

## PAK-M DX

Compact and power saving high vacuum unit with several options suitable for organic- or metal combustible dust. For 1-5 users.

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## PAK-M DX



PAK-M DX flameless Metal - front view

The PAK-M DX is a frequency controlled high vacuum dust collector unit. It is designed for extraction of combustible dust from grinding or sanding (incl. on-tool extraction) as well as granulate, grit or swarf. PAK-M DX is also suitable for cleaning the workplace, shop floor or extraction directly from a production line. Typical areas of application can be found in construction or manufacturing industries, bakeries etc., generally serving up from 1 up to 5 simultaneous extraction points. There are two main versions available; PAK-M DX, equipped with a relief panel for release of the explosion pressure and flame or PAK-M DX equipped with a flameless venting system that could be used indoors with variants suited for organic or metallic dust respectively.

PAK-M DX controls the speed of the motor automatically using a VFD (Variable Frequency Drive) and dP-sensor to maintain a constant vacuum, selected by the user on the control panel - ideal for on-tool extraction but also ensuring minimum power consumption - saving typically 50% energy or more in comparison to units without a VFD. The PAK-M DX can also be set to generate as much vacuum as possible for applications with long piping, material transportation or cleaning. Automatic vacuum valves offer further energy savings by controlling the PAK-M DX to only provide suction when an operation is ongoing but can also be used to increase the number of working points if not all are used simultaneously.

The PAK-M DX is controlled by the VFD as standard but can be upgraded with a separate PLC for enhanced control- and sensor capabilities. The PAK-M DX is developed to fit into normally noise sensitive premises thanks to efficient silencers, acoustic enclosure and using the VFD to run at the lowest possible speed to needed to maintain the desired suction.

The PAK-M DX is offered with two filter options; an Antistatic Polyester filter with a Class M control filter or a high-efficiency PTFE filter with a H14 control filter for increased cleaning efficiency and longer filter life in more demanding applications. Running the cleaning cycle opens the filter cleaning valve and a powerful blast of reversed airflow is created, efficiently dislodging dust from the filter bags. Filter cleaning is initiated based on how much dust is loaded into the filter (on-demand, dP-controlled) or alternatively, timer based, ensuring minimum total number of cleaning cycles and thereby increasing filter life.

The vacuum unit, VAC-M is also sold separately for combination another dust separator than standard.

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- Low operating costs with energy saving VFD to maintain the desired vacuum level and 6 000 hours of filter life in most typical applications.
  - Low installation costs - unit complete with VFD as starter, control unit and for adjusting the desired vacuum level - no set-

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up is needed.

- Efficient, dP-controlled or timer-based filter cleaning minimises number of cleaning cycles and gives longer filter life.
- Low noise level with fan mounted in acoustic enclosure.
- Designed for ATEX applications and built in safety functions including emergency stop, monitored control filter detecting main filter failure and monitored relief/venting system that vents an explosion to a safe area and stops the unit.

Product name	PAK-M DX
Noise level (dB(A))	70
Protection class	IP54 (Dust separator IP65)
Compressed air consumption	700 N-Litres/min
Installation	[Indoor]
Suitable for combustible dust	True
Filter cleaning method	Reverse air pulse
Material recycling (%)	96 weight-%
Application	[grit], [dust], [swarf], [granulate]
Dustbin volume (l)	70
Filter Area (m <sup>2</sup> )	3.0
Power Voltage (V)	380-480
Frequency (Hz)	50/60
Filter type	[bag]
Number of filter elements	24
Compressed air requirement	6 - 10 bar (87 - 145 PSI)
Capacity (max airflow m <sup>3</sup> /h)	545 m <sup>3</sup> /h @ 15kPa, 475 m <sup>3</sup> /h @20kPa
Max vacuum (kPa)	21
Inlet	100 mm
Weight (kg)	378-393
Outlet	100 mm
Power (kW)	7,5 kW @50 Hz, 9 kW @60 Hz













## PAK-M DX

Image	Filter material	Model
	Polyester, antistatic	40057006*
	Polyester, antistatic	40057004*
	Polyester, antistatic	40057002*
	Polyester with PTFE, antistatic	40057003**
	Polyester with PTFE, antistatic	40057005**
	Polyester with PTFE, antistatic	40057007**

\*Secondary filter type - Polyester, Class M, 5.4 m<sup>2</sup>

\*\*Secondary filter type - Polyester, glass fibre, H14, 5.2 m<sup>2</sup>

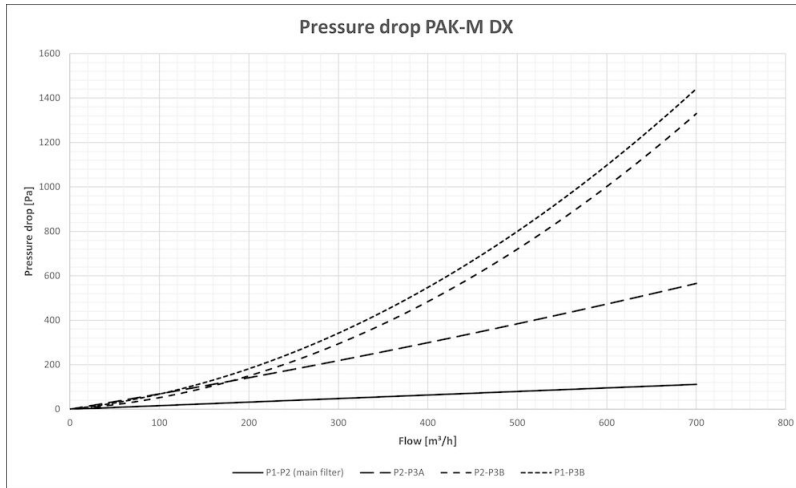
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	Accessory	Part No
	Compressed air switch, 3 bar	40620370
	Vibration Sens Kit FlexPAK (IOT)	40377221
	Fire alarm complete.	40116540
	Switch disconnecter MS6-KG64	40122310
	Compressed air filter	40620360
	Bin Level indicator (BLI) EX	40375269
	Deflector 220x540	40376771
	Flanged pipe d100, 1m	40376521*
	Flange pipe d100, 0,5m	40376522**
	Flanged bend 90 degr. d100	40376523*
	Adapter flange/flange DN100 B-Flap	40377308
	Flanged trans.pipe0,2m DN100 B-Flap	40377307
	Plastic Bag 730x900, 20pcs, in dissipative material for EX applications	40118800
	Mounting kit elec.box (PS)	40903520

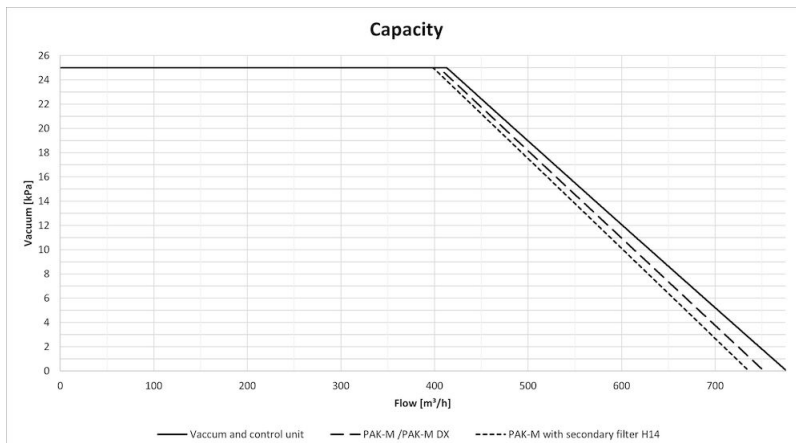
\*Pressure resistant pipes and bends for installation between filter inlet and the isolation valve. An adapter is needed between the pipe and isolation valve flanges. Fasteners and seals are included.

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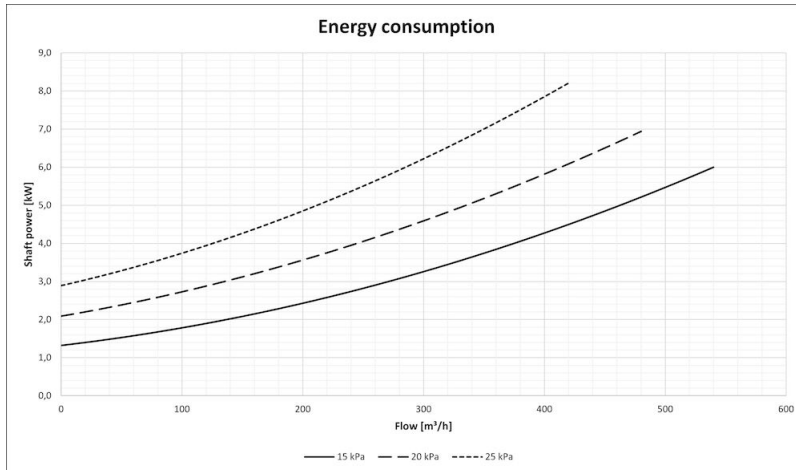


With clean filters.

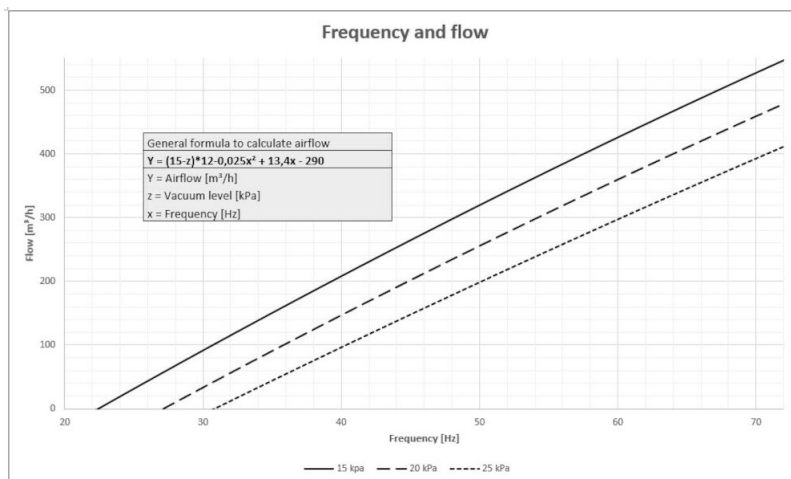


With clean filters. With secondary filter you should normally not use more than 21 kPa since DP over secondary filter is preset to 4kPa (DX has built in secondary filter).

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PAK-M/PAK-M DX with clean filters.



PAK-M/PAK-M DX with clean filters and no pressure drop on exhaust ducting. Every kPa in pressure drop over filters and exhaust ducting reduce flow with around 12 m³/h (or frequency by 1.2 Hz). Temperature of unit will affect the calculation slightly.