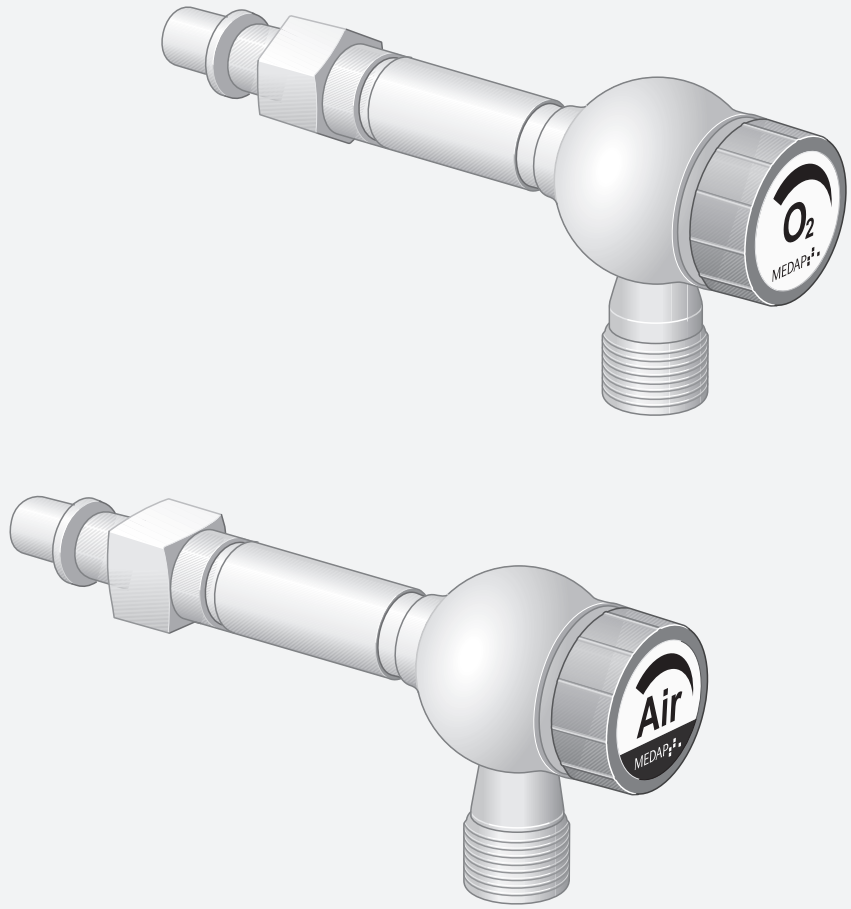
OPERATING INSTRUCTIONS

MEDAP
FINA FINE REGULATOR O2 / AIR



GA 5752 2806 GB 11

Subject to technical modification!

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

V11 2022-08

CE 0124

Table of contents

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 Abbreviations

EN	European standard
EEC	European Economic Community
VDE	Verband der Elektrotechnik Elektronik Informationstechnik (Association for Electrical, Electronic & Information Technology)

1.2.2 Symbols

1.2.2.1 Cross-references

References to other pages in these operating instructions are identified with a double arrow symbol '⏭'.

1.2.2.2 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.

1.2.3 Definitions

1.2.3.1 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

1.2.3.2 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.
	**ENVIRONMENT**	Information regarding proper disposal.

Tab. 2: Structure of notes

1.2.4 Symbols used

Symbols are attached to products, type plates and packaging.

Symbols	Identification
	Follow operating instructions
	Warning; pay special attention
	This device complies with the relevant requirements of the EU regulations.
	This device complies with the relevant requirements of the EU regulations.

Symbols	Identification
REF	Reference number
SN	Serial number
	Manufacturer
	Date of manufacture Country of manufacture: Germany
IUDI	Unique Device Identifier of a medical device
MD	Medical device
LOT	Batch code
>PA<	Material designation for the plastic PA (polyamide).
	Keep dry
	Fragile, handle with care
	This side up
	Temperature limit
	Humidity limitation
	Atmospheric pressure limitation
	Labelling on type plate. Symbol for ‘Oil- and fat-free’.

Tab. 3: Symbols

1.2.5 UDI-Code

(01)	UDI-DI: Identification of the manufacturer and the device
(10)	Batch code
(11)	Date of manufacture
(21)	Serial number

Tab. 4: UDI-Code

1.3 Disposal

WARNING!
Infection hazard!
The product or some of its components may be contaminated after use.
Clean and disinfect the product before disposal.

1.3.1 Packaging

The packaging is made of materials compatible with the environment. ATMOS will dispose of the packaging 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 Overview

1.4.1 Overview of FINA fine regulator O2 / AIR

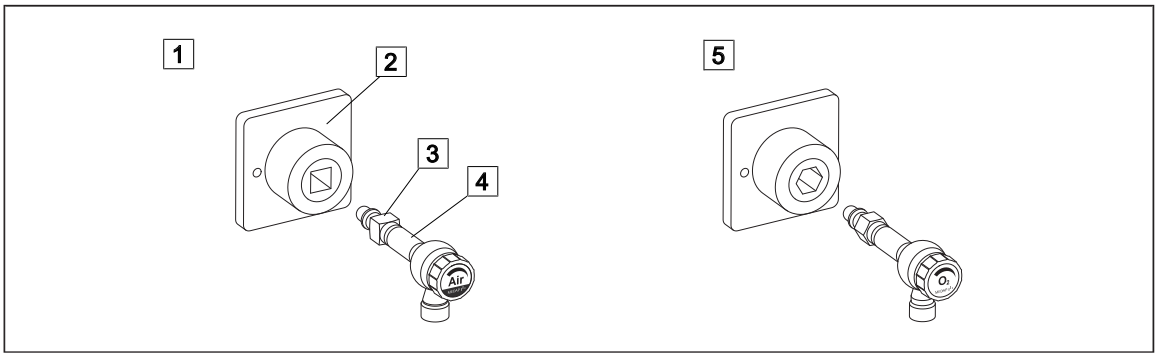


Fig. 1: Overview of FINA fine regulator O2 / AIR

1 **FINA Fine regulator Air,** with integrated gas pin
2 Terminal unit
3 Plug
4 Fine regulator inlet
5 **FINA fine regulator for oxygen** with integrated gas pin

1.4.2 Overview of FINA fine regulator versions, O2 / AIR

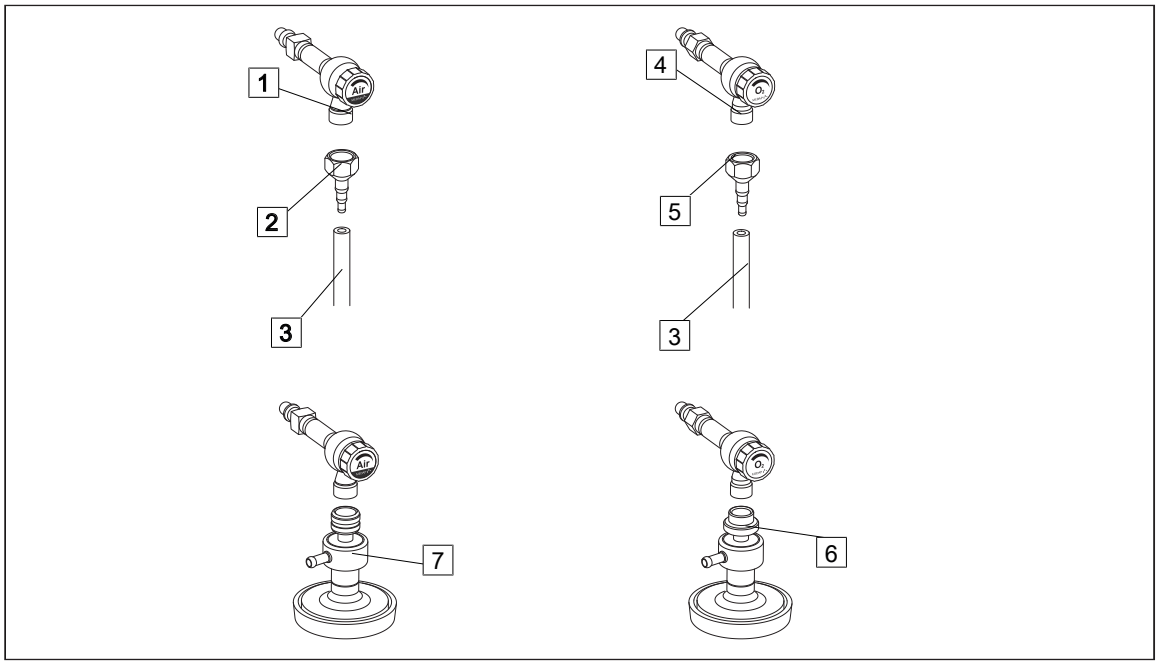


Fig. 2: Overview of FINA fine regulator versions, O2 / AIR

1 Tube connector Air (M 18 x 1)
2 Tube adapter Air (M 18 x 1) for 4, 6, 8 mm tube
3 Connection tube with internal diameter 4, 6 or 8 mm
4 Tube connector O_2, (G 3/8“)
5 Tube adapter O_2 (G 3/8) for 4, 6, 8 mm tube
6 Gas-jet pump Air LF/HV (REF HM57507542)
7 Gas-jet pump O2 LF/HV (REF HM57507543)

1.5 Basic requirements

1.5.1 Use in accordance with the intended purpose

Product

As per Annex IX to the Medical Devices Directive 93/42/EEC, this product belongs to class IIa.

In accordance with this directive, the product may only be used by persons who have been instructed how to use this product by an authorised person.

This product is to be used exclusively for human medicine.

When employed in commercial or business use, this product must be entered in the inventory.

Accessories

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

Other accessories, combinations of accessories and consumable items may be used only if they have a valid certification, are intended expressly for the particular use and will not adversely affect performance, the prescribed ambient conditions or safety requirements.

1.5.2 Applicable standards

This device bears the CE marking CE 0124 in accordance with the EU Council Directive on Medical Devices 93/42/EEC and meets the essential requirements of Annex I of this Directive.

1.5.3 Intended purpose

Product name:	FINA RV A FINA RV O
Main functions:	The fine regulators FINA RV A and RV O may be used for the following main functions: • In conjunction with a gas-jet pump for aspiration of secretion, blood, serous fluids, vomit, and rinsing fluids along with any contained particles • In conjunction with a hand-held nebuliser to provide metered administration of medication aerosols
Intended use:	The product is connected to a central oxygen or compressed air supply system having a supply pressure of 300 kPa to 500 kPa ± 10 % or to the pressure regulator of an oxygen gas cylinder, with the outlet pressure of the pressure regulator being between 300 kPa and 500 kPa ± 10 %. <u>Aspiration:</u> • Drainage and temporary collection of body fluids. A septic fluid jar, which must be installed, allows temporary collection of the drained body fluids. <u>Drug administration:</u> • The administration of drug aerosols via compressed air takes place using connection tubes attached to a hand-held nebuliser. The patient presses the inhalation mask of the hand-held nebuliser onto the mouth and nose.
Intended users / user profile:	Doctors, trained medical staff
Intended patient target groups:	<u>Aspiration:</u> • Surgical aspiration: Patients of all age groups with and without restrictions • Bronchial aspiration: adults with and without restrictions <u>Drug administration:</u> • Patients of all age groups with and without restrictions
Medical condition to be diagnosed, treated or monitored:	• Patients requiring aspiration, e.g., during an operation • Patients needing drug administration
Organ(s) applied to:	<u>Aspiration:</u> Natural and artificial body orifices <u>Drug administration:</u> Lungs
Duration of application:	Device designed for continuous application; in practice, short-term use on the patient (< 30 days)
Use environment:	Environments for use are the hospital/clinic environment and doctor’s practices that have a central gas system supplying compressed air (FINA RV A) or oxygen (FINA RV O) or using oxygen cylinders (FINA RV O).

Patient selection criteria:	Aspiration: • Surgical aspiration: all patients requiring aspiration • Bronchial aspiration: adults requiring aspiration Drug administration: • All patients requiring medication aerosols
Indications:	Aspiration: For all aspiration processes in which regulation of the vacuum strength is not necessary and regulation of the volume flow is sufficient, such as general surgical interventions (e.g., aspiration of wound cavities, abscesses), and bronchial aspiration in adults. Drug administration: Together with a hand-held nebuliser, water-soluble drugs can be administered via an inhalation mask.
Medical contra-indications:	• Outside the medical field • MR area • Homecare area • Use directly by the patient or his/her relatives • Aspiration of flammable or explosive liquids • Use with central gas supply systems having supply pressures other than 300 kPa to 500 kPa ± 10 % (FINA RV A and RV O) • Use with oxygen gas cylinders having an outlet pressure other than 300 kPa to 500 kPa ± 10 % (FINA RV O)
Warnings:	None
The product is:	not active
Sterility / specific microbial state:	Non-sterile device
Single-use device / reprocessing:	The device is intended for multiple use. The device and part of the accessories are reusable. For information on reprocessing, cleaning and disinfection, please see the operating instructions.

1.5.4 Versions of FINA fine regulator O2 / AIR

The FINA fine regulator is fitted directly to the terminal unit.

Products and accessories are only permitted with the ISO colour coding. In Germany, Austria and Switzerland, products with neutral colour coding are also permitted.

NOTE

The products are supplied with ISO coding. The scope of delivery includes a label for neutral colour coding.

The product is available in the following versions:

- FINA RV O Wall DIN (REF HM57523705)
- FINA RV A Wall MEDAP (REF HM57523708)
- FINA RV Ai Wall DIN (REF HM57523709)

1.5.5 Possible applications

The following usage options are made possible by connecting products or accessories which are contained in the list of accessories or which satisfy the specifications of the interface description.

- A tube adapter for compressed air (REF HM52523104) or oxygen (REF HM57523106) can be used to connect suitable connection tubes with inner diameters of 4 mm, 6 mm and 8 mm to the FINA fine regulator.
- With the gas-jet pumps for compressed air (REF HM57507542) or oxygen (REF HM57507540), the compressed air or oxygen is converted into vacuum to enable suction. The FINA fine regulators are used to regulate the volume flow.

1.5.6 Interface description

All devices and accessories which are combined with the tapping unit must be listed in the accessories list or meet the specifications of the interface description. Configuration of the overall system as well as functional testing are subject to the overall responsibility of the medical staff. Functionality and suitability of the connected accessory for each intended application must be checked by the operator before every use. This includes the functionality of the connector components, airtightness and suitability regarding material properties, working pressure and flow rate.

1.5.6.1 Fine regulator outlet

- Tube connector for oxygen: G 3/8’’
- Tube connector for compressed air: M 18 x 1
- The inner thread of the cap nut of the accessory must match the outer thread of the tube connector of the fine regulator oxygen or compressed air. Ensure that the connection between the fine regulator and the accessory is leak-free.

1.5.6.2 Connection tube

The connection tube is connected to the tube adapter. The connection tube (Shore hardness 60), internal diameter 4, 6 or 8 mm; must not collapse or must be compression-proof. The connection tube must comply with the hospital's standards for hygiene. The inner diameter of the connection tube must match the outer diameter of the tube adapter.

1.5.6.3 Tube adapter oxygen and compressed air

The tube adapter is used to connect the product to the connection tube. The inner thread of the oxygen or compressed air tube adapter must match the outer thread of the tube connector of the product oxygen (G 3/8‘‘) or compressed air (M 18 x 1).

1.5.6.4 Gas-jet pump oxygen and compressed air

The inner thread of the cap nut of the gas-jet pump must match the outer thread of the tube connector of the product oxygen (G 3/8’’ or compressed air (M 18 x 1).

2 Safety notes

2.1 General safety notes

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!

Observe hygiene guidelines!

Contaminated components may be hazardous to the patient's health.

Prepare the product according to the hygiene guidelines before using it for the first time. Clean and disinfect the product.

DANGER!

Fire/explosion hazard!

Air, oxygen and oxygen compounds react explosively with oils, greases and lubricants. Fire and explosion hazard due to compressed gases.

Always keep the product free of oils, greases and lubricants. Only use sliding means (lubricants) approved by ATMOS for this product.

DANGER!

Fire hazard!

Fire hazard as a result of escaping oxygen.

Never smoke near equipment which carries oxygen and avoid using open fires or glowing objects. Check the connector for leaks and tight fit when mounting accessories.

DANGER!

Defective product!

Using incorrect spare parts and accessories can cause injuries or equipment failure.

Only use original accessories or spare parts.

WARNING!

Risk of injury!

Hazard resulting from incorrect handling.

Follow the operating instructions for all accessories.

2.2 Product safety notes

DANGER!

Danger to life!

The user must check the functionality and suitability of the components for the respective application.

WARNING!

Impacts!

Impacts may cause damage to sensitive, precision mechanical components.

Do not expose the product to impacts.

WARNING!

Non-permissible load!

If the permissible load is exceeded, leakages may occur at the connection between terminal unit and probe.

In accordance with DIN EN ISO 9170-1, the overall weight of the product and accessories may not exceed 2 kg.

CAUTION!

Malfunction!

Ensure that the connection between the product and the accessory is leak-free.

CAUTION!

Observe ambient conditions!

If the ambient conditions are undercut or exceeded during transportation, storage or operation, functionality may be affected.

Conduct a functional check and rectify any deficiencies.

DANGER!

Infection hazard!

During aspiration, use a hydrophobic bacterial or viral filter in order to keep contamination from entering the unit.

CAUTION!

Property damage!

Exposure to UV rays can cause material fatigue. The stability would no longer be ensured.

Do not expose the product to strong UV light.

WARNING!

Allergic reactions due to contact!

The materials used were examined for their compatibility. In exceptional cases, allergic reactions to accessible materials on the unit and its accessories can occur. This applies to contact injuries in the event of prolonged contact. In this case, consult a doctor immediately.

CAUTION!

ATMOS recommends always having an alternative suction option ready. That way you can perform aspiration even in the event of product failure.

Report all serious incidents that have occurred in connection with this product to the manufacturer and your national competent authority.

3 Initial operation

3.1 Product testing

DANGER!

Product testing!

Only product parts which are in perfect condition can ensure proper functioning of the product. The product parts will thus have to be carefully inspected before mounting.

☒ Check whether all tubes are undamaged.

☒ Check whether the unit has been properly cleaned and that there are no residues or soiling.

☒ Do not use damaged components.

3.2 Connection to the terminal unit

3.2.1 General

NOTE

Please refer to the manufacturer's instructions for the particular terminal unit for information on connecting the gas probe to the terminal unit.

3.2.2 Tapping unit with integrated gas pin

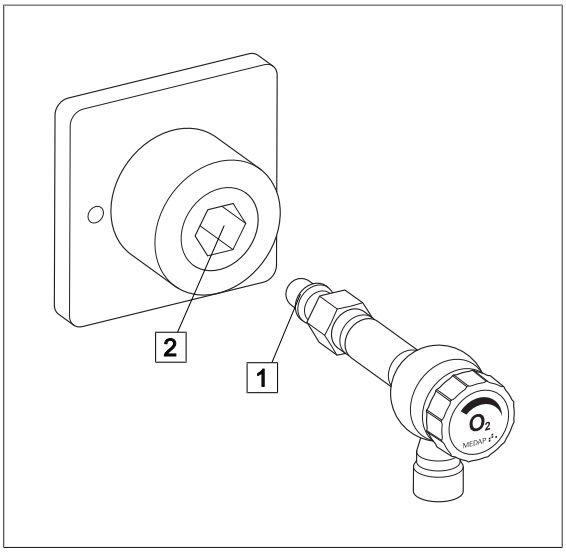


Fig. 3: Connected gas pin

☒ The tapping unit (1) is plugged directly into the terminal unit (2).

3.3 Mounting accessories

3.3.1 General

WARNING!

Tensile forces!

The connected accessories must not exert any mechanical forces which could adversely affect the secure fit of the product.

WARNING!

Tensile forces!

Hold the basic unit with one hand when installing or removing accessories in order to compensate for the tensile forces which are created.

3.3.2 Connection of gas-jet pump

WARNING!

Oversuction!

Use the tapping unit in conjunction with gas-jet pump only when a properly functioning hydrophobic filter and a bacterial and viral filter are in place.

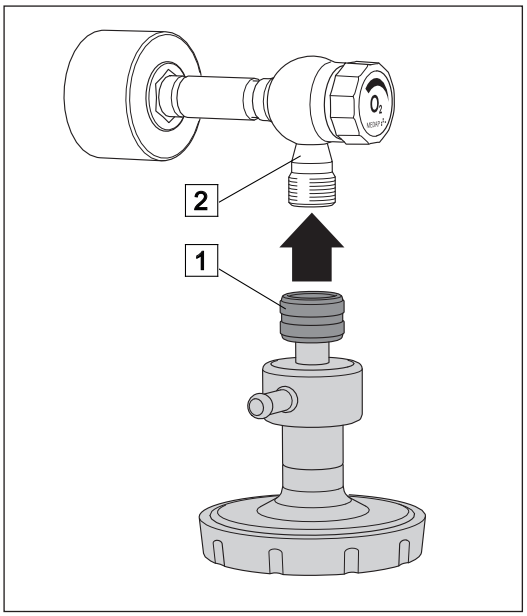


Fig. 4: Connection of gas-jet pump

Mounting the oxygen gas-jet pump

☒ Check to ensure that a flat seal is located in the tapped hole of the cap nut (1) of the oxygen gas-jet pump.

☒ Screw the cap nut of the oxygen gas-jet pump onto the outlet (2) of the fine regulator.

✓ The oxygen gas-jet pump is mounted on the fine regulator.

4 Operation

4.1 Function test

DANGER!

Function check!

The product is used in the treatment of patients. Any restriction in the unit's performance can result in serious complications in treatment.

Perform a complete function check every time before using the unit.

Perform a complete function check of the tapping unit prior to use. During functional testing, pay attention to the following conditions:

Tapping unit with integrated gas pin

- The tapping unit is correctly plugged into the terminal unit
- The tube connectors are firmly seated and tightly sealed, and no mechanical forces are acting on the tubes
- The plastic and rubber components are in perfect condition and show no signs of ageing
- The accessories are correctly connected
- The device is leak-free
- The fine regulator seals tightly when closed
- It is possible to variably adjust the flow rate from zero to the maximum flow
- The device is in good hygienic condition

4.2 Setting the flow for treatment

WARNING!

Compressed gas setting!

The regulating mechanism is sensitive. Make the compressed gas settings very carefully!

NOTE

When applying oxygen in its function as a medication as per the monograph in the European Pharmaceuticals Reference, it is absolutely necessary to measure the flow rate.

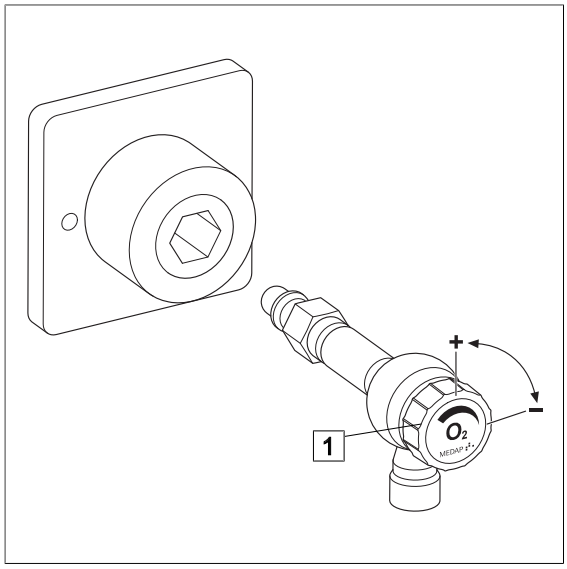


Fig. 5: Setting the flow

Setting the flow for treatment

☒ Open the control valve (1) by turning it anticlockwise. Use the control valve to set the gas flow rate to the required value for the treatment:

Increase the gas flow rate

☒ Turn the control valve anticlockwise.

Reduce the gas flow rate

☒ Turn control valve clockwise.

5 Taking the unit out of operation

5.1 Warning/Notes

WARNING!

Disengage!

When the product is disengaged (removed) from the terminal unit the pressure energy may cause recoil.

Use the terminal unit in parking position or support when disengaging.

NOTE

Refer to the medical gas distributor instructions for information regarding detaching the gas probe from the medical gas distributor.

☒ After completing treatment, close the adjustment screw by turning it clockwise and ensure that it is closed.

☒ Disconnect the gas probe from the terminal unit.

6 Cleaning and disinfection

6.1 General

The product must be wipe or spray disinfected after every use.

DANGER!

Risk due to incorrect use of detergents and disinfectants!

It is strictly advised to observe the manufacturer's instructions regarding how to use the detergents and disinfectants as well as to observe 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 cause the product not to achieve the desired germ reduction after disinfection.

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

DANGER!

Health hazard!

The product is also used to administer respiratory gas. Residues of sterilisation gases or other substances in the unit could endanger the patient's health.

Do not disassemble the product and do not clean it by gas sterilisation or any other mechanical cleaning or sterilisation method. Ensure that no disinfectant or cleaning agent enters the product.

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.

6.2 Cleaning

6.2.1 General

NOTE

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

NOTE

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

In the event that surfaces are heavily contaminated, use concentrated all-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!

6.2.2 Cleaning procedure

☒ Use the correct dose of all-purpose detergent with water for the degree of surface contamination and in accordance with the detergent manufacturer's instructions.

☒ Thoroughly wipe off the product with a soft cloth slightly dampened in an all-purpose detergent solution.

☒ Ensure that the product is free of contamination and encapsulatedparticles 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 the product with a dry, absorbent and lint-free cloth.

✓ This will help to reduce pathogen growth on the product's surface.

☒ Wipe or spray disinfect the product after every cleaning.

6.3 Disinfection

6.3.1 General

NOTE

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

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!

Disinfectants for flowmeter viewing tube!

Only the following disinfectants are approved for the instrument disinfection of the flowmeter viewing tube:

- Indicin® Perfect* (surface disinfectant);
- Sekusept® forte S* (instrument disinfectant).

* (Registered trademark of Ecolab GmbH & Co. OHG)

6.3.2 Suitable disinfectants

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

- Aldehydes
- Quaternary compounds
- Guanidine derivatives

Ingredient group	Active ingredients
Aldehydes	2-ethyl-1-hexanal, formaldehyde, glutardialdehyde, glyoxal, o-phthaldialdehyde, succinaldehyde
Quaternary 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, oliogomeric biguanide, polyhexamethylene biguanide hydrochloride (oligo-diimino imiodo-carbonyl imino-hexamethylene, polyhexanide)

Tab. 5: Active ingredients of disinfectants

6.3.3 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.

6.4 Special safety notes

DANGER!

Tension cracks!

Various components in the tapping unit are made of plastic materials. Solvents and some disinfectants and some cleaning agents can soften plastic or cause tension fissures.

Never use detergents that contain alcohol. Observe cleaning and disinfection standards.

CAUTION!

Property damage!

Using non-colour-fast surgical drapes can cause discolouration of surfaces.

Only use colour-fast surgical drapes.

7 Maintenance

7.1 General

Maintenance, repairs and periodic 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 authorised ATMOS service partner. This ensures that repairs and testing are carried out professionally, original spare parts are used and warranty claims remain unaffected.

DANGER!

Health hazard!

The product is used in the treatment of patients. The product or some of its components may be contaminated.

Clean and disinfect the product before maintenance and repair. Repair work may be performed by personnel authorised by ATMOS.

7.2 Periodic tests

Observe country-specific requirements regarding periodic tests.

7.3 Malfunctions and troubleshooting

DANGER!

Defective product!

Using incorrect spare parts and accessories can cause injuries or equipment failure.

Only use original accessories or spare parts.

Defect	Source of malfunction	Troubleshooting
With the regulation spindle open as far as it will go, the maximum volume flow is not achieved	The pressure from the gas supply system is not high enough	Check the pressure of the gas supply system
	The sinter filter within the gas pin may be blocked	Have the sinter filter in the plug replaced
Fine regulator does not work properly	Pressure fluctuations in the gas supply system / pressure is too low or too high	Contact the technical service
	Unknown	Contact the technical service
Probe does not fit into the terminal unit	Wrong terminal unit or gas pin selected	Check the designation of the terminal unit
Fine regulator is leaking	Seal is missing or defective	Have fine regulator checked
	There is a leak in the housing	
	Accessories are not tightened	Ensure that the accessory is fitted properly
	Unsuitable connectors	Observe the interfaces
Oversuction	Gas-jet pump oversuction	Fit a hydrophobic filter or overflow protection device (before doing so, clean or replace the gas-jet pump).

Tab. 6: Troubleshooting

7.4 Repairs

The following issues may require repairs by the manufacturer or an authorised service partner:

- Liquid has penetrated the device.
- Performance has significantly decreased.
- Inexplicable notifications appear.
- Abnormal noises occur.
- Functional faults cannot be rectified according to the measures in chapter Malfunctions and troubleshooting [⏩ page 24].

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

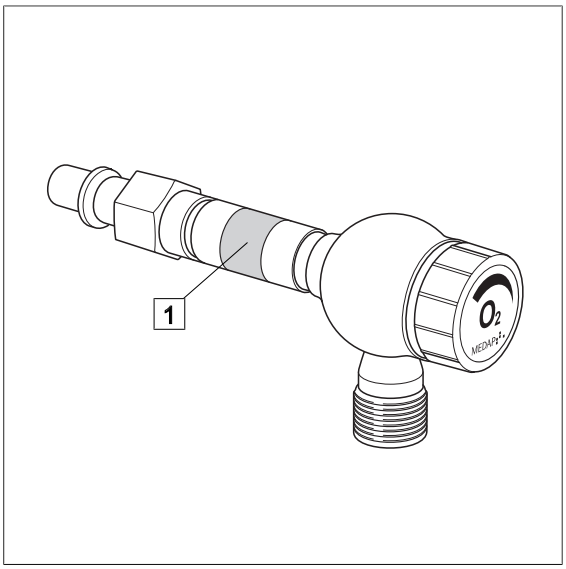
Make a note of the defects and the REF number on the type plate and inform your ATMOS representative.

Observe the information in chapter Sending in the device [⏩ page 25].

7.5 Service hotline

+49 7653 689-0

7.6 Type plate position



Position of the type plate (1) on the product.

Fig. 6: Type plate position

7.7 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 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 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.

8 Technical specifications

8.1 Details

Gas type	RV O: Oxygen
	RV A: Compressed air
Connection to CGS / gas pin	RV O: Wall DIN RV A: Wall DIN, Wall MEDAP
Nominal pressure gas supply	-300 up to -500 kPa ±10%
Input filter (only with DIN version)	Sintered metal 80 µm pore width
Environmental conditions: Transport/ storage • Temperature range • Air humidity without condensation • Air pressure	 -15...+50 °C 30...75 % 700...1060 hPa
Ambient conditions: Operation • Temperature range • Air humidity without condensation • Air pressure	 +15...+40 °C 30...75 % 700...1060 hPa
Dimensions (H x W x D)	120 x 65 x 32 mm
Weight	250 g
Periodic tests	Observe country-specific requirements regarding periodic tests
CE marking	CE 0124
Reference number (REF)	• HM57523705 • HM57523708 • HM57523709

9 Approved accessories

The following accessories are not part of the scope of delivery and must be ordered separately.

9.1 Accessories

HM57523330	Aspiration set for equipment rail / 1 l
HM57525810	Aspiration set for equipment rail / 1 l / ATMOS
HM57525811	Aspiration set for equipment rail / 2 l / ATMOS
HM57525669	Aspiration set for wall mount / 1 l
HM57525812	Aspiration set for wall mount / 1 l / ATMOS
HM57525813	Aspiration set for wall mount / 2 l / ATMOS
HM57522540	Rail clamp for equipment mount / plastic
HM57522048	Rail clamp for equipment mount / metal
HM57507542	Gas-jet pump Air, high flow / high vac
HM57507540	Gas-jet pump O2, low flow / high vac
HM57525256	Aspiration set carrier frame solo
HM57525645	AS septic fluid aspiration / 2 x 1 l
HM57525818	AS septic fluid aspiration / 2 x 1 l / ATMOS
HM57523104	Tube adapter compressed air 4, 6, 8 mm, M 18x1
HM57523106	Tube adapter for oxygen 3, 6, 8 mm, G 3/8”

Tab. 7: Accessories

9.2 Consumables

HM57500630	Hydrophobic bacterial and viral filter
006.0009.0	Suction tube, silicone, Ø 6 mm, 1 m (minimum order 5 m)
000.0347.0	Fingertip

Tab. 8: Consumables

MEDAP

Manufacturer:

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