

Dräger

QuickAir™ - 5, - 10 Minute Emergency Escape Breathing Apparatus

Operating Manual



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For correct and effective use of the apparatus and to avoid hazards, it is essential to read the following recommendations and to act accordingly.

IMPORTANT NOTICE

- 1 *Before using this apparatus, carefully read the operating manual.*
- 2 *The apparatus should be inspected by qualified and trained personnel before and after each use.*
- 3 *The apparatus is intended only for the purposes specified in the operating manual or for purposes confirmed by Draeger Safety.*
- 4 *Only original Draeger Safety replacement parts should be used for maintenance and repairs. Maintenance and the replacement of user replaceable parts should only be performed by Draeger Safety trained technicians or authorized Service Centers.*
- 5 *Responsibility for the reliable function of the apparatus passes to the owner or operator, in all cases, where the apparatus has not been maintained or repaired by persons as specified above, or where it has been used in a manner which does not conform to the intended use.*
- 6 *All federal, local and workplace recommendations, regulations and laws governing the use of technical equipment should be observed.*
- 7 *If you require any additional information on the use or replacement of this unit call Draeger Safety at 800-922-5518 or fax at 800-922-5519.*

1 General

1.1 Purpose

The Draeger Safety QuickAir Emergency Escape Breathing Apparatus is intended for use as a respiratory protection device in hazardous or oxygen deficient atmospheres. The primary mode of operation is intended for **escape** and emergency purposes only.

1.2 Description

The QuickAir is a constant-flow self-contained escape breathing apparatus. It is available in 5 and 10 minute durations. The QuickAir consists of an aluminum cylinder and valve assembly which is protected by a flexible PVC carrying case. The carrying case is flame, mildew and UV resistant and is designed to be accessible in emergency situations whether the user is right or left handed. The QuickAir can be worn around the neck or diagonally over the shoulder and chest.

The clear PVC hood is contained in the easily accessible pouch. The hood offers full visibility and good chemical resistance. An elastic collar is provided, on the hood, for comfort. A constant flow of air is delivered from the cylinder to the hood by the regulator and hose assembly. An initial flow of approximately 40 lpm is delivered to the hood when the cylinder valve is completely open.

Also available is a high flow five minute unit with a flow rate of approximately 70 lpm for emergency situations that demand a higher work rate in order to exit to a safe area.

The QuickAir will provide air to the user for 5 or 10 minutes depending on whether he is using the 5 or 10 minute version. Therefore, the escape route should be planned, by the safety administrator, prior to the escape situation to ensure the user will have enough time to reach a safe area before the air supply of the escape unit is depleted.

- 1 Hood
- 2 Elastic Collar
- 3 PVC Carrying Case
- 4 Cylinder
- 5 Regulator Assembly
- 6 Valve Assembly
- 7 Diffuser

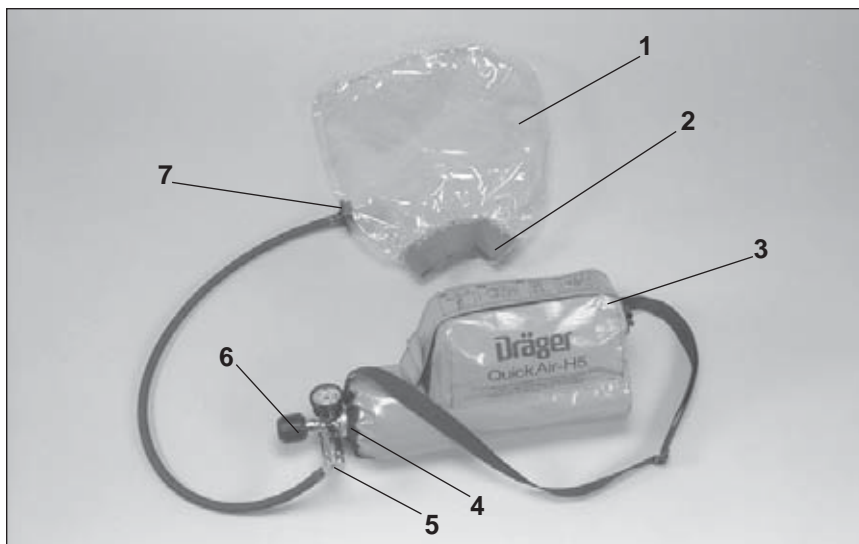


Figure 1

2 Operation

2.1 Pre-donning Inspection

NOTE

The QuickAir should be adjusted to a comfortable position before an emergency situation to facilitate a rapid escape.

2.1.1 Cylinder Pressure Check

Check weekly to ensure the cylinder is "FULL" by reading the pressure gauge. The indicator needle should be in the green region on the gauge.

2.2 Donning the QuickAir™

QuickAir is designed for emergency escape purposes only.

- Place the strap over the neck (Figure 2a) or diagonally over one shoulder and the chest (Figure 2b). Ensure the cylinder valve is facing forward for ease of access.
- Pull back velcro tab (Figure 3).

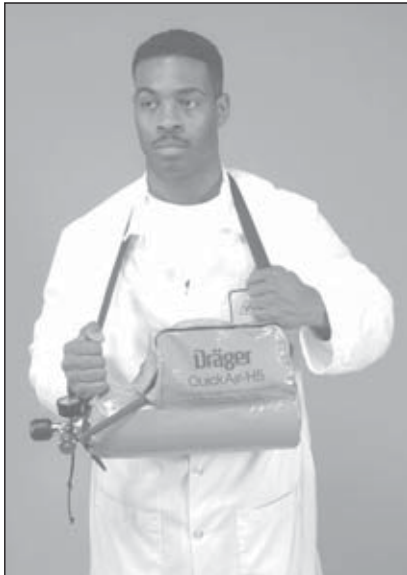


Figure 2a

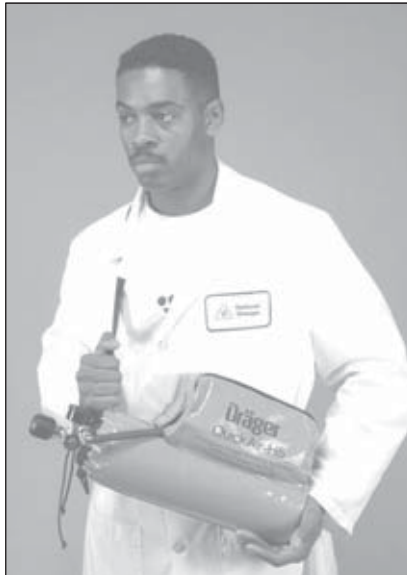


Figure 2b



Figure 3

- Remove hood from pouch (Figure 4).
- Don hood by stretching the elastic collar open with both hands and pulling the hood over the head (Figure 5).
- **IMMEDIATELY** open cylinder valve completely. A rush of air should begin to flow into the hood (Figure 6).

CAUTION

*If air does not flow to hood, **DO NOT** use respirator!*



Figure 4

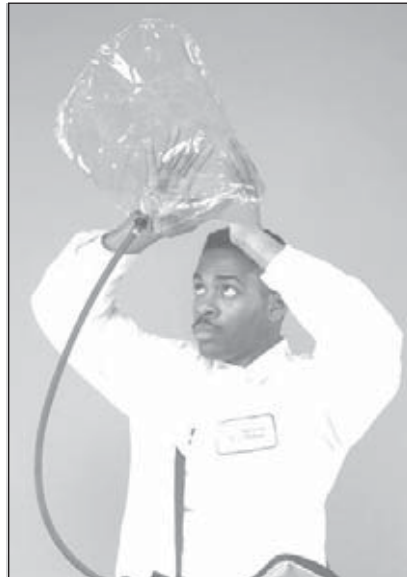


Figure 5



Figure 6

- Adjust the hood so that the diffuser/hose assembly is in front of the nose and mouth of the user.
- Exit to a safe area (Figure 7).

2.3 End of Use

- Remove hood from head by stretching the elastic collar open with both hands and pull hood off of head.
- Close cylinder valve completely.
- Remove unit by lifting strap over the head.

NOTE

After each use clean and disinfect the apparatus.



Figure 7

3 Maintenance

3.1 Cleaning/Disinfecting

3.1.1 Pneumatics/Case

- Wipe off all surfaces with a mild soapy solution. Rinse thoroughly.
- Carefully wipe off all surfaces with a disinfectant solution of Airkem 33 or equivalent disinfectant. Rinse thoroughly. Dry completely.

3.1.2 Hood/Manifold

- Before cleaning and disinfecting, disassemble the manifold from the hood.
- Loosen the manifold from the inside of the hood with a spanner wrench (Figure 8) and unscrew the manifold halves.



Figure 8

- Immerse the entire hood in a solution of Airkem 33 or equivalent disinfectant.
- After disinfecting, rinse parts thoroughly in clear water and air dry completely.
- Reassemble by securing the manifold to the housing using the spanner wrench.

CAUTION

Care should be taken to ensure that the holes in the manifold are directed towards the top of the hood.

3.2 Inspection

3.2.1 Hood

After each use, inspect the hood for any tears, cracking or holes. Remove from service if there is any sign of degradation. (Section 4, Spare Parts and Accessories)

3.2.2 Carrying Bag

After each use, inspect the carrying bag for any signs of degradation. Ensure that all hardware is intact and in good working condition. Inspect the velcro to make sure it is free of lint or dirt that could prevent it from adhering. Remove from service if there is any sign of degradation. (Section 4, Spare Parts and Accessories)

3.2.3 Cylinder Pressure

- Recharge or replace the cylinder with a Draeger Safety approved cylinder charged to full service pressure. Use only cylinders with current hydrostatic test pressure dates.

3.2.4 Filling Cylinders with Air

Safe and effective use of compressed air cylinders requires the user to adhere to the following guidelines:

1. **Do Not** over pressurize the cylinder. The rated cylinder service pressure is identified on the cylinder. The rated service pressure is either stamped into the shoulder of the cylinder or marked on the cylinder label.
2. When refilling the cylinder, use only Type 1, Grade D or better breathing air as identified in the Compressed Gas Association (CGA) Commodity Specification for Air, Pamphlet G-7.1. This pamphlet is available from the Compressed Gas Association, Inc., P.O. Box 6208, Falls Church, VA 22016. Additionally, the water vapor content of the breathing air should be less than 50 mg/m³ for cylinders.
3. Periodically, and prior to refilling, check to ensure the cylinder hydrostatic retest date is within the prescribed time period.
4. Prior to refilling, inspect the cylinder for damage. Criteria for determining the extent of damage is provided in CGA pamphlet C-6.2.
5. Do not refill the cylinder at an excessive rate. A general industry standard is a rate less than 300 psi per minute.
6. After filling the cylinder with breathing air to the rated service pressure, check the following areas for leakage using a solution of soap and water (Leaktek; available from Draeger Safety):
 - cylinder to cylinder valve connection
 - cylinder valve burst disc assembly
 - cylinder valve pressure gauge

If leakage is detected, the cylinder should be removed from service and repaired by a qualified trained technician.

-
7. Check the cylinder pressure as indicated on the cylinder valve pressure gauge at regularly scheduled intervals. For stored apparatus, the check intervals should be weekly. For situations requiring frequent use, the pressure should be checked daily. If a loss in pressure is observed, remove the cylinder from service.
 8. Always check the cylinder pressure immediately prior to use.
 9. Do not modify the cylinder or any of its related components including safety related devices.
 10. Always store compressed air cylinders in a full or empty condition. Storage of partially full cylinders can result in less than expected service life for the apparatus and also in faulty operation of pressure relief devices in the event of or exposure to excessive temperatures.

WARNING

If breathing air moisture content is greater than recommended levels the water can form ice particles and reduce or block the breathing air flow. The water content of breathing air in any container must be checked.

3.3 Storage

Before storing the apparatus, fold the hood/hose assembly and place into the pouch. Close the velcro strap.

Store the apparatus ready for use. A QuickAir storage case and wall mount kit are available. Test the units monthly even when they have not been used. The maintenance schedule must be followed to keep the apparatus in good working condition.

3.4 Maintenance Schedule

Frequency	Service
Weekly	ensure cylinder is full
Monthly	function testing
Yearly	component testing
Every 5 years	hydrotest aluminum cylinders

3.4.1 Weekly Procedures

Ensure the indicator needle is in the green region "FULL" on the gauge.

3.4.2 Monthly Procedures

Function Tests

- Check function of the apparatus by cracking the cylinder valve open for a few seconds. You should hear a rush of air going into the hood. Close the valve tightly.
- Inspect the unit for any signs of degradation.

Remove the unit from service if it fails to meet the function tests.

3.4.3 Yearly Procedures

Component Tests

Equipment

Escape Unit Test Kit P/N 4055044

1/2" wrench

NOTE

The SCBA Test Kit, P/N 4052350 and medium pressure adapter, P/N 4054919 may be used in place of the Escape Unit Test Kit, P/N 4055044 to perform the component tests.

All repairs or replacement of parts must be performed by a Draeger Safety approved technician or an authorized service center.

High Pressure Test

- Remove the regulator/hose assembly from the cylinder valve and attach the high pressure gauge to the cylinder valve.
- Open cylinder valve and note the pressure reading on the gauge. The readings on the cylinder gauge and the test gauge should be the same.
- Close the cylinder valve and release the pressure in the system with the relief valve control located on the test pressure gauge. Remove cylinder from service if discrepancies in the cylinder pressure occur.

Medium Pressure Test

- Disconnect the regulator from the compressed air cylinder. Disconnect the regulator barb from the regulator. (Use a 1/2" wrench).
- Replace the regulator barb with the medium pressure test pigtail. Connect medium pressure gauge to safety-type plug-in coupling on the test pigtail. Connect the regulator to the compressed air cylinder. Open the cylinder valve.
- Read the medium pressure on the test gauge. The pressure should be between 85-120 psi. If the medium pressure is not within range, replace the regulator.
- Close the cylinder valve. Open the purge valve on test pressure gauge, relieve pressure and close the valve.
- Disconnect the test pressure gauge and test pigtail. Reassemble the apparatus line (regulator barb) to the regulator.

NOTE

When releasing the pressure, ensure that face and hands are clear of vent port.

4 Spare Parts and Accessories

Description	Part Number
QuickAir - 5, Complete	4054953
QuickAir - 10, Complete	4054954
QuickAir - H5, Complete	4054966
QuickAir 5 2216, Complete	4055438
Hood, QuickAir	4055051
Regulator, Emergency Escape	4055052
Regulator, High Flow, Emergency Escape	4055053
O-ring, Ballnose, QuickAir	4055054
Carrying Bag, 5 Minute	4055055
Carrying Bag, 5 Minute, High Flow	4055056
Carrying Bag, 5 Minute/2216	4055434S
Carrying Bag, 10 Minute	4055057
Hose Retainer Assembly	4055058
Diffuser, QuickAir	4055059
5 min/3000 psi, Cylinder/Valve Assembly	4055060
10 min & 5 min HF/3000 psi, Cylinder/Valve Assembly	4055061
5 min/2216 Cylinder/Valve Assembly	4055437
Storage Case, QuickAir 10 Minute/5 Minute High Flow	4055041
Storage Case, QuickAir 5 Minute	4055042
Wall Mount Kit	4055000
Escape Unit Test Kit	4055044
Spanner Wrench	1628089
Cylinder Fill Adapter	4052794
Leaktek Soap Solution	4054084
Airkem 33	4054085

For complete illustrations and parts listings, consult Draeger Safety, Inc., customer service or your local distributor.

Notes

Notes

These instructions for use apply only to the unit with this serial number:



If no serial number appears in the box above, these instructions were provided for general information only and are not meant to be used with a particular device.

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