Extraction technology
QUALITY FOR LIFE

AL-KO

ENERGY EFFICIENCY made in Germany

SAVE ENERGY

MOBILE AND STATIONARY EXTRACTION SYSTEMS

Stationary and mobile extraction systems

AL-KO offers for wood-processing businesses (for example joiners, carpenters or furniture manufacturers) extraction systems with added value. AL-KO extraction systems can, however, also completely extract other materials in addition to woodshavings: for example substitute wood materials, plastics, stone materials, paint mist, metal swarf, paper or even welding fumes. Extraction systems from AL-KO can therefore guarantee smooth-running production processes and stand for safe working. AL-KO extraction systems can be best described like this: reliable in the extraction of dust and shavings, quiet operation and compact, space-saving construction.

Our new generation of mobile extraction systems and extraction plants is optimised for energy consumption, and saves the user considerable energy costs within the unit service life – true to our motto “SAVE ENERGY”.

Arbeitskreis Lufttechnik-Holz VDMA Qualität Made in Germany

AL-KO equipment extracts

Wood materials:
Shavings and dust impedes the production process and workers' health, especially during processing of wood materials (for example in joineries or carpenters shops or during furniture production). AL-KO developed its extraction systems decades ago based on this necessity, and is nowadays the market leader for extraction systems in the wood processing sector.

Stone materials:
Whether it's during stonemason work or construction material production, the hard consistency of stone materials comes with considerable hidden health risks for the user during the production process. Direct and continuous extraction removes stone dust and minimal stone particles right where they occur.

Welding fumes
Toxic fumes and flying sparks are caused at welding workplaces. Extraction at welding workplaces is therefore extremely important for ensuring safe working without damage to health.

Paint mist:
Spray painting processes often have hazardous side-effects. Any paint mist developing must be meticulously extracted right at the source in order to completely avoid poisonous gases or paint mist in the working environment.

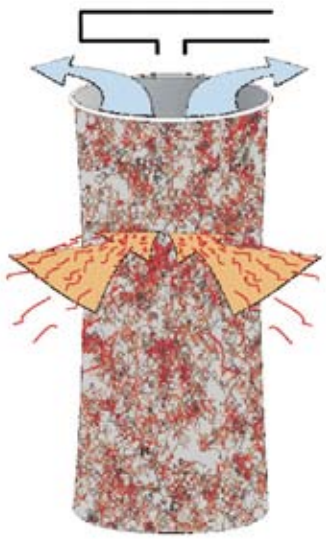
Plastics:
High precision working procedures and the high qualities required in the plastics or plexiglass material sectors can only be achieved if cutting and milling locations are free of swarf and residual materials. Efficient extraction is of great importance for product quality.

Substitute wood materials:
Many materials are substituted nowadays for a range of reasons. But even if composite materials, for example, are being processed instead of wood materials, powerful extraction technology is indispensable. AL-KO has the right extraction device for every application.

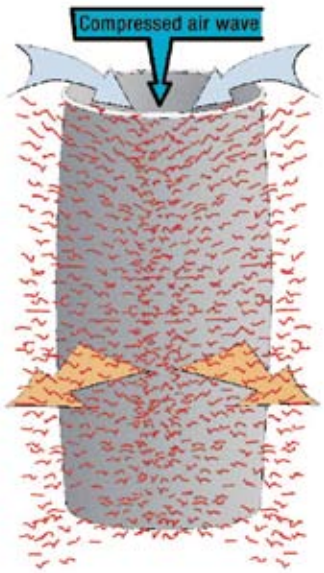
And a wide range of other possibilities.

AL-KO opti JET® – cleaning

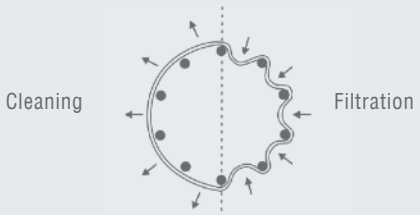
Clean air



Filtration phase



Cleaning phase



Garland effect

I thanks to low residual dust content using the established AL-KO opti JET® process

An optimum composition of surface filtration and jet cleaning makes it possible to retain a residual dust content of below 0.1 mg/m³ safely and permanently.

The advantage of surface filtration is that swarf and dust is separated on the surface of the filter material, which means particles cannot even penetrate the filter medium. During the filtration phase, the filter material is in contact with the supporting basket which forms a star-shaped cross-section.

During jet cleaning, the second component of the AL-KO opti JET® process, the filter tube is forced back to its original shape using a compressed air wave so that the filter cake is blasted off the surface and fine dusts are flung off.

AL-KO OPTI JET®
Oberflächenfiltration
Druckluftabreinigung

Low operating costs

I due to long filter life
The filter material is extremely durable throughout stable filter resistance due to its special surface treatment, and can be washed up to three times in addition.

I due to low compressed air consumption
The filter is blown up for around 1 second during jet cleaning, and in doing so only 1/7 of the air consumption is provided by the compressor, 6/7 is “free” surrounding air which the compressed air jet drags in with it. This means that a smaller compressor is sufficient for an optimum cleaning result.

I due to heating cost savings
The heat remains in the room because air is recirculated into the workshop.

I due to low erection costs
The extraction unit is pre-fitted precisely in our works. This reduces both the time and money required for erection considerably.

I due to optimum compressed air cleaning
The filter is always optimally maintained during operation due to the continuous filter cleaning. Fitting the filter is made considerably easier thanks to the use of a snap ring closure.

I regulation-conform
For example in the timber sector (ATEX guideline /H3).

Stationary extraction systems

Stationary extraction systems from AL-KO stand out due to their extra-special advantages. Their construction does not just offer safe statics for operating the equipment under full load, but also provide exceptionally good thermal insulation and soundproofing – this is important energetically for air recirculation of cleaned air into the working room. The modular construction of the AL-KO eco JET and AL-KO profi JET makes it possible for the extraction systems to continue to “grow” if operations are extended. This means that every stationary extraction unit from AL-KO can be added to at any time – and this is extremely inexpensive due to the particularly simple and rapid erection facilities available from all AL-KO extraction systems’ modular construction.

Keine funken-erzeugenden Maschinen absugen!

B1 Bauart 1 — Geeignet zum Absaugen brennbarer Stäube der Staubexplosionsklassen St 1 und St 2

TÜV MANAGEMENT SERVICE ISO 9001

BG-PRÜFZERT H3 Geeignet zur Abscheidung von Holzstaub Reststaubgehaltsstufe 3 0,2 mg/m³ eingehalten

profi JET
System filter equipment

With the AL-KO module program profi JET, it is possible to customize a filter system to your individual needs with choice of different standard modules. Depending on the requirements, an existing system can be expanded or modified by adding or replacing modules. This way, it is possible to increase the air flow volume as well as change the form of discharge even of an operating system.

Discharge options
Disposal containers, briquette presses, moving floor conveyor, chain floors, rotating disposal device to container or silo filling using rotary airlock valves are available as discharging variants.

Quality
At the same time, the production of the AL-KO modules in accordance with DIN ISO 9001 ensures constant quality at a very good cost-performance ratio level.

ADVANTAGES OF THE PANEL DESIGN

Heat insulation
Returned air will not be cooled down, improved heat recirculation for lower costs for heating in the factory

Fire prevention
fire-resisting intermediate layer

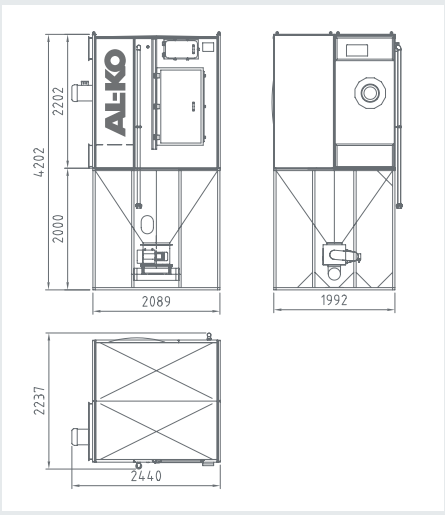
Noise reduction
Noise insulating mineral fibre; wall thickness 48 mm

Explosion-protection

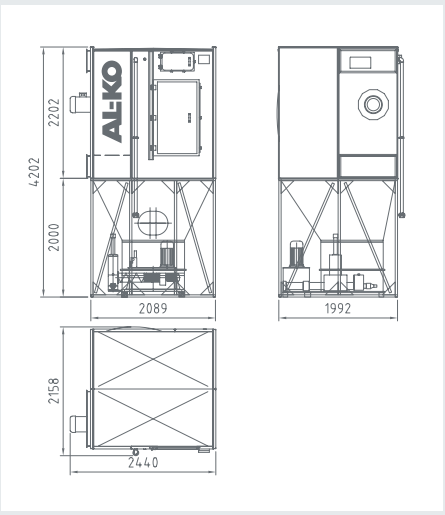
eco JET
Compact filter systems

The perfected, single-shell panel design ensures reliable statics at full load operation of the system. Special sound absorbers reduce noise emissions to a minimum. Furthermore, energy-saving fans are used in eco JET extraction systems, which permits energy-efficient operation and saves costs. Installing the eco JET extraction systems is especially easy and quick. If the system's performance should need to be increased at a later date – when, for example, the factory is fitted with additional workplaces – this is no problem with eco JET. The system is controlled by a PLC with machine detection and is progammable with no restrictions. Naturally, the controller can also be upgraded as required at a later date.

Discharge options
Whether containers for chips and dust collection or discharge using a rotary airlock valve, screw conveyor, moving floor conveyor or briquette press – the eco JET leaves nothing to be desired.



AL-KO eco JET-DUO with rotary airlock valve



AL-KO eco JET-DUO with briquette press

ECO JET

Specifications	2 A	3 A-L-XL	4 A-L-XL	5 A-L-XL	6 A-L-XL
Vacuum	1900 – 2650 Pa	3700 – 4200 Pa	2500 – 4200 Pa	2100 – 3700 Pa	2250 – 3000 Pa
Motor rating	4 kW	5,5 – 11 kW	7,5 – 15 kW	11 – 15 kW	11 – 15 kW
Flow rate	1725 – 2650 m^3/h	2500 – 4200 m^3/h	6045 – 10000 m^3/h	6045 – 10000 m^3/h	7770 – 10000 m^3/h
Filter area	11.5 – 17.3 m^2	23 – 38.8 m^2	28.8 – 58.2 m^2	40.3 – 77.6 m^2	51.8 – 97 m^2
Depth x Length	1225 x 2440 mm	1225 x 2440 mm	1225 x 3084 mm	1225 x 3950 mm	1225 x 4563 mm
Height	3004 mm A	3004 mm A	3004 mm A	3004 mm A	3004 mm A
Height	3609 mm A-L	3609 mm A-L	3609 mm A-L	3609 mm A-L	3609 mm A-L
Height	–	4104 mm A-XL	4104 mm A-XL	4104 mm A-XL	4104 mm A-XL

Retail prices in Euros, VAT not included. Subject to technical modifications.

Discharge options

In addition to energy-efficient and complete extraction of dusts and swarf, the question of recycling or discharge of the extracted materials must be addressed. The extracted wood material can be classically emptied into silos, containers or “big bag” collectors via rotation disposal devices and a rotary airlock valve.

Further extraction variations such as chain conveyors, screw conveyors or moving floor conveyors can also be used.

So-called briquette presses can be used for recycling the wood as a heating material, and with these the extracted woodchippings are pressed into handy briquettes immediately after extraction.

ROTARY AIRLOCK VALVE

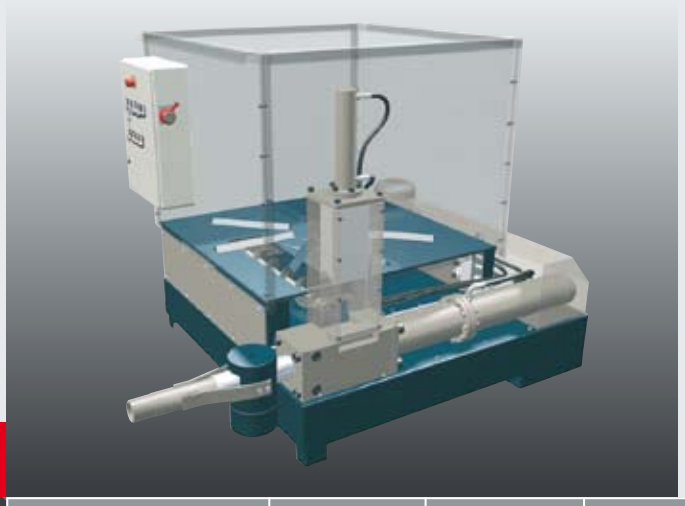
Specifications	ZRS 440	ZRS 960
Infeed	250 x 440 mm	250 x 960 mm
Outfeed	208 x 440 mm	208 x 960 mm
Construction height	330 mm	330 mm
Weight complete	70 kg	100 kg
Revolution speed Star feeder	4 rpm	4 rpm
Max. conveyor capacity	7250 L/h	15500 L/h
Revolution speed Star feeder	12 rpm	12 rpm
Max. conveyor capacity	21750 L/h	47450 L/h
Temperature range	up to 130 °C	up to 130 °C

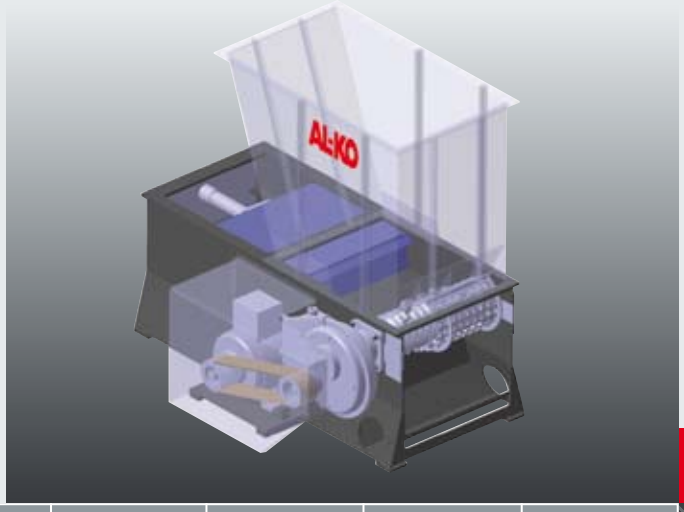
Rotating disposal device

Depending on requirements:
Outfeed using flangeable rotary airlock valves of 960 or 440 mm, for example via a circulating duct into a silo, or for direct feeding to a silo, or using screw conveyors into a briquette press.

Material buffer facilities.
The compactly-built rotating disposal device is recommended as an alternative to a discharge chute for unpressurised removal from stationary equipment. The bulk goods are intercepted by spring steel packages and discharged via a rotary airlock valve or screw conveyor. This type of discharge achieves an extremely good result at low overall height.

Briquette press, Shredder





Specifications	APC 30/50 S	APC 50/70 S	APV 40	APV 60	APV 80	APV 100	APV 120
Briquette diameter	50 mm	70 mm	50 mm	50 mm	50 mm	60 mm	70 mm
Capacity	30 – 50 kg / h	50 – 70 kg / h	30 – 50 kg / h	60 – 80 kg / h	80 – 100 kg / h	100 – 120 kg / h	120 – 150 kg / h
Motor rating	5.5 kW	7.5 kW	5.5 kW	7.5 kW	7.5 kW	7.5 kW	7.5 kW
Weight	650 kg	750 kg	800 kg	820 kg	870 kg	1 000 kg	1 050 kg

Specifications AL-KO shredder 630 x 800					
Intake	630 x 800 mm	Power requirement	15 – 18.5 kW	Weight	1 300 kg
Capacity	0.6 m^3	Cutting tool	30	Overall length	1 737 mm
Rotor diameter	260 mm	Screen sizes	8 – 40 mm	Overall width	1 167 mm
Rotor speed	70 – 90 rpm	Suction nozzle diameter	160 mm	Overall height	1 650 mm

Mobile extraction systems

The mobile extraction system series from AL-KO has extremely high reliability when extracting dusts and swarf, quiet operation and compact, space-saving construction. The high extraction capacity at low noise levels is the result of pinpoint further development of AL-KO's mobile extraction systems. Thanks to energetic optimisation, the user saves considerable energy costs throughout the service life. The AL-KO opti JET, a thorough and functional filter cleaning method, increases filter service life and keeps separation capacities constant over longer periods.

SIZES

Pure air dust extractors
- AL-KO POWER UNIT 300
- AL-KO POWER UNIT 250
- AL-KO POWER UNIT 200
- AL-KO POWER UNIT 160
- AL-KO POWER UNIT 140
- AL-KO POWER UNIT 120
- AL-KO POWER UNIT 100

Industrial vacuum cleaners
- JET STREAM

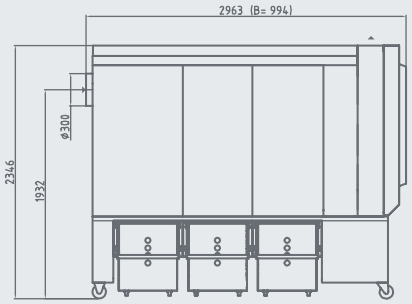
Paint mist extractors
- COLOUR JET

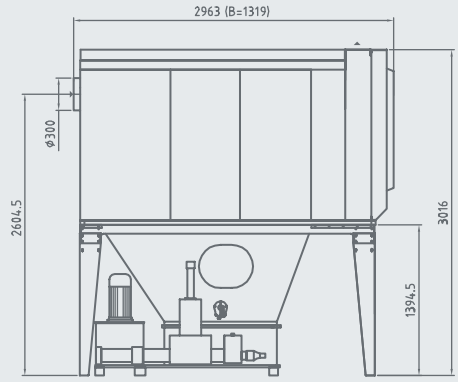
Raw air dust collectors
- AAS 6000
- AAS 5000
- AAS 4000
- AAS 3000
- AAS 2000
- AAS 1000
- mobil 200
- mobil 160
- mobil 140
- mobil 125
- mobil 100

Pure air dust extractors

- **Clean air:** Air recirculation into the room is a crucial factor in the clean air sector. This feed air is tilted by AL-KO extraction systems down to below 0.1 mg/m³ residual dust content.
- **Low maintenance costs:** the AL-KO opti JET® process cleans the filter medium regularly so that filter service life is considerably extended.
- **Low operating costs are a core expertise at AL-KO:** 100% air recirculation means space heat is retained and heating costs are saved.
- **Low noise levels:** the integrated soundproofing element in AL-KO extraction systems reduces noise levels to a minimum.

POWER UNIT 300
for a clean production





BENEFITS

- Compact construction
- High suction power
- Integrated pre-separator
- BG-tested
- Controller can be extended
- 100 % air recirculation
- Universally usable
- Optimum filter cleaning (even during operation)

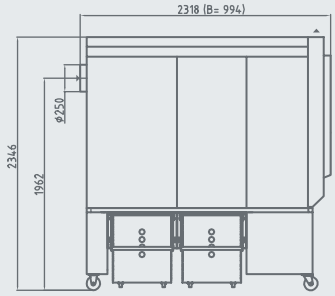
AL-KO POWER UNIT 300

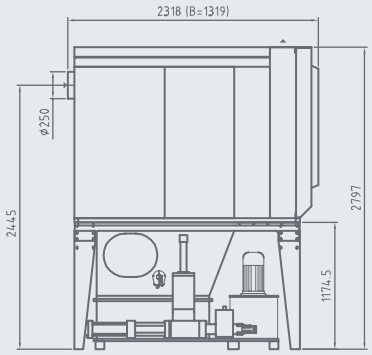
Specifications	300 P	300 P-BP	300 P-ZRS
Suction connection	300 mm	300 mm	300 mm
Nominal motor rating	7.5 kW / 3 Ph	7.5 kW / 3 Ph	7.5 kW / 3 Ph
Voltage	400 V / 50 Hz	400 V / 50 Hz	400 V / 50 Hz
Max. flow rate	6000 m³ / h	6000 m³ / h	6000 m³ / h
Nominal flow rate*	5089 m³ / h	5089 m³ / h	5089 m³ / h
Vacuum	2280 Pa	2280 Pa	2280 Pa
Filter area	30 m²	30 m²	30 m²
Swarf collection volume	3 x 250 L	Briquette press	Rotary airlock valve
Dimensions (L/W/H) in mm	2963 x 994 x 2346	2963 x 1319 x 3018	2963 x 1006 x 3016
Briquette/Rotary airlock valve	–	50 – 70 kg / h**	45000 L / h
Briquette diameter	–	70 mm	–
Weight	880 kg	1500 kg	880 kg

* GS-H-07. ** Depending on material.

Pure air dust extractors

POWER UNIT 250
for a clean production





AL-KO POWER UNIT 250

Specifications	250 P	250 P-BP	250 P-ZRS
Suction connection	250 mm	250 mm	250 mm
Nominal motor rating	6.5 kW/3 Ph	6.5 kW/3 Ph	6.5 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	400 V/50 Hz
Max. flow rate	4900 m^3/h	4900 m^3/h	4900 m^3/h
Nominal flow rate*	3534 m^3/h	3534 m^3/h	3534 m^3/h
Vacuum	2740 Pa	2740 Pa	2740 Pa
Filter area	22.4 m^2	22.4 m^2	22.4 m^2
Swarf collection volume	2 x 250 L	Briquette press	Rotary airlock valve
Dimensions (L/W/H) in mm	2318 x 994 x 2345	2318 x 1319 x 2797	2318 x 1006 x 2797
Briquette/Rotary airlock valve	–	30 – 50 kg/h**	45000 L/h
Briquette diameter	–	50 mm	–
Weight	680 kg	1020 kg	680 kg

* GS-H-07. ** Depending on material.

POWER UNIT 200
for a clean production

AL-KO POWER UNIT 200

Specifications	200 P	200 P-BP
Suction connection	200 mm	200 mm
Nominal motor rating	2.9 kW / 3 Ph	2.9 kW / 3 Ph
Voltage	400 V / 50 Hz	400 V / 50 Hz
Max. flow rate	3010 m^3 / h	3010 m^3 / h
Nominal flow rate*	2262 m^3 / h	2262 m^3 / h
Vacuum	2174 Pa	2174 Pa
Filter area	13.7 m^2	13.7 m^2
Filter cleaning	Compressed air	Compressed air
Swarf collection volume	2 x 241 L	Briquette press
Dimensions (L/W/H) in mm	2322 x 830 x 2050	2322 x 1319 x 2336
Briquette/Rotary airlock valve	–	30 – 40 kg / h**
Briquette diameter	–	50 mm
Weight	320 kg	950 kg

* GS-H-07. ** Depending on material.

Pure air dust extractors

POWER UNIT 160
for a clean production

POWER UNIT 140
for a clean production

AL-KO POWER UNIT 160 / 140

Specifications	160 P / 160 H	160 K**	140 P / 140 H
Suction connection	160 mm	160 mm	140 mm
Nominal motor rating	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
Max. flow rate	2000 m^3/h	2000 m^3/h	1600 m^3/h
Nominal flow rate*	1448 m^3/h	1448 m^3/h	1108 m^3/h
Vacuum	2503 Pa	2503 Pa	2591 Pa
Filter area	9.0 m^2	9.0 m^2	6.3 m^2
Filter cleaning	Compressed air / manual	Compressed air	Compressed air / manual
Swarf collection volume	241 L	241 L	241 L
Dimensions (L/W/H) in mm	1684 x 830 x 2050	1684 x 830 x 2050	1557 x 830 x 2050
Weight	288 kg	308 kg	222 kg

* GS-H-07. ** K – Compressor integrated

POWER UNIT 120
for a clean production

POWER UNIT 100
for a clean production

AL-KO POWER UNIT 120/100

Specifications	120	120 M**	100	100
Suction connection	120 mm	120 mm	100 mm	100 mm
Nominal motor rating	1.5 kW/3 Ph	1.5 kW/3 Ph	1.1 kW/1 Ph	1.5 kW/3 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	230 V/50 Hz	400 V/50 Hz
Max. flow rate	1 140 m^3/h	1 140 m^3/h	790 m^3/h	790 m^3/h
Nominal flow rate*	814 m^3/h	814 m^3/h	565 m^3/h	565 m^3/h
Vacuum	2 180 Pa	2 180 Pa	2 104 Pa	2 104 Pa
Filter area	4.3 m^2	4.3 m^2	3.5 m^2	3.5 m^2
Swarf collection volume	ca. 135 L	ca. 135 L	ca. 135 L	ca. 135 L
Dimensions (L/W/H) in mm	1 178 x 650 x 1 972	1 178 x 650 x 1 972	1 178 x 650 x 1 972	1 178 x 650 x 1 972
Weight	ca. 103 kg	ca. 104 kg	ca. 98 kg	ca. 98 kg

*GS-H-07. **M version with automatic filter cleaning and machine detection.

Industrial vacuum cleaners

AL-KO offers extraction systems for all sizes and applications from under one roof, including the perfect easy-to-hand extension to our mobile extraction program: the AL-KO JET STREAM. This powerful, mobile and compact industrial vacuum cleaner ensures that thorough cleaning of the workshop is quick and easy. The JET STREAM cleans up where extraction systems cannot be used. The JET STREAM is constructed in accordance with GS-HO-07.

JET STREAM

BENEFITS

- Dust class M
- Automatic switch-on and switch-off
- Automatic timelag
- Antistatic version
- Fully automatic filter cleaning
- Low-dust discharge using filter bags
- Wet / dry cleaner
- Universally usable
- Low working noise

JET STREAM

Specifications	
Nominal size	35 mm
Power consumption	1200 W/1 Ph
Voltage	230 V/50 Hz
Max. flow rate	3180 L/m
Max. Vacuum	210 mbr
Filter area	0.55 m²
Container volume	41 L
Dimensions (L/W/H) in mm	505 x 370 x 640
Weight	11 kg

Accessories: Industrial set (8 pcs.).

Paint mist extractor

Extraction systems are indispensable in toxic areas. With this in mind, AL-KO has developed the COLOUR JET extraction device specially for paint mist workplaces. The mobile construction and plug and play implementation makes an easy use in the workroom. In addition to this, the AL-KO extraction system has a high separation rate to ensure unimpaired worker activity.

COLOUR JET

BENEFITS

- Compact construction, space-saving
- Powerful, high extraction capacity, lower operating costs
- Maintenance-friendly, long filter service life
- Universally usable, variable accessories
- High flexibility
- Mobile construction
- Extraction technology with front panel system

COLOUR JET

Specifications	Typ 1	Typ 2	Typ 3	Typ 4
Nominal motor rating	1.5 kW	0.75/2.1 kW	0.75/2.1 kW	2.2 kW
Motor speed	1410 min^{-1}	960/1430 min^{-1}	960/1430 min^{-1}	1430 min^{-1}
Flow rate	4600 m^3/h	6800 m^3/h	6800 m^3/h	6800 m^3/h
Usable pressure	500 Pa	500 Pa	500 Pa	500 Pa
Dimensions (W/H/D) in mm	1025 x 1437 x 1214	1025 x 1437 x 1214	1905 x 1437 x 1214	1905 x 1437 x 1214
Width*	2000 mm*	2000 mm*	2800 mm*	2900 mm*
Filter area	1 m^2	1 m^2	2 m^2	2 m^2
Weight	175 kg	176 kg	248 kg	248 kg

* with side panels opened out.

Raw air dust collectors

If air does not need to be recirculated back into the room, extraction can also be carried out using so-called raw air dust collectors. True to the AL-KO philosophy, these mobile extraction devices are of modular and compact construction, and are exceptionally robust. The high extraction capacity is implemented through the use of optimised fans with high efficiency.

AAS 6000 – 1000

MOBIL 200 – 100

BENEFITS

- Universally usable
- Especially robust construction
- Considerably reduced dust content
- Filter bag Category G
- Top price/performance ratio
- High extraction capacity
- Rapid assembly time due to modular construction

Optional:
filter cartridges, floor cleaning set

AAS 6000 – 1000

Specifications	6000	5000	4000	3000	2000	1000
Suction connection	300 mm	250 mm	250 mm	200 mm	160 mm	160 mm
Nominal motor rating	5500 m^3/h	4500 m^3/h	3500 m^3/h	2500 m^3/h	1500 m^3/h	1000 m^3/h
Max. flow rate	7300 m^3/h	5300 m^3/h	4300 m^3/h	3300 m^3/h	2300 m^3/h	1800 m^3/h
Max. Vacuum	2900 Pa	2900 Pa	2900 Pa	2900 Pa	2700 Pa	2700 Pa
Filter area	6 x 3 m^2	5 x 3 m^2	4 x 3 m^2	3 x 2.2 m^2	2 x 2.2 m^2	2.2 m^2
Swarf collection volume	6 x 175 L	5 x 175 L	4 x 175 L	3 x 175 L	2 x 175 L	175 L
Motor power	7.5 kW/400 V	5.5 kW/400 V	4 kW/400 V	3 kW/400 V	2.2 kW/400 V	2.2 kW/400 V
Dimensions (L/W/H) in mm	4500 x 780 x 2620	3860 x 780 x 2620	3220 x 780 x 2620	2480 x 570 x 2185	1810 x 570 x 2185	1140 x 570 x 2185
Weight	290 kg	265 kg	200 kg	100 kg	65 kg	55 kg

MOBIL 200 – 100

Specifications	200	160	140W/140D	125W/125D	100*
Suction connection	200 mm	160 mm	140 mm	125 mm	100 mm
Nominal motor rating	2.2 kW/3 Ph	1.5 kW/3 Ph	1.1 kW/1 Ph/0.75 kW/3 Ph	0.75 kW/1 Ph/0.75 kW/3 Ph	0.75 kW/1 Ph
Voltage	400 V/50 Hz	400 V/50 Hz	1.1/230 V/0.75/400 V**	0.75/230 V/0.75/400 V**	230 V/50 Hz
Flow rate	2500 m^3/h	2200 m^3/h	1650 m^3/h	1350 m^3/h	865 m^3/h
Vacuum	2700 Pa	2500 Pa	1750 Pa	1600 Pa	1780 Pa
Filter area	3.0 m^2	2.2 m^2	2.2 m^2	1.6 m^2	1.1 m^2
Swarf collection volume	175 L	175 L	175 L	175 L	90 L
Dimensions (L/W/H) in mm	1090 x 580 x 2298	1090 x 580 x 2098	1090 x 580 x 2098	1090 x 580 x 2098	896 x 581 x 1699
Weight	43 kg	40 kg	40 kg	40 kg	25 kg

*2 m hose included in delivery. ** 50 Hz. **!! Use in the wood industry is not permitted in Germany. !!**

We reserve the right to make technical changes.

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