ATMOS
MedizinTechnik



ATMOS Cardiothoracic Drainage

Digital drainage therapy for any indication

Exactly what I need

ATMOS CARDIOTHORACIC DRAINAGE

Treatment efficiency meets treatment comfort.

The digital ATMOS Cardiothoracic Drainage Systems were developed in close cooperation with doctors, nursing staff, and cardiothoracic drainage patients. The systems are characterised by a variety of technical and design features that make work significantly easier for doctors and nursing staff and therapy noticeably more pleasant for patients.

Significant time & cost savings





OBJECTIVE THERAPY DATA FOR DOCTORS
In contrast to conventional cardiothoracic drainage systems, where clinical decision-making regarding chest tube removal can be relatively complicated and often takes a lot of time, the digital systems from ATMOS provide decisive therapy parameters in real time and over the course of therapy — all at a glance. Target vacuum, actual vacuum, air leak: therapy-relevant information is clearly shown on the main display — including a trend display over the last 24 hours or the last 12 days. Doctors can thus assess the clinical situation more quickly during their daily rounds and immediately initiate the next therapy steps.



LESS EFFORT FOR NURSING STAFF
Nursing staff also benefit from the ATMOS Cardiothoracic Drainage solutions: these devices can be set up in just a few seconds, operation is intuitive, and they have visual and acoustic warning functions for critical situations, thus eliminating the need for time-consuming control rounds. Vacuum build-up is 6.5 times faster than comparable products, resulting in greater postoperative safety. Patient-side vacuum adjustment and automatic hose rinsing prevent possible siphon effects. Also, blocked drainage hoses can be detected nine times faster thanks to real-time monitoring of pleural pressure and air leaks.

IMPROVED COMFORT & SAFETY FOR PATIENTS
A safe and pleasant therapy process and a proven shorter hospital stay: that's what the ATMOS systems offer patients. For starters, these devices have a low-noise operation of just 31 dB, which ensures a more pleasant daily hospital routine and sleeping atmosphere.

One highlight is the mains-independent concept with optimised battery management: this ensures that therapy interruptions due to abrupt equipment failures are prevented and patients in mobilisation phases are thus protected from tension pneumothorax and cardiac tamponade.





C 051 / S 201

Two cardiothoracic drainage systems. One operating concept.

Whether used after thoracic surgery, for pleural effusions in emergency care, in cardiac surgery, or during in-hospital transport: the digital cardiothoracic drainage systems ATMOS C 051 Thorax and ATMOS S 201 Thorax both follow the same operating concept and have everything they need to optimally respond to different indications and situations in everyday hospital routines.

Variable application possibilities

THROUGH CONTROLLED VACUUM ADJUSTMENT
- Ideal for very viscous fluids or strong coagulation
- Also usable in exceptional cases involving extremely high volumes of air leakage
- Reduces coagulation in the hose system thanks to individually adjustable hose rinsing
- Can be used for extremely delicate lung tissue

Easy secretion evaluation

THANKS TO THE TRANSPARENT SECRETION CANISTER
- Clear view of nature and colour of drained fluids
- Precise balancing with fine-scaled balancing stickers
- Reliable prevention of rapid blockage of the connecting point and filter
- Hygienic disposal



Early patient mobilisation

THANKS TO BATTERY-OPERATED DEVICES
- No dependence on wall suction
- High acceptance by patients and nursing staff thanks to its compact design and intuitive operating concept
- Shorter drainage times through early mobilisation proven in numerous studies
- Effective promotion of the healing process and noticeable improvement in patients' quality of life

Visualisation of air leak via bubbles

THANKS TO THE OPTIONAL WATER LOCK
- Temporary gravity drainage assists in the decision on chest tube removal
- May also be used in MRI examinations
- Air leaks shown in numbers on the display and bubbles in the water lock provide comprehensive data for assessing air leaks in the acclimatisation phase

Designed, developed and **made in Germany**

ATMOS C 051 THORAX – MOBILITY CONCEPT

Mobility? Unrestricted.

As numerous studies have shown, mobilisation can have a positive impact on the healing process of cardiothoracic drainage patients. The ATMOS C 051 Thorax was developed precisely for this purpose. Thanks to its powerful battery, the integrated pump as well as the flexible carrying, hanging and placement options, this compact drainage system can be taken anywhere.

BATTERY-OPERATED SUCTION SOURCE
The ATMOS C 051 Thorax cardiothoracic drainage system has an integrated suction source with a suction capacity of 5 l/min that is safely powered by a lithium-ion battery for up to 16 hours. This allows air and fluids to be reliably drained while the patient is on the move.



COMPACT SIZE
With its dimensions of 164 x 206 x 95 mm (H x W x D) and low weight of 1.1 kg (with secretion canister: 1.3 kg), the ATMOS C 051 Thorax cardiothoracic drainage system is the ideal solution for early patient mobilisation. In spite of its compact dimensions, the ATMOS C 051 Thorax has a large 2-chamber secretion canister with a capacity of 800 ml.



MULTITUDE OF TRANSPORT OPTIONS
The ATMOS C 051 Thorax can be transported safely in different ways and always ensures reliable cardiothoracic drainage: ergonomic carrying handle for easy transport by hand; comfortable strap for hanging the cardiothoracic drainage system over the shoulder; various brackets for easy attachment to standard rails, hospital beds, infusion stands, or walking aids.



Early patient mobilisation



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Scan the QR code and learn more about the ATMOS C 051 Thorax in the explanatory video.

ATMOS C 051 THORAX – SECRETION MANAGEMENT

Secretion flow? At a glance.

The ATMOS C 051 Thorax model has a number of sophisticated features to ensure optimal cardiothoracic drainage for mobile patients or during in-hospital transport. These features include a fully transparent secretion canister divided into two chambers, easily recognisable balancing stickers, and a straight Luer lock connection for the secretion hose.

TRANSPARENT SECRETION CANISTER
Recognise at first glance what the drained secretion is — no problem with the cardiothoracic drainage systems from ATMOS. The all-around transparent secretion canister made of sturdy plastic makes it possible. Doctors and nursing staff have an unrestricted view of the type, nature, and colour of the drained fluids and secretions.



BLOCKAGE-FREE CONNECTION POINT
The secretion canister has a Luer lock connection for the secretion hose. The straight hose connection reliably prevents blockages at the connection point. The bacterial and viral filter in the secretion canister, too, is effectively protected from blockages thanks to the two structurally separate chambers.



EASY BALANCING
The secretion canister of the ATMOS C 051 Thorax is divided into two chambers: a small one with a capacity of 180 ml and a large one with 620 ml. Both chambers have easy-to-read balancing stickers that enable quick and precise balancing in fine increments.



Easy secretion evaluation



ATMOS S 201 THORAX – HIGH PERFORMANCE

Suction capacity? Outstanding.

In the field of cardiac surgery, but also in lung surgery patients, it is often necessary to drain large amounts of viscous fluids or large air leaks. The ATMOS S 201 Thorax was developed precisely for such requirements and can be used for all patient indications due to its high suction power and large secretion canister.



Variable application possibilities

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Scan the QR code and learn more about the ATMOS S 201 Thorax in the explanatory video

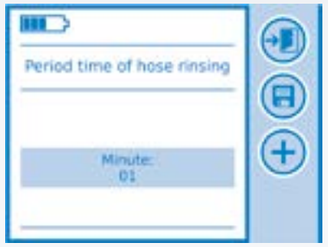
POWERFUL PUMP



Whether used for draining large amounts of viscous fluid in cardiac surgery patients, in patients with empyema or chylothorax, or for draining large air leaks in patients with emphysema: thanks to its suction capacity of 18 l/min, the versatile ATMOS S 201 Thorax ensures that a wide variety of cardiothoracic drainage therapies in the fields of cardiac and thoracic surgery can be carried out safely and reliably.



PRECISE VACUUM ADJUSTMENT
The ATMOS S 201 Thorax is an ideal solution even for complicated cardiothoracic drainage therapies involving particularly delicate lung tissue. Its high flow rate and controlled vacuum adjustment ensure gentle treatment of sensitive lung tissue. The development of subcutaneous emphysema is prevented.



QUICK VACUUM BUILD-UP & INDIVIDUAL HOSE RINSING
In particularly critical situations, for example, when draining a haematoma or in the case of severe coagulation, reliable and, above all, demand-oriented drainage is essential. The ATMOS S 201 Thorax convinces users with its particularly fast, controlled vacuum build-up to the suction level required by the medical staff. Coagulation is also significantly reduced through preventive, adjustable hose rinsing with air.

ATMOS S 201 THORAX – WATER LOCK

Air leaks? Under control.

The extra-large secretion canister with a capacity of 2000 ml has several special features that are of great advantage, for example, when evaluating air leaks or applying temporary conventional gravity drainage. These features include an optional water lock, an extra-long hose system, and straight connection fittings.

VISUALISATION OF AIR LEAKS BY MEANS OF AIR BUBBLES
In the phase of converting from a conventional solution over to a digital drainage system, many doctors and nurses benefit from the option of being able to refer to both the numerical information in the main display and the conventional method of counting bubbles when clinically evaluating air leaks.



TEMPORARY GRAVITY DRAINAGE
If a patient with a cardiothoracic drainage device is due for an MRI examination, for example, the secretion canister of the ATMOS S 201 Thorax can be used with a filled water lock for temporary gravity drainage without suction. However, temporary gravity drainage can also be used towards the end of therapy, e.g. when making the decision whether or not to remove the chest tube.



LONG SECRETION HOSE WITH STRAIGHT CONNECTION
With a total length of 1.8 m, the extra-long ATMOS secretion hoses ensure more flexibility when positioning the drainage system. The straight connection not only enables quick and easy attachment to the large 2 l secretion canister, but also ensures a barrier-free flow of secretion and thus prevents any blockages at the connecting point.





ATMOS CARDIOTHORACIC DRAINAGE – UNIVERSAL

Accessories? Extensive.

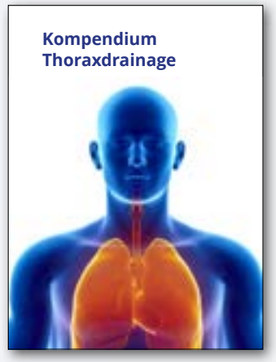
The accessories for the ATMOS Cardiothoracic Drainage Systems include everything that doctors and nurses need for comfortable, flexible, and safe therapy for cardiothoracic drainage patients: practical carrying solutions, versatile mounting systems, and a large portfolio of clinically tested consumables.

Everything from a single source



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CARDIOTHORACIC DRAINAGE COMPENDIUM
This compact compendium is the ideal reference work for all those who do not deal with drainage systems in thoracic or cardiac surgery on a daily basis. The authors, who are all experienced practitioners, have compiled a reader-friendly, 200-page manual containing a mixture of indispensable background knowledge, undisputed expert knowledge, and invaluable practical knowledge that should be made available in every hospital.



Scan the QR code and order the compendium



PRACTICAL CARRYING OPTIONS
At ATMOS, you can find a large selection of easy-to-attach, hygienic belt and carrying options for single or multiple use in combination with the ATMOS Cardiothoracic Drainage Systems.



VERSATILE MOUNTING SOLUTIONS
The ATMOS mounting solutions can be combined with each other as needed to ensure secure placement of the ATMOS Cardiothoracic Drainage systems in stationary and mobile situations: universal bracket for beds, standard rails, infusion stands, or walking aids; support for mounting to standard rails; storage solution for the power supply unit and power cable.



CLINICALLY TESTED CONSUMABLES
The clinically tested consumables from ATMOS guarantee versatile and safe operation of the ATMOS Cardiothoracic Drainage Systems and include: secretion canisters, hose systems, connectors, and connection sets for chest tubes.

ATMOS CARDIOTHORACIC DRAINAGE – ACCESSORIES & CONSUMABLES

ATMOS C 051 THORAX



Secretion canister 800 ml*

Reference number 317.1000.0



OT set*

Reference number 317.1100.0



Universal bracket

Reference number 317.1150.0



Universal bracket

Reference number 316.0200.0



Bracket standard rail

Reference number 317.1160.0



Charger storage for bracket

Reference number 317.1170.0



Disposable strap

Reference number 316.1200.0



Shoulder strap

Reference number 316.1100.0



Carrying handle

Reference number 317.0090.0

ATMOS S 201 THORAX



Secretion canister 2 l*

Reference number 312.1150.5



Secretion canister 2 l Standard

Reference number 312.1120.0



OP-Set*

Reference number 312.1031.0



Universal bracket

Reference number 312.1160.0



Carrying strap

Reference number 312.0850.0



Trolley for surgery

Reference number HM57525314

*Sterile device

ATMOS THORAX (GENERAL)



Hose system*

Reference number 312.1170.0



Y-connector*

Reference number 312.1105.0



Pediatrics connector*

Reference number 312.1102.0



Straight-connector*

Reference number 312.1103.0



Connection set for thoracic catheters

Reference number 312.1104.0



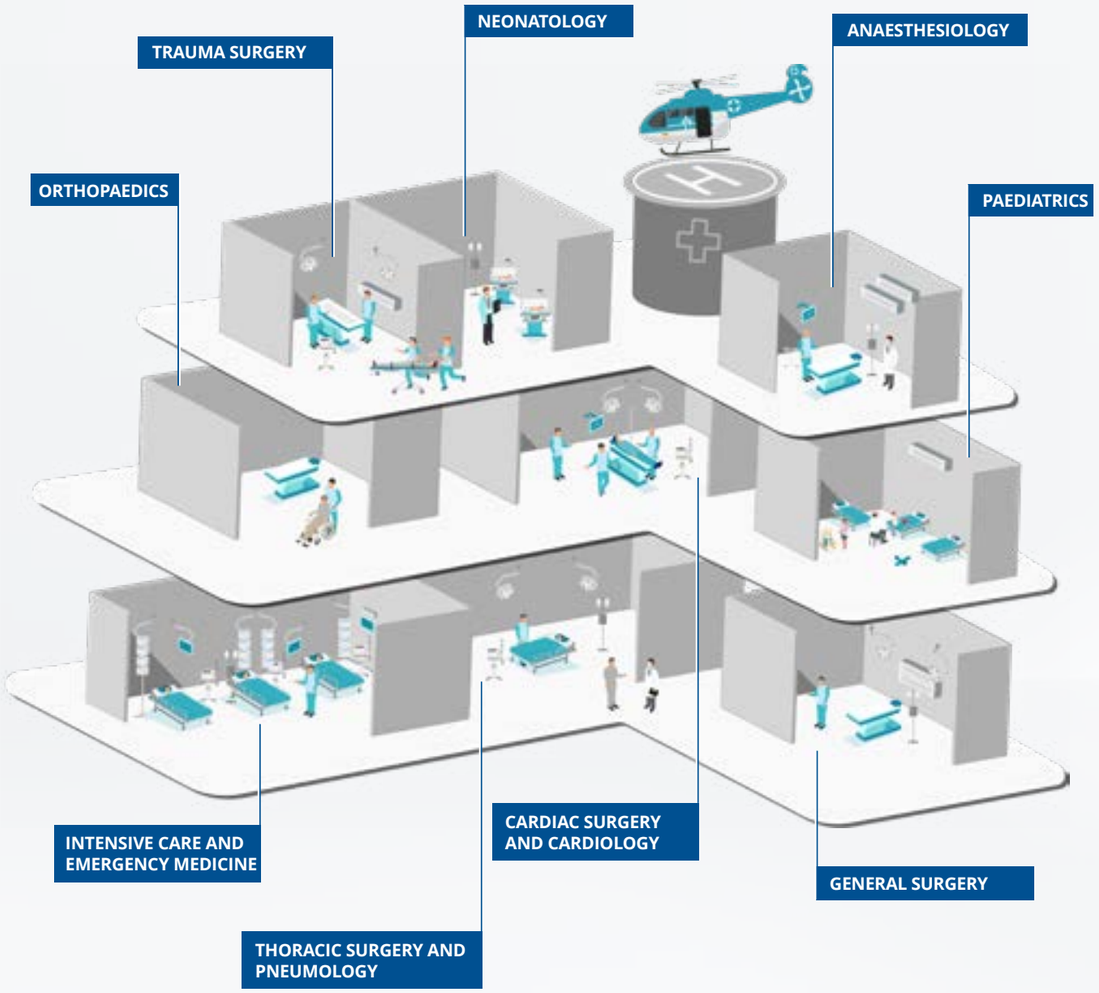
Hose clamp

Reference number 061.0079.0

ATMOS CARDIOTHORACIC DRAINAGE – INDICATIONS & TECHNICAL DATA

Area of use? Anywhere.

In thoracic and cardiac surgery, a large number of different patient indications require cardiothoracic drainage solutions for their treatment. The ATMOS systems easily cover all common requirements and contribute to safe and effective therapy with their high suction capacity, low weight, or mobile concept with an optional water lock.



TECHNICAL DATA





	ATMOS S 201 Thorax	**ATMOS C 051 Thorax**
REF	312.1000.0	317.0000.0
Max. suction capacity	18 ± 2 l/min (freeflow)	5 ± 0.5 l/min (freeflow)
Freely adjustable vacuum setting	–5 to –100 mbar, in steps of –1 mbar	–5 to –100 mbar, in steps of –1 mbar
Gravity drainage	Digital gravity drainage mode at −5 mbar. Temporary gravity drainage with filled water lock is possible.	Digital gravity drainage mode at −5 mbar
Battery operation	max. 12 h	max. 16 h
Graphic long time display	60 minutes to 12 days	60 minutes to 12 days
Graphic short time display	30 seconds in real time	30 seconds in real time
Colour display with touch screen	✓	✓
Night mode	✓	✓
Read-out of therapy data	PDF and Excel report via USB flash drive	PDF and Excel report via USB flash drive
Weight: basic device with secretion	3.0 kg 3.8 kg	1.1 kg 1.3 kg
Dimensions (H x W x D)	366 x 250 x 168 mm	164 x 206 x 95 mm
Noise level	max. 32 dB(A) @ 1 m	max. 34 dB(A) @ 1 m
Scope of delivery	Device, power cable	Device, power cable, power supply unit, carrying handle, 1x disposable strap

SECRETION CANISTER SYSTEM

Capacity	2000 ml	800 ml
Division	4 chambers	2 chambers
Hydrophobic bacterial & viral filter	✓	✓
Pop-off valve to relieve excess pressure	✓	✓
Optional water lock	✓	–

DOUBLE-LUMEN HOSE SYSTEM

Length	1.8 m	1.8 m
Secretion hose for drainage of fluids and air	✓	✓
Measuring and rinsing hose for monitoring vacuum and rinsing with air	✓	✓

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ATMOS MedizinTechnik

ATMOS MedizinTechnik GmbH & Co. KG

Ludwig-Kegel-Str. 16
79853 Lenzkirch / Germany

Phone +49 (0)7653-689-0
Fax +49 (0)7653-689-190
E-mail info@atmosmed.com

www.atmosmed.com

Scan the QR code and visit the ATMOS Cardiothoracic Drainage website