

1 For your safety

1.1 General safety statements

- Before using this product, carefully read the Instructions for Use.
- Strictly follow the Instructions for Use. The user must fully understand and strictly observe the instructions. Use the product only for the purposes specified in the Intended Use section of this document.
- Do not dispose of the Instructions for Use. Ensure that they are retained and appropriately used by the product user.
- Only fully trained and competent users are permitted to use this product.
- Comply with all local and national rules and regulations associated with this product.
- Only trained and competent personnel are permitted to inspect, repair and service the product. Dräger recommends a Dräger service contract for all maintenance activities and that all repairs are carried out by Dräger.
- Properly trained service personnel must inspect and service this product as detailed in the maintenance section of this document.
- Use only genuine Dräger spare parts and accessories, or the proper functioning of the product may be impaired.
- Do not use a faulty or incomplete product, and do not modify the product.
- Notify Dräger in the event of any component fault or failure.
- Before occupational use of this respirator a written respiratory protection program must be implemented meeting all the local government requirements. In the United States employers must comply with OSHA 29 CFR 1910.134 which includes medical evaluation, training, and fit testing.

1.2 Definitions of alert icons

Alert icons are used in this document to provide and highlight text that requires a greater awareness by the user. A definition of the meaning of each icon is as follows:

WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION
Indicates a potentially hazardous situation which, if not avoided, could result in physical injury or damage to the product or environment. It may also be used to alert against unsafe practices.

NOTICE
Indicates additional information on how to use the product.

2 Description

2.1 Product overview

This variant of the Dräger PAS Colt Series provides respiratory protection for working in a contaminated environment using an airline (supplied airline respirator – SAR), or escaping from a contaminated environment using the air cylinder (self-contained breathing apparatus – SCBA).

The features of the equipment are:

- The carrying system is a bandolier shoulder harness and waist belt.
- The lung demand regulator (LDR) has a reset button (Fig 1, Item 1) that switches off the air flow through the regulator, and a purge button (Fig 1, Item 2) that can be used to deliver an additional airflow into the face mask when required by the wearer during airline use. The holder (Fig 2, Item 1) provides a stowage point to protect the regulator coupling and O-ring against damage when it is not fitted in the face mask.
- The first-stage regulator (Fig 2, Item 2) has an anti-vibration strap fitted that is used to prevent loosening of the connector handwheel.
- The Dräger PAS ASV (Fig 2, Item 4) allows the PAS Colt to be used with an independent air supply such as a factory airline or other breathing air supply (e.g. Dräger PAS AirPack). See Section 2.1.1 for a detailed description.
- The airline connector (Fig 2, Item 3) is a male coupling that is used to connect an independent air supply for supplied airline respirator (SAR) use.
- The hip-mounted cylinder holster has a drop-down facility that can assist wearer movement by making the cylinder and holster more manoeuvrable (in a confined space for example).
- The remaining pressure in the air cylinder is shown on a contents indicator on the cylinder.
- A thigh strap is available as an accessory.

2.1.1 PAS ASV

The PAS ASV (Fig 2, Item 4) is a switch-over valve that automatically switches between an airline supply and the PAS Colt air cylinder, maintaining an uninterrupted air supply to the wearer during switching. There is a whistle (Fig 3, Item 1) on the ASV that sounds to warn the wearer that the independent air supply has fallen below the required pressure.

Refer to Fig 3

AL (airline) Input from an independent air supply.
BA (breathing apparatus) Input from the PAS Colt air cylinder.
LDV (lung demand valve) Output to the lung demand regulator.

Operation

During airline use, the PAS Colt is connected to a breathing-quality independent air supply and the PAS Colt cylinder valve is open. The PAS ASV uses the independent air supply as the primary supply of breathing air to the wearer, and the PAS Colt air cylinder as the escape supply. If the independent air supply pressure remains above a preset pressure, the wearer breathes from the independent air supply.

If the independent air supply pressure falls below the preset switching level, the PAS ASV automatically switches to supply the wearer from the air cylinder, and the PAS ASV whistle sounds. The wearer disconnects the independent air supply and then escapes to a safe area breathing from the cylinder. The time available for the escape is dependent on the capacity (volume) of the cylinder and the breathing rate of the wearer.

- If the independent air supply pressure recovers (increases above the preset switching level) before it is disconnected, the PAS ASV switches back to the independent air supply and the whistle stops.
- If the independent air supply is disconnected, or falls to a very low pressure, the whistle stops.

See the technical data (Section 9) for the PAS ASV operating pressures.

2.2 Intended use

When this product is used with an approved face mask, air cylinder and independent air supply, it provides the wearer with respiratory protection for working in, or escaping from, contaminated or oxygen-deficient conditions. It is intended for use in applications where a high level of respiratory protection is required, including IDLH (immediately dangerous to life and health) atmospheres.

The air cylinder, face mask and other accessories used with this product must be certified Dräger components, assembled in an approved configuration; otherwise the operation of the device may be impaired. It is essential that flushing and non-flushing face masks and lung demand regulators should not be mixed (i.e. only a flushing-type face mask should be used with a flushing-type lung demand regulator). Contact Dräger for further information.

2.3 Limitations on use

This product is not approved for use in CBRN applications.

2.4 Approvals

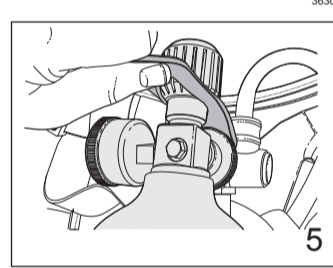
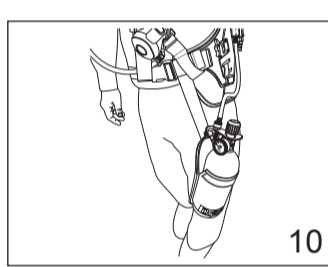
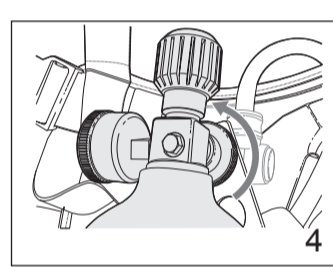
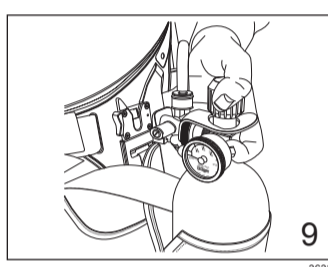
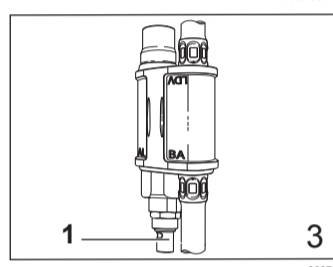
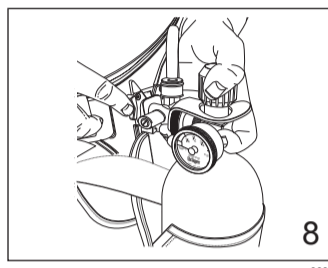
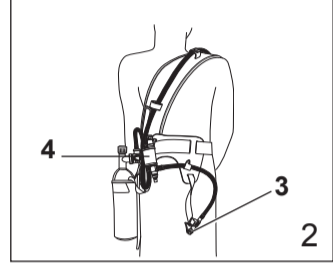
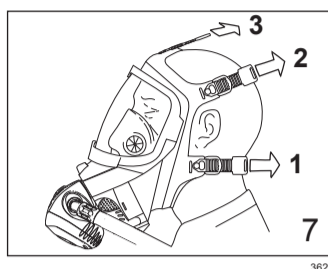
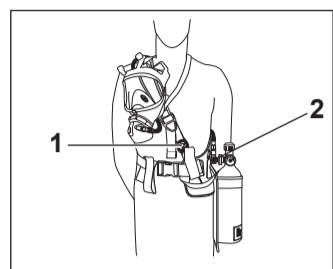
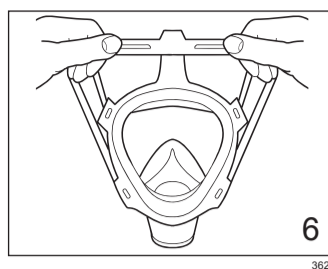
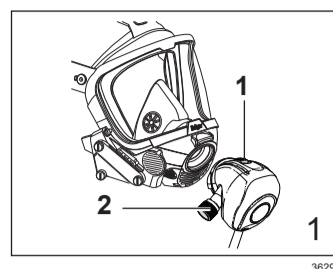
The PAS Colt Series of combination escape/airline respiratory protection equipment conforms to the requirements of NIOSH. This product is approved for use as a supplied airline respirator (SAR) and as a self-contained escape respirator, and must only be used in conjunction with compressed-air cylinders approved by NIOSH.

3 Use

WARNING
The time required to allow the wearer to escape to a safe area must be within the capacity (volume) of the cylinder selected, taking into account the breathing rate of the wearer. When selecting the type and duration of escape equipment it is essential to consider the potential hazards, and probable escape routes.

The cylinder and airline air quality shall meet the requirements for breathing air according to CGA G-7.1 Grade D or higher quality.

Before using airline equipment, ensure that the independent air supply meets the air quality requirements, and complies with the pressure, flow and hose length requirements in the technical data (see Section 9), and has been issued with a permit for use if necessary.



NOTICE
After storage at temperatures below 32 °F (0 °C) leakage may be observed when the cylinder valve is initially opened due to ice formation.

- If leakage is observed from the lung demand regulator: Press the purge button (Fig 1, Item 2) to allow a rush of air to pass through the lung demand regulator and then quickly press the reset button (Fig 1, Item 1) to switch off the positive pressure. Resume normal operation.
- In the event that leakage still occurs, remove the breathing apparatus from service and report the fault to trained service personnel or contact Dräger.

3.1 Preparation for use

3.1.1 Visual inspection

Carry out a visual inspection, checking the full breathing apparatus including all component parts and accessories. Check that the equipment is clean and undamaged, paying particular attention to pneumatic components, hoses and connectors. Typical signs of damage that may affect the operation of the breathing apparatus include impact, abrasion, cutting, corrosion and discoloration. Report damage to service personnel and do not use the apparatus until faults are rectified.

3.1.2 Fitting the cylinder

1. Ensure that the cylinder is fully charged, with the pointer of the cylinder pressure indicator inside the green area.
2. Check that the threads of the valve port and the regulator handwheel are undamaged, and the O-ring is in position and undamaged.
3. Fully insert the cylinder into the carrying holster.

CAUTION
To prevent damage, ensure that the cylinder remains clear of the handwheel of the first-stage regulator while inserting the cylinder.

1. Align the cylinder with the regulator and tighten the handwheel hand tight (Fig 4).
2. Pull the anti-vibration strap over the top of the cylinder valve (Fig 5).

3.1.3 Functional testing

WARNING
If the breathing apparatus fails to meet any of the standards or parameters described in the functional tests, or if an immediate leak is evident, there is a system fault. Report the fault to trained service personnel or contact Dräger. Do not use the breathing apparatus until the fault condition is rectified.

Leak test

1. Ensure that the pointer of the cylinder pressure indicator is inside the green area.
2. Press the reset button (Fig 1, Item 1) of the lung demand regulator to switch off the positive pressure.
3. Open the cylinder valve slowly, but fully, to pressurize the system and then close the valve. There should be no audible leak. If there is any leak, investigate and repair the leak before use. If necessary, use a soapy solution to locate the leak.
4. Press the purge button (Fig 1, Item 2) to vent the system.

Airline flow test (only required for airline use)

1. Press the reset button (Fig 1, Item 1) of the lung demand regulator, and then check that the cylinder valve is closed.
2. Connect the independent air supply to the male coupling (Fig 2, Item 3). If the independent air supply has a shut-off valve, open the valve.

WARNING
Do not direct the airflow on to the face, eyes or skin.

3. Press the purge button (Fig 1, Item 2) for 3 to 5 seconds. An unobstructed airflow should flow from the outlet of the lung demand regulator.
4. Isolate and disconnect the independent air supply.
5. Press the purge button (Fig 1, Item 2) to vent the system and then press the reset button (Fig 1, Item 1) to switch off the positive pressure. (The PAS ASV whistle will momentarily sound at the switch-over pressure of the automatic switch-over valve.)

3.1.4 Putting on the PAS Colt (ready position)

Refer also to Fig 2 which shows the PAS Colt worn in the ready position.

1. Ensure that the pointer of the cylinder pressure indicator is inside the green area.
2. Open the waist belt buckle and fully extend the waist and shoulder strap.
3. Place the left arm through the shoulder harness, taking the harness over the head and on to the right shoulder, positioning the strap diagonally across the body with the cylinder positioned against the left hip.
4. Loop the waist belt around the waist and fasten the buckle – do not tighten.
5. Grip the cylinder valve with the left hand and lift until the waist belt is in line with the waist. Then tighten the waist belt strap until the equipment is secure and comfortable on the waist. Pull down to adjust the shoulder strap.
6. Inspect the face mask as defined in the relevant Instructions for Use.
7. Check that the face mask port and the regulator O-ring are clean and undamaged.
8. Remove the lung demand regulator from the holder and press it into the port of the face mask until it latches in position. Check the attachment by gently attempting to pull the coupling apart.
9. Put the neck strap of the face mask over the head, and then insert the neck strap stud into the hole in the centre strap of the head harness.

3.2 During use

This variant of the PAS Colt Series can be used for combination (escape/airline) use or purely for escape use. For combination use the face mask is worn during the task; and for escape use the PAS Colt is worn in the ready position until an escape is necessary. Depending on the intended use, refer to the relevant procedures from the following:

- For combination (escape/airline) use, see Section 3.2.1
- For escape use only, see Section 3.2.2

3.2.1 Combination (escape/airline) use

Putting on the face mask

1. Press the reset button (Fig 1, Item 1) of the lung demand regulator to switch off the positive pressure.
2. Connect the independent air supply to the male coupling (Fig 2, Item 3). If the independent air supply has a shut-off valve, open the valve.

WARNING
Correct fit of the face mask can only be achieved if the complete face mask seal makes contact with skin. Head hair, facial hair (including beard stubble and sideburns), earrings, other facial piercings and normal spectacles will interfere with the face mask seal and are not permitted in the sealing area. Additionally, head hair that could affect the face mask fit (buns, pony-tails, hairpieces, etc.) is not permitted.

NOTICE
Refer also to the face mask Instructions for Use.

3. Detach the neck strap stud from the center strap of the head harness.
4. Spread the head harness (Fig 6). Place the chin into the chin cup of the face mask and pull the harness over the head locating the harness center plate on back of the head.
5. Referring to Fig 7, tighten both lower (1) and then upper straps (2) evenly towards back of the head. If necessary, tighten the center strap (3). The wearer's first inhalation after achieving a face seal will automatically switch on the air supply into the face mask.
6. Check that the head has a full range of movement without pulling against the regulator hose. If any resistance to movement is felt, readjust the hose routing and then recheck. If resistance is still felt, do not use the breathing apparatus and contact Dräger.

Function check

1. Isolate the independent air supply (close the valve or disconnect) and breathe normally to empty the system of air. When empty, the face mask should hold on to the face to indicate a positive seal. (The PAS ASV whistle will momentarily sound at the switch-over pressure of the automatic switch-over valve.)
2. Immediately reapply the independent air supply and breathe normally.
3. Inhale and hold your breath – there should be no audible leak. If a leak is detected, readjust the head harness and retest.
4. Resume breathing – exhaled air should flow easily out of the exhalation valve.
5. Momentarily press the purge button (Fig 1, Item 2) to check for additional airflow.

When the function check has been satisfactorily completed, open the PAS Colt cylinder valve, breathe normally and proceed to the working area.

Escape procedure (independent air supply failure)

WARNING
During supplied airline respirator (SAR) use, the PAS Colt cylinder valve remains open. The escape duration starts from the time that the PAS ASV whistle sounds. Dräger strongly advise that the purge button (Fig 1, Item 2) is not used during an escape. Using the purge button would use air from the cylinder and reduce the time available for escape.

NOTICE
During airline use, the PAS ASV whistle sounds to indicate that the independent air supply has fallen below the required pressure. If the whistle sounds and then stops before the escape procedure is started, the air supply pressure could have been restored. The wearer must confirm that the correct pressure (87 to 125 psi) is available, or escape as described below.

If the independent air supply fails, breathe normally and immediately proceed as follows:

1. Disconnect the independent air supply from the PAS Colt.
2. Immediately leave the hazardous area by the shortest and safest escape route.

The wearer **must** be in a safe area before the air cylinder is empty. When in a safe area, remove the lung demand regulator from the face mask if necessary and continue to breathe normally.

3.2.2 Escape use only (putting on the face mask and escaping)

WARNING
Correct fit of the face mask can only be achieved if the complete face mask seal makes contact with skin. Head hair, facial hair (including beard stubble and sideburns), earrings, other facial piercings and normal spectacles will interfere with the face mask seal and are not permitted in the sealing area. Additionally, head hair that could affect the face mask fit (buns, pony-tails, hairpieces, etc.) is not permitted.

NOTICE
Refer also to the face mask Instructions for Use.

1. Press the reset button (Fig 1, Item 1) of the lung demand regulator to switch off the positive pressure.
2. Open the cylinder valve (counterclockwise) slowly, but fully, to pressurize the system.
3. Detach the neck strap stud from the center strap of the head harness.
4. Spread the head harness (Fig 6). Place the chin into the chin cup of the face mask and pull the harness over the head locating the harness center plate on back of the head.
5. Referring to Fig 7, tighten both lower (1) and then upper straps (2) evenly towards back of the head. If necessary, tighten the center strap (3). The wearer's first inhalation after achieving a face seal will automatically switch on the air supply into the face mask.

WARNING
The duration of the cylinder air begins from the time of the first-breath activation of the lung demand regulator.

Dräger strongly advise against using the purge button (Fig 1, Item 2) during an escape. Using the purge button would use air from the cylinder and reduce the time available for escape.

6. Immediately leave the hazardous area by the shortest and safest escape route.

The wearer **must** be in a safe area before the air cylinder is empty. When in a safe area, remove the lung demand regulator from the face mask if necessary and continue to breathe normally.



3.2.3 Dropdown cylinder holster

- To release the dropdown cylinder holster:
 - Hold the cylinder valve with the left hand and, with the right hand, press and hold the red button to open the locking mechanism (Fig 8).
 - Lift the cylinder and holster clear of the locking mechanism and then release the red button (Fig 9).
 - Lower the cylinder until it is supported by the harness straps (Fig 10). The holster is held by two harness straps, one fixed and one adjustable.
 - Hold the cylinder valve to move the cylinder and holster as required.
- To reconnect the dropdown cylinder holster, align and press the roller on the holster into the locking mechanism.

3.3 After use



WARNING
Do not remove the equipment until in safe area, clear of hazard.



CAUTION
Do not drop or throw down equipment as damage could occur.

- Loosen the face mask straps. As the seal between the face mask and the face is broken, press the reset button (Fig 1, Item 1) to switch off the positive pressure. Remove the face mask and fully extend all of the straps of the head harness.
 - After airline use – isolate and disconnect the independent air supply from the PAS Colt, and then close the cylinder valve. Refit the cap on to the airline connector.
 - After an escape – close the cylinder valve.
- Press the purge button (Fig 1, Item 2) to fully vent the system.
- Remove the lung demand regulator from the face mask and stow it in the holder (Fig 2, Item 1).
- Unbuckle the waist belt, lift the shoulder strap buckle to loosen the harness and then remove the equipment.
- Carry out the after use maintenance tasks in the maintenance table (see Section 5.1).

4 Troubleshooting

The troubleshooting guide shows fault diagnosis and repair information applicable to breathing apparatus users. Further troubleshooting and repair information is available in Instructions for Use supplied with associated equipment (e.g. face mask).

Contact service personnel or Dräger when the remedy information indicates a service task, or if the symptom remains after all remedy actions have been attempted.

Symptom	Fault	Remedy
High-pressure air leak or failed leak test	Loose or dirty connector	Disconnect, clean and reconnect couplings and retest
	Faulty hose or component	Substitute user replaceable accessories and retest
Air leak from medium-pressure hose connection at the first-stage regulator (safety relief valve)	Faulty O-ring, retainer, spring or first-stage regulator	Service task
High or low medium pressure	First-stage regulator fault	Service task
Poor sounding whistle	Whistle dirty	Clean whistle flute and retest
Whistle not functioning correctly	Activation mechanism fault	Service task
Air leak from lung demand regulator	Ice particles on sealing elements	Press the purge button (Fig 1, Item 2) to allow a rush of air to pass through the lung demand regulator and then quickly press the reset button (Fig 1, Item 1) to switch off the positive pressure.

5 Maintenance

5.1 Maintenance table

Service and test the breathing apparatus, including out-of-use apparatus, in accordance with the maintenance table. Record all service details and testing. Refer also to the Instructions for Use for the lung demand regulator, face mask and other associated equipment.

Additional inspection and testing may be required in the country of use to ensure compliance with national regulations.

Daily check – If the PAS Colt is held in a ready-for-use condition, check daily that the pointer of the cylinder pressure indicator is inside the green area. Charge the cylinder if it is in the red area (see Section 5.2.2).

Component/ System	Task	After use	Every month	Every year	Every 10 years
Complete apparatus	Clean and disinfect (see Section 5.3)	○			
	Visual inspection (see Section 3.1.1)	○	○		
	Functional testing (see Section 3.1.3)	○	○		
	Flow and static tests (see Note 1)			○	
Lung demand regulator	Clean and disinfect (see Note 2 and Section 5.3)	○			
First-stage regulator	Medium-pressure check (see Note 1)			○	
	Inspect the sintered filter (see Note 1 and Note 3)			○	
	Inspect the high-pressure connector O-ring (see Note 1 and Note 4)			○	
	Overhaul. Contact Dräger for the Repair Exchange (REX) service (see Note 5)				○
Cylinder	Charge cylinder to correct working pressure (see Section 5.2.2)	○			
	Check charged pressure (stored cylinders only)		○		
	Check test date of cylinder (carbon composite cylinders over 15 years old must be retired)		○		
	Recertification	According to national regulations in the country of use			
Cylinder valve	Overhaul	At the time of cylinder recertification			

Notes

- Dräger recommendations

- These maintenance tasks may only be carried out by Dräger or trained service personnel. Details of the tests are contained in the Technical Manual which is issued to service personnel that have attended a relevant Dräger maintenance course.
- Lightly lubricate the O-ring of the lung demand regulator as required (recommended lubricant is Dow Corning 111 Valve Lubricant and Sealant). Products other than the recommended lubricant are not tested and may damage the equipment.
- Replace the sintered filter if a drop in first-stage regulator performance is observed during a flow check or if it is visibly damaged.
- Replace the high-pressure connector O-ring if it is found to leak during functional testing or if the O-ring is visibly damaged.
- Where the breathing apparatus is subjected to a high level of use (in training establishments etc.), reduce the overhaul period for the first-stage regulator. In these circumstances, Dräger recommend that the overhaul frequency should be less than 5,000 applications of use. An application of use is defined as a single use of the fully assembled breathing apparatus, where the user breathes from the air cylinder. It does not include system pressurization for pre-operational checks.

5.2 Maintenance tasks

5.2.1 Removing the cylinder



WARNING
High-pressure air release may cause injury to the user or other personnel near the breathing apparatus. Close the cylinder valve and fully vent the system before attempting to disconnect an air cylinder.

- Close the cylinder valve and press the purge button (Fig 1, Item 2) to fully vent the system.
- Remove the anti-vibration strap from the cylinder valve (Fig 5).
- Disconnect the cylinder valve from the first-stage regulator.
- Carefully remove the cylinder from the holster. To prevent damage, ensure that the handwheel of the first-stage regulator remains clear of the cylinder.

5.2.2 Air cylinder charging



WARNING
Air quality for compressed-air cylinders must conform to the minimum grade requirements for Type 1 gaseous air as defined in CGA (Commodity Specification for Air) G-7.1 Grade D or higher quality.

If the breathing air moisture content exceeds recommended levels, ice particles can form, reducing or blocking airflow. Water content of the breathing air in any container must be checked.

- Refer also to the instructions supplied with the cylinder and the charging unit for recharging the cylinder.
- Only charge compressed-air cylinders which:
 - Conform to national standards.
 - Feature the original manufacturer's test date and test mark.
 - Have not exceeded the test date indicated on the cylinder by the last testing station.
 - Are not damaged.
- To prevent ingress of moisture into the cylinder, ensure that the cylinder valve remains closed until connected to the charging unit.
- Recharge to the rated working pressure of the cylinder. Dräger recommend a charge rate of 300 psi/minute. Rapid charging will increase the temperature resulting in an incomplete charge. Recheck at ambient temperature and top up the charge if required.
- To prevent overcharging of the cylinder, Dräger recommend using a pressure-limiting device on the charging compressor.

5.3 Cleaning and disinfecting



CAUTION
Cleaning agents and disinfectants listed below are not manufactured by Dräger and have been reviewed only for compatibility when used to clean or disinfect the subject Dräger product(s). Read and comply with all instructions for use provided by the manufacturers of such agents and disinfectants. Dräger expressly disclaims all responsibility for any damage, personal injury or loss resulting from the use of such agents or disinfectants.

Do not exceed 86 °F (30 °C) for washing, disinfecting and rinsing solutions. Do not exceed 140 °F (60 °C) for drying, and remove components from the drying facility immediately when dry. Drying time in a heated dryer must not exceed 30 minutes.

Do not immerse pneumatic in cleaning solutions or water.

If water is trapped and then freezes inside the pneumatic system of the breathing apparatus (such as the lung demand regulator), operation will be impaired. Prevent any liquid from entering, and thoroughly dry the breathing apparatus after cleaning to prevent this from occurring.

Refer also to the Instructions for Use for the lung demand regulator, face mask and other associated equipment.

5.3.1 Manual cleaning of the breathing apparatus (USA)

Cleaning and disinfecting materials:

- Cleaning agent – 1008 Green Liquid Hand Dish Wash
- Disinfecting agent – 800 Spur-Tex Disinfectant Cleaner-Deodorant (concentration: 1.6 % (2 fl oz per gallon))
- Use only clean lint-free cloths.

- Prepare cleaning solution as per manufacturer's instructions. Clean the breathing apparatus manually using a cloth moistened with cleaning solution to remove excess dirt.
- Prepare disinfecting solution as per manufacturer's instructions. Apply to all internal and external surfaces, ensuring that all surfaces remain visibly wet for 15 minutes.
- Rinse all components thoroughly with clean water to remove all cleaning and disinfecting agents.
- Dry all components using a dry cloth, in a heated dryer or in air.
- Contact service personnel or Dräger if disassembly of pneumatic or electronic components is required.

5.3.2 Manual cleaning of the breathing apparatus (Canada)

Cleaning and disinfecting materials:

- Cleaning agent – mild soap solution
- Disinfecting agent – Neutral Disinfectant Cleaner (concentration: 0.5 % (0.5 fl oz per gallon or 15 ml per 3.785 liters))
- Use only clean lint-free cloths.

- Prepare cleaning solution as per manufacturer's instructions. Clean the breathing apparatus manually using a cloth moistened with cleaning solution to remove excess dirt.
- Prepare disinfecting solution as per manufacturer's instructions. Apply to all internal and external surfaces, ensuring that all surfaces remain visibly wet for 10 minutes.
- Rinse all components thoroughly with clean water to remove all cleaning and disinfecting agents.
- Dry all components using a dry cloth, in a heated dryer or in air.
- Contact service personnel or Dräger if disassembly of pneumatic or electronic components is required.

6 Storage

- Store the equipment between 5 °F and 77 °F (-15 °C and +25 °C). Ensure that the environment is dry, free from dust and dirt, and does not subject the equipment to wear or damage due to abrasion. Do not store the equipment in direct sunlight. Note also the following:
 - Extend the shoulder strap, the waist belt and the head harness straps of the face mask.
 - For storage, place the face mask in a protective bag (contact Dräger for supply of a suitable bag).
 - Route rubber hoses in such a way that the bend radius is not too acute and the hose is not stretched, compressed or twisted.
 - Fix the apparatus securely to any raised mounting point to prevent it from falling.

7 NIOSH Cautions and limitations

D – Air-line respirators can be used only when the respirators are supplied with respirable air meeting the requirements of CGA G-7.1 Grade D or higher quality.

E – Use only the pressure ranges and hose lengths specified in the User's Instructions.

I – Contains electrical parts that may cause an ignition in flammable or explosive atmospheres.

J – Failure to properly use and maintain this product could result in injury or death.

M – All approved respirators shall be selected, fitted, used, and maintained in accordance with MSHA, OSHA, and other applicable regulations.

N – Never substitute, modify, add, or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.

O – Refer to User's Instructions and/or maintenance manuals for information on use and maintenance of these respirators.

S – Special or critical user's instructions and/or specific use limitations apply. Refer to User's Instructions before donning.

7.1 S – Special or critical user's instructions

- Approved for use at temperatures above +14 °F (-10 °C).
- During supplied airline respirator (SAR) use, the PAS Colt cylinder valve remains open. If the independent air supply fails, immediately disconnect the independent air supply, and proceed to fresh air.
- The independent air supply must meet the following criteria:
 - Airline pressure and flow requirements: pressure 87 to 125 psi; airflow rate at least 550 liters/minute.
 - Airline hose requirements: 5 feet to 300 feet of Dräger approved hose. (Important note: The airline hose must not be made up of more than 12 individual hoses.)

8 Disposal

When required, dispose of the PAS Colt in accordance with national or local regulations for waste disposal.

9 Technical data

- High pressure connection: up to 3000 psi, connection to CGA 346.
- Lung demand regulator to face mask connection: push-in connector.
- Compressed-air cylinder: cylinders are available in aluminium or composite materials (contact Dräger for full details). Cylinders from Dräger are supplied fully charged.
- Independent air supply:
 - Airline pressure and flow requirements: pressure 87 to 125 psi, airflow rate at least 550 liters/minute.
 - Airline hose requirements: 5 feet to 300 feet of Dräger approved hose. (Important note: The airline hose must not be made up of more than 12 individual hoses.)
- PAS ASV operation (airline pressure):
 - Whistle activates and switch-over occurs in the range: 50 to 80 psi.
 - Whistle ceases in the range: 25 to 0 psi.

10 Contact details

Any issues with the equipment, including damage, malfunction, or failure of the breathing apparatus that may present a hazard to Dräger US Customer Service – Phone 1-800-858-1737.

Contact with the certification organization may be reached at:
NIOSH, NPPTL – Phone 1-412-386-4000