35 YEARS
EXTRACTION TECHNOLOGY

AL-KO
QUALITY FOR LIFE

PRODUCT CATALOG EXTRACTION TECHNOLOGY
MOBILE AND STATIONARY EXTRACTION SYSTEMS

MADE IN GERMANY

1

	MOBILE DEVICES				
DEVICE GROUP MATERIAL	Extraction fan BAG	Raw air deduster AAS	Pure air extractor APU	Pure air extractor CLEAN UNIT D	Pure air extractor CLEAN UNIT F
Aluminium dust				●	
Aluminium chips			●		
Concrete dust			●	●	
Basalt dust			●	●	
Carbon dust				●	
CFK dust				●	
CrNi dust				●	
Dental dust			●	●	
Iron dust				●	
Iron chips			●	●	
Paint mist					
Fly ash				●	
Flue dust	●	●	●	●	●
Flock dust			●	●	
Spice dust				●	
Plaster dust			●		
Glass dust			●	●	
Graphite dust				●	
Rubber dust			●		
Wood dust			●		
Wood chips			●		
Cardboard dust		●	●		
Chalk dust				●	
Plastic dust				●	
Plastic chips			●		
Laquer mist					
Laser dust					●
Flour dust				●	
Metal dust				●	
Metal chips			●	●	
Mineral dusts				●	
Paper dust			●		
Pharmaceutical dust				●	
Potash			●		
Saw dust			●		
Saw chips			●		
Slag dust				●	
Welding fume					●
Stone dust				●	
Tobacco cut			●		
Textile fluff			●		
Toner dust				●	
Composites dust			●	●	
Cellulose dust			●		
Cement dust			●	●	

	STATIONARY SYSTEMS				
Paint mist extractor COLOUR JET	Compact systems ECO JET	System filter units PROFI JET	Cartridge filter FLEX UNIT D	Cartridge filter FLEX UNIT F	Extraction-Ventilation unit FLEX UNIT ECO
			●		
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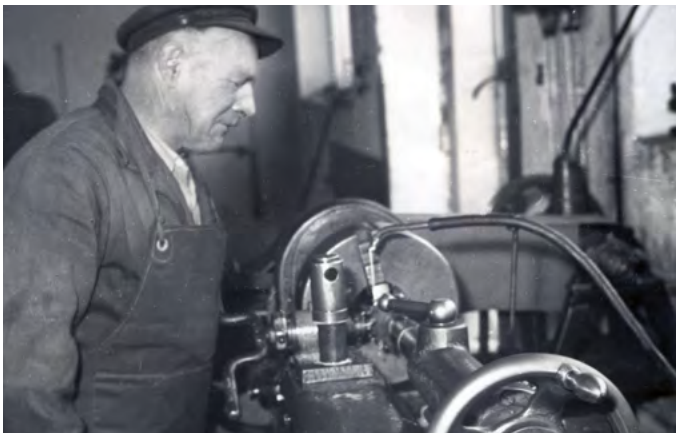
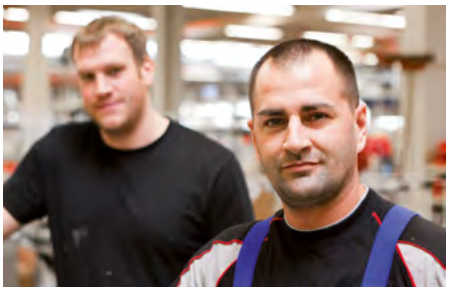
LIFE IN PURSUIT OF QUALITY – FROM THE VILLAGE FORGE TO A GLOBAL CORPORATION

AL-KO KOBER SE was founded in 1931 by Alois Kober as a small metalworking shop in the Bavarian-Swabian town of Großkötz, near Günzburg. The third generation to run this family business, it is still managed as per the founder's wishes: constantly striving for quality, innovation and carefully designed functionality.



AL-KO extraction systems are developed in the Bavarian Jettingen-Scheppach, tested under various operating conditions and manufactured at the Jettingen-Scheppach and Lutherstadt Wittenberg plants with loving attention to quality. This guarantees you are investing in a quality product which you will enjoy on a daily basis for years to come.



AL-KO EXTRACTION TECHNOLOGY **ENGINEERED AND MADE IN GERMANY**

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AL-KO EXTRACTION TECHNOLOGY – ENGINEERED

WHO IS AL-KO EXTRACTION TECHNOLOGY?

AL-KO Extraction Technology develops, produces and sells extraction units and extraction systems for diverse and constantly increasing areas of application in trade and industry.

The AL-KO Extraction Technology has developed a special filter technology for its extraction units and extraction systems, which offers decisive operating and maintenance cost savings compared to the conventional principle. A customer-oriented and individually adapted solution can be found for every extraction task together with the proven AL-KO modular system for extraction units.

AL-KO Extraction Technology sells its products in Germany and abroad exclusively through specialist dealers and professional partners. This has the advantage for the end customer that the direct enquiry is immediately forwarded to the responsible partner, who will then assist the customer on site by providing advice and practical help. AL-KO sales partners are regularly informed about products, techniques and regulations in order to be competent partners for their end consumer.

AL-KO Extraction Technology works closely with ministries, associations, trade bodies and trade supervisory/occupational safety offices on developing new technologies in order to comply with current regulations.

WHY EXTRACTION TECHNOLOGY FROM AL-KO?

- Surface-coated high-performance filters
- Filter cleaning with compressed air (JET cleaning)
- Long filter service life and washability of the filters
- Compact design (and therefore manoeuvrability and flexibility of the mobile extraction units)
- Low operating costs (energy efficiency)
- Strong team in technology and service
- Pure air dust extractors tested and certified by trade association
- Drivers of innovation through variety of patented solutions
- Wide product range from vacuum cleaner up to filter systems for many industries
- Standardized systems and assemblies - neverthless freely configurable

THE EXPERT PARTNER FOR EXTRACTION SYSTEMS

Efficiency and occupational safety
These are topics that are of great importance in almost every company. The products from AL-KO Extraction Technology contribute to optimising precisely these points.

Clean air for breathing and effective work
These are the principles according to which AL-KO filter systems are developed and built. With the help of a specific filtration system, the AL-KO OPTI JET® process, AL-KO Extraction Technology has succeeded in generating clean air economically.

Technical expertise
for high-quality filtration technologies which is input both into the mobile dust extractors and the stationary extraction units, helps to ensure that all dust and chips produced are collected quickly and correctly, disposed of. Individual solutions to problems are developed by our own design office, extraction units and systems are produced in series production and according to industrial standards.

For our clients
AL-KO Extraction Technology's customers include the processing trade and industrial companies which produce dust and chips and would like to have them disposed of quickly and without problems. Many areas of application are covered. It goes without saying that AL-KO extraction units and extraction systems remove all the surplus materials that are created – welding fumes are also no problem.

Customer proximity
is a top priority at AL-KO Extraction Technology. Our products are sold in over 25 countries exclusively through specialist dealers (mobile extraction units) and plant manufacturer (stationary extraction units). Customers thus have an AL-KO contact person on site who is always at their side with advice and practical help, backed up by AL-KO as a strong manufacturer.

AND MADE IN GERMANY

MOBILE AND STATIONARY PRODUCT RANGE

Mobile raw air equipment
- MOBIL 100 / 125 / 140 / 160 / 200 / AAS 1013 – 6013
- BAG

Mobile pure air equipment
- POWER UNIT 100
- POWER UNIT 120
- POWER UNIT 160
- POWER UNIT 200
- POWER UNIT 250
- POWER UNIT 300
- POWER UNIT 350
- POWER UNIT 350+
- CLEAN UNIT D
- CLEAN UNIT F

Industrial vacuum cleaner
- JET STREAM

Sanding Tables
- AST 1.5 BASIC
- AST 1.0 PREMIUM
- AST 2.0 PREMIUM
- AST 3.0 PREMIUM

Mobile paint mist extraction
- COLOUR JET 1
- COLOUR JET 2
- COLOUR JET 3
- COLOUR JET 4

Stationary extraction units
- ECO JET, various types, air flow rates 3,500 - 22,000 m^3/h
- PROFI JET, in the modular system, air flow rate 2,000 - .....m^3/h

Welding fume-/ dedusting system
- FLEX UNIT D
- FLEX UNIT F
- FLEX UNIT D | F

Manual workplace extraction
- TURBO JET 4
- TURBO JET 6
- TURBO JET 8

Discharge variants
- Waste container
- Rotary lock valves
- Briquette presses
- Push floor discharge
- Round discharge

FILTER APPLICATION POSSIBILITIES OF AL-KO FILTER TECHNOLOGY

1. The AL-KO filter material is suitable for the following applications:

- Wood
- Wood composites
- Plastics
- Paper
- Welding fumes
- Lead and zinc smelter dedusting
- Aerated concrete demolition
- Coking plant dedusting
- Sandblasting plants
- Cement clinker plants and grinding plants
- Food
- Cereals

2. In general, dust in dust explosion class 1, i.e. up to a maximum K_{st}- value 200 bar m/s, can be extracted and filtered.
The following products can therefore also be separated if the filter surface air load is appropriate:

- Wood products, fibrous materials, composites (peat, pulp, cardboard, etc.)
- Food, luxury foodstuffs, animal feed (brewer's yeast, powdered egg, meat meal, etc.)
- Coal, coal powder
- Natural products (leather, herbs, fertilizers, sugar, etc.)
- Plastics, resins, rubber (epoxy resin powder)
- Pharmaceuticals, cosmetics (dandelion, lemon balm powder, etc.)
- Intermediates, auxiliaries (cellulose, citric acid, desulphurization agents, etc.)
- Technical products (dyes, fillers, metal powder except aluminium dust, magnesium dust, etc.)
- Inorganic products (graphite, soot, coke, sinter dust, etc.)
- Metal chips (aluminium chips, steel chips, etc.)

In this case, special materials (e.g. slate powder, quartz, trass powder, etc.) must applied to the AL-KO filter material before it is exposed to dust. In addition, depending on the medium, the filter surface load must be reduced.

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AL-KO EXTRACTION TECHNOLOGY – ENGINEERED

AL-KO FILTER TECHNOLOGY

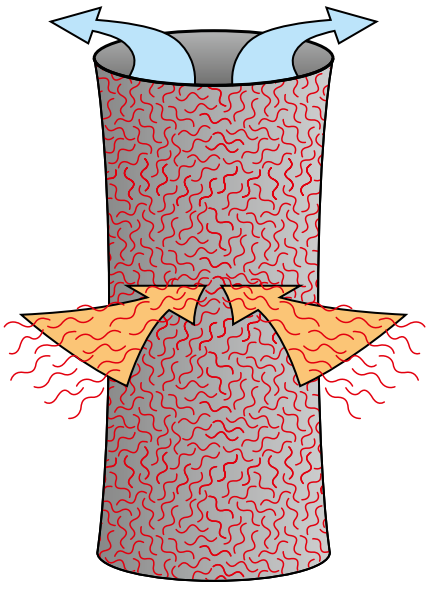
THE AL-KO high-performance filter system Al-KO OPTI JET®

The high-quality AL-KO filtration technology consists of two components that have been precisely matched to each other. The combination of surface filtration and proven AL-KO OPTI JET® cleaning delivers an advantage compared to the competition, which still largely works with vibratory cleaning and three-dimensional depth filters.

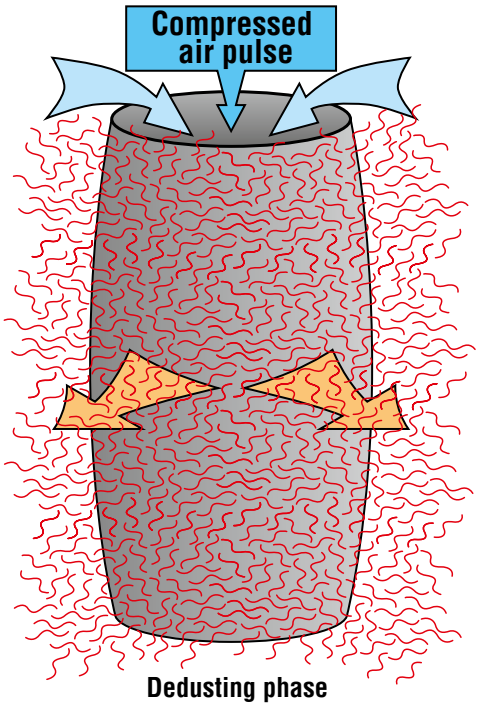
The principle of surface filtration is based on the fact that the dust particles are already separated at the surface and therefore cannot penetrate into the depth of the filter material. The polyester needle felt of which the filter tubes are made is surrounded by a water and oil-repellent layer, which makes it possible to regenerate each tube up to three times by washing.

During the extraction process, a filter cake forms on the outside of the filter tubes. With conventional filter material, this cake acts as an auxiliary filter layer and is necessary to maintain the residual dust content. For this reason, a completely cleaned depth filter allows additional dust pollution until it has again once been accumulated a certain layer of dust. In comparison, no auxiliary layer is required for the AL-KO filter material, which means that the cleaning intervals can be selected as required and the filter is immediately fully operational again after each cleaning process. Further benefits of this filter material are the high mechanical load capacity, which results from the high basis weight of 400 g/m² and the excellent air permeability with a minimum dust transmission rate.

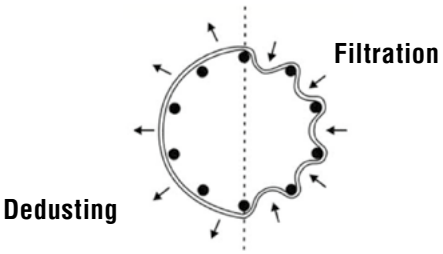
With the proven AL-KO OPTI JET® cleaning system, the filters are cleaned by means of a pressure surge that flows through the filter material from the inside to the outside. In connection with this type of cleaning, the so-called "Girlanden-Effekt" or "garland effect" comes into play. The garland occurs during the extraction process when the filter tubes are placed around the longitudinal bars of the support cages.

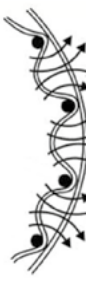


Filtration phase



Dedusting phase



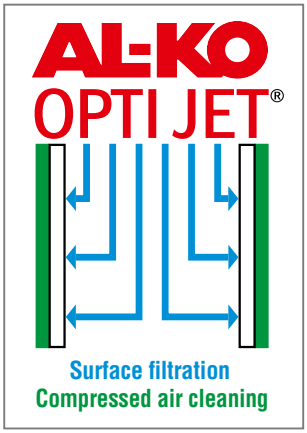


Garland effect

AND MADE IN GERMANY

The sudden inflation of the tubes causes the filter tube to undergo a change in shape, which leads to the filter cake being blown off. The garland is lifted off the support cage and opens out to form a round, inflated hose. This change in shape not only breaks apart the filter cake, but also casts it off. The fast centrifugal movement and the subsequent abrupt stopping process push the fine dust out of the filter material due to the inertia force. In addition to this garland effect, the so-called counter-flushing also contributes to optimum filter cleaning. Here, compressed air flows through the filter bags from the inside to the outside against the direction of application, so that the fine dust is removed from the surface by the air flow.

This point is the decisive difference from the mechanical shaking of the filters. Although the mechanical movements of the filter bags break open and shake off the filter cake, the fine dust is also shaken into the material, causing the pores to become blocked. A second disadvantage of vibration cleaning is the mechanical stress on the filter housing.



WASHING INSTRUCTIONS FOR AL-KO STANDARD FILTER MEDIA

Textile filter media are sensitive to abrasion. Improper mechanical treatment, including washing, leads to surface damage and roughening. A drum washing machine should only be used if the filter media are sufficiently protected against friction on the drum walls.
This can be done, for example, by wrapping in oversized bags of open fabric.

In principle, the following washing steps should be observed:

1. Water-soluble, easily removable soiling

- Placing the filter media in a cold water bath
- Washing and rinsing of filter media
- Increasing the water temperature to max. 50 °C and prolonged soaking assist the cleaning effect
- A commercially available mild detergent can be used to speed up the washing process

2. Acid or alkaline soiling

- Removal of acid soiling by alkaline bath or alkaline soiling by acid bath
- Alkaline bath with ammonia added to the washing liquid at the rate of 1-2 ml/l
- Acid bath with acetic acid added to the washing liquid at the rate of 1-2 ml/l
- Washing temperature max. 50°C

The washed filter media can be dried in air or in industrial dryers. The drying temperature must be significantly below the temperature resistance of the respective filter medium.

3. Structural change

- Depending on previous exposure, the washing process can lead to a structural change in the surface finish. This may lead to the criteria according to BIA test category M no longer being met.

4. Local regulations

- Check that local regulations for waste water are not violated.

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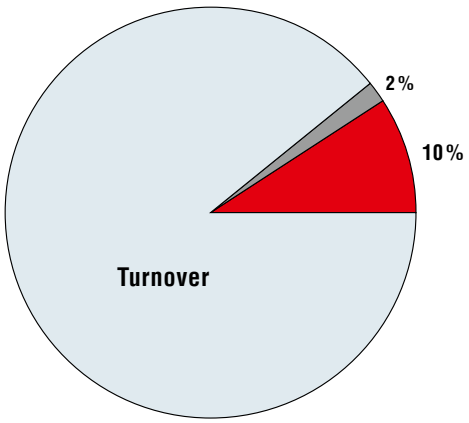
OPEN UP YOUR SAVINGS POTENTIAL

YOUR AL-KO CONSULTANT WILL HELPS YOU TO DO THIS

Electricity and heat usually cost a company between 2 and 10% of sales. This range already indicates the savings potential and the opportunities to improve margins through energy-efficient production. Especially in wood processing: **40% of the electricity consumption** in joinery or carpentry shops **is attributable to the extraction technology.** Your AL-KO expert advisor **will help you** uncover the energy wasters.

The extraction system is responsible for approx. 40% of your electricity consumption. You decide whether you spend 2 or 10% of your turnover on electricity and heat.



THE ELECTRICITY WASTERS

- Obsolete facilities: New motors are significantly more efficient than even relatively recent models. The flow behaviour is also significantly better today than it was a few years ago.
- Raw air dust extractor: The maximum efficiency of a raw air dust extractor is 50%, compared to more than 80% for clean air dust extractors with vacuum system.
- Filters: Worn, damaged or insufficiently cleaned filters falsify the result of the differential pressure measurement. The extraction unit is triggered more frequently than necessary.
- Controllers: Old controllers are less optimised, and what is more if they are also set incorrectly then the system does not run at the optimum operating point and wastes energy.

...AND MONEY WASTERS

- Piping: The extraction system has gone through all the changes in the company: Long distances, many branches, various pipe diameters, valves that are not practical to operate: Pressure and speed losses consume energy unnecessarily and therefore waste money.
- Seals: Porous and defective seals lead to air and pressure losses, controller errors, polluted air and wasted energy.

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THE SOLUTION

AL-KO EXTRACTION UNITS WHICH ARE OPTIMISED IN TERMS OF ENERGY AND PERFORMANCE

Of course, there are cases in which only the complete replacement of the extraction unit and piping makes economic sense. In most cases, however, there are individual interventions that have a positive effect on your company's (energy) balance sheet:

OPTIMUM SIZE AND PIPING BY YOUR AL-KO PARTNER

- AL-KO offers you the suitable extraction unit for every application size. AL-KO PROFI JET systems can grow with you thanks to their modular design. This secures your investment.
- Optimum planning of the pipe network by the AL-KO specialist partner guarantees the shortest possible routes and perfect functioning of the AL-KO extraction unit. The pipe sections should be arranged so they are as short and straight as possible.

THE MOBILE AND STATIONARY EXTRACTION UNITS FROM AL-KO

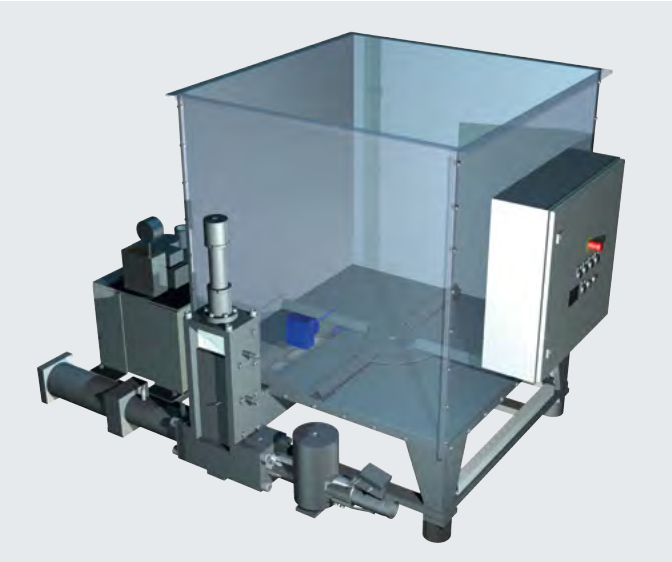
- AL-KO OPTI JET® cleaning: With the AL-KO OPTI JET® cleaning, the filter is inflated for approx. one second. The compressor only supplies 1/7 of the required compressed air, the rest is carried along. A smaller compressor and less energy are required for optimum cleaning results.
- Reduction in heating costs: With all stationary AL-KO extraction units and mobile pure air dust extractors, the warm, filtered air remains in the room or is recirculated. With an extraction volume of 10,000 m³/h and a room temperature of 20 °C, savings of up to 3500 € per year are possible.
- Aerodynamics: In order to guarantee an optimum air flow, AL-KO fan housings are optimised in terms of aerodynamics. The size of the units is particularly compact.
- Energy-saving fans: AL-KO uses particularly energy-saving IE3 fans in all units from 7.5 kW upwards.

AL-KO FREQUENCY CONVERTERS

- Whenever individual processing machines are not in operation, the speed of the extraction fan is reduced to such an extent that the extraction of the other machines is still guaranteed. Each machine is assigned a minimum speed and the lower limit for ensuring pneumatic transport is defined. But even at full load, a frequency converter saves approx. 10% energy because it ensures that the motor runs at the optimum operating point.
- The machine recognition function knows where work is being done and only extracts air there. In conjunction with a frequency converter, this means energy savings of up to 60% and clean air, as the extraction starts automatically. Together with pneumatic valves, this results in high energy savings and reduced working time.

USE YOUR ENERGY

With the briquetting presses from AL-KO, you use the energy you have in your company. Thanks to its calorific value, the wood briquette is a perfect fuel. By reducing the volume of product residues by up to 90%, there is an enormous saving effect for logistics.



Perfect fuel: the calorific value of wood briquettes in comparison

19.5 kJ lignite briquettes

18,0 kj Holzbriketts

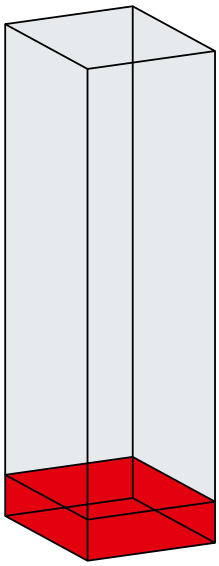
6.5 kJ air-dried hardwood

5.8 kJ air-dried softwood

4.2 kJ freshly felled wood

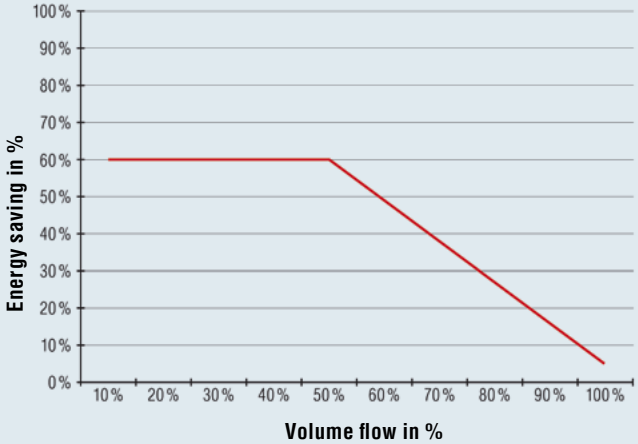
Saving effect for logistics: up to 90% volume reduction

Before 100 % material



After 10 % material

Energy saving when using an AL-KO frequency converter



We would be pleased to calculate, especially for your applications, the savings potential and the payback period!

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THE AL-KO PRINCIPLE

QUALITY FOR LIFE

We take the promise "Quality for Life" very seriously. How seriously becomes evident when looking at the age AL-KO extraction systems reach on average. This is why, along with an AL-KO extraction system, you are purchasing the certainty of investing in your company's future, the stability of your operations and your team's motivation.

POWER UNIT

A real asset at work for people and machines

ECO JET AND PROFI JET

ECO JET and PROFI JET filter systems offer the right solution for any application, providing people and machines with clean air in the workplace.

ECO JET – The cleanest form of security of investment

PROFI JET – The extraction system that grows with your company

PURE AIR DUST EXTRACTOR POWER UNIT

- Efficient and economical: Large air surge tank with fast diaphragm valves for effective OPTI JET® filter cleaning and lowest use of compressed air.
- So simple and yet so effective: OPTI JET® dedusting and filter bag with snap ring lock.
- Highly economical: energy-efficient motors according to IE3.
- Safety in case of emergencies: Low-maintenance automatic fire extinguishing system (standard from POWER UNIT 250).
- Completely calm: sound-insulated air recirculation by AL-KO.
- All options are available: PLC control system for manual and automated operation (from POWER UNIT 160). Countless options from machine recognition to slide valve control and frequency-controlled operation to name but three.
- No mess: container with window for visual checks.
- Practical down to the last detail: container lock with ergonomic tension lever.
- Retroactively extendable: Conversion to discharge via briquette press or rotary lock valve possible (from POWER UNIT 160).

The benefits for you:

- High extraction performance
- Compact design
- 100% air recirculation without loss of temperature (residual dust < 0.1 mg/m³)
- Integrated pre-separator and extendable control system
- Optimum filter dedusting
- Minimal noise level
- Patented filling level control
- Certified automatic extinguishing device, easy to maintain
- Dust compartment for dust-free container change (optional: safety lock of the containers)
- Freely configurable assemblies, exchangeable and expandable

BG-PRÜFZERT H3 Reststaubgehalt 0,1 mg/m³ sicher eingehalten (Holzstaub)

CE

Keine Zündquellen einsaugen! Keine funkenerzeugenden Maschinen absaugen! Geeignet zum Absaugen brennbarer Stäube der Staubexplosionsklassen St 1

BG-PRÜFZERT GS geprüfte Sicherheit

TÜV MANAGEMENT SERVICE ISO 9001

PURE AIR DUST EXTRACTORS

POWER UNIT (APU)

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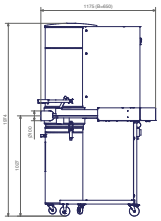


NEW!

AL-KO POWER UNIT 100 /120

Type	100	100**	120**	120 M
Art.no.	**192 488**	**192 489**	**192 490**	**192 498 01**
Extraction nozzle	100 mm	100 mm	120 mm	120 mm
Nominal motor rating	1.1 kW/1 Ph	1.5 kW/3 Ph	1.5 kW/3 Ph	1.5 kW/3 Ph
Voltage	230 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	790 m^3/h	790 m^3/h	1,140 m^3/h	1,140 m^3/h
Nominal flow rate*	565 m^3/h	565 m^3/h	814 m^3/h	814 m^3/h
Vacuum at nominal flow rate	2,118 Pa	2,124 Pa	2,180 Pa	2,180 Pa
Filter area	4.1 m^2	4.1 m^2	5.1 m^2	5.1 m^2
Filter dedusting	Manual	Manual	Manual	Motoric
Pre-separator	Integrated	Integrated	Integrated	Integrated
Swarf collection capacity	approx. 135 L	approx. 135 L	approx. 135 L	approx. 135 L
Sound pressure level***	69 dB(A)	69 dB(A)	71 dB(A)	71 dB(A)
Dimensions (L/W/H) in mm	1,178 x 650 x 1,973	1,178 x 650 x 1,973	1,178 x 650 x 1,973	1,178 x 650 x 1,973
Weight net	approx. 114 kg	approx. 116 kg	approx. 117 kg	approx. 121 kg

*According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 M – Version with automatic filter dedusting and machine detection

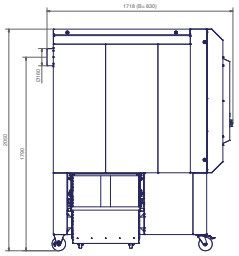
Options:

- Controller upgrade (page 34-35)
- Accesories:
  - Swarf bags (page 39)
  - Valves (page 40-41)
  - Floor cleaning set (page 40)
  - PUR-spiral hose (page 38)

*GS-HO-07 ** Free sound field measurement according to DIN EN 11201

PURE AIR DUST EXTRACTORS

POWER UNIT (APU)



AL-KO POWER UNIT 160

Type	160 H**	160 HM	160 P**	160 K****
Art.no.	**199 001**	**199 363 01**	**192 199 01**	**199 018 02**
Extraction nozzle	160 mm	160 mm	160 mm	160 mm
Nominal motor rating	2.2 kW/3 Ph	2.2 kW/3 Ph	2.2 kW/3 Ph	2.2 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	2,000 m^3/h	2,000 m^3/h	2,000 m^3/h	2,000 m^3/h
Nominal flow rate*	1.448 m^3/h	1.448 m^3/h	1.448 m^3/h	1.448 m^3/h
Vacuum at nominal flow rate	2,503 Pa	2,503 Pa	2,503 Pa	2,503 Pa
Filter area	9.1 m^2	9.1 m^2	9.1 m^2	9.1 m^2
Filter dedusting	Manual	Manual	Pressurised air	Pressurised air
Pre-separator	Integriert	Integrated	Integrated	Integrated
Swarf collection capacity (net/gross)	165 L / 241 L	165 L / 241 L	165 L / 241 L	165 L / 241 L
Sound pressure level***	70 dB(A)	70 dB(A)	70 dB(A)	70 dB(A)
Dimensions (L / W / H) in mm	1.800 x 830 x 2.050	1,718 x 830 x 2,050	1,718 x 830 x 2,050	1,718 x 830 x 2,050
Weight net	330 kg	330 kg	340 kg	350 kg

*According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 **** K – integrated compressor

Options:

- Filter surface increase up to 29.4 m^2 (on request)
- Control options (page 34-35)
- Accesories:
  - Swarf bags (page 39)
  - Valves (page 40-41)
  - External switch cabinet
  - Increase of expansion chamber (on request)
  - PUR-spiral hose (page 38)
  - Sound damper
  - Exhaust air hood

PURE AIR DUST EXTRACTORS

POWER UNIT (APU)

2

AL-KO POWER UNIT 200

Type	200 P**	200 K[1)]
Art.no.	**192 491 01**	**199 609 01**
Extraction nozzle	200 mm	200 mm
Nominal motor rating	3.0 kW / 3 Ph	3.0 kW / 3 Ph
Voltage	400V/50Hz	400V/50Hz
Max. flow rate	3,010 m^3/h	3,010 m^3/h
Nominal flow rate*	2,262 m^3/h	2,262 m^3/h
Vacuum at nominal flow rate	2,563 Pa	2,563 Pa
Filter area	13.8 m^2	13.8 m^2
Filter dedusting	Pressurised air	Pressurised air
Pre-separator	Integrated	Integrated
Swarf collection capacity (net / gross)	2 x 165 L / 2 x 241 L	2 x 165 L / 2 x 241 L
Sound pressure level* **	72 dB(A)	72 dB(A)
Dimensions (L / W / H) in mm	2,296 x 830 x 2,050	2,296 x 830 x 2,050
Briquette / rotary lock valve performance	–	–
Briquette diameter	–	–
Weight net	460 kg	470 kg

*According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 [1)] Compressor integrated

Options:

- Filter surface increase up to 44.8 m^2 (on request)
- Control options (page 34-35)
- Accesories:
  - Swarf bags (page 39)
  - Valves (page 40-41)
  - External switch cabinet
  - Increase of expansion chamber (on request)
  - PUR-spiral hose (page 38)
  - Sound damper
  - Exhaust air hood

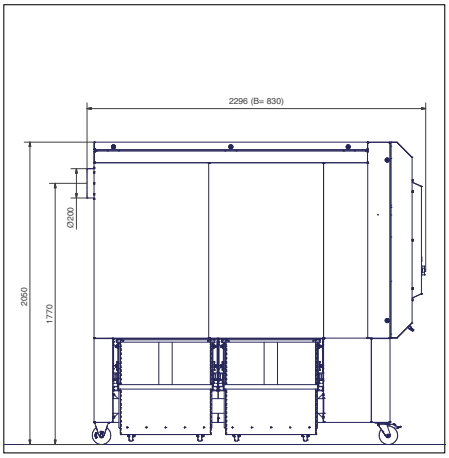
PURE AIR DUST EXTRACTORS

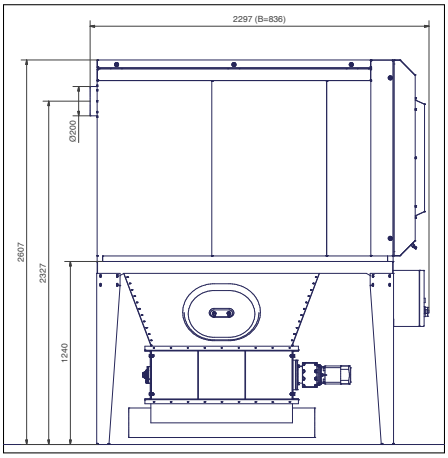
POWER UNIT (APU)

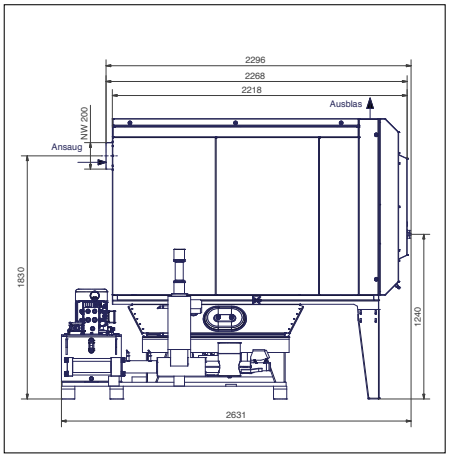
AL-KO POWER UNIT 200

Type	200 P-ZRS	200 P-BP 30-40
Art.no.	**199 044 01**	**199 019 02**
Extraction nozzle	200 mm	200 mm
Nominal motor rating	3.0 kW / 3 Ph	3.0 kW / 3 Ph
Voltage	400V/50Hz	400V/50Hz
Max. flow rate	3,010 m^3 / h	3,010 m^3 / h
Nominal flow rate*	2,262 m^3 / h	2,262 m^3 / h
Vacuum at nominal flow rate	2,563 Pa	2,563 Pa
Filter area	13.8 m^2	13.8 m^2
Filter dedusting	Pressurised air	Pressurised air
Pre-separator	Integrated	Integrated
Swarf collection capacity (net / gross)	Rotary lock valve	Briquette press
Sound pressure level* **	72 dB(A)	72 dB(A)
Dimensions (L / W / H) in mm	2,297 x 836 x 2,607	2,631 x 1,307 x 2,111
Briquette / rotary lock valve performance	15,744 L / h [2)]	up to 40 kg / h [2)]
Briquette diameter	–	40 mm
Weight net	550 kg	950 kg

*According GS-HM-03 dusted **On stock ***Free sound field measurement according to DIN EN 11201 [2)] Depending on the material







PURE AIR DUST EXTRACTORS

POWER UNIT (APU)

INCL. DUST COMPARTMENT

AL-KO POWER UNIT 250

Type	250 P**	250 P-ZRS
Art.no.	**195 676 03**	**195 875 03**
Extraction nozzle	250 mm	250 mm
Nominal motor rating	7.5 kW/3 Ph	7.5 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz
Max. flow rate	4,900 m^3/h	4,900 m^3/h
Nominal flow rate*	3,534 m^3/h	3,534 m^3/h
Vacuum at nominal flow rate	3,184 Pa	3,184 Pa
Filter area	22.4 m^2	22.4 m^2
Pre-separator	Integrated	Integrated
Extinguishing device	Integrated	Integrated
Swarf collection capacity (net / gross)	2 x 165 L / 2 x 250 L	Rotary lock valve
Sound pressure level* **	71 dB(A)	71 dB(A)
Dimensions (L / W / H) in mm	2,351 x 1,058 x 2,361	2,387 x 1,058 x 2,807
Briquette / Rotary lock valve performance	–	15,744 L/h[2)]
Briquette diameter	–	–
Weight net	758 kg	728 kg

*According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

Options:

- Filter surface increase up to 63 m^2 (on request)
- Control options (page 34-35)
- Accesories:
  - Swarf bags (page 39)
  - Valves (page 40-41)
  - External switch cabinet
  - Increase of expansion chamber (on request)
  - PUR-spiral hose (page 38)
  - Sound damper
  - Exhaust air hood

PURE AIR DUST EXTRACTORS

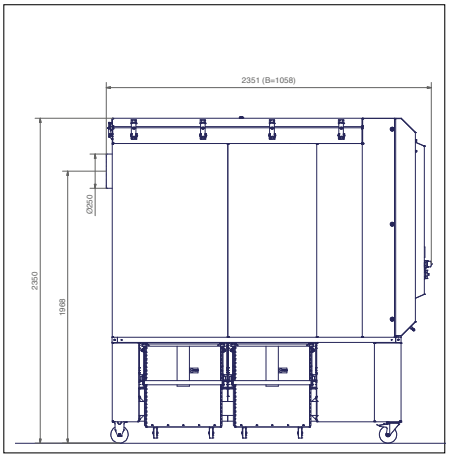
POWER UNIT (APU)

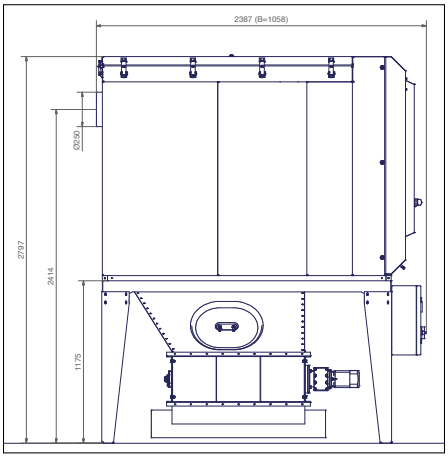
NEU!
30 % MORE
VACUUM

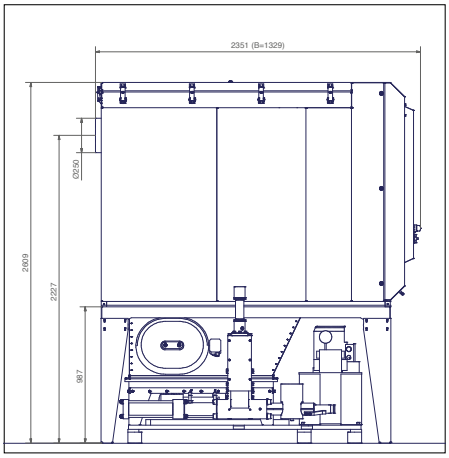
AL-KO POWER UNIT 250

Type	250 P-BP 30-40	250 P-BP 30-50
Art.no.	**199 537 01**	**195 872 05**
Extraction nozzle	250 mm	250 mm
Nominal motor rating	7.5 kW/3 Ph	7.5 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz
Max. flow rate	4,900 m^3/h	4,900 m^3/h
Nominal flow rate*	3,534 m^3/h	3,534 m^3/h
Vacuum at nominal flow rate	3,184 Pa	3,184 Pa
Filter area	22.4 m^2	22.4 m^2
Pre-separator	Integrated	Integrated
Extinguishing device	Integrated	Integrated
Swarf collection capacity (net / gross)	Briquette press	Briquette press
Sound pressure level* **	71 dB(A)	71 dB(A)
Dimensions (L / W / H) in mm	2,351 x 1,332 x 2,619	2,351 x 1,361 x 2,620
Briquette / Rotary lock valve performance	up to 40 kg/h[2)]	up to 50 kg/h[2)]
Briquette diameter	40 mm	50 mm
Weight net	1,381 kg	1,381 kg

*According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material







PURE AIR DUST EXTRACTORS

POWER UNIT (APU)

AL-KO POWER UNIT 300

Type	300 P**	300 P-ZRS
Art.no.	**195 677 03**	**195 876 03**
Extraction nozzle	300 mm	300 mm
Nominal motor rating	7.5 kW/3 Ph	7.5 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz
Max. flow rate	6,000 m^3/h	6,000 m^3/h
Nominal flow rate*	5,089 m^3/h	5,089 m^3/h
Vacuum at nominal flow rate	2,587 Pa	2,587 Pa
Filter area	30 m^2	30 m^2
Pre-separator	Integrated	Integrated
Extinguishing device	Integrated	Integrated
Swarf collection capacity (net / gross)	3 x 165 L / 3 x 250 L	Rotary lock valve
Sound pressure level***	71 dB(A)	71 dB(A)
Dimensions (L / W / H) in mm	3,000 x 1,058 x 2,361	3,000 x 1,058 x 3,027
Briquette / Rotary lock valve performance	–	15,744 L/h[2)]
Briquette diameter	–	–
Weight net	838 kg	832 kg

*According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

Options:

- Filter surface increase up to 90 m^2 (on request)
- Control options (page 34-35)
- Accesories:
  - Swarf bags (page 39)
  - Valves (page 40-41)
  - External switch cabinet
  - Increase of expansion chamber (on request)
  - PUR-spiral hose (page 38)
  - Sound damper
  - Exhaust air hood

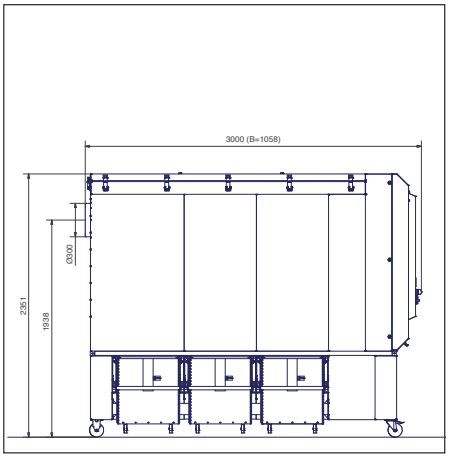
PURE AIR DUST EXTRACTORS

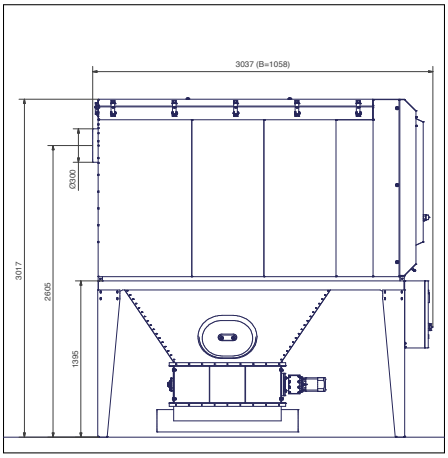
POWER UNIT (APU)

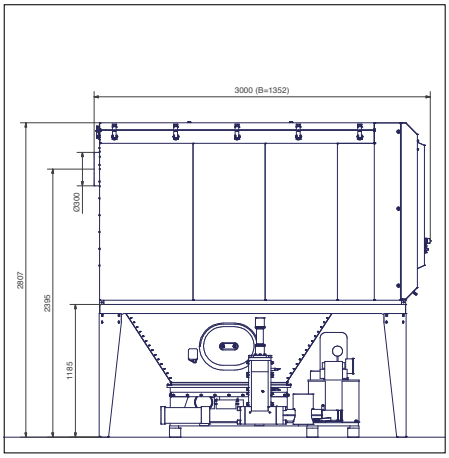
AL-KO POWER UNIT 300

Type	300 P-BP 30-40	300 P-BP 30-50	300 P-BP 50-70
Art.no.	**199 538 01**	**192 006 05**	**195 874 05**
Extraction nozzle	300 mm	300 mm	300 mm
Nominal motor rating	7.5 kW/3 Ph	7.5 kW/3 Ph	7.5 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	6,000 m^3/h	6,000 m^3/h	6,000 m^3/h
Nominal flow rate*	5,089 m^3/h	5,089 m^3/h	5,089 m^3/h
Vacuum at nominal flow rate	2,587 Pa	2,587 Pa	2,587 Pa
Filter area	30 m^2	30 m^2	30 m^2
Pre-separator	Integrated	Integrated	Integrated
Extinguishing device	Integrated	Integrated	Integrated
Swarf collection capacity (net / gross)	Briquette press	Briquette press	Briquette press
Sound pressure level* **	71 dB(A)	71 dB(A)	71 dB(A)
Dimensions (L / W / H) in mm	3,000 x 1,332 x 2,817	3,000 x 1,361 x 2,817	3,000 x 1,361 x 2,817
Briquette / Rotary lock valve performance	up to 40 kg/h[2)]	up to 50 kg/h[2)]	up to 70 kg/h[2)]
Briquette diameter	40 mm	50 mm	70 mm
Weight net	1,570 kg	1,570 kg	1,570 kg

*According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material







AL-KO POWER UNIT 350 AND POWER UNIT 350+

THE NEW PERFORMANCE CLASS

H3 Reststaubgehalt 0,1 mg/m³ sicher eingehalten (Hofstaub)

Keine Zündquellen einsaugen!
Keine funkenerzeugenden Maschinen absaugen!
Geeignet zum Absaugen brennbarer Stäube der Staubexplosionsklassen St 1

geprüfte Sicherheit

TÜV MANAGEMENT SERVICE ISO 9001

AL-KO POWER UNIT 350 and POWER UNIT 350+ is the new performance class among pure air dust extractors. The powerful 11 or 15 kW **IE3 motors** extracts dust and swarf with a gigantic **flow rate from more than 8,000 m³/h to 10,000 m³/h,** while being very economical in terms of consumption. Thanks to 57 filters, the AL-KO POWER UNIT 350 and POWER UNIT 350+ offers a **gigantic filter surface** of 73 m² – enough to lower the residual dust content of the **air which is 100 % recycled** to < 0.1 mg/m³ (H3).

Naturally, the AL-KO POWER UNIT 350 and 350+ uses tried and tested, and further improved, AL-KO OPTI JET® technology and the **integrated pre-separator** comes as standard.
While performing on a gigantic level, AL-KO POWER UNIT 350 and POWER UNIT 350+ is never noisy. The maximum sound level at a distance of one meter measures according to DIN EN ISO 11201 – **absolutely quiet 71 dB (A)** – probably the lowest figure in this class. This is not surprising as the AL-KO POWER UNIT 350 and POWER UNIT 350+ **is equipped with real sound-absorbing panels – as standard.**

Thanks to the unique design and the further optimised internal layout, AL-KO POWER UNIT 350 is extremely space-saving: with its dimensions of 3,129 x 1,058 x 2,361 mm (LxWxH) the AL-KO POWER UNIT 350 is significantly smaller than many other devices of the 300 class.

The benefits for you:

- Highest extraction performance
- Lowest energy consumption A+
- Optimum safety
- Compact construction

THE NEW LEVEL OF PERFECTION

- New technology
- Unique design
- Made in Germany
- Patended air routing

PURE AIR DUST EXTRACTORS

POWER UNIT (APU)

AL-KO POWER UNIT 350

Type	350 P	350 P-FU[1)]	350 P-RA
Art.no.	**199 560**	**199 710**	**199 690 01**
Extraction nozzle	350 mm	350 mm	350 mm
Nominal motor rating	11.0 kW/3 Ph	11.0 kW/3 Ph	11.0 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	8,500 m^3/h	8,500 m^3/h	8,500 m^3/h
Nominal flow rate*	6,927 m^3/h	6,927 m^3/h	6,927 m^3/h
Vacuum at nominal flow rate	2,543 Pa	2,543 Pa	2,543 Pa
Filter area	73 m^2	73 m^2	73 m^2
Pre-separator	Integrated	Integrated	Integrated
Extinguishing device	Integrated	Integrated	Integrated
Swarf collection capacity (net / gross)	3 x 165 L / 3 x 250 L	3 x 165 L / 3 x 250 L	Rotary lock valve
Sound pressure level***	71 dB(A)	71 dB(A)	71 dB(A)
Dimensions (L / W / H) in mm	3,129 x 1,058 x 2,361	3,337 x 1,058 x 2,361	3,164 x 1,202 x 2,956
Briquette / Rotary lock valve performance	–	–	7,232 L/h[2)]
Briquette diameter	–	–	–
Weight net	977 kg	999 kg	1,368 kg

* According GS-HM-03 dusted *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

[1)] FU - with frequency converter incl. control panel and plain-text display, integrated control loop with pressure transmitter for demand-driven control of the dust extractor

Options:

- Filter surface increase up to 146 m^2 (on request)
- Control options (page 34-35)
- Accesories:
  - Swarf bags (page 39)
  - Valves (page 40-41)
  - External switch cabinet
  - Increase of expansion chamber (on request)
  - PUR-spiral hose (page 38)
  - Sound damper
  - Exhaust air hood

PURE AIR DUST EXTRACTORS

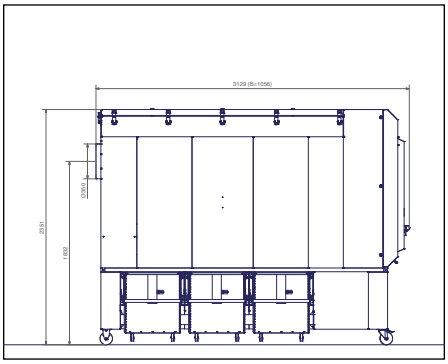
POWER UNIT (APU)

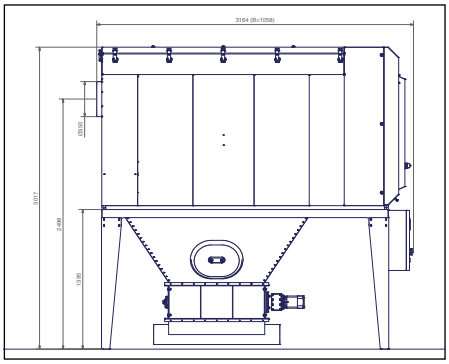
AL-KO POWER UNIT 350

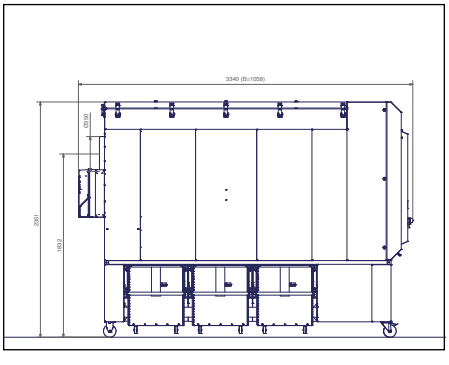
Type	350 P-RA FU[1)]	350 P-ZRS	350 P-ZRS FU[1)]
Art.no.	**199 715 01**	**199 563**	**199 713**
Extraction nozzle	350 mm	350 mm	350 mm
Nominal motor rating	11.0 kW/3 Ph	11.0 kW/3 Ph	11.0 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	ca. 8,500 m^3/h	ca. 8,500 m^3/h	ca. 8,500 m^3/h
Nominal flow rate*	6,927 m^3/h	6,927 m^3/h	6,927 m^3/h
Vacuum at nominal flow rate	2,543 Pa	2,543 Pa	2,543 Pa
Filter area	73 m^2	73 m^2	73 m^2
Pre-separator	Integrated	Integrated	Integrated
Extinguishing device	Integrated	Integrated	Integrated
Swarf collection capacity (net / gross)	Rotary lock valve	Rotary lock valve	Rotary lock valve
Sound pressure level***	71 dB(A)	71 dB(A)	71 dB(A)
Dimensions (L / W / H) in mm	3,374 x 1,202 x 2,956	3,164 x 1,058 x 3,027	3,371 x 1,058 x 3,027
Briquette / Rotary lock valve performance	7,232 L/h[2)]	15,744 L/h[2)]	15,744 L/h[2)]
Briquette diameter	–	–	–
Weight net	1,390 kg	1,010 kg	1,030 kg

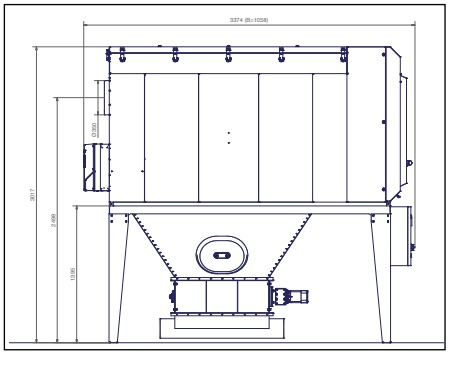
* According GS-HM-03 dusted *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

[1)] FU - with frequency converter incl. control panel and plain-text display, integrated control loop with pressure transmitter for demand-driven control of the dust extractor









PURE AIR DUST EXTRACTORS

POWER UNIT (APU)

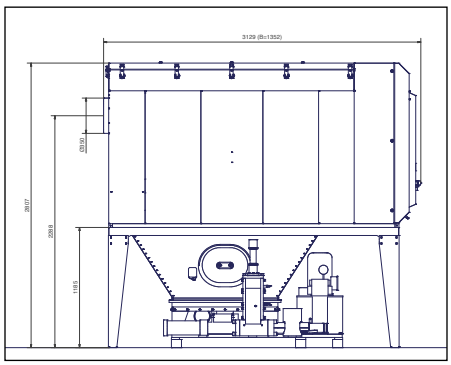
2

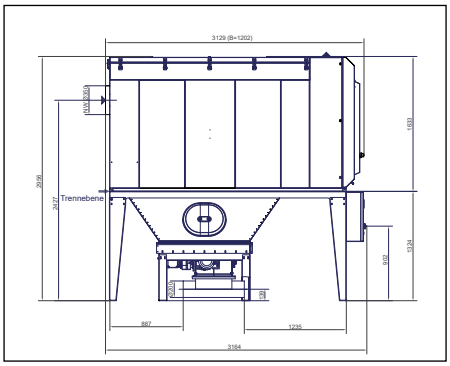
AL-KO POWER UNIT 350

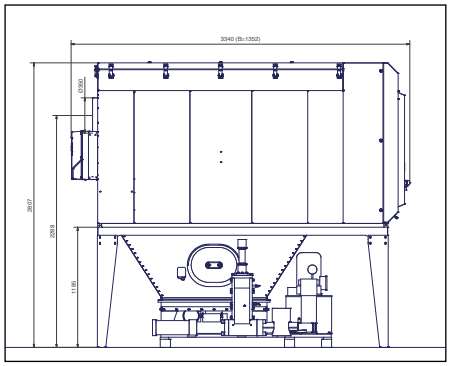
Type	350 P-BP 30-50	350 P-BP 30-50 FU[1)]	350 P-BP 50-70	350 P-BP 50-70 FU[1)]
Art.no.	**199 561**	**199 711**	**199 562**	**199 712**
Extraction nozzle	350 mm	350 mm	350 mm	350 mm
Nominal motor rating	11.0 kW/3 Ph	11.0 kW/3 Ph	11.0 kW/3 Ph	11.0 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	ca. 8,500 m^3/h	ca. 8,500 m^3/h	ca. 8,500 m^3/h	ca. 8,500 m^3/h
Nominal flow rate*	6,927 m^3/h	6,927 m^3/h	6,927 m^3/h	6,927 m^3/h
Vacuum at nominal flow rate	2,543 Pa	2,543 Pa	2,543 Pa	2,543 Pa
Filter area	73 m^2	73 m^2	73 m^2	73 m^2
Pre-separator	Integrated	Integrated	Integrated	Integrated
Extinguishing device	Integrated	Integrated	Integrated	Integrated
Swarf collection capacity (net / gross)	Briquette press	Briquette press	Briquette press	Briquette press
Sound pressure level***	71 dB(A)	71 dB(A)	71 dB(A)	71 dB(A)
Dimensions (L / W / H) in mm	3,129x1,361x2,817	3,340x1,361x2,817	3,129x1,361x2,817	3,340x1,361x2,817
Briquette / Rotary lock valve performance	up to 50 kg/h[2)]	up to 50 kg/h[2)]	up to 70 kg/h[2)]	up to 70 kg/h[2)]
Briquette diameter	50 mm	50 mm	70 mm	70 mm
Weight net	1,740 kg	1,762 kg	1,740 kg	1,762 kg

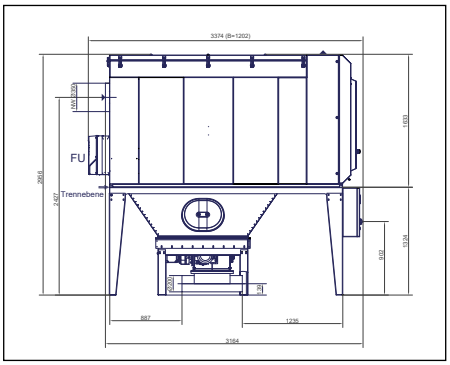
* * According GS-HM-03 dusted *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

[1)] FU - with frequency converter incl. control panel and plain-text display, integrated control loop with pressure transmitter for demand-driven control of the dust extractor









PURE AIR DUST EXTRACTORS

POWER UNIT (APU)

INCL. DUST COMPARTMENT

AL-KO POWER UNIT 350+

Type	350+ P	350+ P FU[1)]	350+ P-RA
Art.no.	**199 843**	**199 849**	**199 847 01**
Extraction nozzle	355 mm	355 mm	355 mm
Nominal motor rating	15.0 kW/3 Ph	15.0 kW/3 Ph	15.0 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	ca. 10,000 m^3/h	ca. 10,000 m^3/h	ca. 10,000 m^3/h
Nominal flow rate*	7,127 m^3/h	7,127 m^3/h	7,130 m^3/h
Vacuum at nominal flow rate	3,347 Pa	3,347 Pa	3,347 Pa
Filter area	73 m^2	73 m^2	73 m^2
Pre-separator	Integrated	Integrated	Integrated
Extinguishing device	Integrated	Integrated	Integrated
Swarf collection capacity (net / gross)	3 x 165 L / 3 x 250 L	3 x 165 L / 3 x 250 L	Rotary lock valve
Sound pressure level***	73 dB(A)	73 dB(A)	73 dB(A)
Dimensions (L / W / H) in mm	3,130 x 1,058 x 2,361	3,320 x 1,058 x 2,361	3,164 x 1,202 x 2,956
Briquette / Rotary lock valve performance	–	–	7,232 L/h**
Briquette diameter	–		–
Weight net	1,040 kg	1,064 kg	1,386 kg

* According GS-HM-03 dusted *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

[1)] FU - with frequency converter incl. control panel and plain-text display, integrated control loop with pressure transmitter for demand-driven control of the dust extractor

Options:

- Filter surface increase up to 146 m^2 (on request)
- Control options (page 34-35)
- Accesories:
  - Swarf bags (page 39)
  - Valves (page 40-41)
  - External switch cabinet
  - Increase of expansion chamber (on request)
  - PUR-spiral hose (page 38)
  - Sound damper
  - Exhaust air hood

PURE AIR DUST EXTRACTORS

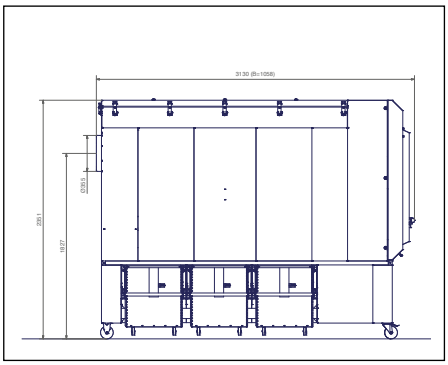
POWER UNIT (APU)

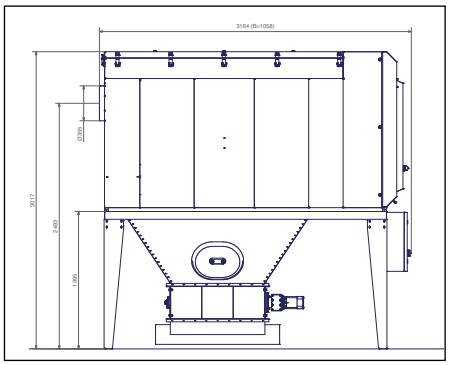
AL-KO POWER UNIT 350+

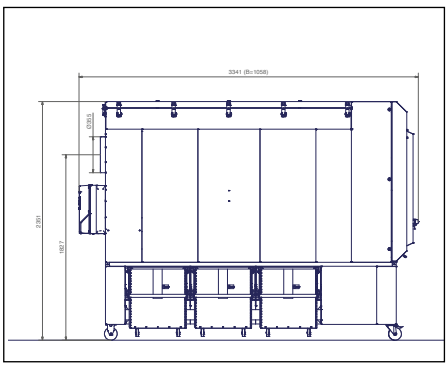
Type	350+ P-RA-FU[1)]	350+ P-ZRS	350+ P-ZRS-FU[1)]
Art.no.	**199 874 01**	**199 846**	**199 852**
Extraction nozzle	355 mm	355 mm	355 mm
Nominal motor rating	15.0 kW/3 Ph	15.0 kW/3 Ph	15.0 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	ca. 10,000 m^3/h	ca. 10,000 m^3/h	ca. 10,000 m^3/h
Nominal flow rate*	7,130 m^3/h	7,130 m^3/h	7,130 m^3/h
Vacuum at nominal flow rate	3,347 Pa	3,347 Pa	3,347 Pa
Filter area	73 m^2	73 m^2	73 m^2
Pre-separator	Integrated	Integrated	Integrated
Extinguishing device	Integrated	Integrated	Integrated
Swarf collection capacity (net / gross)	Rotary lock valve	Rotary lock valve	Rotary lock valve
Sound pressure level***	73 dB(A)	73 dB(A)	73 dB(A)
Dimensions (L / W / H) in mm	3,374 x 1,202 x 2,956	3,164 x 1,058 x 3,027	3,374 x 1,058 x 3,027
Briquette / Rotary lock valve performance	7,232 L/h[2)]	15,744 L/h[2)]	15,744 L/h[2)]
Briquette diameter	–	–	–
Weight net	1,410 kg	1,027 kg	1,051 kg

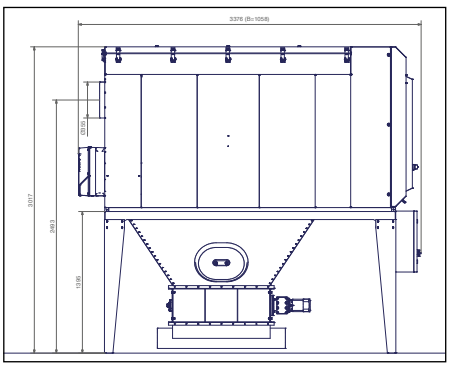
* According GS-HM-03 dusted *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

[1)] FU - with frequency converter incl. control panel and plain-text display, integrated control loop with pressure transmitter for demand-driven control of the dust extractor









PURE AIR DUST EXTRACTORS

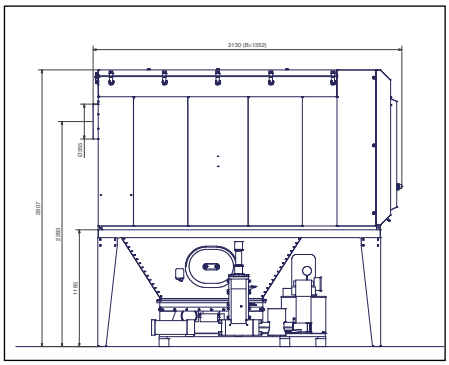
POWER UNIT (APU)

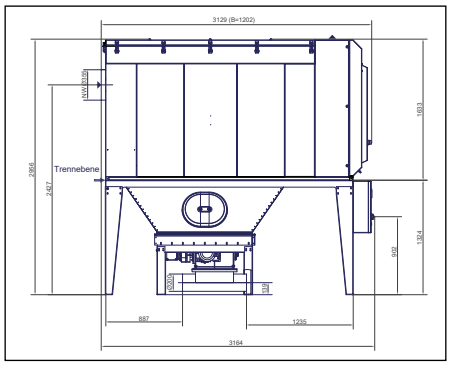
AL-KO POWER UNIT 350+

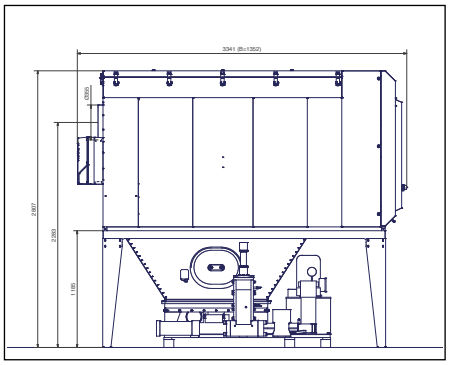
Type	350+ P-BP 30-50	350+ P-BP 30-50 FU[1)]	350+ P-BP 50-70	350+ P-BP 50-70 FU[1)]
Art.no.	**199 844**	**199 850**	**199 845**	**199 851**
Extraction nozzle	355 mm	355 mm	355 mm	355 mm
Nominal motor rating	15,0 kW/3 Ph	15,0 kW/3 Ph	15,0 kW/3 Ph	15,0 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	ca. 10,000 m^3/h	ca. 10,000 m^3/h	ca. 10,000 m^3/h	ca. 10,000 m^3/h
Nominal flow rate*	7,127 m^3/h	7,127 m^3/h	7,127 m^3/h	7,127 m^3/h
Vacuum at nominal flow rate	3,347 Pa	3,347 Pa	3,347 Pa	3,347 Pa
Filter area	73 m^2	73 m^2	73 m^2	73 m^2
Pre-separator	Integrated	Integrated	Integrated	Integrated
Extinguishing device	Integrated	Integrated	Integrated	Integrated
Swarf collection capacity (net / gross)	Briquette press	Briquette press	Briquette press	Briquette press
Sound pressure level***	73 dB(A)	73 dB(A)	73 dB(A)	73 dB(A)
Dimensions (L / W / H) in mm	3,130 x 1,361 x 2,817	3,341 x 1,361 x 2,817	3,130 x 1,361 x 2,817	3,341 x 1,361 x 2,817
Briquette / Rotary lock valve performance	up to 50 kg/h[2)]	up to 50 kg/h[2)]	up to 70 kg/h[2)]	up to 70 kg/h[2)]
Briquette diameter	50 mm	50 mm	70 mm	70 mm
Weight net	1,802 kg	1,826 kg	1,802 kg	1,826 kg

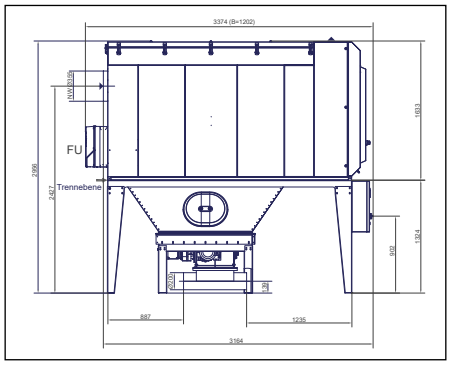
* According GS-HM-03 dusted **On stock *** Free sound field measurement according to DIN EN 11201 [2)] Depending on the material

[1)] FU - with frequency converter incl. control panel and plain-text display, integrated control loop with pressure transmitter for demand-driven control of the dust extractor









PURE AIR DUST EXTRACTORS

POWER UNIT CONTROL TECHNOLOGY

Product	Designation	Art. no.
Machine detection incl. slide valve control 	**APU 140-350⁺ 4ME&4S EXTERNAL** I Machine detection for up to 4 processing machines I by transducer coils or potential-free contact I incl. automatic slide valve control I for up to 4 electropneumatic or electric motor-driven shutter valves in 24 V I external connection box for independent wall mounting	**199 105**
	APU 140-350⁺ 8ME&8S EXTERNAL I Machine detection for up to 8 processing machines I by transducer coils or potential-free contact I incl. automatic slide valve control I for up to 8 electropneumatic or electric motor-driven shutter valves in 24 V I external connection box for independent wall mounting	**199 106**
	APU 140-350⁺ 12ME&12S EXTERNAL I Machine detection for up to 12 processing machines I by transducer coils or potential-free contact I incl. automatic slide valve control I for up to 12 electropneumatic or electric motor-driven shutter valves in 24 V I external connection box for independent wall mounting	**199 107**
	APU 140-350⁺ 16ME&16S EXTERNAL I Machine detection for up to 16 processing machines I by transducer coils or potential-free contact I incl. automatic slide valve control I for up to 16 electropneumatic or electric motor-driven shutter valves in 24 V I external connection box for independent wall mounting	**199 108**
Machine detection 	**APU/MPJ 140-350⁺ 8ME 24V / 230 V / 24V** I Machine detection for automatic start-up of up to 8 processing machines I by transducer coil I external connection box for independent wall mounting I electrical power supply 230 V to be provided on site I on-site fusing	**195 601**
Machine detection incl. slide valve control 	**APU/MPJ 140-350⁺ 8ME&8S 230 V / 24 V** I Machine detection for up to 8 processing machines I by transducer coil or potential-free contact I incl. automatic slide valve control I for up to 8 electropneumatic or electric motor-driven shutter valves in 230V / 24 V I external connection box for independent wall mounting I electrical power supply 230 V to be provided on site I on-site fusing	**195 602 02**
	**APU 140-160 P & K control FC** I with frequency converter 2.2 kW incl. control panel and plain-text display I integrated control loop with pressure transmitter for demand-driven control of the dust extractor	**199 094 01**
	APU 200 P control FC I with frequency converter 3.0 kW incl. control panel and plain-text display I integrated control loop with pressure transmitter for demand-driven control of the dust extractor	**199 095 01**
	APU 250-300 P control FC I with frequency converter 7.5 kW incl. control panel and plain-text display I integrated control loop with pressure transmitter for demand-driven control of the dust extractor	**199 096**

DUST EXTRACTORS

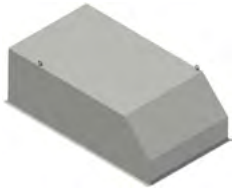
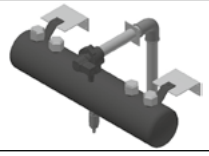
POWER UNIT CONTROL TECHNOLOGY

Product	Designation	Art. no.
Control options for POWER UNIT 100 – 350+   	**Flash lamp 24 V/DC/RED** Flash lamp for visual detection of a fault indication on an AL-KO control unit; flash lamp supplied loose for on-site connection	**199 433**
	Signal horn with flash lamp Signal horn incl. flash lamp for acoustic and visual detection of a fault indication on an AL-KO control unit; signal horn and flash lamp supplied loose for on-site connection	**199 434**
	Transducer coil for detection of a processing machine	**938 361**
	Automatic switch on for 230 V and 400 V up to 16 A, automatic start-up of an extraction device (raw air dust extractor)	**938 415**
	Automatic switch on for 230 V and 16 A, automatic start-up of an extraction device (raw air dust extractor)	**199 569**

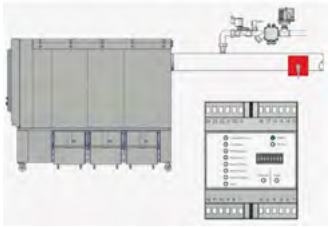
External controllers for wall mounting, other options and configuration for other voltages on request.

PURE AIR DUST EXTRACTORS

POWER UNIT ACCESSORIES

Product	Designation	Art. no.
Accessories/options	**APU 160 splitter silencer** For POWER UNIT 160 Add-on silencer for mounting on the unit Height 536 mm Reduce the dB by 6 dB(A)	**199 913**
	**APU 200 splitter silencer** For POWER UNIT 200 Add-on silencer for mounting on the unit Height 536 mm Reduce the dB by 6 dB(A)	**199 911**
	APU 250 - 350⁺ splitter silencer For POWER UNIT 250 - 350⁺ Add-on silencer for mounting on the unit Height 610 mm Reduce the dB by 6 dB(A)	**199 687**
	**AL-KO LEVEL CONTROL 21** Contactless level filling sensor suitable for ATEX-Zone 21 Ultrasonic sensor For dry dust and chips Preinstalled at AL-KO extraction units or to retrofit	**199 100 01**
	**Bulk shaft compressed air dedusting** 1 pc Control on request	**197 203**

MACHINE FIRE PROTECTION SYSTEM FOR POWER UNIT 250 – 350⁺

Product	Designation	Art. No.
IGNITION PROTECTION SYSTEM FOR DUST COLLECTOR	**APU 250-350⁺ ignition protection system** Ignition protection system for mobil extractors during suction wood and wood materials in indoor areas according to EN 16770 Consisting of: I spark detector FM 1/8 Ex incl. screw-in holder and connection cable I extinguishing device IPS with pressure switch incl. extinguishing nozzle, nozzle holder, flow monitor, terminal box I alarm module incl. optical and acoustic indication	**199 903**
	**Pressure booster pump GDA-70** Only necessary if the domestic water connection is permanently less than 3 bar	**197 288**
	Installation tool for ignition protection system (reusable)	**199 899**
	Spare part - spark detector FM 1/8	**199 900**
	Spare part - extinguishing nozzle K45 for extinguishing device	**199 901**
	Spare part - alarm module	**199 902**

AL-KO DUST COMPARTMENT

PRACTICAL – SIMPLE – CLEAN

The AL-KO DUST COMPARTMENT, the simple and inexpensive solution for greater cleanliness and health protection in the workplace.

The benefits for you:

- Easy to operate
- Dust-free wind-up during container changes
- Bag removal with lifting machine
- Optimised health protection

Release the chippings container

Push in the dust compartment

Replace the chippings container

Reinsert the chippings container and remove the dust compartment

Clamp the chippings container into place

CLEAN DUST COMPARTMENT

Designation	Art. no.
APU 140-160 Dust compartment cpl.[1)]	**199 752**
APU 200 Dust compartment cpl.[1)]	**199 834**
APU 250 Dust compartment cpl.[1)]	**199 836**
APU 300-350⁺ Dust compartment cpl.[1)]	**199 837**
APU 140-200 Dust compartment	**868 283**
APU 250-350⁺ Dust compartment	**868 340**

[1)]Content: 1 pc. Dust compartment plus the required guide rail

DUST EXTRACTOR
ACCESSORIES

Product	Designation	Art. no.
PUR spiral hose Individual lengths 5 m / 10 m 	**PUR spiral hose** NW 80 / per metre (flame retardant)	**846 093**
	PUR spiral hose NW 100 / per metre (flame retardant)	**933 873**
	PUR spiral hose NW 120 / per metre (flame retardant)	**845 631**
	PUR spiral hose NW 125 / per metre (flame retardant)	**933 874**
	PUR spiral hose NW 140 / per metre (flame retardant)	**933 875**
	PUR spiral hose NW 160 / per metre (flame retardant)	**933 876**
	PUR spiral hose NW 180 / per metre (flame retardant)	**934 233**
	PUR spiral hose NW 200 / per metre (flame retardant)	**934 136**
	PUR spiral hose NW 250 / per metre (flame retardant)	**845 316**
	PUR spiral hose NW 300 / per metre (flame retardant)	**934 698**
	PUR spiral hose NW 350 / per metre (flame retardant)	**868 506**
	PUR spiral hose NW 355 / per metre (flame retardant)	**870 482**

Worm drive hose clip 	**Worm drive hose clip NW 50**	**847 903**
	Worm drive hose clip NW 80	**847 270**
	Worm drive hose clip NW 100	**847 041**
	Worm drive hose clip NW 120	**847 264**
	Worm drive hose clip NW 125	**847 264**
	Worm drive hose clip NW 140	**847 074**
	Worm drive hose clip NW 160	**847 265**
	Worm drive hose clip NW 180	**847 266**
	Worm drive hose clip NW 200	**847 267**
	Worm drive hose clip NW 250	**847 268**
	Worm drive hose clip NW 300	**847 269**
	Worm drive hose clip NW 350	**870 483**
	Worm drive hose clip NW 355	**870 483**

DUST EXTRACTOR
ACCESSORIES

Product	Designation	Art. no.
Filter **Filter category M** **electro conductive**	For POWER UNIT 100/MOBIL JET 100 **SP-Filter bag** 1 pc necessary	**195 181**
	For POWER UNIT 120 H **SP-Filter bag** 1 pc necessary	**195 671**
	For POWER UNIT 120 M **SP-Filter bag** 1 pc necessary	**195 673**
	For POWER UNIT 140 P **filter 1m** 16 pcs necessary	**851 003 02**
	For POWER UNIT 140 H **filter 1m** 16 pcs necessary	**851 011 01**
	For POWER UNIT 160 H **filter 1m** 23 pcs necessary	**851 011 01**
	For POWER UNIT 160 P **filter 1m** 23 pcs necessary	**851 003 01**
	For POWER UNIT 160 K **filter 1m** 23 pcs necessary	**851 003 01**
	For POWER UNIT 200 P **filter 1m** 35 pcs necessary	**851 003 01**
	For POWER UNIT 250 P **filter 1,15m** 63 pcs necessary	**851 012 01**
	For POWER UNIT 300 P **filter 1,15m** 90 pcs necessary	**851 012 01**
	For POWER UNIT 350 P **filter 1m** 57 pcs necessary	**867 416**
	für POWER UNIT 350⁺ P **filter 1m** 57 pcs necessary	**867 416**

Swarf bags for pure air equipment	**Swarf bags** for APU 100 / 120, D = 520 mm, 1,300 mm long, 20 pcs.	**868 154**
	**Swarf bags** for APU 140 / 160 / 200 (705 x 640 x 1,200), 20 pcs.	**868 157**
	Swarf bags for APU 250 / 300 / 350 / 350+ / ECO JET (890 x 570 x 1,200), 20 pcs.	**934 605**
	Swarf bags for MOBIL JET 125 / 140 (640 x 600 x 1,000), 20 pcs., up to build year 2005	**868 159**
	Swarf bags for MOBIL JET 140 / 160 (938 x 620 x 1,200), 20 pcs.	**868 160**
	Swarf bags for MOBIL JET 200 (780 x 520 x 1,200), 20 pcs.	**868 161**
	Swarf bags for MOBIL JET 250 / 300 (920 x 780 x 1,150), 20 pcs.	**868 162**
Swarf bags for raw air equipment	**Swarf bags** for MOBIL 100, D = 400 mm, 900 mm long, 5 pcs.	**868 156**
	Swarf bags for MOBIL 125 – 200 / AAS, D = 520 mm, 1,300 mm long, 20 pcs.	**868 154**
	Swarf bags for MOBIL 125 – 200 / AAS, D = 520 mm, 1,600 mm long, 20 pcs.	**868 155**

DUST EXTRACTOR
ACCESSORIES

Product	Designation		Art. no.
Floor cleaning sets and accessories for workshop and machine cleaning 	**Floor cleaning set** Metal, consisting of floor cleaning nozzle with castors NW 100 metal elbow extension pipe with handle NW 100 2.5 m highly flexible PU hose NW 100		**938 579**
	Floor cleaning set	like 938 579, + adapter for 120	**938 579 10**
	Floor cleaning set	like 938 579, but without hose	**938 580**
	Floor cleaning set	like 938 580, + adapter for 120	**938 580 10**
	Crevice nozzle	for floor and machine cleaning	**520 305**

Product	Designation		Art. no.
Valve, electropneumatic **24 V DC / 230 V** **1 = 1 cylinder / 2 = 2 cylinders** 	**EPS 80/1**	NW 80 / 1 with rim 24 V / 230 V	**192 132**
	EPS 100/1	NW 100 / 1 with rim 24 V / 230 V	**192 133**
	EPS 120/1	NW 120 / 1 with rim 24 V / 230 V	**192 135**
	EPS 125/1	NW 125 / 1 with rim 24 V / 230 V	**192 136**
	EPS 140/1	NW 140 / 1 with rim 24 V / 230 V	**192 138**
	EPS 150/1	NW 150 / 1 with rim 24 V / 230 V	**192 139**
	EPS 160/1	NW 160 / 1 with rim 24 V / 230 V	**192 140**
	EPS 180/1	NW 180 / 1 with rim 24 V / 230 V	**192 141**
	EPS 200/1	NW 200 / 1 with rim 24 V / 230 V	**192 143**
	EPS 220/2	NW 220 / 2 with rim 24 V / 230 V	**192 145**
	EPS 225/2	NW 225 / 2 with rim 24 V / 230 V	**192 146**
	EPS 250/2	NW 250 / 2 with rim 24 V / 230 V	**192 147**
	EPS 280/2	NW 280 / 2 with rim 24 V / 230 V	**192 148**
	EPS 300/2	NW 300 / 2 with rim 24 V / 230 V	**192 149**
	EPS 315/2	NW 315 / 2 with rim 24 V / 230 V	**192 150**
	EPS 350/2	NW 350 / 2 with rim 24 V / 230 V	**192 151**
	EPS 355/2	NW 355 / 2 with rim 24 V / 230 V	**192 152**
	EPS 400/2	NW 400 / 2 with rim 24 V / 230 V	**192 153**
	EPS 450/2	NW 450 / 2 with rim 24 V / 230 V	**192 154**
	EPS 500/2	NW 500 / 2 with rim 24 V / 230 V	**192 155**

DUST EXTRACTOR

ACCESSORIES

Product	Designation	Art. no.
Valve, electric motor 24 V DC 	**MAS 80 / 15 Nm**	**938 426**
	MAS 100 / 15 Nm	**938 427**
	MAS 120 / 15 Nm	**192 001**
	MAS 140 / 15 Nm	**938 429**
	MAS 150 / 15 Nm	**938 430**
	MAS 160 / 15 Nm	**938 431**
	MAS 180 / 15 Nm	**938 432**
	MAS 200 / 15 Nm	**938 433**
	MAS 225 / 15 Nm	**938 434**
	MAS 250 / 15 Nm	**938 435**
	MAS 280 / 15 Nm	**938 436**
	MAS 300 / 15 Nm	**938 437**

Product	Designation	Art. no.
Residual dust sensor 	**Residual dust monitoring for AL-KO extraction systems** The residual dust monitoring uses an electrokinetic sensor to detect the residual dust in the return air duct. If the defined limit value of 0.3 mg/m³ is exceeded, the evaluation unit generates a self-holding alarm. If there is a recirculating air valve, it is moved to the outgoing air position.	
	Residual dust sensor (Residual dust evaluation unit in IP65 housing wired and programmed)	**194 648 01**

CLASSIFICATION OF DUST CLASSES

Suitable for dry, dangerous to health, non flammable dust since 01.01.2005	**Valid dust class accord. to DIN EN 60335-2-69, annex AA**	
	Dust class	**Maximum passage level**
with AGW* > 1 mg/m³	at least L (M, H)	< 1 %
with AGW* ≥ 0.1 mg/m³	at least M (H)	< 0.1 %
with AGW* < 0.1 mg/m³	H	< 0.005 %
Carcinogenic dangerous substances accord. GefStoffV § 11 TRGS 905 or TRGS 906	H	< 0.005 %

*AGW = workplace limit value

PURE AIR DUST EXTRACTOR

CLEAN UNIT

AL-KO CLEAN UNIT D

FOR DUST EXTRACTION

Type	D 26-2.2	D 31-3	D 52-7.5	D 62-7.5
Art. no.	**197 410**	**197 411**	**197 412**	**197 413**
Extraction nozzle	160 mm	200 mm	250 mm	300 mm
Nominal motor rating	2.2 kWh	3 kW	7.5 kW	7.5 kW
Connection voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	2,200 m^3/h	3,200 m^3/h	5,000 m^3/h	6,000 m^3/h
Max. vacuum	2,800 Pa	3,200 Pa	3,800 Pa	4,000 Pa
Filter area	26 m^2	31.2 m^2	52 m^2	62.4 m^2
Swarf collection capacity	150 L	150 L	150 L	150 L
Sound pressure level	70 dB(A)	72 dB(A)	72 dB(A)	72 dB(A)
Dimension (L/W/H) in mm	1,660x1,106x2,075	1,650x1,106x2,075	1,910x1,106x2,075	1,915x1,106x2,075
Weight	450 kg	466 kg	612 kg	621 kg

Areas of application:

- Single and multi-user extraction of dry, free-flowing dusts
- Direct extraction at machines and workplaces
- Grinding, deburring, filling, polishing, etc.

Suitable for:

- Metal dust and chips
- Plastic dust
- Composites

Features:

- 4 power levels
- Integrated pre-separation chamber with non-return valve
- Filter cartridges with Venturi nozzles and Jet-pulse-cleaning
- IE3-motor

Options and accessories:

- Various filter materials
- Patended dust compartment for dust-free container emptying
- Control with frequency converter for performance-oriented operation
- IE4-motors or higher-quality
- Sound insulation and exhaust air hoods
- Pre-separation, spark traps und extinguishing devices

Your benefits:

- High suction performance, long filter service life
- Flexible to use
- Quiet and energy efficient
- Easy dust disposal

PURE AIR DUST EXTRACTOR

CLEAN UNIT

AL-KO CLEAN UNIT D EX

FOR DUST EXTRACTION

Type	D 28-2.2Ex	D 34-3Ex	D 56-7.5Ex	D 68-7.5Ex
Art. no.	**197 442**	**197 443**	**197 444**	**197 445**
Extraction nozzle	160 mm	200 mm	250 mm	300 mm
Nominal motor rating	2.2 kWh	3 kW	7.5 kW	7.5 kW
Connection voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	2,200 m^3/h	3,200 m^3/h	5,000 m^3/h	6,000 m^3/h
Max. vacuum	2,800 Pa	3,200 Pa	3,800 Pa	4,000 Pa
Filter area	28 m^2	34,4 m^2	56 m^2	68,8 m^2
Swarf collection capacity	150 L	150 L	150 L	150 L
Sound pressure level	70 dB(A)	72 dB(A)	72 dB(A)	72 dB(A)
Dimension (L/W/H) in mm	1,660x1,106x2,075	1,650x1,106x2,075	1,910x1,106x2,075	1,915x1,106x2,075
Weight	450 kg	466 kg	612 kg	621 kg

Areas of application:

- Single and multi-user extraction of dry, free-flowing dusts and chips in the processing of aluminium and similar materials, considering specified parameters
- Direct extraction at machines and workplaces
- Grinding, deburring, polishing

Suitable for:

- Aluminium dust and chips and similar metals and substances

Features:

- 4 power levels
- Spark trap at the nozzle
- Integrated pre-separation chamber with non-return valve
- Filter cartridges with Venturi nozzles and Jet-pulse cleaning
- IE3-motor

Options and accessories:

- Various filter materials
- Patended dust compartment for dust-free container emptying
- IE-4 motors or higher-quality
- Sound insulation and exhaust air hoods
- Post-filter H13 and H14

Your benefits:

- High suction performance, long filter service life
- Dry separation from aluminium under definded conditions

WELDING FUME EXTRACTOR

CLEAN UNIT

AL-KO CLEAN UNIT F

FOR WELDING FUME EXTRACTION

Type	F 42-2.2	F 50-3	F 84-7.5	F100-7.5
Art. no.	**197 414**	**197 415**	**197 416**	**197 421**
Extraction nozzle	160 mm	200 mm	250 mm	300 mm
Nominal motor rating	2.2 kW h	3 kW	7.5 kW	7.5 kW
Connection voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	2,200 m^3/h	3,200 m^3/h	5,000 m^3/h	6,000 m^3/h
Max. vacuum	2,800 Pa	3,200 Pa	3,800 Pa	4,000 Pa
Filter area	42 m^2	50 m^2	84 m^2	100 m^2
Swarf collection capacity	150 L	150 L	150 L	150 L
Sound pressure level	70 dB(A)	72 dB(A)	72 dB(A)	72 dB(A)
Dimension (L/W/H) in mm	1,660x1,106x2,075	1,650x1,106x2,075	1,910x1,106x2,075	1,915x1,106x2,075
Weight	450 kg	466 kg	612 kg	621 kg

Areas of application:

- Single and multi-user extraction of dry, oil-free fumes during welding
- Manual and automatic welding
- Extraction at hoods, extration arms and welding tables

Suitable for:

- Extraction of fumes during welding of unalloyed or low-alloy steels
- Continuous operation

Features:

- 4 power levels
- Integrated pre-separation chamber with non-return valve
- Filter cartridges with Venturi nozzles and Jet-pulse cleaning
- IE3-motor

Options and accessories:

- Various filter materials
- Patended dust compartment for dust-free container emptying
- Control with frequency converter for performance-oriented operation
- IE-4 motors or higher-quality
- Sound insulation and exhaust air hoods
- Post-filter H13 and H14
- Pre-separation, spark traps and extinguishing devices

Your benefits:

- High suction performance, long filter service life
- Flexible to use
- Quiet and energy efficient
- Easy dust disposal

WELDING FUME EXTRACTOR

CLEAN UNIT

AL-KO CLEAN UNIT F W3*

FOR WELDING FUME EXTRACTION

Type	F 42-2.2W3*	F 50-3W3*	F 84-7.5W3*	F100-7.5W3*
Art. no.	**197 418**	**197 419**	**197 420**	**197 417**
Extraction nozzle	160 mm	200 mm	250 mm	300 mm
Nominal motor rating	2.2 kWh	3 kW	7.5 kW	7.5 kW
Connection voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	2,200 m^3/h	3,200 m^3/h	5,000 m^3/h	6,000 m^3/h
Max. vacuum	2,800 Pa	3.,200 Pa	3,800 Pa	4,000 Pa
Filter area	42 m^2	50 m^2	84 m^2	100 m^2
Swarf collection capacity	150 L	150 L	150 L	150 L
Sound pressure level	70 dB(A)	72 dB(A)	72 dB(A)	72 dB(A)
Dimension (L/W/H) in mm	1,660x1,106x2,075	1,650x1,106x2,075	1,910x1,106x2,075	1,915x1,106x2,075
Weight	450 kg	466 kg	612 kg	621 kg

*registered for the exam

Areas of application:

- Single and multi-user extraction of dry, oil-free fumes during welding
- Manual and automatic welding
- Extraction at hoods, extration arms and welding tables

Suitable for:

- Extraction of fumes during welding of high-alloy steels with air recirculation into the workspace
- Continuous operation

Features:

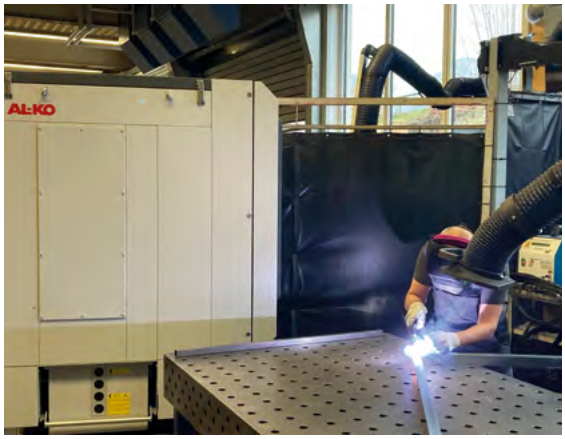
- 4 power levels
- Integrated pre-separation chamber with non-return valve
- Filter cartridges with Venturi nozzles and Jet-pulse cleaning
- IE3-motor

Options and accessories:

- Various filter materials
- Patended dust compartment for dust-free container emptying
- Control with frequency converter for performance-oriented operation
- IE-4 motors or higher-quality
- Sound insulation and exhaust air hoods
- Post-filter H13 and H14
- Pre-separation, spark traps and extinguishing devices

Your benefits:

- Energy savingsThrough air recirculation
- No mesurement obligation tp prove compliance with the MAK-value
- Low operating costs



RAW AIR DUST COLLECTORS MOBIL AND AAS

THE ROBUST SOLUTION FOR CLEANER AIR

2

Whether you need to extract dust, swarf or plastic, polystyrene, paper, metal or glass waste, at different locations or stationary, AL-KO raw air dust collectors MOBIL and AAS are characterised by optimum extraction performance, robust construction and convenient handling. Both ranges of models ensure a significant reduction of dust levels. Short installation periods and quick-release brackets for fastening the standardised swarf bags simplify work. The AAS series also offers the possibility of switching to swarf collection bins, either as part of the original equipment or at a later stage. Filter cartridges can be refitted at any stage as well.

The benefits for you:

- Exceptional value for money
- Robust design
- Easy to operate
- Outstanding extraction performance
- Wide range of possibilities for retrofitting

MOBIL RAW AIR DUST COLLECTORS

MOBIL | AAS

MOBIL 100 – 200

Type	100[1)]**	125W**	125D**	140W**	140D**	160**	200**
Art. no.	**195 174**	**195 125**	**195 126**	**195 142 50**	**195 127 50**	**195 129 50**	**195 131 50**
Extraction nozzle	100 mm	125 mm	125 mm	140 mm	140 mm	160 mm	200 mm
Nominal motor rating	0.75 kW/1 Ph	0.75 kW/1 Ph	0.75 kW/3 Ph	0.75 kW/1 Ph	0.75 kW/3 Ph	1.5 kW/3 Ph	2.2 kW/3 Ph
Voltage	230 V/50 Hz	230 V/50 Hz	400 V/50 Hz	230 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Flow rate	865 m^3/h	1,350 m^3/h	1,350 m^3/h	1,650 m^3/h	1,650 m^3/h	2,200 m^3/h	2,500 m^3/h
Vacuum at nominal flow rate	1,780 Pa	1,600 Pa	1,600 Pa	1,750 Pa	1,750 Pa	2,500 Pa	2,700 Pa
Filter area	1.1 m^2	2.2 m^2	2.2 m^2	2.2 m^2	2.2 m^2	2.2 m^2	2.2 m^2
Swarf collection capacity	90 L	175 L	175 L	175 L	175 L	175 L	175 L
Dimensions (L/W/H) in mm	883x479x1,622	1,093x577x2,300	1,093x577x2,300	1,093x577x2,300	1,061x577x2,300	1,061x577x2,300	1,094x577x2,300
Weight net	26 kg	51 kg	53 kg	52 kg	53 kg	53 kg	60 kg

[1)] 2 m hose included in the delivery **On stock

Use in the wood industry is not permitted according DIN EN 16770

AAS 1013-AFB – 6013-AFB

Type	1013-AFB	2013-AFB	3013-AFB	4013-AFB	5013-AFB	6013-AFB
Art. no.	**199 451**	**199 452**	**199 457**	**199 458**	**199 459**	**199 460**
Extraction nozzle	160 mm	160 mm	200 mm	250 mm	250 mm	300 mm
Nominal motor rating	2.2 kW/3Ph	2.2 kW/3Ph	3 kW/3Ph	4 kW/3Ph	5.5 kW/3Ph	7.5 kW/3Ph
Voltage	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz
Nominal flow rate*	1,300 m^3/h	1,300 m^3/h	2,500 m^3/h	3,500 m^3/h	4,500 m^3/h	5,500 m^3/h
Max. flow rate	1,800 m^3/h	2,300 m^3/h	3,300 m^3/h	4,300 m^3/h	5,300 m^3/h	7,300 m^3/h
Max. vacuum	2,100 Pa	2,200 Pa	2,700 Pa	2,500 Pa	2,900 Pa	2,900 Pa
Filter area	2.2 m^2	2 x 2.2 m^2	3 x 2.2 m^2	4 x 3.5 m^2	5 x 3.5 m^2	6 x 3.5 m^2
Swarf collection capacity	175 L	2 x 175 L	3 x 175 L	4 x 175 L	5 x 175 L	6 x 175 L
Dimensions (L/W/H) in mm	1,149 x 578 x 2,115	1,817 x 578 x 2,115	2,193 x 578 x 2,115	3,416 x 787 x 2,754	4,101 x 787 x 2,754	4,786 x 787 x 2,754
Weight net	74 kg*	103 kg*	139 kg*	238 kg*	277 kg*	319 kg*

* incl. bin

Use in the wood industry is not permitted according DIN EN 16770

MOBIL RAW AIR DUST COLLECTORS

AAS

2

AAS 1013 – 6013

Type	1013 KS	1013	2013 KS	2013
Art. no.	**195 773 01**	**199 375 01**	**195 774 01**	**199 376 01**
Extraction nozzle	160 mm	160 mm	160 mm	160 mm
Nominal motor rating	2.2 kW/3Ph	2.2 kW/3Ph	2.2 kW/3Ph	2.2 kW/3Ph
Voltage	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz
Nominal flow rate	1,300 m^3/h	1,300 m^3/h	1,300 m^3/h	1,300 m^3/h
Max. flow rate	1,800 m^3/h	1,800 m^3/h	2,300 m^3/h	2,300 m^3/h
Max. vacuum	2,100 Pa	2,100 Pa	2,200 Pa	2,200 Pa
Filter area	2.2 m^2	2.2 m^2	2 x 2.2 m^2	2 x 2.2 m^2
Swarf collection capacity	175 L	175 L	2 x 175 L	2 x 175 L
Dimensions (L/W/H) in mm	1,149 x 578 x 2,115	1,149 x 578 x 2,115	1,817 x 578 x 2,115	1,817 x 578 x 2,115
Weight net	61 kg	61 kg	76 kg	76 kg

Type	3013	4013	5013	6013
Art. no.	**192 452 01**	**195 776 02**	**195 777 02**	**195 778 02**
Extraction nozzle	200 mm	250 mm	250 mm	300 mm
Nominal motor rating	3 kW/3Ph	4 kW/3Ph	5.5 kW/3Ph	7.5 kW/3Ph
Voltage	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz	400 V /50 Hz
Nominal flow rate	2,500 m^3/h	3,500 m^3/h	4,500 m^3/h	5,500 m^3/h
Max. flow rate	3,300 m^3/h	4,300 m^3/h	5,300 m^3/h	7,300 m^3/h
Max. vacuum	2,700 Pa	2,500 Pa	2,900 Pa	2,900 Pa
Filter area	3 x 2.2 m^2	4 x 3.5 m^2	5 x 3.5 m^2	6 x 3.5 m^2
Swarf collection capacity	3 x 175 L	4 x 175 L	5 x 175 L	6 x 175 L
Dimensions (L/W/H) in mm	2,486 x 578 x 2,115	3,416 x 787 x 2,754	4,101 x 787 x 2,754	4,786 x 787 x 2,754
Weight net	98 kg	182 kg	207 kg	236 kg

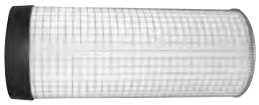
Use in the wood industry is not permitted according DIN EN 16770

The **AAS 1013 – 6013** raw air units are equipped with steel castors as standard. AAS 1013 and 2013 are additionally available as variants with plastic castors (KS, only in version with swarf bags).

- Extraction nozzle on top in standard version, conversion to nozzle underneath is generally possible on site without extra cost
- Selection between two standard discharge variants (swarf bag, swarf collection bin)
- Container painted in RAL 7035 structured finish, body with feet in galvanised steel plate design
- Units can be retrofitted for swarf collection barrels (AFB) on site; for this, there is a retrofit set for AAS 1013 – 3013 and a retrofit set for AAS 4013 – 6013. These sets comprise a container as well as the holding and fastening materials.
- Uniform swarf bags for all unit variants (art. no. 868 154, D = 520, 1,300 mm long)
- Filter length with AAS 1013 – 3013 = 1,000 mm filter length with AAS 4013 – 6013 = 1,600 mm
- Filter cartridges art. no. 195 194 can be retrofitted at any time

MOBIL RAW AIR DUST COLLECTORS

MOBIL | AAS | BAG

Product	Type			Art. no.
Connection cable for raw air equipment 	**Connection cable** 230 V, 5 m with plug-in connection			**520 195**
	Connection cable 400 V, 5 m with plug-in connection			**520 196**
Accessories/options	**Retrofit set AFB**	AAS 1013-3013	Comprising: 1 Pc. bin as well as the holding and fastening materials	**199 461**
	Retrofit set AFB	AAS 4013-6013		**199 462**
	Transport device	AAS 1013	Comprising: 1 Pc. base plate and castors for mobile handling of the AAS	**199 504**
	Transport device	AAS 2013		**199 505**
	Transport device	AAS 3013		**199 506**
Filter	for MOBIL 100 **Filter 320 / 400 700**			**934 988**
	for AAS 1000-3000 / AAS 1013-3013 / MOBIL 125-200 **filter 525 / 625 1000**			**845 693**
	for AAS 4000-6000 / AAS 4013-6013 **filter 525 / 625 1600**			**849 089**
	for BAG 140-200 **filter Kat. L 1600**			**867 947 01**
Filter cartridges 	**Filter cartridges** for raw air equipment diameter 330 mm for MOBIL 100 (Height of the filter cartridges with Ø 330 mm = 890 mm); 6 m²			**195 193**
	Filter cartridges for raw air equipment diameter 500 mm for MOBIL 125 – 200, AAS (height of the filter cartridges with Ø 500 mm = 1,025 mm); 11 m²			**195 194**

MOBILE VENTILATION EXTRACTION FAN

The benefits for you:

- Fresh air supply for working with construction chemicals
- Fresh air supply for working with loose materials
- Fresh air supply for working in rooms with uncomfortable air conditions

BAG 140 – 200

Type	140	200
Art. no.	**199 679**	**199 677**
Intake nozzle	120 mm and 140 mm	120 mm and 200 mm
Nominal motor rating	1.1 kW/1 Ph	2.2 kW/3 Ph
Voltage	230 V/50 Hz	400 V/50 Hz
Flow rate	1,650 m³/h	2,500 m³/h
Vacuum at nominal flow rate	1,750 Pa	2,700 Pa
Filter surface	3 m²	3 m²
Swarf collection capacity	175 L	175 L
Dimensions (L /W / H) in mm	590* x 632 x 835	590* x 632 x 835
Weight net	ca. 29 kg	ca. 34 kg

* L with attached filter = 2,150 mm

MOBILE PAINT MIST EXTRACTION

FLEXIBLE AND EFFICIENTLY

Your benefits:

- mobile design
- high degree of separation, high suction performance
- easy to handle
- long filter life, therefore less downtime
- flexible due to suction technology with front panel system
- certified for ATEX-zone 2

COLOUR JET

Type	Type 1	Type 2	Type 3	Type 4
Art. no.	**195 627 01**	**195 628 01**	**195 629 01**	**195 752 01**
Motor rating	1.5 kW	0.75/2.1 kW	0.75/2.1 kW	2.2 kW
Motor speed	1,410 min^{-1}	960/1,430 min^{-1}	960/1,430 min^{-1}	1,430 min^{-1}
Air volume	4,600 m^3/h	3,000 / 6,800 m^3/h	3,000 / 6,800 m^3/h	6,800 m^3/h
Usable pressure	500 Pa	400 / 500 Pa	400 / 500 Pa	500 Pa
Dimensions (L/W/H) in mm	1,012 x 1,405 x 912	1,012 x 1,405 x 943	1,912 x 1,405 x 943	1,912 x 1,405 x 943
Dimensions (L/W/H) in mm*	1,897 x 1,405 x 1,144	1,897 x 1,405 x 1,177	2,971 x 1,405 x 1,131	2,971 x 1,405 x 1,215
Filter area	1 m^2	1 m^2	2 m^2	2 m^2
Weight net	175 kg	176 kg	248 kg	248 kg

* with opened side parts

Product	Type		Art. no.
Accessories/options	**Starter set** for COLOUR JET 1, COLOUR JET 2, COLOUR JET 3, COLOUR JET 4, diameter 300 mm (3 m hose, 2 hose clips, 1 collar with flange ring, 1 cover flap for outside wall)		**195 376 01**
	Energy-saving stand Hook-on fixture for spray gun with automatic compressed air-operated waste air control via throttle valve (integrated in COLOUR JET) with stand and mounting bracket incl. mounting set		**195 753**
	Volume paper filter for COLOUR JET 1, COLOUR JET 2: Holding frame with additional volume paper, prefilter for hooking onto COLOUR JET		**195 630 01**
	Volume paper filter for COLOUR JET 3, COLOUR JET 4: Holding frame with additional volume paper, prefilter for hooking onto COLOUR JET		**195 631 01**
	1 replacement volume paper filter	for COLOUR JET 1, COLOUR JET 2	**195 640**
	1 replacement volume paper filter	for COLOUR JET 3, COLOUR JET 4	**195 650**
	1 replacement prefilter	for COLOUR JET 1, COLOUR JET 2	**195 651**
	1 replacement prefilter	for COLOUR JET 3, COLOUR JET 4	**195 652**
	1 replacement fine filter	for COLOUR JET 1, COLOUR JET 2	**195 653**
	1 replacement fine filter	for COLOUR JET 3, COLOUR JET 4	**195 654**
	Teflon spray	Content: 400 ml	**195 389**

STATIONARY COMPACT FILTER SYSTEMS

ECO JET

Calculation of the stationary systems is made by a max. Filter load of 150 m³/m²*h.
More than this value is not allowed by AL-KO and is only made on responsibility of the commissioning engineer.

While developing the ECO JET compact filter systems, AL-KO focussed on three goals: ECO JET offers you maximum security of investment, exceedingly low operating costs and maximum convenience. This is why every ECO JET system is of course fitted with the unique AL-KO OPTI JET® filter system: For you and your valuable machinery this means cleaner air, constant extraction performance, lower energy consumption, less noise and vibration, longer filter service life and thus less downtime as well as predictable maintenance intervals. In addition, the programmable controller enables you to make changes at any time with little effort. That's security of investment you can enjoy on a daily basis.

The benefits for you:

- Permanently clean air for humans and machines
- Low energy consumption
- Less downtime and predictable maintenance intervals
- Low sound and vibration emission
- Easy to extend
- Tested according GS-HM-04

STATIONARY COMPACT FILTER SYSTEMS

ECO JET

- **Default disposal:**
  - Waste container
  - Rotary feeder
  - Briquetting press
  - Round discharge

- **Special disposal:**
  Sliding floor, chain floor, screw conveyor and other variations on request

Options:

Spacer rings for longer filters = more filter area = lower filter load = reduction of the differential pressure = reduction of energy- and operating costs

alternative

As expansion increase = calming of the air speed = filter protection = higher liftetime

4

Excerpt of possible variations. Other versions on request.

Type	Type 2	Type 3	Type 4	Type 5
Vacuum at nominal flow rate	2,500 Pa	3,700 – 4,200 Pa	2,500 – 4,200 Pa	2,100 – 3,700 Pa
Motor rating	3.0 kW	5.5 – 11 kW	7.5 – 15 kW	7.5 – 15 kW
Flow rate	2,300 m^3/h	2,500 – 4,200 m^3/h	6,045 – 10,000 m^3/h	6,045 – 10,000 m^3/h
Filter area	17.3 m^2	23 – 38.8 m^2	28.8 – 58.2 m^2	40.3 – 77.6 m^2
Depth	1,122 – 1,315 mm	1,122 – 1,315 mm	1,122 – 1,315 mm	1,122 – 1,315 mm
Length	2,225 mm	2,440 mm	3,188 mm	3,950 mm
Height	2,959 mm	2,959 – 4,816 mm	2,959 – 5,269 mm	2,959 – 5,562 mm

Type	Type 6	Type DUO 6	Type DUO 8	Type DUO 10
Vacuum at nominal flow rate	2,250 – 3,000 Pa	2,100 – 4,700 Pa	2,100 – 4,700 Pa	2,100 – 4,700 Pa
Motor rating	11 – 18.5 kW	15 – 18.5 kW	2 x 11 – 2 x 15 kW	2 x 11 – 2 x 18.5 kW
Flow rate	7,770 – 10,000 m^3/h	5,700 – 13,000 m^3/h	8,000 – 17,000 m^3/h	8,000 – 22,000 m^3/h
Filter area	51.8 – 97 m^2	57.6 – 97 m^2	69.2 – 116.4 m^2	92 – 155.2 m^2
Depth	1,122 – 1,315 mm	2,121 – 2,000 mm	2,121 – 2,000 mm	2,121 – 2,000 mm
Length	4,563 mm	2,530 mm	3,188 mm	3,919 mm
Height	2,959 – 4,057 mm	3,610 – 5,245 mm	3,610 – 5,245 mm	3,996 – 5,572 mm

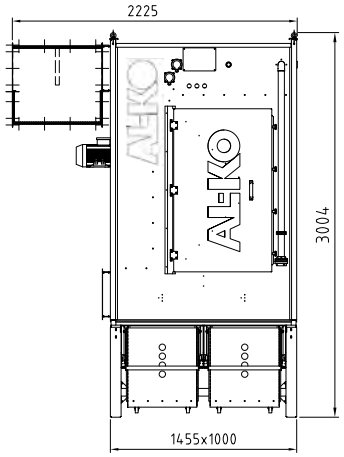
STATIONARY COMPACT FILTER SYSTEMS
ECO JET

For calculation of other System-variations, please send following information to us:

Checklist ECO JET	
Partner:	
Customer:	
Project:	
Flow rate (m^3/h):	
Vacuum fan total (Pa):	
Pressure fan total (Pa):	
Filter area (m^2):	
Filter load: Please observe the rules (such as wood max. 150 m^3/m^2*h)	
Voltage solenoid valves 24 V / 230 V:	
Special voltage (such as V/Hz):	
Machines to extract:	
Material to extract:	
Material per hour (kg):	
Installation situation (on roof, walls, near buildings, place of installation):	
ATEX Zone:	Yes (Cat:) No
ECO JET top:	
Number of fans:	
ECO JET spacer rings:	Yes (Height:) No
ECO JET bottom / disposal:	
Inlet (mm):	
Pipes:	
Sound damper (guidelines sound):	Yes (dB(A):) No
Control requirements:	

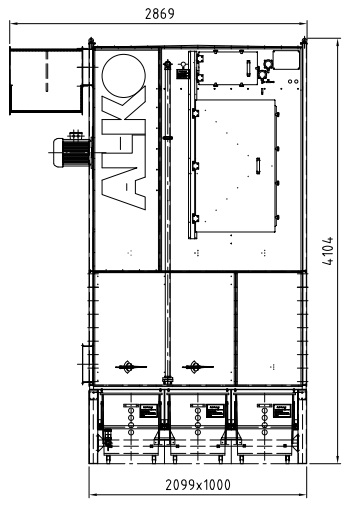
STATIONARY COMPACT FILTER SYSTEMS (Excerpt)

ECO JET 2 AFB 3.0 KW (waste container)

Product	Designation	Art. no.
	Clean air filter system with 17.3 m² filter surface filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 3.0 kW Substructure with 2 waste containers Pressure relief area in the rear wall Dry extinguishing line with C coupling Silencer (outgoing air, left) Flow rate: 2,300 m³/h at 2,500 Pa stat. (see fan characteristic) Filter load: 132 m³/m²*h Dimensions (L x W x H): 2,225 x 1,000 x 3,004 mm	**199 949**
	Control, variant 1: Fan control Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 4 machines Slide valve control for 4 machines	**199 950**
	Control, variant 2: Fan control FC start-up using manual or automatic mode with frequency converter 3.0 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 4 machines Slide valve control for 4 machines	**199 951**

Options:
See page 59

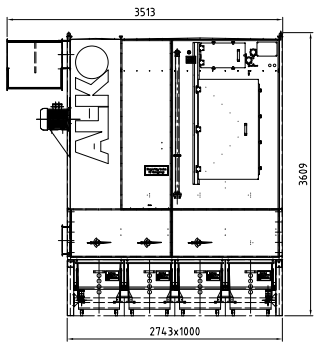
ECO JET 3 XL AFB 7,5 KW (waste container)

Product	Designation	Art. no.
	Clean air filter system with 38.8 m² filter surface Filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 7.5 kW Substructure with 3 waste containers Pressure relief area in the rear wall Dry extinguishing line with C coupling Silencer (outgoing air, left) Flow rate: 5,000 m³/h at 3,500 Pa stat. (see fan characteristic) Filter load: 128.8 m³/m²*h Dimensions (L x W x H): 2,869 x 1,000 x 4,104 mm	**192 675 01**
	Control, variant 1: Fan control Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 276**
	Control, variant 2: Fan control FC start-up using manual or automatic mode with frequency converter 7.5 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 281**

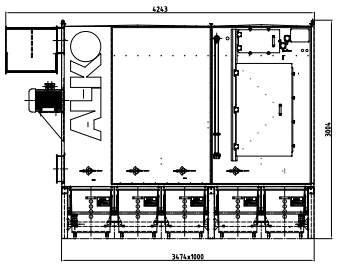
Options:
See page 59

STATIONARY COMPACT FILTER SYSTEMS

ECO JET 4 L AFB 11 KW (waste container)

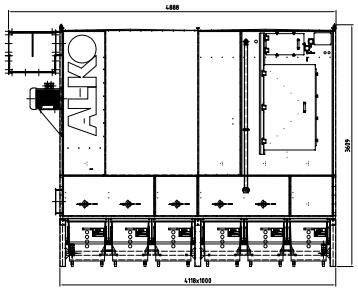
Product	Designation	Art. no.
	Clean air filter system with 47.4 m² filter surface Filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 11.0 kW Substructure with 4 waste containers Pressure relief area in the rear wall Dry extinguishing line with C coupling Silencer (outgoing air, left) Flow rate: 6,200 m³/h at 3,500 Pa stat. (see fan characteristic) Filter load: 130.8 m³/m²*h Dimensions (L x W x H): 3,513 x 1,000 x 3,609 mm	**192 678**
	Control, variant 1: Fan control Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 277**
	Control, variant 2: Fan control FC start-up using manual or automatic mode with frequency converter 11.0 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 282**
Options: See page 59		

ECO JET 5 AFB 11 KW (waste container)

Product	Designation	Art. no.
	Clean air filter system with 46 m² filter surface Filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 11.0 kW Substructure with 5 waste containers Pressure relief area in the rear wall Dry extinguishing line with C coupling Silencer (outgoing air, left) Flow rate: 6,200 m³/h at 3,500 Pa stat. (see fan characteristic) Filter load: 134.8 m³/m²*h Dimensions (L x W x H): 4.243 x 1.000 x 3,004 mm	**199 952**
	Control, variant 1: Fan control Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 277**
	Control, variant 2: Fan control FC start-up using manual or automatic mode with frequency converter 11.0 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 282**
Options: See page 59		

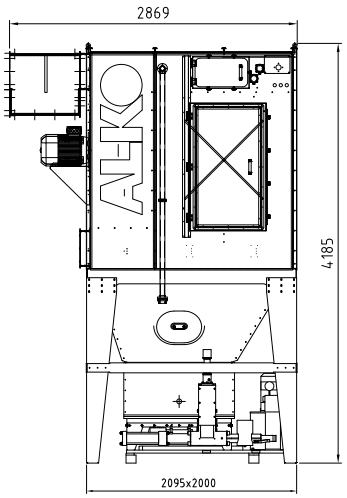
STATIONARY COMPACT FILTER SYSTEMS

ECO JET 6 L AFB 15 KW (waste container)

Product	Designation	Art. no.
	Clean air filter system with 79 m² filter surface Filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 15.0 kW Substructure with 6 waste containers Pressure relief area in the rear wall Dry extinguishing line with C coupling Silencer (outgoing air, left) Flow rate: 8,500 m³/h at 2,500 Pa stat. (see fan characteristic) Filter load: 107.6 m³/m²*h Dimensions (L x W x H): 4,888 x 1,000 x 3,609 mm	**197 225**
	Control, variant 1: Fan control Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 278**
	Control, variant 2: Fan control FC start-up using manual or automatic mode with frequency converter 15.0 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 283**

Options:
See page 59

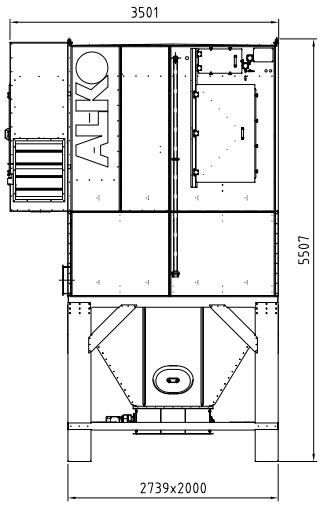
ECO JET DUO 6 BP 15 KW (briquetting press)

Product	Designation	Art. no.
	Clean air filter system with 57.6 m² filter surface filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 15.0 kW Substructure for a briquette press APC 50-70 incl. control Pressing capacity up to 70 kg/h Pressure relief area in the rear wall Dry extinguishing line with C coupling Silencer (outgoing air, left) Flow rate: 8,500 m³/h at 2,500 Pa stat. (see fan characteristic) Filter load: 149.3 m³/m²*h Dimensions (L x W x H): 2,869 x 2,000 x 4,185 mm	**192 522 01**
	Control, variant 1: Fan control Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 279**
	Control, variant 2: Fan control FC start-up using manual or automatic mode with frequency converter 15.0 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines	**193 284**

Options:
See page 59

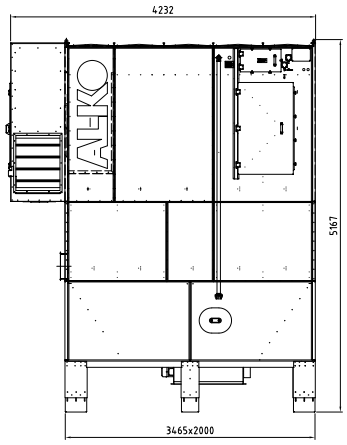
STATIONARY COMPACT FILTER SYSTEMS

ECO JET DUO 8 XL ZRS 2x15 KW (rotary feeder)

Product	Designation	Art. no.
	Clean air filter system with 116.4 m² filter surface BIA M electrically conductive AL-KO OPTI JET® filter cleaning Substructure with rotary feeder Fan 2x 15 kW Pressure relief area in the rear wall Dry extinguishing line with C coupling 2x non-return flap (return air channel with deflection) Flow rate: 16,000 m³/h at 2,600 Pa stat. (see fan characteristic) Filter load: 137.5 m³/m²*h Dimensions (L x W x H): 3,501 x 2,000 x 5,507 mm	**197 226**
	Control, variant 1: Fan control ACS I Star-delta / FC -start, manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Exhaust- / return air control PTC thermistor evaluation Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**197 227**
Options: See page 59	**Control, variant 2:** Fan control ACS II FC -start (cascade connection) ,manual or automatic mode incl. frequency converter 15 kW with control panel and plain text display Integrated control loop with pressure transmitter for demand driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Exhaust- / return air control PTC thermistor evaluation Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**197 228**

STATIONARY COMPACT FILTER SYSTEMS

ECO JET DUO 10 XL RA 2x18.5 KW (round discharge)

Product	Designation	Art. no.
	Clean air filter system with 155.2 m² filter surface Filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 2x 18.5 kW Round discharge with rotary feeder 960 mm Pressure relief area in the rear wall Dry extinguishing line with C coupling 2x non-return flap Return air channel with deflection Flow rate: 23,000 m³/h at 3,500 Pa stat. (see fan characteristic) Filter load: 148.2 m³/m²*h Dimensions (L x W x H): 4,232 x 2,000 x 5,167 mm	**197 229**
	Control, variant 1: Fan control ACS I Round discharge and rotary feeder Star-delta / FC -start, manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Exhaust- / return air control PTC thermistor evaluation Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**197 230**
Options: See page 59	**Control, variant 2:** Fan control ACS II Round discharge and rotary feeder FC -start (cascade connection) ,manual or automatic mode incl. frequency converter 18.5 kW with control panel and plain text display Integrated control loop with pressure transmitter for demand driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Exhaust- / return air control PTC thermistor evaluation Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**197 231**

STATIONARY COMPACT FILTER SYSTEMS

ACCESSORIES ECO JET

IMPORTANT: In all stationary systems of the ECO JET series, it is necessary to order the intake sockets as well!

Product	Designation	Art. no.
Intake socket	Intake sockets 200 mm with check valve in rectangular duct	**199 610**
	Intake sockets 250 mm with check valve in rectangular duct	**199 611**
	Intake sockets 300 mm with check valve in rectangular duct	**199 612**
	Intake sockets 2 x 250 mm with check valve in rectangular duct	**199 613**
	Intake sockets 2 x 300 mm with check valve in rectangular duct	**199 614**
	Intake sockets 315 mm with check valve in rectangular duct	**199 323**
	Intake sockets 350 mm with check valve in rectangular duct	**199 479**
	Intake sockets 355 mm with check valve in rectangular duct	**199 324**
	Intake sockets 400 mm with check valve in rectangular duct	**199 325**
Swarf bags	Swarf bags for ECO JET/ PROFI JET 20 pcs	**934 605**
Silencer/ Exhaust- return air hood	ECO JET exhaust air silencer V1	**938 022 01**
	ECO JET exhaust air silencer V2	**199 480**
	ECO JET return air channel EA/RA	**199 953 01**
	ECO JET DUO return air channel EA/RA	**199 954 01**
	ECO JET non-return flap 910x346x250 mm	**199 975 01**
Cleaning bulk shaft	Bulk shaft compressed air dedusting	**199 751**
Control	Slide valve control quad group	**193 742**
	Horn & flash lamp fault indication	**193 763**
	EA/RA control 24V	**193 773**
	ACS AL-KO LEVEL CONTROL 21 ATEX	**193 759 01**
	Paddle switch 24V- 230V	**199 842 01**
	Control dedusting bulk shaft 1 pc	**193 803**
	Dedusting module 5 solenoid valves	**867 231**
	Dedusting module 10 solenoid valves	**867 233**

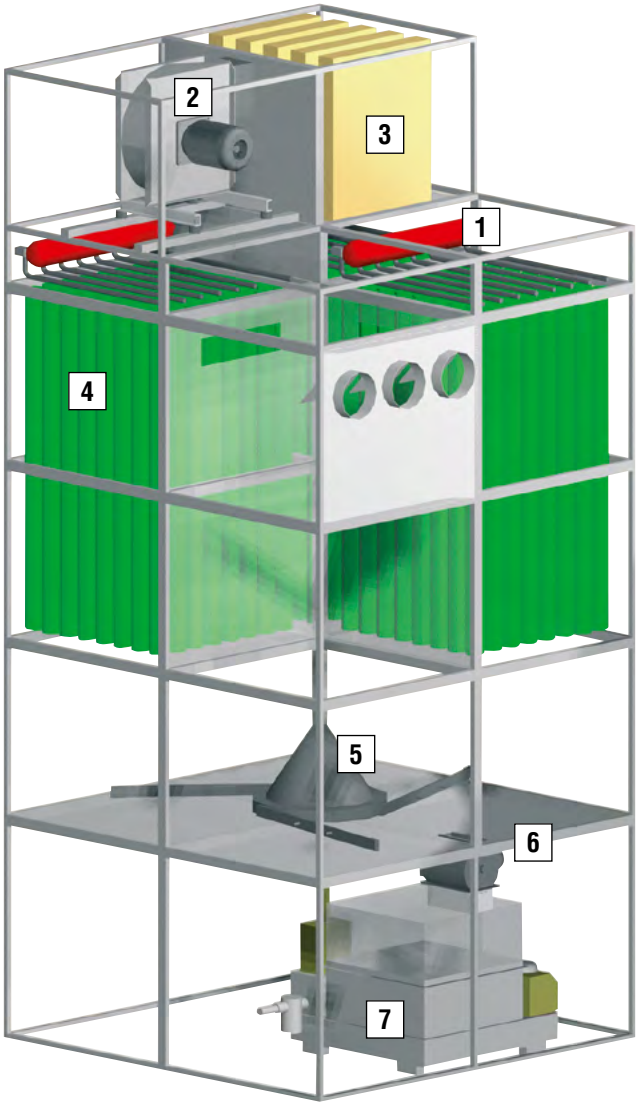
STATIONARY SYSTEM FILTER EQUIPMENT

PROFI JET

On the following pages you will find a few variations. More systems on request.

Calculation of the stationary systems is made by a max. Filter load of 150 m³/m²*h. More than this value is not allowed by AL-KO and is only made on responsibility of the commissioning engineer.

1 Efficient and economical: Large air surge tank with fast diaphragm valves for effective OPTI JET® filter cleaning and lowest use of compressed air.
2 Safely regulated: Process fans according to ErP Directive 2009/125/EG.
3 Safeguarding good neighbourhood relations: sound-insulated return air chamber, optionally with sound-absorbing panels providing the lowest sound emission values on the market.
4 Optimum efficiency: OPTI JET® filter bag (BGIA-tested for dust class M).
5 According to your preference: Discharge made from galvanised steel plates or welded and powder-coated.
6 AL-KO rotary feeder pressure-tested according to ATEX Directive 2014/34/EU.
7 They soon pay themselves off: AL-KO briquette presses.

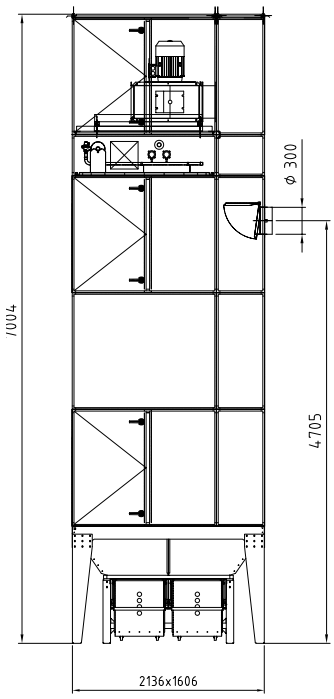


The benefits for you:

- Individual solution with cost-effective standard components
- AL-KO OPTI JET® technology for cleaner air, less downtime and lower energy consumption
- Security of investment as the system can grown and change along with the business
- Integrated insulation for minimal temperature loss
- Integrated fire and explosion protection
- Tested according GS-HM-04

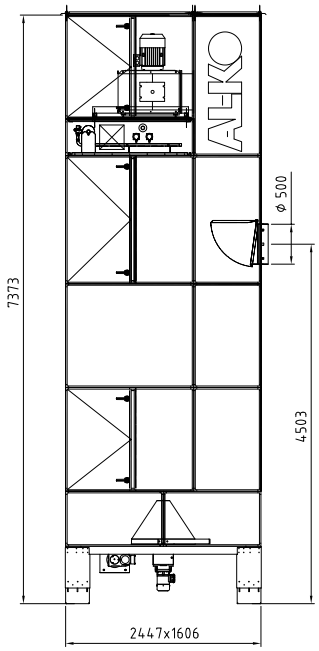
STATIONARY SYSTEM FILTER EQUIPMENT

PROFI JET 1 AFB / 15 KW (waste container)

Product	Designation	Art. no.
	Clean air filter system with 87.5 m² filter surface in panel construction Filter BIA category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 15.0 kW Substructure with 2 waste container Pressure relief surfaces on the side Intake socket 450 mm with check valve Flow rate: 12,000 m³/h at 3,100 Pa total (see fan characteristic) Filter area: 137.2 m³/m²*h Dimensions (L x W x H): 2,136 x 1,606 x 7,004 mm	**198 442**
	Control, variant 1: Fan control ACS I Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Exhaust- / return air control Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**193 298**
	Control, variant 2: Fan control ACS I FC start-up using manual or automatic mode with frequency converter 15.0 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Monitoring of the fire dampers Machine detection for 8 machines Slide valve control for 8 machines Exhaust- / return air control Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**193 300**

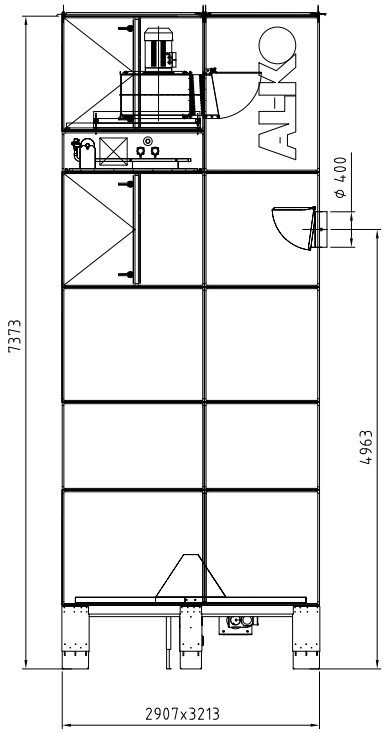
STATIONARY SYSTEM FILTER EQUIPMENT

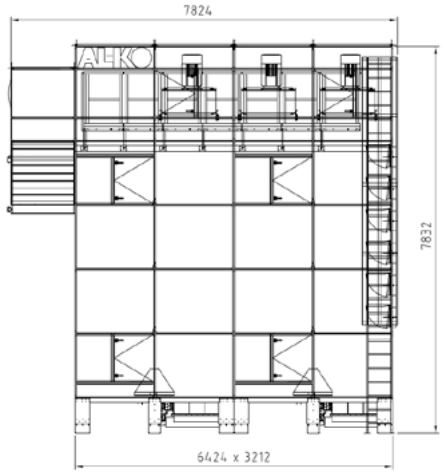
PROFI JET 3 RA / 18.5 KW (round discharge with rotary feeder)

Product	Designation	Art. no.
	Clean air filter system with 100 m² filter surface in panel construction Filter BIA Category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 18.5 kW Round discharge with discharge chute and rotary feeder 440 mm Pressure relief surfaces on the side Intake socket 500 mm with check valve Flow rate: 15,000 m³/h at 3,000 Pa total (see fan characteristic) Filter area: 150 m³/m²*h Dimensions (L x W x H): 2,447 x 1,606 x 7,373 mm	**198 446**
	Control, variant 1: Fan control ACS I Star/delta starting using manual or automatic mode Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Control round discharge and rotary feeder Exhaust-/return air control Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**193 303**
	Control, variant 2: Fan control ACS I FC start-up using manual or automatic mode with frequency converter 18.5 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Control round discharge and rotary feeder Exhaust-/return air control Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**193 305**

STATIONARY SYSTEM FILTER EQUIPMENT

PROFI JET 5 RA / 2 X 18.5 KW (round discharge with rotary feeder)

Product	Designation	Art. no.
	Clean air filter system with 175 m² filter surface in panel construction Filter BIA Category M electrically conductive AL-KO OPTI JET® filter cleaning Fan 2 x 18.5 kW Round discharge with discharge chute and rotary feeder 960 mm Pressure relief surfaces on the side Intake socket NW 2 x 400 mm with check valve Flow rate: 26,000 m³/h at 3,000 Pa total (see fan characteristic) Filter area: 148.6 m³/m²*h Dimensions (L x W x H): 2,906 x 3,212 x 7,413 mm	**198 450**
	Control, variant 1: Fan control ACS I FC start-up using manual or automatic mode with frequency converter 18.5 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Control round discharge and rotary feeder Exhaust- / return air control Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**193 307**
	Control, variant 2: Fan control ACS II FC start-up (cascading control) using manual or automatic mode with frequency Converter 18.5 kW incl. control panel and plain text display Integrated control loop with pressure transmitter for demand-driven Control of the system Automatic filter cleaning (Siemens S7-1200) Machine detection for 8 machines Slide valve control for 8 machines Control round discharge and rotary feeder Exhaust- / return air control Residual dust monitoring acc. to DIN EN 12779 Rupture disc monitoring	**193 306**



Size:
BG 10

Fan:
3 x 37kW

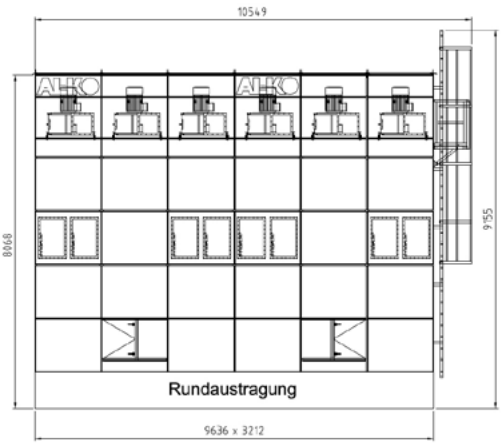
Volume flow:
75,000 m³/h

Vacuum total:
4,300 Pa

Filter area:
500 m²

Filter area load:
150 m³/(m²xh)

Extracted material:
wood dust & chips



Size:
BG 16

Fan:
6 x 30kW

Volume flow:
120,000 m³/h

Vacuum total:
3,900 Pa

Filter area:
800 m²

Filter area load:
150 m³/(m²xh)

Extracted material:
wood dust & chips

DISPOSAL OPTIONS

BRIQUETTE PRESSES

Product	Designation	Art. no.
BRIQUETTE PRESSES		
	**AL-KO briquette press APC 30-40** Feed opening 1,044 x 1,044 mm Drive output 4 kW / 400 V / 50 Hz Throughput rate up to 40 kg/h depending on material Cpl. incl. hydraulics Switch cabinet with PLC control Connection piece for transport hose Automatic final position of all cylinders Galvanised tongs Automatic ON/OFF Base plate Manual control for cylinders (incl. sliding frame) Screw pre-compactor Oil quantity 100 L Briquette diameter 40 mm	**197 210**
	AL-KO briquette press APC 30-50 Feed opening 1,044 x 1,044 mm Drive output 5.5 kW / 400 V / 50 Hz Throughput rate up to 50 kg/h depending on material Cpl. incl. hydraulics Switch cabinet with PLC control Connection piece for transport hose Automatic final position of all cylinders Galvanised tongs Automatic ON/OFF Base plate Manual control for cylinders (incl. sliding frame) Screw pre-compactor Oil quantity 160 L Briquette diameter 50 mm	**192 286**
	AL-KO briquette press APC 50-70 Feed opening 1,044 x 1,044 mm Drive output 5.5 kW / 400 V / 50 Hz Throughput rate up to 70 kg/h depending on material Cpl. incl. hydraulics Switch cabinet with PLC control Connection piece for transport hose Automatic final position of all cylinders Galvanised tongs Automatic ON/OFF Base plate Manual control for cylinders (incl. sliding frame) Screw pre-compactor Oil quantity 160 L Briquette diameter 70 mm	**192 288**

DISPOSAL OPTIONS

BRIQUETTE PRESSES

Product	Designation	Art. no.
BRIQUETTE PRESSES		
	**AL-KO briquette press APV 60** Feed opening 1,400 x 1,400 mm Drive output 7.5 kW / 400 V / 50 Hz Throughput rate up to 90 kg/h depending on material Cpl. incl. hydraulics Switch cabinet with PLC control Connection piece for transport hose Automatic final position of all cylinders Galvanised tongs Pole-changing screw motor Hardened insert sleeve in pressing chamber Base plate Manual control for cylinders (incl. sliding frame) Oil quantity 160 L Briquette diameter 50 mm	**192 290**
	**AL-KO briquette press APV 80** Feed opening 1,400 x 1,400 mm Drive output 7.5 kW / 400 V / 50 Hz Throughput rate up to 100 kg/h depending on material Cpl. incl. hydraulics Switch cabinet with PLC control Connection piece for transport hose Automatic final position of all cylinders Galvanised tongs Pole-changing screw motor Hardened insert sleeve in pressing chamber Base plate Manual control for cylinders (incl. sliding frame) Oil quantity 160 L Briquette diameter 60 mm	**938 701**
	AL-KO briquette press APV 100 Feed opening 1,400 x 1,400 mm Drive output 11 kW / 400 V / 50 Hz Throughput rate up to 150 kg/h depending on material Cpl. incl. hydraulics Switch cabinet with PLC control Connection piece for transport hose Automatic final position of all cylinders Galvanised tongs Pole-changing screw motor Hardened insert sleeve in pressing chamber Base plate Manual control for cylinders (incl. sliding frame) Oil quantity 250 L Briquette diameter 70 mm	**938 702**

DISPOSAL OPTIONS

BRIQUETTE PRESSES

Product	Designation	Art. no.
BRIQUETTE PRESSES		
	AL-KO briquette press APV 120 Feed opening 1,400 x 1,400 mm Drive output 11 kW 400 V/50 Hz throughput rate up to 180 kg/h depending on material Cpl. incl. hydraulics Switch cabinet with PLC control Connection piece for transport hose Automatic final position of all cylinders Galvanised tongs Pole-changing screw motor Hardened insert sleeve in pressing chamber Base plate Manual control for cylinders (incl. sliding frame) Oil quantity 250 L Briquette diameter 80 mm	**938 743**
Options	**Briquette press oil pre-heater APC & APV 60-80** obtained the viscosity at colder temperatures	**938 710**
	Briquette press oil pre-heater APV 100-120 obtained the viscosity at colder temperatures	**870 370**
	Briquette press oil cooler obtained the viscosity at warmer temperatures	**938 711**
	Briquette press low oil switch to display of low oil	**938 712**
	Special version pressing direction presses of the type APC	
Accessories	**BP transport pipe** for briquette diameter up to 50 mm straight, per metre, Ø 70 mm	**938 707**
	BP transport pipe for briquette diameter up to 50 mm 90° elbow, r = 120 cm, Ø 70 mm	**938 708**
	BP transport pipe for briquette diameter up to 70 mm straight, per metre, Ø 90 mm	**938 793**
	BP transport pipe for briquette diameter up to 70 mm 90° elbow, r = 120 cm, Ø 90 mm	**938 794**

DISPOSAL OPTIONS

SHREDDER

Product	Designation	Art. no.
SHREDDER		
	**AL-KO shredder AZR 600, 18.5 kW** Feed opening approx. 600 x 800 mm 0.6 m³ funnel volume Rotor diameter 252 mm Slow-running unit Cutting system 14 diamond knives 40 x 40 mm Electrical control via PLC Main motor 18.5 kW Screen perforation 20/25 mm Automatic star/delta start-up + 5 m cable Automatic OFF on idling Operating hours counter Extraction nozzle Diameter 160 mm Vibration-damping machine feet Air speed 28 m/s Weight 1,300 kg Other options and machines on request	**199 399**

ROTARY FEEDER

Product	Designation	Art. no.
ROTARY FEEDER		
	**ZRS 440/1FG 0.18 kW 4 rpm II1D/-** Rotary feeder 440/1 0.18 kW 4 rpm CE 0588 EX II 1D/- (device interior/exterior area) EX D (protection system) FSA 11 ATEX 1614X	**867 972**
	ZRS 440/FG 0.37 kW 11 rpm II1D/- Rotary feeder 440 0.37 kW 11 rpm CE 0588 EX II 1D/- (device interior/exterior area) EX D (protection system) FSA 11 ATEX 1614X	**867 973**
	ZRS 960/1FG 0.18 kW 4 rpm EX II 1D/- Rotary feeder 960/1 0.18 kW 4 rpm CE 0588 EX II 1D/- (device interior/exterior area) EX D (protection system) FSA 11 ATEX 1614X	**867 974**
	ZRS 960/FG 0.55 kW 11 rpm EX II 1D/- Rotary feeder 960 0.55 kW 11 rpm CE 0588 EX II 1D/- (device interior/exterior area) EX D (protection system) FSA 11 ATEX 1614X	**867 975**

STATIONARY FILTER SYSTEMS

FLEX UNIT

AL-KO FLEX UNIT D

FOR DUST EXTRACTION

Type	D 55-7.5	D 104-15	D 140-18.5	D 195-22
Art. no.	197 446	197 447	197 448	197 449
Extraction nozzle	280 mm	400 mm	450 mm	560 mm
Nominal motor rating	7.5 kWh	15 kW	18.5 kW	22 kW
Connection voltage	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz
Max. flow rate	5,750 m^3/h	10,400 m^3/h	15,000 m^3/h	20,000 m^3/h
Max. vacuum*	3,500 Pa	3,500 Pa	2,900 Pa	2.100 Pa
Filter area	55 m^2	104 m^2	140 m^2	195 m^2
Sound pressure level	65 dB(A)	67 dB(A)	65 dB(A)	66 dB(A)
Swarf collection capacity	160 L	160 L	160 L	2 x 160 L
Dimension (L/W/H) in mm	1,300 x 994 x 3,965	1,606 x 1,606 x 4,418	1,606 x 1,606 x 5,025	2,600 x 1,606 x 5,656

*Operating point fan

4

Areas of application:

- Single and multi-user extraction
- Dry and free-flowing dusts
- Direct extraction at machines and workplaces
- Extraction on hoods and work cabins
- Processes in which fine dusts are generated
- Recycling industry

Suitable for:

- Metal dust and chips
- Plastic dust
- Composites

Features:

- 4 standard sizes
- More sizes on request
- Modular system design
- Customised solutions
- Soundproofed enclosure made of insulated panels
- Built-up, integrated fan

Your benefits:

- High suction performance and optimum filtration
- Wide application range
- Quiet and energy efficient
- Extendable
- Low space requirement
- Short delivery times

Options and accessories:

- Various filter materials
- IE-4 motors or higher-quality
- Combination with AL-KO heat recovery units
- Post-filter H13 and H14
- Pre-separator, spark trap and extinguishing devices
- ATEX-compliant version for zone 22
- capture devices, tubes, hoses etc

STATIONARY FILTER SYSTEMS

FLEX UNIT

AL-KO FLEX UNIT F

FOR WELDING FUME EXTRACTION

Type	F 87-7.5	F 168-15	F 225-18.5	F 315-22
Art. no.	197 454	197 455	197 456	197 457
Extraction nozzle	280 mm	400 mm	450 mm	560 mm
Nominal motor rating	7.5 kWh	15 kW	18.5 kW	22 kW
Connection voltage	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz	400 V 50 Hz
Max. flow rate	5,750 m^3/h	10,400 m^3/h	15,000 m^3/h	20,000 m^3/h
Max. vacuum*	3,500 Pa	3,500 Pa	2,900 Pa	2,100 Pa
Filterfläche	87 m^2	168 m^2	225 m^2	315 m^2
Sound pressure level	65 dB(A)	67 dB(A)	65 dB(A)	66 dB(A)
Swarf collection capacity	160 L	160 L	160 L	2 x 160 L
Dimension (L/W/H) in mm	1,300 x 994 x 3,965	1,606 x 1,606 x 4,418	1,606 x 1,606 x 5,025	2,600 x 1,606 x 5,656

*Operating point fan

Areas of application:

- Fumes during welding, cutting, separating
- Plasma cutting, laser welding
- Single and multiple workplace extraction
- Direct extraction on extraction arms and hoods
- Hall extraction and spatial ventilation

Suitable for:

- Fumes from low-and high-alloy steels

Features:

- 4 standard sizes
- More sizes on request
- Modular system design
- Customised solutions
- Soundproofed enclosure made of insulated panels
- Built-up, integrated fan

Your benefits:

- High suction performance and optimum filtrationl
- Low operating costs
- Quiet and energy efficient
- Extendable
- Low space requirement
- Short delivery times

Options and accessories:

- Various filter materials
- IE-4 motors or higher-quality
- Combination with AL-KO heat recovery units
- Post-filter H13 and H14
- Pre-separator, spark trap and extinguishing devices
- Capture devices, tubes, hoses etc

STATIONARY FILTER SYSTEMS

FLEX UNIT

CONTROL UNITS FOR AL-KO FLEX UNIT D | F

Execution Basic

Control unit with Star-delta start-up, motor protection, filter cleaning control, control cabinet for wall mounting

Type	7.5 kW	15 kW	18.5 kW	22kW
Art. no.	197 476	197 477	197 478	197 479

Execution ECO

Control unit with frequency converter, filter cleaning control, control cabinet for wall mounting

Type	7.5 kW	15 kW	18.5 kW	22kW
Art. no.	197 480	197 481	197 482	197 483

EXTRACTION UNITS WITH HEAT RECOVERY

FLEX UNIT ECO

AL-KO FLEX UNIT D ECO

FOR DUST EXTRACTION

Type	D 78-7.5	D 117-11	D 156-15	D 234-22
Art. no.	197 450	197 451	197 452	197 453
Nom. motor rating extraction unit	7.5 kW	11 kW	2 x 7.5 kW	2 x 11 kW
Nom. motor rating supply air HRU	4.5 kW	4.5 kW	2 x 4.5 kW	2 x 4.5 kW
Connection voltage	400 / 50 Hz	400 / 50 Hz	400 / 50 Hz	400 / 50 Hz
Max. flow rate	5,200 m^3/h	9,000 m^3/h	10,400 m^3/h	18,000 m^3/h
Max. vacuum	2,800 Pa	2,800 Pa	2,800 Pa	2,800 Pa
Filter area	78 m^2	117 m^2	156 m^2	234 m^2
Sound pressure level	65 dB(A)	67 dB(A)	65 dB(A)	66 dB(A)
Dimension (L/W/H) in mm	4,088 x 1,414 x 3,103	4,850 x 1,414 x 3,103	4,088 x 2,714 x 3,103	4,850 x 2,714 x 3,103

Areas of application:

- Dusts and fumes for which exhaust air ducting is required
- Welding, grinding, mechanical processing
- Single and multi-user extraction
- Direct extraction on extraction arms and hoods
- Hall extraction and spatial ventilation

Suitable for:

- Fumes and dusts from high-alloy steels

Features:

- 4 standard sizes
- Other sizes on request
- Execution for dust D and welding fume F
- Customised solutions
- Soundproofed enclosure made of insulated panels
- Built-up, integrated fan

Your benefits:

- Unique combination of extraction and heat recovery
- Low space requirement
- Quiet and energy efficient
- Optimum energy efficieny

EXTRACTION UNITS WITH HEAT RECOVERY

FLEX UNIT ECO

AL-KO FLEX UNIT F ECO

FOR WELDING FUME EXTRACTION

Type	F 126-7.5	F 189-11	F 252-15	F 378-22
Art. no.	197 458	197 459	197 460	197 461
Nom. motor rating extraction unit	7.5 kW	11 kW	2 x 7.5 kW	2 x 11 kW
Nom. motor rating supply air HRU	4.5 kW	4.5 kW	2 x 4.5 kW	2 x 4.5 kW
Connection voltage	400 / 50 Hz	400 / 50 Hz	400 / 50 Hz	400 / 50 Hz
Max. flow rate	5,200 m^3/h	9,000 m^3/h	10,400 m^3/h	18,000 m^3/h
Max. vacuum	2,800 Pa	2,800 Pa	2,800 Pa	2,800 Pa
Filter area	126 m^2	189 m^2	252 m^2	378 m^2
Sound pressure level	65 dB(A)	67 dB(A)	65 dB(A)	66 dB(A)
Dimension (L/W/H) in mm	4,088 x 1,414 x 3,103	4,850 x 1,414 x 3,103	4,088 x 2,714 x 3,103	4,850 x 2,714 x 3,103

4

Options and accessories:

- Various filter materials
- IE-4 motors or higher-quality
- Pre-separator, spark trap and extinguishing devices
- capture devices, tubes, hoses etc

WELDING FUME – AND DUST FILTER SYSTEMS

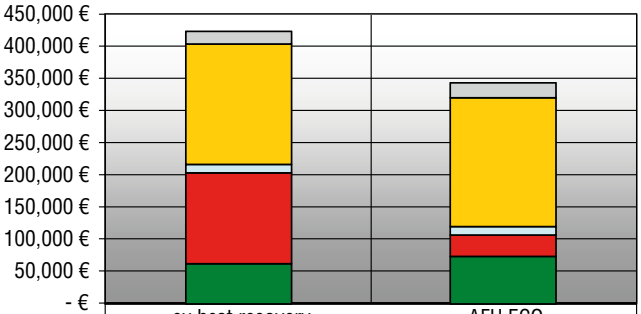
AFU ECO

An example of an economic efficiency calculation of an AFU ECO extraction system, compared to a system without heat recovery

Calculation of economic efficiency

according DIN V 18599-3 and VDI 2067-1

1.	**General data (DIN V 18599-3)**			
1.1	Air volume supply air [m³/h]	**18,000**		
1.2	Supply air temp. winter	**22°C**		
1.3	Supply air temp. summer	**18°C**		
1.4	Cooling function	with cooling function		
2.	**Extraction concepts**		**ex heat recovery**	**AFU ECO**
3.	**Costs device concepts**		**62,000 €**	**73,595 €**
4.	**Performance parameters of the device concepts (DIN V 18599-3)**			
4.1	Efficiency of the heat recovery supply air thermic [%]		**0.0%**	**65.0%**
4.2	Electrical connected load supply air fan PM [kW]		**4.80 kW**	**5.60 kW**
4.3	Electrical connected load exhaust air fan PM [kW]		**30.10 kW**	**31.77 kW**
5.	**Energy quantities at 1,800 h (DIN V 18599-3)"**			
5.1	Heat expenditure per year		118,660 kWh/a	27,943 kWh/a
5.2	Cold expenditure per year		13,623 kWh/a	13,147 kWh/a
5.3	Cost of electricity per year		62,820 kWh/a	67,266 kWh/a
6.	**Costs = expenses (energy quantity) x energy costs**			
6.1	Heat costs in the first year		7,120 €	1,677 €
6.2	Cold cost in the first year		681 €	657 €
6.3	Cost of electricity labour price in the first year		9,423 €	10,090 €
6.4	**Total costs in the first year**		**17,224 €**	**12,424 €**
7.	**Annuity calculation (VDI 2067-1)**			
7.1	Capital payments in € / year		4,183 €	4,965 €
7.2	Energy costs heat payments in € / year		9,494 €	2,236 €
7.3	Energy costs cold payments in € / year		908 €	877 €
7.4	Energy costs electricity payments in € / year		12,565 €	13,454 €
7.5	Operating costs (operating, cleaning, maintaining, inspecting) in € / year		1,330 €	1,579 €
7.6	**Total annuity in € / year**		**28,480 €**	**23,111 €**
8.	**Costs during the period of consideration (VDI 2067-1) (annuity x period of consideration)**			
8.1	Capital costs		62,747 €	74,481 €
8.2	Heating costs		142,405 €	33,535 €
8.3	Cooling costs		13,625 €	13,148 €
8.4	Energy costs		188,476 €	201,816 €
8.5	Costs maintaining / operating		19,955 €	23,686 €
8.6	**Total costs (total annuity x period of consideration)**		**427,207 €**	**346,666 €**
9.	**Pay back time AFU ECO for system without heat recovery**		**2.42 years**	



	ex heat recovery	AFU ECO
Costs maintaining / operating	19,955 €	23,686 €
Energy costs	188,476 €	201,816 €
Cooling costs	13,625 €	13,148 €
Heating costs	142,405 €	33,535 €
Capital costs	62,747 €	74,481 €

10.	**Total costs LCC**	**427,207 €**	**346,666 €**
11.	Investment costs	62,000 €	73,595 €

Operating hours (VDI 2067-1)	
hours / day	**8.0 hours**
Days / week	**5 days**
Weeks / year	**45 weeks**
Total hours	1,800 hours
Energy costs (VDI 2067-1)	
Heat	**0.060 €/kWh**
Cold	**0.050 €/kWh**
Electricity price	**0.150 €/kWh**
General data (VDI 2067-1)	
Period if consideration	**15 years**
Service life	**15 years**
eff. Annual interest rate	**0.15%**
Maintain / operate	**2.00%**
Price cange factors (VDI 2067-1)	
Capital	**1.0%**
Consumption	**4.0%**
Operation	**1.0%**
Maintainance	**1.0%**

PROGRAM AL-KO VENTILATING AND AIR-CONDITIONING SYSTEMS

Air handling unit type AT4-F

The AT4-F kit is the basis for your air conditioning and ventilation system. In the development of the housing has AL-KO particularly strict standards created. So are indoor and outdoor space not only completely decoupled from each other, the AT4-F modules also correspond in each configuration according to T2 / TB2 energy standard. With the sensibly graduated device cross-sections air capacities of 1,000 m³/h up to 120,000 m³/h can be realized. The housing construction is completely dismantled. The housing panel consists of a sandwich construction of two hot galvanized sheet steel shells with an internal, non-combustible insulation. The panels are 47 mm thick, cold bridge free and powder coated.

Applications:

- commercial, industrial and automotive
- spraying and painting equipment
- medicine / pharma
- human climate

The ideal complement to our exhausting systems is e.g. a weatherproof supply air

A supply air device typically consists of an outside air filter, a hot water heat exchanger and a fan. If required, this device can also be extended with regulation and additional ventilation components such as e.g. a cooling register.
An ideal complement to our paint mist extractors. For instance with an air volume of 3,000 m³ / h up to 7,000 m³ / h.

The ideal air heating or air cooling for your working space

AL-KO offers a comprehensive program on decentralized air heating and cooling units. Your working space can be heated electric or with hot or cold water in an energy-efficient way (6 - 73 kW heat output) or cooled (5 - 66 kW cooling capacity). Devices for the ATEX area complete this assortment off.

WELDING FUME- / DEDUSTING SYSTEMS
ACCESSORIES

NOZZLE HOOD

Areas of application:
- Welding fume extraction
- Extraction of rising vapours and gases
- Fume extraction during flame, laser or plasma cutting
- Dust extraction

Suitable for:
- Manual welding workstations
- Automated welding and cutting systems
- Robot welding stations
- Grinding and filling stations

Features:
- Two standard sizes
- Can be combined as required
- Can be equipped with vertical blinds
- Optimum air distribution
- Baffle plates in front of the air intakes
- Powder-coated

Options and Accessories:
- Strip curtain

Your benefits:
- Easy assembly
- Variable extraction surfaces
- High efficiency
- Dazzle-free

Nozzle hood	ASH 1	ASH 1.5
Art. no.	**197 427**	**197 426**
Suction surface	1,000 x 800 mm	1,500 x 800 mm
Extraction nozzle	160 mm	2 x 160 mm
Weight	8 kg	12 kg

Option: Strip curtain

Strip curtain made of red, transparent and fixed slats. Strip element made of PVC 3 mm thick including support bar for attachment to the extraction hood. The strip curtain consists of elements with a width of 300 mm, which are lined up overlapping in a grid of 250 mm. The metal parts are made of galvanised sheet steel or powder-coated. Including fastening material for attachment to the extraction hood.

Strip curtain	SV 300 for ASH 1 /1.5 length x wide: 2,700 x 300 mm per meter	**197 330**

WELDING FUME- / DEDUSTING SYSTEMS
ACCESSORIES

SUCTION WALLS

Areas of application:
- Grinding and milling stations
- Filling stations
- Room and cabin extraction

Suitable for:
- Manual grinding workstations
- Grinding and milling stations
- Many types of dust and gases

Features:
- Three standard sizes
- Sheet steel housing powder coated
- Level back wall
- Uniform air distribution

Options and accessories:
- Base frame for floor mounting

Your benefits:
- Easy assembly
- High suction effect

Suction wall	ASW 1	ASW 1.5	ASW 2
Art. no.	192 800	192 801	192 802
Extraction nozzle	125 mm	160 mm	200 mm
Dimension (L/W/H) in mm (without nozzle)	1,000 x 500 x 128	1,500 x 500 x 164	2,000 x 500 x 203
Weight	22 kg	33 kg	42 kg

WELDING FUME- / DEDUSTING SYSTEMS
ACCESSORIES

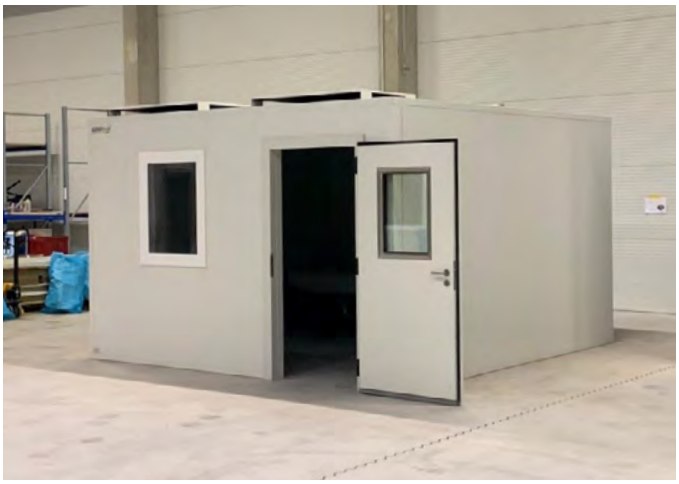
SOUNDPROOFING CABINS AND ENCLOSURES

Areas of application:
- Grinding and welding cabin with integrated extraction system
- Separation of working areas
- Enclosure of noise- and dirt-emitting machines and aggregates
- Variable sound-insulating walls

Suitable for:
- Grinding and welding workplaces
- Robot welding systems
- Noise-intensive processes and systems, e.g. CNC systems, cutting systems, etc

Features:
- Interior with powder-coated special perforated acoustic plate
- Core made of compressed, non-combustible mineral wool
- Outside made of powder-coated sheet steel
- Standard coating in RAL 7035, light grey

Options and accessories:
- Doors, single and multi-leaf
- Gates (swing gates, rolling and segmental gates)
- Vertical blinds
- Extraction devices (hoods, extraction walls), supply/exhaust air ducts
- Lighting
- Steel construction for cranes and lifting devices
- Power and compressed air supply



Your benefits:
- Reliable sound insulation
- Walls, cabins and enclosures according to customer requirements
- Short delivery times
- Wide range of possibilities

Element thickness d	60 mm	80 mm	100 mm
Weight	16.30 kg/m²	18.30 kg/m²	20.30 kg/m²
Heat transfer coefficient	0.70 W/m²K	0.53 W/m²K	0.42 W/m²K
Rated sound reduction index RW	28 dB	32 dB	34 dB

WELDING FUME- / DEDUSTING SYSTEMS
ACCESSORIES

Optimum extraction arm for industrial applications

Extraction arm with supporting parts in anodised aluminium and anthracite-grey coated steel, blue PVC hose.
The bonnet in anthracite PP and bonnet sheet in aluminium.
The extraction arm owes its numerous new and significant benefits to innovative technology combined with new materials and a stronger focus on design::

- Uniquely easy manoeuvrable
- Particularly stable position
- Optimally designed bonnet for welding fumes and other warm contaminants
- Maximum suction efficiency and highest possible collection capacity
- Externally positioned support arms
- A natural and pure air flow ensures a low pressure drop
- Low risk of clogging
- Wall console made of steel with powder coating

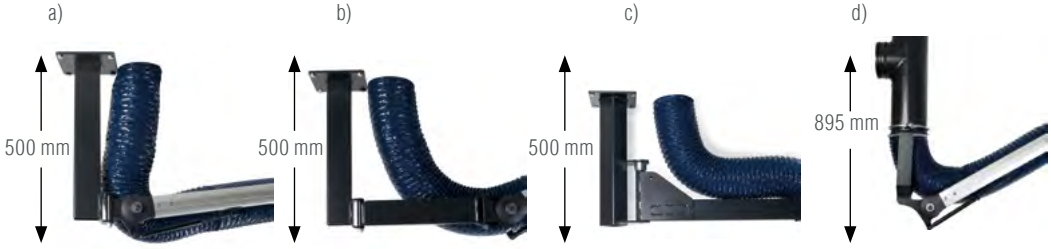
4

Supplied partially assembled for easy installation.

Product	Type		Art. no.
Extraction arm incl. wall console 	AIW 2	DN 160 mm, extendable to 2 m	**197 301**
	AIW 3	DN 160 mm, extendable to 3 m	**197 302**
	AIW 4	DN 160 mm, extendable to 4 m	**197 303**
	AIW 7	DN 160 mm, extendable to 7 m	**197 304**
	AIW 9	DN 160 mm, extendable to 9 m	**197 305**

The extraction arm is supplied with a wall bracket as standard. The following brackets are available for ceiling and floor mounting

Bracket variants	a) Ceiling and floor bracket for extraction arms AIW 2, AIW 3 and AIW 4, swivelling by 180°	**197 306**
	b) Ceiling and floor bracket for extraction arms AIW 2, AIW 3 and AIW 4, swivelling by 360°	**197 307**
	c) Ceiling and floor bracket for extraction arm AIW 7 swivelling by 180°	**197 308**
	d) Ceiling bracket for extraction arm AIW 2 and AIW 3 swivelling by 360°, with connection nozzle NW 160 mm	**197 309**



WELDING FUME- / DEDUSTING SYSTEMS
ACCESSORIES

Product	Type	Art. no.
Work lightning / Unit On/Off		
a) 	a) LED light incl. wiring, transformer and push-button for the extraction arms AIW 2, AIW 3 and AIW 4	**197 310**
	LED light incl. wiring, transformer and push-button for the extraction arms AIW 7 and AIW 9	**197 311**
b) 	b) Push-button ON/OFF extraction unit for the extraction arms AIW 2, AIW 3 and AIW 4	**197 312**
	Push-button ON/OFF extraction unit for the extraction arms AIW 7 and AIW 9	**197 313**
c) 	c) Combination LED light / push-button ON/OFF extraction unit for the extraction arms AIW 2, AIW 3 and AIW 4	**197 314**
	Combination LED light / push-button ON/OFF extraction unit for the extraction arms AIW 7 and AIW 9	**197 315**

Optimum extraction arm for industrial areas when handling explosive gases and dust-air mixtures

The extraction arm offers the same unique features and design benefits as the standard extraction arm.
However, it has a grounded construction and complies with the requirements of the ATEX 2014/34/EU directive for gases and dust:

- Zone 1 and 21
- Marked with EX II 2 GD

The suction arm is characterised by the following:

- EXC with black, chemical-resistant PE hose.
- Bonnet made of conductive PP with bonnet plate made of stainless steel
- Externally positioned support arms
  - A natural and pure air flow ensures a low pressure drop
  - Low risk of clogging
  - Wall console made of steel with conductive powder coating
  - Joints made of conductive PP

Supplied partially assembled for easy installation.

Product	Type		Art. no.
ATEX- extraction arm incl. wall bracket 	AIW 2 ATEX	DN 160 mm, extandable to 2 m	**197 316**
	AIW 3 ATEX	DN 160 mm, extandable tos 3 m	**197 317**
	AIW 4 ATEX	DN 160 mm, extandable to 4 m	**197 318**
	AIW 7 ATEX	DN 160 mm, extandable to 7 m	**197 319**

Further versions of extraction arms on request

WELDING FUME- / DEDUSTING SYSTEMS
ACCESSORIES

Optimum extraction arm for laboratory areas

This extraction arm ensures a particularly low pressure drop with its unique design of joints and stable mountings. This leads to numerous other benefits:

- Energy-saving
- Quieter
- Reduced risk of annoying ventilation noise
- Low pressure drop without having to select larger dimensions
- Easy to combine with other extractors in the same ventilation system
- In ATEX version EX II 2 GD according to ATEX directive 2014/34/EU

The standard version is suitable for most air contaminants, e.g. in:

- Laboratories
- Schools and universities
- Pharmaceutical industry
- Hairdressing salons
- Electronic industry

4

Product	Type		Art. no.
Laboratory- extraction arm 	AL 1.3	DN 75 mm, extandable to 1,3 m	**197 320**
	AL 1.5	DN 75 mm, extandable to 1,5 m	**197 321**
	AL 1.3 ATEX	DN 75 mm, extandable to 1,3 m	**197 322**
	AL 1.5 ATEX	DN 75 mm, extandable to 1,5 m	**197 323**
Wall bracket 	Wall bracket for laboratory extraction arm DN 75 x 98 mm		**197 324**
	Wall bracket ATEX for laboratory extraction arm DN 75 x 98 mm		**197 325**
Hood 	Flat hood 300 x 200 mm, DN 75 mm		**197 326**
	Flat hood ATEX 300 x 200 mm, DN 75 mm		**197 327**

WELDING FUME- / DEDUSTING SYSTEMS
ACCESSORIES

Mobile welding protection wall

The AL-KO protection wall consists of a stable, three-part round tube construction which is very easy to install. The lamella curtain, which has been tested according to EN ISO 25980 for protection during arc welding, has a thickness of 2 mm. The two outer sides (800 mm) can be swung in without any problems. The welding protection wall is equipped with 4 swivel castors, two of which have brakes, and can thus be easily adapted to changing welding situations. Ideally, several walls can also be set up as a combination.

Product	Type		Art. No.
Mobile welding protection wall	SSW 1	Width x Heigth: 3,750 x 2,000 mm	**197 345**

Further accessories

Product	Type	Art. No.
Spark trap 	Nominal diameter 160 mm with rim cpl.	**197 244**
	Nominal diameter 200 mm with rim cpl.	**197 245**
	Nominal diameter 250 mm with rim cpl.	**197 246**
	Nominal diameter 300 mm with rim cpl.	**197 247**
Filter CLEAN UNIT / FLEX UNIT 	Filter cartridge welding fume 1.0 m/filter area 21 m².	**869 729**
	Filter cartridge welding fume 1.2 m/filter area 25 m².	**868 952**
	Filter cartridge for aluminum dust 1.0 m/filter area 14 m².	**868 954**
	Filter cartridge for aluminum dust 1.2 m/filter area 17.2 m².	**868 785**
	Filter cartridge for material 1.0 m/filter area 13 m².	**869 281 01**
	Filter cartridge for material 1.2 m/Filterfläche 15.6 m².	**869 282 01**
Swarf bags for CLEAN UNIT / FLEX UNIT 	for CLEAN UNIT / FLEX UNIT (890x570x1200) 20 pcs	**934 605**

WET SEPARATOR
AQUA JET

AL-KO AQUA JET

Type	180-2.2	250-3	350-7.5	400-11
Art.no.	**197 466**	**197 467**	**197 468**	**197 469**
Extraction nozzle	180 mm	250 mm	350 mm	400 mm
Nominal motor rating	2.2 kW	3 kW	7.5 kW	11 kW
Connection voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. volume flow	2,000 m^3/h	3,500 m^3/h	8,000 m^3/h	12,000 m^3/h
Max. vacuum	1,900 Pa	2,250 Pa	2,300 Pa	2,200 Pa
Water volume	200 L	240 L	530 L	690 L
Dimension (WxDxH) in mm	900x1,360x2,250	900x1,800x2,250	1,900x1,800x2,250	2,300x1,800x2,250
Weight (without water)	320 kg	320 kg	420 kg	720 kg

Areas of application:
- Single and multi-user extraction for grinding, polishing and deburring work in the metal processing
- Extraction for processes with critical dusts or flying sparks
- AQUA JET Ex for explosive dusts, e.g. in aluminium processing
- Metal working and processing, glass production, ceramics industry, etc.

Your benefits:
- No corrosion, long service life
- Safe separation of critical substances
- Easy cleaning and emptying

Suitable for:
- Separation of explosive, ignitable or glowing particles
- Extraction of moist, oily or sticky substances

Features:
- 4 power levels
- Integrated pre-separation chamber with non-return valve
- Filter cartridges with Venturi nozzles and Jet-pulse cleaning
- IE3-motor

Options and accessories:
- Piping parts and detection elements
- Silencer
- Special design for extraction of aluminium dusts

HIGH-PERFORMANCE INDUSTRIAL VACUUM AL-KO JET STREAM

APPLICATIONS

The JET STREAM high-performance industrial vacuum cleaners are used in a wide variety of industries. You will find us in the wood industry, metal industry, plastics industry, pharmaceutical industry, food industry, building materials industry and many more.

Whether dusts, liquids or solids, we suit every area and offer a fitting vacuum cleaner for a diversity of applications.

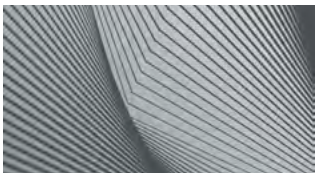
Wood

Metal

Plastic

Paper

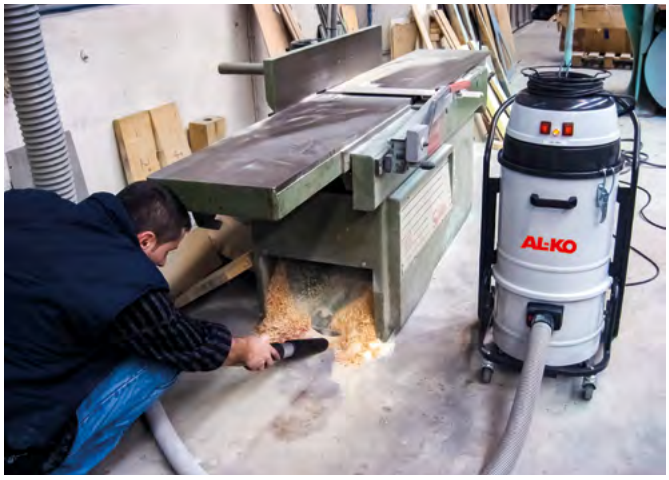
Stone



Other

JET STREAM
Vacuum cleansers for cleaning in diverse scope of applications

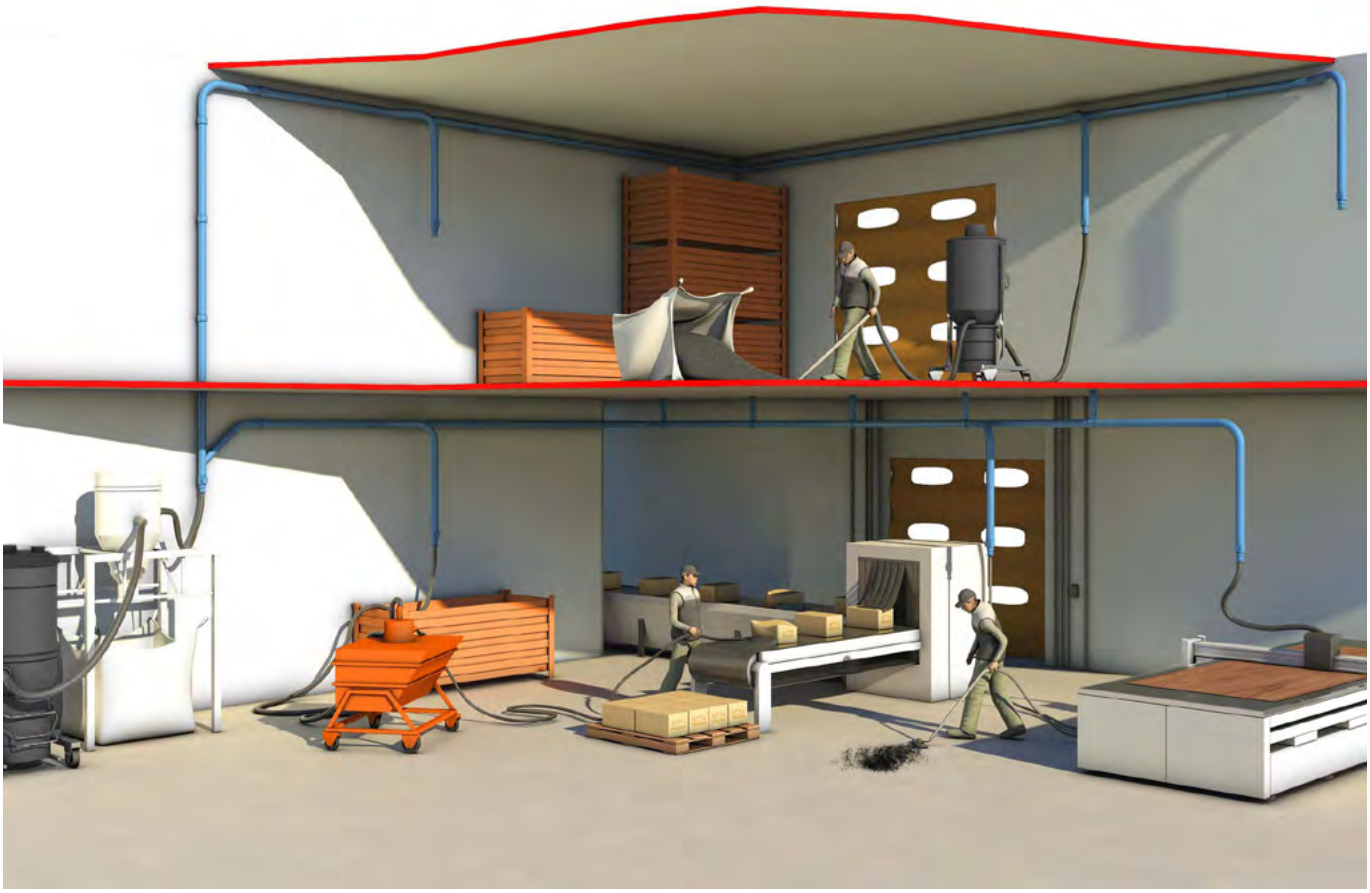
JET STREAM 202
for cleaning of woddworking machines and working area
Easy handling, professional cleaning



HIGH-PERFORMANCE INDUSTRIAL VACUUM AL-KO JET STREAM

Industrial vacuum cleaners can be used in many industries and areas. Let us advise you on the one specific to your application, get tailored solution.

JET STREAM 4533
for cleaning of areas,
equipped with floor suction nozzle



HIGH-PERFORMANCE INDUSTRIAL VACUUM AL-KO JET STREAM

SOLUTIONS THAT IMPROVE EFFICIENCY

AL-KO industrial vacuum cleaners are not simple vacuum cleaners but true industrial tools capable of increasing the efficiency of each industrial process, ensuring security and cleaning standards even in the most demanding environments.
From the wood-working handicraft to the foundry, from the small bakery to the largest automotive industry, our vacuum cleaners have solved and continue to satisfy the cleaning requirements of industry worldwide.

The AL-KO sales team is available to our customers at any time with its professionalism and competence. We always find the best result for every application, wether in terms of cleaning or material recovery. Instead of selling products, AL-KO offers real solutions to meet your expectations or even exceed them.

JET-STREAM
ALTERNATING CURRENT
INDUSTRIAL VACUUM CLEANERS

Model	JS M	JS 202 DS M*	JS DM 3 EL M*
Art.no.	**192 684**	**197 000**	**197 023 01**
Motor performance	1.35 kW/ 230 V/ 50 Hz	2.3 kW/ 230 V/ 50 Hz	3.45kW/ 230 V/ 50 Hz
Max. vacuum	25,000 Pa	25,000 Pa	25,000 Pa
Max. volume flow	273 m³/h	360 m³/h	540 m³/h
Filter area / diameter	5,000 cm²	30,000 cm²/ 360 mm	30,000 cm²/ 500 mm
Filtertype main filter	flat-fold filter	cartridge, polyester	star, polyester
Dust class Cat. BIA	M (<0.1 mg/m³)	M (<0.1 mg/m³)	M (<0.1 mg/m³)
Filter cleaning system	automatic	Dustop	manual
Suction nozzle	Ø 21-29-33-36-38 mm	Ø 50 mm	Ø 80 mm
Storage capacity	41 l	20 l	60 l
Noise level (EN ISO 3744)	76 dB(A)	76 dB(A)	76 dB(A)
Dimension (L x W x H)	625 x 385 x 545 mm	590 x 480 x 1,100 mm	670 x 660 x 1,340 mm
Weight	approx. 21 kg	approx. 35 kg	approx. 77 kg

*not suitable to extract wood dust

HIGH-PERFORMANCE INDUSTRIAL VACUUM AL-KO JET STREAM

RELIABILITY

Discover every day the reliability of each AL-KO vavuum cleaner. Not only because each vacuum cleaner is the perfect combination of quality, safety and technology, but also because you have at your disposal a unique service, attentive to your requirements and your needs.
The choice of an AL-KO industrial vacuum cleaner guarantees that you will be able to work with the certainty of being able to count an safe and efficient device in all situations.

SAFETY

SAFETY is not just an abstract concept at AL-KO, but a real philosophy. From the engineering to certification, our goal is to provide to our customers state of the art, safe and user-friendly AL-KO extraction solutions.

Whether ATEX industrial vacuum cleaners or systems in dust class M or H, AL-KO always offers the right solution and the corresponding device.

JET-STREAM

ALTERNATING CURRENT
INDUSTRIAL VACUUM CLEANERS

Model	JS 4535 M*	JS DG 70 EXP M*
Art.no.	**197 008 01**	**197 037**
Motor performance	4.0 kW/ 400 V/ 50 Hz	5.5 kW/ 400 V/ 50 Hz
Max. vacuum	32,000 Pa	36,000 Pa
Max. volume flow	450 m³/h	530 m³/h
Filter area / diameter	20,000 cm²/ 420 mm	30,000 cm²/ 500 mm
Filtertype main filter	star, polyester	star, polyester
Dust class Cat. BIA	M (<0.1 mg/m³)	M (<0.1 mg/m³)
Filter area load	210 m³/(m²xh)	176 m³/(m²xh)
Filter cleaning system	manual	manual
Suction nozzle	Ø 80 mm	Ø 80 mm
Storage capacity	45 l	100 l
Noise level (EN ISO 3744)	69 dB(A)	72 dB(A)
Dimension (L x W x H)	930 x 580 x 1,160 mm	660 x 1,180 x 1,450 mm
Weight	approx. 90 kg	approx. 150 kg

*not suitable to extract wood dust

Optional:
Machines also available in the ATEX version and with additional filter of dust class H

Dust class M (medium hazard) according EN 60335-2-69, for separating dust with exposure limit value more than 0.1 mg/m³.

Dust class H (high hazard) according EN 60335-2-69, for separating dust with exposure for any dust with all exposure limits, including carcinogenic and pathogenic dusts.

Your Benefits:

- mobile collection container
- comfortable lever clamping closure
- optionally with tear-resistant plastic bags and appropriate sack holder
- robust steel frame with powder painting
- trackless rotatable wheels and parking brake
- All-steel design, durable and indestructible

6

HIGH-PERFORMANCE INDUSTRIAL VACUUM AL-KO JET STREAM

ACCESSORIES

Using original AL-KO accessories increases the performance of your industrial vacuum cleaner. For the different applications we offer you the right Equipment. For more information, please refer to our accessories catalog or contact our service center.

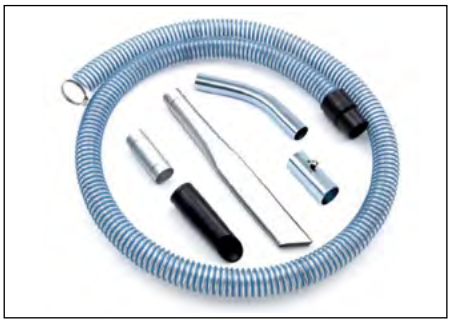
Accessories / suitable for		Art.no.	JS M	JS 202 DS M	JS 4535 M	JS DM 3 EL M	JS DG 70 ECEXP M
	**Device connector D50 for suction hose**	**197 105**		X			
	**Device connector D80/50 for suction hose**	**197 050**			X	X	X
	**Antistatic PE suction hose D40** length 3m incl. sockets	**197 058**		X			
	**Antistatic PE suction hose D40** length 5m incl. sockets	**197 106**		X			
	**Antistatic PE suction hose D50** length 3m incl. sockets	**197 060**			X	X	X
	**Antistatic PE suction hose D50** length 5m incl. sockets	**197 107**			X	X	X
	**Hand tube in aluminium D40**	**197 004**		X			
	**Hand tube in aluminium D50**	**197 113**			X	X	X
	**Floor nozzle with rolls and brushes D40/width 430mm**	**197 005**		X			
	**Floor nozzle with rolls and brushes D50/width 430mm**	**197 108**			X	X	X
	**Joint nozzle flat out of aluminium D40/length 500mm**	**197 109**		X			
	**Joint nozzle flat out of aluminium D50/length 500mm**	**197 110**			X	X	X

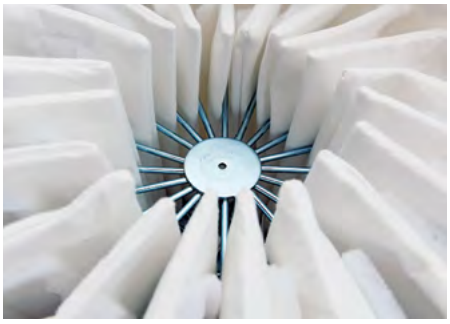
HIGH-PERFORMANCE INDUSTRIAL VACUUM AL-KO JET STREAM

ACCESSORIES

Accessories / suitable for		Art. Nr.	JS M	JS 202 DS M	JS 4535 M	JS DM 3 EL M	JS DG 70 ECEXP M
	Bristle brush out of aluminium/nylon D40	197 111		X			
	Bristle brush out of aluminium/nylon D50	197 112			X	X	X
	M- filter antistatic	197 002		X			
	M- filter antistatic	197 020			X		
	M- filter antistatic	197 025				X	
	M- filter antistatic	197 039					X
	H- absolute filter dust class H14	197 001		X			
	H- absolute filter dust class H14	197 019			X		
	H- absolute filter dust class H14	197 024				X	
	H- absolute filter dust class H14	197 032					X
	Fleece filter bag	192 693	X				
	Replacement filter	192 694	X				
	Connecting adapter	192 698	X				
	Disposable bag, antistatic D360/400 mm, 80 micron, 1 pc	197 085		X			
	Disposable bag, antistatic D400/450 mm, 80 micron, 1 pc	197 086				X	X
	Support ring for plastic bags D300	197 102		X	X		
	Support ring for plastic bags D400	197 103				X	X

Filter prices are only valid for original equipment ex works, additional accessories and spare parts on request



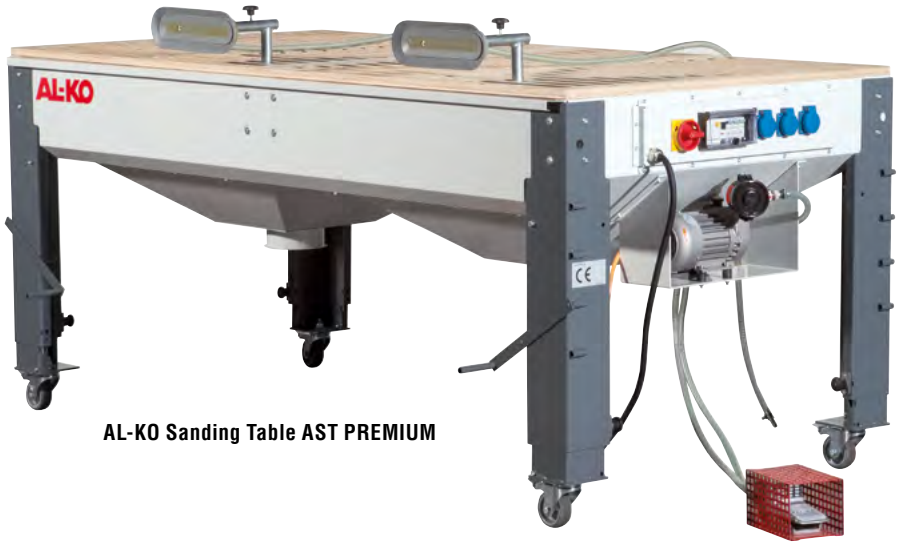


AL-KO SANDING TABLES

FOR A CLEAN WORKPLACE DURING MANUAL WORK

Sanding tables, when combined with dust extractors or a decentralised filter system, ensure additional removal of dust during manual sanding work with manual sanders, as well as when working with hand-guided sanding equipment, that goes beyond the device's own dust removal function. The sanding table significantly reduces the amount of dust produced, the air in the room is noticeably improved and the health of the employee is not put at risk by dusty exhaust air.

In the domain of manual / sanding stations, AL-KO offers the ideal solution for every requirement: with its "BASIC" series, AL-KO provides a low-cost entry-level model that impresses primarily with its practice-proven features and value for money.
The "PREMIUM" series is aimed at customers with more exacting demands, since the high-quality, carefully thought-out details leave no wish un-granted.



AL-KO Sanding Table AST PREMIUM

AL-KO Sanding Table AST BASIC

DGUV Test
H0 173005
holzstaubgeprüft
geeignet für
Handschleifarbeiten
dguv.de/pruefzeichen

GS-HM-05

AL-KO SANDING TABLES

FOR A CLEAN WORKPLACE DURING MANUAL WORK

Designation	Length [mm]	Width [mm]	Working height [mm]	Recommended extraction performance [m³]	Weight [kg]	Art.no.
AST 1.0 PREMIUM	1000	1000	757 - 1157	1400	90	**199 645**
AST 2.0 PREMIUM	2000	1000	757 - 1157	1800	147	**199 646**
AST 3.0 PREMIUM	3000	1000	757 - 1157	2200	220	**199 647**
AST 1.5 BASIC	1585	1000	735 - 1015	1500	73	**199 922**

Optional Accessories:

Electrical connector strip

- supply cable H07-RN-F 5G 2.5², 5 m long, with mains switch
- Electrical master switch, lockable
- 3 x protective contact sockets with line protection C16, 16 A, 230 V, for power tools
- upstream 4-pole residual circuit breaker, 40/0.03 amps

Hydraulic height adjustment with hand crank

- Adjustable work height from 757 mm - 1,157 mm

Vacuum clamping system

- Powerful multi-chamber ejector, suitable for continuous operation
- 2 pcs. clamp, squeegee with separate stopcock for horizontal and vertical clamping
- Release of the workpiece via foot valve

Support fixture for vertical clamping

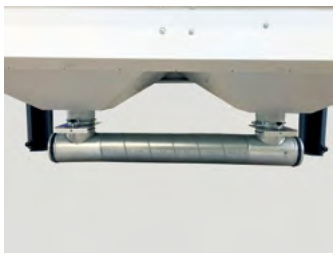
- Load holding with vertical clamping by folding out support fixture

Mobility set

- Simple movement of the sanding table on 4 pivoting castors
- Sturdy pivoting castors with rubber tyres and Stopp-Fix brake
- Work height with castors: adjustable from 859 mm - 1,259 mm

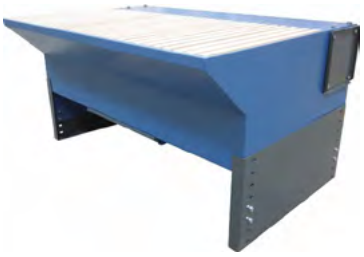
Suction set 1 (DN160), 2(DN160) or 3 (DN 200) meter

- Connection side optionally on the left or right face
- incl. end cover, machine connection and sound insulation connection (enclosed loose)
- incl. manual slide on hopper/ 2 hoppers/ 3 hoppers (already mounted)



Options for PREMIUM:	Art.no.
Electrical connector strip	**199 648**
Vacuum clamping system	**199 649**
Hydraulic height adjustment	**199 650**
Support fixture	**199 651**
Mobility set (4 pivoting castors)	**199 652**
Suction set sanding table 1 m DN 160	**197 346**
Suction set sanding table 2 m DN 160	**197 347**
Suction set sanding table 3 m DN 200	**197 348**

SUCTION TABLES



SUCTION TABLE STANDARD

Type	1000/1000	2000/1000	3000/1000	1000/1250	2000/1250	3000/1250
Art. no.	192 803	192 804	192 805	192 806	192 807	192 808
Suction surface in mm	640 x 1,000	640 x 2,000	640 x 3,000	890 x 1,000	890 x 2,000	890 x 2,000
Extraction nozzle	160 mm	250 mm	250 mm	160 mm	250 mm	250 mm
Dimension (W/D) in mm	1,056 x 1,015	2,056 x 1,015	3,056 x 1,056	1,056 x 1,261	2,056 x 1,261	3,056 x 1,261
Height in mm	680-980	680-980	680-980	680-980	680-980	680-980
Weight	80 kg	160 kg	240 kg	100 kg	200 kg	300 kg

Areas of application:
- Grinding work
- Deburring
- Welding work
- Mechanical processing of workpieces
- Bonding work
- Mixing and filling work

Your benefits:
- High suction effect
- Ergonomic adaptable
- Wide range of applications
- Sturdy design
- Easy to clean

Suitable for:
- Metal and other dusts
- Welding fume

Features:
- Design in 2 depths and 3 widths
- Universally usable
- Extraction nozzle left or right
- Uniform air distribution
- Integrated coarse dirt drawer(s)

Options and accessories:
- Table cover made of wood or metal
- With rear wall extraction and foldable side walls

SUCTION TABLES

SUCTION TABLE COMFORT

Type	1000/1100	1500/1100	2000/1100
Art. no.	192 809	192 810	192 811
Suction surface in mm	824 x 1,000	824 x 1,500	824 x 2,000
Extraction nozzle	160 mm	200 mm	250 mm
Dimension(W/D) in mm	1,100 x 1,100	1,100 x 1,100	1,100 x 1,100
Height in mm	638-938	638-938	638-938
Weight	134 kg	168 kg	191 kg

Areas of application:

- Grinding work
- Deburring
- Welding work
- Mechanical processing of workpieces
- Bonding work
- Mixing and filling work

Your benefits:

- Optimum working height adjustable
- High suction effect
- Wide range of applications
- High lifting force
- Easy to clean
- Supplied complete with cable and plug, 230V

Suitable for:

- Metal and other dusts
- Welding fume

Features:

- Electrical height adjustment
- Design in 3 widths
- Extraction nozzle left or right
- Uniform air distribution
- Integrated coarse dirt drawer(s)

Options and accessories:

- Table cover made of wood or metal
- With rear wall extraction and foldable side wal

COMPRESSED AIR SUPPLY/-CONSUMPTION

JET-FILTER

AL-KO OPTI JET®-Filter cleaning – compressed air supply / air consumption
Guide values for compressed air supply and compressed air consumption when using surface-treated filter material.
Dust extractors of the APU 140-350+ and CLEAN UNIT / FLEX UNIT series (from year of manufacture 2021) already achieve excellent cleaning results at a set cleaning pressure of 4 bar. This reduces wear and tear in the long term and saves costs.

Device type	Cleaning-off pressure (max. bar)	Air consumption per cleaning cycle (standard litres)	Min. compressed air supply / compressor at factory setting		
			ca. suction capability (l/min)	ca. filling performance (l/min)	ca. driving power (kW)
APU 140/160/200	(6,0) 4,0	97 65	193 129	145 97	1,5 1,1
APU 250/300	(6,0) 4,0	210 140	279 186	210 140	2,0 1,5
APU 350/350+	(6,0) 4,0	210 140	279 186	210 140	2,0 1,5
ECO JET 3/4/5/6	6,0	390	311	234	2,5
ECO JET DUO 6/8/10	6,0	780	622	468	4,0
PROFI JET BG2	6,0	528	527	396	3,0
MJ 140/160/200	6,0	72	144	108	1,1
MJ 250	6,0	234	311	234	2,2
MJ 300	6,0	456	455	342	3,0
MPJ 160/200	6,0	72	144	108	1,1
MPJ 250/300	6,0	234	311	234	2,2
CLEAN UNIT / FLEX UNIT	(6,0) 4,0	144 96	287 192	216 144	2,2 1,5

Note:The values given are only guidelines. The compressed air must be free of water, oil and frost-free. Compressed air quality - quality class 2 (ISO 8573) must be used. In principle, compressed air consumption and compressor performance depend on the network conditions (pressure, connection cross-section, line length, etc.). The number of cleaning cycles per hour, depending on version also during operation, depends on the operating parameters (amount of material, type of material, etc.).
With a minimum running time of 10 min, a cleaning interval of 2 cycles is automatically started after the dust extractor is switched off. The number of cycles can be increased as desired within the interval.

Guide value:
Dust extraction - 3 cycles per hour
Chip extraction - 1 cycle per hour

Calculation APU 140/160/200:	Existing air pressure tank = 1 x 8,1 l
Actual compressed air consumption (calculated at 6 bar)	At a pressure of 6 bar, this corresponds to a compressed volume of 48.6 l. A cleaning cycle consists of two blasts with an adjustable time span (usually 20s). The required compressed air consumption per cycle is therefore 2 x 48.6 l = 97.2 l (if the compressed air tank is completely emptied for each burst).
Required compressed air supply (calculated at 6 bar)	With a set time span of 20 s per surge, the compressor must fulfil a filling capacity of 48.6 l in 20 s, which corresponds to a filling capacity of 145.8 l/min with calculated safety.

Calculation APU 250/300:	Existing air pressure tank = 1 x 11,7 l
Actual compressed air consumption (calculated at 6 bar)	At a pressure of 6 bar, this corresponds to a compressed volume of 70.2 l. A cleaning cycle consists of three blasts with an adjustable time span (usually 20s). The required compressed air consumption per cycle is therefore 3 x 70.2 l 210.6 l (if the compressed air tank is completely emptied for each burst).
Required compressed air supply (calculated at 6 bar)	With a set time span of 20 s per surge, the compressor must fulfil a filling capacity of 70.2 l in 20 s, which corresponds to a filling capacity of 210.6 l/min with calculated safety

COMPRESSED AIR SUPPLY/-CONSUMPTION

JET-FILTER

Calculation APU 300/350+:	Existing air pressure tank = 1 x 11,8 l
Actual compressed air consumption (calculated at 6 bar)	At a pressure of 6 bar, this corresponds to a compressed volume of 70.8 l. A cleaning cycle consists of three blasts with an adjustable time span (usually 20s). The required compressed air consumption per cycle is therefore 3 x 70.8 l 212.4 l (if the compressed air tank is completely emptied for each burst).
Required compressed air supply (calculated at 6 bar)	With a set time span of 20 s per surge, the compressor must fulfil a filling capacity of 70.8 l in 20 s, which corresponds to a filling capacity of 212.4 l/min with calculated safety

Stationary systems order-related according to size: Example calculation PJ BG 2	
Actual compressed air consumption	Existing air pressure tank = 1 x 22 l
	At a pressure of 6 bar, this corresponds to a compressed volume of 132 l. A cleaning cycle consists of four blasts with an adjustable time span (usually 20s). The required compressed air consumption per cycle is therefore 4 x 132 l = 528 l (if the compressed air tank is completely emptied for each burst).
Required compressed air supply	With a set time span of 20 s per surge, the compressor must fulfil a filling capacity 132 l in 20 s, which corresponds to a filling capacity of 396 l/min with safety included.
BG 4/ BG 6/ BG 8 doubles/ triples/ quadruples the required compressor capacity	

ECO JET 3/ 4/ 5/ 6/:	Existing air pressure tank = 1 x 13 l l
Actual compressed air consumption	At a pressure of 6 bar, this corresponds to a compressed volume of 78 l. A cleaning cycle consists of five blasts with an adjustable time span (usually 20s). The required compressed air consumption per cycle is therefore 5 x 78 l = 390 l (if the compressed air tank is completely emptied for each burst).
Required compressed air supply	With a set time span of 20 s per surge, the compressor must fulfil a filling capacity 78 l in 20 s, which corresponds to a filling capacity of 234 l/min with safety included.

ECO JET DUO 6/DUO 8/DUO 10:	Existing air pressure tank = 2 x 13 l
Actual compressed air consumption	At a pressure of 6 bar, this corresponds to a compressed volume of 156 l. A cleaning cycle consists of five blasts with an adjustable time span (usually 20s). The required compressed air consumption per cycle is therefore 5 x 156 l = 780 l (if the compressed air tank is completely emptied for each burst).
Required compressed air supply	With a set time span of 20 s per surge, the compressor must fulfil a filling capacity 156 l in 20 s, which corresponds to a filling capacity of 468 l/min with safety included.

Calculation CLEAN UNIT / FLEX UNIT:	Existing air pressure tank = 1 x 12 l
Actual compressed air consumption	At a pressure of 6 bar, this corresponds to a compressed volume of 72 l. A cleaning cycle consists of two blasts with an adjustable time span (usually 20s). The required compressed air consumption per cycle is therefore 2 x 72 l = 144 l (if the compressed air tank is completely emptied for each burst).
Required compressed air supply	With a set time span of 20 s per surge, the compressor must fulfil a filling capacity 72 l in 20 s, which corresponds to a filling capacity of 216 l/min with safety included.

Cleaning intervals by size:

		Output 0,5	Output 0,6	Output 0,7	Output 1,0	Output 1,1	Output 2,7	Output 3,1
5 Cleaning valves	Valve 1	•						
	Valve 2		•					
	Valve 3			•				
	Valve 4				•			
	Valve 5					•		

		Output 0,5	Output 0,6	Output 0,7	Output 1,0	Output 1,1	Output 2,7	Output 3,1
8 Cleaning valves	Valve 1	•						
	Valve 2		•					
	Valve 3			•				
	Valve 4				•			
	Valve 5	•						•
	Valve 6		•					•
	Valve 7			•				•
	Valve 8				•			•

DRUCKLUFTVERSORGUNG/-VERBRAUCH

JET-FILTER

		Output 0,5	Output 0,6	Output 0,7	Output 1,0	Output 1,1	Output 2,7	Output 3,1
10 Cleaning valves	Valve 1	•						
	Valve 2		•					
	Valve 3			•				
	Valve 4				•			
	Valve 5					•		
	Valve 6	•						•
	Valve 7		•					•
	Valve 8			•				•
	Valve 9				•			•
	Valve 10					•		•

		Output 0,5	Output 0,6	Output 0,7	Output 1,0	Output 1,1	Output 2,7	Output 3,1
16 Cleaning valves	Valve 1	•						
	Valve 2		•					
	Valve 3			•				
	Valve 4				•			
	Valve 5	•						•
	Valve 6		•					•
	Valve 7			•				•
	Valve 8				•			•
	Valve 9	•					•	
	Valve 10		•				•	
	Valve 11			•			•	
	Valve 12				•		•	
	Valve 13	•					•	•
	Valve 14		•				•	•
	Valve 15			•			•	•
	Valve 16				•		•	•

		Output 0,5	Output 0,6	Output 0,7	Output 1,0	Output 1,1	Output 2,7	Output 3,1
24 Cleaning valves	Valve 1 + 13	•						
	Valve 2 + 14		•					
	Valve 3 + 15			•				
	Valve 4 + 16				•			
	Valve 5 + 17					•		
	Valve 6 + 18						•	
	Valve 7 + 19	•						•
	Valve 8 + 20		•					•
	Valve 9 + 21			•				•
	Valve 10 + 22				•			•
	Valve 11 + 23					•		•
	Valve 12 + 24						•	•

		Output 0,5	Output 0,6	Output 0,7	Output 1,0	Output 1,1	Output 2,7	Output 3,1
32 Cleaning valves	Valve 1 + 17	•						
	Valve 2 + 18		•					
	Valve 3 + 19			•				
	Valve 4 + 20				•			
	Valve 5 + 21	•						•
	Valve 6 + 22		•					•
	Valve 7 + 23			•				•
	Valve 8 + 24				•			•
	Valve 9 + 25	•					•	
	Valve 10 + 26		•				•	
	Valve 11 + 27			•			•	
	Valve 12 + 28				•		•	
	Valve 13 + 29	•					•	•
	Valve 14 + 30		•				•	•
	Valve 15 + 31			•			•	•
	Valve 16 + 32				•		•	•

CALCULATION SUCTION CAPACITY

Pipe diameter/ - cross section		Air quantity (m³/h) depending on air velocity (m/s) and pressure loss (Pa) per m suction pipe					
DN in mm	A in cm²	m³/h at 20 m/s	Loss in Pa	m³/h at 23 m/s	Loss in Pa	m³/h at 28 m/s	Loss in Pa
80	50	271	45	416	61	507	95
100	79	565	37	650	51	792	84
120	113	814	30	936	53	1140	68
125	123	884	29	1016	41	1237	65
140	154	1108	26	1275	35	1552	56
160	201	1448	23	1665	30	2027	47
180	254	1832	20	2107	27	2565	41
200	314	2262	18	2601	24	3167	37
225	394	2863	16	3292	21	4008	32
250	491	3534	14	4064	19	4948	28
300	707	5089	12	5853	16	7125	24
315	779	5611	11	6453	15	7855	22
350	990	6927	10	7966	14	9698	20
400	1257	9048	9	10405	12	12667	18
450	1590	11451	8	13168	11	16031	16

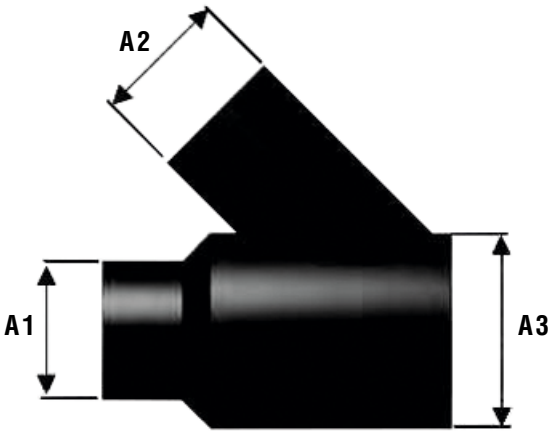
rounded values

Valid for steel tube, folded alongside, inside smooth. Loss from branches, bends and pipe distributers are about 50 Pa.
Also note, pressure loss from suction hose is about 5-6 times higher than steel tube.

Calculation cross section on several connection and distributing points

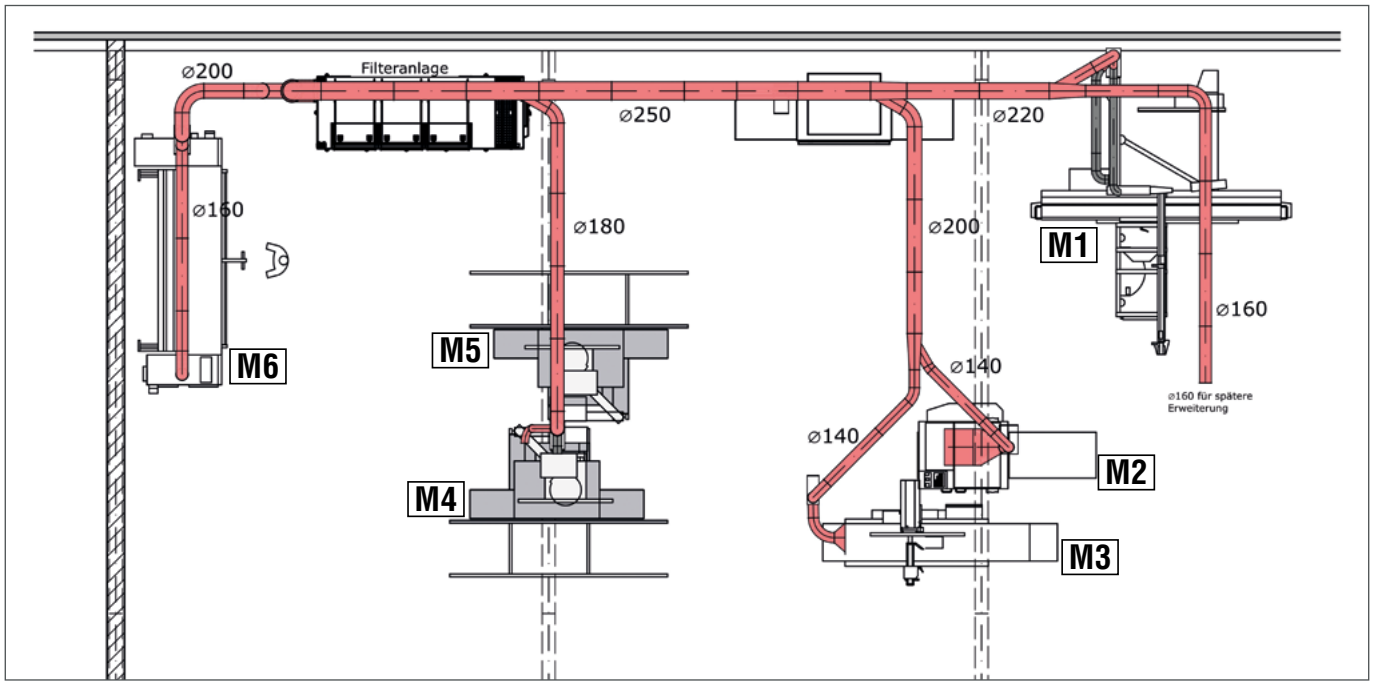
Example circular saw:

Connection A1 = Ø 120 mm ≙ A 113 cm²
Connection A2 = Ø 100 mm ≙ A 79 cm² = connection A3 = A 192 cm² ≙ Ø 160 mm



In this example, the suction line requires a pipe diameter DN 160 mm. To integrate this machine in the suction pipe network, the same calculation method is used for the determination of the main pipe.

Example: A1= Ø pipe from additional machine + A2 = Ø 160 mm = A3 Ø main pipe in direction dust extractor.



Calculation dust extractor with desired simultaneity of 2 machines

The amount of the necessary air volume results from the machines with the greatest demand. When calculating with smaller values, the required air volume would be too low, so the system would be too small.

If all machines should be extracted at the same time, even if this happens only for a short time, an extraction capacity of 10,838 m³ / h would be required. For simultaneity 2 machines 4,560 m³ / h.

In this example, more than two machines or machines in other combinations can be extracted simultaneously. However, the required extraction capacity must not exceed the maximum volume flow of the selected dust extractor.

.

Machine	Ø Suction nozzle	Required velocity.	Volume flow	Pressure loss at nozzle	Simultaneity	Air requirement
M1 Circular saw	120 + 100 mm	23 m/s	1,587 m³/h	1,500 Pa		
M2 Thickness planer	140 mm	28 m/s	1,552 m³/h	700 Pa		
M3 Surface planer	140 mm	28 m/s	1,552 m³/h	700 Pa		
M4 Milling machine	120 + 120 mm	28 m/s	2,280 m³/h	1,000 Pa	X	2,280 m³/h
M5 Milling machine	120 + 120 mm	28 m/s	2,280 m³/h	1,000 Pa	X	2,280 m³/h
M6 Grinding machine	120 + 100 mm	23 m/s	1,587 m³/h	1,000 Pa		
		Air requirement total	**10,838 m³/h**		**at simult.**	**4,560 m³/h**

Calculation required vacuum of the dust extractor

At first, all pipelines to the machines to be extracted must be calculated. Often, the pipe with the largest pipe length has the greatest pressure loss. Only then the right extraction system can be selected.

Calculation formula:

Pressure loss on extraction nozzle + pressure loss in pipe line incl. suction hose
= required vacuum of dust extractor

The pressure loss inside the dust extractor is already considered at AL-KO extractors.

Example:

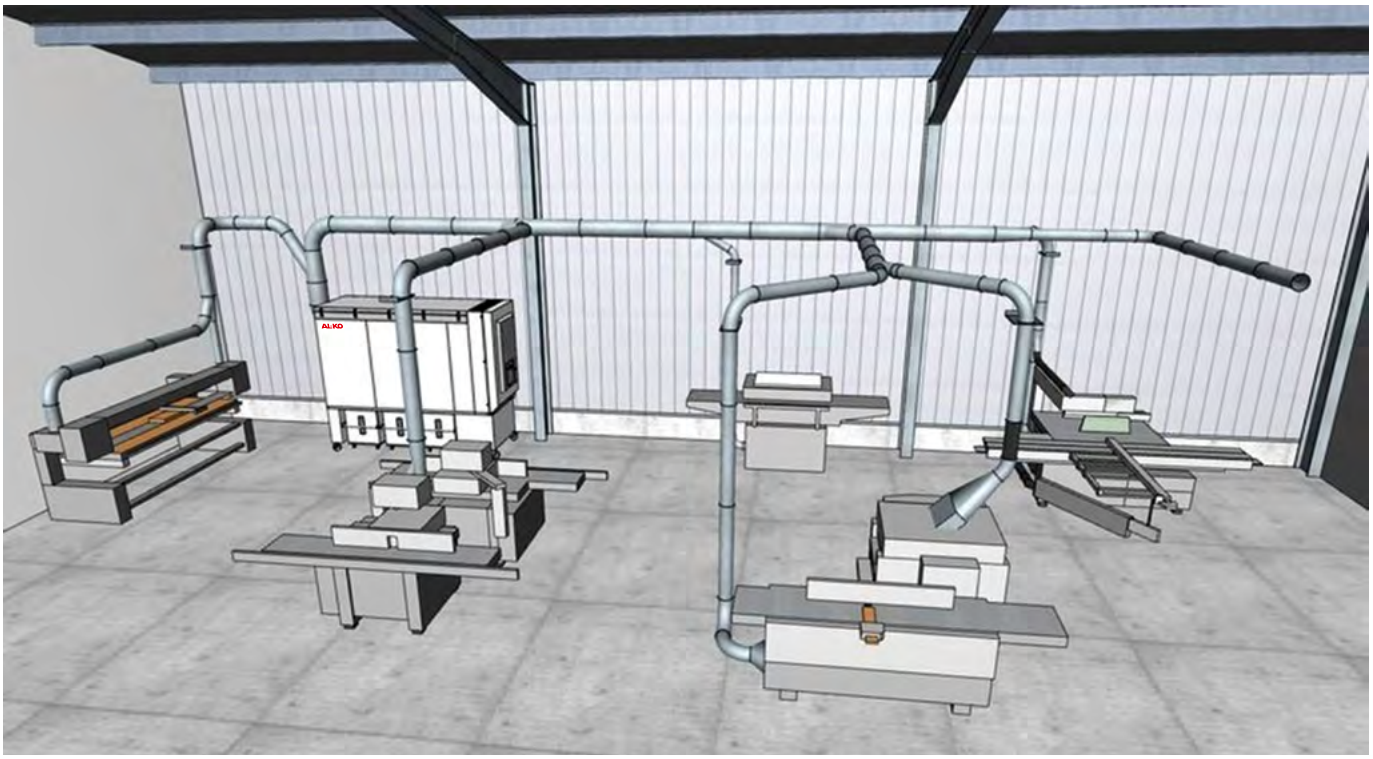
Machine with the largest loss
Circular saw 1,500 Pa

8 linear meter pipe Ø 250 mm each 19 Pa = 152 Pa
2 linear meter pipe Ø 220 mm each 21 Pa = 42 Pa
2 linear meter pipe Ø 160 mm each 30 Pa = 60 Pa
2 bows, 2 branches each 50 Pa = 200 Pa

Total pressure loss 1,954 Pa

At the required suction performance of 4,560 m³/h as well as a pressure loss 1,954 Pa an AL-KO POWER UNIT 250 is necessary.

The operator is free to use an extraction unit with a higher performance, eg. an APU 300 (as a reserve capacity).



Note when designing the piping:

- Use the next largest dimension according the table for selection of the pipe cross section
- The total cross-section of the machines to be extracted at the same time may not exceed the connection cross-section of the dust extractor
- The suction nozzle on a single machine may not be larger than the connection cross-section of the dust extractor
- For longer suction lines, the main pipe should be larger than the machine connection
- Plan the suction lines as directly as possible, as little as possible branches and bends
- Reductions and transitions to the suction hose should be directly before the machine to be extracted
- Gate valves on all machines
- Observe the requirements of the machine manufacturer with regard to the required suction power and vacuum at the machine nozzle

ATEX ZONING AND EQUIPMENT CATEGORY

	Zone	Duration of occurence of an explosive atmosphere	Equipment category
Gases, Vapours, Mists	0	Continously, for a long period, frequently	1G
	1	Occasionally	2G
	2	Rarely or for a short period	3G
Dusts	20	Continously, for a long period, frequently	1D
	21	Occasionally	2D
	22	Rarely or for a short period	3D

NOTES

QUALITY FOR LIFE

AL-KO EXTRACTION TECHNOLOGY – YOUR STRONG PARTNER

In Europe and across the world, thousands of customers every year choose quality products from AL-KO Extraction Technology. The enthusiasm for these products and customers' confidence in us demonstrates that even today, products bearing the "MADE IN GERMANY" label have a future – if they are consistently based on innovation and superior quality.

Look to the future with us, and as our customer and partner profit from the performance, the quality and the security offered by the AL-KO brand.

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