

# PKFC SERIES DUST COLLECTOR

JET-PULSE COMPACT CARTRIDGE TYPE

## PLUG & PLAY

PKFC Series Jet-Pulse Dust Collector takes up less place than its' compact design. It is a plug&play device that contains all accessories on its own.

## ECONOMICAL

PKFC Series Jet-Pulse Dust Collector decreases your installation expenses thanks to its easy setup and your air duct expenses due to its special design suitable to work indoors.

## DURABLE & LEAK-PROOF

Side and upper doors of cabin, makeup profile, chassis and carrying legs are produced with sufficient plate thickness and leak-proof is ensured by press inflection unifying with a nut.

## SILENT

PKFC Series Jet-Pulse Dust Collector enhances the air quality of your factory without reasoning noise pollution thanks to its' specially designed deadening ventilator and its' cabin.

## AUTO CLEANSING

In the Jet-Pulse filter units, compressed air cleaning works on the basis of differential pressure. In this way, the filters are cleaned only when necessary and the compressed air consumption is reduced.

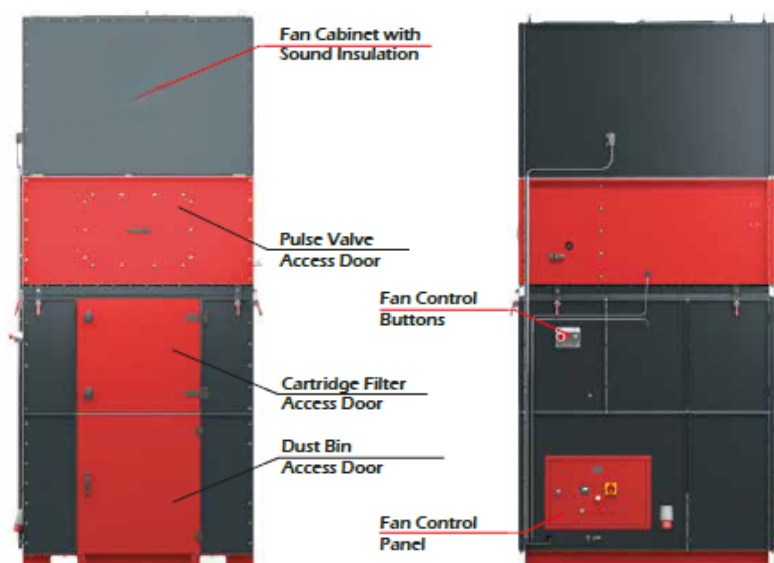
## EASY MAINTENANCE

PKFC Series Jet-Pulse Dust Collector decreases your time and labor cost thanks to its panel filter elements and custom-engineered dust bin.



## APPLICATIONS

- Metalworking
- Plasma/Laser Cutting
- Pharmaceutical
- Powder Coating
- Food
- Welding

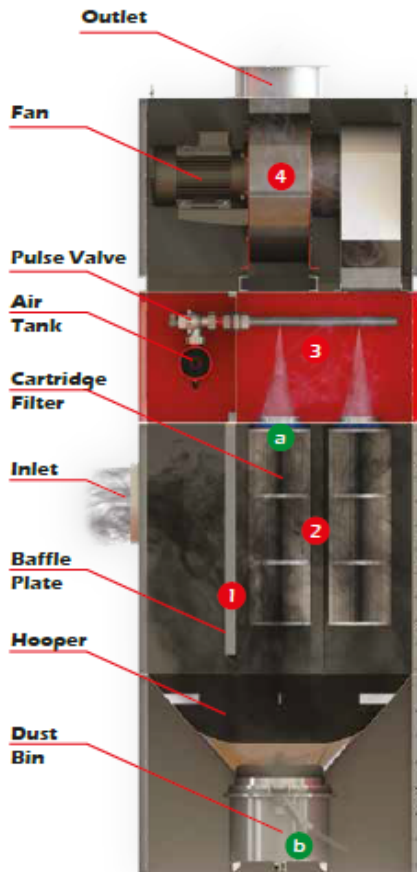


AFEBRUARY 2024

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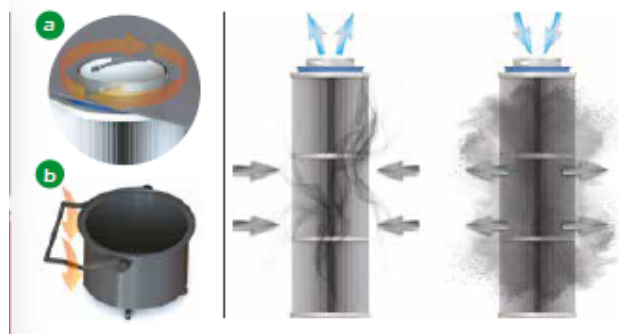
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## HOW IT WORKS?



### EASY MAINTENANCE

### FILTER CLEANING



- 1** Heavy particles carried by dirty air (such as spark, big and abrasive particles and so on) are directed to bunker via flapper.
- 2** Light particles in dirty air rise in filter cabin and are hold by cartridge filter.
- 3** Cartridge filter is cleaned by pulse valves with compressed air, after differential pressure sensitive pulse valve controller detects the pollution level of filters.
- 4** Clean air coming from cartridge filters is released to indoor or atmosphere.

## SAMPLE INSTALLATION



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JET-PULSE COMPACT CARTRIDGE TYPE - ACCESSORIES

## Radical fan

Targeted to satisfy requested flow and pressure, centrifuge type, conforming the standards and with its' direct drive motor its' produced to work quite and vibration free. Fan motor are made by steel as standard and balanced dynamically and statically on specialized plants.



## Cartridge filter

80% Cellulose 20% Polyester blend media with nanofiber coated cartridge filters (F9 Class) are used as standard in PKFC series. Thanks to the special PLEAT-LOCK pleating technique, pleat spacing is always equal. (For more details page 4)



## Pulse-valve and header tank

Pulse Valves are made by aluminum cast block and 1" sized. They perform with 24V DC standard voltage as standard. Air tank is produced conforming to compressed container technique and adequate to store the air between two valves.



## Sequencer (with $\Delta P$ )

It analyzes differential pressure occurs due to pollution of filters digitally and controls pulse valves. Covered with IP 65 class, made by ABS, water- and dust-proof case.



## Control panel & dP sequencer

The panel containing thermal switch controlling ventilator engine, contactor, engine protection relay, working/warning lights, emergency stop button and fan start/stop button. dP controlled sequencer is integrated to the control panel.



## Dust bin

Dust bin accumulate the dust filtered by cartridge filters. Dust bins are easy to plug and remove thanks to their brand new fitting equipment. Also PKFC series dust collectors contains dust bin ramp as standard to remove the dust bin more easily.



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## OPTIONAL ACCESSORIES

### Silencer

Produced cylindrically to absorb the air noise of fan outlet.



### Compressed air regulator

It regulates the pressure of the compressed air coming from compressor and ensures it has been forwarded to air tank as dry, thus the filter cleaning pressure is kept under control and safety of filters is guaranteed.



### Inlet manifold

Special designed input manifolds keep duct and entrance velocity as it's best and your filtration unit works the most efficient way. Symmetric design lets you install your manifold either upward or downward.



## EX-PROOF ACCESSORIES

### Explosion vent

ATEX certificated, stainless steel explosion vents are selected with required calculations



### Pilot box and ex-proof coils

Remote box keep electrical equipments of pulse valves out from explosive and dangerous areas. It also prevents electronic equipments from harsh environment.



### Ex-proof fan & motor

ATEX certificated ex-proof motor and fan are used, which are suitable for different capacity requirements



# CARTRIDGES FILTER

## PKFC SERIES JET-PULSE COMPACT CARTRIDGE TYPE DUST COLLECTOR

- According to DIN EN 60335-2-69 standards, in 0,2-2  $\mu$  sized M-Class particles it has a filter efficiency up to 99,99%.
- Easy filter replacement from clean air side without facing any contaminated air.
- It provides extended use without losing filtration efficiency.

In PKFC series jet-pulse dust collector, highly efficient nanofiber coated, flame retardant, 80/20 cellulose/synthetic, F9 filter media is used as standard. With its' superior PLEAT-LOCK pleating technique it's guaranteed the pleating sizes have been equal and better filter cleaning is ensured. Due to its' plate design, it can be assembled and disassembled easily.

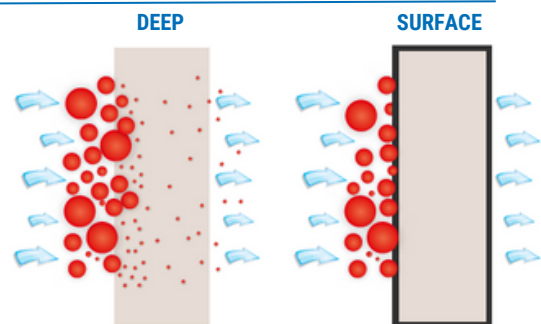
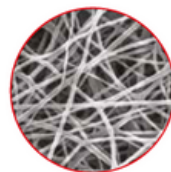
Interfilter engineers offer the most suitable filter material for all applications and dust types. Some filter materials considering factors such as density of dust, humidity proportion, if the dust has a potential to be loaded statically and so on are as follows;

- polyMIGHT 55: %100 spunbond non-woven polyester
- polyMIGHT HO 55: Hydrophobic coating over polyMIGHT 55
- polyMIGHT ALU: Aluminium coating over polyMIGHT 55 (Antistatic)
- polyMIGHT PTFE 65: ePTFE membrane over polyMIGHT 55 (H13 efficiency)
- polyMIGHT ALU PTFE: ePTFE membrane over polyMIGHT ALU (Antistatic)
- nanoBLEND FR: %80 Cellulose %20 Polyester blend with nanofiber coating



### SURFACE FILTRATION

On the contrary to traditional filters, filters made by non-woven polyester performs the filtration not in the filter but on the surface. Therefore;



- The penetration of dust inside the filter is prevented and filter life is extended
- Less differential pressure is produced and required compressed air consumption for cleaning process is decreased
- Higher filtration efficiency is provided



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## Industry 4.0 - quick connection options

PKFC Series Jet-Pulse Compact Cartridge Filter units are optionally equipped with a special control unit, which provides fast integration to industry 4.0 platforms. Thanks to their special software and hardware, these controllers can be connected directly to industry 4.0 platforms without the need for an extra gateway device.



## Easy connection to predictive maintenance softwares

Sensors on the filter units and the new generation control panel are designed to connect quickly to 3rd party software and hardware. In this way, even if you do not purchase B-Cloud service, you can provide fast integration to your own industry 4.0 application.

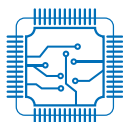
## Cloud platform: B-cloud

You can either quickly connect devices to your own industry 4.0 platform or use advanced cloud platform; B-Cloud. You will have following privileges by being a part of B-Cloud service;



### Be a part of BIG DATA

All devices that purchase Bomaksan B-Cloud service collect their data on the same platform. In this way, the data of your units are processed together with the data of all devices connected to Bomaksan B-Cloud service.



### Get the whole experience on the first run

The devices connected to B-Cloud system contain the experiences of other machines from the moment they first work. In this way, the most efficient working conditions will be achieved the first run.



### Feel the power of continuous improvement

Data from devices connected to the B-Cloud system provide information on performance improvements. This information is used to improve the performance of all the devices connected to the B-Cloud service.