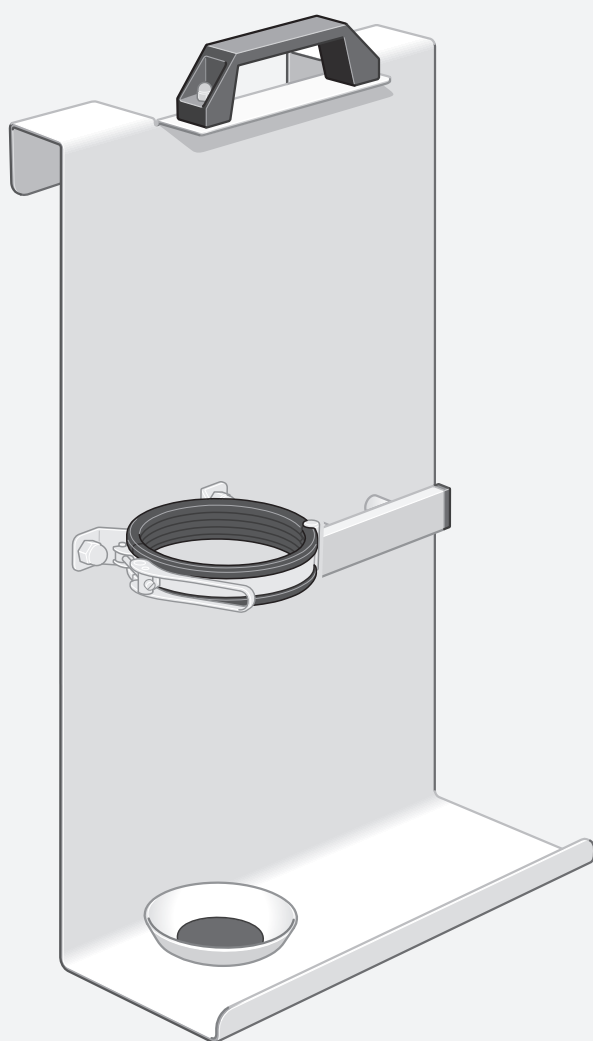


OPERATING INSTRUCTIONS
CARRYING BOARD

MEDAP 



Subject to technical modification!

Illustrations and technical specifications may vary slightly from those in these Operating Instructions as a result of ongoing product development.

V07 2017-08





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1 Introduction

1.1 Foreword

Your facility has selected the leading-edge medical technology made by ATMOS. We sincerely appreciate the trust you have placed in us.

1.2 How to use these operating instructions

These operating instructions are provided to familiarise you with the features of this ATMOS product. They are subdivided into several chapters.

Please note:

- Please read these operating instructions carefully and completely before using the product for the first time.
- Always proceed in accordance with the information contained herein.
- Store these operating instructions in a location near the product.

1.2.1 Symbols

1.2.1.1 Cross-references

References to other pages in these operating instructions are identified with a double arrow symbol „»“.

1.2.1.2 Actions and responses




The „☒“ symbol identifies an action taken by the user while the „✓“ symbol identifies the reaction that this will induce in the system.

Example:

- ☒ Turn on the light switch.
 - ✓ Lamp lights up.

1.2.2 Definitions


1.2.2.1 Design of safety notes

Pictogram	Descriptor	Text
	DANGER! Indicates a direct and immediate risk to persons, which may be fatal or result in most serious injury.	The text for the safety note describes the type of risk and how to avert it.
	WARNING! Indicates a potential risk to persons or property which may result in health hazard or grave property damage.	
	CAUTION! Indicates a potential risk to property which may result in property damage.	

Tab. 1: Design of safety notes

1.2.2.2 Structure of notes










Notes not referring to personal injury or property damage are structured as follows:

Pictogram	Descriptor	Reference to
	NOTE	Supplementary assistance or further useful information without potential injury to persons or property damage is described in the text of the note.

Tab. 2: Structure of notes

1.2.3 Symbols used

Symbols are attached to products, type plates and packaging.

Symbols	Identification
	Labelling for Class I products, developed and marketed in compliance with Medical Device Directive 93/42/EEC.
	Labelling in compliance with the ISO 15223-1 standard. Symbol for "Product number".
	Labelling in compliance with the ISO 15223-1 standard. Symbol for "Follow Operating Instructions".
	Packaging label. Symbol for "Keep dry".
	Packaging label. Symbol for "Fragile! Handle with care".
	Labelling in compliance with the ISO 15223-1 standard. Symbol for "Temperature limitations".
	Labelling in compliance with the ISO 15223-1 standard. Symbol for "Relative humidity".
	Labelling in compliance with the ISO 15223-1 standard. Symbol for "Atmospheric pressure".
	Labelling in compliance with the ISO 15223-1 standard. Symbol for "Name and address of the manufacturer as well as date of manufacture".

Tab. 3: Symbols

1.3 Disposal

1.3.1 Packing

The packing is made of materials compatible with the environment. ATMOS will dispose of the packing materials upon request.

1.3.2 ATMOS products

ATMOS will take back used products or those which are no longer in service. Please contact your ATMOS representative for more detailed information.

1.4 Basic requirements

1.4.1 Use in accordance with the intended purpose

This product is a medical device according to the Medical Device Directive 93/42/EEC. This product is to be used exclusively in human medicine.

Accessories

Accessories or combinations of accessories may be utilised only as and when indicated in these operating instructions.

Use other accessories, combinations and parts subject to wear only if these are intended expressly for the application and will not adversely affect performance features or safety requirements.

1.4.2 Applicable standards

The product satisfies the basic requirements set forth in Annex I to the 93/42/EU Directive drafted by the Medical Products Council (Medical Products Directive) as well as the applicable national (German) codes and the Medical Products Act in Germany. This has also been demonstrated through the application of the corresponding standards, which have been harmonised with the 93/42/EEC Directive.

1.4.3 Intended purpose

Name:	Carrying board
Main function:	Mounting, transportation and storage of one 2 / 3 l gas cylinder with a cylinder diameter of 100 mm and mounting of accessories
Medical indications / application:	The carrying board is used for mounting of a gas cylinder 2 / 3 l and accessories to allow a mobile oxygen supply of a patient
Specification of the main function:	The gas cylinder is placed onto the bowl of the carrying board and fixed. The equipment rail of the carrying board can be used for mounting accessories like a septic fluid jar. The rear bent portion enables the carrying board to be suspended on appropriate mounts, e.g. head or foot end of hospital beds or equipment rails.
User profile:	Doctor, medically trained staff
Patient groups:	Patients of all ages
Application organ:	Oxygen supply: Lung Aspiration: No specific organ

Application time:	For continuous operation; in practice short-term use on the patient (< 30 days)
Application site:	The application site is the clinical environment and doctor's practices. The application of the product may only be performed by medically trained and introduced staff.
Contraindications:	The carrying board may not be used for the following purposes: <ul style="list-style-type: none">• Outside the medical sector• For other gas cylinders than 2 / 3 l• For gas cylinders with a diameter of more than 100 mm• In MR areas
The product is:	Not active
Sterility:	No sterile product
Single-use product / reprocessing:	The product and parts of the accessories are reusable. For information on reprocessing, cleaning and disinfection please see the operating instructions.

2 Safety notes

2.1 General safety notes

**DANGER!**

Danger to life!
Danger due to unauthorised modifications.
The product may not be modified.

**DANGER!**

Incorrect use can result in fatalities!
Instructions for using components made by other manufacturers are not part of these operating instructions.
Ensure that the manufacturer's instructions are followed.

**DANGER!**

Risk of injury!
Patient may be endangered as a result of incorrect use.
Follow the operating instructions for all accessories.

**WARNING!**

Risk of injury!
ATMOS products may be used only when fully functional.
Check to ensure that the ATMOS product is fully functional and in good working order prior to use.

**WARNING!**

Risk of injury!
Products / accessories which are improperly mounted can loosen and cause injuries.
Ensure that products / accessories are mounted correctly and that the securing elements (handle screws, catches, levers, etc.) are closed and firmly tightened, also ensure that moving parts are correctly secured.

**WARNING!**

Risk of injury!
Risk of crushing during the assembly of individual components.
Always ensure that nobody will be crushed.

2.2 Product safety notes

**CAUTION!**

Property damage!
The maximum permitted load for the carrying board is 8 kg.

**CAUTION!**

Property damage!

You may only use gas cylinders of the following type:

- 2 or 3 l
 - Diameter 100 mm
 - Length 250 mm
 - Weight less than 6 kg
 - Ball-shaped foot
-

**CAUTION!**

Property damage!

The maximum permitted load for the equipment rail is 0.5 Nm or 2 kg.

Additional equipment must be approved for mounting to 25 x 10 mm equipment rails.

**CAUTION!**

Property damage!

The carrying board is partially made of magnetic materials.

The carrying board may not be employed in the MR area.

3 Operation and use

3.1 General



CAUTION!

Property damage!

The full surface of the clip must be in contact with the gas cylinder. Ensure firm and safe seat of the gas cylinder.



NOTE

The gas cylinder is not included in the scope of delivery.

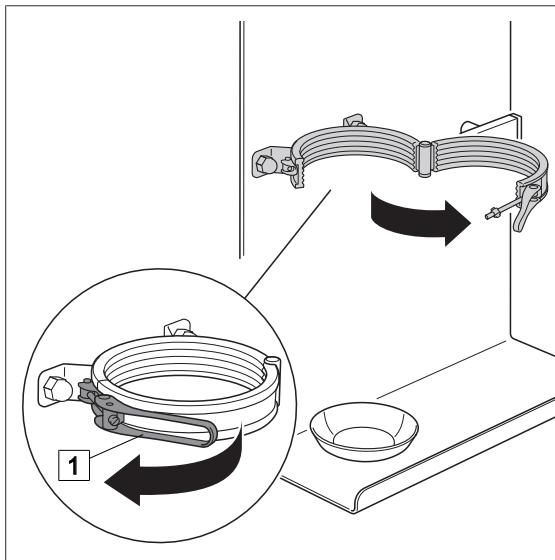


NOTE

The gas outlet opening should not point to the edge of the carrying board.

3.2 Mounting

3.2.1 Opening the clip



Opening the clip

- Push the clamping lever (1) towards the carrying board.
- ✓ Clip is opened.

Fig. 1: Opening the clip

3.2.2 Inserting the gas cylinder

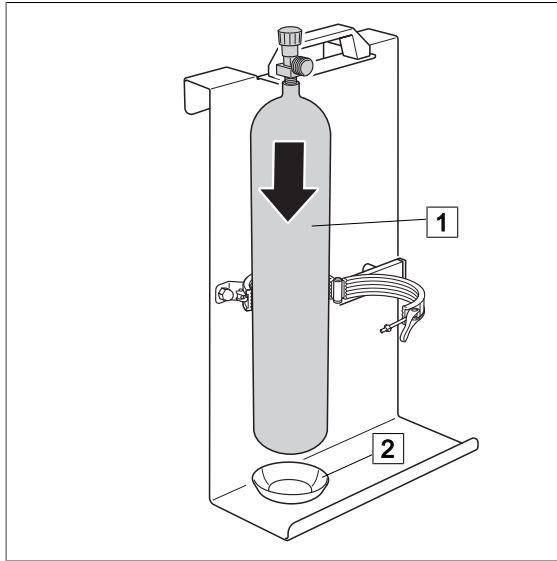


Fig. 2: Inserting the gas cylinder

Inserting the gas cylinder

- ☒ Insert the gas cylinder (1) into the bowl (2) of the carrying board.
- ✓ The gas outlet points to the front.

3.2.3 Adjusting the clamping bolt



NOTE

The clamping bolt can only be adjusted if the gas cylinder is not fastened and the clip is loose.

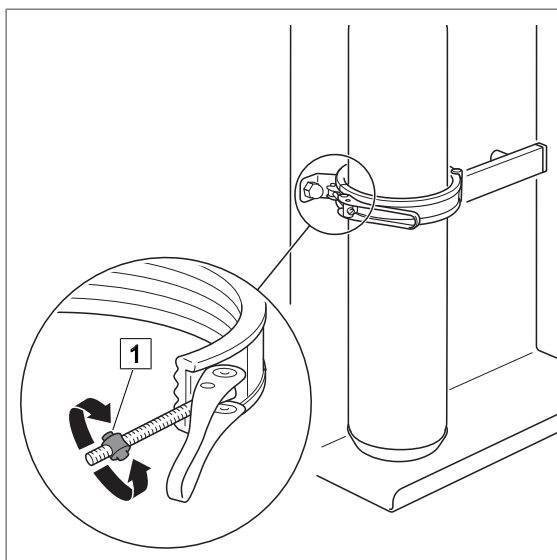


Fig. 3: Adjusting the clamping bolt

The adjustable clamping bolt of the clip allows you to apply various clamping forces.

Adjusting clamping bolt

- ☒ Turn the screw (1) on the clamping bolt in the direction of the clamping lever.
 - ✓ The clamping force increases.
- ☒ Turn the screw on the clamping bolt away from the clamping lever.
 - ✓ The clamping force decreases.

3.2.4 Fixing the gas cylinder

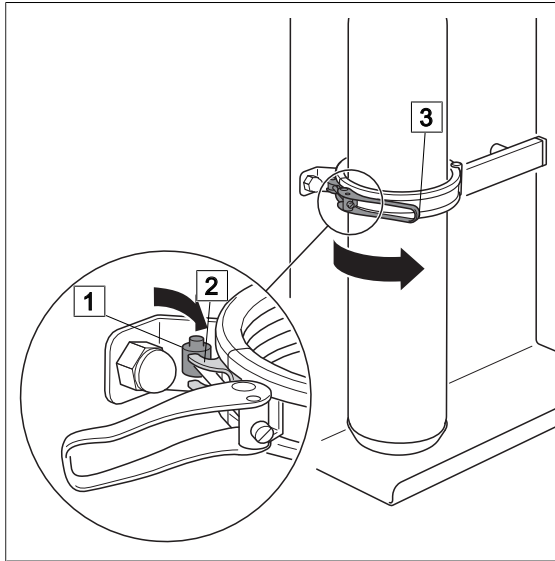


Fig. 4: Fixing the gas cylinder

Fixing the gas cylinder

- Position the clamp bolt (1) behind the nose (2) of the clip.
- Pull clamping lever (3) forwards.
 - ✓ Clip closes.
 - ✓ Gas cylinder is fixed.

3.3 Suspending the carrying board

The carrying board may be suspended on equipment rails and on hospital beds. A hospital bed is used as an example to describe how to suspend the carrying board.



CAUTION!

Property damage!

Suspend the carrying board only on mounts which are capable of withstanding the constant load.

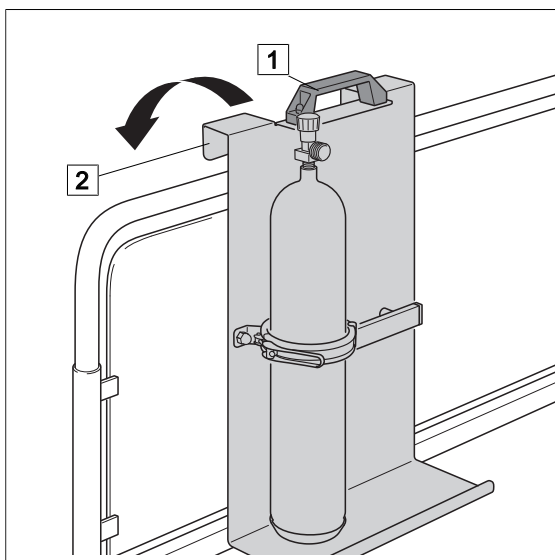


Fig. 5: Suspending the carrying board

Suspending the carrying board

- Hold the carrying board by the handle (1).
- Hook the bent portion (2) of the carrying board into the mount on the hospital bed.

4 Cleaning and disinfection

4.1 General

The product must be cleaned as well as wipe disinfected after every use.

**DANGER!**

Risk due to incorrect use of detergents and disinfectants!

It is strictly advised to observe the manufacturer instructions regarding how to use the detergents and disinfectants as well as the valid hospital hygiene rules.

**DANGER!**

Infection hazard!

Product may be contaminated.

Always wear gloves for cleaning and disinfection.

**DANGER!**

Infection hazard!

Particles of grime may become encapsulated and lead to the product not reaching the desired germ-reduction after disinfection.

Before disinfection, the product must be cleaned thoroughly of contamination and encapsulated particles of grime.

**CAUTION!**

Improper cleaning and disinfection can cause property damage!

Do **not** use the following products for cleaning and disinfection:

- Products containing alcohol (e. g. hand disinfectants)
- Halogenides (e. g. fluorides, chlorides, bromides, iodides)
- Dehalogenating compounds (e. g. fluorine, chlorine, bromine, iodine)
- Products that may scratch the surface (e. g. scouring agents, wire brushes, wire wool)
- Standard commercial solvents (e. g. benzene, thinner)
- Water containing iron particles
- Cleaning sponges containing iron
- Products containing hydrochloric acid

Use a soft, lint free cloth or a soft nylon brush to clean the product.

**CAUTION!**

Improper cleaning and disinfection can cause property damage!

Use only as much detergent and disinfectant as required.

**CAUTION!**

Improper cleaning and disinfection can cause property damage!

Perform visual and functional inspections after each cleaning and disinfection process.

4.2 Cleaning

4.2.1 General

**NOTE**

In the event of product surfaces that are very dirty, carry out an additional cleaning procedure before disinfecting the product.

**NOTE**

Use only all-purpose cleaners which are slightly alkaline (soap solution) and contain tensides and phosphates as the active cleaning agents.

In the event of heavily contaminated surfaces, use concentrated multi-purpose detergent.

**CAUTION!**

Improper cleaning can cause property damage!

Residues of physiological saline solutions (e. g. sodium chloride) can attack the surfaces of the product.

Remove residues of physiological saline solutions with a cloth dipped in clean water. Then dry the product with a dry, lint free cloth.

**CAUTION!**

Improper cleaning can cause property damage!

Do not spray cleaning agent directly into the joints or gaps and never use a high-pressure cleaning unit!

4.2.2 Cleaning procedure

- Use the correct dose of multi-purpose detergent with water for the degree of surface contamination and in accordance with the instructions of the detergent manufacturer.
- Thoroughly wipe off the product with a soft cloth slightly wetted in a multi-purpose detergent solution.
- Ensure that the product is free from contamination and encapsulated particles of grime.
- Thoroughly wipe off the product with a soft cloth dipped in clean water.
- Ensure that the product is free of detergent residues.
- Dry product with a dry, absorbent and lint free cloth.
 - ✓ This will help to reduce pathogen growth on the product's surface.
- Wipe disinfect the product after every cleaning process.

4.3 Disinfection

4.3.1 General

**CAUTION!**

Material damage due to excessive exposure times!

Exceeding the specified exposure time of the disinfectant may damage the surfaces.

Observe the specified exposure time of the disinfectant manufacturer.

**WARNING!**

Risk of injury!

Do not use any disinfection agents that would jeopardize patients, personnel or the functionality of the product.

- Do not disinfect with phenoles or agents that split halogen, chlorine or oxygen
- Do not disinfect with solvents (benzene, thinner)
- Do not spray-disinfect

4.3.2**Suitable disinfectants**

Only surface disinfectants based on the following combinations of active ingredients may be used for disinfection:

- Aldehydes
- Quarternary compounds
- Guanidine derivatives

Ingredient group	Active ingredients
Aldehydes	2-ethyl-1-hexanal, formaldehyde, glutardialdehyde, glyoxal, o-phthaldialdehyde, succinaldehyde
Quarternary compounds	Alkyl-didecyl-polyoxethyl ammonium propionate, alkyl-dimethyl-alkylbenzyl ammonium chloride, alkyl-dimethyl-ethyl ammonium chloride, alkyl-dimethyl-ethylbenzyl ammonium chloride, benzalkonium propionate, benzalkonium chloride (alkyl-dimethyl-benzyl ammonium chloride, coco-dimethyl-benzyl ammonium chloride, lauryl-dimethylbenzyl ammonium chloride, myristyl-dimethyl-benzyl ammonium chloride), benzethonium chloride, benzyl-dihydroxyethyl-coco-alkyl ammonium chloride, dialkyl-dimethyl ammonium chloride (didecyldimethyl ammonium chloride), didecyl-methyl-oxyethyl ammonium propionate, mecetronium-ethyl sulfate, methyl-benzethonium chloride, n-octyl-dimethyl-benzyl ammonium chloride
Guanidine derivatives	Alkyl-biguanide, chlorhexidine-digluconate, cocospropylene-diamine guanidinium diacetate, oligomeric biguanide, polyhexamethylene biguanide hydrochloride (oligo-diimino imiodo-carbonyl imino-hexamethylene, polyhexanide)

Tab. 4: Active ingredients of disinfectants

4.3.3**Disinfection procedure**

- After each cleaning process, wipe or spray disinfect the product in accordance with the instructions of the disinfectant manufacturer.
- Ensure that the product is free of disinfectant residue.
- Perform visual and functional inspections.

5 Maintenance

5.1 General

Maintenance, repairs and period tests may only be carried out by persons who have the appropriate technical knowledge and are familiar with the product. To carry out these measures the person must have the necessary test devices and original spare parts.

ATMOS recommends: Work should be carried out by an authorized ATMOS service partner. This ensures that repairs and testing are carried out professionally, original spare parts are used and warranty claims remain unaffected.

5.2 Malfunctions and troubleshooting

Defect	Source of malfunction	Corrective actions
The handle of the carrying board shakes or swings, the carrying board bends	The fastening clamps of the handle have released	Tighten the screws
	Too much load on the carrying board (max. 8 kg)	Unload carrying board
	Too much load on the equipment rail (max. 2 kg)	Remove additional equipment
	Gas cylinder is too heavy (max. 6 kg)	Use a lighter gas cylinder
Clamping bolt on the clip cannot be adjusted	Thread is damaged	Take carrying board out of service and send it to Customer Service
Additional unit cannot be mounted	Additional unit and equipment rail have different dimensions	Use additional equipment that corresponds to the equipment rail
Carrying board cannot be suspended	Mount is too large or too small	Suspend carrying board using matching mounts only
Gas cylinder cannot be mounted or clamped	Diameter of gas cylinder is too small or too big	Use a gas cylinder with 100 mm diameter
	The cylindrical part of the gas cylinder is not long enough (250 mm)	Use gas cylinder with a sufficient length

Tab. 5: Malfunctions and troubleshooting

5.3 Repairs

The following may require repairs from the manufacturer or an authorized service partner:

- Abnormal noises occur.
- Functional faults cannot be rectified according to the measures in chapter Malfunctions and troubleshooting [►► page 17].

If defects are detected the product may not be used any longer.

Make a note of the deficiencies and the REF number on the data plate and inform the responsible ATMOS Service.

Observe the information in chapter Sending in the device [►► page 18].

5.4 Service hotline:

+49 7653 689-0

5.5 Sending in the device

- Remove and properly dispose of consumables.
- Clean and disinfect the product and accessories according to the operating instructions.
- Place used accessories with the product.
- Fill in the form QD 434 „Delivery complaint / return shipment“ and the respective **decontamination certificate**.

This form is enclosed with each delivery and can be found at www.atmosmed.com.

- The device must be well padded and packed in suitable packaging.
- Place the form QD 434 „Delivery complaint / return shipment“ and the respective **decontamination certificate** in an envelope.
- Affix the envelope to the outside of the package.
- Send the product to ATMOS or to your dealer.

6 Technical specifications

6.1 General

Classification as per Appendix IX of the 93/42/EEC Directive	Class I
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6.2 Dimensions

Dimensions of carrying board (W x H x D)	250 x 545 x 200 mm
Bent portion for suspension	41 x 41 mm
Suitable cylinder diameter	100 mm
Suitable cylinder height (cylindrical part)	at least 250 mm
Length of equipment rail	100 mm
Dimensions of equipment rail	25 x 10 mm

6.3 Weights

Weight of carrying board	Approximately 2.8 kg
Load capacity / load of carrying board	Maximum 8 kg
Load capacity / load of equipment rail	Maximum 2 kg (0.5 Nm)

6.4 Ambient conditions

Temperature: Operation	-20 °C to +60 °C
Temperature: Shipping / storage	-20 °C to +60 °C
Relative humidity: Operation	10 % to 90 %
Relative humidity: Shipping / storage	10 % to 90 %
Atmospheric pressure: Operation	700 hPa to 1060 hPa



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