



CENTRAL EXTRACTION SYSTEMS AND FILTRATION UNITS

Clean air for better health and working environment

EXTRACTION SYSTEMS

Extraction systems are designed for intensive and professional industrial extraction of smoke and dust particles in various industries. Clean air provides good working conditions and raises the satisfaction of your employees. It is important for both your health and the environment that the irritating particles and aerosols generated during processing do not stay in the air, but are extracted, collected in containers, and disposed of appropriately. Maintaining the quality of your production and ensuring a longer life of your machines is definitely a priority, so extraction systems are your investment for the future.



INNOVATIVE SOLUTIONS

Frequency control for filter self-cleaning, number of blows and pressure of blown air



HIGH QUALITY

Quality construction prevents contamination of the cleaned air



SIMPLE MAINTENANCE

Large collection containers on casters for easier waste disposal



SAFETY AND RELIABILITY

Additional safety elements enable extraction of flammable and explosive substances

Extraction system ON-1,5, ON-2,2 and ON-3

Basic features

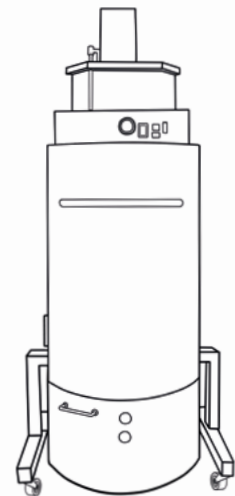
- **Extraction up to 3,100 m³/h.**
- The filter is blow-cleaned by a reduction gear-driven tube with nozzles that rotates inside the filter.
- Possible regulation of the blowing frequency, number of revolutions and pressure of blown air.

Advantages

- **High filter area** and excellent self-cleaning of filters.
- Large collection container with adjustable size. Possible attachment of a jumbo bag.
- The system is on casters, allowing quick relocation.
- With the installation of hoses, it is possible to use the extraction system for point extraction and as an industrial vacuum cleaner.
- The larger distance between filter pleats allows for better cleaning, smaller pressure drop when the air passes through the filter, and lower consumption of compressed air.
- Efficient system due to adjustable flow rate setting.
- Easy use in different work locations.

Safety

Explosion relief vents and fire extinguishing ampoules are installed for the extraction of flammable and explosive substances. They automatically detect high temperatures and fire, and extinguish the fire (even in the event of a power failure).



Model	ON-1,5	ON-2,2	ON-3
Max. flow (m³/h)	1600	2520	3100
Pressure (Pa)	1200	2100	2500
Motor (kW)	1,5	2,2	3
Filter area (m²)	12	20	20
Filter cleaning	Vibrations	Automatic	Automatic
Height (mm)	1740	2200	2200
Length (mm)	750	900	900
Width (mm)	750	900	900
Extraction hose diameter (mm)	110	180	180
Weight (kg)	92	190	200

Extraction systems

ON-4, ON-5,5, ON-7,5,
ON-11, ON-15 and ON-18,5

Basic features

- High extraction capacity, high air flow up to **14,080 m³/h**.
- Touch screen for easier system management.
- Self-cleaning filters.

Advantages

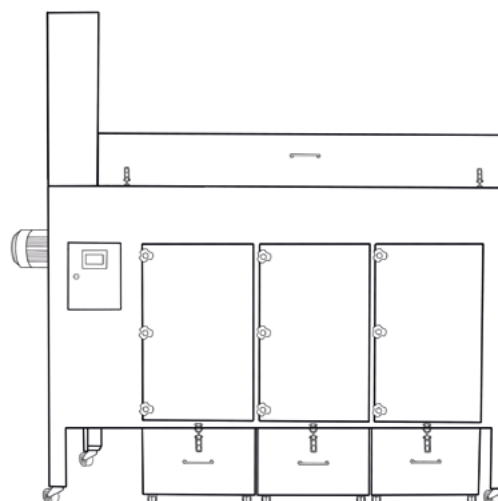
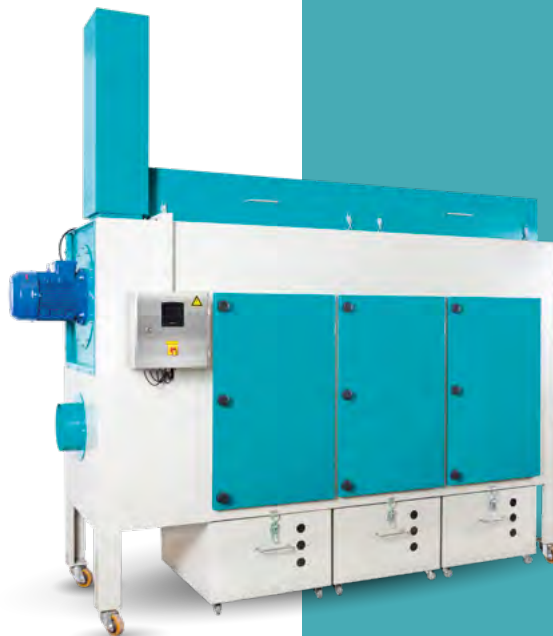
- The device detects filter clogging based on differences in differential pressure and increases the number of compressed air pulses.
- Simple disposal of medium with transportable collectors that can be adjusted in size.
- Long service life due to automatic filter cleaning.
- Weatherproof housing, suitable for indoor or outdoor installation.
- Fast and easy system relocation due to attached casters.
- The system is pre-assembled and ready for immediate use.
- Purified air is usually discharged outside; however, in winter, the air flow can be redirected back into the room using a hatch to reduce heating costs.
- Options of different filter materials, depending on the medium to be extracted.
- Additional equipment option of automatic adjustment of extraction capacity according to needs.

Safety

Optional installation of explosion relief vents and fire extinguishing ampoules for automatic fire suppression.

Application

- For high levels of smoke and dust saturation, where point extraction is not possible.
- For large workshops, where the main activity is welding, cutting, grinding, powder coating, blasting.
- For robotic welding line, laser cutting, plasma and flame treatment.
- For the metal, wood, automotive or food industry.

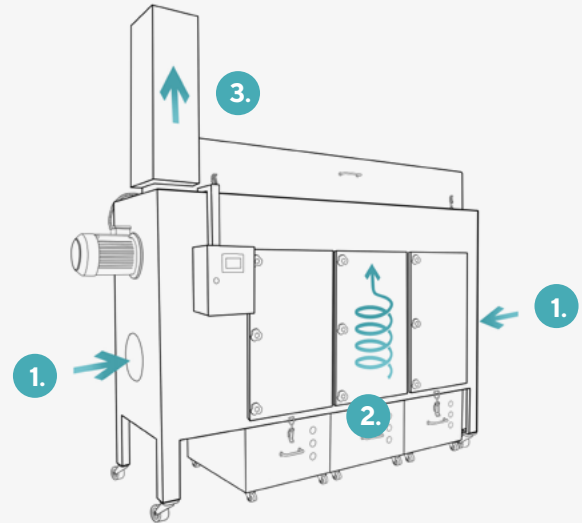


Model	ON-4	ON-5,5	ON-7,5	ON-11	ON-15	ON-18,5
Max. flow (m ³ /h)	4700	6250	7600	8300	13100	14080
Pressure (Pa)	3200	4400	4900	5400	5800	6400
Motor (kW)	4	5,5	7,5	11	15	18,5
Filter area (m ²)	40-66	60-109	80-152	100-195	120-238	140-281
Filter cleaning	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
Height (mm)	2300	2300	2300	2300	2300	2300
Length (mm)	2500	3200	3900	4700	3900	4500
Width (mm)	900-1100	900-1100	900-1100	900-1100	1900	1900
Extraction hose diameter (mm)	225	250	300	350	400	450
Weight (kg)	840	950	1100	1300	1480	1600

How it works

Performance display

1. The fan sucks evenly the polluted air that enters the device through one of the inlets.
2. The contaminated air travels through a filter that is permeable to 1 micron. Waste particles are trapped on a vertically mounted filter, which makes it easier for particles to fall into the container.
3. Warm and clean air exits the device back into the room. It can also be discharged outside the room.



Key components

Radial fans

Extraction systems are equipped with high-quality radial fans of our own manufacture. They generate an air flow of 1600 m³/h to 14,080 m³/h.



Fire extinguishing ampoules and explosion relief vents

When extracting flammable substances, fire extinguishing ampoules need to be installed. When a fire breaks out, the ampoule is automatically activated and extinguishes the fire, even in the event of an electrical outage. Explosion relief vents relieve the pressure inside the system.



Noise silencers

For better working conditions, we provide square silencers that absorb noise generated during the operation of the extraction system and filter cleaning. The interior is made of perforated sheet metal, wrapped with felt, glass wool and an outer coat.



Compressed air reservoir and solenoid valves

The system is connected to a source of compressed air, which is stored in a dedicated reservoir. Solenoid valves ensure a controlled frequency of filter cleaning.



Waste collections containers

Integrated containers for collection of extracted particles are located under the filters. Their available capacity can be checked through dedicated sight glasses. Containers are equipped with casters for easier and quicker emptying.



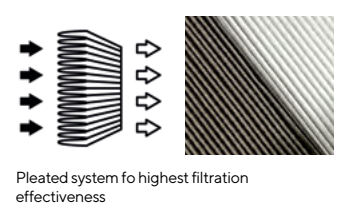
Filters

Depending on the purpose and needs of extraction, we will recommend the appropriate shape, size and material of the filters, which will provide a suitable filter area and thus quality air treatment.

We use filter cartridges with a pleated system, which ensures the highest filtration effectiveness. The pleated material and technologically advanced cartridge ensure an even space between the pleats and corresponding air flow, as well as long-term effectiveness of the filter. The filter frame is produced in house, whereas filter materials are supplied from renowned manufacturers.



- Cellulose filters (for removing dust)
- Oil and water resistant filters (oil mist filtration)
- Teflon-coated fire-resistant filters (for flammable particles)
- Antistatic filters (for dissipating static electricity)



Additional expansion options

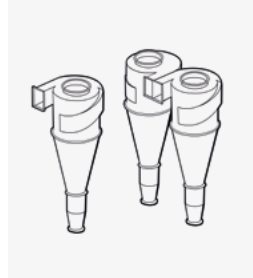
Star-shaped dispensers

If necessary, we install star-shaped dispensers that prevent the intrusion of air and precise removal of larger particles from the cyclone.



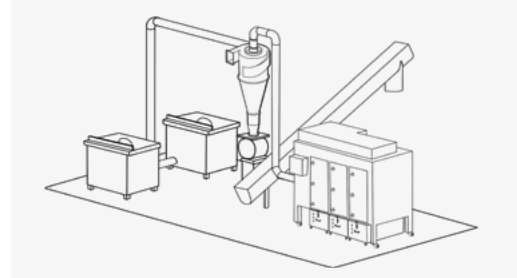
Cyclones

For larger surfaces and quantities of extracted medium we recommend the use of cyclones. When choosing a cyclone, you should keep in mind that cyclones of smaller dimensions are more efficient than larger cyclones, so it is better to choose a double smaller cyclone. The flow ranges from 800 to 20,000 m³/h.



Extraction lines

For easier distribution of the medium, we can arrange a transport line for the removal of material according to your wishes and needs. Suitable for materials such as filings, granules, sawdust, etc.



External water filter

When extracting sparks, we recommend the additional installation of a water filter, which extinguishes sparks before the entry of contaminated air and prevents the possibility of ignition. Suitable for grinding, welding or other metalwork.

Equipment for distribution of extracted medium

Spiral hoses with a diameter of 100 to 1400 mm, control valves, transport fans, various connecting and forming pieces, larger collection troughs, screw conveyors, jumbo bag holders, mounting brackets and clamps.



Example of using an extraction system in combination with a laser

UPGRADE OPTIONS

If your needs change over time, we take measurements of flow and vacuum and adapt the system based on your growing needs.

WARRANTY AND SERVICE

All Rehar extraction systems are manufactured at the company's headquarters and have a 12-month warranty with extension option. We also provide spare parts and additional equipment.



About us

Rehar d. o. o. has more than 30 years of tradition in metalworking and production of various custom products. Our own powder paint and blasting shop has encouraged the development of extraction system and air filtration units. Our quality assurance is the result of many years of research and improvement of systems, and is still distinguished by our successful in-house production.



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