


KERSTAR

Part of Absolent Air Care Group

KAV 2

Handheld Pistol Type Compressed Air Powered Vacuum Cleaner

Category 3 (Dust Zone 22 / Gas Zone 2)

CE  II 3 D Ex h III C T50°C Dc
 II 3 G Ex h IIC T6 Gc

Operating Instructions

Please read carefully before use

IMPORTANT USER INFORMATION

It is most important that this instruction book should be retained with the KAV 2 for future reference. Should the KAV 2 be sold or transferred to another user, always ensure that this manual is supplied with the KAV 2 so the user can be acquainted with the functioning of the KAV 2 and the relevant warnings. These warnings are provided in the interest of safety. You must read them carefully before installing or using the KAV 2.

It is dangerous to alter the specification or modify the KAV 2 in any way.

The KAV 2 Handheld Pistol Type Compressed Air Vacuum Cleaner is designed for use in four different environments.

- 1) To pick up inert dust and debris in an inert atmosphere (no risk of static spark or explosion).
- 2) To pick up inert dust and debris in a Zone 2 atmosphere (Zone 2 atmosphere is where flammable gases or vapours may be present for a limited period).
- 3) To pick up dust or debris that generates static and/or may also explode if ignited by a static spark, but in an inert atmosphere (Zone 22).
- 4) To pick up an explosive dust or debris in a Zone 2 atmosphere.

WARNING / CAUTION & SPECIFIC CONDITIONS OF USE

- 1) This appliance is not suitable for picking up hazardous dusts that may endanger health. These are defined as non-radioactive, non-explosive dusts that are hazardous to health if inhaled, ingested or if in contact with the skin. A hazardous dust can be defined as very toxic, harmful, corrosive, or irritant; some dusts may be subject to an exposure limit in the country of use; micro-organisms may be considered as dusts creating a hazard to the health of a person.
- 2) This appliance is not suitable for collecting radioactive dust.
- 3) This vacuum cleaner is not suitable for picking up dust with an ignition energy of less than 1mJ.
- 4) This appliance is designed for dry use only and should be used with care outdoors. It should not be stored outdoors.
- 5) The air supply hose should be kept away from heat, oil, sharp edges and rough surfaces. If there is a risk of the air supply hose being severed an air fuse should be fitted. A suitable air fuse is available from Kerstar.
- 6) This appliance is supplied with a conductive air supply hose. It is the end user's responsibility to ensure a good earth connection is maintained at the compressed air connection point whilst this appliance is in use.
- 7) Air compressors used to supply the pneumatic system must incorporate a filter on the intake system to avoid ingress of dust or foreign material into the parts where compression takes place, and must employ only lubricants which are resistant to ignition or carbonisation within the equipment's operating temperature range.
- 8) This appliance is not to be used with pyrophoric or self-reactive dusts.
- 9) This appliance must only be used in conjunction with the air supply hose and accessories supplied with this appliance. Never use with hose or accessories that have

not been supplied by Kerstar.

- 10) This appliance must never be used to pick up glowing dust/particles or other ignition hazards.
- 11) Only use the hose and accessories supplied with this vacuum cleaner. These have been ATEX tested and assessed as suitable for use with this appliance. A wider range of ATEX approved nozzles is available from Kerstar. NEVER use any other hose or accessories.
- 12) When picking up swarf and similar metallic parts, the KAV must not be used to pick up potentially explosive dusts or be used in potentially explosive atmospheres. Note: When rusty steel and aluminium items collide with sufficient energy it is possible to generate a spark.
- 13) Only use Kerstar approved accessories and spare parts.
- 14) When collecting dust or debris that may ignite or explode, empty the cleaner after every use.

This appliance must be disconnected from the air supply before any maintenance tasks are carried out.

Under no circumstances should you attempt to repair the appliance yourself. Repairs undertaken by unauthorised or inexperienced persons may cause injury and/or serious malfunctioning.

This appliance must only be serviced by authorised Kerstar personnel and only genuine Kerstar spare parts should be used.

UNPACKING YOUR KAV 2

Unpack the KAV 2 and ensure that you have a complete set of accessories as listed below:

- | | | | |
|---|--|---|--|
| 1 | KAV 2 Body with cloth bag attached | 1 | 32 x 70mm anti-static Dusting Brush |
| 1 | Anti-static air supply hose, 4 metres long | 1 | Yellow earth path continuity certificate |
| 1 | 32mm anti-static plastic Crevice Tool | | |

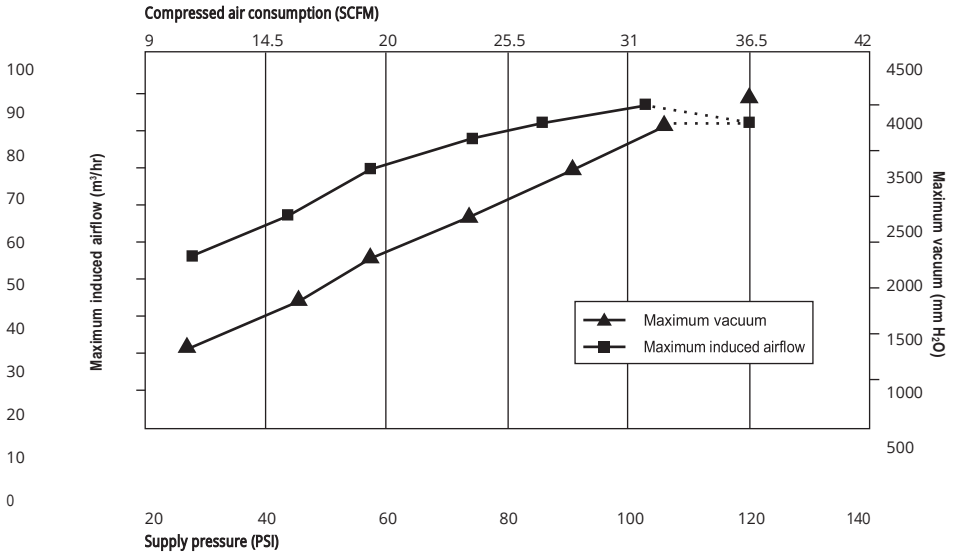
COMMISSIONING YOUR KAV 2

Attach the anti-static air supply hose to the air inlet port on the KAV 2. Do not over-tighten the connection. Do not use any form of liquid thread locker or PTFE tape to seal the thread. The threaded end fitting has its own integral O ring seal. If you use liquid thread sealer or PTFE tape you may create an insulated barrier so that any static build up cannot dissipate to earth down the air supply hose.

Fit a metal (conductive) fitting to suit your air outlet sockets to the other end of the air supply hose. Make sure the pipework and outlet fittings of your air supply system are constructed entirely of metal pipes and fittings, and is earthed to your compressor. Finally, using a 500 volt megohmmeter, measure the resistance between the body of the KAV 2 and the metal air supply pipe. The reading should be no more than 50 Megohm (5×10^7 Ohm).

The KAV 2 does not require the air supply to be dried or filtered. It is advisable to use an air supply that can be regulated so that the performance of the KAV 2 can be adjusted to suit the operator. The performance is related to the air input. The more pressure/volume of air input, the more suction/induced airflow is generated. However, using excessive air input wastes compressed air and generates unnecessary noise.

PERFORMANCE/COMPRESSED AIR REQUIREMENTS



RISK ASSESSMENT (ATEX)

If this vacuum cleaner is used for collecting flammable/explosive materials or within a zoned area classified under the ATEX Directive 2014/34/EU then a risk assessment must be carried out by a competent person to verify the suitability of the application. The risk assessment will be the responsibility of the customer/end user and should take into account, but not be limited to, the characteristics of the material being collected such as:

1. Spark ignition sensitivity
2. Hot surface ignition sensitivity (cloud)
3. Hot surface ignition sensitivity (layer)
4. Explosion severity
5. Burning behaviour
6. Thermal instability
7. Chemical instability
8. Static electricity generation
9. Impact of collected material
10. The ATEX certification code for the appliance being assessed (see the rating plate on the KAV 2).

OPERATING INSTRUCTIONS

Connect the KAV 2 to a suitable compressed air supply. Attach one of the two nozzles supplied and using your thumb depress the lever trigger to activate the unit. The lever trigger is spring-loaded so the KAV 2 will cease to function as soon as it is released.

FILTRATION SYSTEM

The standard KAV 2 is supplied with a single stage of filtration. This is the cloth bag. It is suitable for most particles, granules, chippings etc. If you are picking up fine dust you may have some leakage of dust through the pores of the cloth bag. It is NOT possible to fit a paper bag to this model as the induced airflow and the compressed air combine in the outlet port and would quickly burst a paper bag. A heavy-duty cloth bag set is available. It has a larger capacity and is made from a heavier duty material. Contact Kerstar for more details.

It is possible to remove the cloth bag and fit the optional hose and collection canisters. These canisters are available in various sizes and capacities. They all have a conductive hose, couplings, canister and cloth filter assembly. Any static build up is discharged to earth through the air supply hose. Please contact your dealer or Kerstar for further information about these items.

RATING PLATE

The rating plate gives the precise information about this product. A full explanation is given below.



1. Name and address of manufacturer
2. Manufacturers' model or type number
3. Year of manufacture, assembly or construction
4. The **CE** mark
5. **Ex** symbol. The distinctive community mark showing a product is suitable for use in an explosive dust and/or gas atmosphere.
6. **II** – equipment group II (Surface Industries)
7. **3** – Category 3 product
8. **G** – explosive gas, vapour or mist atmosphere
9. **D** – explosive dust atmosphere
10. **Ex h** – Protection Concept – Constructional Safety
11. **IIICT50°C Dc** – **IIIC** dust group – Conductive dust
 - **T50°C** surface temperature for dust evaluation less than 50°C
 - **Dc** dust atmosphere EPL (Equipment Protection Level) Zone 22
12. **IICT6 Gc** – **IIC** gas group. Suitable for group II gases, vapours & mists e.g. Hydrogen
 - **T6** surface temperature classification for gases, vapours & mists less than 85°C
 - **Gc** gas atmosphere EPL (Equipment Protection Level) Zone 2
13. The serial no. For example, 17H 123 – made in August 2017 number 123
14. **X** – refer to instruction book for special operating or user information

GUARANTEE

Kerstar products are guaranteed for 12 months against defective parts and workmanship. There are certain conditions that may invalidate this guarantee.

- a) This appliance must be correctly installed and used in accordance with these instructions.
- b) Servicing must be carried out by Kerstar authorised personnel only.
- c) The guarantee may be invalidated by unauthorised repair or modification to the appliance. Kerstar may introduce modifications to its products from time to time and consequently the details given in this instruction book are subject to alteration without notice.

Please visit www.kerstar.com for full Terms and Conditions and to activate your warranty.

PROTECTING THE ENVIRONMENT



When this product has reached the end of its useful life it must be recycled in an environmentally friendly manner. It must not be disposed of with normal household waste.

SERVICING & SPARES

Should your Kerstar KAV 2 need any servicing, repair or spares, please contact your nearest Kerstar dealer or contact Kerstar directly:

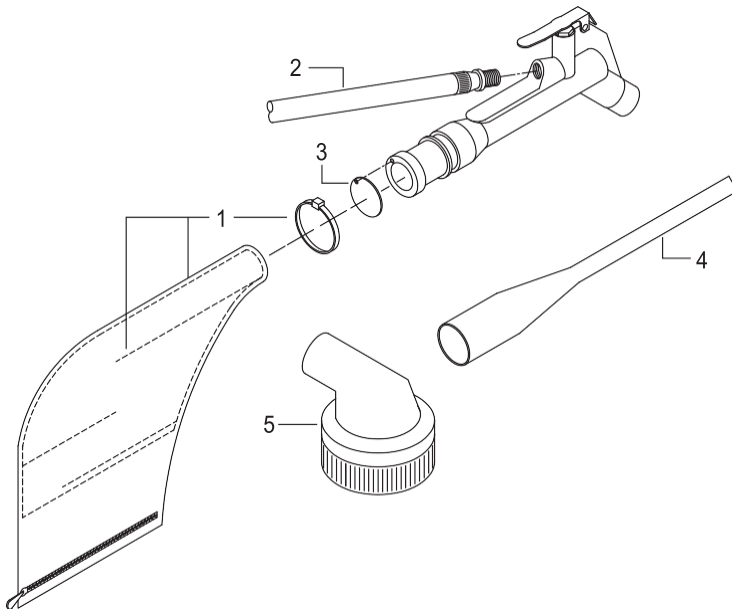
Tel: +44 (0)1952 290500 sales@filtermist.com

More details on servicing can be found on the Kerstar website www.kerstar.com.

Please make a note of the model and serial number before contacting Kerstar.

SPARE PARTS

Item No.	Part No.	Description
1	25-712-10-013	KAV 2 Cloth Bag Set (inner/outer bag and plastic tie)
	25-712-10-014	KAV 2 Heavy Duty Cloth Bag Set (inner/outer bag and plastic tie)
2	25-712-10-489	Air Supply Hose A/S 4 metre
3	25-204-20-875	KAV 2 Flap Valve, Screw and Washer
4	25-204-10-056	32mm A/S Crevice Tool
5	25-204-10-061	32 x 70mm A/S Dusting Brush



EU DECLARATION OF CONFORMITY

Manufacturer: Filtermist Limited UK

Manufacturer's Address: Telford 54 Business Park, Nedge Hill, Telford, Shropshire, TF3 3AL

Product Type(s)/Model(s): KAV 2 – Compressed Air Powered Handheld Vacuum Cleaner to collect non-hazardous dry dust/debris.
KAV 15 & KAV 18 Interceptor Tank for KAV 2. To collect non-hazardous dry dust/debris in place of the KAV 2 zipped cloth bag.

Object(s) of the declaration:	KAV 2	25-129-30-207
	KAV 15 Interceptor Tank for KAV 2	25-129-30-002
	KAV 18 Interceptor Tank for KAV 2	25-129-30-003

Filtermist Limited hereby declares under our sole responsibility as the manufacturer that the above object(s)/products are in conformity with the following relevant Union harmonisation legislation:

ATEX Directive 2014/34/EU

Machinery Directive 2006/42/EC

Based on the following harmonised standards & technical specifications:

BS EN ISO 80079-36:2016 Explosive atmospheres.
Non-electrical equipment for explosive atmospheres. Basic method and requirements

The pneumatic parts of the KAV 2 range have been constructed in accordance with ISO 4414:2010 Pneumatic Fluid Power – General rules and safety requirements



BS EN ISO 80079-37:2016 Explosive atmospheres. Non-electrical equipment for explosive atmospheres. Protection by constructional safety

The following Test House has been involved in the conformity assessment process:

Test House	Element Materials Technology
Role:	Issue of ATEX Test Type Examination certificates
Certificate No.	EMT17ATEX0031X

Additional information:

ATEX coding

 II 3 D Ex h IIIC T50°C Dc
 II 3 G Ex h IIC T6 Gc

Location of Technical File and Test Report

Filtermist Limited UK, Telford 54 Business Park, Nedge Hill, Telford, Shropshire, TF3 3AL

Year mark first applied

2017

Specific Conditions of use

1. The equipment is supplied with a conductive air supply hose. It is the end user's responsibility to ensure a good earth connection is maintained at the compressed air connection point whilst the equipment is in use.
2. Air compressors used to supply the pneumatic system must incorporate a filter on the intake system to avoid ingress of dust or foreign material into the parts where compression takes place and must employ only lubricants which are resistant to ignition or carbonisation within the equipment's operating temperature range.
3. Equipment is not to be used with pyrophoric or self-reactive dusts.
4. The equipment must only be used in conjunction with the air supply hose and accessories supplied with the equipment. Only use with the hose or accessories that have been supplied by the manufacturer.
5. The equipment must never be used to pick up glowing dust / particles or other ignition hazards.
6. The vacuum cleaner is not suitable for picking up dust with an ignition energy of less than 1 mJ.

Signed for and on behalf of Filtermist Limited



Name: Craig Haynes
Position/Function: Product Engineering Team Lead
Date of issue 1st January 2024



Part of Absolent
Air Care Group

Supplied by:

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Version: January 2024

www.kerstar.com

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Although every effort has been made to maintain accuracy of information and specifications in this manual, no liability can be accepted for errors and omissions and this manual forms no part of a contract. Filtermist Limited may introduce modifications and improvements from time to time, and consequently the details given in this manual are subject to alteration without notice. Please visit www.kerstar.com to download the latest version of this manual.