bomaksan®

INDUSTRIAL AIR FILTRATION SYSTEMS

PKFC

COMPACT PULSE-JET DUST COLLECTOR

GENERAL FEATURES

COMPACT
Bomaksan branded PKFC Jet-Pulse Dust Collector takes up less place thanks to its' compact design. It is a plug and play device that contains all accessories on its own.

SILENT
Bomaksan branded PKFC 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.

ECONOMIC
Bomaksan branded PKFC 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.

AUTO CLEANING
Thanks to its' high yielded automatic cleaning system designed by Bomaksan engineers as part of an R&D project of TUBITAK, while the consumption of compressed air is decreasing, the life and performance of filter increase.

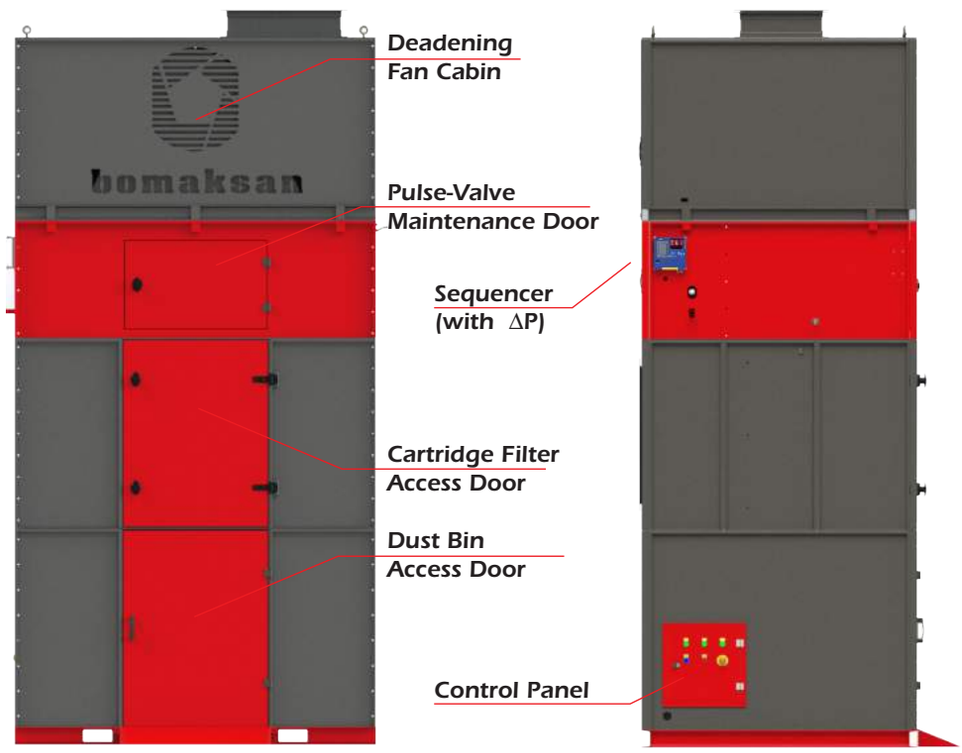
DURABLE & LEAK-PROOF
Side and upper doors of cabin, makeup profile, chassis and carrying legs are produced with sufficient plate thickness and leak-proof is ensured by press inflection unifying with a nut.

EASY MAINTENANCE
Bomaksan branded PKFC Jet-Pulse Dust Collector decreases your time and labor expenses minimum due to its custom-engineered cartrdidge filter and dust bin.

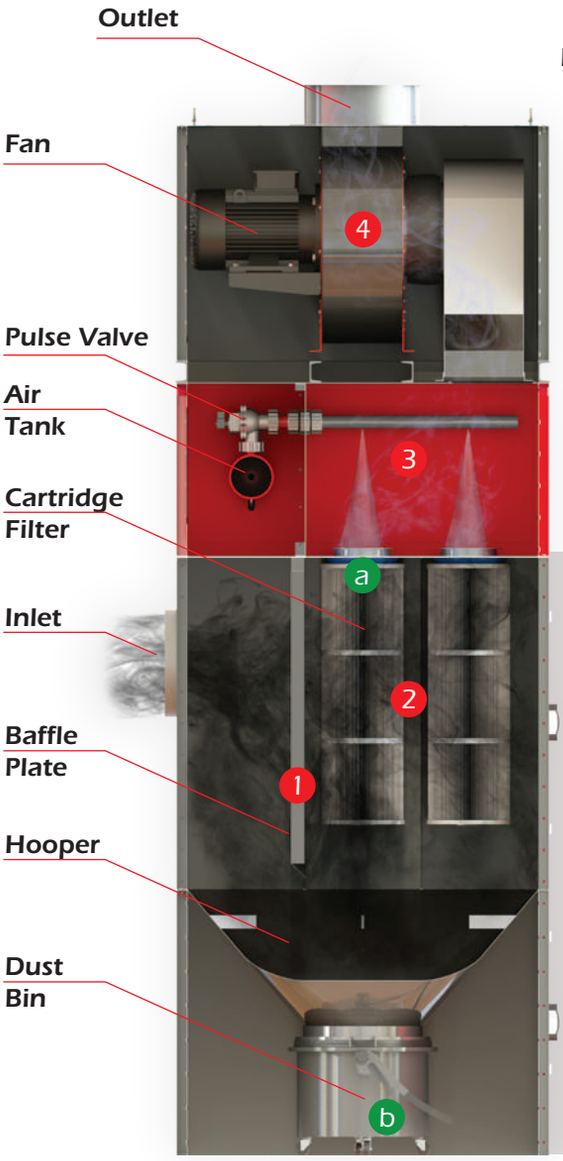
APPLICATIONS

- Metal Working
- Plasma Laser Cutting
- Sand Blasting
- Powder Coating
- Food
- Pharmaceutical

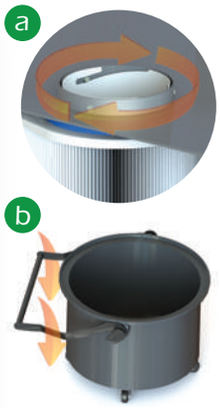
GENERAL OVERVIEW



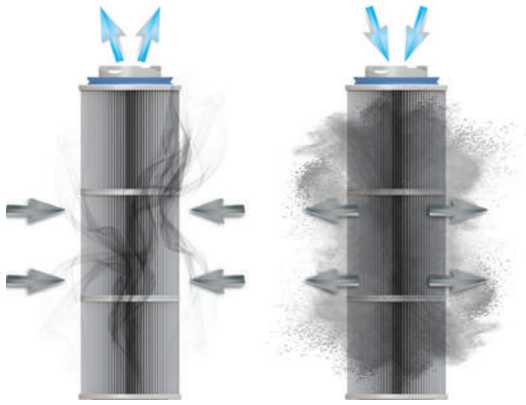
HOW IT WORKS?



EASY MAINTENANCE

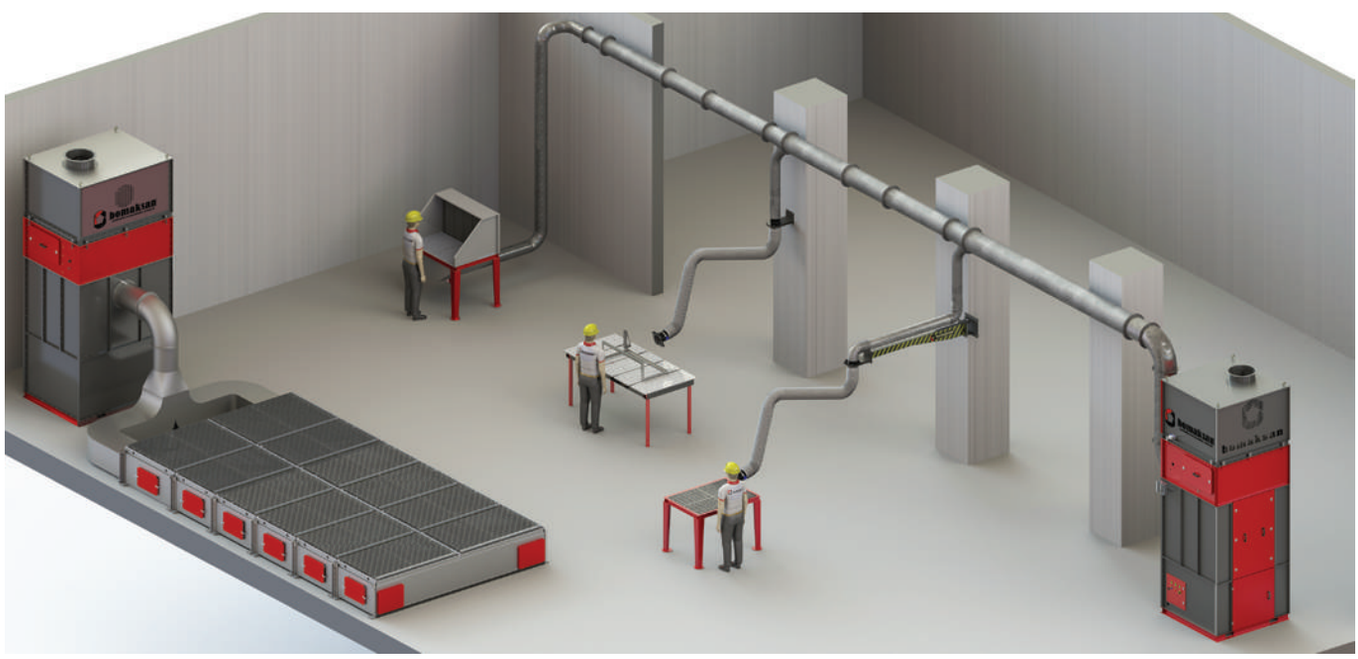


FILTER CLEANING



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.

SYSTEM INSTALLATION

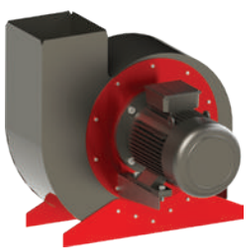


ACCESSORIES

STANDARD ACCESSORIES

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

Highly productive 100% non-woven polyester cartridge filters are used. You can find detailed information on cartridge filter section. Highly productive 100% non-woven polyester cartridge filters are used.

PULSE-VALVE AND AIR TANK

Pulse Valves are made by aluminum cast block and 1½'' sized. They perform with 24V DC standard voltage. Air tank is produced conforming to compressed container technique and adequate to store the air between two valves.

SEQUENCER (with ΔP)

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

The panel containing thermal switch controlling ventilator engine, contactor, engine protection relay and working/warning lights.

DUST BIN

It helps to empty the collected dust from cartridge filters. It has a sealing gasket and can be assembled and disassembled easily.

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

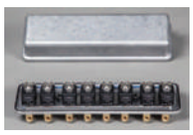
The accessories suggested to be used in environments containing particles with risk of explosion.

EXPLOSION VENT

ATEX certificated, stainless steel explosion vents are selected with required calculations and application based.

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. Depending on application, either fan, motor or both can be selected ex-proof.

CARTRIDGE FILTER

According to DIN EN 60335-2-69 standards, in 0,2 – 2 µ sized M-Class particles it has a filter efficiency up to 99,9%.

It provides fast and easy replacement; no additional tool is needed.

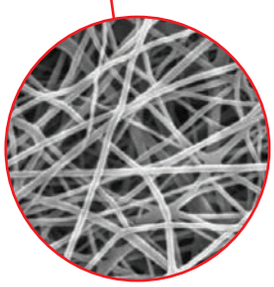
It provides extended use without losing filtration efficiency.

In Bomaksan branded PKF Jet-pulse Dust Collector, highly productive 100% non-woven polyester cartridge filters are used. With its' superior 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.

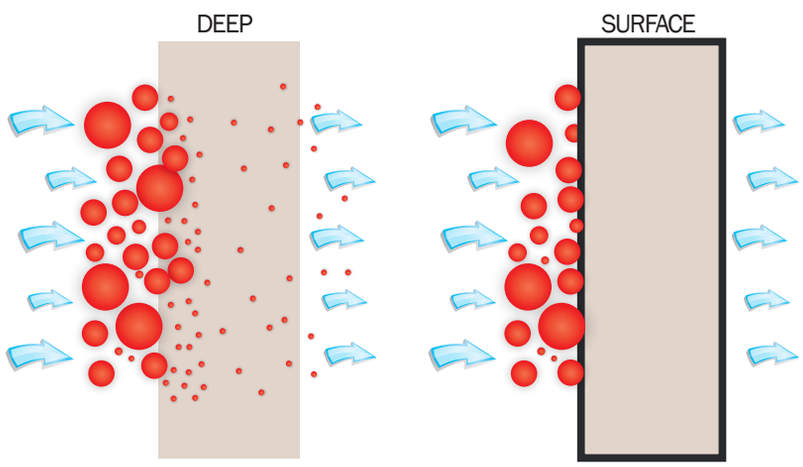
Bomaksan engineers offer the most suitable filter material for all execution and dust types. Some filter materials considering factors such as density of dust, humidity proportion, if the dust has a potential to be loaded statically and so on are as follows;

- PolyMight - 100% non-woven polyester
- PolyMight HO - 100% non-woven polyester + OLEO/HYDROPHOBIC
- PolyMight ALU - 100% non-woven aluminized polyester + ANTISTATIC
- PolyMight 255 PTFE - 100% non-woven polyester + ePTFE Membrane
- PolyMight 265 PTFE - 100% non-woven polyester + ePTFE Membrane
- PolyMight ALU PTFE - 100% non-woven aluminized polyester + ePTFE
- NanoBlend FR - 80% Cellulose 20% Polyester + Nanofiber coated

SURFACE FILTRATION

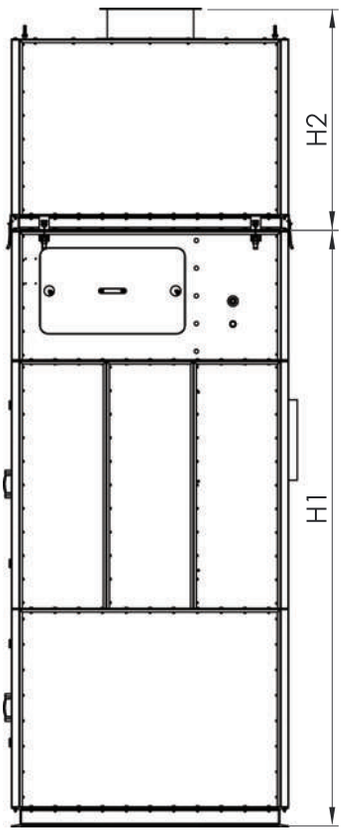


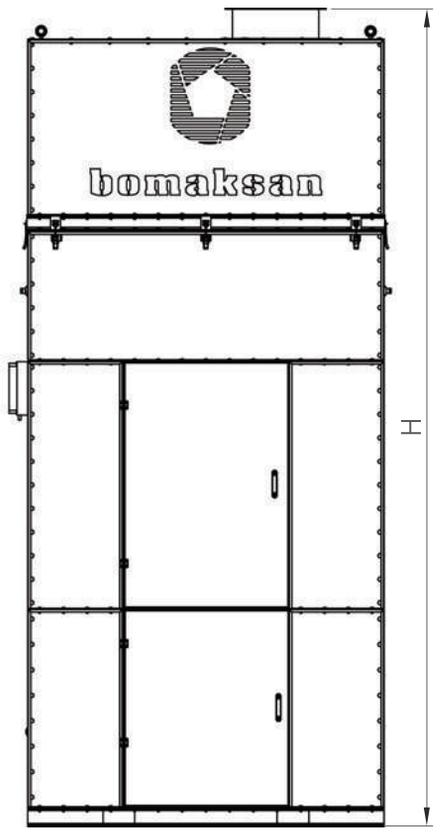
On the contrary to traditional filters, filters made by non-woven polyester performs the filtration not in the filter but on the surface. Therefore;

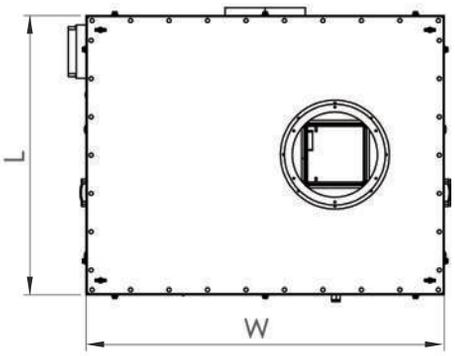


- The penetration of dust inside the filter is prevented and filter life is extended
- Less differential pressure is produced and required compressed air consumption for cleaning process is decreased
- Higher filtration efficiency is provided

TECHNICAL DETAILS







TECHNICAL SPECIFICATIONS

MODEL	PKFC-S4	PKFC-M6	PKFC-M8	PKFC-L6	PKFC-L8	PKFC-L10
Cartridge Filter (Unit)	4	6	8	6	8	10
Total Filtration Area (m^2)	80	120	160	96	128	160
Filter Material	NanoBlend FR	NanoBlend FR	NanoBlend FR	%100 Polyester	%100 Polyester	%100 Polyester
Fan Capacity (m^3/h)	2.000 - 5.000	3.000 - 7.500	4.000 - 10.000	4.000 - 10.000	5.400 - 13.300	6.700 - 16.600
Filtration Velocity (m^3/m^2/min)	0,42 - 1,05	0,42 - 1,05	0,42 - 1,05	0,70 - 1,73	0,70 - 1,73	0,70 - 1,73
Fan Pressure (Pa)	3.000	3.000	3.000	3.000	3.000	3.000
Fan Motor Power (kW)	5,5	7,5	11	11	15	18,5
Pulse Valve (type- unit)	1 1/2" - 2	1 1/2" - 3	1 1/2" - 4	1 1/2" - 3	1 1/2" - 4	1 1/2" - 5
Req. Compressed Air (bar)	4-6	4-6	4-6	4-6	4-6	4-6
Power Supply (V ve Hz)	350V - 50Hz	350V - 50Hz	350V - 50Hz	350V - 50Hz	350V - 50Hz	350V - 50Hz
Operating Temperature (°C)	0/80 Dry Air	0/80 Dry Air	0/80 Dry Air	0/80 Dry Air	0/80 Dry Air	0/80 Dry Air
Cabin Strength (Pa)	Max. 5000	Max. 5000	Max. 5000	Max. 5000	Max. 5000	Max. 5000
DIMENSIONS	PKFC-S4	PKFC-M6	PKFC-M8	PKFC-L6	PKFC-L8	PKFC-L10
Weight (kg)	~925	~1.260	~1.535	~1.320	~1.600	~1.805
Width (W) (mm)	1.400	1.400	1.400	1.400	1.400	1.525
Length (L) (mm)	1.000	1.400	1.805	1.400	1.805	1.995
Height (H) (mm)	3.075	3.640	3.790	3.890	4.040	4.040
1st Modula Height (H1) (mm)	2.260	2.660	2.810	2.910	3.060	3.060
2nd Modula Height (H2) (mm)	805	970	970	970	970	970

*Bomaksan reserves the right to change or modify the details in the list at any time.

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Authorized Reseller

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