

Operating Manual

Self-Contained Breathing Apparatus



Model: RHZKF6.8/30 FLEX300 Series

Order No.: FLEX300HUD-DA

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1.Introduction

This manual provides instructions for the correct use, maintenance, and storage of the **Muskwell** RHZKF6.8/30 FLEX300 Series Self-Contained Breathing Apparatus (SCBA).

The SCBA is designed to provide breathable compressed air to the user in hazardous environments such as:

- ◆ Firefighting
- ◆ Industrial rescue
- ◆ Confined spaces
- ◆ Toxic or oxygen-deficient atmospheres

Improper use may result in injury or death. Always read and understand this manual before using the equipment.

2.Safety notes

2.1 Warnings

- ◆ This equipment must be used only by trained personnel.
- ◆ Do not use the SCBA in underwater environments.
- ◆ Do not use the SCBA if any part is damaged.
- ◆ Ensure the cylinder is fully charged before use.

2.2 Important notes

- ◆ Leave the hazardous area immediately when the low-pressure alarm sounds.
- ◆ Always work in teams when using SCBA.

3.System description

The Muskwell SCBA is a **positive pressure open-circuit breathing apparatus** that supplies compressed air from a cylinder to the wearer.

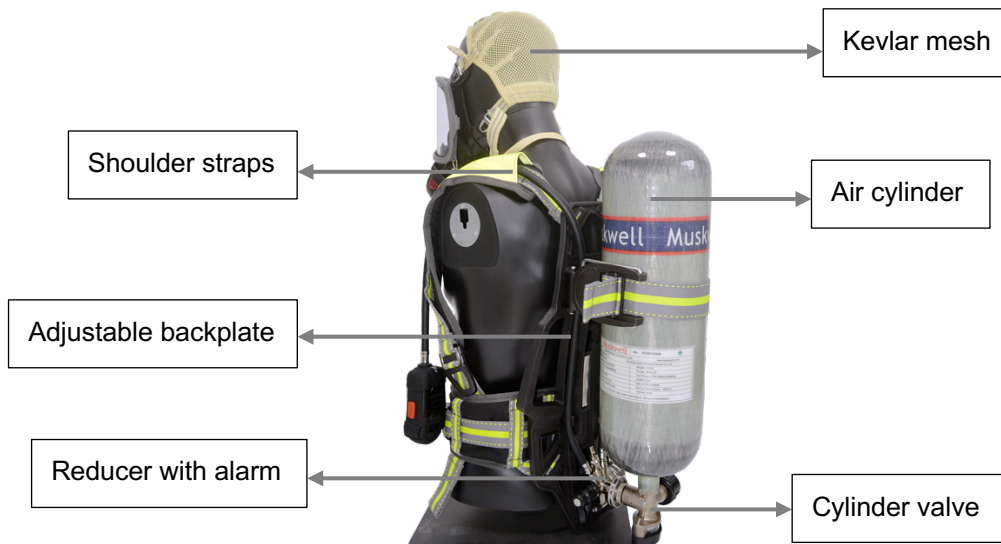
RHZKF6.8/30 FLEX300 Series SCBA Configuration List

Item No.	Quick-fill	Cylinder Quick Connection	Mask	LDV	PASS	Cylinder	EFV
FLEX300S	N/M	N/M	M1000	LDV1000	N/M	3L/6.8L/9L	Optional
FLEX300SC	N/M	YES	M1000C	LDV1000	N/M		Optional
FLEX300HUD-DG	YES	YES	M1000	LDV1000	DG2		Optional
FLEX300M	YES	YES	M3000	LDV3000	N/M		Optional
FLEX300HUD-DA	YES	YES	M3000	LDV3000	DA300		Optional

All the RHZKF6.8/30 FLEX300 series SCBA equipped with a FLEX300 backplate set and PRS300 Reducer kit.



RHZKF6.8/30 FLEX300HUD-DA



RHZKF6.8/30 FLEX300HUD-DA

3.1 Full face mask

The facepiece provides breathable air from the regulator past an inhalation valve to the inside of the lens (to minimize lens fogging) and then through the check valves into the nose cup. Exhaled air is directed out of the exhalation valve by the nose cup directly to ambient air. The face seal provides a snug, comfortable fit, and tight seal.

The facepiece is equipped with a mechanical speech diaphragm that enhances speech communication. The HUD is provided inside the facepiece through light pipes from the regulator. Communication mask is for options.



M1000 Mask



M1000C Mask

The mask houses an electronic module which provides HUD functionality

When in safe atmospheres with no regulator attached, ambient air can be inhaled directly through an opening to facilitate breathing and speaking with minimal resistance.

The **M3000** facepiece is available in 2 sizes (**medium and large**)



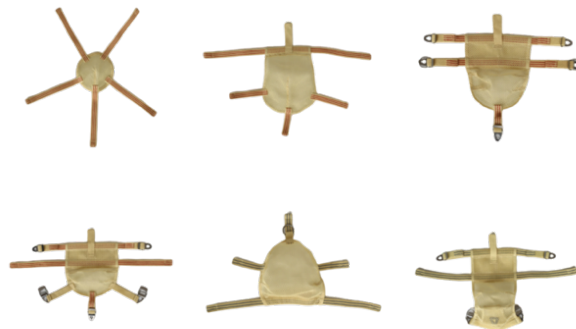
M3000 Mask(M/L)



M3000HUD Mask(M/L)

Facepiece Versions

The facepiece is available with different head harnesses, mostly with 5-point Kevlar mesh.



5-points Kevlar mesh for options

3.2 Demand valve/Regulator



LDV1000



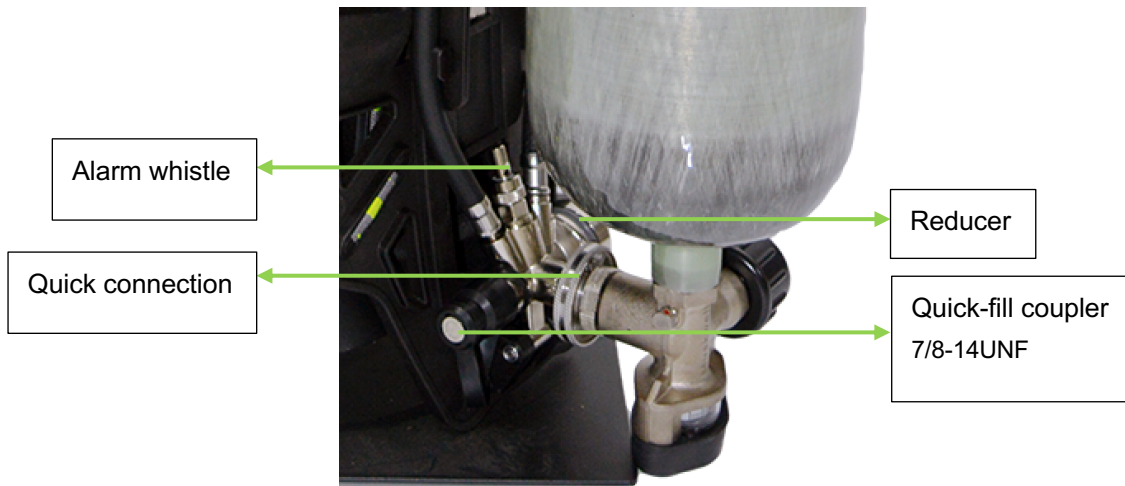
LDV3000

The mask mounted regulator is a pressure-demand regulator, which maintains a positive pressure in the facepiece while the SCBA is in use. The positive pressure regulator reduces the pressure coming from the pressure reducer further to provide breathable air to the user.

The regulator is connected to the facepiece with a fixed position Push-To-Connect (PTC) connection.

The hose for the regulator is quick connect. A quick connect coupling is positioned on the chest between the pressure reducer and regulator to enable regulator removal from the SCBA for testing or repair.

3.3 Reducer and alarm whistle



The pressure reducer reduces the cylinder pressure to an intermediate pressure, which is in turn further reduced by the regulator to a pressure that is respirable by the user.

The pressure reducer (**FLEX300 Series**) is equipped with a Rapid Intervention Crew/Company Universal Air Connection (RIC UAC) fitting. The **RIC UAC fitting** is for use by rapid intervention teams for emergency filling operations. The Quick-fill coupler size is **7/8-14UNF** international standard.



Rapid Refilling Coupler

Tips: Our SCBA just including the rapid refilling coupler integrated in the reducer but not including the fast refilling hose, please contact the sales team to get more details.

3.3.1 Quick-Connect Cylinder Coupling

The apparatus is equipped with a **quick-connect cylinder coupling**, enabling fast and secure connection of the air cylinder to the pressure reducer without the need for threaded installation.



Cylinder-Quick Connector

Tips: please note that the Muskwell cylinder-quick connector may not compatible with other brands of SCBA, please contact our sales team to get more details.

3.3.2 Primary Low Pressure Warning Device (Bell)

The primary low pressure warning device alarms when there is approximately 25 % of the SCBA's rated service time remaining and when the cylinder valve is first opened, providing an audible indication that the alarm is working properly. EN regulation states that the primary low pressure warning device must alert the user at 25%. Muskwell sets all low pressure warning signals to the mean of the requirement, hence $55\pm 5\text{bar}$.

3.4 Air cylinder and valve

The cylinder and valve assembly store high pressure air which will be reduced to provide the user breathable air. Cylinders are available in multiple pressures and rated service times. The valve assembly provides the user the ability to open the pressure to the rest of the system. The valve assembly consist of a handwheel for opening and closing the valve, EFV, pressure gauge that always provides the pressure in the cylinder, threaded connection for filling and attachment, and burst disc for over pressurization.

The SCBA can be attached to the cylinder in multiple configurations. A threaded or quick connection is available, and a threaded cylinder can easily be upgraded to a quick connect attachment.

Model (Liter)	Pressure (Bar)	Service Life(year)	Connection Type	Connection location
3	300	15	Threaded/Quick-connect	Reducer
4.7	300	15	Threaded/Quick-connect	Reducer
6.8	300	15/NLL	Threaded/Quick-connect	Reducer
7	300	15/NLL	Threaded/Quick-connect	Reducer
9	300	15	Threaded/Quick-connect	Reducer



Air Cylinder



Right-angled Gauge Valve



Inline Valve with EFV(**Optional**)

The Excess Flow Valve (EFV) is designed to automatically limit gas flow in the event of a cylinder valve malfunction or accidental line rupture, preventing sudden overpressure or rapid gas loss. This feature ensures that SCBA users have enough breathable air to safely exit hazardous environments, reflecting Muskwell's commitment to firefighter and industrial respiratory safety.



Right-angled Gauge Valve with EFV(Optional)

Our cylinders are available with both INLINE gauge valves and RIGHT-ANGLED gauge valves, offering flexibility to suit different SCBA configurations and user preferences. Whether for municipal fire departments, industrial safety operations, or

emergency rescue teams, Muskwell cylinders deliver reliable performance, ergonomic design, and uncompromised safety.

Muskwell cylinder shall be periodically inspected and hydrostatically tested at least **every 5 years** by an authorized inspection body.

The refilling air must be approved by:

- ◆ EN12021
- ◆ ISO8573.1 the first grade quality air
- ◆ Germany DIN3188
- ◆ USA CGA D/E grade

3.5 Backplate and harness

The harness and carrier assembly consists of:

- ◆ Backplate
- ◆ Cylinder quick-belt
- ◆ Shoulder pads
- ◆ Adjustable pull straps
- ◆ Waist pad and belt (adjustable)



FR FLEX300 Backplate

3.6 PASS Device

Muskwell FLEX300HUD series SCBA equipped with PASS, including DG2 and DA300.



DG2



DA300

The PASS device on the SCBA is made up of alkaline battery module control module. The PASS device provides the user the ability to monitor movement through a motion sensor. When a user remains motionless for 30 seconds, the PASS device goes into full alarm to alert those around the user. The PASS device also monitors cylinder pressure and battery status. Please refer to the manual book of each model of PASS.

3.7 SCBA storage case

Muskwell SCBA use the standard SCBA plastic case for storage, including black or orange color. At this moment we do not have OEM service for this part.



4. Technical specifications

The SCBA is designed to provide breathable air for firefighters and emergency personnel operating in hazardous and oxygen-deficient environments according to EN137:2006 standard.

Item	Specification
Working pressure	300Bar
Cylinder capacity	3L/6.8L/9L
Air supply duration	30-90mins
Alarm activation pressure	55 ± 5 bar
Weight(with cylinder)	≤ 15kg
Operating temperature	-30°C to +60°C
Storage temperature	-30°C to +60°C
Safety features	EFV
Quick fill system	RIC/UAC
Quick cylinder connection	optional

5. Working principle

The Self-Contained Breathing Apparatus (SCBA) operates by supplying compressed breathable air from a high-pressure cylinder to the user through a regulated and demand-controlled system.

Compressed air is stored in the cylinder at high pressure (up to 300 bar). When the cylinder valve is opened, air flows through the high-pressure hose into the pressure reducer.

The pressure reducer decreases the high pressure to a stable intermediate pressure, ensuring a consistent air supply regardless of cylinder pressure.

Air is then delivered to the demand valve, which supplies air to the user only when inhalation is detected. This demand-based system optimizes air consumption and extends usage time.

The face mask maintains a positive pressure inside, preventing hazardous gases from entering the mask. During exhalation, exhaled air is discharged through the exhalation valve into the environment.

When the cylinder pressure drops to a preset level (typically around 55 bar), the warning device (audible alarm or electronic system) is activated to alert the user to exit the hazardous area.

Additional safety features such as an **Excess Flow Valve (EFV)** may be integrated into the cylinder valve to limit airflow in case of accidental damage or sudden leakage, enhancing user safety.

Optional quick-fill systems (RIC/UAC) allow rapid replenishment of air supply from an external source during emergency situations.

6. Pre-use inspection

Before each use, the SCBA must be inspected to ensure it is in safe and proper working condition. Do not use the apparatus if any defect is found.

(1). Visual Inspection

Check the overall condition of the SCBA. Ensure no visible damage, cracks, or deformation on components. Verify that all parts are properly assembled and secured.

(2). Cylinder Check

Ensure the cylinder is fully charged (e.g., $\geq 90\%$ of rated pressure). Check the cylinder valve for damage or leakage. Confirm the cylinder is within the valid inspection/test date.

(3). Harness & Backplate

Inspect straps, buckles, and backplate for wear or damage. Ensure all straps are properly adjusted and functional.

(4). High-Pressure & Hoses

Check all hoses and connections for leaks, cracks, or looseness. Ensure all connections are properly tightened.

(5). Pressure Reducer

Open the cylinder valve slowly. Check for abnormal sounds or leaks. Verify stable pressure output.

(6). Pressure Gauge / HUD

Confirm the pressure reading matches cylinder pressure. Ensure gauge/HUD is clear and functioning properly.

(7). Warning Device (Alarm)

Check the audible alarm or electronic warning system. Ensure activation at low pressure (if testable).

(8). Face Mask

Inspect lens for scratches or cracks. Check sealing area and head harness condition. Ensure exhalation valve operates smoothly.

(9). Demand Valve Function Test

Connect the demand valve to the face mask. Inhale to activate airflow. Ensure smooth and sufficient air supply.

(10). Positive Pressure Check

Wear the face mask and breathe normally. Ensure positive pressure is maintained

inside the mask. Check for air leakage.

(11). Leak Tightness Test

Close the cylinder valve. Observe pressure drop (should not drop significantly within 1 minute).

(12). Final Readiness Check

Ensure all components are correctly assembled. Confirm the unit is ready for immediate use.

7. Donning the SCBA

Follow the steps below to properly wear the SCBA before entering a hazardous environment.

(1). Preparation

Ensure the SCBA has passed the **pre-use inspection**.

Fully open the cylinder valve.

Check cylinder pressure is sufficient.

(2). Put on the SCBA

Lift the SCBA and place it on your back. Insert arms through the shoulder straps.

Adjust shoulder straps evenly.

(3). Secure Waist Belt

Fasten the waist belt buckle. Tighten the waist belt to transfer weight to the hips.



(4). Tighten Shoulder Straps

Pull down the shoulder straps to secure the unit firmly. Ensure the SCBA is stable and comfortable.

(5). Don the Face Mask

Place the chin into the mask first. Pull the head harness over the head. Tighten straps evenly from bottom to top.

(6). Check Face Seal

Perform a seal check: Inhale gently and hold breath. Mask should collapse slightly without air leakage.



(7). Connect Demand Valve

Attach the demand valve to the face mask. Ensure it is securely locked.

(8). Activate Air Supply

Inhale to activate the demand valve.

Confirm airflow is smooth.



(9). Final Safety Check

Ensure positive pressure is maintained inside the mask.

Verify no leakage.

Confirm warning device is ready.



(10). Ready for Use

The SCBA is now ready for operation.

8. Operation

This SCBA is designed to provide breathable air in hazardous, toxic, or oxygen-deficient environments.

It shall only be used by trained and qualified personnel.

Before use, ensure that the apparatus has passed the **pre-use inspection** and is worn correctly.

8.1.Start of Operation

- ◆ Fully open the cylinder valve.
- ◆ Check that cylinder pressure is adequate.
- ◆ Ensure the demand valve is connected and functioning.
- ◆ Confirm that positive pressure is established inside the face mask.

8.2.Normal Use

- ◆ Breathe normally; air supply is automatically controlled by the demand valve.
- ◆ Maintain calm and steady breathing to optimize air consumption.
- ◆ Do not remove the face mask in a hazardous environment.

8.3.Monitoring During Use

- ◆ Continuously monitor cylinder pressure via pressure gauge or HUD.
- ◆ Always be aware of remaining air supply.
- ◆ Plan exit in advance based on air consumption.

8.4.Low Pressure Warning

- ◆ When cylinder pressure drops to approximately **55 bar**, the warning device will activate.
- ◆ This indicates that only a limited air supply remains.
- ◆ **The user must immediately leave the hazardous area.**

8.5.Emergency Operation

- ◆ In case of malfunction or abnormal condition:
- ◆ Leave the hazardous area immediately.
- ◆ Use the bypass valve (if equipped) to supply continuous airflow.
- ◆ Do not disconnect the face mask under any circumstances in a contaminated environment.

8.6.Optional Features (if equipped)

- ◆ Quick Fill System (RIC / UAC)
Allows emergency air replenishment from an external source.
Ensure correct and secure connection before use.
- ◆ Head-Up Display (HUD)
Provides visual indication of cylinder pressure and system status.
- ◆ Excess Flow Valve (EFV)
Limits airflow in case of sudden leakage or damage to the system.

8.7.Exit Procedure

- ◆ Leave the hazardous area before air supply reaches critical level.
- ◆ Follow established safety protocols at all times.

8.8.End of Operation

- ◆ Close the cylinder valve.
- ◆ Release residual pressure from the system.
- ◆ Remove the SCBA according to the doffing procedure.
- ◆ Inspect the apparatus for damage or contamination.

9. Doffing the SCBA

The SCBA shall only be removed after leaving the hazardous environment and reaching a safe, uncontaminated area.

9.1.Preparation

- ◆ Ensure you are in a safe atmosphere.
- ◆ Confirm that removal of the face mask will not expose the user to hazards.

9.2.Shut Down Air Supply

- ◆ Close the cylinder valve completely.
- ◆ Open the demand valve or bypass valve to release residual pressure from the system.
- ◆ Ensure all pressure is discharged.

9.3.Post-Use Check

- ◆ Inspect the SCBA for any visible damage.
- ◆ Check for contamination (soot, chemicals, moisture)

9.4.After Use

- ◆ Clean and disinfect the face mask and components as required.
- ◆ Store the SCBA in a clean, dry, and well-ventilated area

10. Cleaning and disinfecting

Regular cleaning and disinfecting of the SCBA are essential to ensure hygiene, performance, and service life.

Cleaning shall be carried out after each use, especially when the apparatus has been

exposed to smoke, chemicals, or biological contaminants.

10.1.Safety Precautions

- ◆ Ensure the SCBA is completely depressurized before cleaning.
- ◆ Do not clean the apparatus while it is pressurized.
- ◆ Do not allow water or cleaning agents to enter the pressure reducer or valve system.
- ◆ Use only approved cleaning and disinfecting agents.
- ◆ Cleaning Procedure

a) Face Mask

- ◆ Remove the face mask from the SCBA.
- ◆ Wash with warm water (max. 40°C) and mild detergent.
- ◆ Use a soft cloth or sponge to clean the lens and sealing area.
- ◆ Rinse thoroughly with clean water.

b) Disinfection

- ◆ Apply a suitable disinfectant (non-corrosive, non-toxic).
- ◆ Ensure full contact with inner surfaces.
- ◆ Follow the disinfectant manufacturer's recommended contact time.

c) Harness and Backplate

- ◆ Wipe with damp cloth and mild detergent.
- ◆ Remove dirt, soot, and residues.
- ◆ Do not immerse in water.

d) Cylinder and Valves

- ◆ Clean exterior surfaces only.
- ◆ Do not immerse or spray directly into valve openings.

e) Hoses and Connectors

- ◆ Wipe with a clean, damp cloth.
- ◆ Ensure no contamination enters the system.

10.2.Drying

- ◆ Allow all components to air dry naturally.
- ◆ Do not use direct heat sources (e.g., heaters, sunlight, dryers).
- ◆ Ensure all parts are completely dry before storage.

10.3.Inspection After Cleaning

- ◆ Check all components for damage or wear.
- ◆ Ensure seals and valves are functioning properly.
- ◆ Replace any damaged parts before next use.

10.4.Reassembly

- ◆ Reassemble all components correctly after cleaning.
- ◆ Perform a functional check before returning to service.

11. Maintenance

Regular maintenance is essential to ensure the safe and reliable operation of the SCBA.

Maintenance shall only be carried out by trained and authorized personnel.
Use only original or approved spare parts.

11.1. Maintenance Schedule

Interval	Maintenance Task
Before each use	Pre-use inspection
After each use	Cleaning and visual inspection
Monthly	Functional check of all components
Annually	Full inspection and servicing by qualified technician
As required	Replacement of damaged or worn parts

11.2. Routine Maintenance

a) Visual Inspection

- ◆ Check for cracks, deformation, or wear.
- ◆ Ensure all components are properly assembled.

b) Leak Test

- ◆ Pressurize the system.
- ◆ Close cylinder valve.
- ◆ Observe pressure drop (no significant drop allowed).

c) Functional Test

- ◆ Check demand valve operation.
- ◆ Verify positive pressure in the face mask.
- ◆ Test warning device (alarm activation).

d) Straps and Harness

- ◆ Inspect for wear, cuts, or damage.
- ◆ Ensure buckles and adjusters function properly.

e) Seals and O-rings

- ◆ Inspect sealing components for wear or aging.
- ◆ Replace if necessary.

11.3. Cylinder Maintenance

- ◆ Ensure cylinder is within valid inspection/test period (e.g., according to **EN 12245**).
- ◆ Do not use expired or damaged cylinders.
- ◆ Hydrostatic testing shall be carried out according to national regulations.

11.4. Valve and Reducer

- ◆ Do not disassemble unless authorized.
- ◆ Check for leakage and proper function.
- ◆ Service by qualified personnel only.

11.5 Replacement of Parts

- ◆ Replace damaged or worn components immediately.
- ◆ Use only manufacturer-approved spare parts.

11.6. Record Keeping

- ◆ Maintain maintenance and inspection records.
- ◆ Record all servicing, repairs, and part replacements.

11.7. Storage After Maintenance

- ◆ Store the SCBA in a clean, dry, and well-ventilated area.
- ◆ Protect from direct sunlight, chemicals, and extreme temperatures.

12. Storage

The SCBA shall be stored in a clean, dry, and well-ventilated area to maintain its performance and service life.

The apparatus must be protected from mechanical damage, contamination, and environmental influences.

12.1. Storage Conditions

- ◆ Temperature: -30°C to +60°C
- ◆ Humidity: Avoid high humidity and condensation
- ◆ Environment: Clean, dry, and free from corrosive substances

12.2. Storage Requirements

- ◆ Store the SCBA fully assembled and ready for use whenever possible.
- ◆ Ensure the cylinder is sufficiently charged (not fully empty).
- ◆ Close the cylinder valve securely.
- ◆ Protect all openings and connectors from dust and contamination.

12.3. Protection from Damage

- ◆ Avoid direct sunlight and UV exposure.
- ◆ Keep away from chemicals, oils, and solvents.
- ◆ Do not place heavy objects on the SCBA.
- ◆ Store in a position that prevents deformation of hoses and straps.

12.4 Long-Term Storage

- ◆ For extended storage periods:
- ◆ Perform cleaning and drying before storage.
- ◆ Conduct periodic inspections (e.g., monthly).
- ◆ Check cylinder pressure regularly.
- ◆ Re-test the unit before returning to service.

12.5 Storage After Use

- ◆ Clean and disinfect the SCBA before storage.
- ◆ Ensure all components are completely dry.
- ◆ Inspect for damage or wear.

12.6 Transport and Storage

- ◆ Use appropriate carrying cases or packaging.
- ◆ Secure the SCBA during transport to prevent movement or impact.

13. Transportation

The SCBA shall be transported in a manner that prevents damage, contamination, or accidental activation.

Ensure that all personnel handling the SCBA are trained and aware of the proper procedures.

13.1. Cylinder Safety

- ◆ Close the cylinder valve securely before transport.
- ◆ Do not transport SCBA with a pressurized cylinder unless specifically designed for transit.
- ◆ Use cylinder caps or protective covers to prevent damage to the valve.

13.2. Packaging

- ◆ Use appropriate carrying cases or protective containers.
- ◆ Ensure the SCBA is secured to prevent movement or impact.
- ◆ Protect hoses, connectors, and face masks from deformation or crushing.

13.3. Vehicle Transport

- ◆ Secure SCBA units to prevent sliding, tipping, or collision.
- ◆ Avoid exposure to extreme temperatures, direct sunlight, or corrosive substances.
- ◆ Do not place heavy objects on top of SCBA units.

13.4. Air and Sea Transport

- ◆ Follow applicable local and international regulations for transporting compressed gas cylinders.
- ◆ Ensure cylinders are marked and secured according to transport regulations (e.g., ADR, IATA, IMDG).
- ◆ Verify cylinder and SCBA components are protected from shocks and vibration during transport.

13.5. Post-Transport Check

- ◆ Inspect the SCBA for damage before use.
- ◆ Verify cylinder pressure and functionality of valves, hoses, and demand valves.
- ◆ Conduct a functional test if necessary before entering service.

14. Spare parts

Only original or manufacturer-approved spare parts shall be used for maintenance or repair of the SCBA.

Use of non-approved components may compromise the performance and safety of the apparatus.

14.1. Authorized Replacement Parts

- ◆ Face mask and lens
- ◆ Demand valve assembly
- ◆ Pressure reducer components (authorized service only)
- ◆ Hoses and high-pressure connectors
- ◆ Harness straps, buckles, and backplate components
- ◆ Seals, O-rings, and gaskets
- ◆ Warning devices and alarms
- ◆ Cylinder valves and EFV (Excess Flow Valve)

14.2. Ordering Spare Parts

- ◆ Contact **Muskwell Safety Tech Co., Ltd** or authorized distributors.

- ◆ Provide SCBA model, part number (if available), and quantity required.
- ◆ Ensure compatibility with your specific SCBA configuration.

14.3. Installation of Spare Parts

- ◆ Only trained personnel shall install replacement parts.
- ◆ Verify proper fit and function after installation.
- ◆ Conduct a functional test before returning the SCBA to service.

14.4. Record Keeping

- ◆ Document all part replacements in the maintenance log.
- ◆ Record date, part number, and responsible technician.

15. Warranty

Muskwell Safety Tech Co., Ltd. guarantees that this SCBA is free from defects in materials and workmanship under normal use and service for the warranty period specified below.

The warranty applies only to original equipment and manufacturer-approved spare parts.

15.1. Warranty Period

- ◆ The standard warranty period is **12 months from the date of delivery**.
- ◆ Warranty coverage may vary depending on contractual agreements or local regulations.

15.2. Coverage

- ◆ Repair or replacement of defective components due to manufacturing or material defects.
- ◆ Labor costs for warranty repairs performed at an authorized service center.

15.3. Exclusions

- ◆ The warranty does **not** cover defects or damages resulting from:
 - ◆ Misuse, abuse, or improper operation
 - ◆ Unauthorized repairs or modifications
 - ◆ Normal wear and tear of consumable parts (e.g., O-rings, seals, hoses, harness straps)
 - ◆ Exposure to corrosive substances, extreme temperatures, or fire beyond normal operational conditions
 - ◆ Accidents or external impacts

15.4. Warranty Claims

To make a warranty claim:

- ◆ Contact **Muskwell Safety Tech Co., Ltd.** or an authorized distributor.
- ◆ Provide the SCBA model, serial number, date of purchase, and description of the defect.
- ◆ Do not attempt to repair the SCBA yourself before approval.

15.5. Limitation of Liability

Muskwell Safety Tech Co., Ltd. is not liable for any indirect, incidental, or consequential damages arising from the use or inability to use this SCBA.

The warranty is limited to repair or replacement of defective parts as described above.

Appendix 1: Testing report

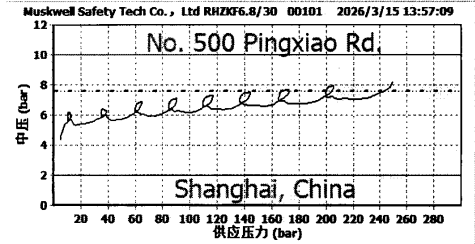
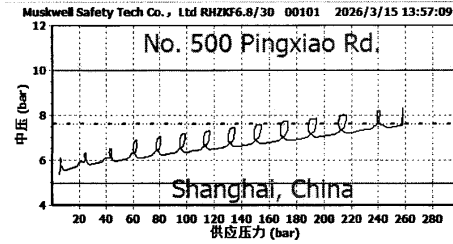
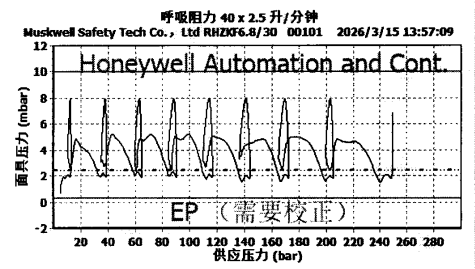
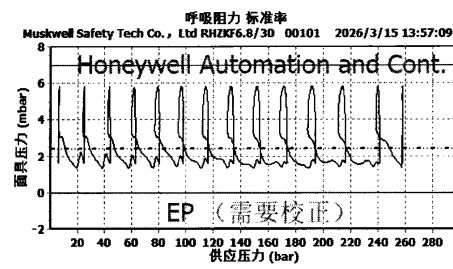
Posi3 USB 测试结果
完整的SCBA呼吸器测试

2026/3/15 13:57:09

Muskwell Safety Tech Co., Ltd
RHZKF6.8/30
S/N: 00101

Posi3 USB 序号# U09053 - 执行测试时校准 ***不是***当前的

辅助设备ID		功能测试	
面具		呼气压力	通过 4.7 mbar
第二阶段供气阀		面具泄露	通过 4.4 mbar
第一阶段/减压器		静态面具压力	通过 2.4 mbar
低压力报警	6	静态 中压	通过 7.59 bar
气瓶连接器		中压 更改	通过 -0.05 bar
气管附件		第一次呼吸 启动	通过 -11.1 mbar
束带			
软管容量: 0.086			



最低限度	最大		呼吸的结果	最低限度	最大	
1.3 mbar	5.8 mbar	通过	面具压力	0.6 mbar	8.0 mbar	通过
5.33 bar	8.33 bar	通过	中压	4.32 bar	8.19 bar	通过

测试执行者 123 123

Appendix 2: Troubleshooting Guide

Problem	Possible Cause	Corrective Action
No air flow when opening cylinder valve	Cylinder valve not opened fully	Open the cylinder valve fully
	Cylinder empty or insufficient pressure	Replace or refill the cylinder
	Pressure reducer malfunction	Remove from service and inspect
No air flow when inhaling	Demand valve not connected properly	Reconnect the demand valve correctly
	Demand valve malfunction	Remove from service and inspect
Continuous alarm sounding	Cylinder pressure is low	Leave hazardous area immediately and replace/refill cylinder
	Alarm device malfunction	Remove from service and inspect
Air leakage from hose or connection	Loose connection	Tighten the connection and check sealing
	Damaged O-ring or seal	Replace the O-ring or seal
	Hose damaged	Remove from service and replace hose
Face mask leakage	Face mask not fitted correctly	Re-adjust the face mask and straps
	Face seal contaminated or damaged	Clean or replace if necessary
	Incorrect face mask size	Use the correct size
Pressure gauge reading incorrect or unstable	Gauge damaged	Remove from service and replace gauge
	Leakage in high-pressure system	Inspect system for leakage
HUD / electronic device not functioning	Battery depleted or installed incorrectly	Replace or reinstall battery correctly
	Electrical connection failure	Inspect and repair by qualified personnel
Exhalation valve not working properly	Valve contaminated	Clean the valve
	Valve damaged	Replace the valve
Fogging inside face mask	Poor face mask fit	Refit the face mask correctly
	Exhalation valve not functioning properly	Inspect and clean the valve
Difficulty in donning or removing the harness	Twisted or improperly adjusted straps	Straighten and adjust the straps properly
	Harness components damaged	Inspect and replace damaged parts

Muskwell

Firefighting Solution Provider!

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