

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.
- All approved respiratory equipment shall be selected, fitted, used, and maintained in accordance with MSHA (Mine Safety and Health Administration), OSHA (Occupational Safety and Health Administration), and other applicable regulations.
- Do not use any form of chemical marking on the equipment.
- The air supply shall meet the requirements for breathing air according to CGA G – 7.1, Grade D or higher quality.

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

The Dräger **saver** CF (N) is a constant-flow, open-circuit compressed-air emergency escape breathing device (EEBD). It provides respiratory protection to escape from a contaminated or oxygen-deficient environment to a safe breathing environment.

The main features of the product are:

- The respiratory protection equipment is contained in a carrying bag. The bag has a neck strap to carry the product.
- The air cylinder is fitted inside the carrying bag but has a pressure gauge (Fig 1, Item 5) that is visible outside the bag. When the cylinder is full it provides a nominal duration of 5–15 minutes, depending on version (see Section 2.1.1).
- The cylinder valve/regulator (Fig 1, Item 4) has an automatic activation device that is operated by removing a two-pronged locking clip (Fig 1, Item 3). The locking clip is connected by a strap to a sprung-gate clip (Fig 1, Item 2) that is in turn connected to a D-ring (Fig 1, Item 1) on the inside of the lid. This arrangement automatically removes the locking clip as the carrying bag is opened. When the valve/regulator is activated, it regulates the cylinder pressure, and a preset nozzle inside the valve/regulator provides a constant flow (approximately 36 liters per minute) of breathing air to the escape hood.
- The escape hood (Fig 2) has a rubber ring that seals around the neck, and an internal nose cup that fits over the nose and mouth to supply air to the wearer.
- There is an anti-tamper tag (Fig 3) fitted on the lid of the carrying bag to allow an inspector to quickly identify that the bag has not been opened.
- There is a shelf life label located beside the cylinder pressure gauge to allow an inspector to check the cylinder recertification date without opening the bag.

2.1.1
Air cylinders

- The **saver** CF5 (N) version has a 79 cubic inches (1 liter) aluminum cylinder – nominal duration of 5 minutes.
- The **saver** CF10 (N) version has a 134 cubic inches (2 liter) aluminum cylinder – nominal duration of 10 minutes.
- The **saver** CF15 (N) version has a 210 cubic inches (3 liter) hoop-wrapped cylinder – nominal duration of 15 minutes.

2.2
Intended use

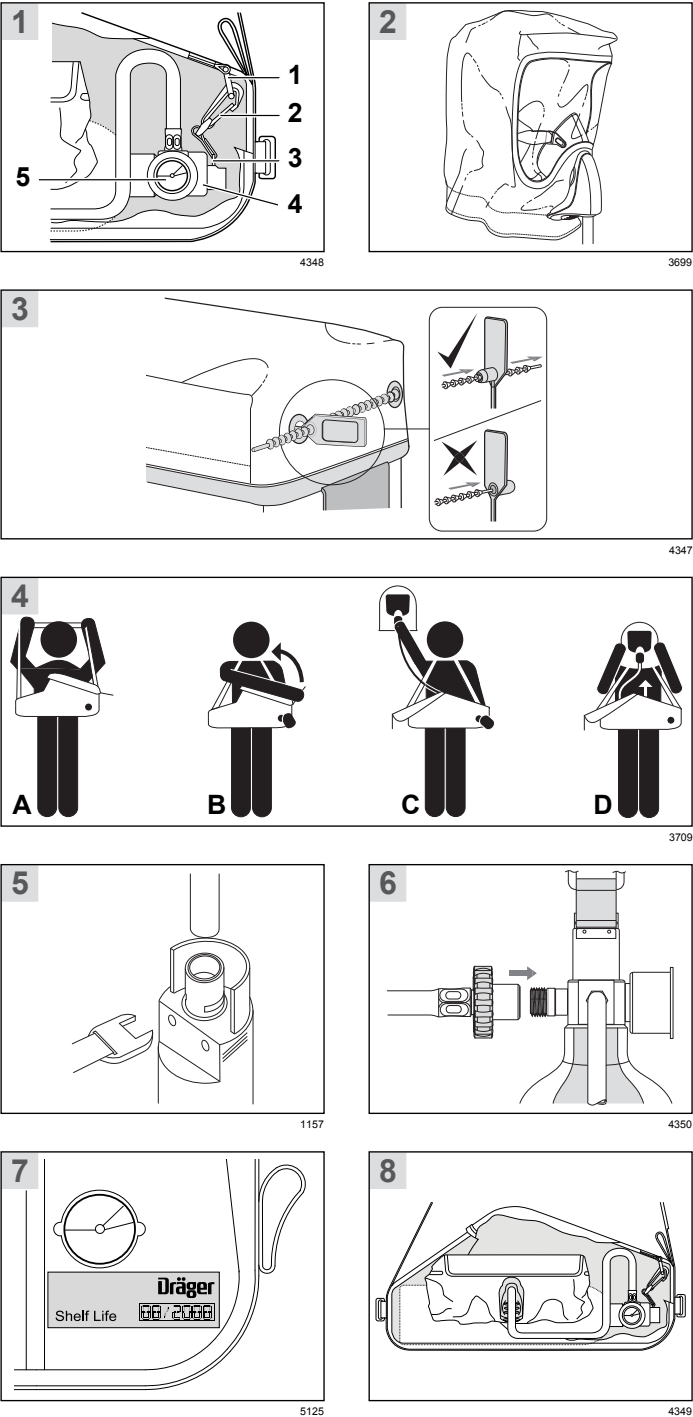
When this product is used with an approved air cylinder it provides the wearer with respiratory protection for escaping from contaminated or oxygen-deficient conditions.

The air cylinder used with this product must be a certified Dräger cylinder; otherwise the operation of the product may be impaired. Contact Dräger for further information.

Operating temperature range: 5 °F to 140 °F(-15 °C to 60 °C).

2.3
Limitations on use

This product is not approved for use in CBRN applications.



2.4
Approvals

The **saver** CF (N) series of escape respiratory protection equipment conforms to the requirements of NIOSH 42 CFR Part 84. This product is approved for use as a self-contained escape respirator, and must only be used in conjunction with compressed-air cylinders approved by NIOSH.

The **saver** CF10 (N) and CF15 (N) also hold marine approvals. Contact Dräger for details.

2.5
Explanation of markings and symbols

MM/YYYY Date of manufacture (on bag)\
Date of cylinder recertification (on shelf life label)

3
Use

WARNING

The time required to allow the wearer to escape to a safe area must be within the capacity of the equipment. When selecting the type and duration of escape equipment it is essential to consider potential hazards, storage location and escape routes.

CAUTION

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

Refer to the following additional information before preparing or using the breathing apparatus:

- The special instructions (see Section 9).
- For **saver** CF5 (N) see the separate NIOSH Approval Label 3363046 for approved configurations.
- For **saver** CF10 (N) see the separate NIOSH Approval Label 3363047 for approved configurations.
- For **saver** CF15 (N) see the separate NIOSH Approval Label 3363048 for approved configurations.

3.1
Preparation for use

WARNING

On receipt of the **saver** CF (N) from Dräger, the product is not configured for immediate operational use. The cylinder automatic activation device is not connected, and the air cylinder may be discharged. Carry out the following procedure to prepare the product for use.

Immediately following removal of the equipment from its packaging:

- If the air cylinder is supplied discharged, see Section 4.2.2 for cylinder charging instructions.
- If the air cylinder is supplied fully charged, carry out the following to connect the cylinder automatic activation device:
 - Grip the loop on the lid of the carrying bag and pull up to open the bag.

- Seal the lid along the hook-and-loop fastening strip leaving sufficient opening to insert a hand and, taking care not to detach the locking clip from the cylinder valve, connect the sprung-gate clip (Fig 1, Item 2) to the D-ring (Fig 1, Item 1).
- Fit the anti-tamper tag and close the lid (Fig 3).

3.2
Putting on the carrying bag (ready position)

- Check that the pointer of the cylinder pressure gauge is inside the green area, and the anti-tamper device on the lid of the carrying bag is intact (Fig 3).
- Place the neck strap over the head (Fig 4, A) and adjust the strap until the equipment sits in the center of the chest.
- If fitted with a waist belt (optional accessory), loop the waist belt around the waist and then fasten the buckle. Pull the free end of the belt until the equipment is secure and comfortable.

3.3
Putting on the hood and escape procedure

- Grip the loop on the lid of the carrying bag and pull firmly upward to break the anti-tamper tag and open the lid of the bag (Fig 4, B). This action removes the locking clip, automatically activating the cylinder valve and the air supply to the hood.

WARNING

The air supply duration begins from the automatic activation of the cylinder valve and not from the time of putting on the hood.

- Remove the hood from the carrying bag (Fig 4, C).
- Place both hands inside the neck seal and stretch the hood over the head (Fig 4, D).
 - Wearers with spectacles – take care when stretching the neck seal over the spectacles.
 - Wearers with long hair – tuck the hair inside the hood.
- Position the nose cup over the nose and mouth and breathe normally.
- Immediately leave the hazardous area by the shortest and safest escape route.

WARNING

Do not remove the equipment until in a safe area and clear of the hazard.

- Once in a safe breathing environment, immediately remove the hood.

3.4
After use

After any use, the product must be checked and then returned to the ready-for-use condition. The after use maintenance tasks (see Section 4.1.2) must be carried out by trained service personnel or Dräger to prepare the product for use.

4
Preparing and maintaining the saver CF (N)

The tasks in this section must be carried out to prepare and maintain the **saver** CF (N) in a ready-for-use condition.

4.1
Maintenance periods

4.1.1
Daily checks

It is essential that escape apparatus is ready for use at all times, and Dräger therefore recommend a daily check. If the customer's on-site risk assessment concludes that less regular checks are acceptable, this can be extended to a maximum of one month. It is the customer's responsibility to ensure that the equipment is ready for use at all times.

- Check that the pointer of the cylinder pressure gauge is inside the green area.
- Check the date on the shelf life label.
- Check the anti-tamper tag on the lid of the bag (Fig 3).

Immediately inform trained service personnel or Dräger if:

- The pressure gauge is in the red area or not visible.
- The equipment is past its shelf life, or the date on the shelf life label is not visible.
- An anti-tamper tag is broken.

4.1.2
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.

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

Component/ System	Task	After use	Every year	Every 10 years
Complete equipment	Visual inspection (see Note 1 and Section 4.2.1)	O		
	Functional tests (see Note 2)		O	
Cylinder valve/ regulator	Basic overhaul. Contact Dräger for the Repair Exchange (REX) service			O
Cylinder	Charge to correct pressure (see Section 4.2.2)	O		
	Cylinder pressure test and recertification; check the test date on the cylinder and shelf life label (see Note 3)		Carry out in line with national regulations	

Notes

O Dräger recommendations

- Clean the equipment if it is dirty. If it the equipment has been exposed to contaminants, disinfect any components that come into direct and prolonged contact with the skin.
- These maintenance tasks may only be carried out by Dräger or trained service personnel.
- Renew the shelf life label after cylinder recertification.



4.2 Maintenance tasks

4.2.1 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 dirty or damaged equipment to trained service personnel or Dräger, and do not use until faults are rectified and the product is cleaned.

4.2.2 Air cylinder charging

NOTICE

The charging procedure in this section describes recharging a cylinder that has been fully discharged during use of the **saver** CF (N).

If during a daily check (see Section 4.1.1) the cylinder pressure gauge is found to be in the red area, do not use this procedure and inform trained service personnel or Dräger immediately.



WARNING

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

- The charging connector is a CGA 346 connector.
- 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.
- Dräger recommend a charge rate of 300 psi/minute (rapid charging will increase the temperature resulting in an incomplete charge).
- To prevent overcharging of the cylinder, Dräger recommend using a pressure-limiting device on the charging compressor.

1. If the carrying bag is closed, open the lid and remove the hood from the bag.
2. Release the hook-and-loop strap and carefully remove the cylinder and shelf life label.
3. Remove the protective cap and then, using the probe (Fig 5, Item 1) (Dräger part number 3310488), press the plunger down and insert the locking clip (Fig 5, Item 2).
4. Connect the charging adapter (Fig 6).
5. Recharge to the rated working pressure of the cylinder (3000 psi).

NOTICE

Compression of cylinder air can cause a small temperature increase during refilling, resulting in an incomplete charge. If necessary, top-up the cylinder when it cools.

6. When the cylinder is fully charged, vent pressure from the charging hose and then remove the charging adapter from the valve. Refit the protective cap.
7. Fit the shelf life label into the cut-out section in the side of the bag, ensuring that the shelf life label will not cover the gauge (Fig 7).
8. Refit the air cylinder as follows:
 - a. Fully insert the cylinder into the carrying bag.
 - b. Fit the pressure gauge shroud into the cut-out section in the side of the bag.
 - c. Connect the hook-and-loop strap around the cylinder.

NOTICE

Route the rubber hose in such a way that the bend radius is not too acute and the hose is not stretched, compressed or twisted.

9. Carefully roll up the escape hood, ensuring that the visor is not creased or folded, and fit the hood into the carrying bag (Fig 8).
10. Seal the lid along the hook-and-loop fastening strip leaving sufficient opening to insert a hand and, taking care not to detach the locking clip from the cylinder valve, connect the sprung-gate clip (Fig 1, Item 2) to the D-ring (Fig 1, Item 1).
11. Fit the anti-tamper tag and close the lid (Fig 3).

4.3 Cleaning and disinfecting



CAUTION

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 components in cleaning solutions or water.

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

 For information about suitable cleaning and disinfecting agents and their specifications refer to document 9100081 on www.draeger.com/IFU.

- Use only clean lint-free cloths.

1. Clean the breathing apparatus manually using a cloth moistened with cleaning solution to remove excess dirt.
2. Apply disinfecting solution to all internal and external surfaces.
3. Rinse all components thoroughly with clean water to remove all cleaning and disinfecting agents.
4. Dry all components using a dry cloth, in a heated dryer or in air.
5. Contact service personnel or Dräger if disassembly of pneumatic or electronic components is required.

5 Troubleshooting

There is no user troubleshooting on the **saver** CF (N). Contact trained service personnel or Dräger to report any issues with the product.

6 Storage

Store the **saver** CF (N) 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 neck strap and, if fitted, the waist belt.
- Fix the apparatus securely to any raised mounting point to prevent it from falling.
- Contact Dräger for suitable storage cabinets and wall mounting kits.

7 Disposal

When required, dispose of the **saver** CF (N) in accordance with national or local regulations for waste disposal.

8 Order list

Description	Quantity	Order code
Anti-tamper tags	5	3350388
Waist belt	1	3350396
Shelf life label	1	3702113

9 Special instructions

9.1 Cautions and limitations

- 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.

S – Special or critical user's instructions

- Approved for use at ambient temperature between 5 °F and 140 °F (-15 °C to 60 °C).
- Use only respirable breathing air meeting the requirements of CGA G7.1 Grade D or higher quality
- Once in a safe breathing environment, immediately remove the hood.

10 Warranty information

Unless otherwise agreed between Dräger and the customer, the following shall apply in the event of defects of the product in material or workmanship: The customer shall contact the company where he bought the product ("Seller"). The warranty conditions agreed between the customer and the Seller shall apply. The product must be used in strict accordance with the instructions for use. Any use disregarding the instructions for use may void warranty.

11 Contact details

Any issues with the equipment, including damage, malfunction, or failure of the breathing apparatus that may present a hazard to the user should be reported to Dräger US Customer Service – Phone 1-800-437-2437.

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