



bomaksan[®]
INDUSTRIAL AIR FILTRATION SYSTEMS



PLTF
JET-PULSE PLEATED
BAG HOUSE FILTER

GENERAL FEATURES



ECONOMICAL

PLTF Jet-Pulse Pleated Bag House Dust Collectors are much economical than traditional Bag House Filters. The main reason is **Pleated Bag Filter Units requires much less space than Regular Bag Filters.**



FLEXIBLE

PLTF Jet-Pulse Pleated Bag House Dust Collectors can be customised depending on your facility requirements. Bomaksan engineers provide solutions to all kind of limitations.



DURABLE AND 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 injection unifying with a nut.



AUTOMATED CLEANING SYSTEM

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.



ADVANCED FILTRATION

PLTF Jet-Pulse Pleated Bag House Dust Collectors provides supreme filtration efficiency when it is compared with traditional bag filters. For further information, please see page 3&4



EASY MAINTENANCE

Bomaksan branded PLTF Jet-Pulse Pleated Bag Houses decreases your time and labor expenses up to 50% due to its well-engineered pleated bag filters which contains nozzle and cages inside.

APPLICATIONS



Cements



Foundries



Shot Blasting



Metal Working



Automotive



Ceramic



Food & Beverages



Chemicals

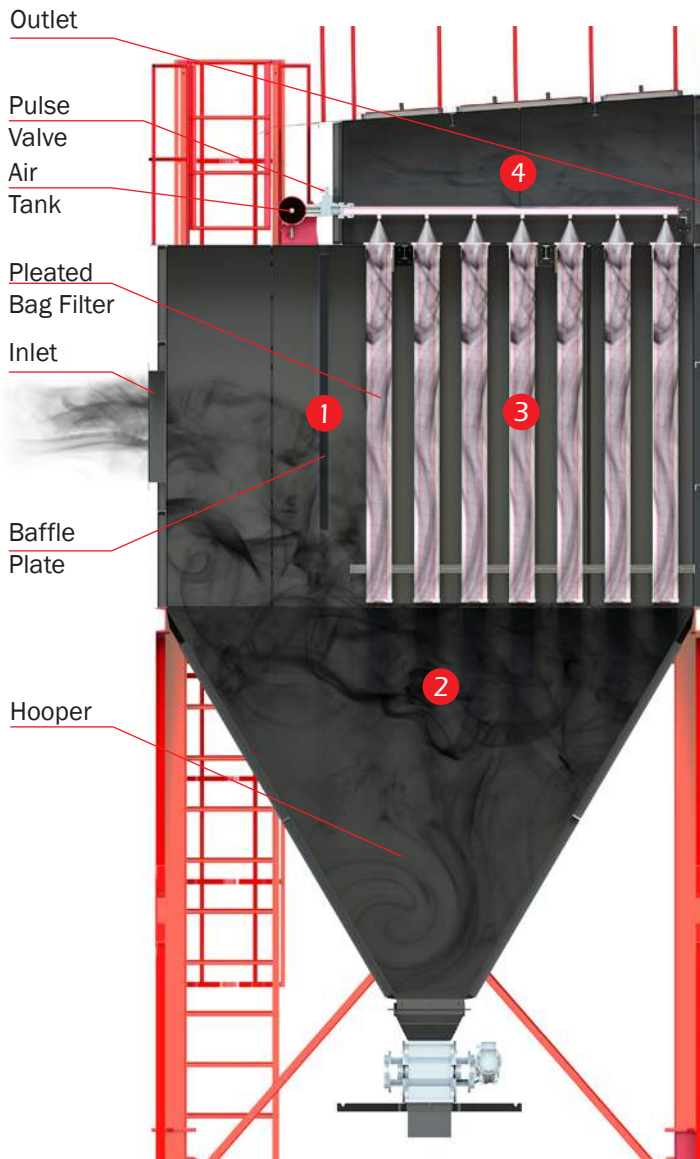


Others

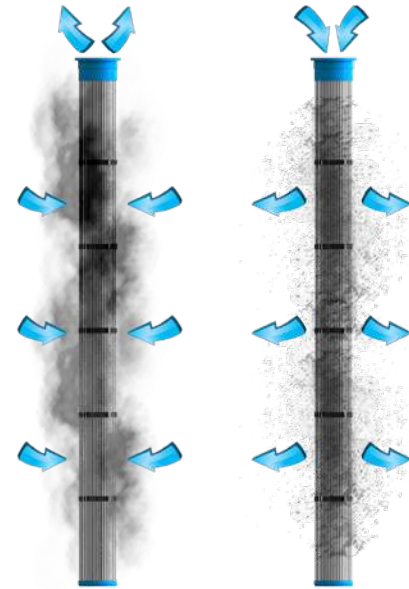
OVERVIEW



HOW IT WORKS?

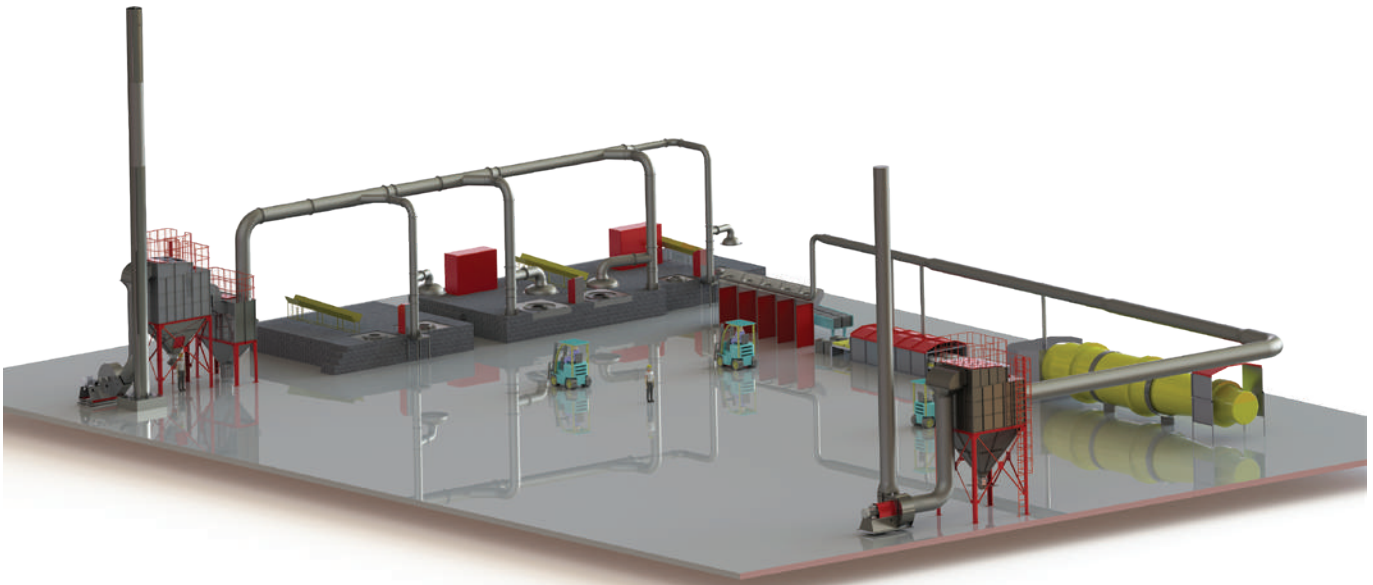


FILTER CLEANING







- 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 filters.
- 3 Cartridge filters are 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



PLEATED vs. BAG FILTERS

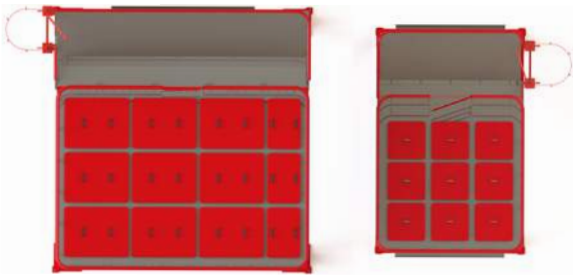
Advantages of Pleated Bag Houses

-  Requires much less space
-  Consumes less compressed air and energy
-  Higher life cycle
-  Makes maintenance much easier



Requires Less Space

- Requires much less space with the same filtration area comparing to conventional bag house filters.
- Best choice for company who need more spaces

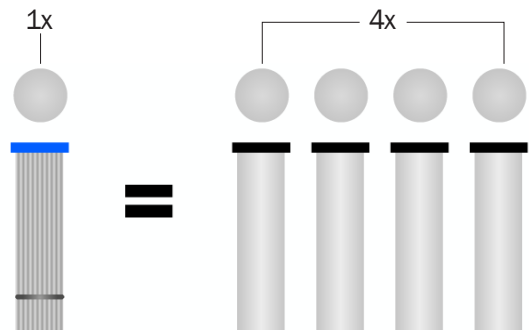


Higher Life Time

- Because of advanced surface filtration technology, their filter life is much higher comparing needle felt bag filters.
- Less replacement and maintenance requirement allows you to stop less and produce more.

Consumes Less Energy

- Pleated Bag filters have the same filtration area of 4 conventional bag filters(at same height). This advancement provide less compressed air and energy consumptions.



Faster Maintenance

- Pleated bag filters can be replaced 6 times faster comparing the conventional bag filters due to the fact that the number of pleated bag filter per bag house is much less than bag filters and they have a special design which allows you to remove and install them faster.

| | CONVENTIONAL BAG FILTERS | PLEATED BAG FILTERS |
|-------------------------------|--------------------------|--------------------------|
| Filter Height | Max. 8 m | Max. 2 m |
| Filtration Area | Small | 2-3 Times Higher |
| Filter Life Time | Acceptable | Perfect |
| Installing / Maintenance Cost | High | Low |
| Leak / Abrasion | Can Occur | Leak-Proof |
| Emmision Level | High | Low (less than 2mg / m3' |
| Power Consumption | High | Low |
| Comp. Air Requirement | 5-6 L / m2 | 3-4 L / filter |
| Air Permeability | Acceptable | Perfect |
| Pressure Drop | High | Low |
| Initial Bag House Investment | High | Low |

PLEATED BAG FILTERS



According to DIN EN 60335-2-69 standards, it has a filtration efficiency up to 99,9%.



Higher filtration area with the same volume



Extended use without losing filtration efficiency.

In Bomaksan branded PLTF Jet-pulse Pleated Bag House Units, 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

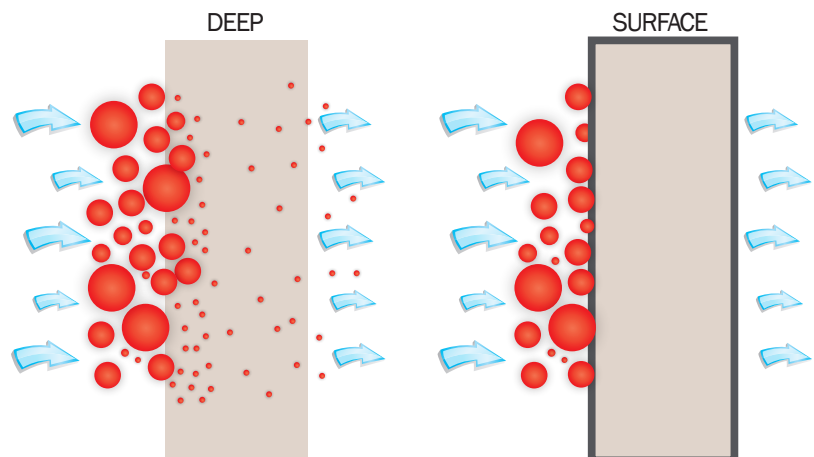
Bomaksan engineers offer the most suitable filter material for all execution and dust types. Some filter materials considering factors such as density of dust, humidity proportion, if the dust has a potential to be loaded statically and so on are as follows;

- PolyMight - 100% non-woven polyester
- PolyMight HO - 100% non-woven polyester + OLEO and HYDROPHOBIC
- PolyMight ALU - 100% non-woven alumunised polyester + Antistatic
- PolyMight 255 PTFE - 100% non-woven polyester + ePTFE Membrane (E11)
- PolyMight 265 PTFE - 100% non-woven polyester + ePTFE Membrane (H13)
- PolyMight ALU PTFE - 100% non-woven alumunised polyester + ePTFE

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;



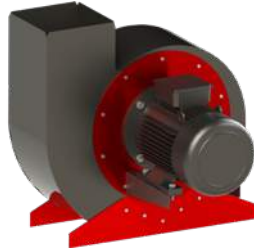
- The penetration of dust inside the filter is prevented and filter life is extended
- Less differential pressure is produced and required compressed air consumption for cleaning process is decreased
- Higher filtration efficiency is provided

ACCESORIES

STANDARD ACCESORIES

● FAN

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



● PLEATED BAG FILTERS

High efficient pleated bag filters are produced by 100% non-woven polyester and can have surface treatments depending on the application.



● PULSE-VALVE & AIR TANK

Pulse Valves are made by aluminum cast 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.



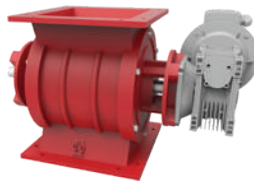
● PULSE-VALVE CONTROLLER

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.



● ROTARY VALVE

In case of high dust load, Rotary Valves removes the dust from the hooper continuously. It is made from casted body, has outboard bearings, motor and reductor group.



● FAN CONTROLLER PANEL

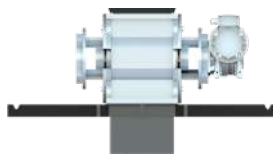
The panel containing thermal switch controlling ventilator engine, contactor, engine protection relay and working/warning lights.



OPTIONAL ACCESORIES

● BIG-BAG HANG

Dust coming from rotary valve needed to be stored in a storage. Big Bags are one of the most commonly used storage type. Big Bag hangs are the equipmant which holds big bags steady. Big Bag hangs are designed to hold big bags in the most effective way.



● COMPRESSED AIR REGULATOR

It regulates the pressure of the compressed air 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.



● SILENCER

Produced cylindrically to absorb the air noise of ventilator outlet.



● OTHER OPTIONALS

- Ladder and elevation step
- Fan Controller Panel with Frequency Converter
- Filter Inlet and Outlet Manifolds

EX-PROOF ACCESORIES

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

● EXPLOSION VENT

ATEX certificated explosion door is used, which is produced by stainless steel.



● PILOT BOX & EX-PROOF COILS

The box protects pulse valve coils from extreme outside conditions.

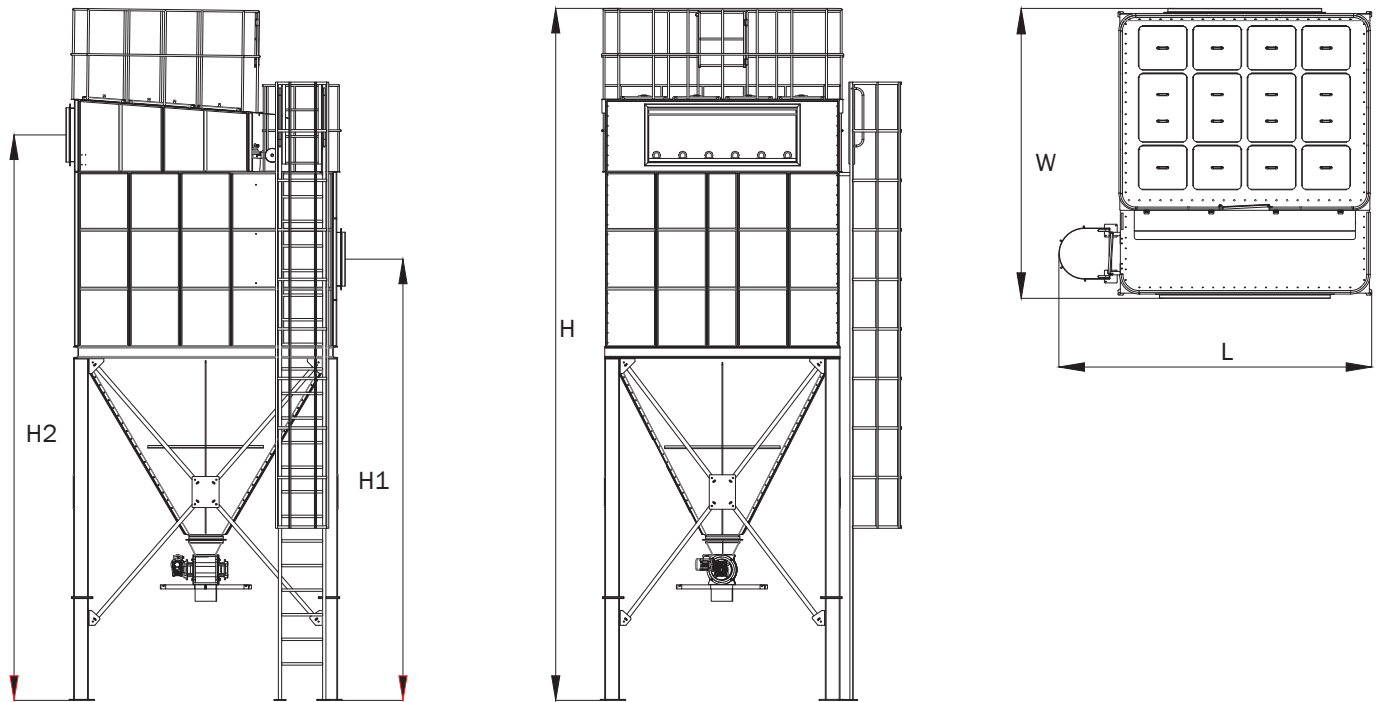


● EX-PROOF FAN & ENGINE

ATEX certificated ex-proof engine and ventilator are used, which are suitable for different capacity requirements.



TECHNICAL DETAILS



TECHNICAL DETAILS

| MODEL | PLTF-16 | PLTF-20 | PLTF-24 | PLTF-25 | PLTF-30 | PLTF-36 | PLTF-42 |
|---|---|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Cartridge Filters (quantity) | 16 | 20 | 24 | 25 | 30 | 36 | 42 |
| Total Filtration Area (m ²) | min.72 ~ max.128 | min.90 ~ max.160 | min.108 ~ max.192 | min.112 ~ max.200 | min.135 ~ max.240 | min.162 ~ max.288 | min.189 ~ max.336 |
| Filter Material | %100 Polyester, Water & Oil Repellent, Antistatic ePTFE Membrane, Antistatic ePTFE Membrane | | | | | | |
| Fan Capacity (m ³ /h) | 5.000 - 13.500 | 6.000 - 17.000 | 7.500 - 20.500 | 8.000 - 21.500 | 9.500 - 25.000 | 11.500 - 30.000 | 13.500 - 36.000 |
| Filtration Velocity (m ³ /m ² /h) | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 |
| Impulse Valve (type - quantity) | 1 1/2" - 4 | 1 1/2" - 4 | 1 1/2" - 4 | 1 1/2" - 5 | 1 1/2" - 5 | 1 1/2" - 6 | 1 1/2" - 6 |
| Compressed Air Req. (bar) | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 |
| Voltage Req.(V ve Hz) | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz |
| Operation Temp. (oC) | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air |
| House Pressure Resist. (Pa) | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 |

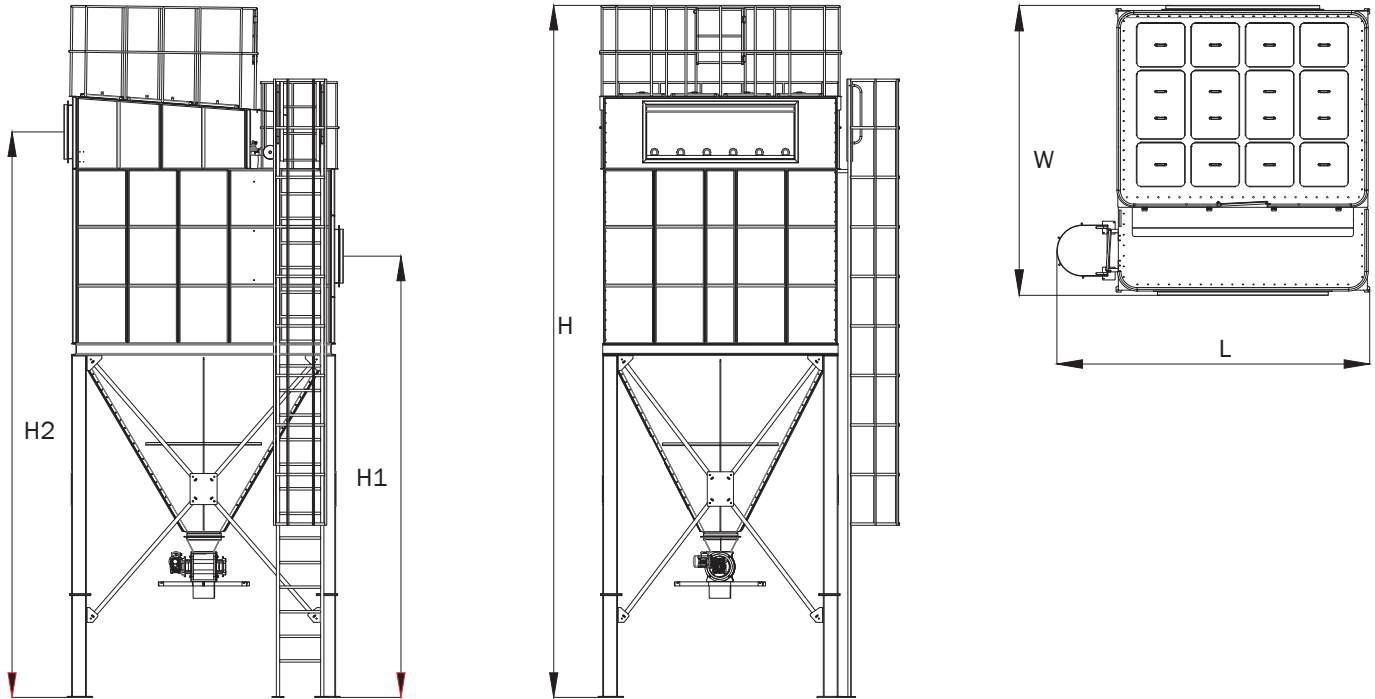
| DIMENSIONS | PLTF-16 | PLTF-20 | PLTF-24 | PLTF-25 | PLTF-30 | PLTF-36 | PLTF-42 |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|
| Width (W) (mm) | 2.300 | 2.780 | 1.755 | 2.800 | 3.395 | 3.400 | 3.220 |
| Length (L) (mm) | 2.315 | 2.270 | 2.745 | 2.785 | 2.665 | 2.865 | 3.185 |
| Height (H) (mm) | 7.110 | 7.110 | 7.125 | 7.125 | 7.460 | 7.545 | 7.220 |
| 1. Module Height (H1) (mm) | 4.185 | 4.185 | 4.185 | 4.195 | 4.520 | 4.600 | 4.250 |
| 2. Module Height (H2) (mm) | 5.630 | 5.630 | 5.650 | 5.630 | 5.960 | 6.040 | 5.730 |

| MODEL | PLTF-49 | PLTF-56 | PLTF-63 | PLTF-70 | PLTF-77 | PLTF-84 | PLTF-91 |
|---|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Cartridge Filters (quantity) | 49 | 56 | 63 | 70 | 77 | 84 | 91 |
| Total Filtration Area (m ²) | min.220 ~ max.392 | min.252 ~ max.448 | min.283 ~ max.504 | min.315 ~ max.560 | min.346 ~ max.616 | min.378 ~ max.672 | min.409 ~ max.728 |
| Filter Material | %100 Polyester, Water & Oil Repellent, Antistatic ePTFE Membrane, Antistatic ePTFE Membrane | | | | | | |
| Fan Capacity (m ³ /h) | 15.500 - 42.000 | 18.000 - 48.000 | 20.000 - 54.000 | 22.500 - 60.500 | 25.000 - 66.000 | 27.000 - 72.500 | 29.000 - 78.500 |
| Filtration Velocity (m ³ /m ² /h) | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 |
| Impulse Valve (type - quantity) | 1 1/2" - 7 | 1 1/2" - 8 | 1 1/2" - 9 | 1 1/2" - 10 | 1 1/2" - 11 | 1 1/2" - 12 | 1 1/2" - 13 |
| Compressed Air Req. (bar) | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 |
| Voltage Req.(V ve Hz) | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz |
| Operation Temp. (oC) | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air |
| House Pressure Resist. (Pa) | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 |

| DIMENSIONS | PLTF-49 | PLTF-56 | PLTF-63 | PLTF-70 | PLTF-77 | PLTF-84 | PLTF-91 |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|
| Width (W) (mm) | 3.450 | 3.360 | 3.360 | 3.990 | 3.990 | 3.990 | 3.990 |
| Length (L) (mm) | 3.310 | 3.680 | 3.680 | 3.930 | 4.500 | 4.750 | 5.025 |
| Height (H) (mm) | 8.495 | 8.075 | 8.075 | 8.005 | 8.295 | 8.295 | 8.295 |
| 1. Module Height (H1) (mm) | 5.340 | 5.040 | 5.040 | 5.040 | 5.330 | 5.330 | 5.330 |
| 2. Module Height (H2) (mm) | 6.850 | 6.470 | 6.470 | 6.485 | 6.760 | 6.800 | 6.800 |

*Bomaksan, reserved the right of changings in this table.

TECHNICAL DETAILS



TECHNICAL DETAILS

| MODEL | PLTF-98 | PLTF-105 | PLTF-112 | PLTF-119 | PLTF-126 | PLTF-133 | PLTF-140 |
|---|---|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|
| Cartridge Filters (quantity) | 16 | 20 | 25 | 30 | 36 | 42 | 49 |
| Total Filtration Area (m ²) | min.441 ~ max.784 | min.472 ~ max.840 | min.504 ~ max.896 | min.535 ~ max.952 | min.567 ~ max.1.008 | min.598 ~ max.1.064 | min.630 ~ max.1.120 |
| Filter Material | %100 Polyester, Water & Oil Repellent, Antistatic ePTFE Membrane, Antistatic ePTFE Membrane | | | | | | |
| Fan Capacity (m ³ /h) | 31.500 - 84.500 | 34.000 - 90.500 | 36.000 - 96.500 | 38.500 - 102.500 | 40.500 - 108.500 | 43.000 - 115.000 | 45.000 - 120.500 |
| Filtration Velocity (m ³ /m ² /h) | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 | 1,20 - 1,80 |
| Impulse Valve (type - quantity) | 1 1/2" - 14 | 1 1/2" - 15 | 1 1/2" - 16 | 1 1/2" - 17 | 1 1/2" - 18 | 1 1/2" - 19 | 1 1/2" - 20 |
| Compressed Air Req. (bar) | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 |
| Voltage Req.(V ve Hz) | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz | 350V 50Hz |
| Operation Temp. (oC) | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air | 0/80 Dry Air |
| House Pressure Resist. (Pa) | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 | Max. 5000 |
| DIMENSIONS | PLTF-98 | PLTF-105 | PLTF-112 | PLTF-119 | PLTF-126 | PLTF-133 | PLTF-140 |
| Width (W) (mm) | 3.990 | 4.000 | 4.000 | 4.000 | 4.070 | 3.950 | 3.825 |
| Length (L) (mm) | 4.980 | 5.595 | 6.390 | 6.635 | 6.995 | 7.380 | 7.760 |
| Height (H) (mm) | 8.295 | 8.320 | 8.320 | 8.320 | 9.215 | 8.950 | 8.725 |
| 1. Module Height (H1) (mm) | 5.330 | 5.355 | 5.355 | 5.355 | 6.035 | 5.850 | 5.660 |
| 2. Modu Height (H2) (mm) | 6.795 | 6.825 | 6.825 | 6.825 | 7.530 | 7.250 | 7.135 |

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