

QUILL FALCON OPERATORS MANUAL

FOR THE SAFE OPERATION OF THE QUILL FALCON CYCLONE, QUILL FALCON CYCLONE TRAILER, QUILL FALCON CYCLONE COMPLETE, QUILL FALCON 2 & 4 MAN AIR BREATHING UNITS & SCOTT RAS MASKS



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WELCOME TO QUILL FALCON

The Quill Falcon Cyclone system is a precision dustless blasting system which combines the simplicity of conventional dry blasting with the effectiveness of ultra-high pressure (UHP) jetting without the associated hazards and complications. The patented Cyclone system rapidly removes coatings, corrosion and residues leaving surfaces contaminant free, profiled and cleaned to SSPC-SP5 - SSPC-SP10 (WAB)/NACE WAB 1.

From the heavy task of blasting through reinforced concrete to the more delicate and detailed operation of etching glass, the Quill Falcon Cyclone systems capabilities are endless. By varying the volumes of air, water and grit, the speed, surface profile and grit consumption can be altered to suit you and your job requirements.

Whether you are blasting away corrosion as part of a maintenance programme, removing coatings for inspection purposes or removing material and residues that are no longer required the Quill Falcon Cyclone system will provide you with clean contaminant free profiled surfaces in seconds.

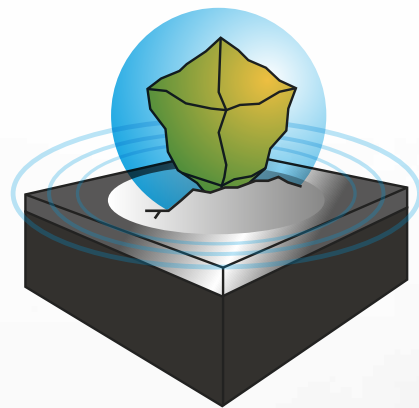


HOW DOES THE QUILL FALCON CYCLONE WORK?



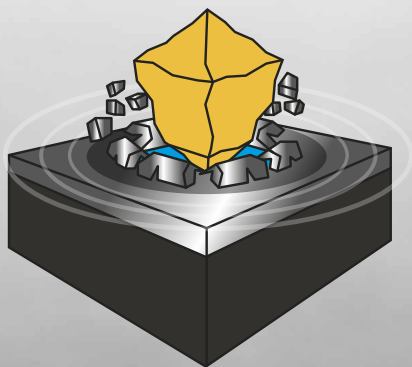
1

The blast media is coated in a water jacket by surface tension, which increases the speed and mass enhancing the force of impact upon the blast surface. Water presence lubricates and eliminates hose and nozzle wear.



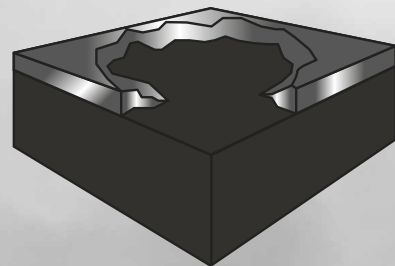
2

The blast media hits the surface, the water jacket continues moving but still holds onto the blast media by surface tension. The water jacket hits the surface and prevents any grit bounce.



3

The water jacket snaps round the blast media into the crack under the blast surface and hydrostatically blasts a larger amount of surface coating away.



4

The end result is a profiled surface, feathered edges and the most efficient use of the least amount of blast media and water.

WHY IS THE QUILL FALCON CYCLONE BETTER THAN A WET OR DRY BLASTER?

1

Cleans **and** profiles surfaces so new coatings stick better for longer

2

No sparks or dust cloud, meaning excellent safety and visibility and no plant shut down required

3

Ex rated, Zone 1 approved, Baseefa accredited, TuV, ATEX and NORSOK compliant

4

Environmentally friendly as uses far less grit and water, which means less dust, less containment and less clearing up

5

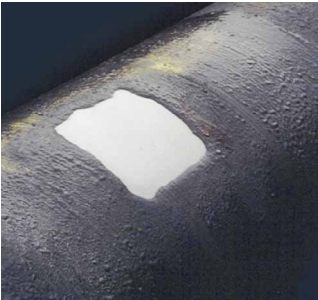
Patented design allows operatives greater control and precision over the entire blast process

6

Can be used on a wide variety of surfaces including fibreglass, wood, brick, glass, concrete, steel and aluminium



QUILL FALCON CYCLONE APPLICATIONS



Bitumen removal



Offshore maintenance



Flange maintenance - before and after



Marine maintenance



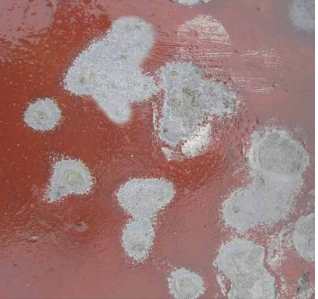
Fibreglass minesweeper



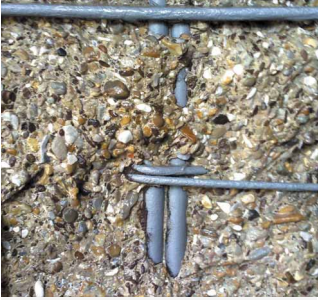
Hull maintenance



Ballast tank maintenance



Deck spot repair



Concrete rebar inspection



Brick restoration



Beam restoration



Grade II listed building stone steps - before and after



Lorry chassis - before and after



Floor tile adhesive removal - before and after



Pipeline maintenance



Plastisol removal



Coating removal



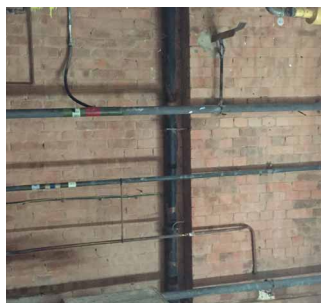
Surface cleaning -
before and after



Offshore surface profiling



Paint removal



Asbestos ET150
paint removal



Asbestos limpet
residue removal



Fuel tank coating removal



Etching glass



Highway line removal



Graffiti removal



Concrete etching



Concrete cutting



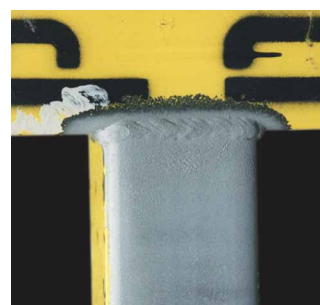
Alloy refurbishment -
before and after



Automotive body work



Sand stone cleaning



NDT preparation

QUILL FALCON CYCLONE FREESTANDING UNIT PRODUCT RANGE



	CYCLONE 30	CYCLONE 60
Dimensions		
Capacity	19.5 litres	58 litres
Height	830mm	1070mm
Width	520mm	620mm
Depth	650mm	730mm
Unladen Weight	67.2kg	138kg
Laden Weight	104kg (garnet)	269kg (garnet)
Blast Media		
No of 25kg bags to fill vessel		
Garnet	1 bag	4 bags
Iron Silicate	1 bag	3 bags
Glass	¾ bag	2 bags
Specifications		
Water Pressure & Flow	Std tap pressure & flow	Std tap pressure & flow
Water Consumption	40 – 80ml per minute	100 – 150ml per minute
Grit Type	Std particle blast media	Std particle blast media
Grit Consumption	0.5 - 1.1kg per minute	0.6 – 1kg per minute
Grit Refill	Up to 45 mins between refills	Up to 3 hrs between refills
Air Supply	40 - 90cfm	90 to 250cfm
Air Supply Hose	¾ inch	¾ inch or 2 inch
Blast Hose Size	¾ inch	1 inch
Blast Hose Max Length	50m	100m
Blasting Pressure	20 - 80psi	20 – 100psi

QUILL FALCON CYCLONE FREESTANDING UNIT PRODUCT RANGE



	CYCLONE 120	CYCLONE 200
Dimensions		
Capacity	121 litres	230 litres
Height	1270mm	1280mm
Width	630mm	670mm
Depth	860mm	1020mm
Unladen Weight	165kg	209kg
Laden Weight	436kg (garnet)	584kg (garnet)
Blast Media		
No of 25kg bags to fill vessel		
Garnet	8 bags	15 bags
Iron Silicate	7 bags	11 bags
Glass	5 bags	9 bags
Specifications		
Water Pressure & Flow	Std tap pressure & flow	Std tap pressure & flow
Water Consumption	100 – 200ml per minute	150 – 250ml per minute
Grit Type	Std particle blast media	Std particle blast media
Grit Consumption	0.4 – 0.7kg per minute	0.3 – 0.8 kg per minute
Grit Refill	Up to 8 hours between refills	Up to 18 hours between refills
Air Supply	175 – 400cfm	250 – 400cfm
Air Supply Hose	¾ inch or 2 inch	¾ inch or 2 inch
Blast Hose Size	1 inch	1 inch or 1¼ inch
Blast Hose Max Length	up to 250m	up to 250m
Blasting Pressure	20 – 120psi	20 – 120psi

Weights and dimensions are based on current models in manufacture. Cyclone Trailer System laden weight - full vessel of grit and water and full tank of diesel. Consumption rates based on average dosing settings. Water consumption taken from water used at nozzle. Up to 1 litre of water per minute will be required to keep vessel pressurised. Grit and water consumption may vary according to size of compressor, dosing valve setting, size of nozzle and type of blast media used. Falcon 30 weighed with standard (non ATEX) wheels.

QUILL FALCON CYCLONE TRAILER PRODUCT RANGE



	60T	120T
Dimensions		
Capacity	58 litres	121 litres
Height	1530mm	1750mm
Width	2000mm	1800mm
Depth	3050mm	4300mm
Unladen Weight	1026kg	1580kg
Laden Weight	1240kg (garnet)	1920kg (garnet)
Blast Media		
No of 25kg bags to fill vessel		
Garnet	4 bags	8 bags
Iron Silicate	3 bags	7 bags
Glass	2 bags	5 bags
Specifications		
Water Tank	115 litres	115 litres
Water Consumption	100 – 150ml per minute	100 – 200ml per minute
Grit Type	Std particle blast media	Std particle blast media
Grit Consumption	0.6 – 1kg per minute	0.4 – 0.7kg per minute
Grit Refill	Up to 3 hrs between refills	Up to 8 hrs between refills
Air Supply	90 or 140cfm	177cfm
Air Supply Hose	¾ inch	2 inch
Blast Hose Size	1 inch	1 inch
Blast Hose Max Length	80m	100m
Blasting Pressure	20 - 80psi	20 - 120psi
Compressor Fuel Tank	50 litres	50 litres

QUILL FALCON CYCLONE COMPLETE PRODUCT RANGE



	60 COMPLETE	120 COMPLETE
Dimensions		
Capacity	58 litres	121 litres
Height	1600mm	1720mm
Width	2120mm	1810mm
Depth	3270mm	4300mm
Unladen Weight	1280kg	1700kg
Laden Weight	1500kg (garnet)	2100kg (garnet)
Blast Media		
No of 25kg bags to fill vessel		
Garnet	4 bags	8 bags
Iron Silicate	3 bags	7 bags
Glass	2 bags	5 bags
Specifications		
Water Tank	115 litres	115 litres
Water Consumption	100 – 150ml per minute	100 – 200ml per minute
Grit Type	Std particle blast media	Std particle blast media
Grit Consumption	0.6 – 1kg per minute	0.4 – 0.7kg per minute
Grit Refill	Up to 3 hrs between refills	Up to 8 hrs between refills
Air Supply	140cfm	177cfm
Air Supply Hose	¾ inch	2 inch
Blast Hose Size	1 inch	1 inch
Blast Hose Max Length	60m	80m
Blasting Pressure	50 – 120 psi	50 – 120 psi
Compressor Fuel Tank	40 litres	60 litres

Weights and dimensions are based on current models in manufacture. Cyclone Trailer System laden weight - full vessel of grit and water and full tank of diesel. Consumption rates based on average dosing settings. Water consumption taken from water used at nozzle. Up to 1 litre of water per minute will be required to keep vessel pressurised. Grit and water consumption may vary according to size of compressor, dosing valve setting, size of nozzle and type of blast media used. Falcon 30 weighed with standard (non ATEX) wheels.

GETTING STARTED WITH THE QUILL FALCON CYCLONE

QUILL FALCON CYCLONE SYSTEM

The Quill Falcon is available in 3 configurations



The Quill Falcon Cyclone freestanding unit is available in 15, 30, 60, 120 & 200 litre units and requires a water supply and air supply/compressor connecting separately.



The Quill Falcon Cyclone trailer mounted system includes a Quill Falcon unit, a compressor and a water tank. The Quill Falcon Cyclone trailer mounted system is available in 60 and 120 litre units.



The Quill Falcon Cyclone Complete trailer includes a Quill Falcon unit, a compressor and a water tank and is designed for customers operating in hazardous environments who have a requirement for blasting and air fed breathing apparatus combined on one trailer. The Quill Falcon Cyclone trailer mounted system is available in 60 and 120 litre units.

COMPRESSOR

If you are using a Quill Falcon Cyclone freestanding unit a separate compressor is required to provide air to the Quill Falcon Cyclone freestanding unit.

Low pressure 8 bar compressor (90 – 175cfm) Ideal for detailed work including the cleaning of automotive parts, restoration of wooden beams, cleaning of soft stone or for use in confined spaces where less air is required.

Low pressure 8 bar compressor (175 – 600cfm) Ideal for cleaning and profiling large surface areas including, marine hulls and decks, etching or cutting concrete and removing coatings from ultra large super structures including bridges and fuel tanks.



BLAST HOSE

For the Quill Falcon Cyclone please use a 1" or 1¼" blast hose depending on compressor type and project size. Alternatively if you are using the Quill Falcon Cyclone 30 a ¾" blast hose is required.

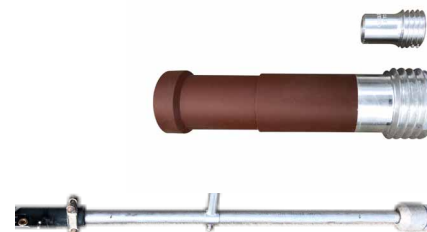


NOZZLES

For small applications with the ¾" blast hose use nozzles #3, #4 or #5

For larger applications with the 1" blast hose use nozzles #5 or larger

Lance extensions are available to help operatives extend their reach when working on horizontal surfaces



WATER SUPPLY

If you are using a Quill Falcon Cyclone freestanding unit it must be connected to a water supply.

Standard tap pressure and flow from a simple garden hose is acceptable. If access to water is limited on site please order a water tank.



BLAST MEDIA

There are 4 properties of abrasives that contribute to profile depth. They are size, shape, hardness and density. It is essential that operatives of the Quill Falcon Cyclone understand the surface characteristics and the profile depth that they require before starting the project. For help choosing the right blast media for your project please call Quill Falcon on +44 (0) 1332 864664. Always test a small inconspicuous area before commencing use.

Blast media examples:

- **Soft Blast Media - Sodium Bicarbonate/Calcium Carbonate**
For delicate stone work, aluminium, brass, bronze and copper surface cleaning
- **Medium Blast Media - Glass/Olivine**
For brickwork, concrete render, wood, dense stone work and graffiti from delicate surfaces
- **Hard Blast Media - Garnet/Iron Silicate**
For heavy corrosion, bitumen, concrete etching and artex and limpet residue removal



QUILL FALCON ADDITIONAL PRODUCTS

Mobile 2 Man Air Breathing Unit

The Quill Falcon Mobile 2 Man Air Breathing Unit is manufactured to compressed air breathing standard BS EN 12021 and works with the majority of stand-alone compressors. The Quill Falcon Mobile 2 Man Air Breathing Unit provides a reliable source of high purity air for up to 2 operatives and can be supplied with airline breathing harnesses and Scott RAS masks. There is an integrated control panel for monitoring individual operatives air supply and the unit has 2 robust wheels so the unit can be wheeled around site easily. **On site air quality testing can be provided for this equipment if required. Call Quill Falcon on +44 (0) 1332 864664**



Mobile 4 Man Air Breathing Unit

Manufactured to compressed air breathing standard BS EN 12021 the unit works with the majority of stand-alone compressors to provide a reliable source of high purity air for up to 4 operatives and can be supplied with Scott RAS masks and air breathing harnesses. A reserve air supply is fitted in the unlikely event of a main supply failure and an integrated control panel is also included for monitoring individual operatives air supply. The unit is mounted on 4 robust braked castors and is skid mounted too for ease of mobility around site. **On site air quality testing can be provided for this equipment if required. Call Quill Falcon on +44 (0)1332 864664**



Scott RAS Mask and Airline Breathing Harness Set

The RAS asbestos airline breathing apparatus set provides the highest levels of breathing protection. The tempest demand valve provides a positive pressure inside the facemask which leads to the mask having an assigned protection factor of 2000 meaning the apparatus is ideal for use in areas of high contaminant challenge. The inline particulate filter ensures that any fibres that may be present when the product is connected to the airline are removed from the breathing circuit whilst the smooth wipe clean harness reduces the trapping of asbestos fibres and leads to improved decontamination of the set after use. The approved and CE marked to EN14593-1 set includes the airline apparatus, harness, facemask and a P3 filter provided in a hard carry case for protection during transportation and storage. **Please note all masks require face fitting to the individual operative before use. Please call Quill Falcon on +44 (0)1332 864664 to arrange your mask face fitting.**



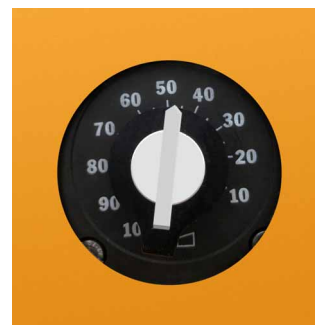
Quill NPU Moisture Filter

Designed for the asbestos removal industry. The Quill NPU Moisture Filter protects both pre and HEPA filters on Negative Pressure Units used in asbestos enclosures when vapour blasting, thereby saving customers time and money.



Quill Auto Dose System

The entire Quill Falcon Cyclone range is available with the Quill Auto-Dose System which allows operatives to dose additives through the blast pot during the blast process such as Quill Asbestos Fibre Suppressor or HoldTight® 102 flash rust inhibitor.



Quill Fibre Suppressor

Quill Fibre Suppressor in conjunction with the Quill Auto Dose System can be automatically dosed through the Quill Falcon Cyclone, thereby enabling asbestos removal operatives to comply with ALG Abrasive Blasting Removal Systems appendix 6/17.



HoldTight® 102 Flash Rust Inhibitor

HoldTight® 102 Flash Rust Inhibitor and Salt Remover in conjunction with the Quill Auto Dose System can be automatically dosed through the Quill Falcon Cyclone allowing operatives to prevent flash rust and remove salts from steel surfaces.



Quill Highways Containment System

The Quill Highways Containment System is a portable device that has been designed for customers removing road markings on highways. The system is designed to capture the removed coatings and spent grit and retain it in a small area, whilst also protecting road vehicles and passing pedestrians from the removal process. The lightweight system is simply and easily wheeled along by the blasting operative as they remove the road markings. The built in brushes along the bottom of the system ensure that grit is retained within a small area thereby making clear up quicker and easier.



QUILL FALCON CYCLONE SAFETY GUIDELINES

The safety guidelines below outline the procedures which must be adhered to when installing, operating and maintaining the Quill Falcon Cyclone.

- The safety guidelines and operating instructions must be read by the blasting operative and engineer responsible for the machine prior to installation and commissioning.
- This manual must be kept available at all times at the operating site of the equipment.
- It is the responsibility of the blasting operative to ensure adequate safe working conditions are provided before, during and after blasting has taken place.
- The correct Personal Protective Equipment (PPE) must be worn when operating the Quill Falcon Cyclone this includes:
 - Hard helmet
 - Ear defenders and ear plugs
 - Full face visor
 - Anti vibration work gloves
 - Toe protected boots
 - Work overalls
 - P3 respirator mask or full breathing apparatus if hazardous materials being removed
- Personnel charged with operation, maintenance, inspection and assembly must be in possession of the appropriate qualifications for the tasks. Personnel lacking the required skills and knowledge must receive training and instruction. If necessary, the operating company may commission the manufacturer or supplier to conduct these training courses. Furthermore, the operating company must ensure that the personnel fully comprehend the contents of the operating instructions.
- Personal safety must be ensured at all times when the system is in operation. Operatives of the system must work within their capabilities and seek assistance if unsure.
- Blasting areas must be adequately sealed to prevent damage or injury to persons or property.
- Warning signs of dangers must be positioned around the perimeter of the blasting operation and measures must be taken to ensure that no one enters the area of the blasting operation without permission and without adequate safety protection equipment.
- Please note, abrasive ricochet from the blast cleaning operation can be dangerous and all personnel within the area must wear adequate protection.
- In the interests of safety and efficiency it is necessary that the blaster and pot man operate some form of signalling or communication system.
- It is important that all hoses are connected correctly and securely using the necessary whip check safety devices.
- Escaping air is dangerous. It is essential that all air hose connections are secure and that any sealing gaskets required are in good condition and used in the correct position. A back pressure is created by the action of the compressed air passing through the nozzle. Therefore the operator must ensure he has adopted a safe stance and position and must maintain a firm hold of the nozzle holder/blast hose.
- Ensure that the compressed air supply to the machine is turned off and all airlines are purged of pressure (follow start/stop procedure) before any maintenance work is carried out. Precautions should be taken to prevent accidental turning on of the compressor air supply.
- The working pressure of each machine is 10 bar and must not be exceeded. A periodic examination/pressure test is essential.
- Never attempt to wheel the machine over rough/uneven ground. For hoisting, lifting lugs provided on the blast machine must be used. Do not connect slings to other parts of the machine. Always disconnect ancillary hoses from the machine and ensure the machine is empty of abrasive prior to it being moved. Hoisting/lifting of Quill Falcon Trailer or Quill Falcon Complete is not advisable.
- If the Quill Falcon Cyclone is not to be used for a period of time in excess of five days, it is advisable that it is empty of abrasive - this will assist in preventing unnecessary blockages. If using calcium carbonate or sodium bicarbonate please empty machine after one day.
- Compressors usually run at 95 -99dB, naturally the bigger the compressor the greater the noise (check compressor for dB stamp) Noise levels emitted from the Quill Falcon Cyclone are mostly generated from the nozzle. It is difficult to provide standard noise level guidelines for the Quill Falcon Cyclone as decibel readings can change dramatically by altering the size and type of nozzle, using different blast media, reducing the blasting pressure or even adding more water to the blasting solution, the acoustics can also vary significantly from project to project. To help our operators, we recommend as a guide that a Quill Falcon 120 trailer mount with a 177cfm compressor, set at 8 bar and on a dosing dial setting of 0.8, using Australian garnet and a 10mm boron nozzle will produce around 120dB at the nozzle. For every 5 meters measured from the nozzle, the noise level reduces by 10dB. The information above is to act as a guide only. It is the operators responsibility to check the noise levels are acceptable and the necessary precautions are taken prior to commencing blasting.
- The operation of this equipment can generate noise levels which can be damaging to the ears. It is essential that the operator, pot man and all other personnel in the vicinity be made aware of this. Operatives within the region of the compressor must wear ear defenders whilst those near to the blast nozzle must wear ear plug inserts and good quality ear defenders over the top.

QUILL FALCON CYCLONE COMPLETE SAFETY GUIDELINES

The Quill Falcon Cyclone Safety Guidelines and Quill Falcon Cyclone Complete Safety Guidelines must **both** be read by the blasting operative and engineer responsible for the machine prior to installation and commissioning.

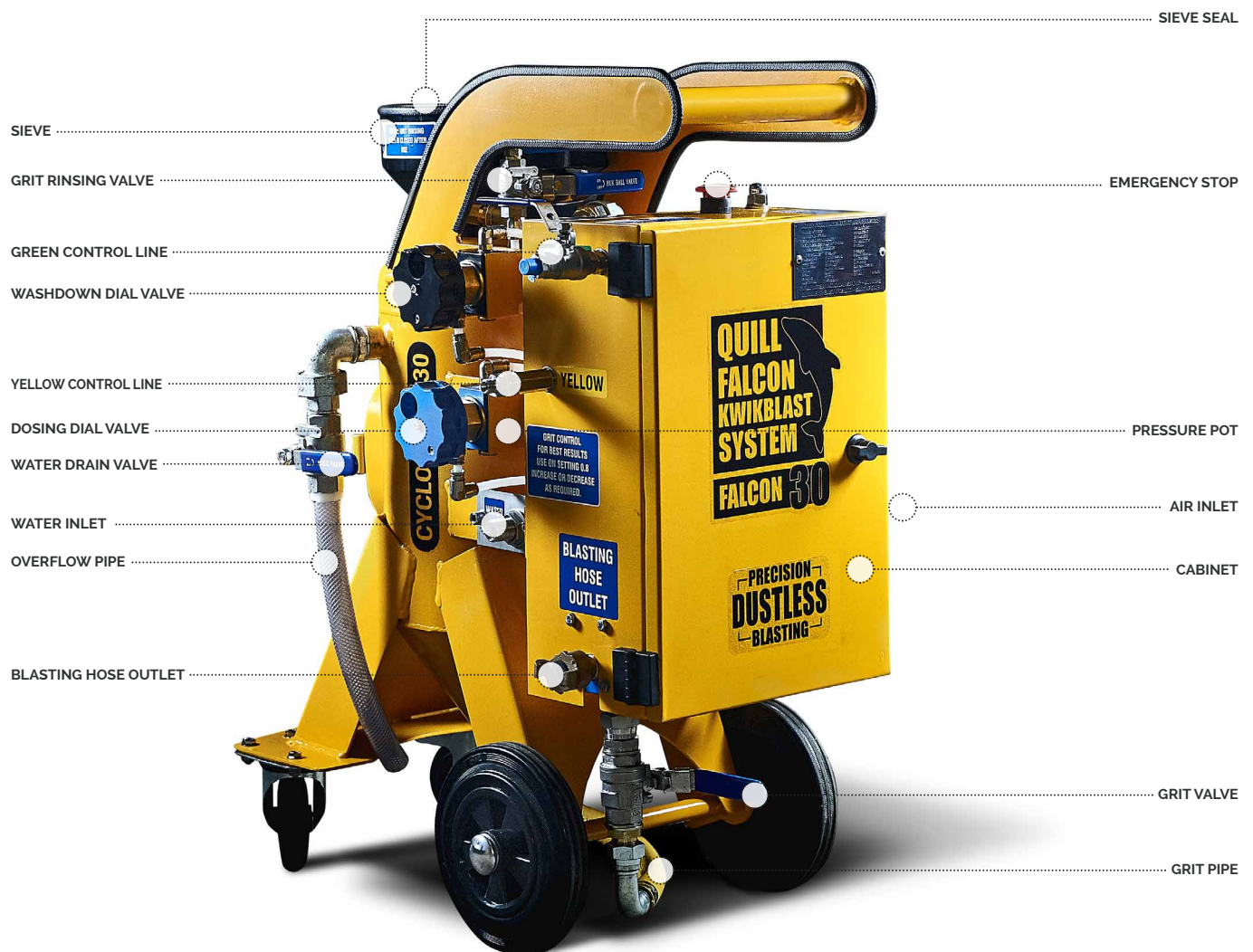
- The Quill Falcon Cyclone Complete with blasting and air breathing apparatus combined is designed for personnel who are familiar with normal workplace hazards, particularly those which provide a respiratory threat.
- The Quill Falcon Cyclone Complete must only be used with genuine original manufacturers parts in order to ensure safe operation.
- Do not use the equipment outside its safe working temperature of -10 to +40°C.
- The equipment should only be used with compatible breathing apparatus which is approved to EN 14593 or EN14594
- The maximum working pressure of the emergency air supply cylinders is 200 bar.
- The working pressure of the compressor on the Cyclone Complete is 8 bar
- The Quill Falcon Cyclone Complete produces compressed air under normal clean atmospheric conditions which comply to EN12021
- Air quality should be tested from the Quill Falcon Cyclone Complete before use, when either system is moved location and/or with a real-time air quality monitoring system during use.
- The Quill Falcon Cyclone Complete will not produce breathable air if it is not correctly sited in a contamination and exhaust free area.
- Oxygen or oxygen enriched air must not be used for supplying the system
- For the emergency air supply, always ensure that compressed breathing air cylinders are fitted to the system. Other gas cylinders are likely to be fatal for the user if inadvertently connected.
- Ensure equipment is cleaned and decontaminated before off hiring equipment.
- It is important to ensure that the pre-use checks are conducted to ensure that enough air is available to supply all users.
- Ensure all operating instructions are read and understood in relation to alarm systems, back up air supplies and the monitoring and control of personnel.
- Ensure that only trained personnel use the system
- The system is not designed for fire fighting use or exposure to high flammability risks.
- Altering the specification of the equipment may invalidate any warranty or approval that the system carries.
- Users of the Quill Falcon Cyclone Complete must have their masks face fit tested to ensure that the mask fits correctly before use.
- Service and maintenance of the Quill Falcon Cyclone Complete may only be performed by trained personnel.
- The Quill Falcon Cyclone Complete should be used with a control panel operator at all times to monitor supply to the air breathing operatives.
- The equipment will not necessarily provide adequate protection in certain high toxic atmospheres.
- Do not block vents on the Quill Falcon Cyclone Complete
- Always operate the Cyclone Complete with the compressor hood down in position.
- The Quill Falcon Cyclone Complete compressor should be refuelled with diesel.
- The alarm will only operate on the Quill Falcon Cyclone Complete if the compressor ignition is on
- It is critical for compliance with the relevant equipment standards to which it conforms, that the air supply is monitored by a control panel operator in a safe area. A suitable means of communication must be used between the control panel operator and the blasting operatives. Any changes in the status of the blasting operatives air supply or environmental conditions must be communicated immediately by the control panel operator to the blasting operatives throughout the duration of the work.
- Ensure the Quill Falcon Cyclone Complete is located in a safe area away from other plant exhaust fumes taking into account wind direction and surrounding ventilation.
- There should be 2 metres of clear space around the Quill Falcon Cyclone Complete and the exhaust should be located downwind of the Cyclone Completes raised intake snorkel.
- The Quill Falcon Cyclone Completes air intake snorkel must be raised vertically during use. Undo locating clip, loosen pivot bolt, straighten snorkel and nip up pivot bolt.

OPERATING THE QUILL FALCON CYCLONE SYSTEM

Thank you for choosing the Zone 1 approved, Ex rated, Baseefa accredited, TuV, ATEX and NORSOK compliant Quill Falcon Cyclone System, you can be safe in the knowledge that you are working with one of the safest blasting systems in the market today.

The diagram of the Quill Falcon Cyclone System below details the main components, which operatives of the system should familiarise themselves with before commencing work.

To watch how to set up a Quill Falcon Cyclone freestanding pot or trailer please visit www.quillfalcon.com and select "set up guides" from the menu



QUILL FALCON CYCLONE TRAILER



QUILL FALCON CYCLONE COMPLETE



QUILL FALCON CYCLONE

- SETTING UP

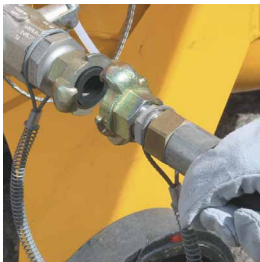
Operatives **MUST** ensure they have read and understood the Quill Falcon Cyclone Safety Guidelines before use



1. BRAKE FACILITY

Ensure wheel brake is fully on before commencing blasting.

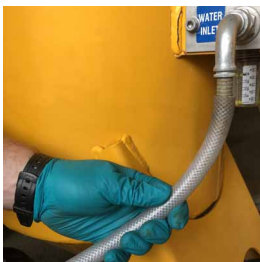
Falcon Trailer and Cyclone Complete operatives: Ensure trailer hand brake is on before commencing blasting.



2. CONNECT AIR SUPPLY

Connect air line from compressor to air inlet fitting on cabinet. Use a whip check safety device. Compressor air delivery must not exceed 120psi/8 bar.

Falcon Trailer and Cyclone Complete operatives: Air supply is already connected.



3. CONNECT WATER SUPPLY

Connect mains water supply to the coupling on machine. Connect hose pipe with jubilee clip. Falcon Trailer and Cyclone Complete operatives: Connect mains water supply to the coupling on the water tank, connect hose pipe with jubilee clip.

Pump manufacturer guidelines for use in Group II category 2G/2D Group II B state:

- If water supply interrupted machine must be switched off within 45 seconds.
- If not switched off pump will be damaged and temperature will rise.



4. CONNECT BLAST HOSE CONNECTION & CONTROL LINES

Twist on blast hose. Use whip check ends and clips provided to secure blasting hose. Locate GREEN and YELLOW control lines. Locate fitting with GREEN and YELLOW on cabinet. Connect GREEN and YELLOW control lines to their respective fittings and tighten.



5. CONNECT BLAST HOSE AND CONTROL HANDLE

Ensure GREEN and YELLOW control lines are equal length to the blast hose. Locate deadmans handle engraved with OUT and IN. Connect GREEN control line to IN fitting on deadmans handle. Connect YELLOW control line to OUT fitting on deadmans handle.



6. ATEX PLAQUE AND EARTH CONNECTION POINT

If machine used in explosive environment an ATEX verification plaque must be clearly visible. If machine used in hazardous area it must be connected to an appropriate grounding point.

QUILL FALCON CYCLONE

- FILLING & REFILLING



1. FILL AND SET WATER LEVEL

Insert water feed into top of pot and switch on water. Locate water drain valve on pressure pot and open. Continue filling pot until water flows from water drain valve. Leave valve open while filling machine with grit.



2. FILL POT WITH BLAST MEDIA

Fill pot with blasting media. The number of 25kg bags required varies according to machine size and media type, please see Quill Falcon Cyclone Product Range pages 8-11 for quantities. Close the water drain valve. For help choosing the right blast media for your project please call Quill Falcon on +44 (0) 1332 864664. Always test a small inconspicuous area before commencing use.



3. SET WATER DOSING CONTROL

Turn dosing control clockwise until the letter D appears in the window. Ensure wash down valve and grit valve is closed.



4. START COMPRESSOR AND WATER PUMP

Locate the emergency stop on cabinet top, push emergency stop down. Start compressor and switch on compressor airflow to the Falcon System. Ensure the water supply is connected and switched on! Open air inlet valve from compressor on Falcon System and pump will start. Open grit rinsing valve. Wash remaining grit through sieve into pot. Close grit rinsing valve.

Falcon Trailer and Cyclone Complete operatives only: Start compressor air will flow automatically to the Falcon System. Ensure the water supply is connected and switched on! Twist emergency stop button on. Open grit rinsing valve. Wash remaining grit through sieve into pot. Close grit rinsing valve.



5. PRESSURISE THE POT & CHECK PUMP GAUGE READINGS

Run the pump until water flows into sieve. Water should be visible through sieve mesh and should cover the 3 x bolt heads that can be seen through the sieve mesh. Shake sieve seal to expel all air from pot, lift sieve seal up to seal pot; hold in position for 5-10 seconds pump pressure will seal pot. Pump will stop after pot is fully pressurised. Top gauge air pressure approx 7/8 bar Middle gauge pump pressure 2.5 bar Bottom gauge pot pressure 10 bar. Ensure there is enough water in pot.



6. REFILLING

Once out of grit the machine loses effectiveness. Stop blasting. Open water drain valve on pot. The pot will depressurise and the sieve seal will drop. To refill repeat steps 2 to 5.

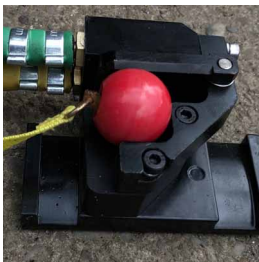
QUILL FALCON CYCLONE

- STARTING & STOPPING



1. BLASTING PREPARATION

Set grit dose control on setting number 0.8 ensure dosing control clicks as it engages (Increase or decrease setting as required during blasting). Open grit valve, twist emergency stop button to open and open green airline valve.



2. START BLASTING

Grip one hand around the nozzle holder from above never below. Place yellow strap round operative wrist, insert red ball into dead mans handle. There is a delay of a few seconds before machine starts and stops - be ready. Never let go of the nozzle once machine in operation. Start by using nozzle at least 3ft from blasting area keep nozzle moving. For more effective blasting simply move nozzle closer to blasting area. Remember too close initially and you may damage the surface!



3. STOP BLASTING

Release deadmans handle. Release switch or remove red ball from dead mans handle. Close green airline valve, push down emergency stop and close grit valve.



4. WASHDOWN PROCESS

The Quill Falcon Cyclone can be used to wash down the surface after blasting. Open wash down valve by turning to required setting, close grit control valve. Wash down loose debris from blasted area with nozzle. Start from top of area and chase debris down to a collection point.

To empty vessel, switch off compressor and disconnect air and water supply. Open water drain valve and remove pipe from base of pot. Remove grit delivery pipe and empty all grit, stones and debris.

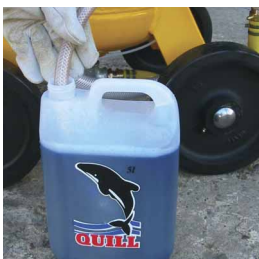
Falcon Trailer and Cyclone Complete operatives: Do not need to disconnect air and water supply.



5. ANTI-FREEZE PROTECTION (must be carried out daily in cold weather)

Close air inlet valve and push emergency stop down. Set green control airline lever to the off position. Open water drain valve to depressurise pot, disconnect water inlet hose from machine. Use a spare length of hose approximately 18 inches long. Connect one end of hose to water inlet fitting on machine. Immerse other end of hose in good quality anti-freeze that has been diluted 50:50 ratio or use neat anti-freeze in exceptionally cold weather.

Falcon Trailer and Cyclone Complete operatives: Close water tank feed tap and push emergency stop down. Open pressure pot anti-freeze tap. Set green control airline lever to the off position. Open water drain valve to depressurise pot. Immerse anti-freeze pipe in good quality anti-freeze that has been diluted 50:50 ratio or use neat anti-freeze in exceptionally cold weather. Open water drain valve underneath water tank.



6. PUMP ANTI-FREEZE

Open air inlet valve allow few strokes of pump to draw up anti-freeze. (Falcon Trailer and Cyclone Complete operatives: Start compressor and turn clockwise emergency stop, allow few strokes of pump to draw up anti-freeze.) Open grit valve at base of pot and turn wash down valve to N^o.4 setting. Turn dosing control clockwise to setting D ensure dosing control clicks as it engages. Open grit rinsing valve on sieve. Blue liquid will appear in all pipes. Close air inlet valve, pump will stop. (Falcon Trailer and Cyclone Complete operatives: Press emergency stop immediately. The pump and main water pipes are now protected by anti-freeze.

THE QUILL FALCON CYCLONE COMPLETE AIR BREATHING OPERATING INSTRUCTIONS

Operatives **MUST** ensure they have read and understood the Quill Falcon Cyclone Complete Safety Guidelines before use



1.

Ensure the Quill Falcon Cyclone Complete is located in a safe area away from other plant exhaust fumes taking into account wind direction and surrounding ventilation. There should be 2 metres of clear space around the Quill Falcon Cyclone Complete and the exhaust should be located downwind of the Cyclone Completes raised intake snorkel. The Quill Falcon Cyclone Completes air intake snorkel must be raised vertically during use (undo the locating clip, loosen pivot bolt, straighten snorkel and nip up pivot bolt).



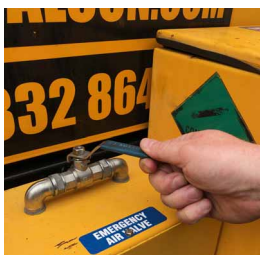
2.

Connect breathing air lines for up to 3 operatives on the Cyclone Complete 60 and for up to 4 operatives on the Cyclone Complete 120 and Mobile 4 Man Air Breathing Unit



3.

Start compressor. Open emergency air bottle cupboard and open reserve air supply



4.

Open emergency air valve



5.

Connect other end of airline(s) to mask harness(es)



6.

Please conduct an air test using ALL operatives masks before commencing use. Once air is flowing into mask ensure orange cap covers filter before commencing blasting.



7.

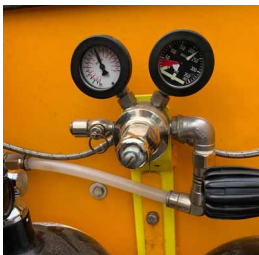
Once operatives are connected to their respective airlines, carry out the Quill Falcon Cyclone start up procedure on page 19 to start blasting



8.

To shut down the air breathing system, close the emergency air valve and turn emergency air bottle off

Daily checks:



1.

Check daily emergency air bottle is at a minimum of 50 bar (200 bar full). Change emergency air bottle to spare bottle if reading falls below 50 bar



2.

To change emergency air bottle, twist black handle, remove bottle, replace with new from spare emergency air cabinet and reattach DIN Connector



3.

Check water connection bottle at side of spare emergency air cabinet, empty as necessary

QUILL FALCON CYCLONE TROUBLESHOOTING

PROBLEM : System will not start

- Check system pressure is at minimum 8 bar and pump pressure at 3 bar.
- Check emergency stop button is not pressed down.
- Ensure compressor decompression button is pressed in.
- Ensure air inlet valve to system is open.
- Ensure green & yellow control line connections are air tight (Do not over tighten).
- Ensure seal is in dead mans handle.

PROBLEM : Vessel will not pressurise to 10 bar

- Ensure constant water feed to pump.
- Check system pressure is not exceeding 8 bar.
- Ensure no external leaks.
- Check water filter bowl for debris/blockage.

PROBLEM : No grit present at nozzle

- Ensure pot contains grit (Follow refill instructions).
- Ensure air not trapped in vessel - depressurise - repressurise.
- Vessel not fully pressurised (see previous problem).
- Ensure grit valve is open.
- Ensure compressor set at 8 bar..

PROBLEM : No air heard at deadmans handle

- Ensure compressor air valves are open.
- Ensure system green control airline valve is open.
- Ensure green & yellow control lines are air tight (Do not over tighten).

PROBLEM : Too wet at nozzle

- Ensure wash down valve is closed.
- Ensure dosing dial is not on setting D.
- Ensure pot contains grit (Follow refill instructions).
- Ensure nozzle is not worn.

PROBLEM : Air or water leak on blast hose coupling, pot blast hose coupling or nozzle holder

- Inspect blast hose seals. Replace hose seals as required.
- Inspect pot blast hose connection seal - rubber seal in claw coupling on machine. Replace seal as required.
- Inspect nozzle holder seal. Replace seal as required.

QUILL FALCON CYCLONE DAILY CHECK LIST

Please ensure the following checks are carried out DAILY

✓ Before starting compressor

- 1. Check all levels on compressor
 - Fuel level
 - Engine oil
 - Coolant level (when engine is cold)
 - Compressor oil
 - Check emergency air bottle pressure
- 2. Check air hoses from compressor to Quill Falcon unit
 - Check whip check safety devices are fitted correctly
- 3. Check water feed connection from supply to Quill Falcon unit
 - Check water feed connection is fitted correctly to Quill Falcon water inlet and jubilee clip tight
 - Check water feed connection is fitted correctly at the tap/IBC/barrel and jubilee clip tight
 - Check both ends of the water supply for leaks
- 4. Check blast hose coupling seal is intact
- 5. Check all blast hose routes have no kinks in the line
- 6. Check safety pins on couplings are connected securely and whip checks are fitted
- 7. Check green and yellow control line hose connections are tight
- 8. Check main air valve on Quill Falcon unit is closed
- 9. Check grit valve is closed
- 10. Check green control line valve is closed
- 11. Check emergency stop is pushed down
- 12. Depressurise pot by opening overflow valve (if it's not already open)

✓ Start compressor

- 1. Start compressor and allow to run for a minute before engaging load button (if fitted). Ensure the pressure gauge reads 8 bar
- 2. Open main air valve on compressor
- 3. Check air hoses from compressor to Quill Falcon Cyclone for air leaks
- 4. Open main air valve on Quill Falcon unit
- 5. Check system pressure gauge reads 8 bar
- 6. Open drain valve at the bottom of the system pressure receiver tube. Blow out moisture and close valve
- 7. Press the drain button on main air filter bowl. Blow out moisture (if present) and let go
- 8. Press the drain valve on bottom of regulator bowl. Blow out moisture (if present) and let go
- 9. Once all daily checks are completed the Quill Falcon can be filled with water and grit ready for blasting

QUILL FALCON CYCLONE

- SPARES & SERVICING

NOZZLES

BNA01A	Nozzle SXS 6 silicone carbide 9.5mm
BNA01B	Nozzle SXS 7 silicone carbide 11.5mm
BNA02	Nozzle 3/8 boron 10mm
BNA02A	Nozzle #5 silicone nitride
BNA03	Nozzle 7/16 boron alloy 12mm
BNA04	Nozzle 1/2 boron alloy 14mm
BNA05	Nozzle seal
BNA06	Nozzle boron locking ring



BLAST HOSES

BHC05	Blast hose 1" x 20m extension hose complete with yellow and green control airlines
BHC06	Whip end 1" x 20m complete with yellow and green control airlines and dead man's handle (no nozzle)



DEAD MAN'S HANDLE

BAB01-01AF	Anti-fatigue dead man's handle complete with ball and wrist strap
BAB01-02AFB	Ball and wrist strap



The Quill Falcon requires an annual service every 6 to 12 months depending on usage. Failure to adhere to the servicing policy will invalidate the machine warranty.

We offer servicing packages on all of our Quill Falcon Systems*.

To discuss your servicing requirements or if you have a breakdown enquiry please contact the Quill International Group on **+44 (0) 1332 864664** or email sales@quillinternational.com

*Overseas customers please contact your nearest agent to discuss service packages available.

SCOTT RAS MASK & AIRLINE BREATHING HARNESS SET

The RAS asbestos airline breathing apparatus set provides the highest levels of breathing protection. The tempest demand valve provides a positive pressure inside the facemask which leads to the mask having an assigned protection factor of 2000 meaning the apparatus is ideal for use in areas of high contaminant challenge. The inline particulate filter ensures that any fibres that may be present when the product is connected to the airline are removed from the breathing circuit whilst the smooth wipe clean harness reduces the trapping of asbestos fibres and leads to improved decontamination of the set after use. The approved and CE marked to EN14593-1 set includes the airline apparatus, harness, facemask and a P3 filter provided in a hard carry case for protection during transportation and storage. **Please note all masks require face fitting to the individual operative before use. Please call Quill Falcon on +44 (0)1332 864664 to arrange your mask face fitting.**



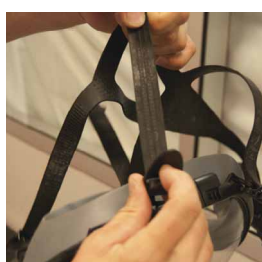
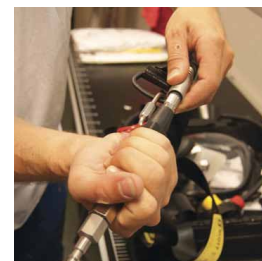
SCOTT RAS MASK DAILY 10 STEP CHECK LIST



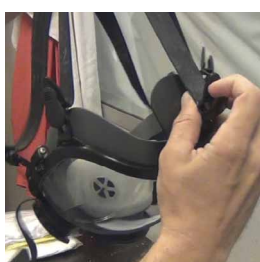
1.STORE EQUIPMENT PROPERLY



6.CHECK HOSE & COUPLINGS



2.CHECK MASK HARNESS



7.CHECK FILTER CONDITION



3.CHECK THE MASK SEAL



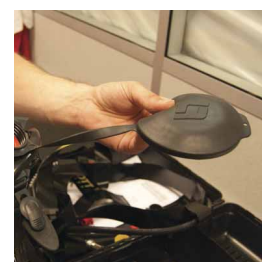
8.CHECK DEMAND VALVE



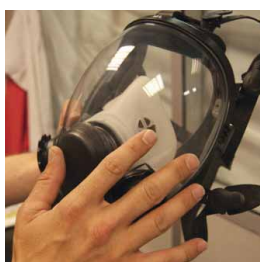
4.CHECK INTERNAL AND EXTERNAL VALVES



9.CHECK CONNECTIONS AND FILTER COVER



5.CHECK VISOR



10.PERFORM A LEAK TEST



QUILL FALCON MOBILE 2 MAN AIR BREATHING UNIT

The Quill Falcon Mobile 2 Man Air Breathing Unit is manufactured to compressed air breathing standard BS EN 12021 and works with the majority of stand-alone compressors, The Quill Falcon Mobile 2 Man Air Breathing Unit provides a reliable source of high purity air for up to 2 operatives and can be supplied with airline breathing harnesses and Scott RAS masks. There is an integrated control panel for monitoring individual operatives air supply and the unit has 2 robust wheels so the unit can be wheeled around site easily. **On site air quality testing can be provided for this equipment if required. Call Quill Falcon on +44 (0) 1332 864664**

DIMENSIONS	
Height:	1050mm
Width:	600mm
Length:	400mm
Weight:	35kg



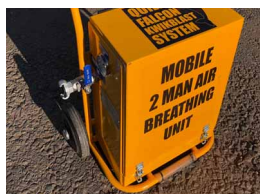
QUILL FALCON MOBILE 2 MAN AIR BREATHING UNIT SAFETY GUIDELINES

- The Quill Falcon Mobile 2 Man Air Breathing Unit with air breathing apparatus is designed for personnel who are familiar with normal workplace hazards, particularly those which provide a respiratory threat.
- The Quill Falcon Mobile 2 Man Air Breathing Unit must only be used with genuine original manufacturers parts in order to ensure safe operation.
- Do not use the equipment outside its safe working temperature of -10 to +40°C.
- The equipment should only be used with compatible breathing apparatus which is approved to EN 14593 or EN14594
- The Quill Falcon Mobile 2 Man Air Breathing Unit produces compressed air under normal clean atmospheric conditions which comply to EN12021
- Air quality should be tested from the Quill Falcon Mobile 2 Man Air Breathing Unit before use.
- Oxygen or oxygen enriched air must not be used for supplying the system
- Ensure equipment is cleaned and decontaminated before off hiring equipment.
- It is important to ensure that the pre-use checks are conducted to ensure that enough air is available to supply all users.
- Ensure all operating instructions are read and understood in relation to the monitoring and control of personnel.
- Ensure that only trained personnel use the system
- The system is not designed for fire fighting use or exposure to high flammability risks.
- Altering the specification of the equipment may invalidate any warranty or approval that the system carries.
- Users of the Quill Falcon Mobile 2 Man Air Breathing Unit must have their masks face fit tested to ensure that the mask fits correctly before use.
- Service and maintenance of the Quill Falcon Mobile 2 Man Air Breathing Unit may only be performed by trained personnel.
- The Quill Falcon Mobile 2 Man Air Breathing Unit should be used with a control panel operator at all times to monitor supply to the air breathing operatives.
- The equipment will not necessarily provide adequate protection in certain high toxic atmospheres.
- It is critical for compliance with the relevant equipment standards to which it conforms, that the air supply is monitored by a control panel operator in a safe area. A suitable means of communication must be used between the control panel operator and the blasting operatives. Any changes in the status of the blasting operatives air supply or environmental conditions must be communicated immediately by the control panel operator to the blasting operatives throughout the duration of the work.

QUILL FALCON MOBILE 2 MAN AIR BREATHING UNIT

- SETTING UP

Operatives **MUST** ensure they have read and understood the Quill Falcon Cyclone 2 Man Air Breathing Unit Safety Guidelines before use



1.

Wheel mobile 2 man air breathing unit into position, ensure it is on a flat level surface



2.

Ensure the air valve is switched off, lever parallel to unit. Connect 3/4" bull line to the main air inlet on the mobile unit. Please use whip check safety devices provided



3.

Connect other end of 3/4 " bull line to compressor, again please ensure whip check safety devices are used



4.

Connect breathing air lines for up to 2 operatives to mobile breathing unit



5.

Connect other end of air line(s) to mask harness(es)



6.

The Quill Falcon Mobile 2 Man Air Breathing Unit must be air tested and a certificate issued before use. Please call Quill Falcon on +44 (0)1332 864664 to arrange your air test

QUILL FALCON MOBILE 2 MAN AIR BREATHING UNIT

- GETTING STARTED



1.

Switch compressor on, open main air inlet valve on compressor



2.

Open main air inlet valve on mobile unit, machine will start to filter air



3.

Once the mobile unit is set up, please conduct an air test using ALL operatives masks before commencing use



4.

Ensure a certificated air test is carried out on the mobile unit before its first use. Quill personnel can carry this out for you please call +44 (0) 1332 864664

- SHUTTING DOWN



1.

Close main air inlet valve on mobile unit



2.

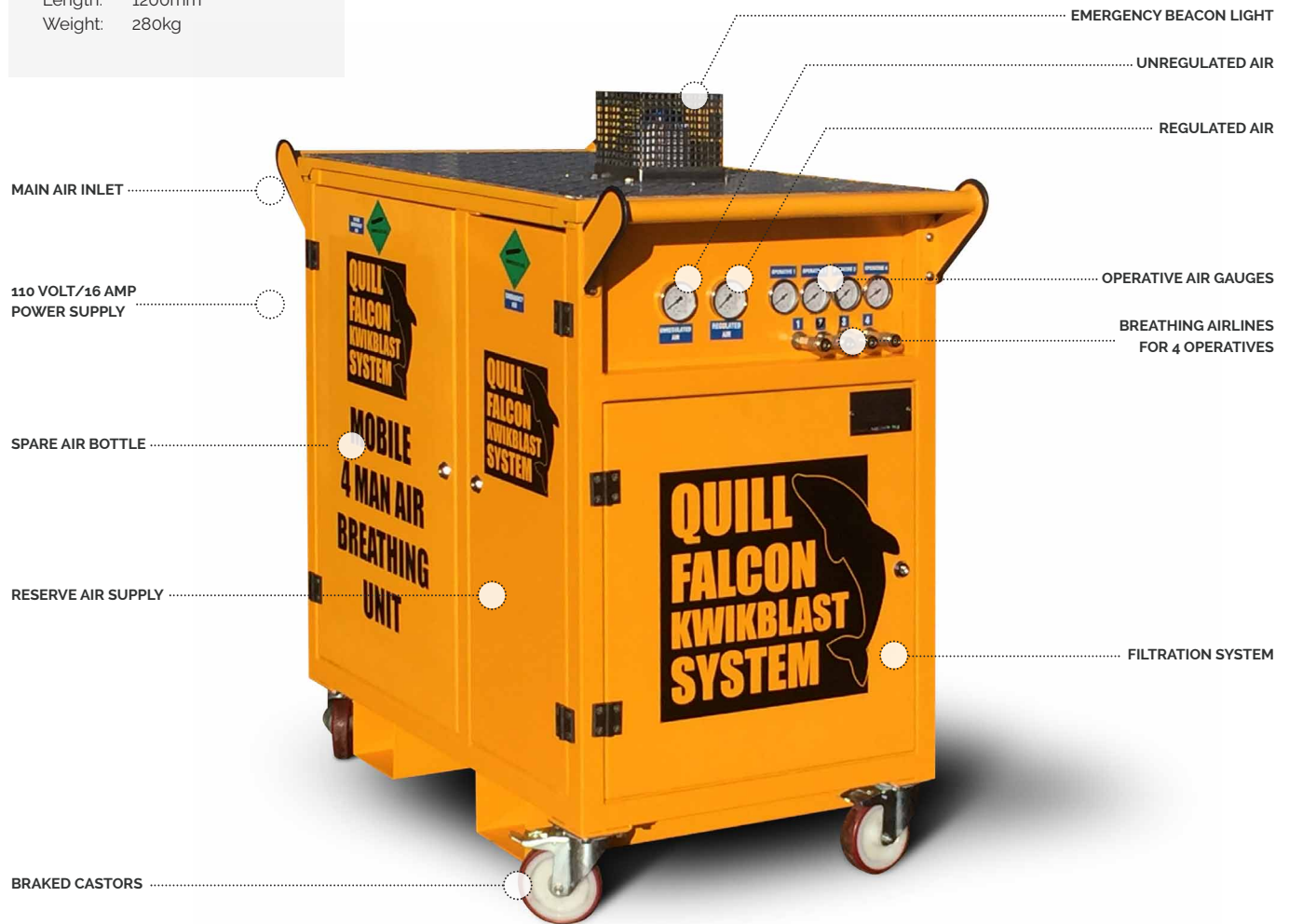
Close main air inlet valve on compressor and switch compressor off

QUILL FALCON MOBILE 4 MAN AIR BREATHING UNIT

Manufactured to compressed air breathing standard BS EN 12021 the unit works with the majority of stand-alone compressors to provide a reliable source of high purity air for up to 4 operatives and can be supplied with Scott RAS masks and air breathing harnesses. A reserve air supply is fitted in the unlikely event of a main supply failure and an integrated control panel is also included for monitoring individual operatives air supply. The unit is mounted on 4 robust braked castors and is skid mounted too for ease of mobility around site. **On site air quality testing can be provided for this equipment if required. Please call Quill Falcon on +44 (0)1332 864664 to arrange your onsite air quality test.**

DIMENSIONS

Height: 1250mm
 Width: 665mm
 Length: 1200mm
 Weight: 280kg



QUILL FALCON MOBILE 4 MAN AIR BREATHING UNIT SAFETY GUIDELINES

- The Quill Falcon Mobile 4 Man Air Breathing Unit with air breathing apparatus is designed for personnel who are familiar with normal workplace hazards, particularly those which provide a respiratory threat.
- The Quill Falcon Mobile 4 Man Air Breathing Unit must only be used with genuine original manufacturers parts in order to ensure safe operation.
- Do not use the equipment outside its safe working temperature of -10 to +40°C.
- The equipment should only be used with compatible breathing apparatus which is approved to EN 14593 or EN14594
- The maximum working pressure of the emergency air supply cylinders is 200 bar.
- The Quill Falcon Mobile 4 Man Air Breathing Unit produces compressed air under normal clean atmospheric conditions which comply to EN12021
- Air quality should be tested from the Quill Falcon Mobile 4 Man Air Breathing Unit before use.
- Oxygen or oxygen enriched air must not be used for supplying the system
- For the emergency air supply, always ensure that compressed breathing air cylinders are fitted to the system. Other gas cylinders are likely to be fatal for the user if inadvertently connected.
- Ensure equipment is cleaned and decontaminated before off hiring equipment.
- It is important to ensure that the pre-use checks are conducted to ensure that enough air is available to supply all users.
- Ensure all operating instructions are read and understood in relation to alarm systems, back up air supplies and the monitoring and control of personnel.
- Ensure that only trained personnel use the system
- The system is not designed for fire fighting use or exposure to high flammability risks.
- Altering the specification of the equipment may invalidate any warranty or approval that the system carries.
- Users of the Quill Falcon Mobile 4 Man Air Breathing Unit must have their masks face fit tested to ensure that the mask fits correctly before use.
- Service and maintenance of the Quill Falcon Mobile 4 Man Air Breathing Unit may only be performed by trained personnel.
- The Quill Falcon Mobile 4 Man Air Breathing Unit should be used with a control panel operator at all times to monitor supply to the air breathing operatives.
- The equipment will not necessarily provide adequate protection in certain high toxic atmospheres.
- Do not block vents on the Quill Falcon Mobile 4 Man Air Breathing Unit
- It is critical for compliance with the relevant equipment standards to which it conforms, that the air supply is monitored by a control panel operator in a safe area. A suitable means of communication must be used between the control panel operator and the blasting operatives. Any changes in the status of the blasting operatives air supply or environmental conditions must be communicated immediately by the control panel operator to the blasting operatives throughout the duration of the work.

QUILL FALCON MOBILE 4 MAN AIR BREATHING UNIT

- SETTING UP

Operatives **MUST** ensure they have read and understood the Quill Falcon Cyclone 4 Man Air Breathing Unit Safety Guidelines before use



1.

Wheel mobile 4 man air breathing unit into position and ensure foot brake is applied on the two front castors



2.

Ensure the air valve is switched off, lever parallel to unit. Connect 3/4" bull line to the main air inlet on the mobile unit. Please use whip check safety devices provided.



3.

Connect other end of 3/4" bull line to compressor, again please ensure whip check safety devices are used



4.

Connect mobile 4 man air breathing unit to mains electrical supply using 110volt power cable



5.

Connect breathing air lines for up to 4 operatives to mobile breathing unit



6.

Connect other end of air line(s) to mask harness(es)



7.

The Quill Falcon Mobile 4 Man Air Breathing Unit must be air tested and a certificate issued before use. Please call Quill Falcon on +44 (0)1332 864664 to arrange your air test.

QUILL FALCON MOBILE 4 MAN AIR BREATHING UNIT

- GETTING STARTED



1.

Switch compressor on, open main air inlet valve on compressor



2.

Switch power on at the mains, the blue light on top of the unit will illuminate and the siren will sound



3.

Open main air inlet valve on mobile unit, the siren noise will stop, machine will start to filter air, exhausting on a cycle every few minutes.



4.

Open emergency air bottle cupboard door



5.

Check bleed screw is closed. Close bleed screw by twisting clockwise



6.

Open air bottle valve by twisting anti clockwise VERY SLOWLY to avoid overloading system, close cupboard door after use



7.

Once the mobile unit is set up, please conduct an air test using ALL operatives masks before commencing use



8.

Ensure a certificated air test is carried out on the mobile unit before its first use. Quill personnel can carry this out for you please call +44 (0) 1332 864664

QUILL FALCON MOBILE 4 MAN AIR BREATHING UNIT

- SHUTTING DOWN



1.

To switch off emergency air. Open emergency air bottle cupboard door



2.

Close air bottle valve by twisting clockwise. Close emergency air bottle cupboard door



3.

Open bleed screw by twisting anti clockwise. Close after empty



4.

Close main air inlet valve on mobile unit, wait for the siren noise to start



5.

Switch power off at the mains, the blue light on top of the unit will switch off and the siren noise will stop



6.

Close main air inlet valve on compressor and switch compressor off

QUILL FALCON MOBILE 4 MAN AIR BREATHING UNIT

- DAILY CHECKS



1.

Check water connection bottle in base of cabinet daily, empty as necessary



2.

Check daily emergency air bottle cupboard air bottle is over 50 bar (200 bar full)



3.

Change emergency air bottle to spare bottle if reading falls below 50 bar



4.

To change emergency air bottle twist black handle anti clockwise, remove bottle, replace with new and reattach DIN connector

QUILL FALCON CYCLONE BESPOKE SOLUTIONS

At Quill Falcon we manufacture our Cyclone Systems from start to finish in the UK, meaning we are in control of the whole manufacturing process from beginning to end. Therefore if our customers require a bespoke solution building to fit their niche projects, we are ready, willing and able to facilitate this.

From skid mounted systems including a Quill Falcon Cyclone, water tank and compressor to skid mounts without a compressor or with different sized water tanks manufactured from metal or plastic, the possibilities are endless.

If you require a bespoke solution building for your project please contact Quill Falcon on **+44 (0) 1332 864664**



HOW TO HIRE OR BUY A QUILL FALCON CYCLONE SYSTEM

You can hire or buy direct from Quill Falcon on **+44 (0) 1332 864664**

You can email your enquiry direct to **sales@quillinternational.com**

If you are in the UK and require a free demonstration without obligation please call **+44 (0) 1332 864664** to arrange a meeting

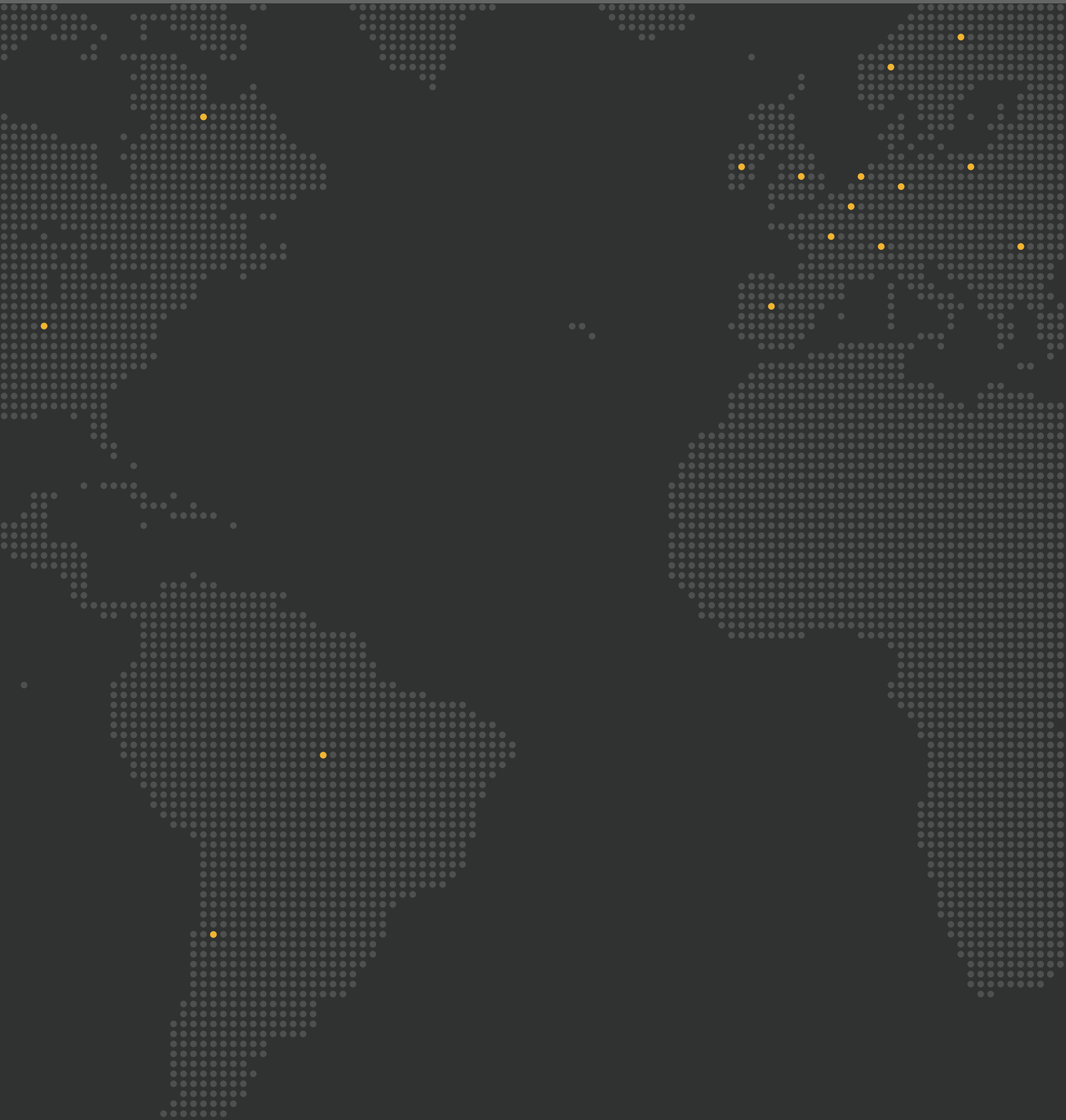
If you are an overseas customer please call our head office on **+44 (0) 1332 864664** or alternatively visit **www.quillfalcon.com** to find your nearest Quill Falcon agent

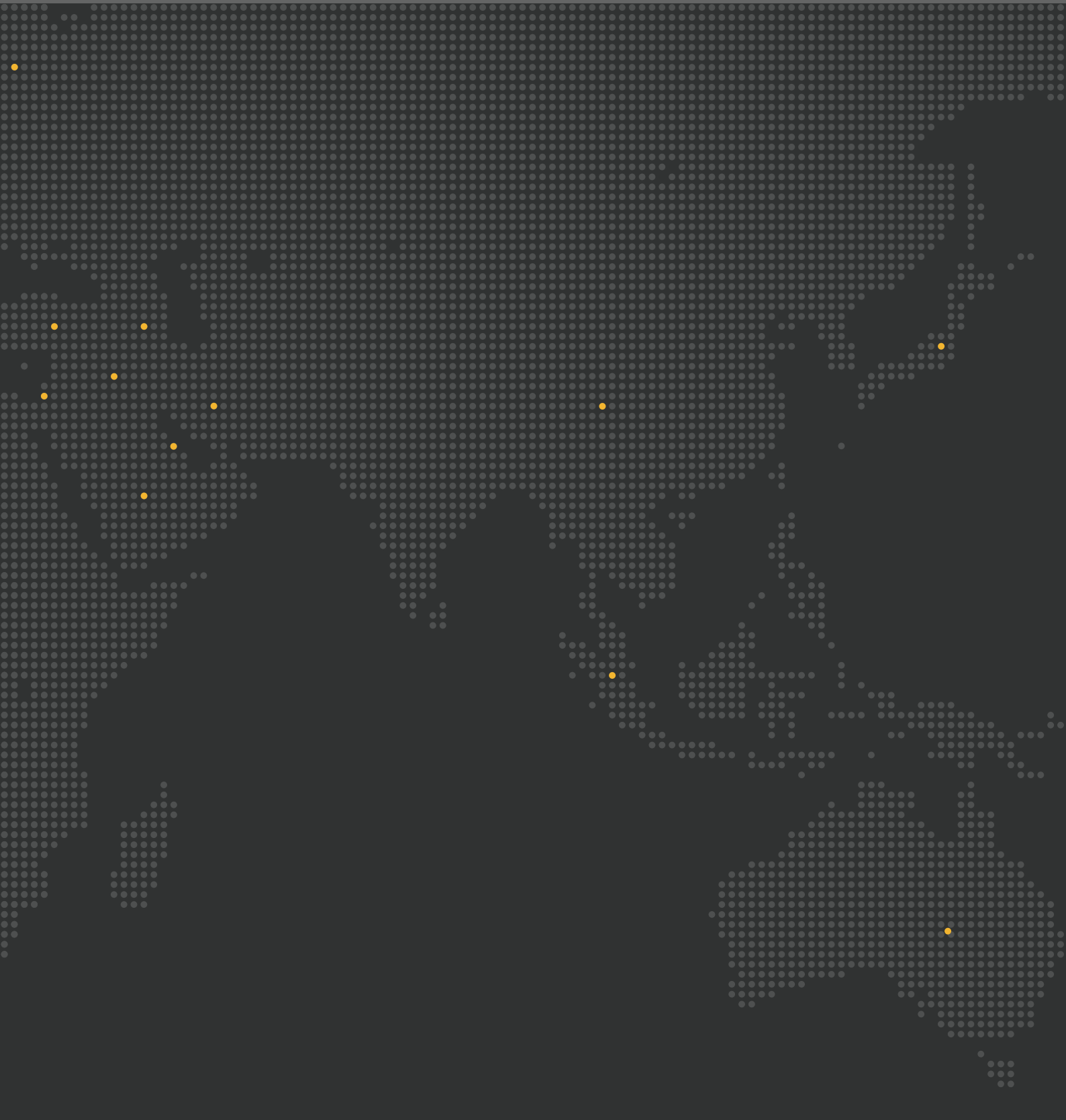


DID YOU KNOW?

The Quill International Group is an **ISO 9001:2015** accredited group of companies. It is a global brand player with on going successful operations on six of the world's seven continents in over 30 different countries.

Over the past quarter of a century we have designed, developed and taken to market unique infection control healthcare products, high quality industrial cleaning detergents and pressure washers, revolutionary precision dustless blasting systems, high performance commercial laundry powders and innovative 3D printing post processing solutions.







Quill International Group, Castle Lane, Melbourne, Derbyshire DE73 8JB (UK)

T + 44 (0)1332 864664 | F + 44 (0)1332 864760 | sales@quillinternational.com

www.quillfalcon.com

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Quill Falcon Group is ISO 9001 certified. Quill Falcon Operators Manual Rev 04-1024.