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FP

POLYGONAL BODY DUST COLLECTORS



**TECHNICAL CATALOG
ASSEMBLY-MAINTENANCE CATALOG
SPARE PARTS CATALOG**



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Standard **ISO 45001:2018**

Certificate Registr. No. **01 213 2115861**

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1.

TECHNICAL CATALOG



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1.1 BASIC SAFETY WARNINGS

In compiling this instruction catalog, careful attention has been paid to all considerations of operation and maintenance during normal working conditions. Buyers/users are exclusively responsible in complying all laws, rules and regulations in force in their country/area regarding safety of working environment and labour safety.

For matters which are not specified by the manufacturer in this catalog, as requirements of the applicable environmental process, safety, health care and other social responsibilities applicable laws, regulations, instructions, and rules will be effective.

Special care should be taken against all possible risks, danger and accidental incidents which may occur during the operation of the product.

This catalog contains description and recommendations for to guide set-up, start-up, operation and maintenance procedures.

This catalog or its related parts should be kept close to the product with easy access for users. It is the buyer's/user's responsibility and authority to ensure the delivery of this catalog to related users of the product.

Never start any operation before reading this catalog completely.

The product is produced solely for its intended use. Please ask for manufacturer's approval for different applications.

The product shall be operated in and under normal operating conditions. Manufacturer is absolutely not responsible for any complications or their consequences in cases where alterations have been made without written consent of the manufacturer.

All protective and safety clothes, tools, devices, and conditions have to be supplied by the user. The unit has to be fixed during and prior to any operation.

In order to perform assembly, maintenance, repair and cleaning on the product, according to 2006/42 EC the user must take all necessary precautions to ensure public safety, safety of the environment and its entities and also take all actions to prevent any harm that may involve third parties.

Requirements for pneumatic lines and air usage shall be completed by the user to meet air consumption according to technical specifications which are given in technical catalog.

Only fully qualified and authorized electricians should conduct electrical operations. Occupational safety and worker health requirements must be met. Electrical problems and their consequences are out of manufacturer's control and are not covered under warranty. The manufacturer cannot be held responsible for any damage to property, persons or third parties, arising from poor electrical workmanship.

Always ensure that the power is disconnected before each operation. It is vital important that Power button has to be managed by a qualified person to prevent uncontrolled opening and closing.

All electrical connections shall be executed by the user to ensure safe operation. Users also have to take necessary actions to avoid uncontrolled startup of machine by means of emergency stop and switches of sufficient amount.

Controlling the status of Voltage and frequency's compliance is important. The electrical earthing of the product must be proper, safety warnings should be clean and readable, and all operations should be according to EN 600079-14 and TS 60204-1 EN standards.

Do not start up, if the unit is not complete and/or not in proper condition. Do not interfere with the unit during operation. Never approach while the units are operating. Never let tools, hand, or head to approach to the operating zone during operation.

If you require further technical information or spares for your unit, please contact the manufacturer and it is necessary to report all data such as serial number, type etc. which are written on the machine's plate.

Make sure that; all lifting/transportation operations must be carried out in accordance with the instructions specified in this catalog and the relevant standards. Lifting operations should be done with accessories and carrying systems suitable for unit dimensions and weight.

Manufacturer can modify the product without notice and immediate effect. All dimensions specified in the catalog are for nominal standard parts. Dimensions and features may change depending on the type of project, applications, material.

This catalog cannot be changed without informing the manufacturer. The latest version of the catalog is accessible at our web site www.ozb.com.tr.

1.2 SAFETY SYMBOLS

These signs are of a warning nature and do not eliminate the risk. These instructions and/or warnings are recommendations, which should be run in conjunction with the latest health and safety directives in accident prevention.

WARNING DANGER

Special indication, provision and prohibition to prevent injury to personnel.



ELECTRICAL POWER DANGER



MAX PRESSURE 5 BAR



1.3 UNIT DESCRIPTIONS

Dust collectors are generally used to withhold particles from spreading during the transfer of a bulk solid to an enclosed stocking area.

OZB polygonal brand dust collectors provide a filtering area between 64 ft² to 463 ft² and are available with different dimensions and several filter options.

Polygonal dust collectors offer,

- Stainless steel body
- Stabilized body under pressure differences obtained by structural support elements
- Stainless steel durable top cover
- Electronic card with 6-12 exit valves
- External easy-to-reach valves
- Reduced dependence on manufacturer with easily obtainable spare parts.

In addition,

- Stainless steel seal frames
- Stainless steel silo flanges
- 1 HP to 15 HP fans
- Hopper units are available.

1.4 OPERATION CONDITIONS

Products are not designed to operate in explosive, flammable, toxic, hazardous viral or dangerous bacterial environments and/or materials. If the machine has to operate in these conditions, the manufacturer must be informed.

The appropriate use of the unit according to the food norms should be reported to the manufacturer at order although the unit has to be produced accordingly.

Max admissible temperatures

176 °F Continuous

212 °F Intermittent/Instantaneous

-4 °F

Max pressure on construction;

1.42 psi positive

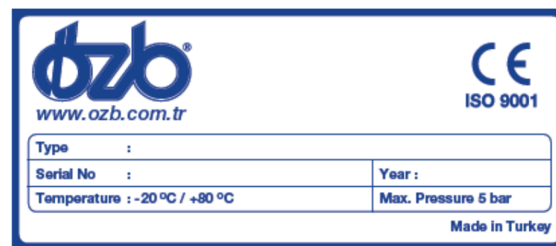
-0.57 psi negative

1.5 PRODUCT LABEL

Every unit is supplied with identification plates showing;

- Manufacturer's information
- Manufacturer's web site
- CE logo
- Product code
- Production place
- Type
- Serial number
- Production year
- Temperature
- Pressure

Do not throw away the labels on the unit and do not change the information on the label. Make sure that labels are clean and legible.



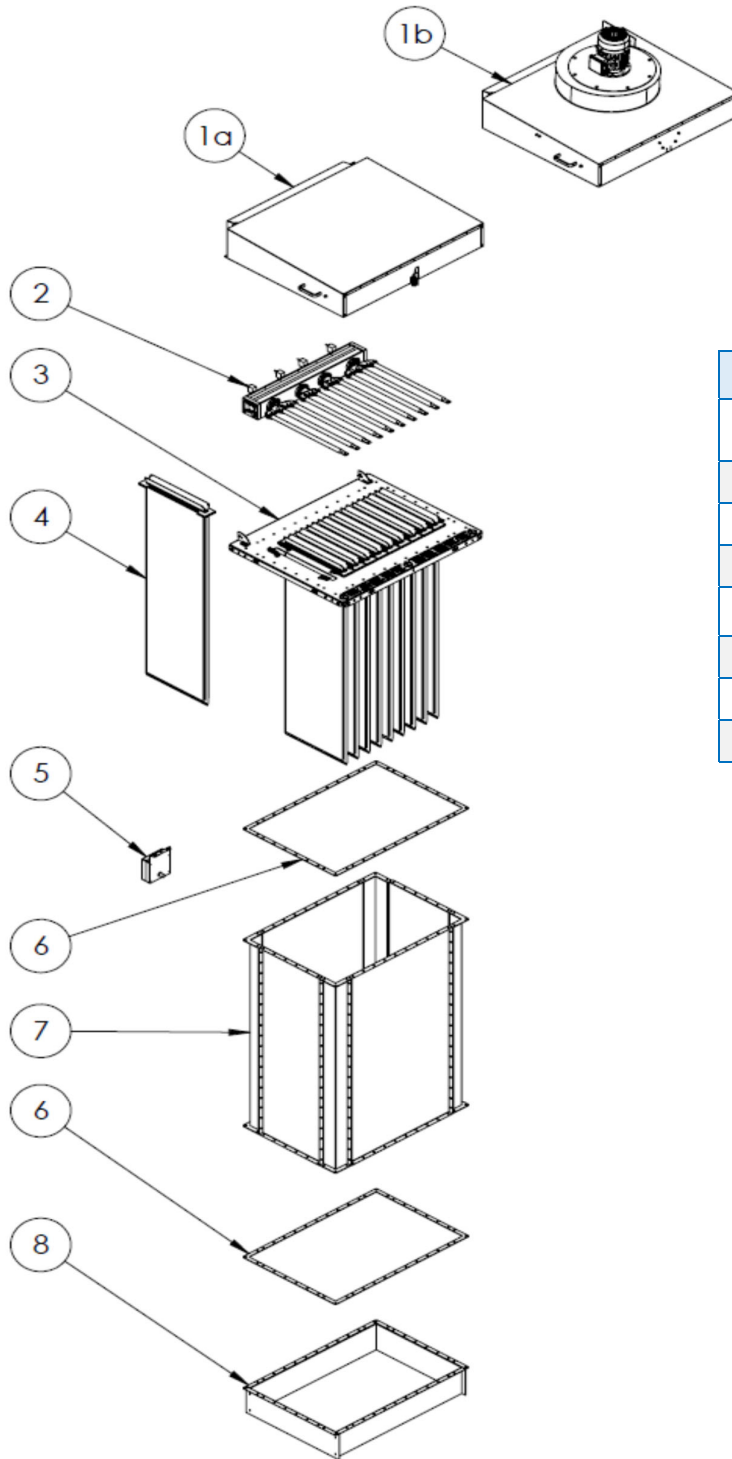
1 PRODUCT CODE KEY

1	2	3	4	5	6	7	8
FP	I	1	SE490	ST	V	010	2.2

1	Unit code	FP
2	Type	I Insertable Type
3	Body	1 1 body 2 2 body
4	Filtering element	SE490 Ø19.3 x 39" Elliptical bag LE490 Ø19.3 x 59" Elliptical bag LL490 Ø19.3 x 79" Elliptical bag LK218 Ø8.6 x 39" Cartridge
5	Filtering media variants	ST Standard AS Antistatic AA Antistatic and moisture-oil repellent TM Teflon membrane coated TT Teflon impregnated
6	Filter mounting position	V Vertical H Horizontal
7	Filtering surface	ft ² 108 - 463
8	Fan motor power	Hp 1 - 15

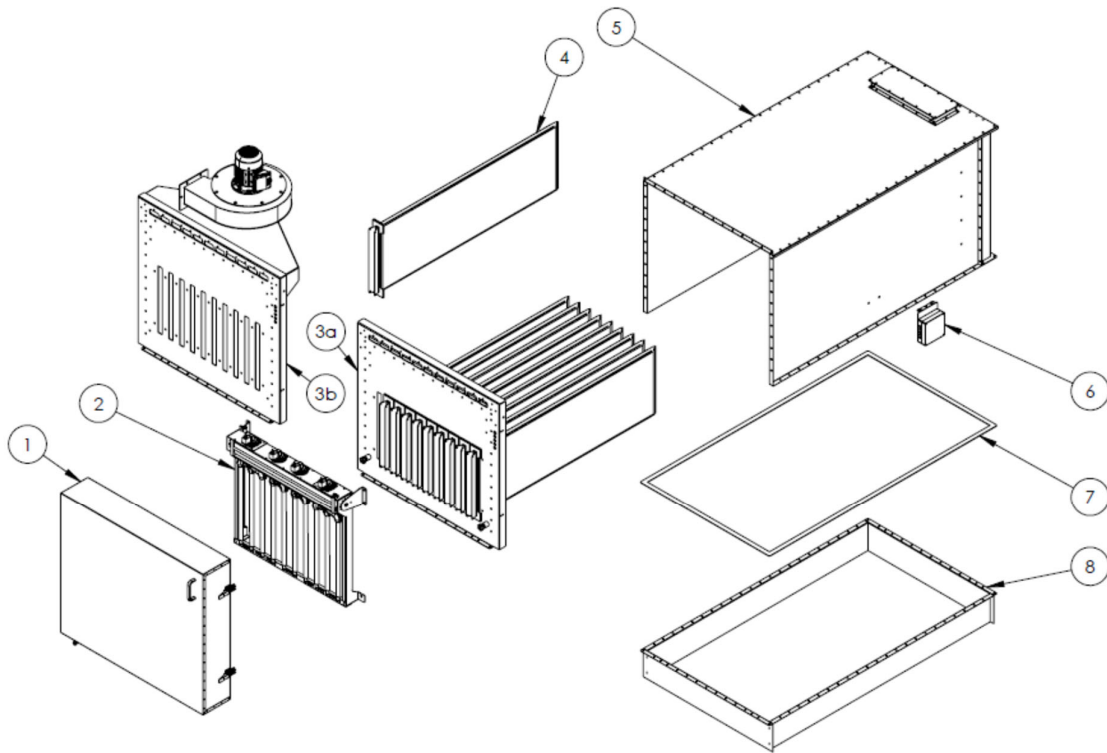
1.7 COMPOSITION

1.7.1 DUST COLLECTORS WITH VERTICALLY MOUNTED FILTERS



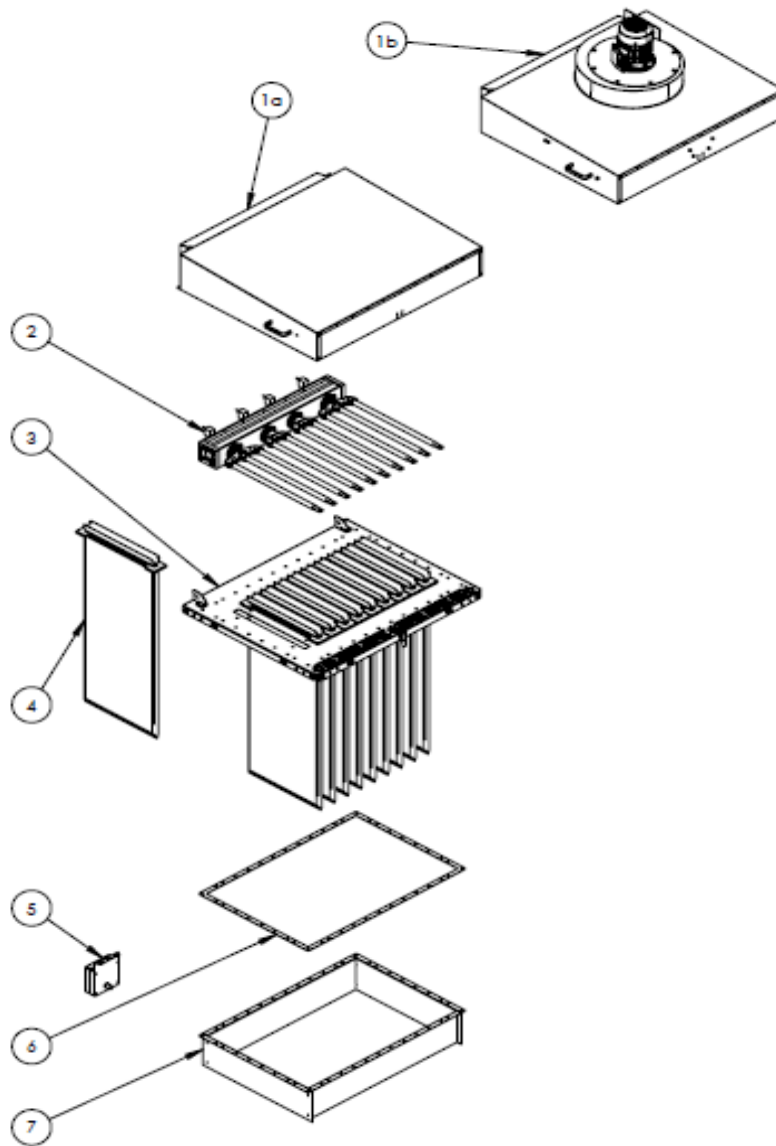
#	Description
1	a) Cover b) Cover with fan
2	Air tank
3	Filter plate
4	Filter
5	Electronic card
6	Seal
7	Dust collector body
8	Flange

1.7.2 DUST COLLECTORS WITH HORIZONTALLY MOUNTED FILTERS



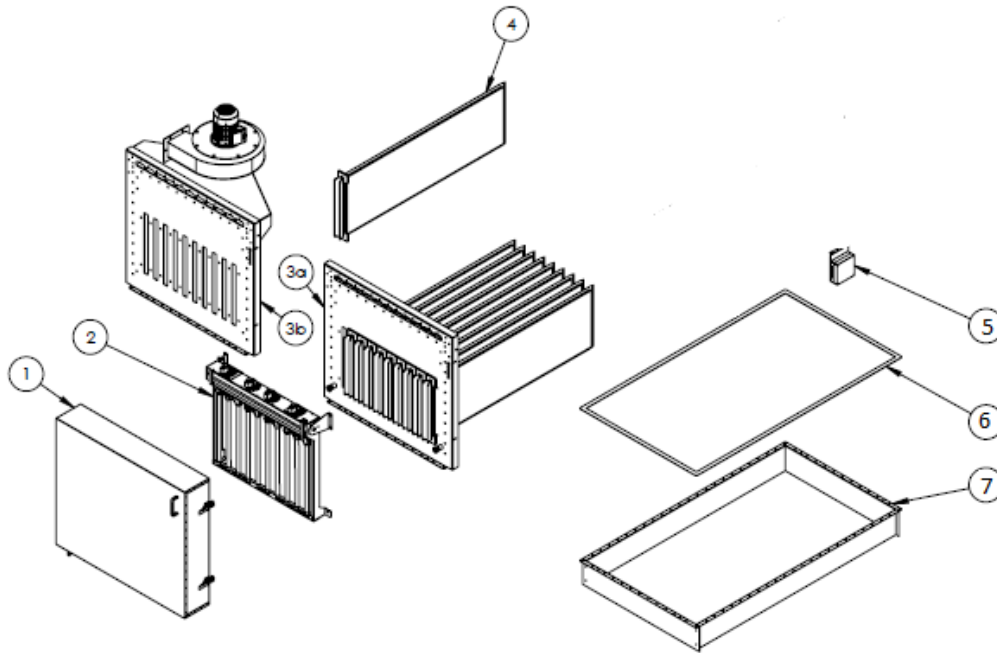
#	Description
1	Cover
2	Air tank
3	Seal
4	Dust collector body
5	Filter
6	Filter plate
7	Electronic card
8	Flange

1.7.3 INSERTABLE DUST COLLECTORS WITH VERTICALLY MOUNTED FILTERS



#	Description
1	a) Cover b) Cover with fan
2	Air tank
3	Filter plate
4	Filter
5	Electronic card
6	Seal
7	Flange

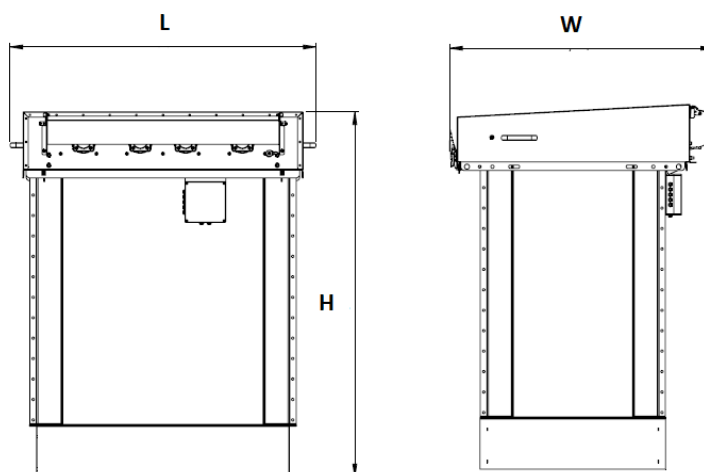
1.7.4 INSERTABLE DUST COLLECTORS WITH HORIZONTALLY MOUNTED FILTERS



#	Description
1	Cover
2	Air tank
3	a) Filter plate with fan b) Filter plate without fan
4	Filter
5	Electronic card
6	Seal
7	Flange

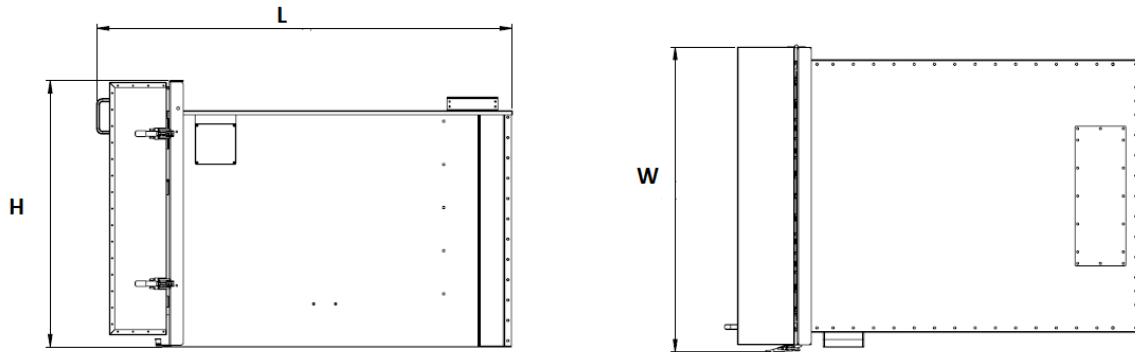
1.6 OVERALL DIMENSIONS

1.8.1 DUST COLLECTORS WITH VERTICAL ELEMENTS



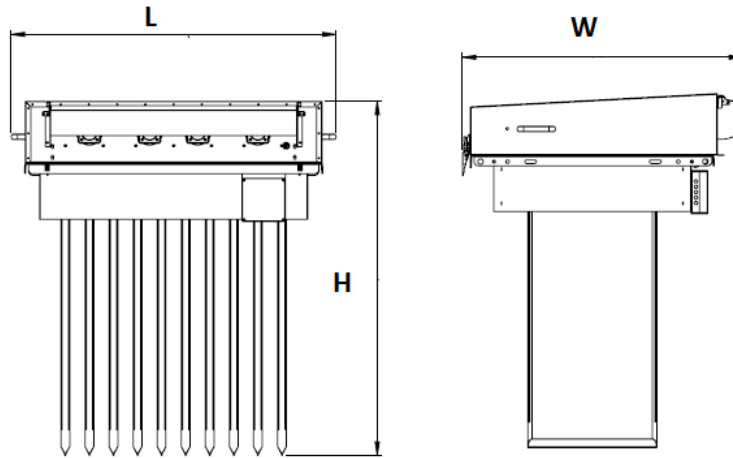
Code	Filtering Area (ft ²)	Body	Filters	L (in)	W (in)	H (in)
FP1SE490STV010	107	1	10 x FESE490 Elliptical Bags	47.64	39.76	53.15
FP1LE490STV015	161	1	10 x FELE490 Elliptical Bags	47.64	39.76	71.65
FP1LL490STV020	215	1	10 x FELL490 Elliptical Bags	47.64	39.76	91.73
FP1LK218STV043	463	1	5 x FELK218 Cartridges	47.64	39.76	53.15
FP2LE490STV030	323	2	20 x FELE490 Elliptical Bags	47.64	61.81	71.65
FP2LL490STV040	430	2	20 x FELL490 Elliptical Bags	47.64	61.81	91.73

1.8. INSERTABLE POLYGONAL DUST COLLECTORS WITH HORIZONTAL ELEMENTS



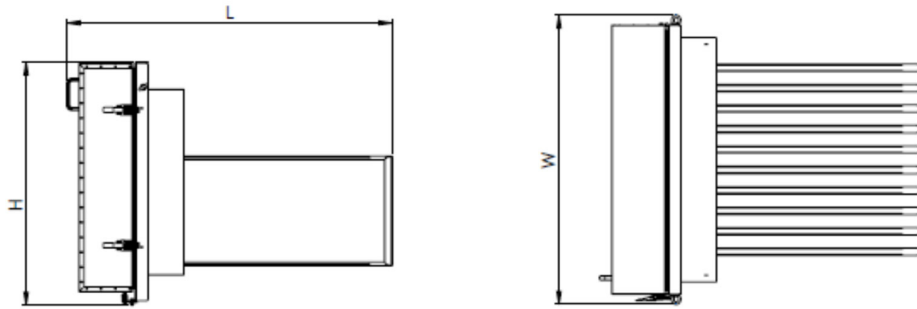
Code	Filtering Area (ft ²)	Body	Filters	L (in)	W (in)	H (in)
FP1SE490STH010	107	1	10 x FESE490 Elliptical Bags	67.72	50	41.73
FP1LE490STH015	161	1	10 x FELE490 Elliptical Bags	86.22	50	41.73
FP2SE490STH020	215	2	20 x FESE490 Elliptical Bags	67.72	50	64.96
FP2LE490STH030	323	2	20 x FELE490 Elliptical Bags	86.22	50	64.96

1.8.3 INSERTABLE DUST COLLECTORS WITH VERTICAL ELEMENTS



Code	Filtering Area (ft ²)	Body	Filters	L (in)	W (in)	H (in)
FPI1SE490STV010	107	1	10 x FESE490 Elliptical Bags	47.64	39.76	48.43
FPI1LE490STV015	161	1	10 x FELE490 Elliptical Bags	47.64	39.76	66.93
FPI1LL490STV020	215	1	10 x FELL490 Elliptical Bags	47.64	39.76	87.01
FPI1LK218STV043	463	1	5 x FELK218 Cartridges	47.64	39.76	48.43
FPI2LE490STV030	323	2	20 x FELE490 Elliptical Bags	47.64	61.81	66.93
FPI2LL490STV040	430	2	20 x FELL490 Elliptical Bags	47.64	61.81	87.01

1.8.4 INSERTABLE DUST COLLECTORS WITH HORIZONTAL ELEMENTS



Code	Filtering Area (ft ²)	Body	Filters	L (in)	W (in)	H (in)
FPI1SE490STH010	107	1	10 x FESE490 Elliptical Bags	53.94	50	42.13
FPI1LE490STH015	161	1	10 x FELE490 Elliptical Bags	72.44	50	42.13
FPI2SE490STH020	215	2	20 x FESE490 Elliptical Bags	53.94	50	64.96
FPI2LE490STH030	323	2	20 x FELE490 Elliptical Bags	72.44	50	64.96

1.9 TECNICAL PROPERTIES

Filtering area:	107 - 463 m ²
Body material:	Stainless steel
Protection cover:	Stainless steel
Filter:	Cartridge, elliptical bag
Filter plate:	Stainless steel
Cleaning system:	Jet pulse
Electronic board:	Included
Silo connection flange:	Carbon steel

1.9.1 CARTRIDGE TYPE FILTER

Composition	100% Spunbonded Polyester
Weight	7.96 oz/yd ²
Thickness	0.024"
Tensile strength md	137 lbf/in
Tensile strength cd	6.85 lbf/in
Elongation md	40%
Elongation cd	30%
Permeability to air	38.86 ft ³ /ft ² h
Volume of pores	66%
BIA rating	M
Color	White

1.9.3 BAG TYPE FILTER

100% Polyester + Antafin impregnated, 15.5 - 16.2oz/yd², resistance to water, humidity, and oil

1.10 FAN

Fan applications are used for directing dust in the air towards the dust collector and holding the dust on the Filter during this passage and discharging clean air into the atmosphere.

Fans can be used either on top of the dust collector or on the side with a frame. In both applications, if the fan aspiration is too high, it is possible to decrease the flow (filtering speed) by closing the fan outlet.

Fan is separately supplied. And always disassemble fan during transport, never assemble the fan before the dust collector is rigidly fixed to the frame.

For long term operation for any kind, ensure that the fan is disassembled and kept in another base.

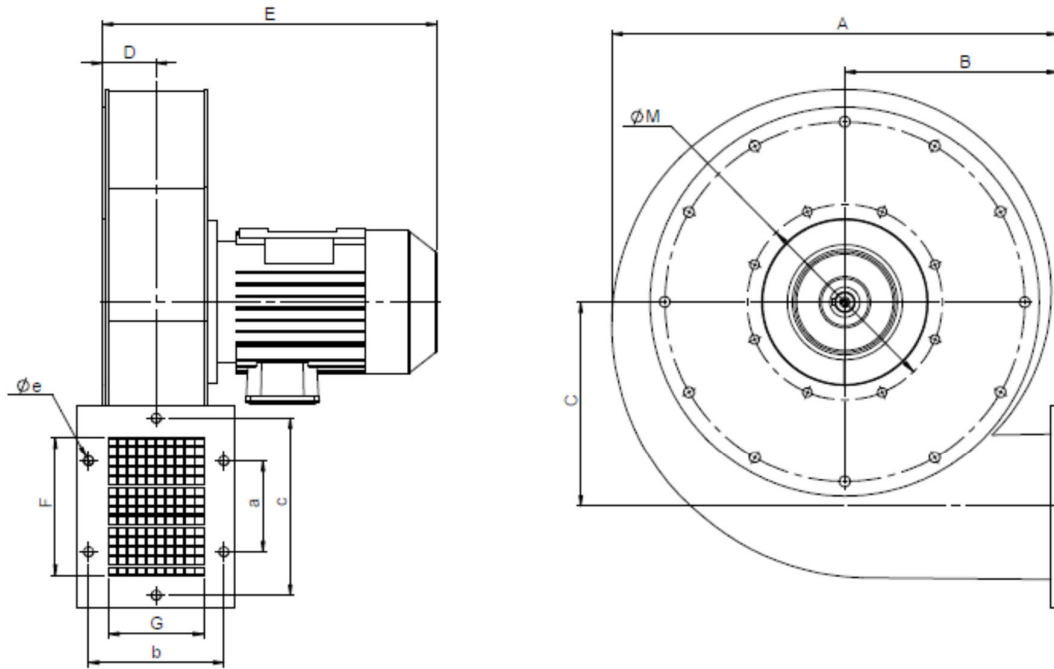
In cases where the fan is mounted on the dust collector; the inspection on filtering elements may be done by simply lifting the cover, thanks to the innovative design by OZB. This innovation provides economy of operation and reduced initial investment.

Maintenance, however, should be done at limited positions and in order to make a safe maintenance operation, the fan needs to be disassembled.

Please kindly note that; the fan and cover can easily be opened. Always make sure that the locking arms are locked when the cover is open. Do not open the cover if fan and dust collector unit are fixed to location. If the duration of operation is longer than 3-5 minutes, please add separate stopper.

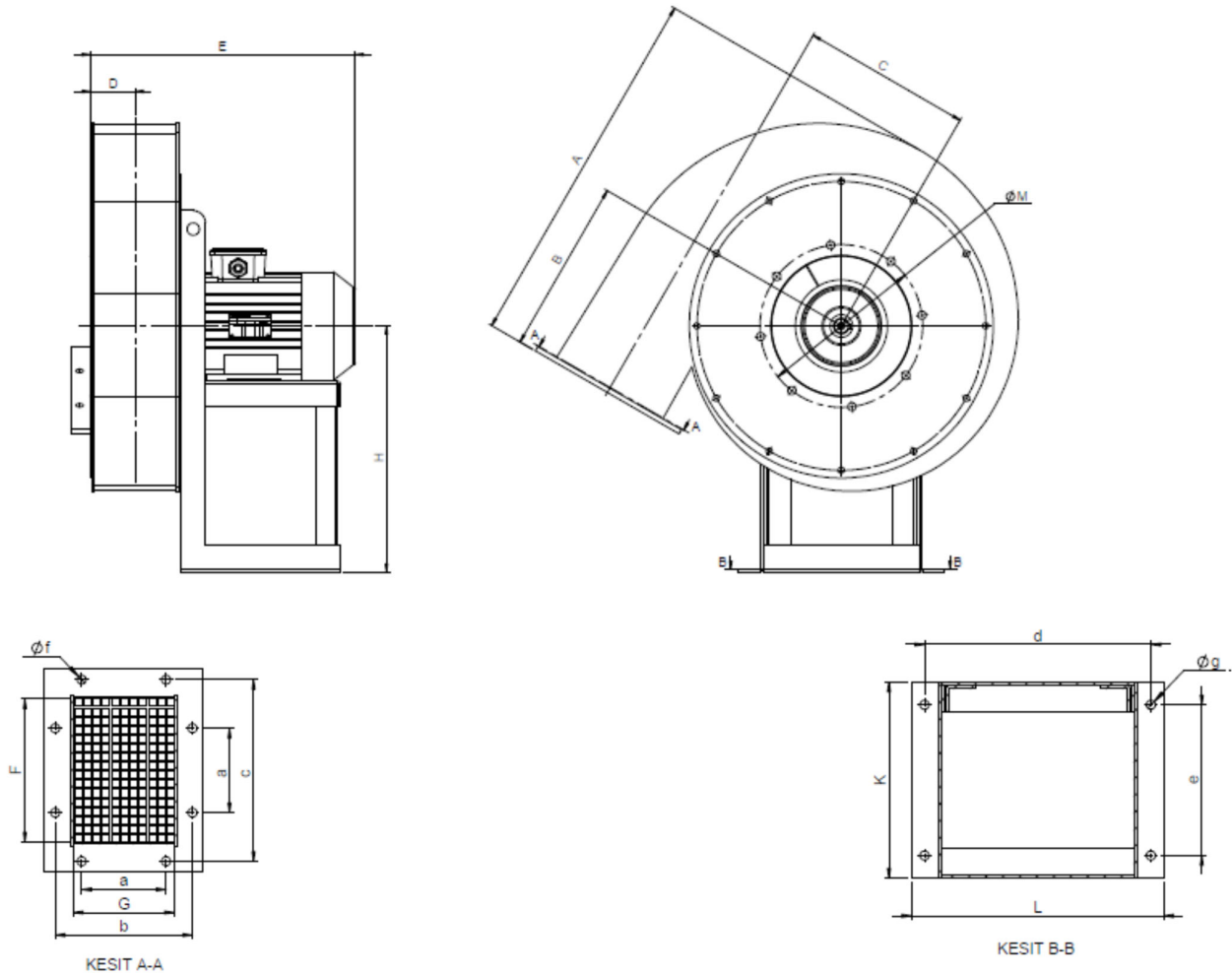
Do not open the cover in open and windy areas. Ensure that all related regulations in force in the area use about labor environment and safety are by user.

1.10.1 FAN DIMENSIONS ON DUST COLLECTOR



Fan Motor Power	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	G (in)	a (in)	b (in)	c (in)	ϕe (in)
1 HP	16.54	7.87	7.09	2.28	13.98	5.91	4.33	4.41	6.02	7.87	0.47
1.5 HP	18.19	8.66	8.27	2.28	13.98	5.91	4.33	4.41	6.02	7.87	0.47
2 HP	19.69	9.45	8.82	2.56	14.57	6.69	4.72	4.41	6.57	8.62	0.47
3 HP	21.65	10.24	10	2.56	16.34	6.69	4.72	4.41	6.57	8.62	0.47

1.10.2 FAN DIMENSIONS SIDE ASSEMBLY ON SEPARATE FRAME



Fan Motor Power	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	G (in)	H (in)	K (in)	L (in)	a (in)	b (in)	c (in)	d (in)	e (in)	ϕf (in)	ϕg (in)
4 HP	23.43	11.18	10.83	2.87	16.93	7.48	5.51	15.75	10.24	13.19	4.41	7.17	9.49	11.81	7.87	0.47	0.47
5.5 HP	25.51	12.2	12.01	2.87	18.23	7.48	5.51	15.75	10.24	13.19	4.41	7.17	9.49	11.81	7.87	0.47	0.47
7.5 HP	27.95	13.19	13.39	3.27	19.8	8.66	6.3	17.72	12.6	15.43	4.41	7.87	10.43	14.17	9.84	0.47	0.47
10 HP	29.45	13.62	14.57	3.27	22.83	8.66	6.3	17.72	12.6	15.43	4.41	7.87	10.43	14.17	9.84	0.47	0.47
15 HP	30.51	14.45	14.57	3.5	23.23	9.06	6.69	19.69	12.6	15.35	4.41	7.87	10.43	14.17	9.84	0.47	0.47

1.10.3 FAN PERFORMANCE TABLE

Fan Motor Power (HP)	Nominal Revolution (rpm)	Max Air Capacity (cfm)	Max Pressure (Pa)
1	3000	2200	0.27
1.5	3000	2800	0.33
2	3000	3300	0.41
3	3000	3800	0.48
4	3000	4500	0.58
5.5	3000	5000	0.68
7.5	3000	6000	0.84
10	3000	7000	0.94
15	3000	8000	1.01

Fan Motor Power (HP)	Pressure (psi)	0	0.15	0.22	0.29	0.36	0.44	0.51	0.65	0.73	0.87	1.02
1	Air Capacity (cfm)	1295	913	677								
1.5		1649	1266	1119	736							
2		1943	1590	1354	1119	707						
3		2237	1884	1707	1531	1237	883					
4		2649	2414	2208	2002	1766	1590	1295				
5.5		2943	2649	2473	2355	2119	1884	1649	1178			
7.5		3532	3238	3091	2943	2796	2649	2355	2061	1766		
10		4121	3826	3591	3473	3385	3091	2943	2502	2355	1766	
15		4709	4121	3944	3885	3650	3414	3179	2767	2531	2208	2061

1.11 PACKAGING DIMENSIONS AND WEIGHTS

Package sizes and weights of the units are given below.

When receiving the units; check if the unit code and quantity are compatible with your order. Possible damages must be reported/informed to the authorized person of cargo/transportation company before taking the goods. The manufacturer is not responsible for any damage that may occur during transportation.

Type	L (in)	W (in)	H (in)
FP1SE490STV010	49.61	41.73	55.12
FP1LE490STV015	49.61	41.73	73.62
FP1LL490STV020	49.61	41.73	93.7
FP1LK218STV043	49.61	41.73	55.12
FP2LE490STV030	49.61	63.78	73.62
FP2LL490STV040	49.61	63.78	93.7
FP1SE490STH010	69.69	51.97	43.7
FP1LE490STH015	88.19	51.97	43.7
FP2SE490STH020	69.69	51.97	66.93
FP2LE490STH030	88.19	51.97	66.93
FPI1SE490STV010	49.61	41.73	50.39
FPI1LE490STV015	49.61	41.73	68.9
FPI1LL490STV020	49.61	41.73	88.98
FPI1LK218STV043	49.61	41.73	50.39
FPI2LE490STV030	49.61	63.78	68.9
FPI2LL490STV040	49.61	63.78	88.98
FPI1SE490STH010	55.91	51.97	44.09
FPI1LE490STH015	74.41	51.97	44.09
FPI2SE490STH020	55.91	51.97	66.93
FPI2LE490STH030	74.41	51.97	66.93



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2.

ASSEMBLY-MAINTENANCE CATALOG



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2.1 SAFETY CONDITIONS AND PROTECTIONS

It needs to be kept at nearest position available for the concerned personnel for installation, operation, maintenance and repair staff.

This catalog is a guide for users. It is the user's responsibility to take all necessary precautions to ensure occupational safety, worker health and safety of third parties as well as ensuring operations in accordance with local laws and regulations.

In order to perform assembly, maintenance, repair and cleaning on the product, according to 2006/42/EU, 2004/108/EU, 2006/95/EU Directives the user must take all necessary precautions to ensure public safety, safety of the environment and its entities and also take all actions to prevent any harm that may involve third parties.

In case of handling hot material over 140°F, it is the user's responsibility to assemble barriers and warnings in order to secure the workplace.

Apart from normal operating conditions, the product must be in safe position.

This unit may be working on dynamic forces, electrical energy and pressurized air and operates under high level of mechanical risk. Accidents that may arise due to any of the above or any combination of the above may result in catastrophic effects. Therefore, the user is responsible to supply maximum security in all stages and operations.

All related staff should be trained, authorised and specialised. For all work to be done on the product, other than normal operation, the electrical connection must be cut, all movement stopped, pressurised air supply disconnected and the product must be in good condition and in park mode.

Only fully qualified and authorized electricians should carry out electrical operations. Occupational safety and worker health requirements must be met. Electrical problems and their consequences are out of manufacturer's control and are not covered under warranty. The manufacturer cannot be held responsible for any damages to property, persons or third parties, arising from poor electrical workmanship

The user who is carrying out the assembly is responsible for creating electrical circuits that will overcome all risks that may arise due to misuse during start, stop, emergency stop and maintenance.

It is necessary to check the compatibility of voltage and frequency. Operations should be carried out only by knowledgeable and authorised staff. In case air usage is required via pneumatic connections, the user should assemble a system to meet the requirements given on the technical information section.

The electrical earthing of the product must be proper, safety warnings should be clean and readable, and all operations should be according to EN 60204-1:2018 standard.

Before each operation, always ensure that the power is disconnected before commencing. It is vitally important that power on/off button has to be managed by a qualified person to prevent uncontrolled opening and closing.

Make sure that all moving parts are in absolute stop before each operation.

Always ensure that the dust inside the machine is completely settled.

Operators must use the following protection equipment during the maintenance and cleaning of the machine;

- Antistatic protective clothing
- Protective Helmets
- Antistatic cut-proof gloves

- Safety masks
- Antistatic protective shoes

After assembly, check that all operations are properly and fully completed, all bolts are tightened, all warning labels, barriers and safety accessories are proper.

Do not start operation if the product is not complete and fully mounted. Do not interrupt externally during operation. Never approach while the units are operating. Never let tools, hand, or head to approach to the operating zone during operation.

In case modifications are made without written consent of the manufacturer, no responsibility will be assumed by the manufacturer in case of damage and their consequences.

The product may display different wear and results according to material used and working conditions. Therefore the user is required to develop practices other than those given in this catalog.

During the practice of below maintenance notes, situations that may result in harm to humans or machines or which prevent the product from working may occur. All inspections and maintenance must be done when product is in safe position.

Maintenance staff must be fully qualified. Tools for lifting and stabilizing must be used. No humans must be present during lifting and carrying operations.

It is important to use original parts or parts that have the required specifications.

It is possible that problems may occur, and the product may be declared out of warranty in case maintenance work is conducted without full compliance with this maintenance guideline.

2.2 ASSEMBLY

Please consult with assembly instructions, which can be found inside of each product package.

Carefully follow all technical, safety and worker health instructions during the assembly and the operation of the unit.

For right terminal connections of the unit, please double check voltage, frequency, local regulations, and procedures.

Disconnect from all mains before opening the unit.

Start up the unit only when the cover is closed.

Provide protection for relay contacts and output transistors to protect the device against spikes with inductive loads.

A voltage-disconnecting switch must be provided near the device.

In the case of inexpert handling or handling malpractice, the electric safety of the device cannot be guaranteed.

In the case of a defect, the distribution voltage must automatically be cut off by a protective switch so as to protect the user of the device from indirect contact with dangerous electric tensions.

All field wirings must have insulation suitable for at least 250VAC. The temperature rating must be at least 914°F.

Protect the power of the device by means of a fuse. The device body has to be earthed to avoid static charges. This is particularly important in pneumatic conveying applications or with non-metallic containers.

Close the cover when all connections are completed and supply the power. Always check the voltage with a voltmeter.

All electrical connections must be made according to the given connection diagram: make sure the cable is sealed tightly inside the cable gland.

Make sure the electrical connections are made properly and tightly. Setting on the assembled unit is not recommended.

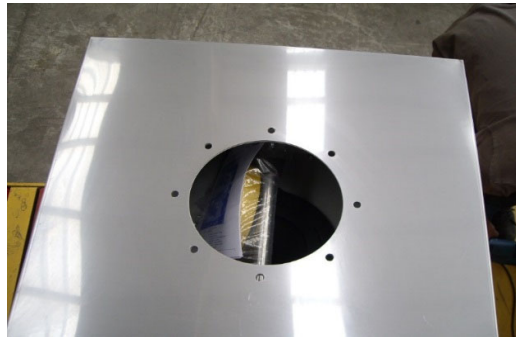
Start the flange assembly as first step. Ensure that the dust collector flange is welded parallel to the place where the dust collector is used (silo, on bunker, etc.).

Locate the seal between flange and the dust collector and assemble the dust collector by the bolts and nuts supplied with the dust collector.

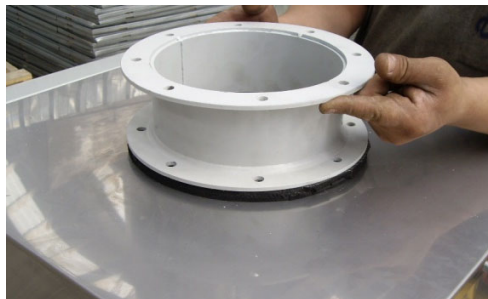
Complete the necessary connections for air. Ensure the air pressure is in the range of 4.5-5 bars and the air is dry. Connect the control board, apply to electronic control board notes in 2.4.

2.2.1 ASSEMBLY OF FAN ON DUST COLLECTOR

The dust collector is removed from the wooden packaging. The screws that connect the dust collector to the palette are not removed, the dust collector is left on the palette.



The fan suction hose connection flange is bolted onto the hole left for fan suction on the top cover. Sealing gasket is applied under the flange.

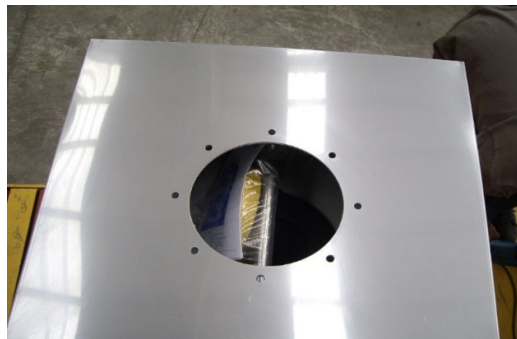


The fan outlet is turned in the appropriate direction, and the fan is tightened to flange with the aid of bolts and nuts. Fan assembly is completed. Care and precautions should be exercised when the cover of the dust collector is opened. As the dust collector is not fixed on the ground, the weight of the fan can knock over the dust collector easily.

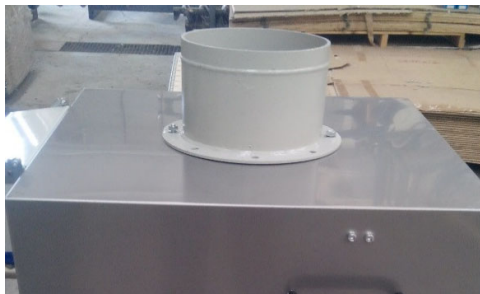


2.2.2 SIDE ASSEMBLY FAN ON SEPERATE FRAME

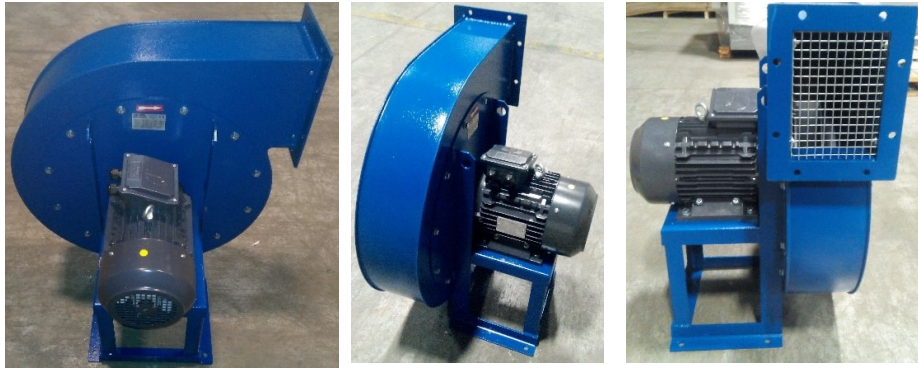
The dust collector is removed from the wooden packaging. The dust collector is mounted on the lower flange to be fixed in advance to the system to be applied.



The fan suction hose connection flange is bolted onto the hole left for fan suction on the top cover. Sealing gasket is applied under the flange.



The foot fan outlet is turned in the appropriate direction and fixed to a suitable place near the dust collector. The suction hose is mounted on the dust collector flange and the suction opening on the fan is tightened with steel clamp.



2.3 START UP

Install the unit properly into the system. Make sure the electrical connection is made properly and tightly. Setting on the assembled unit is not recommended.

Before starting up the unit, make sure that no foreign bodies have entered during assembly if they have, remove them.

Ensure the pressurized air is dried by convenient air dryer, and no oil shall be permitted. Check the electrical connections. Run the unit unloaded (idle) for a while.

Ensure that all energy air pressurized lines are properly connected and power selections are correct. Energize the electronic control board and check the valves are operative and sequencing is OK by listening to click sound on valves.

The pulse intervals are set to 40-45 seconds, it should not be changed.

The compressor airline must be dried and conditioned with a regulator, and it should be reduced to 65 psi pressure with the manometer regulator dust collector set. The water accumulate in the water tank should be cleaned frequently.

Make sure that solenoid valves are working properly. Check the cleaning cycle intervals and the pause time.

In case of any control and maintenance make sure energy and pressurized air is off and the tank is clean.

Overfilling should not be allowed. Filling should not be allowed after the maximum level warning.

After the silo truck filling is completed, the remaining amount of the silo truck must not be cleaned with excessive air. (Silo truck should not be inflated and opened suddenly)

Run the machine for max 2-3 minutes to observe and listen. Re-check the product and observe if heating has occurred on any component and/or abnormal noise, vibration occurs.

IMPORTANT: All connections should be undertaken by qualified electrical personnel only. Occupational safety and employee health requirements must be complied with. Before conducting any operation on the motor, make sure that the electrical supply is disconnected. The constructor declines to take any responsibility for any damage to property or persons, arising from poor electrical workmanship.

Air inlet
1/4" Ri: 4"



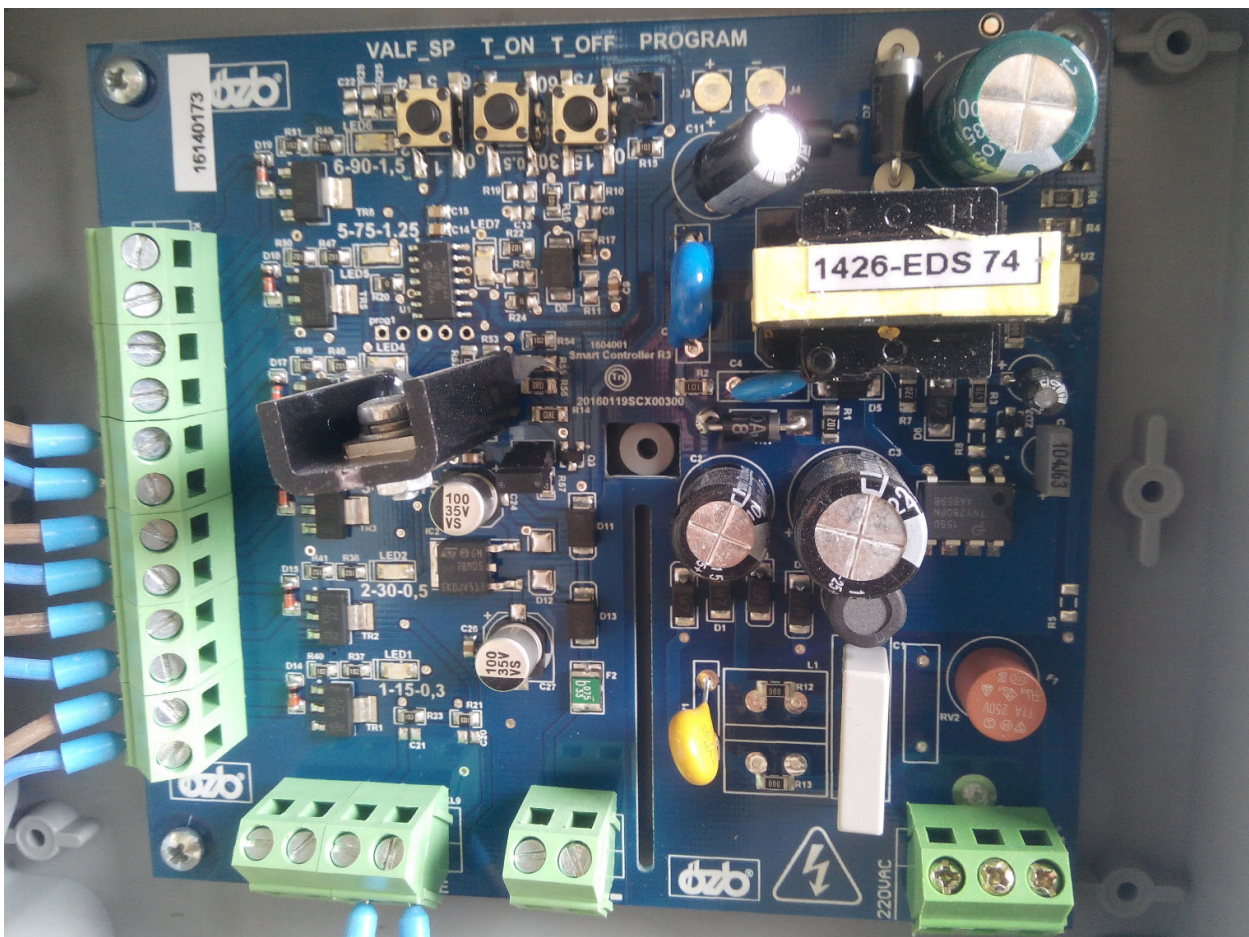
Water discharge

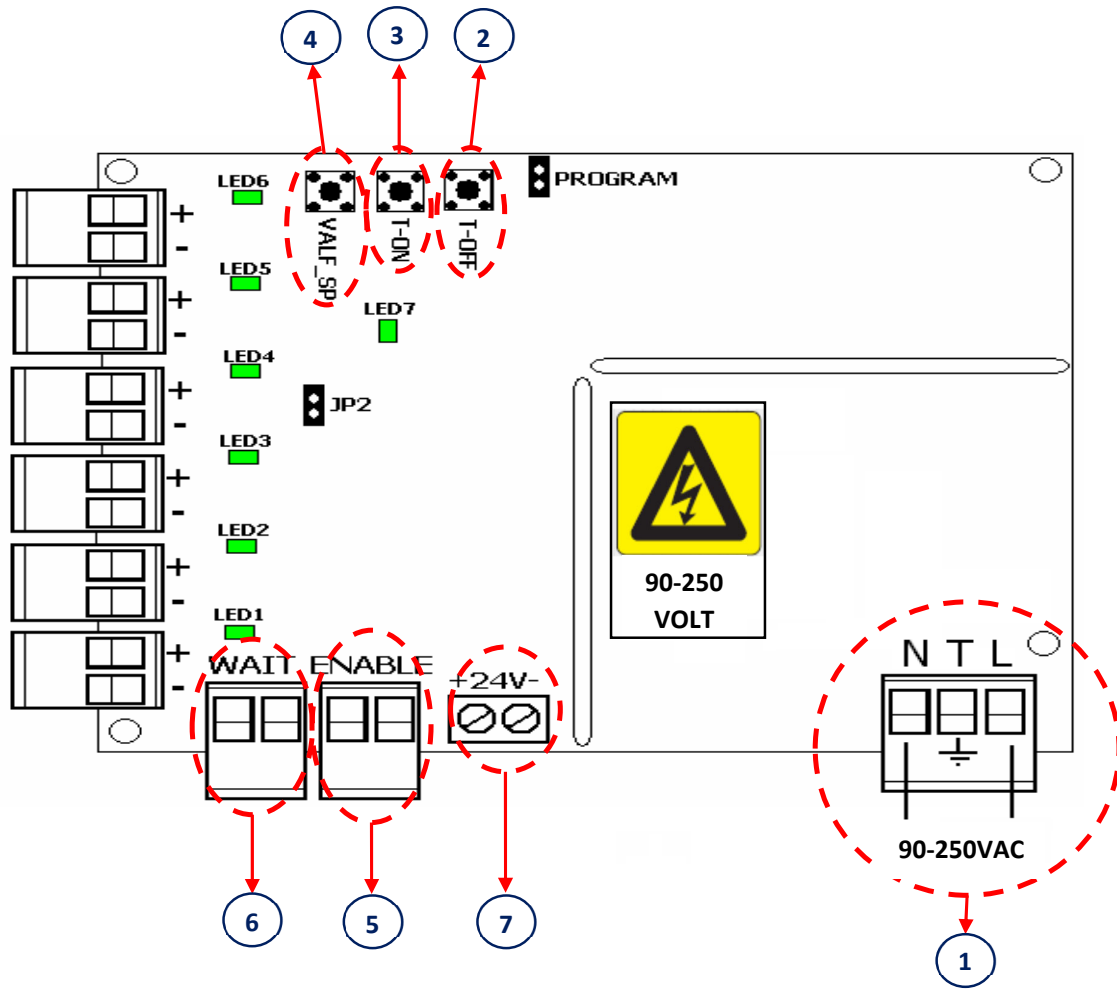
2.4 DUST COLLECTOR CONTROL BOARD

The Board is inside, 6 x 2.4 x 2.4" sealed waterproof, IP65 protection class box, and 110VAC, 220VAC 50/60 Hz or 24VDC voltage can be applied.



Always shut off voltage, before and during operation on the card.





Şekil/Figure - 1

- 1- NTL Feed input (90-250VAC / 50-60Hz) N: Neutral, T: Ground, L: Line
- 2- T_OFF Waiting Time
- 3- T_ON Operating time
- 4- VALF_SP Adjustment of valve quantity
- 5- ENABLE
- 6- WAIT
- 7- DC

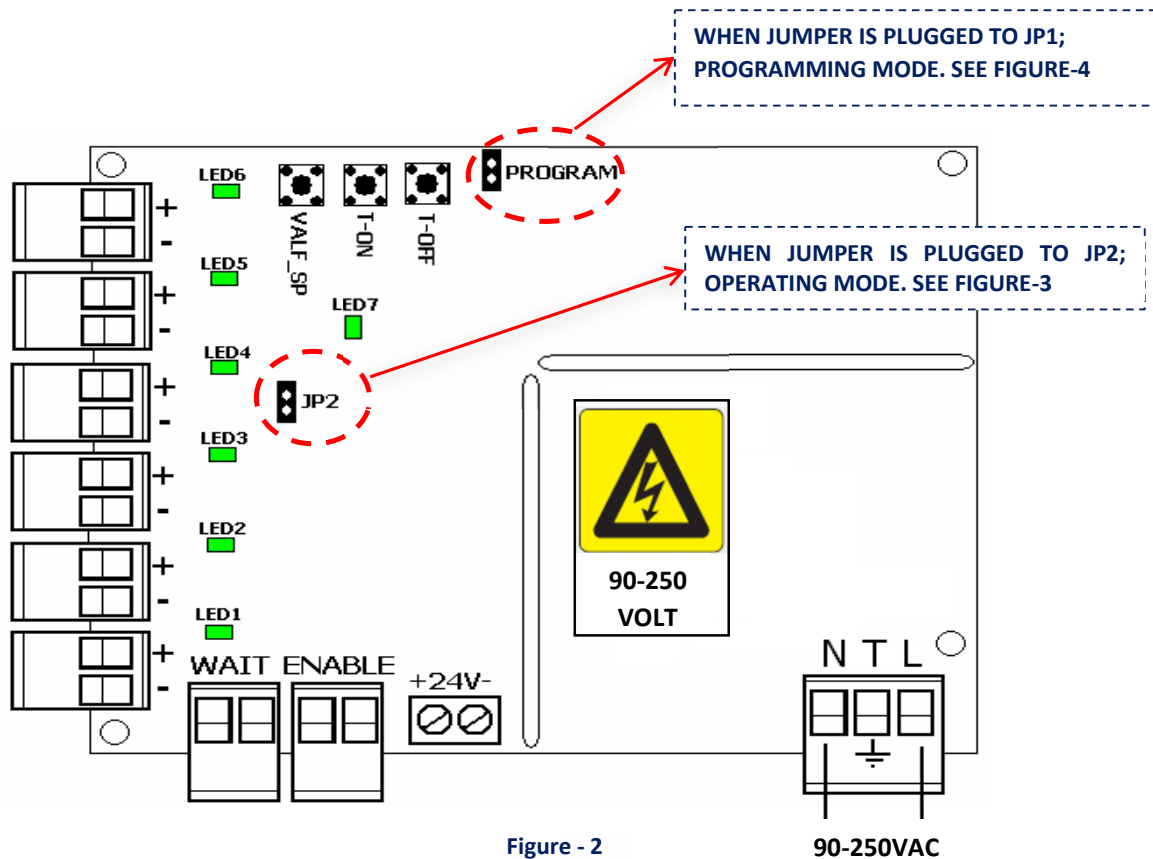
2.4.1 NTL FEEDING INPUT (90-250VAC / 50-60Hz)

90-250V feed input of device. Device is fed with 90-250V, can be seen the lighting of LED7 on board.

When Jumper is plugged to JP1; programmable mode,

When jumper is plugged to JP2; valves' operating mode.

NEVER: JP1 and JP2 must not be plugged at the same time.



2.4.1.1 OPERATING MODE

To make the dust collector card ready to work, the "JUMPER" must be set as shown in the red circle on the photograph. See Figure-3.

2.4.1.2 PROGRAMMABLE MODE

To program dust collector card and set valve number, stand by and working time, the "JUMPER" must be set as shown in red circle "PROGRAMME" on the photographs. See Figure-4

After settings, the jumper has to be put on work mode. See Figure-3

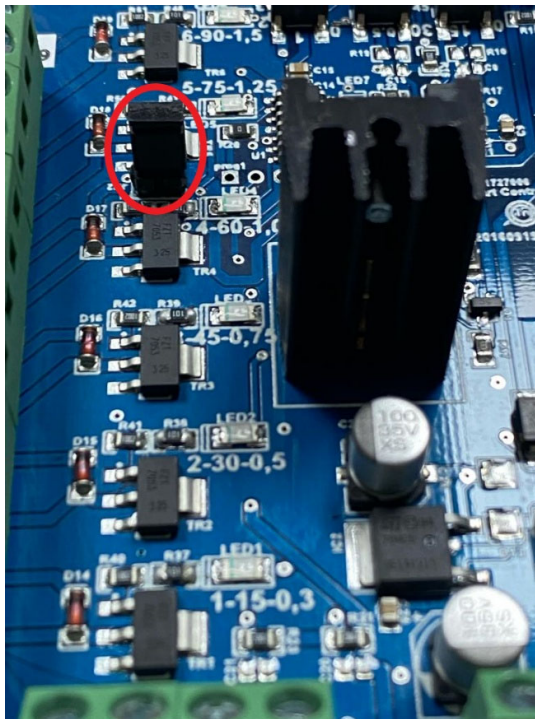


Figure - 3

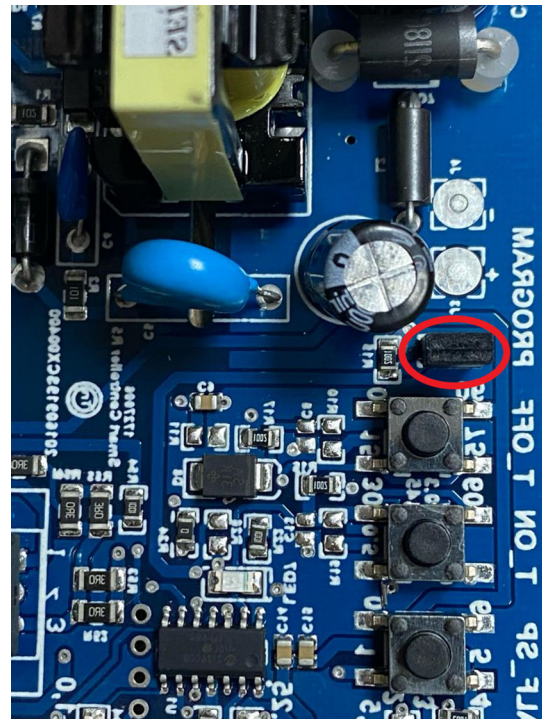


Figure - 4

2.4.2 T-OFF WAITING TIME

Stand by time is the time interval of valves which will be energized turn by turn. This time interval can be adjusted for 0.5-90sec.

Factory settings are 45 seconds.

With every short push to the T_OFF switch, time interval increases 5 sec. and LED1 and LED7 wink.

With long push to the T_OFF switch, time interval increases 15 sec.

In 15sec stand by time, LED1 is lighting continuously.

In 30sec stand by time, LED1,2 are lighting continuously.

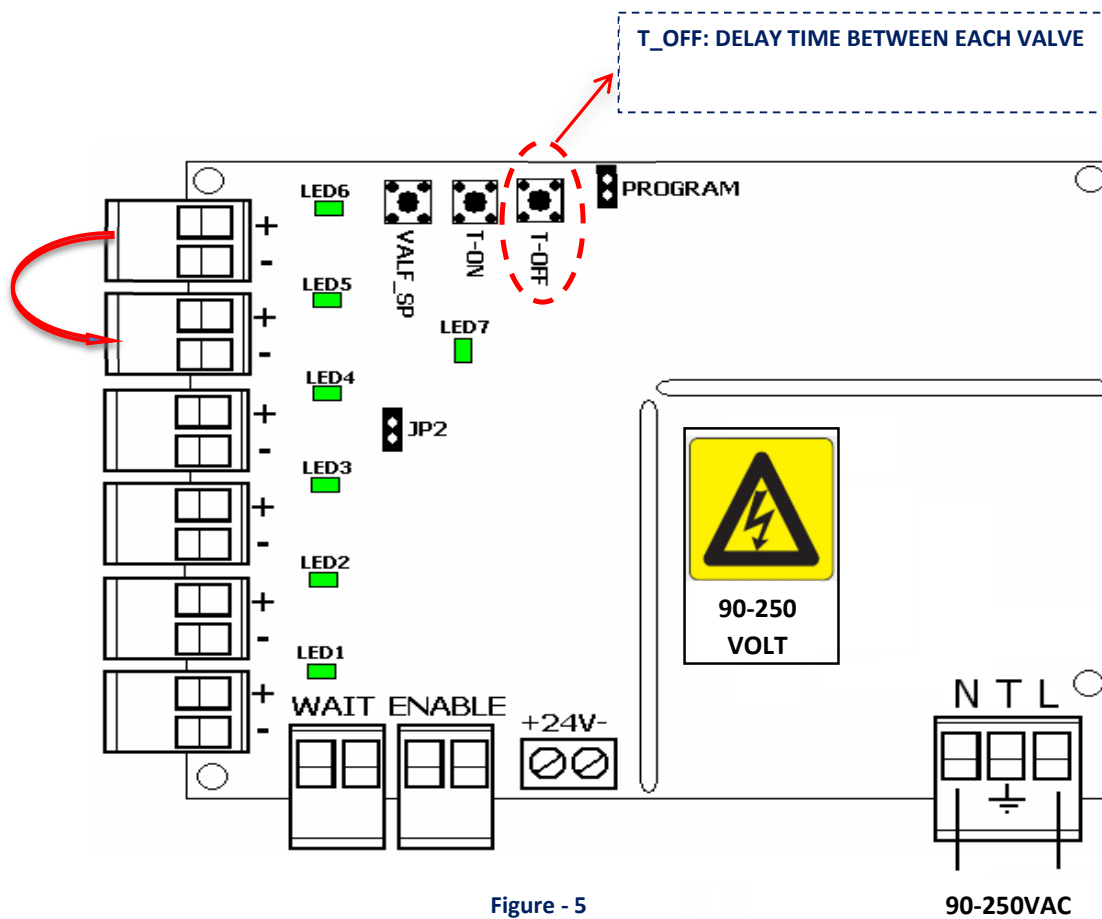
In 45sec stand by time, LED1,2,3 are lighting continuously.

In 60sec stand by time, LED1,2,3,4 are lighting continuously.

In 75sec stand by time, LED1,2,3,4,5 are lighting continuously.

In 90sec stand by time, LED1,2,3,4,5,6 are lighting continuously.

The media under high frequency emissions might cause deviation of ± 10 seconds.



2.4.3 T-ON OPERATION TIME

Operation time is the interval when the outputs of valve's are energized. This time interval can be adjusted for 0.3-1.5 sec. Factory settings are 0.3 seconds.

If any LED is not lighting, time interval is 0.2 sec

If LED1 is lighting, time interval is 0.30 sec

If LED2 is lighting, time interval is 0.50 sec

If LED3 is lighting, time interval is 0.75 sec

If LED4 is lighting, time interval is 1.00 sec

If LED5 is lighting, time interval is 1.25 sec

If LED6 is lighting, time interval is 1.50 sec

The media under high frequency emissions might cause deviation of + or – up to 10 seconds.

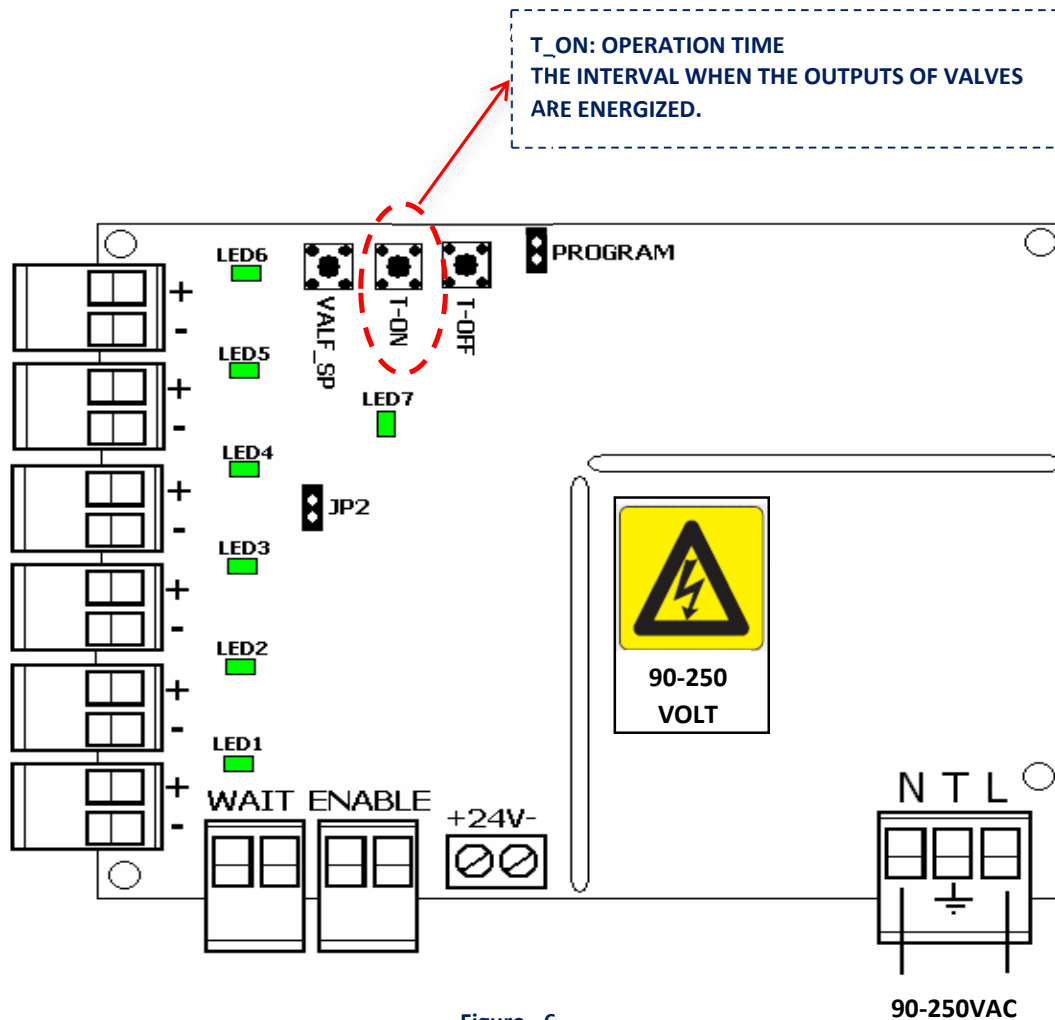


Figure - 6

2.4.4 VALF_SP ADJUSTMENT OF VALVE QUANTITY

Adjustment of quantity of valves assigns the system's operation with how many valves.

If LED1 is lighting: 1 Valve

If LED2 is lighting: 2 Valves

If LED3 is lighting: 3 Valves

If LED4 is lighting: 4 Valves

If LED5 is lighting: 5 Valves

If LED6 is lighting: 6 Valves

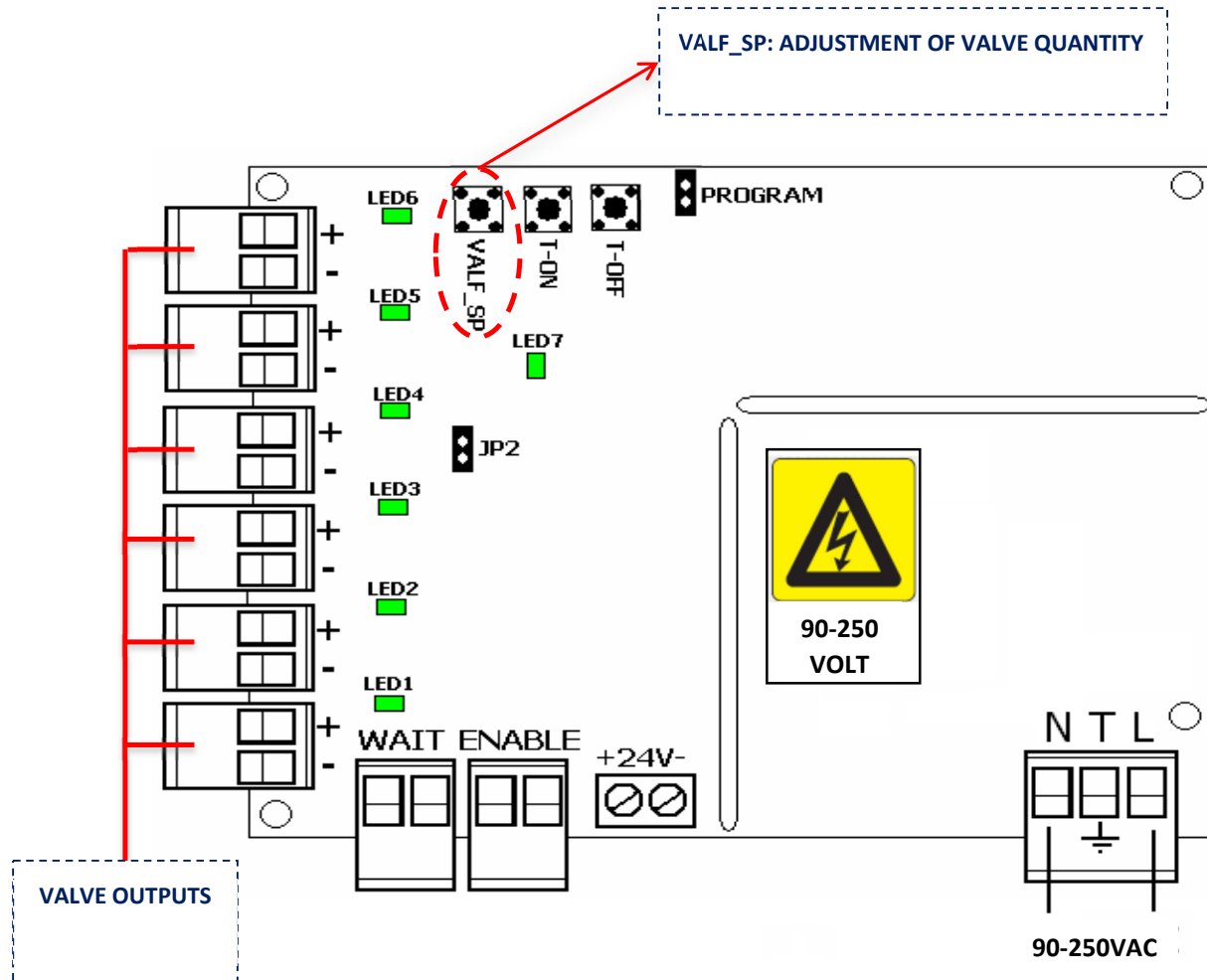


Figure - 7

2.4.5 ENABLE

An external contact enables the board.

2.4.6 WAIT

If standby is required while the system operates, operation of valves can be stopped by a short circuit due to the external contact. Valves will continue to operate after an open circuit.

2.4.7 DC

+24VDC feeding connector

OPERATION

Please apply the following procedures to run the board properly:

- a. Adjust number of valves.
(VALF_SP)
- b. Set the operation time.
(T_ON)
- c. Set the waiting time.
(T_OFF)
- d. Apply an external contact on ENABLE sockets to activate the board.



External contact shall have no energy.

If any pause is needed during operation please activate “WAIT” socket by means of external contact.

When the external contact is deactivated the system continues to run from the point where it was interrupted.

2.5 MAINTENANCE

Before maintenance procedures, all power lines must be disconnected.

Prior to each action, check that the energy lines are cut. It is vitally important to take precautions in order to prevent the on/off button of the power supply from being operated without authorization or control.

In case modifications are done without written consent of the manufacturer, no responsibility will be assumed by the manufacturer in case of damages and their consequences.

The product may display different wear and results according to material used and working conditions. Therefore, the user is required to develop practices other than those given in this manual.

During the practice of below maintenance notes, situations that may result in harm to humans or machines or which prevent the product from working may occur. All inspections and maintenance must be done when product is in safe position.

Supply and use safety equipment and tools that may be required for worker safety.

Maintenance staff must be fully qualified. Tools for lifting and stabilizing must be used. No humans must be present during lifting and carrying operations.

It is important to use original parts or parts that have the required specifications.

It is possible that problems may occur, and the product may be declared out of warranty in case maintenance work is carried out without full compliance to this maintenance guideline.

Before each shift:

Check the unit visually.

Check that the warning labels on the machine are present and in good condition.

Check the electric motor cable and connections.

Check all the bolts and nuts present and they are tightened.

Daily maintenance:

Check the unit visually.

Check the cables and pneumatic lines, correct any defect.

Check if the dust collector pulse function is operating.

Open the discharge valve of the dust collector air tank to discharge accumulated water.

Weekly maintenance:

Open the top cover to check the clean part of the filter plate for dust.

Minor dust accumulation is normal, clean with a soft brush and/or compressed air.

Check the coils and fixing bolts.

Check the cable and sockets.

Monthly maintenance:

In addition to daily controls, turn off energy and the air supply.

Discharge the air in the tank and keep the tank release valve open during maintenance.

Open the cover.

Disassemble the distributor and place it safely.

Disassemble the filtering elements, check for anomalies such as damage, wear, or tear.

Check the surface for dirt. Use plastic or wood without sharp edges to clean sticking material.

Do not perform hard or penetrative actions.

If necessary, clean by pressurized air or wash with water.

After drying, grease the lower platform and around the ring by using lubricants other than soap and petrol-based products.

Clean the filter plate surface and replace or reassemble the filtering element.

Assemble the distributor and reassemble the dust collector by repeating the above steps in reverse order.

Ensure that the unit is functional.

2.6 LUBRICATION

There are not any parts required lubrication.

2.7 REPLACEMENT OF COMPONENTS

If you require spares for your unit, please contact the manufacturer and it is necessary to report all data such as serial number, type etc. which are written on the machine's plate. Do not use non-original parts.

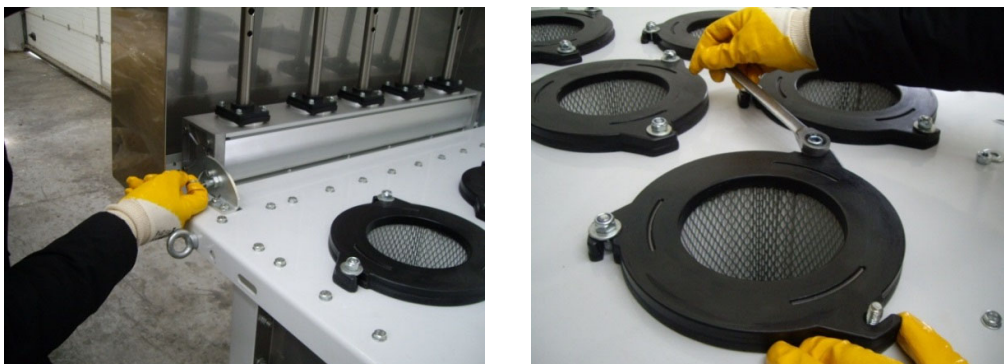
2.7.1 REPLACEMENT OF FILTER

Dust collector with fan fixed to the frame.
Release the front lock.

Open the cover by gently lifting up.
Open completely and lock it.



Lock the cover stopper by pin.
Loose the nuts of filtering by elements.



Take out the dust collector elements.
Apply for re-assembly in reverse.



2.8 DEMOLITION

At the end of the working life of the unit, demolish it according to the following recommendations: plastic parts consigning them to the authorized collection centres.

2.9 DEFINING PROBLEMS AND TROUBLE SHOOTING

Below are some guidelines regarding problems that may occur during the operation of the product.
Energy supply and pressurized air shall be available and condensed water to be discharged.

Turn on the electronic card, if red and green lights are not on, check the fuse at energy inlet. Check that coil of the valve is intact and functional.

During all controls, energy must be off, pressurized air lines empty, and tank completely discharged of pressurized air.

The pilot group shall be disassembled. (Make sure that the cylinder and spring inside the pilot to not change position). Ensure that the cylinder can move easily inside the pilot and is free from rust, grease, dust, and residue. It is important that the 1/16" hole in the pilot slot is not blocked, if so clean.

Open the top cover of the jet pulse valve with an Allen wrench and lift the cover without dropping the bolts.

Take out the diaphragm plate. Ensure that the channel on the top cover and holes on the pipe are not blocked, if so clean. Ensure that the diaphragm is free from dirt, residue, tear, and similar defects.

Ensure that the valve lower body outlet and inlets are clean.

Ensure that the inlet and outlet holes of the distributor are open and functional. Check that distributor outlets are at the center of the filtering elements.

Repeat all above steps in reverse order and for each valve to reassemble the dust collector and re-connect energy and pressurized air.

In the dust collector does not start, apply to manufacturer with a detailed report of what you have done and the final status of the dust collector.

If filtering elements get blocked frequently, in addition to other controls, check the silo filling pipe outlet. It shall be perpendicular and downwards. If it is horizontal the emission is excessive, correct it.

Hints:

If everything seems normal but the safety valve frequently is open then;

Filtering elements may be blocked.

Filtering elements may be wet.

Filtering elements may be oily.

Cleaning air pressure may be low.

Cleaning pulse cycle may be less than 10 seconds, and the second pulse occurs before tank is full.

No energy.

No cleaning air.

PROBLEM	POSSIBLE CAUSE-SOLUTION
Filtering elements over blocked	Check compressed air supply and pressure level Check electronic card and correct adjustment Check solenoid valve & coils



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3.

SPARE PARTS CATALOG

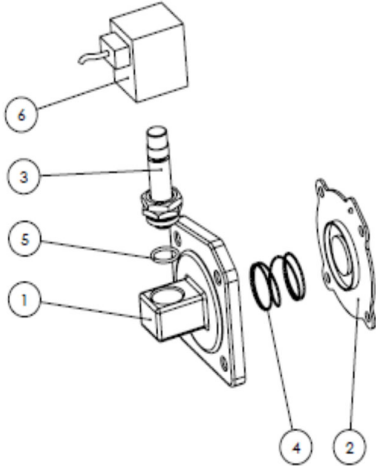
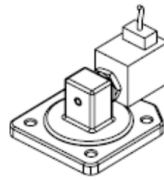
If you require spares for your unit, please contact the manufacturer and it is necessary to report all data such as serial number, type etc. which are written on the machine's plate. Do not use non-original parts.



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404-610-4334

DUST COLLECTOR CONTROL BOARD	
Code	
FRSJ71213100	

VALVE AND COIL			
Code	Description	#	
FRSJ71224000	Valve Cover	1	
FRSJ71222010	Diaphragm	2	
FRSJ71223000	Pilot M20x1	3	
N09-0852117	Spring	4	
N10-0156018	O-ring	5	
FRSJ71222040	Coil and Socket 24VAC-DC	6	
FRSJ71222000	Complete Set	1 + 2 + 3 + 4 + 5 + 6	

FILTERS				
Code	Suitable Filter	Diameter (in)	H (in)	
FE.C.S.156.0900.ST Cartridge	FP1MK156STV020 FP2MK156STV040	Ø 6.14	35.43	
FE.C.S.218.0700.ST (FESK218ST) Cartridge	FP1SK218STV030 FP2SK218STV060	Ø 8.58	27.56	
FE.C.S.218.1000.ST (FELK218ST) Cartridge	FP1LK218STV043 FP2LK218STV090 POLYFILL 90	Ø 8.58	39.37	
FE.E.S.490.1000.ST Elliptical Bag	FP1SE490STV010 FP1SE490STH010 FP2SE490STH020	19.29	39.37	
FE.E.S.490.1500.ST Elliptical Bag	FP1LE490STV015 FP2LE490STV030 FP1LE490STH015 FP2LE490STH030 FP2SE490STV020	19.29	59.06	
FE.E.S.490.2000.ST Elliptical Bag	FP1LL490STV020 FP2LL490STV040	19.29	78.74	

FILTER CAGE		
Code	Suitable Filter	Material
FK.E.S.490.1000.1	FP1SE490STV010 FP1SE490STH010 FP2SE490STH020	Galvanized
FK.E.S.490.1500.1	FP1LE490STV015 FP2LE490STV030 FP1LE490STH015 FP2LE490STH030 FP2SE490STV020	
FK.E.S.490.2000.1	FP1LL490STV020 FP2LL490STV040	