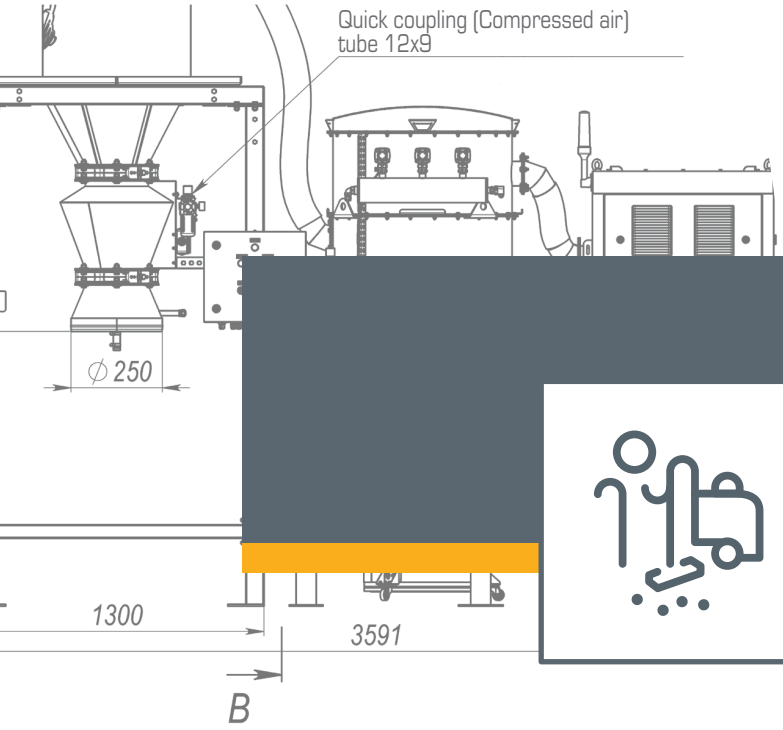
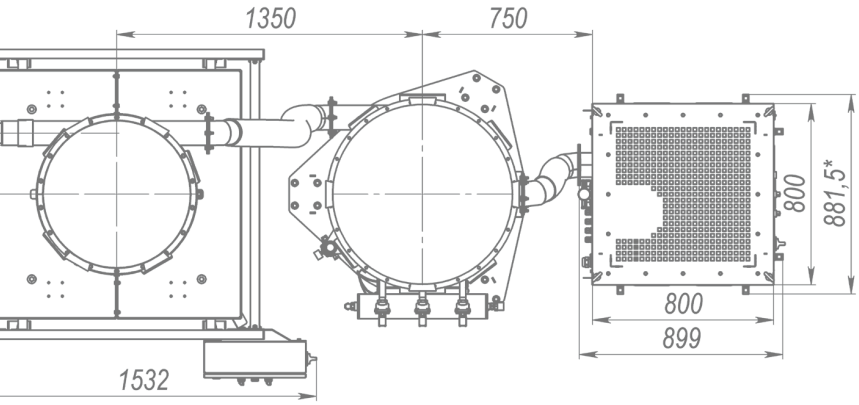
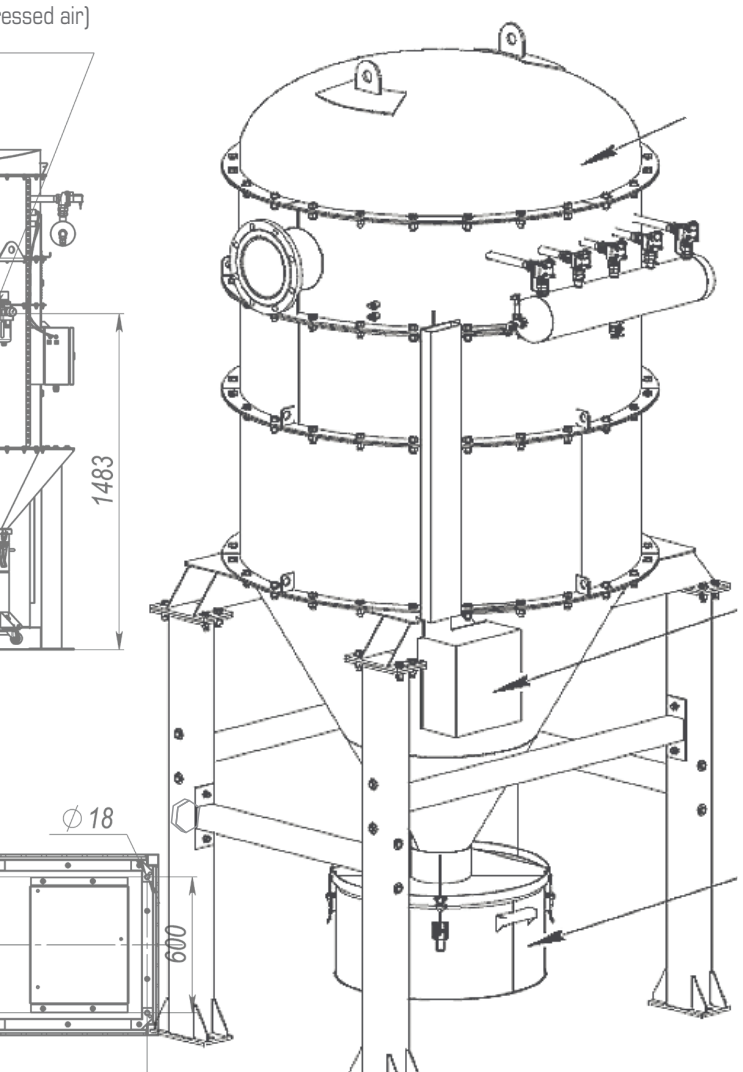
SovPlym
INDUSTRIAL AIR FILTRATION & ASPIRATION







VACUUM CLEANING EQUIPMENT

• product catalog •

SovPlym Company

Our expertise

For 35 years, SovPlym JSC has been offering advanced solutions for creating healthy and safe working conditions, ensuring norms on MAC (maximum allowed concentrations) in the working area and reducing emissions of harmful substances into the atmosphere.

Our company is a recognized leader in production and supply of industrial ventilation, aspiration equipment, vacuum dust removal and exhaust gas removal systems. SovPlym also implements modern methods of combating the dangerous effects of industrial noise, welding radiation, dust and smoke in workshops.

The range of services provided includes the development and design of systems, production, installation, commissioning, warranty and regular service, and post-warranty maintenance.

"SovPlym" in figures

SovPlym Holding was founded in 1989 in St. Petersburg. During this period, our qualified specialists have implemented tens of thousands of projects and accumulated priceless experience, professional knowledge, and high competence. We are proud of our successes and feedback from partners and continue to steadily develop our production, technology, and customer service.

1989
THE YEAR OF INCORPORATION

2
PRODUCTION SITES

> 60 000
HAPPY CUSTOMERS

25
REPRESENTATIVE OFFICES AND BRANCHES

30,000 m²
PRODUCTION FLOOR AREA

> 600
TOTAL NUMBER OF OFFICE AND PRODUCTION EMPLOYEES

11
PRODUCT LINES

300
PRODUCT ITEMS

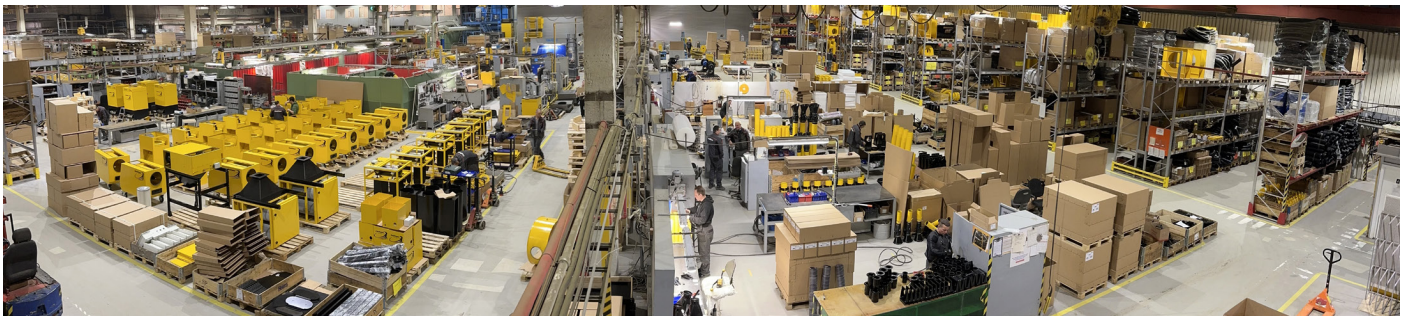
16 500
PRODUCTION UNITS PER YEAR

Production inputs and standards

The main production facility of SovPlym JSC is located in St. Petersburg. Some products are manufactured in Ekaterinburg. The total area of production and storage facilities is 30,000m^2. Every year the enterprise develops new product range, carries out constructive and technological modernization of manufactured items.

The technological fleet is regularly updated to perform the most advanced and efficient operations. Our production facilities are equipped with machines of brands including AMADA, FINN-POWER, HACO. In total, we operate about 150 pieces of equipment. SovPlym carries out cutting, bending, stamping, turning and milling, welding, soldering, stripping, rolling, drilling, chiseling, grinding, painting, balancing, crimping, gluing, radio mounting, assembly, marking, and packaging.

The company has an integrated quality management system that meets the ISO 9001:2015 requirements. A lean production system, including the "5C" system of workplace organization and rationalization, has been implemented and is successfully operating at the production facility. All manufactured equipment is made of high-quality components and undergoes stage-by-stage control by Quality control department. We also strictly control all purchased parts and consumables used in production.
stage-by-stage control by Quality control department. We also strictly control all purchased parts and consumables used in production.



Sustainability factors on the market

60,000 companies have chosen SovPlym JSC as a professional partner for reliable and high-quality equipment, fast feedback, timely delivery and consumer services. Our loyal customers' feedback is the best argument in favor of cooperating with us.

- **Focus on customer** In our work we prioritize the prompt solution of customers' tasks.
- **Expertise** Employees of SovPlym JSC are experts in their field. High professional qualification, preserving the best traditions of domestic engineering, allows the production and supply of equipment on the single cycle principle - from development of design documentation to turnkey commissioning of the facility.
- **Quality** We control every step in accordance with ISO 9001:2015, lean manufacturing principles and 5S.
- **Technological effectiveness** We apply only advanced technologies in the field of air filtration, aspiration, vacuum technology, noise and spark protection.
- **Extent of service coverage** We work in all regions and time zones of Russia and neighboring countries. A wide network of branches and dealers allows us to be closer to our customers, to promptly visit the sites for presentations, definition of tasks and design.
- **Customer confidence** Thousands of long-term clients, including the largest holdings and town-forming enterprises, military-industrial complex and state-owned companies, large and medium-sized private enterprises, small businesses.

Branch offices and dealers

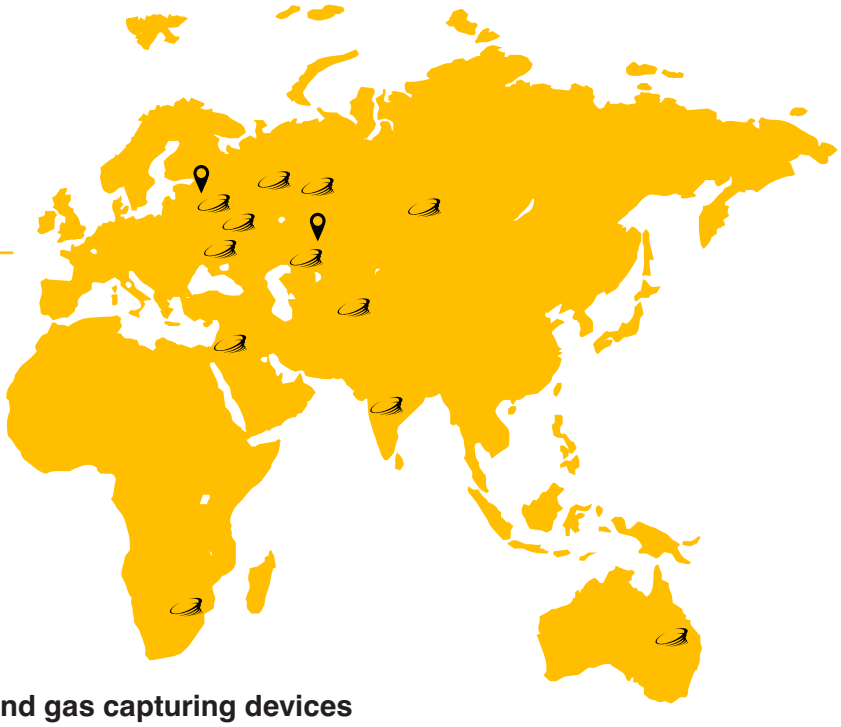
– production site + office
– Sales Office

Branches in Russia:

Saint Petersburg
Moscow
Novosibirsk
Ekaterinburg
Kazan
Surgut
Nizhny Novgorod
Samara
Rostov-on-Don

Operating countries:

Kazakhstan
Uzbekistan
India
Israel
Republic of South Africa
Australia



Partnership with global brands of dust and gas capturing devices

Developing and strengthening partnerships with leading European manufacturers of industrial air filtration systems is one of the most important tasks SovPlim has set for itself. Rich implementation experience and advanced technologies of our partners help to effectively solve the tasks set by our customers.

PLYMOVENT® FILTERMIST Vanad® CNC Thermal Cutting Machines PURAFIL

RGS VACUUM SYSTEMS CEPRO® защитные ограждения РУССКИЕ ШЛАНГИ INTENSIV FILTER C(MBR)A CF

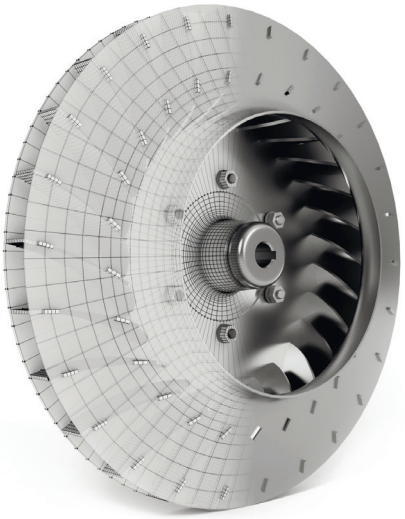
Engineering, installation and maintenance

Design and engineering department

The chief designer's department and the chief technologist's department work in the computer-aided design program using the module of aerodynamic flow calculations. The office of these departments is located directly in the production building, which allows our specialists to participate in tests of new and modified products on a daily basis.

Stages of product creation:

1. 3D modeling;
2. Strength and aerodynamics calculation;
3. Issue of working design documentation;
4. Drawing up operational documentation;
5. Laboratory tests.



Thanks to the use of the world's latest technologies of our own design development department and modern full-cycle production facilities
SovPlim provides customers with a wide range of equipment of the highest quality and successfully implements worldwide optimal solutions for indoor air purification, improving working conditions and increasing productivity.

Unified Engineering Center

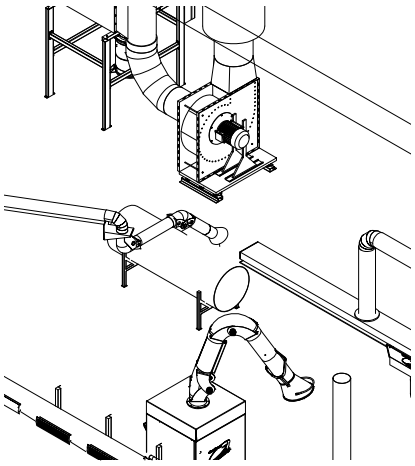
SovPlim JSC has its own Unified Engineering Center with branches in St. Petersburg, Novosibirsk and Yekaterinburg. This structure thoroughly elaborates project documentation, which allows us to successfully solve a wide range of tasks on industrial ventilation and protection of personnel from harmful effects.

United Engineering Center has extensive experience in object information modeling, 3D part scanning, and point cloud technologies. Thanks to these tools, our technical experts efficiently plan, design and show possible commissioning options for filter ventilation equipment and infrastructure facilities.

Projects are carried out on a turnkey basis:

1. Pre-project audit:
   — Facility survey,
   — Collection of baseline data,
   — Drafting of the terms of reference.

2. Designing:
   — Development of design documentation defining the main technical solutions,
   — Development of working documentation with a basic set of drawings, certification of equipment, products and materials required for construction and installation works.



3. Obtaining mandatory approvals for expert examination

4. Author's supervision at all stages of construction works

Installation and maintenance

SovPlim JSC is a member of several SROs for design, construction and surveying. We provide a full range of installation and maintenance services:

1. Author's supervision;
2. Chief installation work;
3. Installation work;
4. Commissioning work;
5. Warranty and service.

This catalog presents equipment of SovPlim JSC (Russia) and Sibilia Srl (Italy).

RGS VACUUM SYSTEMS and Sibilia – business partners СовПлим in the field of supplying engineered dust collection and material handling solutions based on high-vacuum technology.

TECHNOLOGICAL FEATURES OF VACUUM DUST REMOVAL SYSTEMS

The use of vacuum dust removal technology reduces the downtime of the main equipment during PPR (planned preventive maintenance);

Compliance with occupational health and safety requirements (technical safety and labor protection);

The return of the collected material to the technological process allows for a quick return on investment;

A wide range of vacuum equipment: mobile and stationary for different production tasks;

Equipment characteristics - air capacity up to 4000 m/h, vacuum up to -80 kPa;

Filtration of material with maximum temperature up to 80°C;

High degree of purification - minimal residual dust in the basic version;

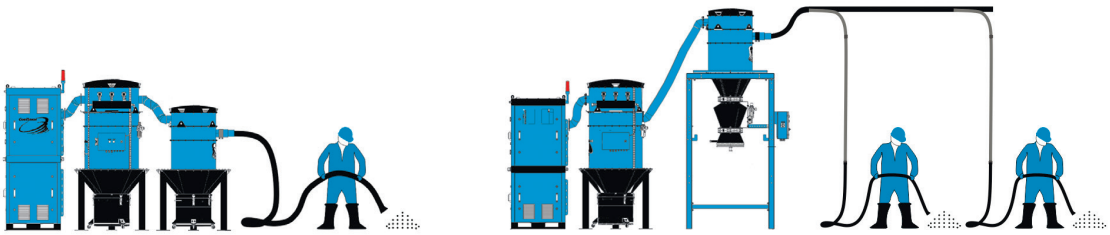
The high level of automation of the dusting process allows for the use of workforce without the need to hire highly skilled personnel;

The protective coating of the system in the basic version corresponds to corrosion category C5 according to ISO 12944. In the chemically resistant version, the surfaces in contact with the corrosive product are made of stainless steel AISI 316;

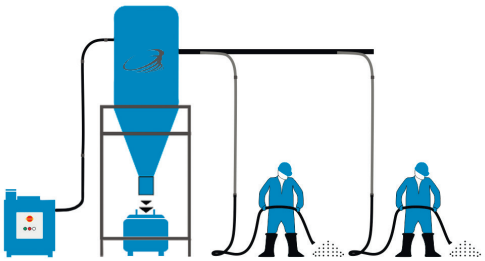
Vacuum equipment can be manufactured in explosion-proof version and can be used for collection and transportation of explosive materials.

DESIGN VARIANTS OF DUST COLLECTING VACUUM EQUIPMENT

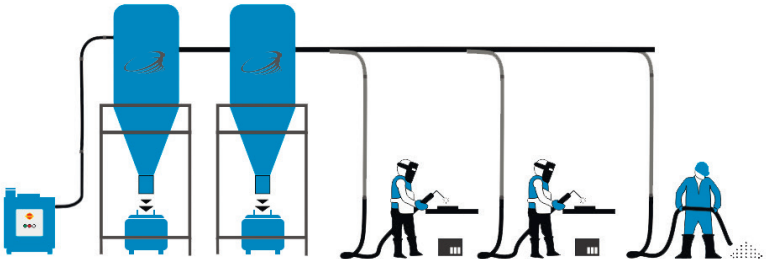
AIR HANDLING UNITS SPV 500 / 700 / 1000 / 1300 / 1900
Capacity up to 1 t/h (material)



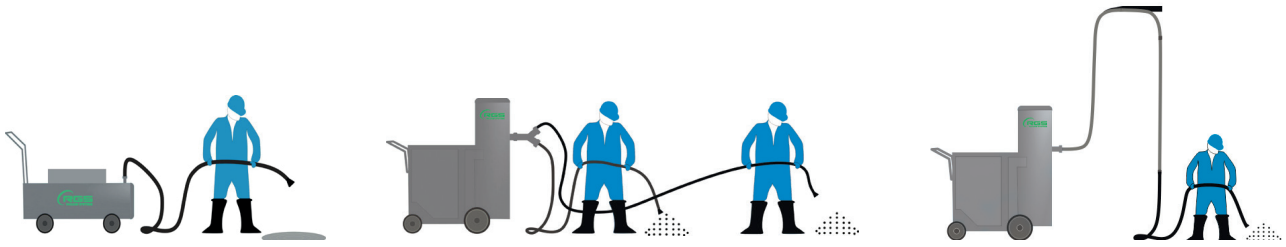
STATIONARY VACUUM DUST COLLECTION SYSTEMS SFV-VPR
Capacity up to 10 t/h (material)



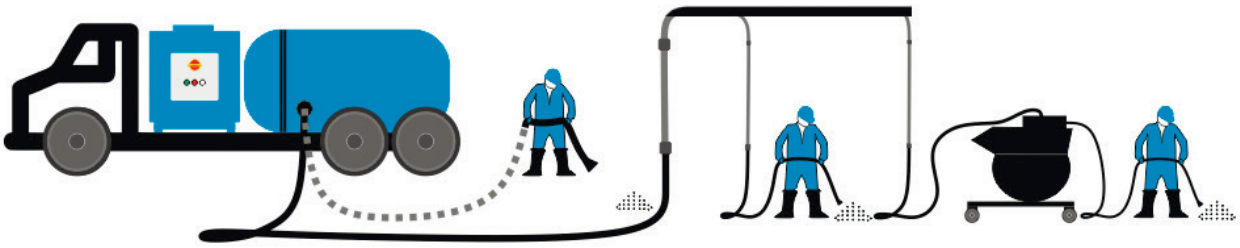
STATIONARY VACUUM ASPIRATION SYSTEMS SPV 4000
Capacity up to 4000 m³/h (air)



MOBILE VACUUM CLEANERS
Capacity up to 100 kg/h (material)



VACUUM TRUCKS
Capacity up to 40 t/h (material)



Contents

Selection of the vacuum unit design type depending on the required capacity, operating conditions and properties of the collected material

Tasks on cleaning of material in the volume up to **100 kg/h** are solved with the help of mobile universal industrial vacuum cleaners, at necessity of cleaning and transportation of material in the volume from **100 kg/h** up to **10 t/h** centralized dust removal systems are used. Tasks of material transportation up to **40 t/h** are solved by the use of autonomous vacuum loaders.

STATIONARY HIGH-VACUUM FILTER UNIT SPV 2.0 SOVPLIM

Scope of application

HIGH VACUUM FILTER UNIT SPV 2.0 - is designed for dust removal of industrial premises from dry, non-explosive dust, removal of welding aerosols, grinding dust, metal chips, composite dust and abrasive particles in production. Suitable for cleaning floors and workstations in production facilities. It is possible to connect several workstations simultaneously when connected to a centralized network. The unit is equipped with a pre-separator for the collection of large amounts of material spillage or for dust collection of complex materials.
The unit is designed for continuous operation in closed rooms at ambient temperatures from +5 °C to +45 °C.

Specifications

	SPV-500	SPV-700	SPV-1000	SPV-1300	SPV-1900
Maximum capacity, m³/hour	530	700	1050	1370	1940
Maximum vacuum, kPa	27	24	25	27	27
Rated power, kW	5.5	7.5	12.5	18.5	25
Filtering surface area, m²	8	8	10	12.5	17.5
Filtration class	F9 (GOST R EN 779-2007) M (DIN EN 60335-2-69:2008; IFA)				
Compressed air pressure, atm	5±0.5				
Cleanliness class of combustion air according to DIN ISO 8573-1	2				
Air consumption, nm³/hour (max.)	3-4				
Voltage, V / number of phases / current frequency power supply to the propulsion system, Hz	380 / 3 / 50				

Operation principle

Preliminary purification stage (optional pre-separator)

1st stage of purification

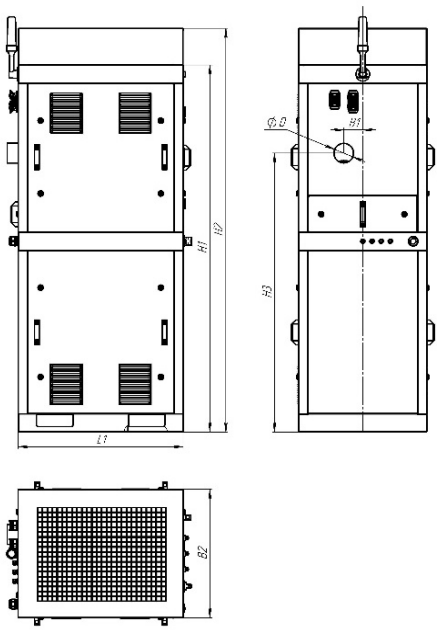
1. Contaminated air saturated with dust, chips, abrasive particles enters the filter unit tangentially through the inlet pipe.
2. The unit forms a rotating flow of dusty air directed downwards. Due to centrifugal force the dust particles are carried out of the flow and settled in the waste collection container.

2nd stage of purification

3. The air stream cleaned of coarse particles moves from the bottom to the top and passes through the pleated filter.
4. The dust settles on the surface of the filter and the cleaned air is returned to the shop floor or discharged into the atmosphere via a vortex blower.

The corrugated filter is cleaned automatically by pulses of compressed air supplied through the inlet, receiver and electropneumatic valve. For this purpose, the receiver must be connected to the compressed air supply system at a pressure of 5 atm (nylon tube 12x9).

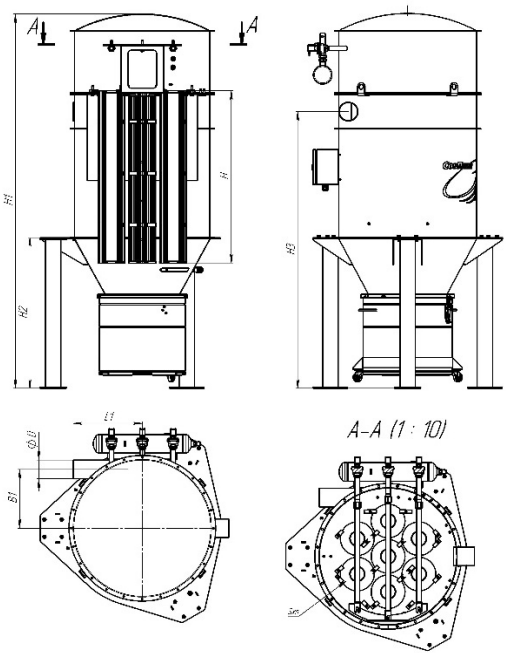
Overall connection dimensions of the vacuum unit



SPV model	Dimensions, mm						
	H1	H2	H3	L1	B1	B2	D
1900	2000	2200		900		700	108
1300	1800	2000		800			
1000							
700	1600	1750		700		600	68
500							

- **General industrial version**
- **Antistatic version**

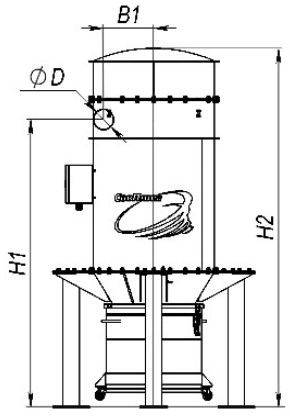
Overall connection dimensions of the filtering unit



SPV model	Dimensions, mm						
	HxSxn	H1	H2	H3	L1	B1	D
1900	1000x2.5x7	2173	873	1604	398	341	108
1300	1000x2.5x5						
1000	1000x2.5x4	2054	718	1519	718	289	68
700	800x2x4	1854		718			
500	800x2x4	1854					

- **General industrial version**
- **Antistatic version**

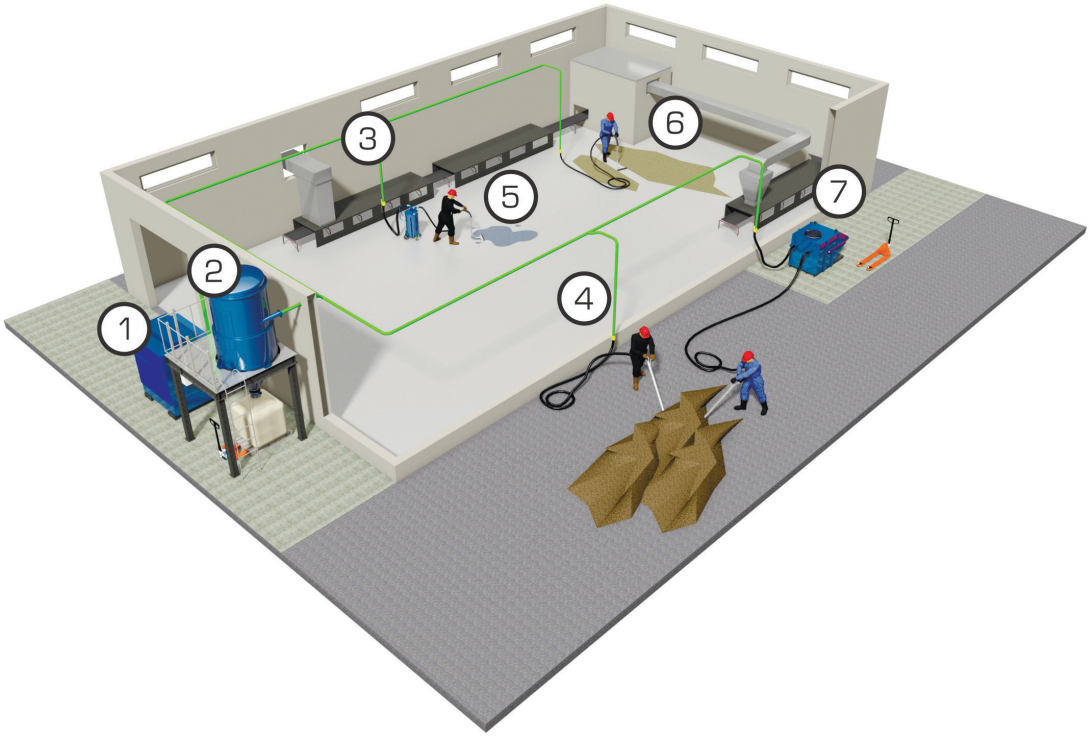
Dimensions of the preseparator with discharge into a 90 L drum



SPV model	Dimensions, mm			
	H1	H2	B1	D
1900	1519	1895	270	108
1300				
1000			289	68
700				
500				

- **General industrial version**
- **Antistatic version**

STATIONARY VACUUM DUST COLLECTION SYSTEMS SFV-VPR SOVPLIM

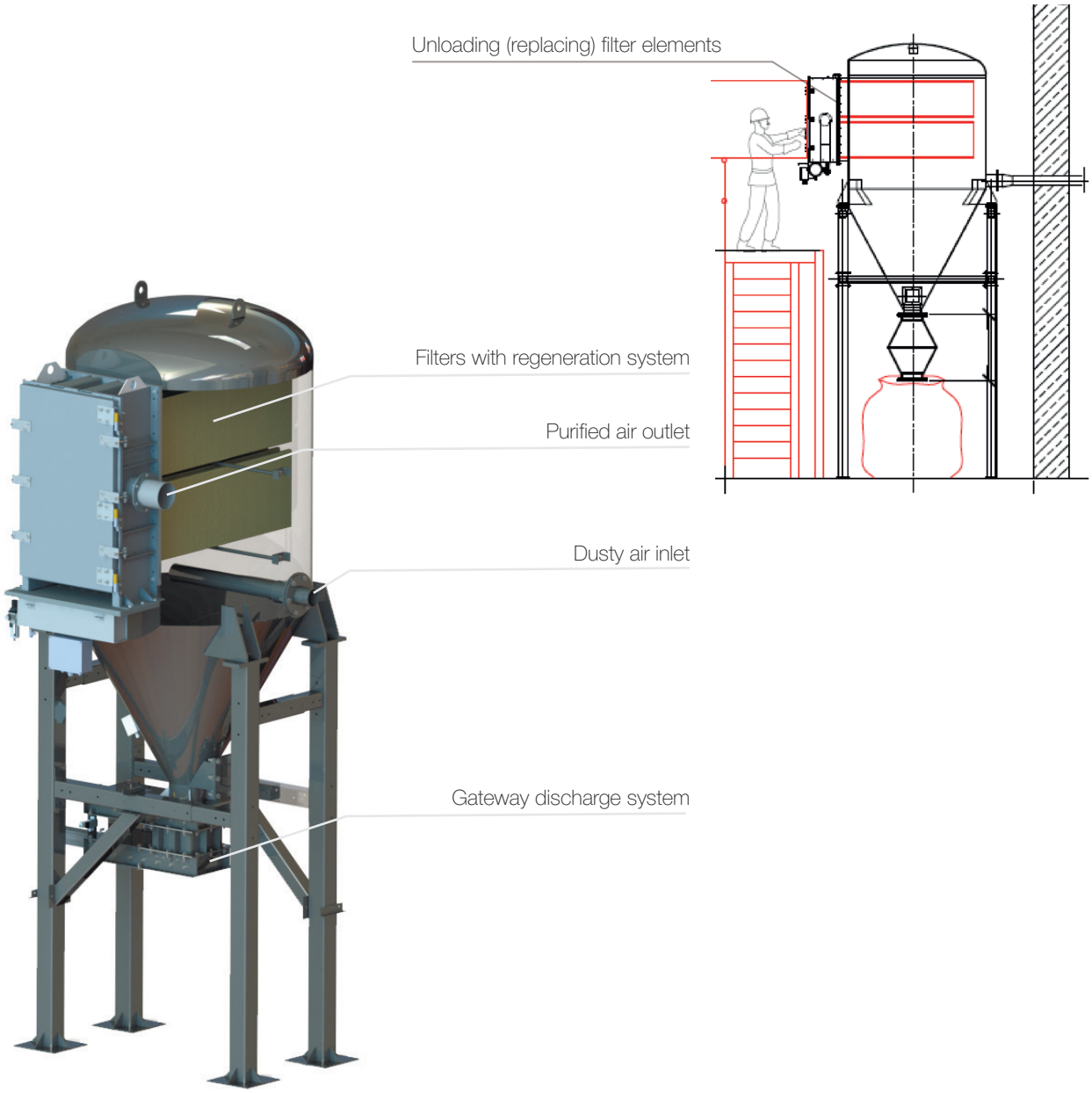


1. Vacuum pump
2. Filter separator
3. Pipe system
4. Vacuum socket (post)
5. Fluid collection into the preseparator
6. Collection of material spills
7. Collection of heavy material into the preseparator

A stationary vacuum system is a central vacuum dust collection system for an entire production building.

- A branched network of vacuum pipelines with cleaning hose connection points (pneumatic sockets) located at each level (floor). The piping network is laid and pneumatic sockets are installed in such a way that the hose action zones of the working accessory connected to each pneumatic socket cover the entire area to be cleaned.
- As a working accessory for the central vacuum system can be used slotted nozzles for collecting material “from the pile”, nozzles with wheeled supports for removing layers of dust from large surfaces, various special purpose nozzles (extraction funnels for removing welding aerosol, hand grinder covers with aspiration nozzle).
- All branches of the vacuum pipelines converge to a filter separator where the collected material is deposited and discharged. The filter separator is placed above the discharge point of the collected product into the process line (storage hopper, belt conveyor) or is equipped with its own storage container. Unloading of the filter separator by means of the sluice unloading system is carried out without stopping the system.
- Vacuum pumps of various types serve as a thrust inducer in stationary vacuum systems, providing the necessary vacuum and air flow rate to transport the collected material from the working accessory to the filter.

FILTER SEPARATOR SFV VACUUM DUST REMOVAL SYSTEM

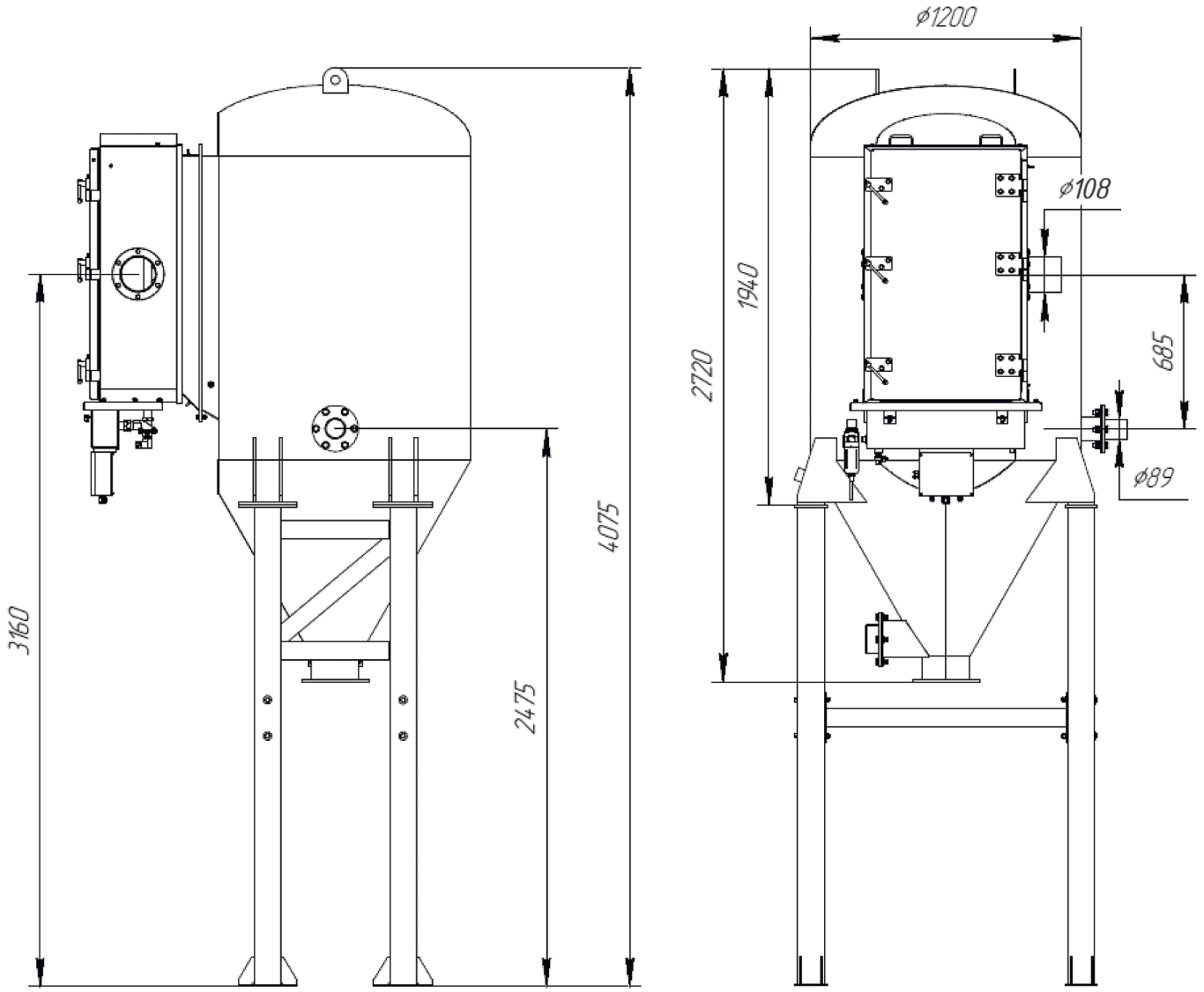


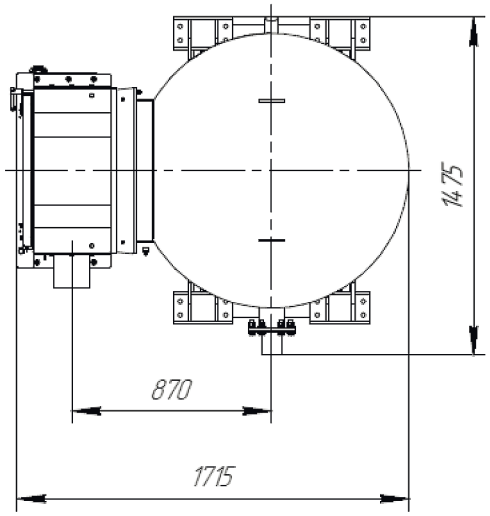
Operation principle

The SFV filter separator is a combined device for gravitational settling of the material transported by the vacuum system and purification of the conveying air.
The design applies the principle of material velocity damping by counter flow, thanks to which, unlike traditional cyclone type precipitators, abrasive abrasion of the filter housing does not occur.
The exhaust air is cleaned in an integrated pocket filter with pulse regeneration with compressed air. The type of filter fabric used is determined by the properties of the product being conveyed.

General technical drawing of the pocket filter SFV-100

* Support structures are an additional option.



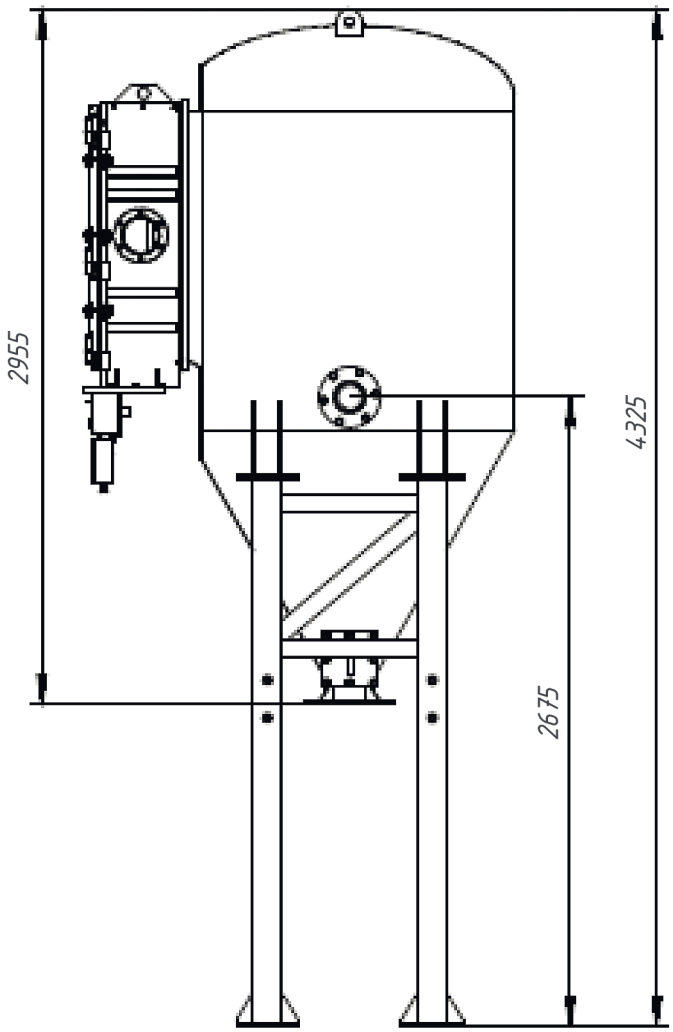


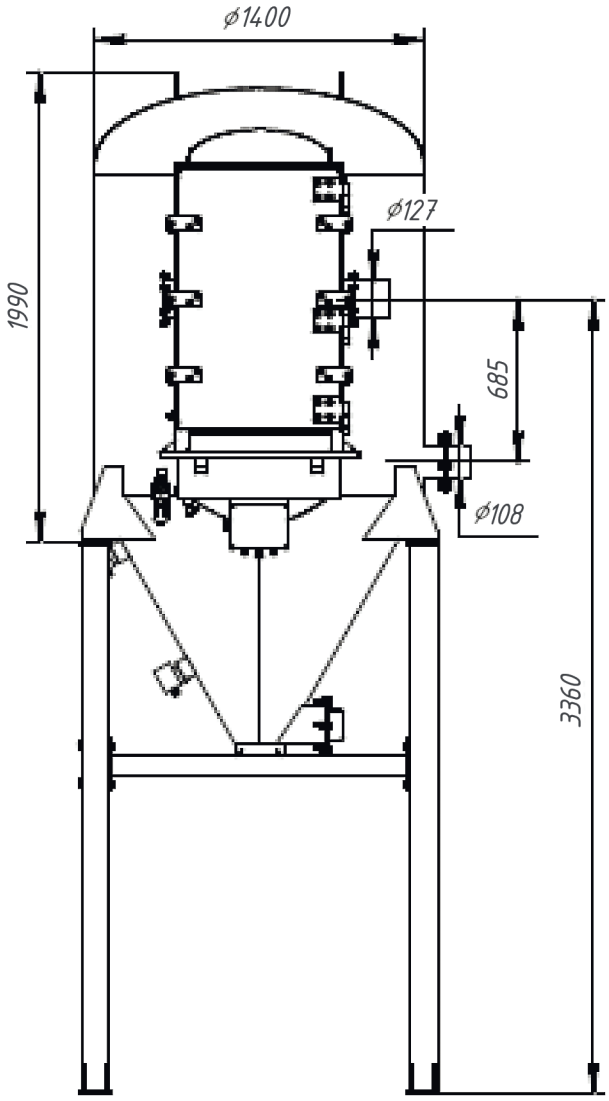
Features of the filter SPV-100

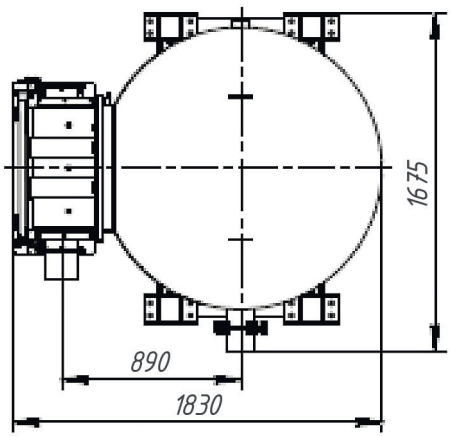
Capacity, m^3/h	up to 1000
Resolution, kPa	– 50
Control unit, pcs.	1
Box with built-in magnetic valves, pcs.	1
Residual dust concentration, mg/m^3	less than 10
Operating temperature (standard), °C	from -20 to +80
Operating temperature (optional), °C	from -40 to +80
Inlet flow temperature, °C	up to +80
Filter elements	14 pockets
Material of the filter elements	non-woven polyester
Filtering surface area, m^2	10.5
Supply mains voltage, V / Hz	230 / 50
Moisture and oil separator, pcs.	1
Compressed air flow rate, m^3/h	7
Pocket unloading	aside
Maximum working weight, kg	1200
Antistatic version	ANT
Explosion-proof version	EX
Outdoor version	W

General technical drawing of the pocket filter SFV-150

* Support structures are an additional option.





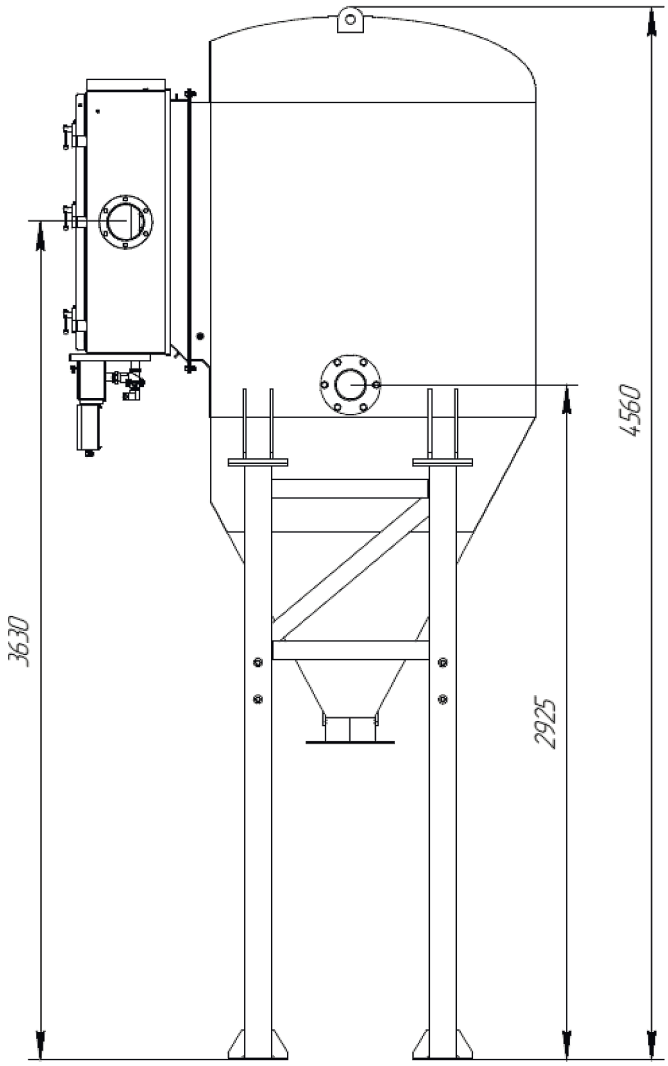


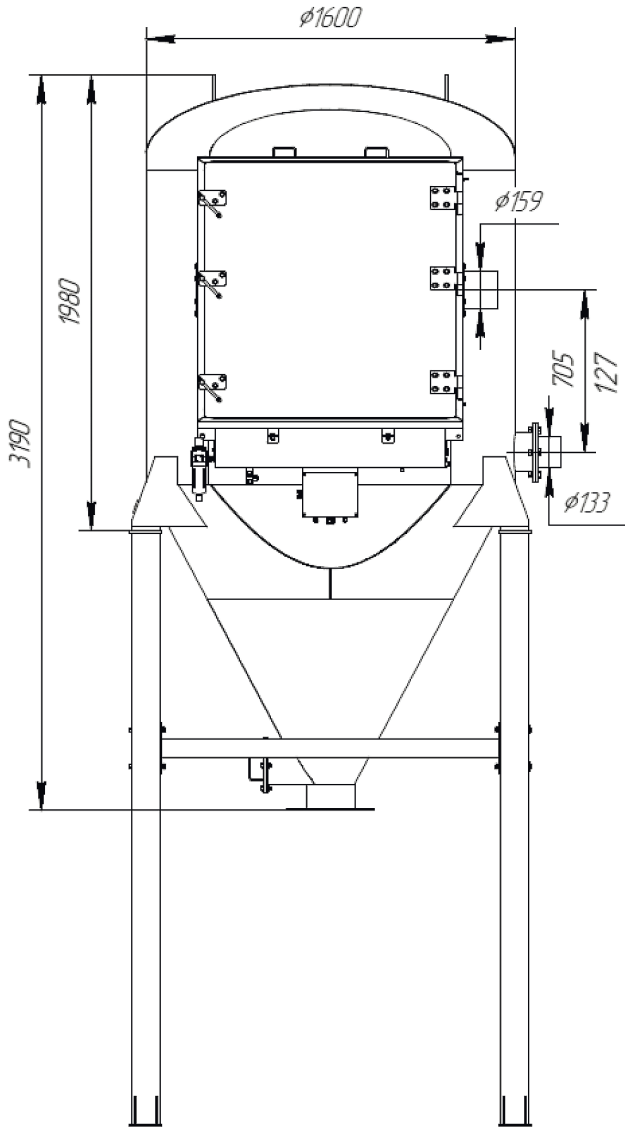
Features of the filter SPV-150

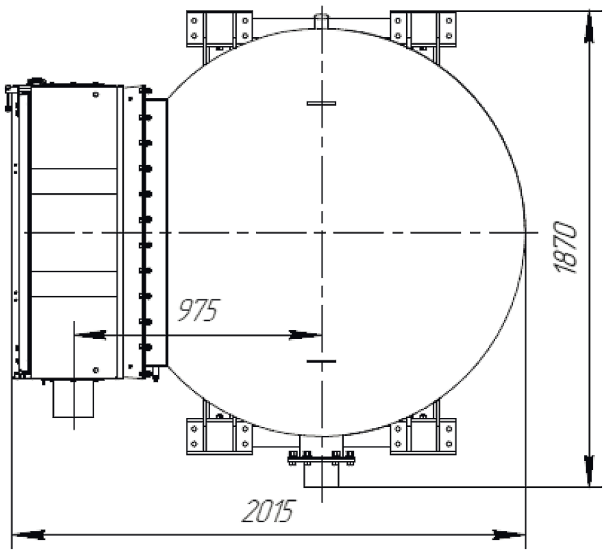
Capacity, m^3/h	up to 1700
Resolution, kPa	– 50
Control unit, pcs.	1
Box with built-in magnetic valves, pcs.	1
Residual dust concentration, mg/m^3	less than 10
Operating temperature (standard), °C	from -20 to +80
Operating temperature (optional), °C	from -40 to +80
Inlet flow temperature, °C	up to +80
Filter elements	24 pockets
Material of the filter elements	non-woven polyester
Filtering surface area, m^2	18
Supply mains voltage, V / Hz	230 / 50
Moisture and oil separator, pcs.	1
Compressed air flow rate, m^3/h	7
Pocket unloading	aside
Maximum working weight, kg	1300
Antistatic version	ANT
Explosion-proof version	EX
Outdoor version	W

General technical drawing of the pocket filter SFV-200

* Support structures are an additional option.



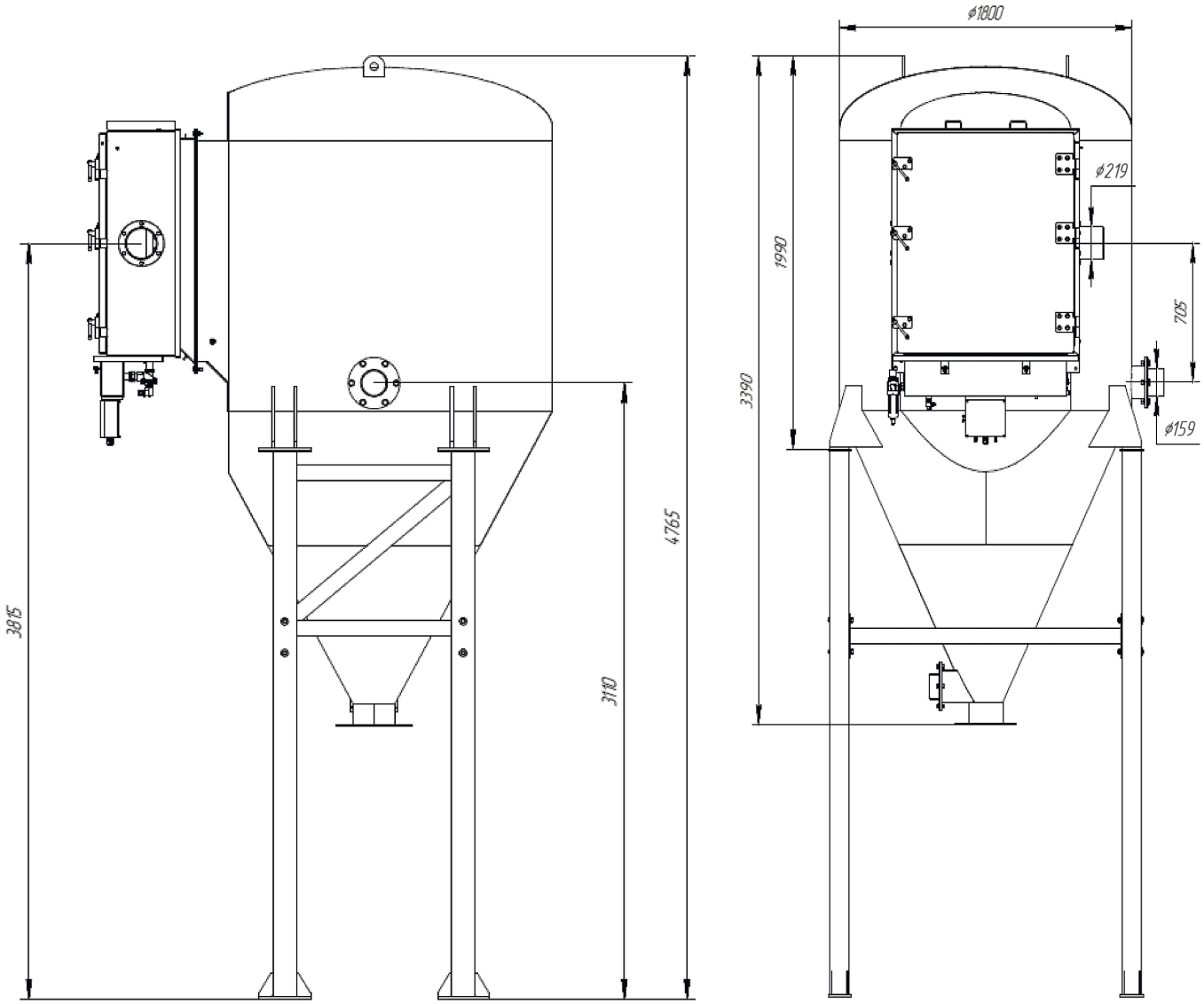


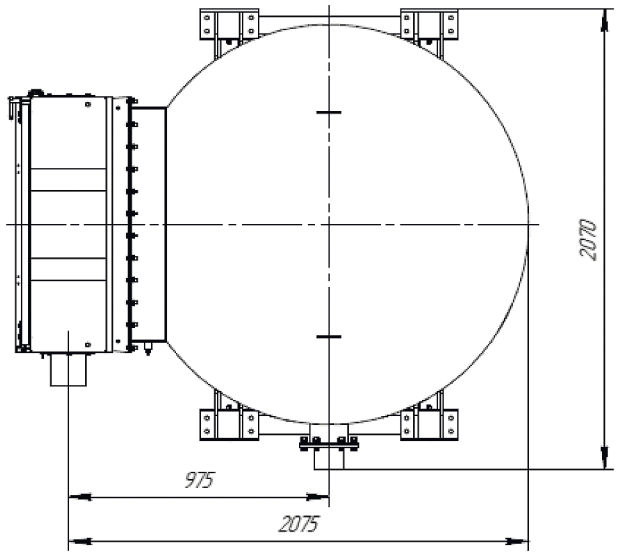


Features of the filter SPV-200	
Capacity, m^3/h	up to 2300
Resolution, kPa	– 50
Control unit, pcs.	1
Box with built-in magnetic valves, pcs.	1
Residual dust concentration, mg/m^3	less than 10
Operating temperature (standard), °C	from -20 to +80
Operating temperature (optional), °C	from -40 to +80
Inlet flow temperature, °C	up to +80
Filter elements	24 pockets
Material of the filter elements	non-woven polyester
Filtering surface area, m^2	24
Supply mains voltage, V / Hz	230 / 50
Moisture and oil separator, pcs.	1
Compressed air flow rate, m^3/h	7
Pocket unloading	aside
Maximum working weight, kg	1500
Antistatic version	ANT
Explosion-proof version	EX
Outdoor version	W

General technical drawing of the pocket filter SFV-300

* Support structures are an additional option.





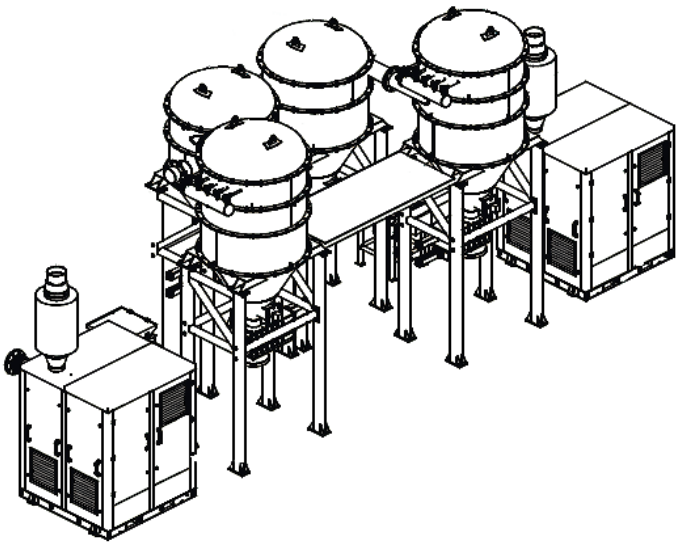
Features of the filter SPV-300

Capacity, m^3/h	up to 3400
Resolution, kPa	– 50
Control unit, pcs.	1
Box with built-in magnetic valves, pcs.	1
Residual dust concentration, mg/m^3	less than 10
Operating temperature (standard), °C	from -20 to +80
Operating temperature (optional), °C	from -40 to +80
Inlet flow temperature, °C	up to +80
Filter elements	24 pockets
Material of the filter elements	non-woven polyester
Filtering surface area, m^2	36
Supply mains voltage, V / Hz	230 / 50
Moisture and oil separator, pcs.	1
Compressed air flow rate, m^3/h	7
Pocket unloading	aside
Maximum working weight, kg	1600
Antistatic version	ANT
Explosion-proof version	EX
Outdoor version	W

STATIONARY VACUUM ASPIRATION AND DUST COLLECTION SYSTEMS SPV-4000 SOVPLIM

Scope of application

The SPV-4000 vacuum aspiration and dust collection system provides removal of harmful gases and dusts from welding, stripping and machining of metal structures or composite materials in tool shops, as well as in closed rooms or confined spaces.



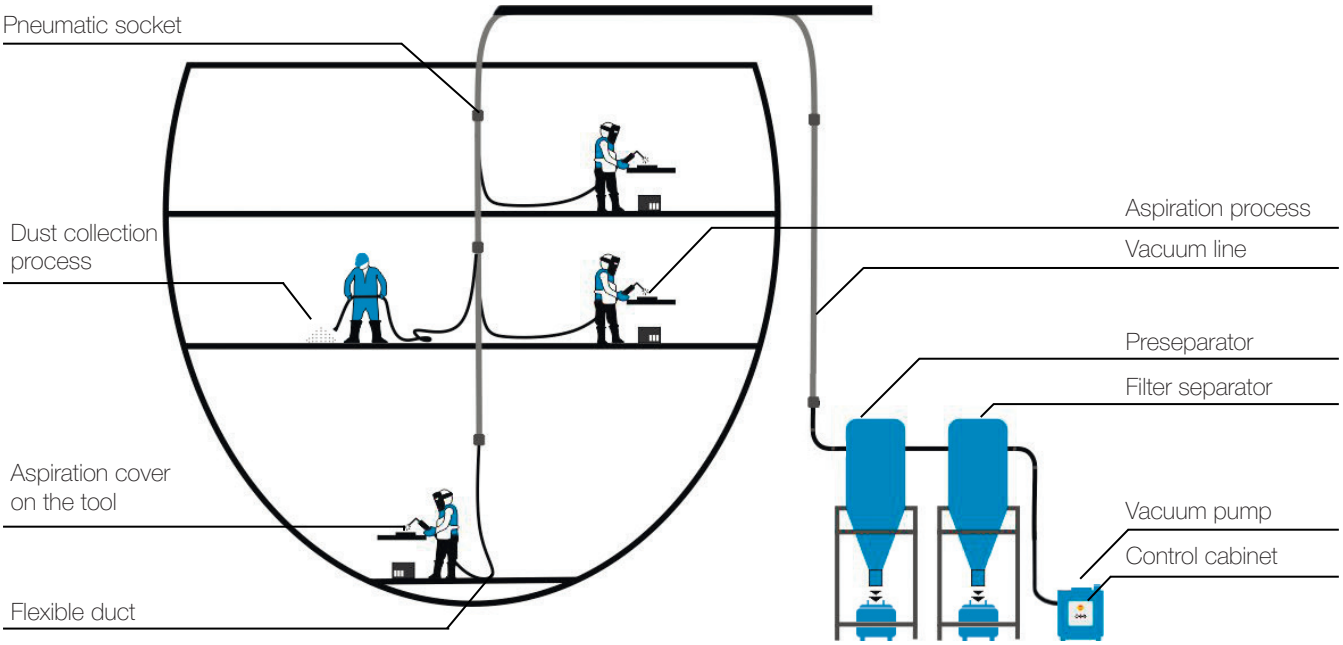
Example of implementation of vacuum aspiration and dust collection system

Aspiration and dust collection from welding/processing/grinding processes of metal structures during work in enclosed ship hulls and processing of metal structures.

System composition

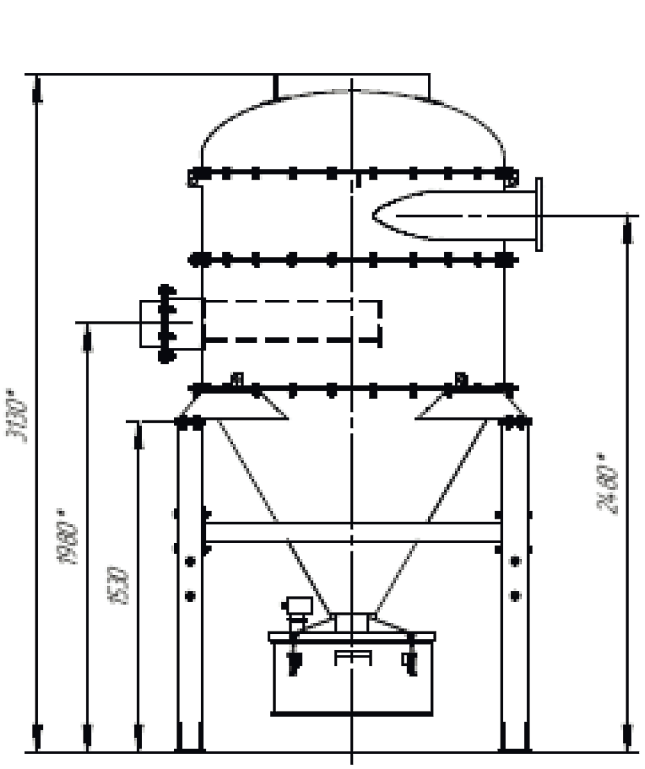
- aspiration cover on the tool,
- pneumatic socket,
- filter separator with discharge unit,
- vacuum pump,
- flexible duct,
- vacuum line,
- pre-separator with discharge unit,
- control cabinet.

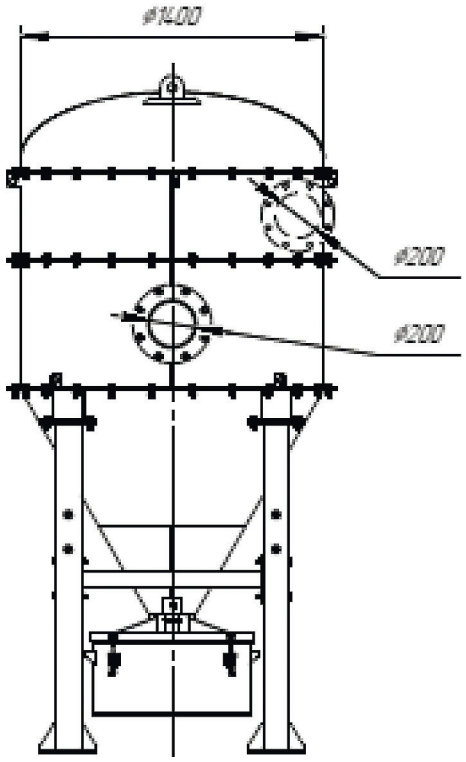
Scheme of vacuum apiration and dust collection in the ship's hull

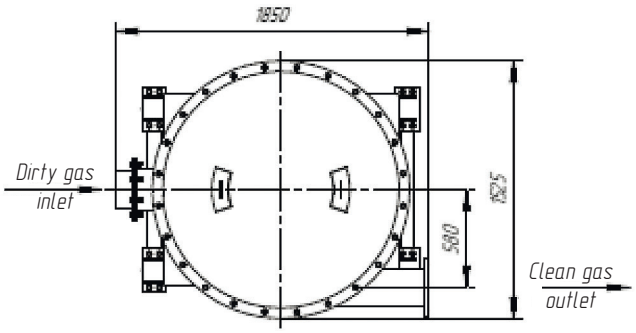


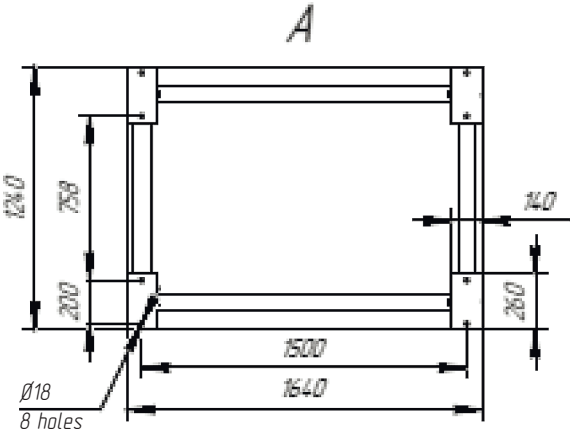
Drawing of the preseparator SPV-4000

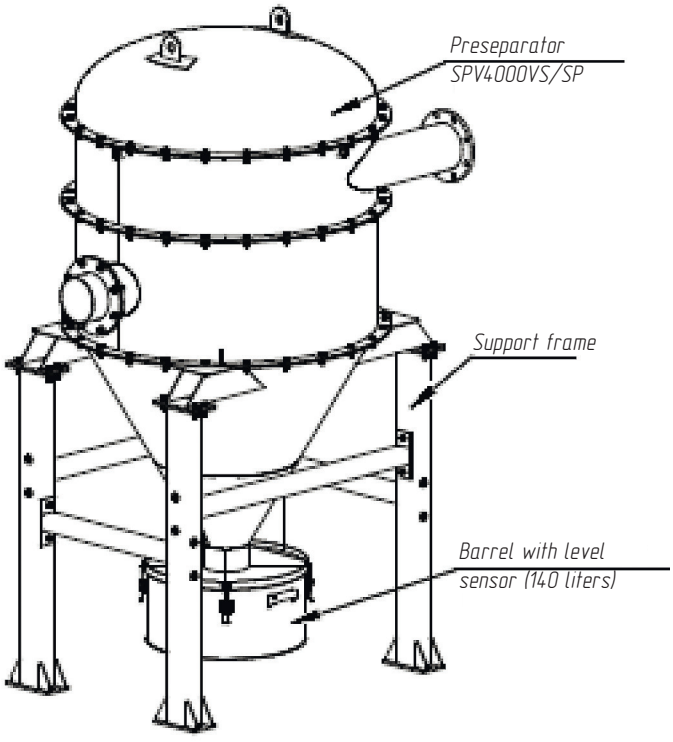
* Support structures are an additional option.









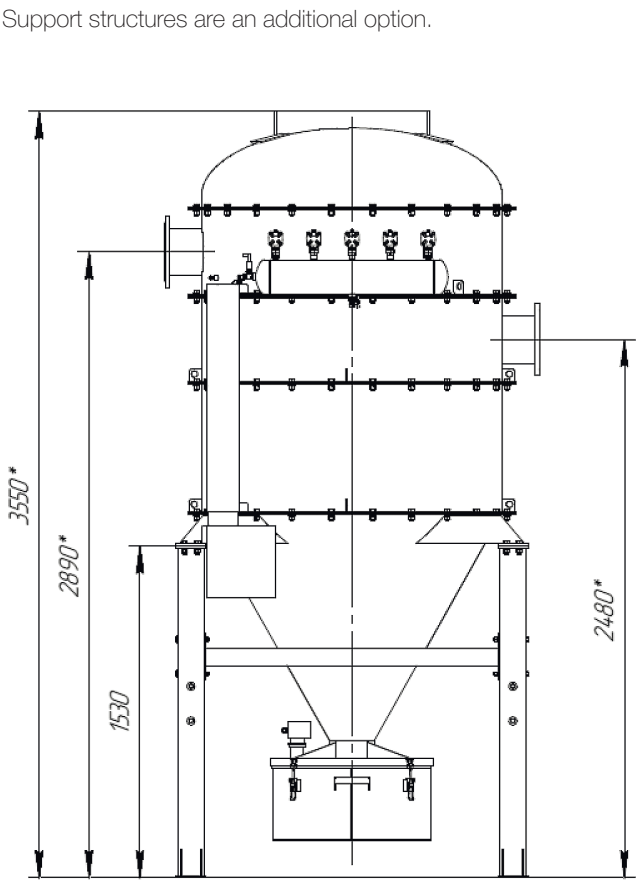


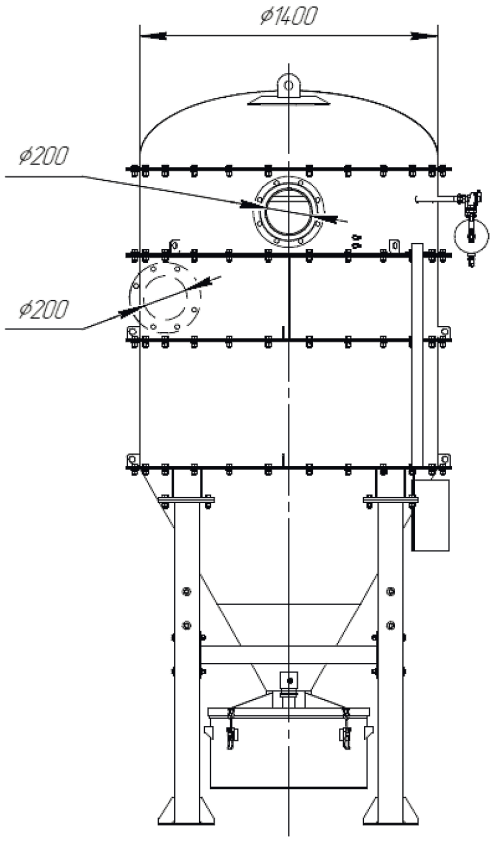
Features of the preseparator SPV-4000

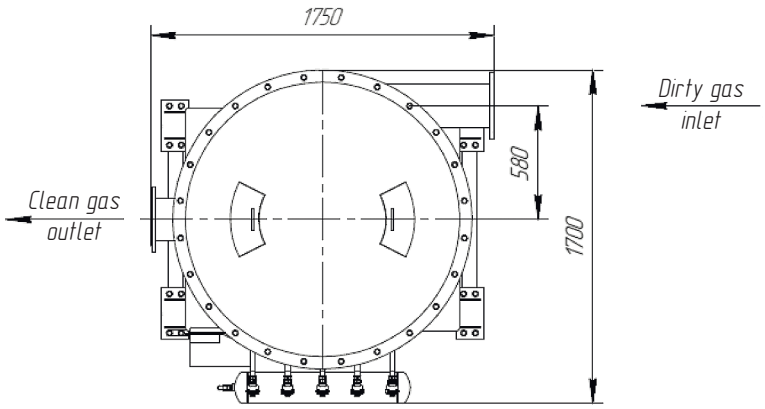
Capacity, m³/h	4000
Resolution, kPa	– 50
Overall dimensions (L x W x H), mm	1850 x 1525 x 2610
Weight, kg	460

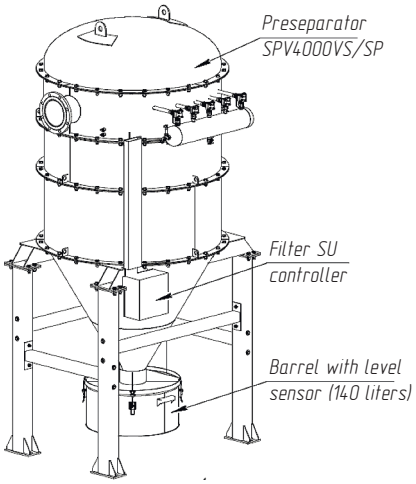
Drawing of the filter separator SPV-4000

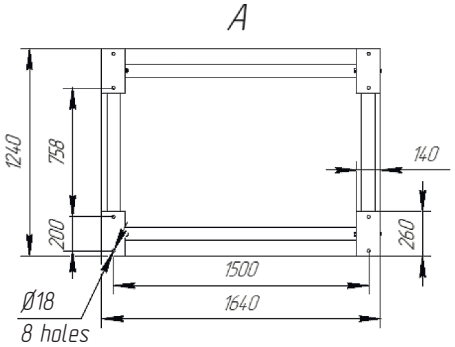
* Support structures are an additional option.











Features of the filter separator SPV-4000

Capacity, m³/h	4000
Resolution, kPa	– 50
Control unit, pcs.	1
Residual dust concentration, mg/m³	less than 10
Operating temperature (standard), °C	from -20 to +80
Operating temperature (optional), °C	from -40 to +80
Inlet flow temperature, °C	up to +80
Filter elements	19 cartridges
Material of the filter elements	polyester
Filtering surface area, m²	48
Regeneration method	compressed air blowing
Moisture and oil separator, pcs.	1
Compressed air flow rate, m³/h	7
Cartridge unloading	up
Maximum working weight, kg	870
Antistatic version	ANT
Outdoor version	W

VACUUM PUMP VPR

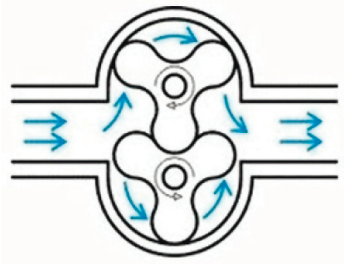
Operation principle

The Roots vacuum pump is the thrust inducer of the air flow in SovPlim vacuum dust collection systems. The high vacuum created by the pump allows the required air flow in flexible hoses and pipelines.

The operating principle of the Roots-type blower is that two identical rotors equipped with blades rotate synchronously in the blower cavity, acting as rotating pistons.

When rotating, they capture the incoming gas flow from the suction port, gradually isolate it in the cavities between the blades and the casing, compress and move it to the discharge port, and then push it out through the outlet port.

Roots-type blower of three-blade design



The Roots pump with an additional cooling channel is capable of producing vacuums up to 80 kPa and can handle high length systems (more than 200 m). Such units are preferred when working with heavy, “problematic” materials (specific gravity >2 t/m^3).

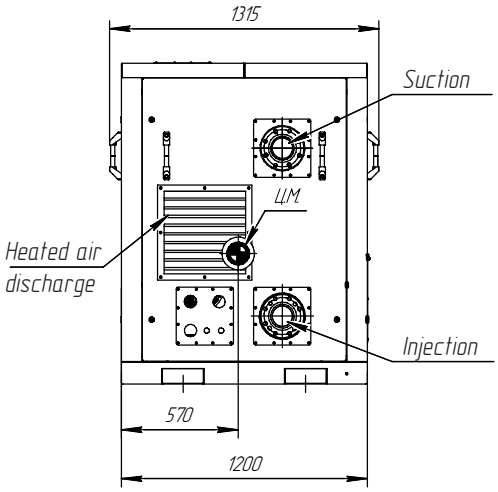
Vacuum pump VPR in noise-isolated casing

Features	VPR-185	VPR-300	VPR-370	VPR-550
Capacity, m^3/h	875	1300	1960	2930
Resolution, kPa	–50	–50	–50	–50
Drive power, kW	18.5	30.0	37.0	55.0
Flange diameter at suction, mm	100	125	150	200
Weight, kg	730	800	1650	1800

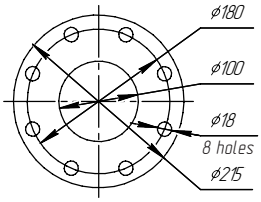
Antistatic version	ANT
Explosion-proof version	EX
Outdoor version	W

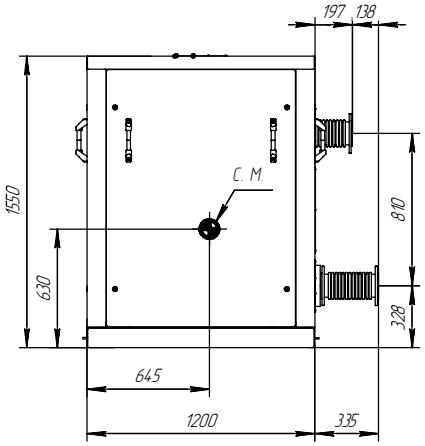
General technical drawing of the vacuum pump VPR-185/300/370/550

Vacuum pump VPR-185/300 in noise-isolated casing

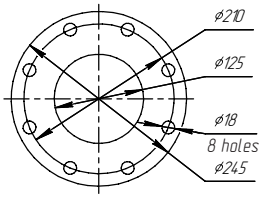


For the pump HB-185
2 places

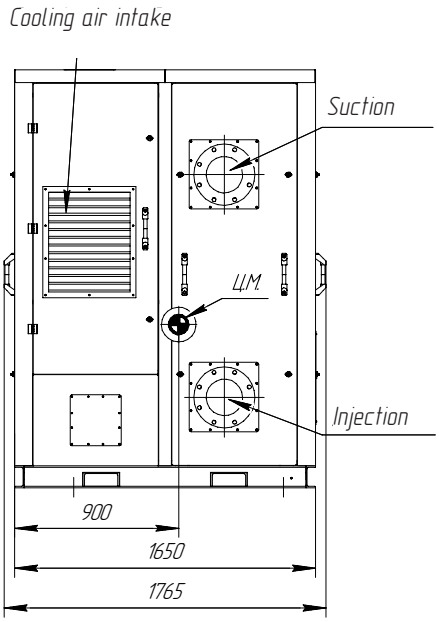




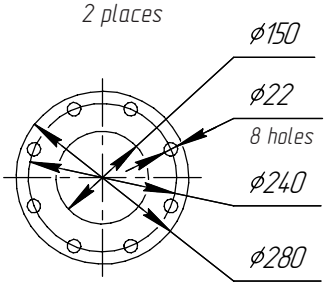
For the pump HB-300
2 places

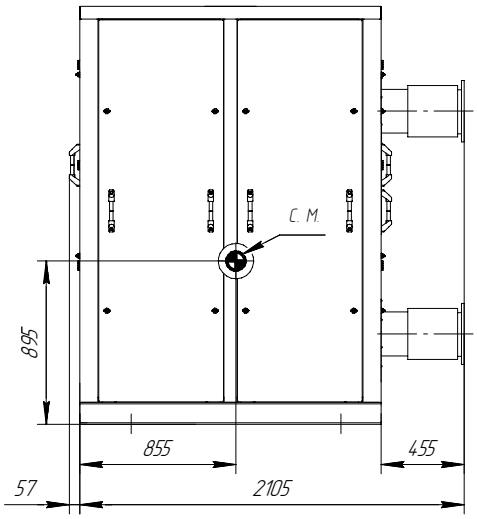


Vacuum pump VPR-370/550 in noise-isolated casing

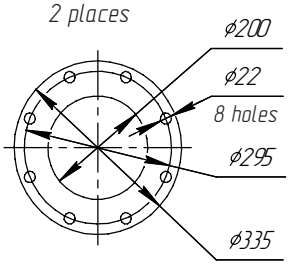


For the pump HB-370
2 places





For the pump HB-550
2 places

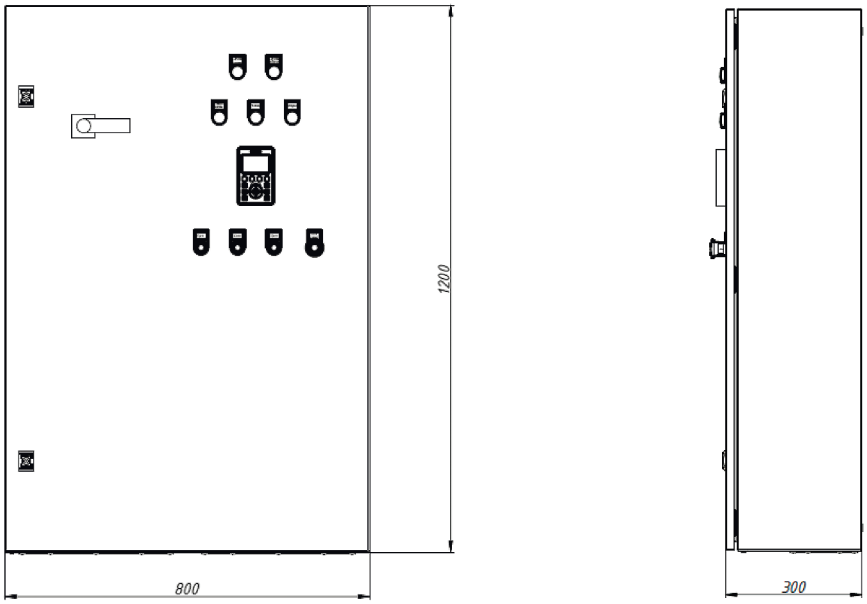


CONTROL OF THE CENTRAL VACUUM DUST COLLECTION AND ASPIRATION SYSTEM

Control cabinet for stationary vacuum system

The vacuum system is controlled by a control cabinet including logic controller, starting and switching equipment. If the system is operated in several modes, it is necessary to change the speed of the vacuum pump motor to maintain a stable vacuum, then the control cabinet is equipped with a frequency converter.

Drawing of the control cabinet



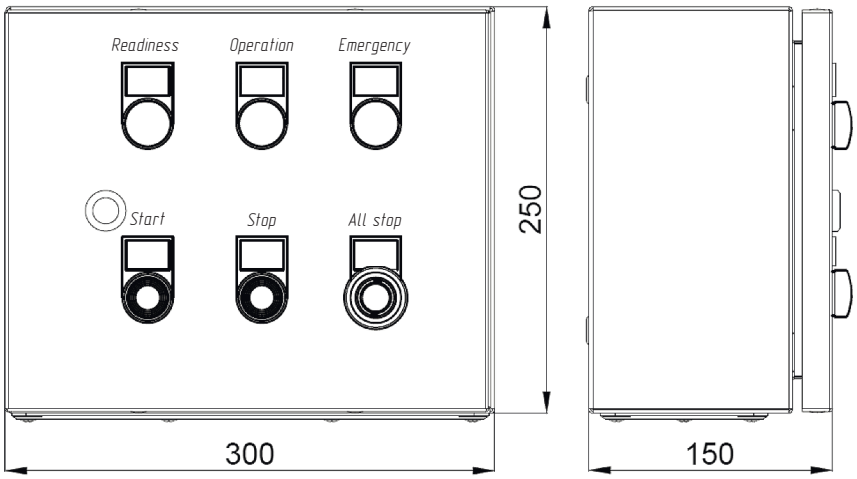
Main technical data and characteristics

Cabinet supply voltage ~380 V, 50Hz
Control circuit supply voltage 24V DC
Protection degree at least IP 55

Control panel

The control panel is designed to remotely start and stop the dust collection system and monitor its status.

Drawing of the control panel



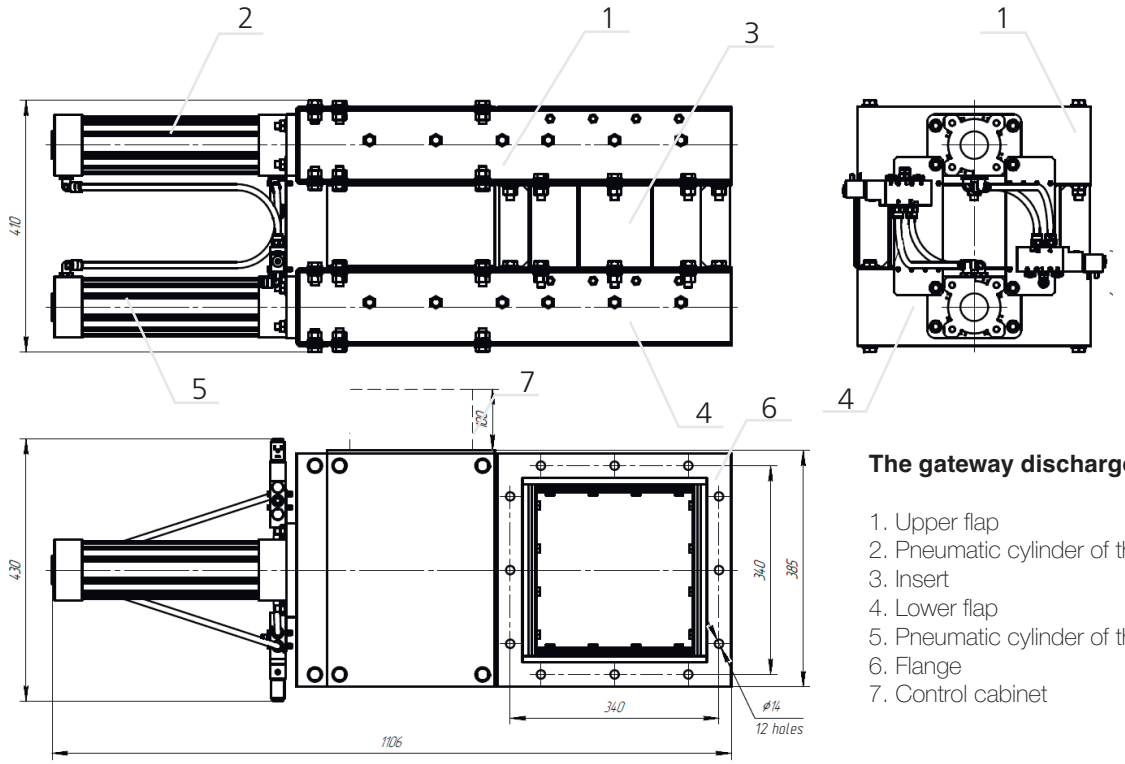
Main technical data and characteristics

Control power supply voltage 24V DC
Protection degree at least IP 64

UNLOADING DEVICE FOR COLLECTED MATERIAL

Gateway discharge system

General technical drawing



The gateway discharge system consists of:

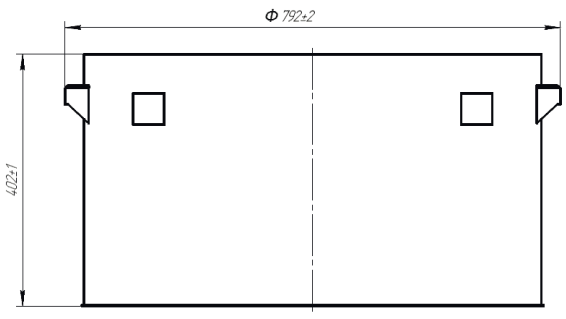
1. Upper flap
2. Pneumatic cylinder of the upper flap
3. Insert
4. Lower flap
5. Pneumatic cylinder of the lower flap
6. Flange
7. Control cabinet

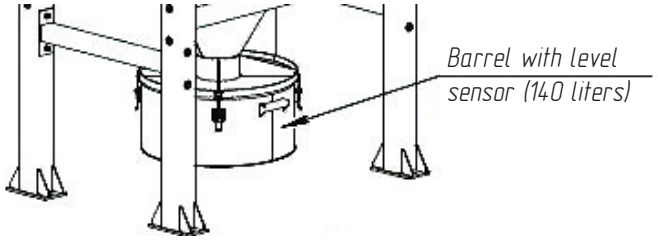
Operation principle

1. When the airlock unloading system is switched on, the blade of the upper flap (pos. 1) moves along the horizontal axis to the extreme opposite state by means of the pneumatic cylinder (pos. 2), opening the opening for unloading the material from the filter-separator hopper.
2. The knife is held open for 2-3 seconds. During this time the material is dumped into the inner space of the insert (pos. 3) of the sluice discharge system body.
3. The knife of the upper flap (pos. 1) moves to the initial state, tightly closing the outlet opening of the filter-separator hopper.
4. The knife of the lower flap (pos. 4) moves along the horizontal axis to the opposite extreme state by means of the pneumatic cylinder (pos. 5). The knife is held in this position for 2-3 seconds, opening the opening for material discharge from the airlock discharge system housing (item 3) into the container below.
5. After the outlet is closed by the knife of the lower flap (item 4), the cycle of operation of the airlock discharge system repeats from the beginning until shutdown.

Material collection tank - 140 L drum

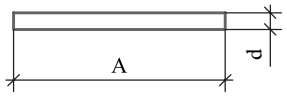
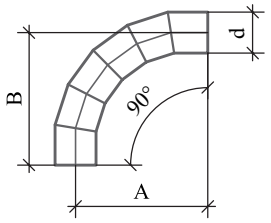
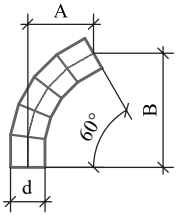
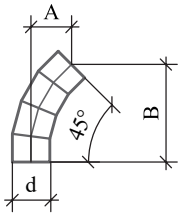
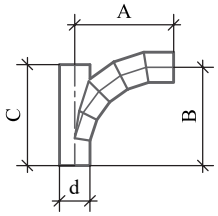
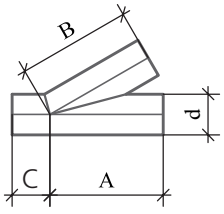
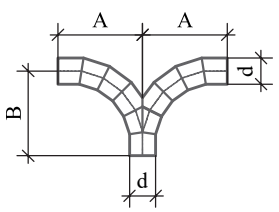
General technical drawing





VACUUM LINES AND SYSTEM COMPONENTS

The vacuum piping network is laid through the existing structures of the production room.
The quick-release design allows the individual elements to be dismantled in a short time for work.
The table shows typical diameters of pipes and fittings, diameters 57/64/89/219 available on request.

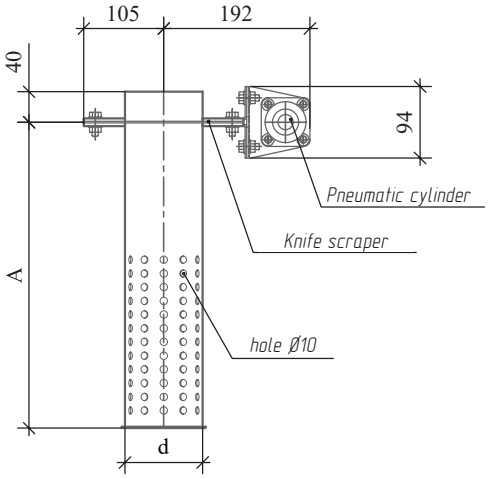
Name	Drawing	Dimensions, mm				Wall thickness, mm	Weight, kg
		d	A	B	C		
Pipeline		76	2800			1.5	7.7
		108	2800			7.7	21.8
		127	2800			4.0	34.0
		159	2800			5.0	53.2
Branch O1 a = 90°		76	300	300		1.5	1.4
		108	390	390		3.0	5.0
		127	460	460		4.0	9.2
		159	550	550		5.0	17.1
Branch O3 a = 60°		76	172	298		1.5	1.0
		108	217	376		3.0	3.6
		127	256	443		4.0	6.7
		159	301	521		5.0	12.3
Branch O4 a = 45°		76	113	272		1.5	0.9
		108	139	335		3.0	3.0
		127	164	395		4.0	5.4
		159	190	459		5.0	9.9
Tee T1 a = 90°		76	300	300	360	1.5	2.3
		108	390	390	450	3.0	7.9
		127	460	460	550	4.0	15.5
		159	550	550	630	5.0	28.8
Tee T2 a = 30°		76	360	250	90	1.5	1.7
		108	450	315	110	3.0	5.5
		127	550	420	120	4.0	11.9
		159	630	455		5.0	20.9
Tee T3 Y = 90°		76	300	262		1.5	2.8
		108	390	336		3.0	10.5
		127	460	397		4.0	19.3
		159	550	471		5.0	36.5

Purge valve

Operation principle

The purge valve is used to purge the vacuum line of possible material residues in the system. It is installed at the furthest end of the vacuum line branch or in branches of the system in case of high branching.

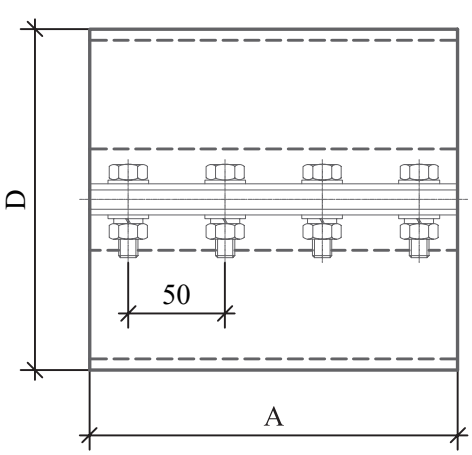
Purge valve characteristics

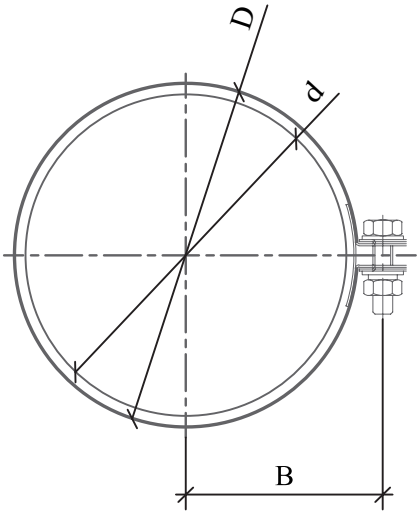


Dimensions, mm		Weight, kg/m
d	A	
70	420	8
100	600	11

Mounting clamp

Mounting clamp is used for mounting pipes and shaped elements of vacuum piping.
It allows quick assembly and disassembly of system elements if necessary.





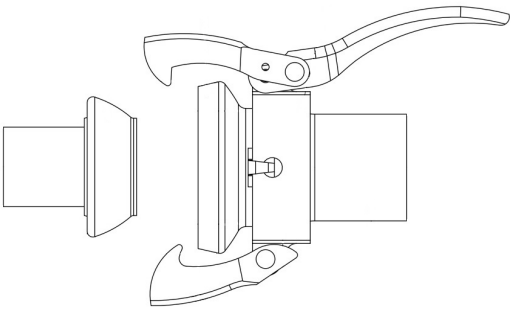
Clamp characteristics

Dimensions, mm				Weight, kg/m
d	D	A	B	
50	60	70	45	0.4
70	80	100	55	0.5
100	110	140	68	0.75
159	176	190	101	1.4

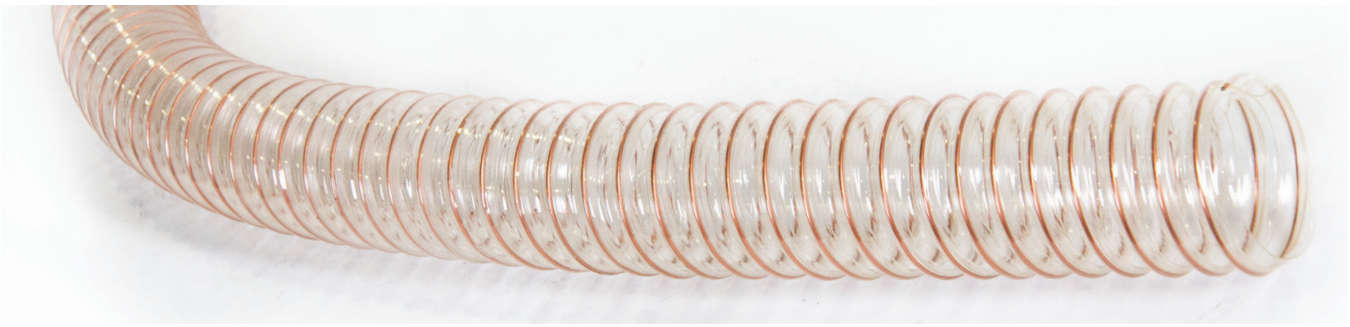
QUICK COUPLINGS AND HOSES

Pneumatic socket

PERROT are quick release couplings that are used to connect pipelines, hoses and pipes to each other.



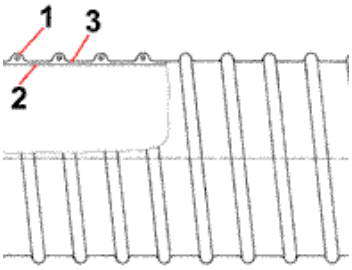
Abrasion resistant polyurethane hoses RH-PUR EXF, RH-PUR EXH, RH-PUR EXH Plus



Hoses characteristics

Name	Inside diameter, mm	Excess pressure, bar	Vacuum, mmHg.	Radius of the curve, mm	Outside diameter, mm	Weight, kg/m	Item No.	Standard length, m
RH-PUR EXF	51	1.70	5200	57	57	0.63	88500	5/10/15/20
RH-PUR EXH		2.90	8000	90	61	0.85	88385	
RH-PUR EXF	70	1.12	3750	76	76	0.76	88587	5/10/15/20
RH-PUR EXH		2.25	6750	120	80	1.09	88389	
RH-PUR EXH	102	1.50	4500	250	112	1.70	88393	5/10/15
RH-PUR EXH Plus	102	2.10	8900	500	113	1.82	88235	5/10

Construction/Material

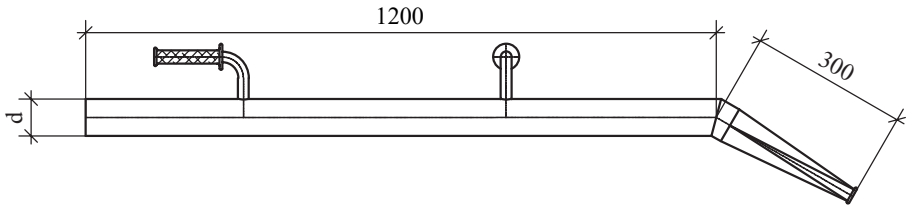


1. Reinforcing coil: copper-plated spring steel
2. Hose wall: 100% polyurethane
3. Wall thickness between spirals: depending on diameter

CLEANING ACCESSORIES

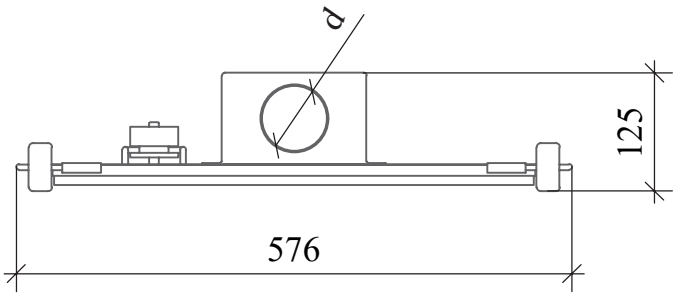
Slotted nozzle for removing large quantities of material (emergency spillage)

It is designed for removing material “from the pile”.
It is produced in different diameters for different capacities from 50 mm to 100 mm.

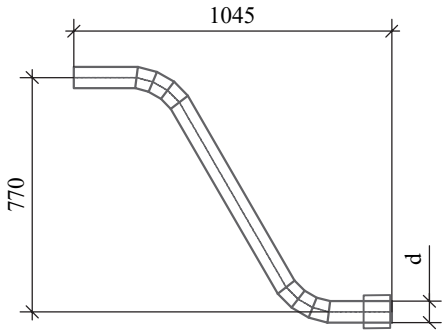


Floor nozzle for cleaning thin and thick layers of dust from the floor and equipment

Designed for dusting floors and equipment.
It is produced in different diameters for different capacities from 50 mm to 80 mm.



Floor nozzle holder



Nozzle for cleaning clothes and small surfaces

Name	Diameter d, mm		Material
Slotted nozzle for removing large quantities of material	50	70	stainless steel
	80	100	
Floor nozzle for cleaning thin and thick layers of dust from the floor and equipment	50		aluminum, galvanized steel stainless steel
	70	80	aluminum, galvanized steel stainless steel
Nozzle for cleaning clothes and small surfaces	40		
Floor nozzle holder	50		aluminum, galvanized steel stainless steel
	70	80	aluminum, galvanized steel stainless steel

ADDITIONAL DATA

Compressed air requirements

The operating pressure of the compressed air for regeneration must be at least 5 atm (bar). Compressed air for regeneration of filters of the entire range (except for filters with mechanical shaking) is divided into classes according to the table below (according to the possibility of using it for filter regeneration).

Grade	Compressed air supply method	
	Directly to the filter	Through the moisture and oil separator
1	Perfect	Perfect
2	Optimal	Optimal
3	Possible	Optimal
4	Undesirable	Possible
5	Forbidden	Undesirable
6	Forbidden	Forbidden

Compressed air is divided into classes according to DIN ISO 8573–1 according to the following criteria:

Grade	Impurity content				
	Mechanical impurities		Moisture		Oil
	Particle size, µm (max)	Density, mg/m³ (max)	Dew point, °C	Moisture content, mg/m³	Residual oil content, mg/m³
1	0.1	0.1	-70	3	0.01
2	1	1	-40	120	0.1
3	5	5	-20	880	1
4	15	8	3	6000	5
5	40	10	7	7800	
6			10	9400	

Moisture and oil separator

The filters of the above series are equipped with a moisture and oil separator with 1/2” connection size.

Equipment painting

The equipment is painted in blue (RAL 5012). Other colors can be agreed upon if piece production is required.

Dust discharge methods

Vacuum units are equipped for discharging dust by container drums or through a discharging device into a big-bag.
If necessary, vacuum units can be equipped with a discharge unit: sluice discharge system.

RGS AD46/60

COMPRESSED AIR POWERED INDUSTRIAL VACUUM CLEANER

Description

The AD series industrial vacuum cleaners are designed to work in areas where the use of electrical networks is difficult or impossible.

The principle of operation is based on the Venturi effect. Each vacuum cleaner is driven by a Venturi tube, in the constriction of which a significant increase in air velocity occurs and a low pressure (vacuum) zone is created.

Operation can be provided by a compressor or by connection to a centralized compressed air supply system (5-7 bar).

Suitable for collecting a wide range of non-explosive materials.

Specifications	Value
Compressed air consumption, L norm./min.	1200
Permission max. mbar	280
Maximum airflow, m^3/h	400
Main filter (polyester antistatic), m^2	1.9, Ø 460
Capacity of stainless steel container, L	65
Diameter of suction connection, mm	70
Noise level, dB	72
Dimensions, mm	680x740x1350(h)
Weight, kg	60

Industries

- metallurgy,
- mechanical engineering,
- pharmaceuticals,
- chemical industry,
- shipbuilding industry,
- pulp and paper industry.

Benefits

- compactness and mobility,
- large dust collection container capacity,
- ease of operation.

Highlights

- pneumatic ejector (Venturi system),
- compact housing size - 460 mm,
- manual shaking system,
- pressure gauge for monitoring the compressed air pressure,
- star-shaped polyester filter for “L”-class dust,
- removable waste collection container with a capacity of 65 liters,
- design for easy emptying and cleaning of machine reservoirs/tanks.

Cleaning accessories DN 50 - KIT 70/50 K.AC.015

- Adapter 70/50,
- S-pipe DN 50 mm,
- Floor nozzle with wheels DN 50 mm - 400 mm,
- Slotted nozzle DN 50 mm - 500 mm,
- Round brush DN 50 mm - 100 mm,
- Connector DN 50 mm,
- Cone nozzle (NRB) DN 50 mm,
- Cuffs DN 50 mm (polyurethane),
- Polyurethane hose DN 50 mm - 3 m.

RGS A104 OIL

THREE-PHASE INDUSTRIAL OIL VACUUM CLEANER

Description

The industrial three-phase vacuum cleaner is one of the most versatile solutions in a series of machines that not only collects oils mixed with wood or metal chips, but also filters them.

The vacuum cleaner is equipped with a system to recover the cleaned oil and return it back to the machine.

Industries

- metalworking industry,
- mechanical engineering,
- construction sphere,
- shipbuilding industry.

Benefits

- compactness and mobility,
- simultaneous suction of liquids and solids,
- high operating time,
- 80% reduction in coolant cleaning time,
- saving expensive coolant.

Highlights

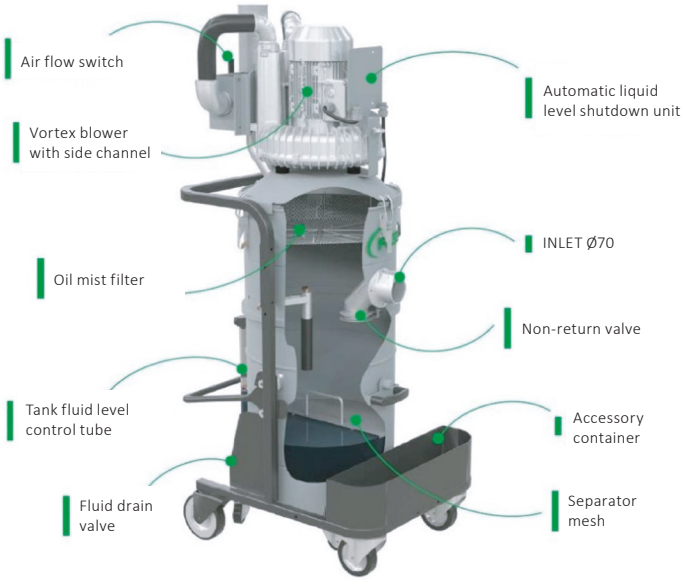
- three-phase motor in a vacuum pump,
- automatic fluid stop system,
- fluid level control sensor,
- check valve to reverse the air flow sucked in by the pump and use it to expel the liquid,
- two reservoirs: one for chips and one for draining the separated liquid,
- quick removal and cleaning of the collection tanks,
- integrated oil mist filter.

Specifications	Value
Voltage V/Hz/A	400/50/16
Capacity, kW	3
Permission max. mbar	300
Maximum airflow, m^3/h	320
Container capacity, L	100
Container capacity, L	40
Diameter of suction connection, mm	70
Noise level, dB	77
Dimensions, mm	780x640x1600(h)
Weight, kg	115
Protection, IP	55

Cleaning accessories DN 50 - KIT 70/50 K.AC.046

- Polyurethane hose 3 m, DN 50 mm,
- Reducer 70/50,
- Connection DN 50 mm,
- Polyurethane cuffs DN 50 mm - 2 pcs.,
- Nozzle conical, oil-resistant DN 50 mm.

Drain hose is not included in the delivery set!



RGS A62PX1.3GD (ATEX)

THREE-PHASE INDUSTRIAL VACUUM CLEANER

Description

Three-phase industrial vacuum cleaner from the ATEX series group of specially designed equipment for the collection of explosive dust in hazardous areas in companies.

For operation in ATEX zone 22 (GOST 30852.9-2002).

The compact body size allows for easy dust collection in small spaces.

Specifications	Value
Voltage V/Hz/A	400/50/16
Capacity, kW	2.6
Permission max. mbar	300
Maximum airflow, m3/h	320
Main filter (polyester), m2	1.9, Ø 460
Container capacity, L	65
Diameter of suction connection, mm	70
Noise level, dB	77
Dimensions, mm	640x770x1620(h)
Weight, kg	77
Protection, IP	55
Labeling Ex	II 3G T4 II3D T135°C

Industries

- agricultural industry;
- food industry,
- pharmaceutical

Benefits

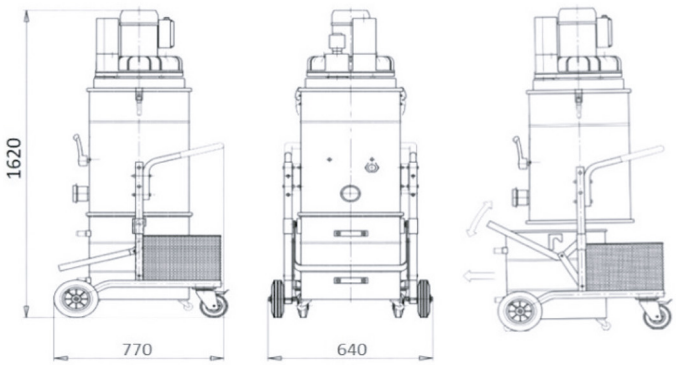
- compactness and mobility,
- three-phase induction motor,
- large dust collection container capacity,
- ease of operation.

Highlights

- compact housing size - 460 mm,
- three-phase induction motor,
- manual shaking system,
- star-shaped filter,
- dust collection container with a capacity of 65 liters.

Cleaning accessories DN 40 - KIT 70/40 K.AC.002.2GD

- Adapter 70/40 (stainless steel),
- S-pipe DN 40 mm (stainless steel),
- Floor nozzle with wheels DN 40 mm - 400 mm,
- Slotted nozzle DN 40 mm - 500 mm (stainless steel),
- Round brush DN 40 mm - 80 mm,
- Connector DN 40 mm (stainless steel),
- Cone nozzle (NRB) DN 40 mm,
- Cuffs DN 40 mm (electrically conductive polyurethane),
- Polyurethane hose (electrically conductive) DN 40 mm - 3 m.



RGS A64PK

THREE-PHASE INDUSTRIAL
VACUUM CLEANER

Description

Universal industrial three-phase vacuum cleaner for the collection of a wide range of non-explosive materials.

Suitable for continuous operation.

Industries

- production of building materials;
- woodworking;
- chemical industry;
- metalworking.

Benefits

- compactness and mobility;
- high suction power up to 4 kW;
- versatility of use for a wide range of dust and other contamination removal tasks in factories;
- environmental friendliness: prevents environmental pollution;
- employee safety: the operator does not come into contact with dust during the filter cleaning process.

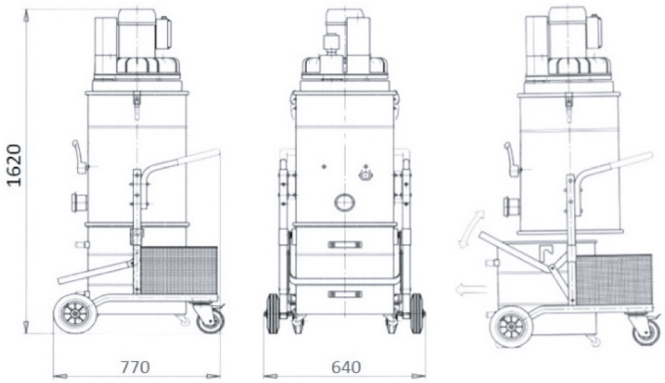
Highlights

- compact housing size - 460 mm;
- three-phase induction motor
- manual shaking system;
- suction power indicator for regulating the level of filter clogging;
- special star-shaped filter;
- waste collection container with a capacity of 65 liters;

Specifications	Value
Voltage V/Hz/A	400/50/16
Capacity, kW	4
Permission max. mbar	300
Maximum airflow, m3/h	410
Main filter (polyester), m2	1.9, Ø 460
Container capacity, L	65
Diameter of suction connection, mm	70
Noise level, dB	77
Dimensions, mm	640x770x1620(h)
Weight, kg	82
Protection, IP	55

Cleaning accessories DN 50 - KIT 70/50 K.AC.015

- compact housing size - 460 mm;
- three-phase induction motor
- manual shaking system;
- suction power indicator for regulating the level of filter clogging;
- special star-shaped filter;
- waste collection container with a capacity of 65 liters;



RGS A1056

THREE-PHASE INDUSTRIAL
VACUUM CLEANER

Description

High-power industrial vacuum cleaner for collecting various non-explosive materials in industrial facilities, which is ideal for intensive work and heavy loads.

The three-phase asynchronous motor ensures continuous use 24/7.

Specifications	Value
Voltage V/Hz/A	400/50/32
Capacity, kW	7.5
Permission max. mbar	520
Maximum airflow, m3/h	540
Main filter (polyester), m2	3.2- Ø 560
Container capacity, L	175
Diameter of suction connection, mm	100
Noise level, dB	74
Dimensions, mm	740x1570x1620(h)
Weight, kg	375
Protection, IP	55

Industries

- mechanical engineering,
- metalworking industry,
- power,
- construction sector,
- agricultural industry,
- food industry,
- woodworking.

Benefits

- compactness and mobility,
- high suction power up to 7.5 kW,
- versatility of use for a wide range of dust and other contamination removal tasks in factories,
- quick removal and cleaning of dust and debris from the tanks,
- large filtration area - 3.4 m2.

Highlights

- three-phase induction motor with high power,
- suction power indicator for regulating the level of filter clogging,
- star-shaped filter ∅ 560 mm with a large filtration surface of 3.4 m^2,
- dust and debris collection tank ∅ 560 mm with a volume of 175 L,
- manual shaker in the upper part of the filter,
- auxiliary bypass valve,
- the unit is available in stainless steel,
- electronic control panel for smooth motor start-up.

Cleaning accessories Du 70 - KIT 100/70 K.AC.011

- Adapter 100/70,
- S-pipe DN 70 mm,
- Floor nozzle with wheels DN 70 mm - 500 mm,
- Slotted nozzle DN 70 mm - 500 mm,
- Round brush DN 70 mm - 100 mm,
- Connector DN 70 mm,
- Cone nozzle (NRB) DN 70 mm,
- Cuffs DN 70 mm (polyurethane)
- Polyurethane hose DN 70 mm - 3 m.

RGS ONE 33 ECO

INDUSTRIAL
VACUUM CLEANER

Description

Compact maneuverable vacuum cleaner Italian manufacturer RGS series of single-phase industrial vacuum cleaners for the collection of various types of dust and debris in industrial premises.

The industrial vacuum cleaner is made of high quality materials that ensure the possibility of operation in difficult conditions and guarantee a long service life.

Specifications	Value
Weight, kg	56
Overall dimensions, mm	780*640*1210
Pressure (mbar)	210
Max. air flow rate (m3/h)	170
Power (W)	3.3
Voltage (V)	230V/50-60Hz
Container volume (l)	39
Filter area (cm2)	19 000
Noise level, dB(A)	74.3

Industries

- construction sector,
- woodworking,
- chemical industry,
- metalworking,
- agro-industry,
- food industry

Benefits

- efficiency: the star-shaped filter provides high suction power and ease of operation,
- universal solution for the removal of various types of dust and other contaminants in factories,
- environmentally friendly: dust removal without spreading into the environment,
- safety: when cleaning the filter, it is ensured that the operator does not come into contact with dust,
- compactness and maneuverability of the device,
- ease of operation.

Highlights

- compact housing size - 460 mm,
- manual shaking system,
- special star-shaped filter,
- 39 liters garbage can,
- single-phase brush motors,
- independent switches in each motor.

VACUUM TRUCKS SIBILIA

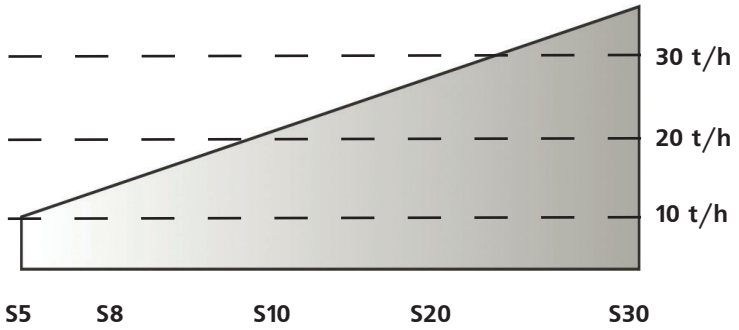
Scope of application

The powerful and versatile vacuum trucks can suck up all types of materials: gravel and cobbles up to 60 mm in diameter, or dust, dirt or liquids.

All diesel-driven versions (D) have independent engines, allowing them to significantly reduce fuel consumption in their operation and to utilize the customer's chassis for mounting equipment on it.

The version with electric motor (E) is also possible. Cleaning and transporting large volumes of material up to 40 t/h.

Schedule of unit capacity by model
(with 15m hose)



Accumulators

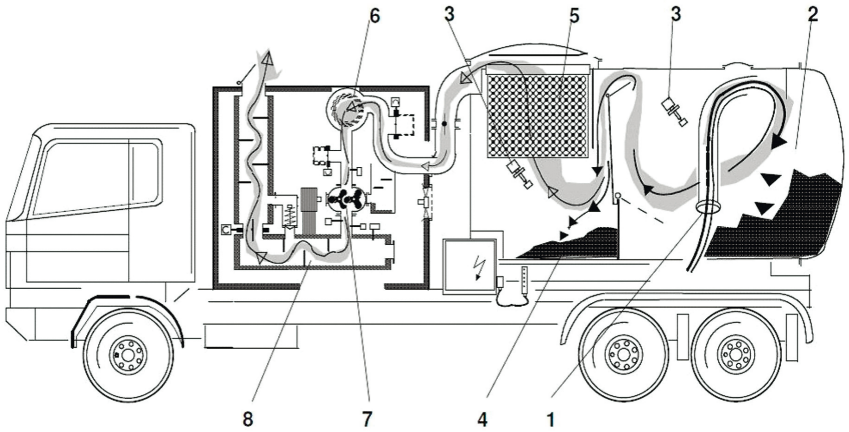
We offer different types of storage tanks, with capacities from 3 to 12 m^3, equipped with a high-efficiency cyclone or an integrated filter: in special cases, both solutions can be implemented on a single tank.

Platforms

The platform can be mounted on a truck or trailer, or on a truck with a hydraulic grapple.
In this case, the same vehicle can be used for different purposes.

Vacuum trucks Sibilia

Platform model	S10	S20	S24	S30	S40	S50
Unit power, kW	66	97	100	127	152	261
Maximum vacuum, mbar	700	700	850	800	900	940
Maximum air flow, m³/h	2000	3200	3400	4000	6000	10,400
Available chassis	Information is available on request					
Capacity at a distance of 15 m, t/h	10	15	16	25	35	40
Possibility to install a manipulator	no	no	yes	yes	yes	yes
Road sweeping equipment	no	no	no	no	yes	yes
Particle size, mm	0,5–60	0,5–80	0,5–70	0,5–90	0,5–100	0,5–100
Hose diameter, mm	70–100	100–120	100–120	120–150	150–200	200–250



Operating principle of the vacuum truck

1. Inlet connection
2. Waste container - 1 circuit
3. Level sensor
4. Waste container - 2 circuit
5. Filter – main
6. Filter – protective
7. Roots pump
8. Silencer

QUESTIONNAIRE

1. Contact data

Company name:	Phone:
Contact person:	E-mail:
Physical Address:	

Name or number of the production area:

2. Selecting a general description of the task

☐1. Dust settled from the air lies in a thin layer on the floor, building structures.

Accessory - brush with wheeled supports.

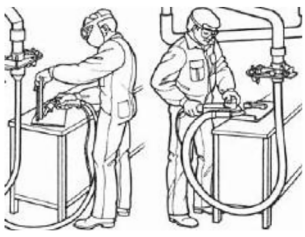
Thickness of the layer formed between harvests, mm:	☐ up to 0.25	☐ up to 0.5	☐ up to 1.0
	☐ up to 2.0	☐ up to 4.0	☐ up to 8.0
Total area to be cleaned, m^2:			
Number of operators simultaneously engaged in cleaning of the premises, persons:			
Required cleaning duration, hrs:			

☐2. Dust or spillage of lumpy material and lies in piles at the source of the release.

Accessory - crevice nozzle.

Required material throughput of each operator, m^3/h:	☐ up to 0.1	☐ up to 0.2	☐ up to 0.4
	☐ up to 0.8	☐ up to 1.6	☐ up to 3.2
Total area to be cleaned, m^2:			
Number of operators simultaneously engaged in cleaning of the premises, persons:			
Required cleaning duration, hrs:			

☐3. The collected material is taken from under the hood of the source of release (welding torch with suction / abrasive blasting station).



Air flow rate determined by the manufacturer of the local suction (connection diameter), m^3/h:	☐100–150 (Ø 32 mm)	☐200–250 (Ø 38 mm)
	☐300–350 (Ø 50 mm)	☐500–600 (Ø 70 mm)
Number of selection points / operators simultaneously connected to the system, persons:		

3. Description of the environment

Ambient temperature and humidity of the cleaning areas,°C, %. Category of the room by explosion and fire hazard.		
Ambient air:	☐Dry	☐Moist
	☐Oily	☐Dusty
Temperature and humidity at the equipment location,°C, %. Category of the room by explosion and fire hazard.		
Required degree of protection of electrical equipment	IP _____ / Ex _____	

4. Descriptions and properties of the material to be collected

Name of the material:			
Bulk density:	☐Light p<1.0 t/m³	☐Medium 1.0<p<2.0 t/m³	
	☐Heavy 2.0<p<5.0 t/m³	☐Very heavy p>5.0 t/m³	
Characterization of the material to be collected:	☐Dry	☐Moist	☐Abrasive
	☐Oily	☐Liquid	☐Acidic
	☐Toxic	☐Fatty	☐Sticky
	☐Electrically conductive	☐Dielectric	
Material fluidity:	☐Good	☐Bad	☐_____ yield angle
Material temperature:	☐Cold <0°C	☐Hot 50–100°C	
	☐Usual 0–50°C	☐Very hot >100°C	
Explosive risk:	☐Explosive	☐Non-explosive	☐Kst max=_____
Required equipment performance:	☐Acid-resistant	☐General industrial	
	☐Antistatic	☐Explosion-proof	

5. Disposal of collected dust and exhaust air

Method of stockpiling collected material for disposal:	☐BigBag	☐Container
	☐Barrel 200 liters	☐Storage hopper, for unloading by road / rail
Return to process:	☐Continuously, into an existing hopper / silo	
	☐Through the storage hopper onto the conveyor belt	
	☐нетранспортабельным способом в отдельно стоящий силос	
Emission of purified air:	☐Into the shop floor	☐Into the atmosphere
Required residual concentration, mg/m³		

6. Delimitation of supply

Energy carriers provided by the Customer:	☐Dehumidified compressed air, dew point max. –20°C		
	☐Power grid 380V. Power limitation _____ kW		
	☐Compressor equipment to be included in the scope of supply		
The scope of supply must include:	☐Vacuum pump, filter separator		
	☐System control cabinet		
	☐Pipeline network including fittings and connecting clamps		
	☐Cleaning accessories and hoses		
	☐Documentation set (data sheets, installation and operating instructions)		
	☐Working documentation for the system in sections TX, KM, EM		
	☐Chief installation of the system	☐Adjustment work	☐Personnel training

7. Additional parameters

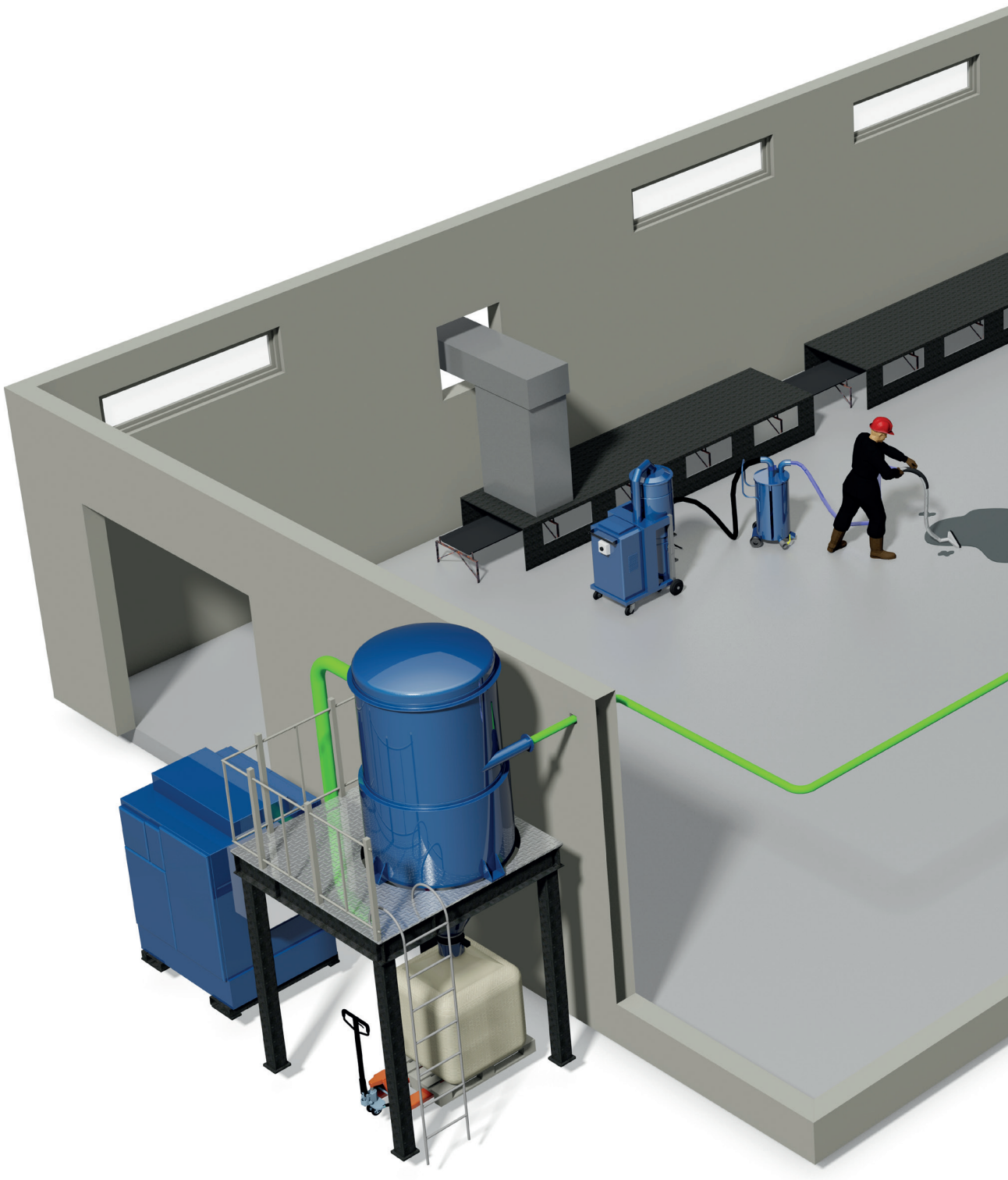
Please attach to the questionnaire construction plans and cross-sections of the area to be cleaned, showing the contours of the area to be cleaned, areas of spillage, or work stations equipped with local suction. Indicate on the drawings the proposed location of vacuum equipment and points of return of the collected dust to the technological process.

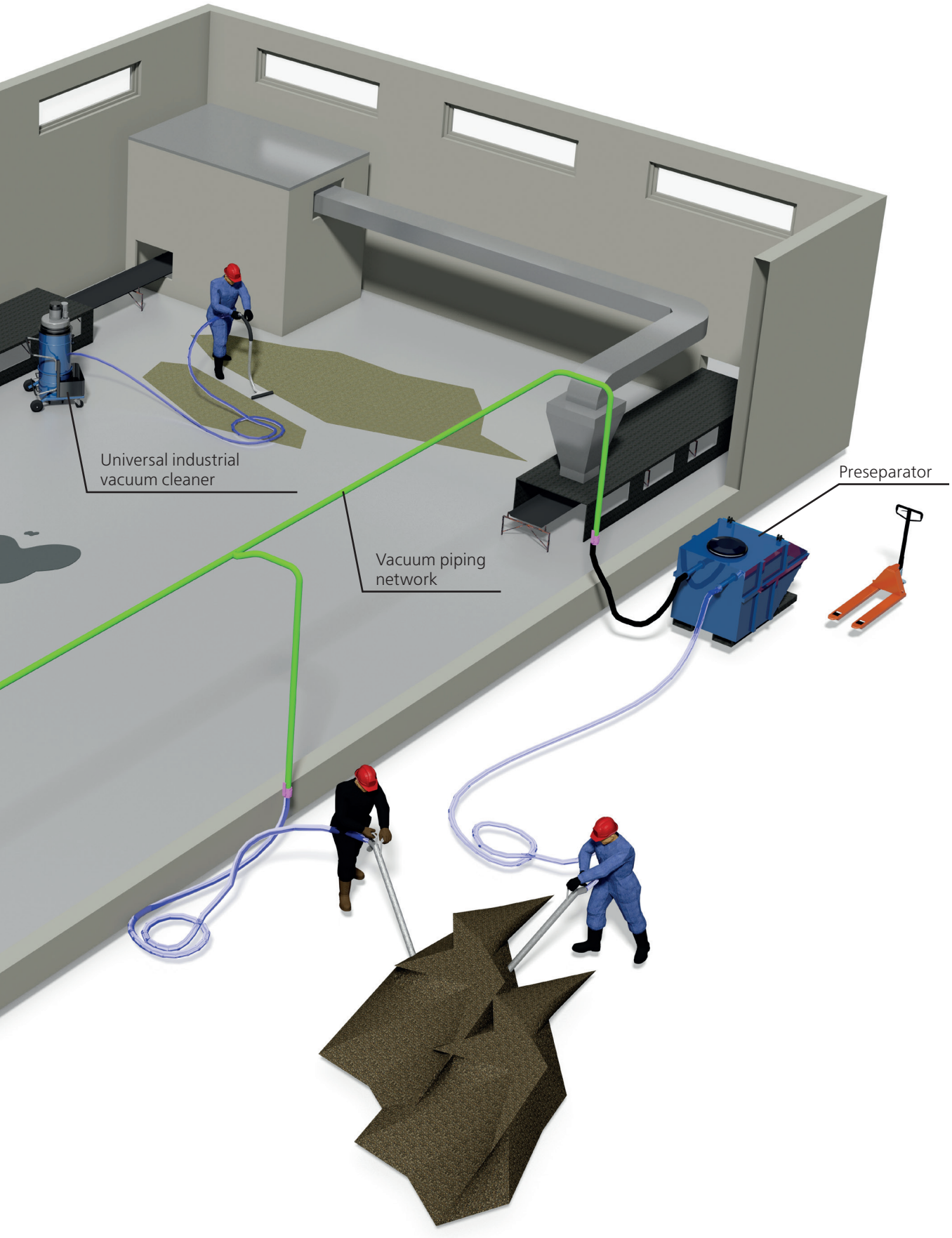
Scan the completed questionnaires and send them to info@sovplym.spb.ru.

You can also fill out the questionnaire yourself “online” by going to the electronic version of the questionnaire using the QR code on the right.

Technical consultation with the specialist: 8 (800) 555-83-03

The introduction of vacuum technologies for cleaning production, in addition to economic and quality indicators, contributes to improving the culture and safety of production.




Universal industrial
vacuum cleaner
Vacuum piping
network
Preseparator

Contacts:

sovplym.com/contacts