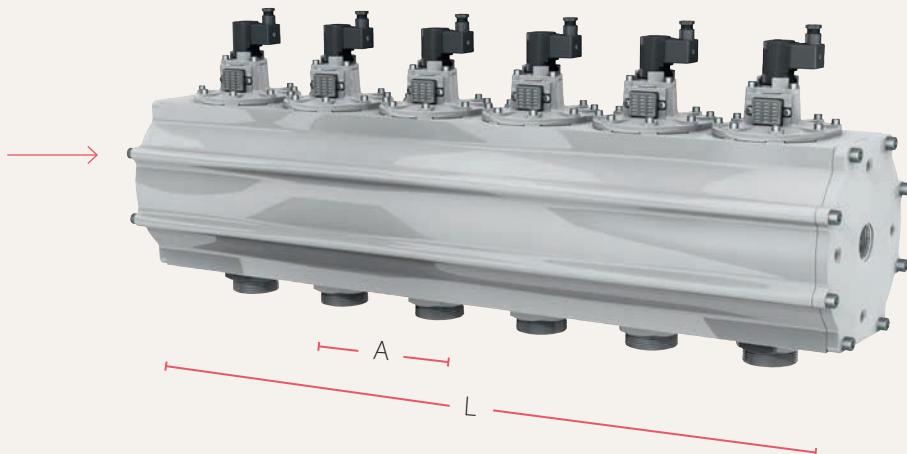
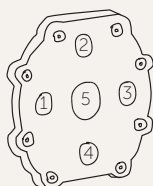
Product	Description	Port size	Nominal diameter (mm)						Pilot operated	Solenoid operated	Material
			20	25	40	50	65	80			
	Single valve	G 3/4 – G 3	•	•	•	•	•	•	82900	82960	Aluminium
	Single valve	3/4 NPT – 3 NPT	•	•	•	•	•	•	82910	82970	Aluminium
	Single valve	G 3/4 – G 1 1/2	•	•	•				83300	83320	Stainless steel
	Single valve	3/4 NPT – 1 1/2 NPT	•	•	•				Special number	Special number	Stainless steel
	Flange version	DN 25 + DN 40 + DN 65	•	•	•	•			82900 Option 54	82900 Option 54	Aluminium
	Single valve	Compression Fittings DN 25 + DN 40	•	•					83640	83670	Aluminium
	Flange version mounting without blow-tube	DN 80						•	8393900.xxxx.xxxxx	8392900.xxxx.xxxxx	Aluminium
		DN 90							8393000.xxxx.xxxxx	8392000.xxxx.xxxxx	Aluminium
	Filter cleaning system	DN 25		•					8588xxx.xxxx.xxxxx	8588xxx.xxxx.xxxxx	Aluminium
	Filter cleaning system	DN 25		•					8589xxx.xxxx.xxxxx	8589xxx.xxxx.xxxxx	Aluminium
	Filter cleaning system	DN 40 ... 65							8587xxx.xxxx.xxxxx	8587xxx.xxxx.xxxxx	Aluminium

Product	Description	Measuring range	Series	Material
	Pneumatic Controller (Control of max. 20 pilot operated dust collector valves)	2 ... 8 bar	82870	Grey cast iron



# Flex-on<sup>®</sup> Filter Cleaning System

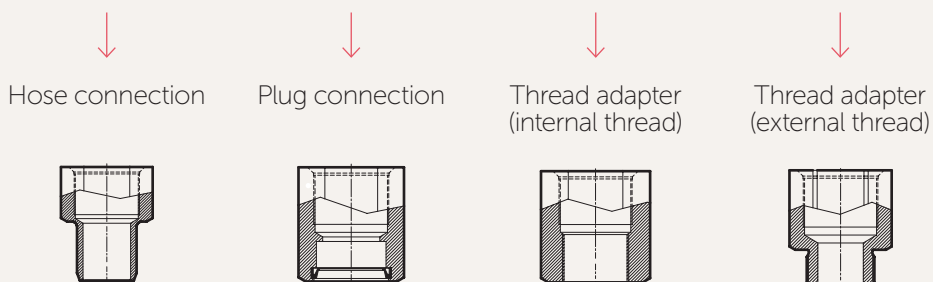
Connection 1... 4 G 1/2  
 Connection 5 G 1... 2



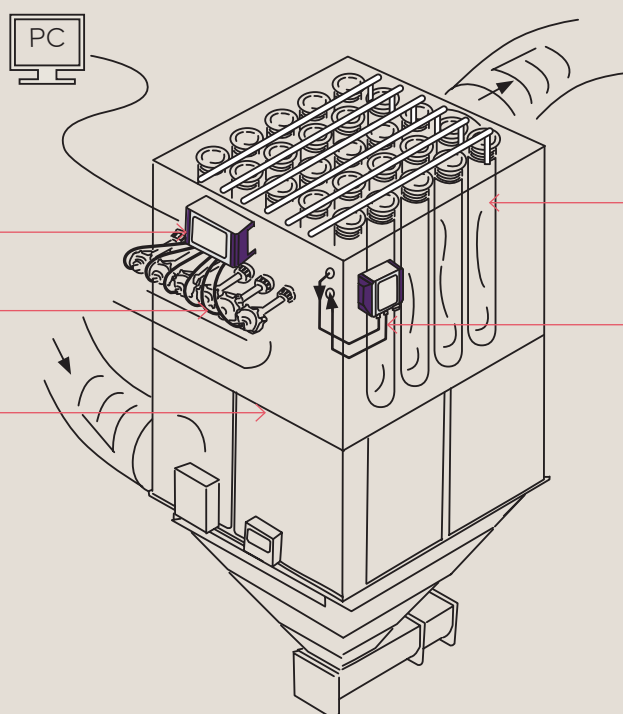
## One system, numerous advantages:

- Optimum cleaning results thanks to high performance
- Modular design
- One-stop shop for all components
- Maximum security: PED and EN 13445 compliant
- Low compressed air consumption and reduced operating costs
- Excellent flow capacity
- Equipped with powerful dust collector valves
- „A“ minimum  $\geq 125$  mm
- „L“ maximum length 3,500 mm

G 1 1/2... G 2 1/2



Control unit



Dust collector valves

Purge valve ( $\Delta p$ )

Dedusting system with dust collector valves

Differential pressure transducer



IMI operates four global centres of technical excellence and a sales and service network in 50 countries, as well as manufacturing capability in Brazil, China, the Czech Republic, Germany, India, Mexico, Switzerland, the UK and the USA.

Supported by distributors worldwide.

For further information, scan this QR code or visit

[www.imiplc.com](http://www.imiplc.com)



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Due to our policy of continuous development, IMI reserves the right to change specifications without prior notice.

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