

ORIGINAL INSTRUCTION MANUAL

For INDUSTRIAL VACUUM CLEANER (Retain for future reference)



AIR VAC 30/45 - W/D - ATEX

For **Wet and Dry Collection ONLY**

FOR NON FLAMMABLE AND NON CORROSIVE LIQUIDS OR DUSTS AND DEBRIS

COMPRESSED AIR POWERED

Serial No.....

(To be completed by user)

READ THIS INSTRUCTION MANUAL

BEFORE USING THE APPLIANCE

Part Number	Model Description
55 64184 00	AV30 AIR VAC W/D - ATEX G1D21
55 64711 00	AV45 AIR VAC W/D - ATEX G1D21

The above Model carries this ATEX Certification Code



We reserve the right to change the design without notice

IMPORTANT USER INFORMATION

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



It is dangerous to alter the specification or modify this appliance in any way.

This appliance is a Wet or Dry Pick-Up Compressed Air Vacuum Cleaner and is designed for use in five different environments:

1. To pick up non-explosive dust and debris in an un-zoned atmosphere.
2. To pick up non-explosive dust and debris in a Gas Zone 1 atmosphere (A Gas Zone 1 atmosphere is where flammable gases, vapours and mists are likely to occur).
3. To pick up dust and debris that may explode if ignited (Dust Zone 21) in an area where no flammable gases, vapours or mists are present. (A Dust Zone 21 atmosphere is where a potentially explosive dust cloud is likely to occur).
4. To pick up dust and debris that may explode if ignited (Dust Zone 21) in a Gas Zone 1 atmosphere.
5. To pick up Non Flammable and Non Corrosive Liquids where a Gas Zone 1 and/or Dust Zone 21 atmosphere may or may not be present.

Before using this appliance, or any of the optional extras, a risk assessment must be carried out by a competent person to ensure that this appliance is suitable for the application. The risk assessment is the responsibility of the customer/end user. The manufacturer and/or his agent are not qualified to make the risk assessment on behalf of the end user.

WARNING / CAUTION

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.

This appliance is not suitable for collecting radioactive dust.

This vacuum cleaner is not suitable for picking up dust with an ignition energy of less than 1mJ.

This appliance is not suitable for picking up flammable or corrosive liquids.

This appliance is only for use indoors and should not be stored outdoors.

The air supply hose has a special conductive lining to dissipate any static build up down to earth. The end piece you fit must be metal and your air supply pipe system must be earthed.

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 BVC.

If the air supply hose is damaged and needs replacing, it **MUST** be replaced by a conductive supply hose available from BVC. Do not use any other air supply hose.

It is strongly advised that the earth path continuity between the pick-up tool and the earthed air supply system be checked by a competent person at regular intervals and records be kept of these checks.

Air Compressors used to supply this vacuum cleaner must incorporate a filter on the intake system to avoid ingress of dust or foreign material and must employ only lubricants which are resistant to ignition or carbonisation within the equipment's operating temperature range.

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This appliance is not to be used with pyrophoric or self-reactive dusts.

This vacuum cleaner must not be used to pick up glowing dust/particles or other ignition hazards

When picking up swarf and similar metallic parts, the AV 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.

Use only the hose and accessories supplied with this vacuum cleaner. These have been ATEX assessed as suitable for use with this appliance. A wider range of ATEX approved nozzles is available from BVC. **NEVER** use any other hose or accessories.

WARNING / CAUTION CONTINUED...

Use only BVC approved accessories and spare parts.

Ensure that the product being collected is suitable for vacuum cleaning.

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 is carried out.

Do not use the appliance for dry vacuuming with the filters and/or Microfibre bag removed.

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 BVC personnel and only genuine BVC spare parts should be used.

Always remove liquids from the container after use.

NOISE EMISSION 74.7 dB(A) @ 3m – AV30 AIR VAC W/D

NOISE EMISSION 74.2 dB(A) @ 3m – AV45 AIR VAC W/D

PREPARATION FOR USE

Unpack and identify each item of equipment against packing note.

Check the rating plate against the ATEX zone, in which the machine and any accessories are to be used.

UNPACKING YOUR VACUUM CLEANER

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

Item	Part Number	Quantity	Description
1		1 off	Compressed Air Powered Vacuum Cleaner
2	29 30000 70	1 off	Air Supply Hose, Anti-Static, 5 metres long
3	29 03801 00	1 off	Hose Standard Duty 3.0m PVC Anti-Static
4	29 03802 00	1 off	ATEX Bend 30 Degree Stainless Steel
5	29 03803 00	2 off	ATEX Extension Arm 470mm Stainless Steel
6	29 03808 10	1 off	ATEX 38 Crevice Tool Anti-Static 300mm
7	29 03807 10	1 off	ATEX 38 x 70mm Dusting Brush Anti-Static
8	29 03806 10	1 off	ATEX 38 x 100mm Dusting Brush Anti-Static
9	29 03817 00	1 off	ATEX 38 x 375mm Heavy Duty Floor Tool with Brushes Anti-Static
10	29 03818 00	1 off	ATEX 38 x 375mm Heavy Duty Floor Tool with Blades Anti-Static
11	29 30014 00	1 off	Dry Filter Assembly Anti-Static
12	29 30024 20	5 off	K4 Microfibre Bags
13		1 off	Yellow Earth Path Continuity Certificate

Models on a caddy (AV 30 & 45) are packed with the caddy handle removed for transport/packing purposes. Refit handle before use.

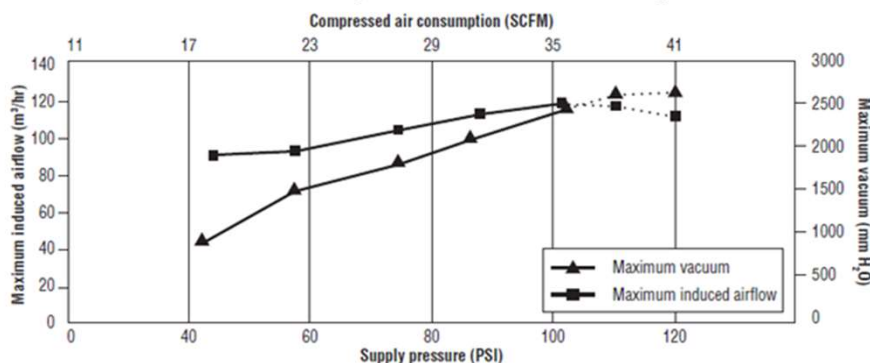
COMMISSIONING YOUR VACUUM CLEANER

Attach the antistatic air supply hose to the air inlet port on the control valve. 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.

To the other end of the air supply hose, fit a metal (conductive) fitting to suit your air outlet sockets. Make sure the pipework and outlet fittings of your air supply system are constructed entirely of metal, and are suitably earthed. Finally, using a 500 volt megohmmeter, measure the resistance between the body of the vacuum cleaner and the metal air supply pipe. The reading must be no more than 50 M ohm (5 x 10⁷ Ohm).

PERFORMANCE/COMPRESSED AIR REQUIREMENTS

The AV range does not require the air supply to be dried, filtered or to have oil mist removed. It is advisable to use an air supply that can be regulated so that the performance of the unit 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, generates unnecessary noise, may cause implosion of the canister and/or bursting of the Microfibre bags/filters.



Note: Optimum performance is achieved at an air input pressure of 90 - 120 psi (6.2 bar – 8.3 bar)

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. Flammable gas generation
6. Burning behaviour
7. Thermal instability
8. Chemical instability
9. Static electricity generation
10. Impact of collected material
11. The ATEX certification code for the appliance being assessed.
(See the rating plate on the machine).

OPERATING INSTRUCTIONS

Connect to a suitable compressed air supply. Attach the antistatic hose assembly to the canister, connect the stainless steel bent hose end and wands. Choose and attach one of the antistatic tools supplied. To activate, turn the lever on the control valve through 90°. The performance of the vacuum cleaner can be controlled with the control valve, but it is advisable to fit a regulator and pressure gauge at the air outlet point of your compressed air supply. The maximum pressure must be no more than 120psi (8.3 Bar).

CARRYING & STORAGE

The assembled cleaner can be moved around using the flip/flop handle on the motor head or by means of the tubular handle (models on caddy only). **It must NOT be dragged around by means of the air supply hose.**

When not in use disconnect the machine from the compressed air supply. This vacuum cleaner should be stored indoors in a dry environment.

ACCESS TO THE FLOAT/FILTRATION SYSTEM

To remove the motor head, unclip all clips. Ensure that the clips are hinged clear of the rim of the motor head. Lift the motor head off of the canister.

To refit the motor cover head align the head so that the control valve lies directly opposite the hose entry on the canister. Locate the clips over the rim of the motor head and firmly press down the clips until they have locked into position.

TO SETUP FOR DRY PICK UP

Models on caddy (AV 30 & 45 WorD): Remove motor head and float assembly as described above. Gently tip liquid from canister into a suitable drain, sink or toilet.

Also, if required, the canister can be removed from the caddy by unlocking the toggle clip situated at the rear of the canister.

If dump valve/drain hose is fitted, disconnect the air supply and move the vacuum cleaner to a suitable drain. Open the dump valve/unclip the drain hose, flip the stopper to release the liquid.

TO SETUP FOR WET PICK UP

1. Remove motor head
2. Remove dry filter and Microfibre bag
3. Make sure the canister is empty and clean
4. Place the float assembly in the canister
5. Replace motor head – **the machine is now ready for wet use only**
6. When the machine is full, the float will rise automatically and cut off the suction, thus preventing any more water being picked up. The machine should then be emptied.

WARNING Switch off and disconnect air supply before cleaning or emptying. During wet use if foam or liquid comes from the exhaust, switch off immediately.

If liquid comes from the exhaust, foam is being generated in the canister, disconnect air supply. Remove the vacuum motor head from the canister and tip the liquid out of the exhaust vent and completely drain. Leave the motor head in a warm and dry environment to dry out before using again.

EMPTYING LIQUID FROM CANISTER

1. Remove motor head
2. Remove float assembly
3. Empty can of any water, and dry out with sponge or cloth
4. Fit 1st stage disposable Microfibre bag
5. Fit 2nd stage antistatic cloth filter assembly
6. Refit motor head – **the machine is now ready for dry use only**

IMPORTANT - When used for dry vacuuming, both stages of dry filtration **MUST** be used.

CLEANING THE FILTERS

1st Stage Microfibre Bag – Microfibre bags cannot be emptied and must be replaced when full, torn or holed

2nd Stage Antistatic Cloth Filter - Brush dust off filter or Vacuum dust off with another vacuum cleaner.

FILTRATION SYSTEM

This vacuum cleaner is fitted with two stages of filtration. Both stages are on the negative pressure (suction) side of the motor.

1st Stage: K4 Microfibre Bag

The disposable bags are made from Microfibre material. This material offers better filtration efficiency, greater tear resistance from sharp debris than paper bags and is less likely to burst when full of heavy dust/debris. Microfibre disposable bags are fitted with a moulded plastic flange and sealing cap. They are fitted over the inlet inside the canister and the dust/debris is collected inside the bag. The sealing cap is designed to prevent the escape of dust from the bag during the bag change and disposal process. When the bag is full or suction efficiency is impaired it should be replaced. Microfibre bags are not designed to be emptied and should not be reused.

2nd Stage: Antistatic Cloth Filter Assembly

A conductive needle-felt cloth filtration media attached to a conductive rubber sealing ring and supported by a conductive plastic rigid filter frame.

LOSS OF SUCTION

If your cleaner loses suction power, first check that the hose and other accessories in use are not blocked. Then check that the filtration system is not blocked. The filtration system can be serviced as follows:

- | | |
|-----------------------|--|
| Microfibre bags | - If full, replace.
If burst, empty/clean out canister and replace. |
| Cloth Filter Assembly | - This filter will become contaminated with dust during normal use and/or if the Microfibre bag is holed or burst. The dust must be removed either by brushing off or by vacuuming with another ATEX vacuum cleaner. It is advisable to have a spare filter so that the machine itself can be used to vacuum dust off the contaminated filter. |

If any of the filters or Microfibre bags are damaged or holed they must be replaced with new items.

OPTIONAL EXTRAS

Hose & Accessory Basket – zinc plated tool basket to prevent a build-up of static. It can be fitted by hanging from the two horizontal crossbars on the rear of the caddy. Suitable for models AV 30 & 45 WorD only.

Dump Valve or Drain Hose and Stopper – to allow the emptying of liquid from the canister without removing the air motor head and float assembly. Suitable for models AV 30 & 45 WorD only.

Warning – When cleaning the dump valve/drain hose, use a damp/wet cloth.
DO NOT use a dry cloth.

SERVICING & SPARES

If the machine needs any servicing, repair or spares, please contact your BVC dealer or BVC directly:

Tel: +44 (0) 23 9260 3700 or email: enquiries@quirepace.co.uk or visit www.quirepace.co.uk

Please make a note of the model and serial number before making contact.

GUARANTEE

BVC 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 BVC authorised personnel only.
- c) The guarantee may be invalidated by unauthorised repair or modification to the appliance.

BVC may introduce modifications to their products from time to time and consequently the details given in this instruction book are subject to alteration without notice.

RATING PLATE

The ATEX / UKEX certification code which is shown on the machines rating plate is made up as follows:-

BVC QUIREPACE LTD., 6 PENNANT PARK
FAREHAM, PO16 8XU, UK
www.bvc.co.uk

Model No. **AV** Year. **20** **KG**

UK **CA** **C** **€** **Ex** **II 2 D Ex h IIIC T50°C Db**
II 2 G Ex h IIC T6 Gb

Serial No.

ATEX Cert No. **EMT17ATEX0050X**
UKEX Cert No. **EMA21UKEX0068X**
TECHNICAL FILE REF: **AV15 - 45**
ADVISED AIR PRESSURE 90 - 120PSI (6.2 - 8.3 BAR)

The AV 15-45 range has been tested and approved by an independent test house

ATEX Cert No. **EMT17ATEX0050X**

UKEX Cert No. **EMA21UKEX0068X**

UK
CA

The **UKCA** mark (UK Conformity Assessed).

C **€**

The **CE** mark (European Conformity Assessed).

Ex

The distinctive community mark showing a product is suitable for use in an explosive dust and /or gas atmosphere

II

Equipment group II (surface industries)

2

Category 2 product

D

Explosive dust atmosphere

G

Explosive gas atmosphere

Ex

Explosion protection (letters below indicate type of protection)

h

Protection concept - Constructional safety (applies to the mechanical parts)

IIIC T50°C Db

IIIC

Equipment group - Combustible dusts, Conductive dusts

T50°C

Surface temperature for dust evaluation is less than 50°C

Db

Equipment protection level (Dust zone 21)

IIC T50°C Db

IIC

Equipment group - Combustible gases, vapours and mists

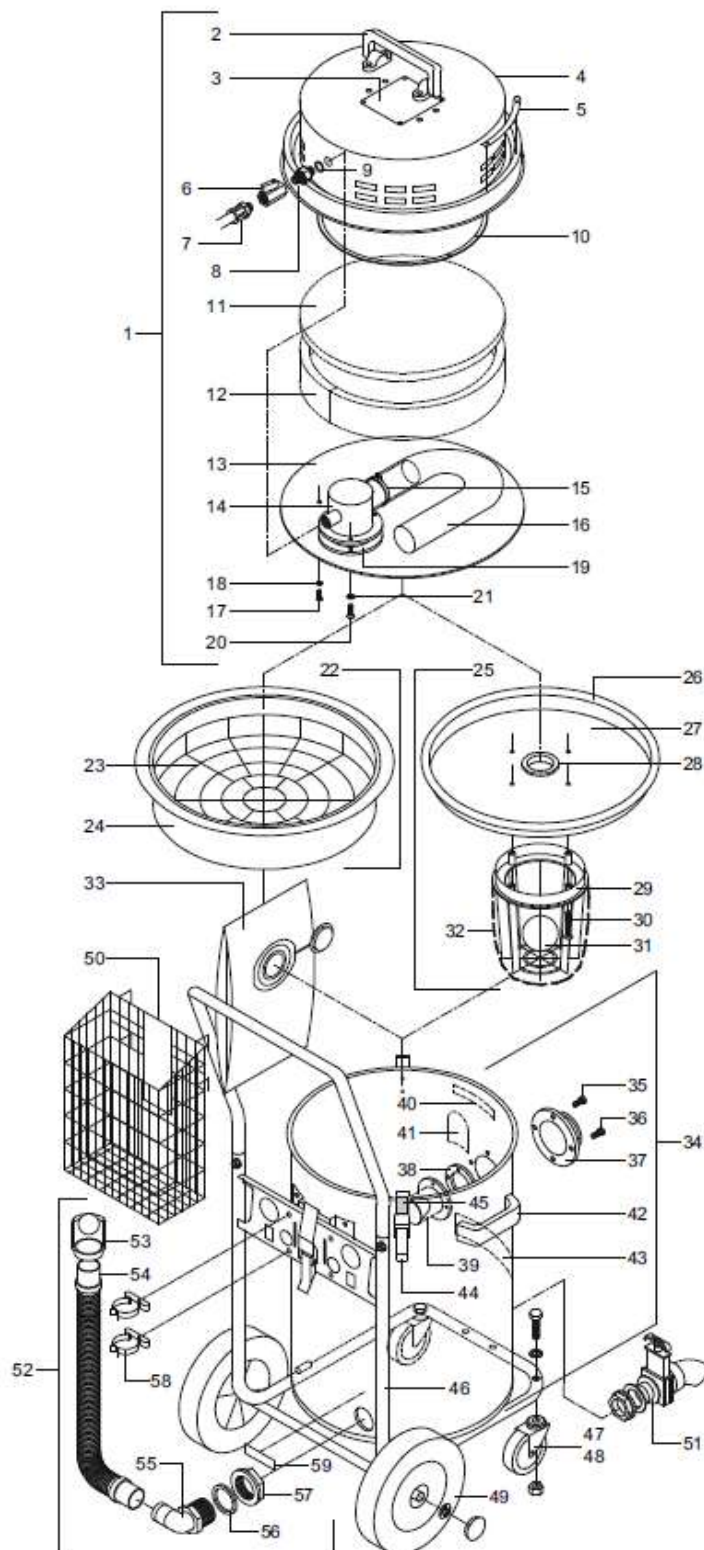
T6

Surface temperature classification for gases, vapours and mists is less than 85°C

Db

Equipment protection level (Gas zone 1)

SPARE PARTS – AV 30 & 45 W/D



Note

This drawing/parts list also covers the Dry Pick-Up only version of this model

ITEM	QTY	DESCRIPTION
1	1	AV30 MOTOR HEAD & AIR SUPPLY HOSE AV45 MOTOR HEAD & AIR SUPPLY HOSE AV30 W/D MOTOR HEAD & AIR SUPPLY HOSE AV45 W/D MOTOR HEAD & AIR SUPPLY HOSE
2	1	A/S FLIP FLOP HANDLE ASSEMBLY
3	1	AV15-45 RATING PLATE
3	1	AV18-45 W/D RATING PLATE
4	1	AV20-45 TOP PRESSING
5	1	EARTH STRIP CURVED
6	1	BALL VALVE
7	1	AIR SUPPLY HOSE A/S 5 METRE
8	1	1/4 BSP MALE TO MALE NIPPLE
9	2	SOFT METAL WASHER
10	1	850 x 4 x 6mm FOAM RUBBER SEAL
11	1	FOAM SILENCING AV20-45 TOP
12	1	FOAM SILENCING AV15-45 SIDE
13	1	AV20-45 MOTOR PLATE
14	1	AIR MOTOR
15	1	TYRAP FOR SOUND ATTENUATION HOSE
16	1	500 x 38mm SOUND ATTENUATION HOSE
17	4	M4 x 12 PAN POZI SCREW
18	4	M4 SHAKEPROOF WASHER
19	1	GASKET FOR AIR MOTOR
20	3	M5 x 16 PAN POZI SCREW
21	3	M5 SHAKEPROOF WASHER
22	1	14" A/S FILTER ASSEMBLY
23	1	14" A/S FILTER FRAME
24	1	14" A/S FILTER CLOTH
25	1	14" A/S FLOAT ASSEMBLY
26	1	14" A/S SEALING RING FOR FLOAT
27	1	14" A/S FLOAT PLATE
28	1	SEAL FOR 70mm BALL FLOAT
29	1	FLOAT CAGE A/S
30	4	No8 x 45 SELF TAP S/STEEL SCREW
31	1	70mm BALL FLOAT
32	1	NET FILTER
33	1	4 MICROFIBRE BAG
34A	1	AV30 CAN ASSEMBLY (CAT 2)
34B	1	AV45 CAN ASSEMBLY (CAT 2)
35	2	M5 x 20 PAN POZI S/STEEL SCREW
36	2	M5 x 16 PAN POZI S/STEEL SCREW
37	1	HOSE ENTRY SPIGOT OUTER A/S
38	1	SPIGOT RETAINER FOR AV
39	1	AV S/STEEL DEFLECTOR (CAT 2)
40	1	ATEX CATEGORY 2 BLACK ON YELLOW LABEL
41	1	ZONE 1/21 WARNING LABEL
42	2	A/S CURVED SURFACE HANDLE WITH SCREWS & WASHERS
43	1	RED/SILVER LABEL (CAT 2)
44	2	V20-110 CLIP FOR METAL HEAD
45	1	CLIP HERE YELLOW LABEL 23 x 34mm
46	1	AV/ EVA 30 & 45 CADDY ASSEMBLY S/STEEL (WITH A/S WHEELS & CASTORS)
47	1	75mm A/S CASTOR UNBRAKED WITH NUT, BOLT & WASHER
48	1	75mm A/S CASTOR BRAKED WITH NUT, BOLT & WASHER
49	2	200mm A/S WHEEL WITH LOCK WASHER & YELLOW CAP
50	1	AV/ EVA (18, 30 & 45) HOSE & ACCESSORY BASKET
51	1	DUMP VALVE ASSEMBLY & WARNING LABEL (OPTIONAL EXTRA AV18, 30 & 45 W/D)
52	1	DRAIN HOSE KIT FOR AV18, 30 & 45 W/D (OPTIONAL EXTRA)
53	1	32mm HOSE STOPPER
54	1	32 x 800mm DRAIN HOSE
55	1	ELBOW FOR 32 x 800mm DRAIN HOSE
56	1	GASKET FOR ELBOW
57	1	PLASTIC NUT FOR DRAIN HOSE ELBOW
58	2	HOSE CLIP V100
59	1	CAUTION LABEL FOR DRAIN HOSE/DUMP VALVE ON AV18, 30 & 45 W/D

A/S = ANTI-STATIC / CONDUCTIVE

38mm TOOLS – AV – WET OR DRY (OPTIONAL EXTRAS)



Item	Part Number	Quantity	Description
1A	29 03801 00	1 off	Hose Standard Duty 3.0m PVC Anti-Static
1B	29 03801 01	1 off	Hose Standard Duty 6.0m PVC Anti-Static
2	29 03802 00	1 off	ATEX Bend 30 Degree Stainless Steel
3	29 03803 00	1 off	ATEX Extension Arm 470mm Stainless Steel
4	29 03808 10	1 off	ATEX 38 Crevice Tool Anti-Static 300mm
5	29 03807 10	1 off	ATEX 38 x 70mm Dusting Brush Anti-Static
6	29 03806 10	1 off	ATEX 38 x 100mm Dusting Brush Anti-Static
7	29 03817 00	1 off	ATEX 38 x 375mm Heavy Duty Floor Tool with Brushes Anti-Static
8	29 03818 00	1 off	ATEX 38 x 375mm Heavy Duty Floor Tool with Blades Anti-Static

UK/EC DECLARATION OF CONFORMITY

UK/EC DECLARATION OF CONFORMITY (INDUSTRIAL VACUUM CLEANERS)

Manufacturer :- Quirepace Ltd, Pennant Park, Fareham, Hants, PO16 8XU

The following Notified Body has been involved in the conformity assessment process:

Notified body & No: Element Materials Technology / 0891

ATEX Certificate No: EMT17ATEX0050X

UKEX Certificate No: EMA21UKEX0068X

We QUIREPACE LTD DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE PRODUCT (S) DESCRIBED BELOW: -

AV Air Vac. COMPRESSED AIR POWERED, PORTABLE VACUUM CLEANERS TO COLLECT NON-HAZARDOUS, HAZARDOUS AND WET OR DRY DUST/DEBRIS AND NON-FLAMMABLE LIQUID.

AV30 AIR VAC W/D - ATEX G1D21	55 64184 00	Serial No:	FB
AV30 AIR VAC TYPE H - ATEX G1D21	55 64186 00	Serial No:	FC
AV45 AIR VAC W/D - ATEX G1D21	55 64711 00	Serial No:	FH
AV45 AIR VAC TYPE H - ATEX G1D21	55 64712 00	Serial No:	FJ

To which this declaration relates is/are in Conformity with the following Standards or other normative documents: -

BS EN ISO 80079-36:2016	Non-electrical equipment for potentially Explosive atmospheres. Basic method and requirements.
BS EN ISO 80079-37:2016	Non electrical equipment for potentially Explosive atmospheres. Protection by constructional safety 'c'.

The pneumatic parts of the AV range have been constructed in accordance with ISO4414:2010. Pneumatic fluid power – General rules and safety requirements.

Certification code



Technical file No: AV15-45. Quirepace House, 6, Pennant Park, Standard Way, Fareham, Hants PO16 8X

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 whilst the machine is in use.
- 2 Air compressors used to supply the pneumatic system must incorporate a filter on the intake to avoid ingress of dust or foreign material and must employ only lubricants which are resistant to ignition or carbonisation within operating temperature range.
- 3 Equipment not to be used with pyrophoric or self-reactive dusts.
- 4 Equipment must only be used in conjunction with supply hose and accessories supplied with the machine.
- 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 dusts with an ignition energy of less than 1mJ.

Registered Office: 6 Pennant Park, Fareham, Hants. PO16 8XU

Registered in England No. 1748970

BVC

Following the provisions of the directives: -

ATEX Directive

2014/34/EU

Machinery Directive

2006/42/EU



G Hall / M Brown

Senior Engineers



R Pescott

Managing Director

DATE 01/11/2022