

ORIGINAL INSTRUCTION MANUAL

For
INDUSTRIAL VACUUM CLEANER
(Retain for future reference)



IV40AH - TYPE H - ATEX

For Dry Collection ONLY

EARTHED 110V 1ph 50-60Hz, 0.9kW

EARTHED 230V 1ph 50-60Hz, 1.0kW

Serial No.....

(To be completed by user)

READ THIS INSTRUCTION MANUAL

BEFORE USING THE APPLIANCE

Part Number	Model Description
55 64229 01	IV40AH 0.9kW 110v 1ph 50/60 Hz - ATEX D22
55 64229 02	IV40AH 1.0kW 230v 1ph 50/60 Hz - ATEX D22

The above Model carries this ATEX Certification Code



We reserve the right to change the design without notice

IMPORTANT USER INFORMATION

This appliance is a Type H Dry Pick-Up Vacuum Cleaner with triple filtration; collection is into a bag. It is intended for collecting dust and debris which may be hazardous to health if inhaled, ingested or in contact with the skin. (For full definition, see BS EN 60335-2-69 Part 2-69 3.104). It is designed to be used by an operator within six different environments:-

1. To pick up inert dust and debris in an atmosphere where inflammable dust, gases or vapours are never present.
2. To pick up inert dust and debris in a Dust Zone 22.
3. To pick up dust or debris that may ignite or explode in a Dust Zone 22.
4. To pick up dust and debris which are hazardous to health in an atmosphere where inflammable dust, gases or vapours are never present.
5. To pick up dust and debris which are hazardous to health in a Dust Zone 22.
6. To pick up dust and debris which are hazardous to health that may ignite or explode in a Dust Zone 22.

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

BVC	QUIREPACE LTD. PO16 8XU, UK	Sales / Service +44 (0)23 9260 3700
Year of Manufacture	<input type="text" value="20"/>	UK CA CE www.bvc.co.uk
Model No.	<input type="text" value="IV40"/> <input type="text" value="kW"/>	<input type="text" value="/1/50-60 ATEX"/>
Serial No.	<input type="text"/>	<input type="text" value="C"/>
Ex II 3 D Ex tc IIIC T100°C Dc		
Do not Dismantle this Head when an Explosive Atmosphere is present		

UK CA

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

CE

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

Ex

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

II

Equipment group II (surface industries)

3

Category 3 product

D

Explosive dust atmosphere

Ex

Explosion protection (letters below indicate type of protection)

tc

Protection concept (Enclosure ingress protection level - IP6X with IIIC)

IIIC

Equipment group - Combustible dusts, Conductive Dusts

T100°C

Surface temperature for dust evaluation is less than 100°C

Dc

Equipment protection level (Dust zone 22)

RISK ASSESSMENT (TYPE H)

If this vacuum cleaner is used for collecting dust and debris which may be hazardous to health if inhaled, ingested or in contact with the skin 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. The occupational exposure limit of the dust / debris being collected.
2. The particle size of the dust and debris being collected.
3. The method of disposal.

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).

WARNINGS

1. This appliance must only be operated by suitably trained and authorised personnel
2. This appliance or the accessories must not be modified.
3. This appliance must not be stored or used in wet conditions i.e. outside in the rain
4. The filtration systems on this appliance must only be configured as shown in these instructions.
5. When collecting dust or debris that may ignite or explode, empty the cleaner after every use.
6. The earth path continuity between the pick-up nozzle and the electrical earth of the fixed electrical supply should be checked (Should be < 800 Meg ohm's) by a competent person at regular intervals and documented records be kept of these checks.
7. This machine must not be installed as a fixed extraction system and/or run unattended.
8. Do not pull the machine along by the flexible cord.
9. Do not cover the motor head or coil the lead around the motor head as this could restrict the by-pass cooling airflow and cause overheating of the motor.
10. Do not allow the dust collecting bag (K4 Bag) to become so full as to reduce the pick-up effectiveness of the cleaner.
11. Only use the dust collecting bag (K4 Bag) once.
12. This appliance must only be repaired by SUITABLY TRAINED and authorised personnel and only genuine BVC spare parts be used.
13. Ensure that the product being collected is suitable for vacuum cleaning.
14. Equipment shall not be used where aggressive substances may be present
15. Do not remove from contaminated area unless the machine is decontaminated in accordance with the decontamination of machine instructions.

NOISE EMISSION 75 dB(A) @ 1m

WEIGHT (EMPTY) 18Kg Machine only – 26Kg Complete with trolley

ELECTRICAL SUPPLY

WARNING - THIS APPLIANCE MUST BE EARTHED

ELECTRICAL CONNECTIONS FOR EARTHED 110v APPLIANCE - 55 64229 01

The electrical connections of these machines must be carried out by a competent electrician.

The wires in the mains lead of this cleaner are coloured in accordance with the following code:

GREEN & YELLOW	-	Earth	(E)
BLUE	-	Neutral	(N)
BROWN	-	Live	(L)

The 110v appliance is rated at 0.9 kW in accordance with BS EN 60335-2-69.

The 110v motor used on this appliance is a non-sparking electronically commutated brush less motor and takes a maximum running current of 13 Amps.

The supply should be fitted with a fuse/protective device suitable for this current demand.

ELECTRICAL CONNECTIONS FOR EARTHED 230v APPLIANCE - 55 64229 02

The electrical connections of these machines must be carried out by a competent electrician.

The wires in the mains lead of this cleaner are coloured in accordance with the following code:

GREEN & YELLOW	-	Earth	(E)
BLUE	-	Neutral	(N)
BROWN	-	Live	(L)

The 230v appliance is rated at 1.0 kW in accordance with BS EN 60335-2-69.

The 230v motor used on this appliance is a non-sparking electronically commutated brush less motor and takes a maximum running current of 9 Amps.

The supply should be fitted with a fuse/protective device suitable for this current demand.

ELECTRICAL SUPPLY - CONTINUED..

NOTE:

The electronic control limits the starting current to the above value.

When wired to the mains plug, but before use, the rotation of the exhauster must be checked. Switch on momentarily and check that rotation is anticlockwise looking through the window. If the direction of rotation is incorrect, interchange any two of the phase connections at the free end of the cable.

PREPARATION FOR USE

Unpack and identify each item of equipment against packing note.

Check that the details given on the motor rating plate are in accordance with your electricity supply.

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

The user shall regularly inspect the equipment and cable and return to the manufacturer if there are signs of deterioration or damage.

PREPARING MACHINE FOR USE FOR THE FIRST TIME

PRE-USE CHECK ON FILTERS

The Type H machine is fitted with triple filtration:- K4 bag, filter bag assembly ATEX (Cloth) and a HEPA filter (Working Air).

This filtration system should be visually checked prior to moving machine to a contaminated area. Unscrew the toggle clip fastening screws which lock the motor head assembly to the drum, remove motor head of machine and check that the HEPA filter (working air) is securely attached to the underside of the motor head.

Remove the filter bag assembly ATEX (Cloth) and check that a K4 collection bag has been correctly fitted over the hose entry spigot.

Refit the filter bag assy ATEX (Cloth) and motor head and tighten the locking screws of the toggle clips. (These locking screws must be screwed fully home to prevent unauthorised/accidental access to the filters.

NORMAL USE

DO

1. Check the mains lead and plug for damage prior to use.
2. Have a Competent Person or return the machine to BVC for electrical safety checks at least once a year or more frequently if used in an arduous environment. (Please empty and clean the machine prior to return). Contact the BVC Service Department who will arrange collection.
3. In the event of an accident or breakdown, disconnect the Vacuum Cleaner from the supply by removing the plug from the supply socket and return to BVC for repair. (Please empty and clean the machine prior to return). Contact the BVC Service Department who will arrange collection.
4. Only use spare parts provided by BVC.
5. Regularly empty the container before it becomes too full and the pick-up effectiveness of the cleaner is reduced.
6. Clean the cloth filter bag frequently to maintain pick-up effectiveness.
7. Keep trailing leads tidy, flat on the floor to avoid a trip hazard.
8. Vacuum clean the motor cooling air inlet filters (annular slot at top of motor head) once a week or more often in very dusty atmospheres.
9. Tie back long hair and loose clothing when operating this vacuum cleaner.
10. Be careful when moving/operating on slopes as the unit may 'run away' when in use.

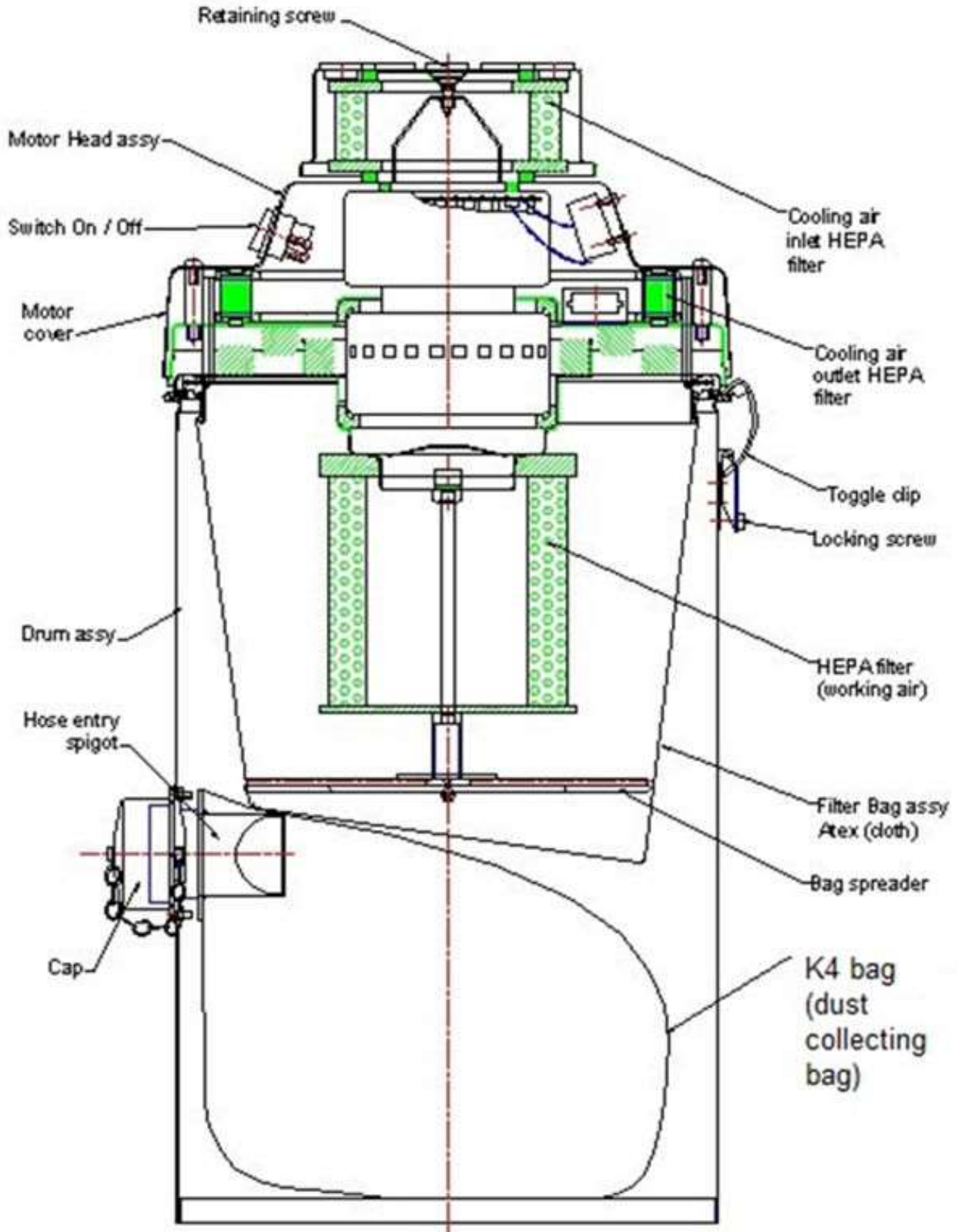
DO NOT

1. Pull the machine along by the mains lead.
2. Wrap the mains lead around the head as it may restrict the by pass cooling airflow causing the motor to overheat.
3. Cover the motor head as this could restrict cooling air and overheat the motor.
4. Use for the collection of highly hazardous dusts or flammable or explosive dusts.

NORMAL USE - OPERATION

1. Position the vacuum cleaner adjacent to the area to be cleaned, remove the cap and fit the hoses/tools applicable for the cleaning task to the inlet on the collection drum.
2. If the vacuum cleaner is supplied with a trolley the drum is placed in the retaining ring of the trolley with the inlet position over the castor wheel.
3. Fully uncoil the electrical supply lead placing it carefully flat on the floor to minimise the trip hazard then plug into the suitable supply socket and switch on.
4. Ensure the K4 collection bag and the filter bag assembly ATEX (Cloth) are correctly fitted.
5. Hold the cleaning tool, switch the vacuum on via the switch on the vacuum cleaner head and proceed to clean the area as required.
6. When the area has been cleaned switch the machine off at the vacuum head.
7. Switch off the supply, remove the plug from the supply socket and coil the cable up neatly.
8. Remove the cleaning hose and tools.

NORMAL USE - OPERATION



HOSES AND ACCESSORIES

This machine must only be used with hose(s) and accessories from the BVC ATEX approved range (See next page). Contact BVC sales for information and advice if further items are required.

The machine has a threaded inlet on the drum. Attach the antistatic hose assembly to the drum via the threaded connection. Connect the stainless steel bent hose end and wands to the cuff end of the hose assembly.

SPARES

We recommend stocks levels are retained of the following items:

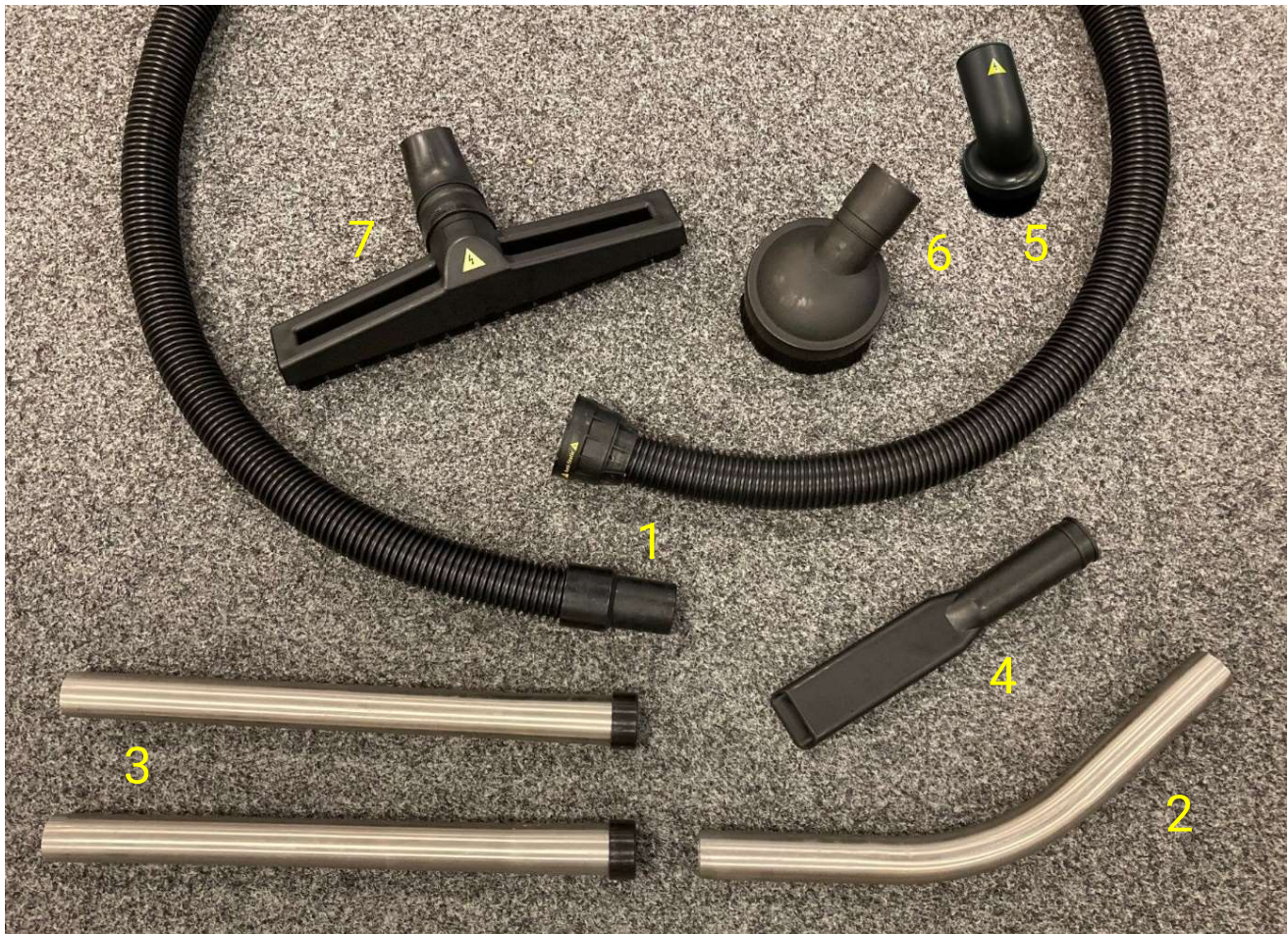
Description	Part Number	Qty
Filter Bag Assy – ATEX (Cloth)	55 56224 03	1 Off
K4 Microfibre Bag	29 30024 20	5 Off
K4 Disposable Paper Bag	29 30024 10	10 Off
Self Adhesive Sealing Label	53 63438 00	10 Off
HEPA Filter (Working Air)	55 61796 02	1 Off
HEPA Filter (Cooling Air – Inlet)	55 60690 01	1 Off
HEPA Filter (Cooling Air – Outlet)	53 64224 00	1 Off

OPTIONS

The following options are available:

Description	Part Number	Qty
IV40 Truck Assembly - ATEX	55 60183 01	1 Off
38mm Crevice Tool S/S - 460mm	29 03807 00	1 Off
38mm Floor Tool S/S - 410mm	55 64130 03	1 Off

38mm TOOLS – IV40 – ATEX – ANTISTATIC TOOLS



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

DEBRIS DISPOSAL

(OPERATION CARRIED OUT WITHIN A CONTAMINATED AREA)

THIS APPLIANCE CONTAINS DUST HAZARDOUS TO HEALTH. EMPTYING AND MAINTENANCE OPERATIONS, INCLUDING REMOVAL AND RENEWAL OF DUST COLLECTION BAG, SHALL ONLY BE CARRIED OUT BY **AUTHORISED PERSONNEL WEARING SUITABLE PERSONAL PROTECTION**. DO NOT OPERATE WITHOUT THE FULL FILTRATION SYSTEM FITTED.

Disconnect the hose, fit the cap on the hose entry spigot, unscrew the toggle clip locking screws and remove the motor head. Take care not to damage HEPA filter (working air) which is fitted to the underside of the motor head. Remove the filter bag assembly ATEX (Cloth) and carefully release K4 bag from the hose entry spigot and lift out of the drum assy. Seal the K4 bag inlet with a self adhesive sealing disc. The K4 bag should be immediately placed in a suitably labelled impervious plastic bag and this bag sealed and disposed of in accordance with the current regulations. Fit a new K4 bag over the hose entry spigot inside drum assy. Refit the filter bag assembly ATEX (Cloth), the motor head and tighten the toggle clip locking screws.

DECONTAMINATION OF MACHINE

DECONTAMINATION OPERATIONS SHOULD ONLY BE CARRIED OUT BY COMPETENT AUTHORISED PERSONNEL EQUIPPED WITH SUITABLE PERSONAL PROTECTION.

1. Before removing the accessories/machines from the contaminated area:-
Accessories should be cleaned externally with a type H vacuum cleaner.
2. They should then be cleaned with an adhesive wipe, sealed at each end and sealed in a clear impervious bag. The bag should carry an appropriate warning label.
3. The external surfaces of the bag should then be cleaned with an adhesive wipe prior to removing the accessories from the contaminated area.
4. The machine should be cleaned externally with itself. The paper bag and its contents should be removed and disposed of in accordance with the method described in DEBRIS DISPOSAL above.
5. The machine should then be cleaned externally with an adhesive wipe.
6. The machine should be sealed in a clear impervious bag. The bag should carry an appropriate warning label.
7. The external surfaces of the bag should then be cleaned with an adhesive wipe prior to removing the machine from the contaminated area.

MAINTENANCE

DO NOT - Carry out maintenance in a potentially explosive atmosphere.

Always disconnect the machine from electrical supply prior to carrying out maintenance.
(Safety first must apply).

MAINTENANCE / REPAIR - must be carried out in a suitable controlled area with local filtered exhaust ventilation and facilities for cleaning the area after servicing.

Maintenance and cleaning must only be carried out by COMPETENT AUTHORISED PERSONNEL equipped with suitable personal protection. All machine parts must be regarded as contaminated and treated as such and, therefore, another Type H machine should be used and each component to be removed, cleaned prior to removal.

Items that cannot be satisfactorily cleaned are to be disposed of in impervious plastic bags in accordance with current regulations. All surfaces should be cleaned as they become exposed.

CHECKING / REPLACING THE HEPA FILTERS - A good rule is to check the HEPA filters every six months.

This frequency is application dependant and can be adjusted to suit the usage.

After filter replacements, or at 6 monthly intervals a filter efficiency check of the machine should be carried out to the requirements of BS 5415.

HEPA FILTER (WORKING AIR) - Unscrew the locking screws on the toggle clips and carefully remove motor head and the filter bag assembly ATEX (Cloth). Unscrew and remove the bag spreader and lift off the HEPA filters (working air). Dispose of the HEPA filter (working air) into an impervious plastic bag in accordance with current regulations. The bag should carry an appropriate warning label.

Fit a new HEPA filter (working air), refit the bag spreader. Check for security of seals. Fit a new K4 collection bag if required on the hose entry spigot, replace the filter bag assembly ATEX (Cloth) and locate motor head on the drum, engage toggle clips and secure the locking screws.

COOLING AIR INLET HEPA FILTER - Remove the retaining screw from the Cooling Air inlet HEPA filter cover and remove the cover. Lift off the Cooling Air inlet HEPA and dispose of in an impervious plastic bag in accordance with current regulations. The bag should carry an appropriate warning label.

Clean inside the head with an adhesive wipe. Fit a new Cooling Air inlet HEPA filter, replace cover and secure with the retaining screw.

MAINTENANCE CONTINUED..

COOLING AIR OUTLET HEPA FILTER - Remove the five Motor Cover retaining screws and their securing washers, lift the cover clear taking care not to strain the interconnecting wiring. Disconnect the plug and socket in the interconnecting wiring and the earth connection. Remove the Cooling Air Outlet HEPA filter and dispose of the filter in an impervious plastic bag in accordance with current regulations. The bag should carry an appropriate warning label.

Clean the inside of the Motor Cover and any exposed surfaces with an adhesive wipe.

Fit a new Cooling Air Outlet HEPA filter, re-connect the interconnecting wiring and replace the Motor Cover and the five retaining screws and their securing washers.

DEGENERATION - Parts of the equipment are manufactured from plastic material with anti static properties. Care should be taken to avoid the use of the equipment where substances, which may degrade plastics, are present.

SERVICE - Should service by BVC be required, contact the Service Manager stating what hazardous material is involved as special precautions during service will be required.

RETURNING THE MACHINE TO BVC - Please empty and thoroughly clean the machine so that it is safe to work on without personal protection prior to return. Contact BVC Service Department prior to return.

UK/EC DECLARATION OF CONFORMITY

UK/EC DECLARATION OF CONFORMITY

(INDUSTRIAL VACUUM CLEANERS)

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

Authorised Representative: - Headlands Consulting Limited, Carrow Castle, Geevagh, Boyle, Co Roscommon, F52 FC89, Ireland

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

IV40H 0.9kW 110V 1PH 50Hz ATEX D22	55 64229 01	Serial No:	HG
IV40H 1.0kW 230V 1PH 50Hz ATEX D22	55 64229 02	Serial No:	HH
IV40D 0.9kW 110V 1PH 50Hz ATEX D22	55 64229 03	Serial No:	HI
IV40D 1.0kW 230V 1PH 50Hz ATEX D22	55 64229 04	Serial No:	HJ

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

- BS EN 60335-1:2012+A15:2021** Household and similar electrical appliances. Safety - General requirements.
- BS EN 60335 - 2 - 69: 2012** Particular requirements, for wet and dry vacuum cleaners, including, power brush for industrial and commercial use.
- BS EN 61000 - 6 - 4: 2019** Electromagnetic compatibility (EMC) - Generic standards. Emission standard for industrial environments
- BS EN ISO 80079-36:2016** Explosive atmospheres - Non-electrical equipment for explosive atmospheres. Basic method and requirements
- BS EN ISO 80079-37:2016** Explosive atmospheres - Non-electrical equipment for explosive atmospheres. Non-electrical type of protection constructional safety "c", control of ignition sources "b".
- BS EN IEC 60079-0:2018** Explosive atmospheres. Equipment. General requirements

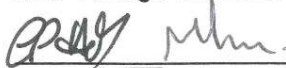
Certification codes:

Dust Environments

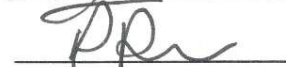


Following the provisions of the directives: -

ATEX Directive	2014/34/EU	Machinery Directive	2006/42/EU
Low Voltage Directive	2014/35/EU	Electromagnetic Compatibility Directive	2014/30/EU



G Hall / M Brown Senior Engineers



R Pescott Managing Director

DATE 30/01/2023