

The quick (snap-shut) coupling

The jar features a coupling, enabling quick connection to the Anoxomat System in one swift move. The jar can be easily disconnected after processing. The coupling guarantees absolute closure during incubation.

The Petri dish holders

One or more corresponding Petri dish holders can be supplied with each jar for almost every size of Petri dish and even micro-titer plates. The holders, made of autoclavable stainless steel, permit much easier dish handling.

Jar	Contents	Petri dish holder
AJ9022	1 stack of 6 Petri dishes ø 9-10 cm	PH 1060
AJ9023	1 stack of 12 Petri dishes ø 9-10 cm	PH 1040
AJ9025	3 stacks of 12 Petri dishes ø 6 cm	PH 1080
	1 stack of Micro-titer plates 13 x 9 cm	PH 1090
	1 stack of 10 Petri dishes ø 14.5 cm	PH 1070
AJ9028	4 stacks of 12 Petri dishes ø 9 cm	Non
	3 stacks of 12 Petri dishes ø 10 cm	PH 1050

Catalyst type	For use in Jar	Quantity needed
CA0000	AJ9022, AJ9023	1
	AJ9025	2
CA0001	AJ9028	3
	AJ9025, AJ9028	1

* Only AN2CTS



Catalyst

After processing the jars with the Anoxomat using the anaerobic recipe, a mere 0.16% of oxygen remains in the jar. A small catalyst is needed to obtain and retain absolute anaerobiosis. This catalyst consists of palladium coated aluminium pellets in a stainless steel gauge sachet. The catalyst can be used numerous times by reactivation in a hot-air oven. It can be easily mounted under the jar lid with the catalyst-clip.

Halamid Jar cleaner and disinfectant

Halamid is based on latent chlorine and oxygen. It is officially registered in conformity with the Dutch Biocide Regulation for use in the food and healthcare sectors.

- Effective against bacteria, fungi and viruses.
- Very high percentage of stable and active substance.
- Releases exactly the right amount of chlorine needed for an optimal disinfecting result. A Halamid-solution therefore retains its active properties even over very long periods.
- Excellent storage stability.
- Not aggressive towards metals and other materials (such as rubber, plastics, wood, etc.)
- Does not attach to surfaces and is therefore easy to rinse.
- Dissolves easily in cold water (maximum concentration is 10% at a temperature of 15°C). In most cases 0.5 to 1.0% will be sufficient.



Please find the Anoxomat distributor in your country on: www.anoxomat.com ▶ Distributor Network

Your local Anoxomat partner

Anoxomat™ Mark II



Cultivation of anaerobic, micro-aerophilic, and capnophilic bacteria

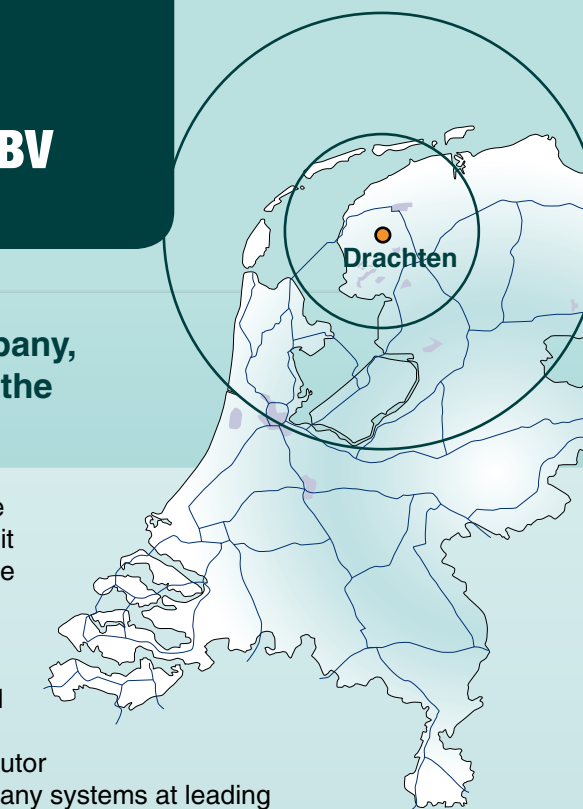
About Mart Microbiology BV and the Anoxomat

Mart Microbiology is a Dutch company, located in the town of Drachten in the north of the Netherlands.

Founded in 1982 as a two-man operation for the development of general automation equipment, it has now grown into a well-known company in the field of microbiology.

In November 2006, Advanced Instruments, Inc., of Norwood, Massachusetts, USA acquired 100% of the shares of Mart Microbiology B.V. Advanced Instruments had been the U.S. distributor of Anoxomat products since 2000 and placed many systems at leading American medical centers.

Founded in 1955, Advanced Instruments, Inc. is the world's largest supplier of freezing-point osmometers used in clinical, pharmaceutical, and biotechnology laboratories. The company is also a leading supplier of analytical instruments and test kits for the food, dairy, and industrial microbiology markets. Based in Norwood, Massachusetts, USA, the privately held company also produces Fiske(R) Associates brand diagnostic instruments and operates Spiral Biotech, Inc., and Delta Instruments as wholly-owned subsidiaries. <http://www.aicompanies.com>



First Anoxomat system

In 1984 a major breakthrough was achieved with the launch of the 'Anoxomat'. Developed in co-operation with a well-known and highly respected Dutch microbiologist, this system is produced and commercialised worldwide by Mart Microbiology.

Today Mart Microbiology has become a household name in laboratories engaged in microbiological research. Microbiologists all over the world are familiar with the Anoxomat and recognize its considerable advantages. Since its initial development, the system has been constantly refined and we are already marketing the fourth generation.

Field of application

The cultivation of micro-organisms in an oxygen-depleted atmosphere typically takes place using anaerobic jars, an anaerobic glove cabinet or a CO₂ incubator. These conventional methods are marred by many disadvantages, like late discovery of faulty jars or gas packs, slow anaerobiosis and chemical waste. The massive space-occupying chambers (anaerobic cabinets or CO₂ incubators) with fixed environments consume huge quantities of gas (requiring correspondingly large gas cylinders to keep them running). Servicing is costly and inconvenient. Added to this, they are often incapable of cultivating micro-aerophilic and anaerobic organisms at the same time, thus denying laboratories vital flexibility.

The Anoxomat has been designed to cope with these shortcomings.

MART® Microbiology B.V.
an Advanced Instruments company
De Bolder 68
9206 AR Drachten
P.O. Box 379
9200 AJ Drachten
the Netherlands

Phone: +31 (0)512 54 99 84
Fax: +31 (0)512 51 33 79

E-mail: info@anoxomat.com
Internet: www.anoxomat.com



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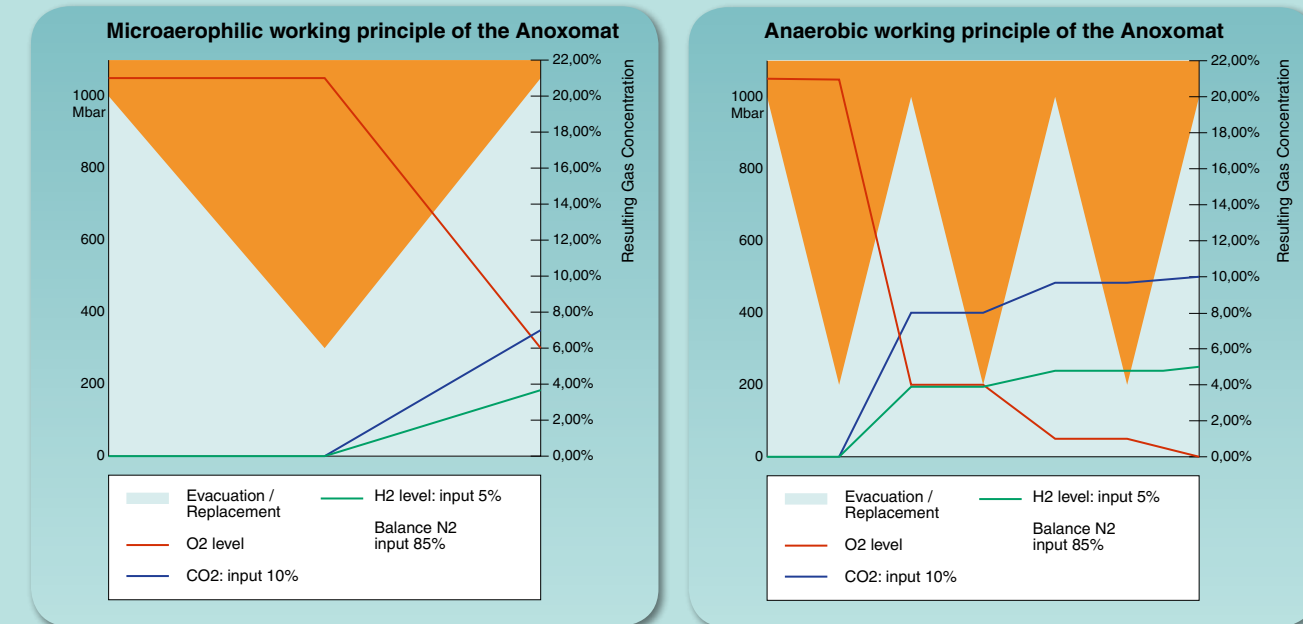
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E-mail: info@anoxomat.com



Method and System Information

The evacuation and replacement method of Macintosh & Fildes is said to be the most efficient way to create anaerobic or micro-aerophilic conditions, eliminating the disadvantages of conventional methods. Mart Microbiology has perfected this method in the **Anoxomat** system.

The Anoxomat evacuates a portion of the jar contents, and refills the jar with an anaerobic gas mixture. During this procedure the Oxygen concentration in the air is rarefied. In case of an anaerobic recipe, this procedure is repeated 3 times, after which the Oxygen concentration is rarefied to 0.16%. A small catalyst removes this very small percentage.

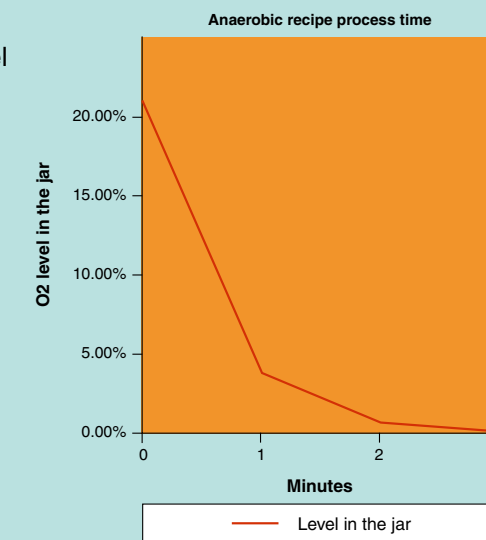


Since 1984, more than 1000 Anoxomat systems have been installed in clinical (hospitals, universities, public health laboratories) and industrial (food and beverage, water supply, pharmaceutical) laboratories worldwide, with users universally satisfied. Well-known scientists such as Dr. S.M. Finegold (USA), Dr. J.S. Brazier and Dr. S.A. Smith (both UK), Prof. Dr. W. Back, and Dr. W. Klietman (both Germany) have tested and recommended the system as better or at least equal to comparable methods. Comparative tests between the Anoxomat system and other methods have been carried out at internationally recognized institutes, with the Anoxomat often producing superior results.

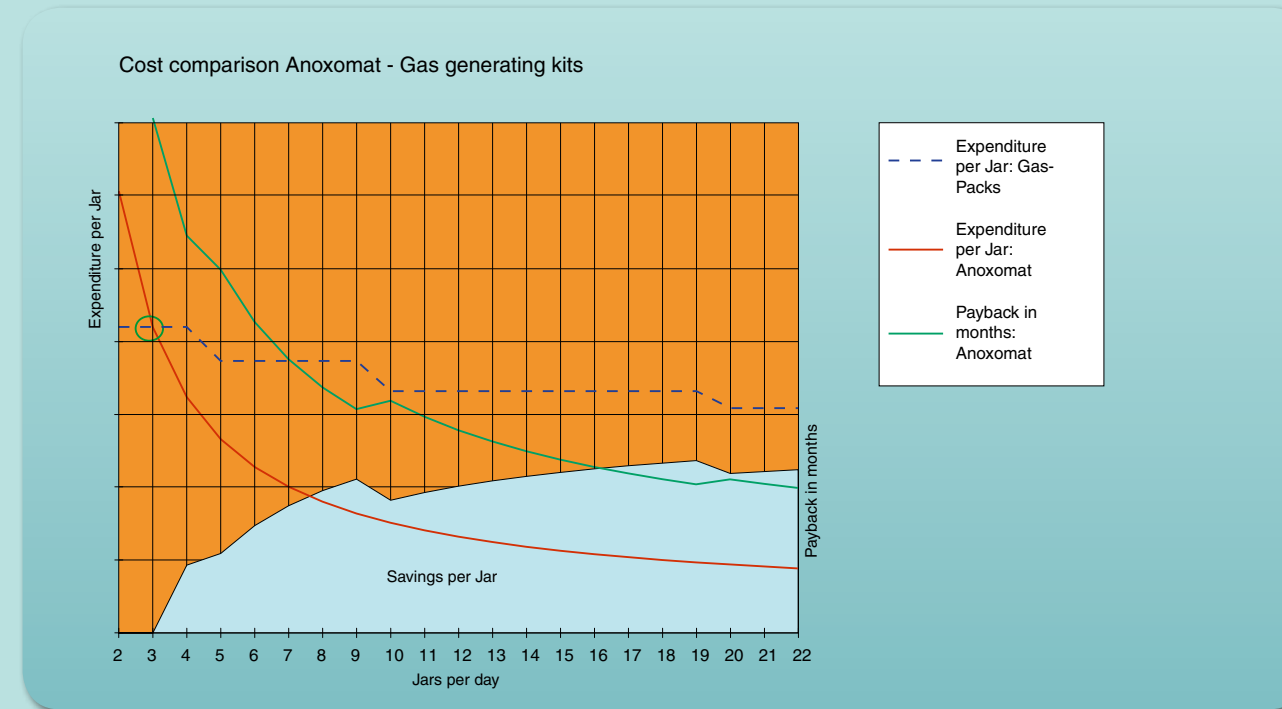
Features of the Anoxomat system

The Anoxomat incorporates unique features, which improve the output of the laboratory, simplifies handling for laboratory personnel and makes daily routines much more efficient, predictable and secure.

- Fully automatic
 - Processes the jar while you continue to work
 - Eliminates human errors
- Reliable
 - Reproducible, controlled conditions
 - Eliminates guesswork
- Fast micro-aerophilic and anaerobic conditions
 - Improves recovery of oxygen-sensitive organisms



- Quality assurance BEFORE incubation
 - Double jar leak test
 - Gas input test
 - Catalyst activity test
- Very simple operation
 - Connect the jar and start
- Eliminates the use of disposables
 - No chemical waste
- Dry conditions
 - Clean handling
 - No cross-contamination
- Low gas consumption
 - Saves cost and handling
 - No need for massive cylinders in the laboratory
- Convenient
 - Space saving due to a small footprint and the tabletop design
- Cost efficient
 - Low maintenance
 - View comparison below



Model Anoxomat Mark II, AN2CTS

The basic model, Anoxomat **AN2CTS** (Color Touch Screen) offers full freedom of choice as far as options are concerned. The system can be extended with these options during ownership.

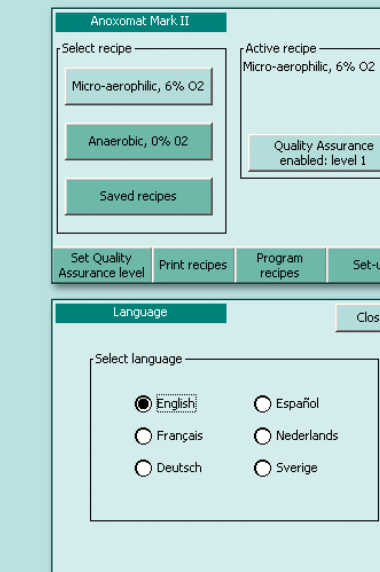


Additional features and options of the Anoxomat MARK II AN2CTS

➤ We have obtained significantly **enhanced process precision**. The resulting oxygen level in the jar(s) now stays well within 0.5 percentage points of the desired value. This high precision, combined with the **reproducibility** of the conditions, gives microbiologists a strong tool to draw accurate conclusions from repeated findings.

- Flexibility
 - Optimal conditions can be created for each culture, in each separate jar
 - The capacity can easily be extended by simply acquiring more jars

- Uses Mart anaerobic jars
 - Different jar sizes
 - Corresponding dish holders are available
 - Can use modified jars of most brands



➤ To achieve **increased simplicity** of operation, especially when non-standard conditions are desired, Mart Microbiology has incorporated a touch screen display, allowing the user to simply enter the desired percentages of oxygen and other gases, and save these 'recipes' for future reference.

- Memory
 - For user-defined O2, CO2 and H2 concentrations

➤ The vacuum pump has been incorporated in the housing of the machine to achieve a **compact, easy to handle system**. The footprint of the system is surprisingly small: Width 32 cm - Depth 52 cm - Biggest height 28 cm; inclining front to back.

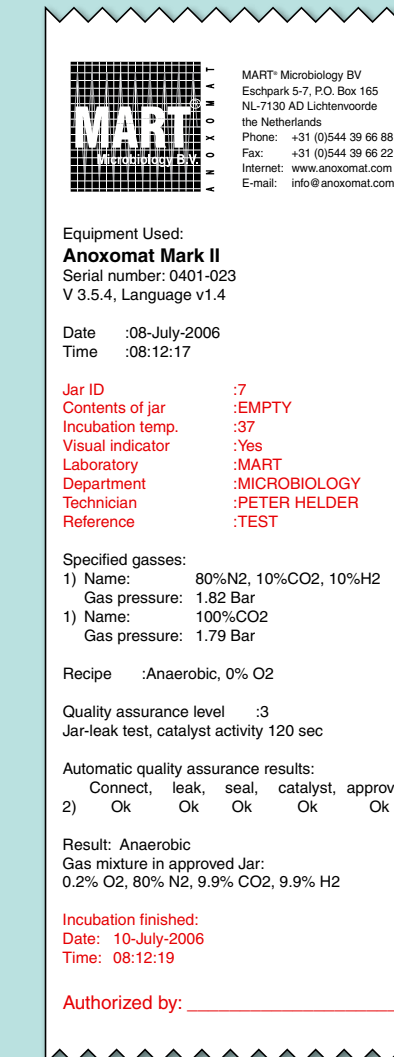
The basic system is equipped with one gas supply and one jar connection. It has no programming facility.

- More gas supplies and jar connections (total maximum 5 connections)
 - **3 extra jar connections** (up to 4 jars can be processed at the same time)
 - **2 extra gas connections** (up to 3 gas supplies can be processed)
- To make life easy, Mart Microbiology can preprogram the recipes the customer desires.
 - **Preprogrammed recipe**
- For customers who experiment regularly with Oxygen, Carbon Dioxide and Hydrogen concentration mixtures, it is possible to create and recall recipes freely.
 - **User programming function** (free user programming of oxygen level, gas mixture and evacuation level)

- **Accreditation**

Many laboratories struggle to fulfil current accreditation standards. The Anoxomat facilitates compliance by enabling the laboratory to control and retrace the sample processing history.

 - To determine when and how the samples were processed, an optional **thermal or matrix printer** can be attached to the Anoxomat.



The illustration shows which information is printed.

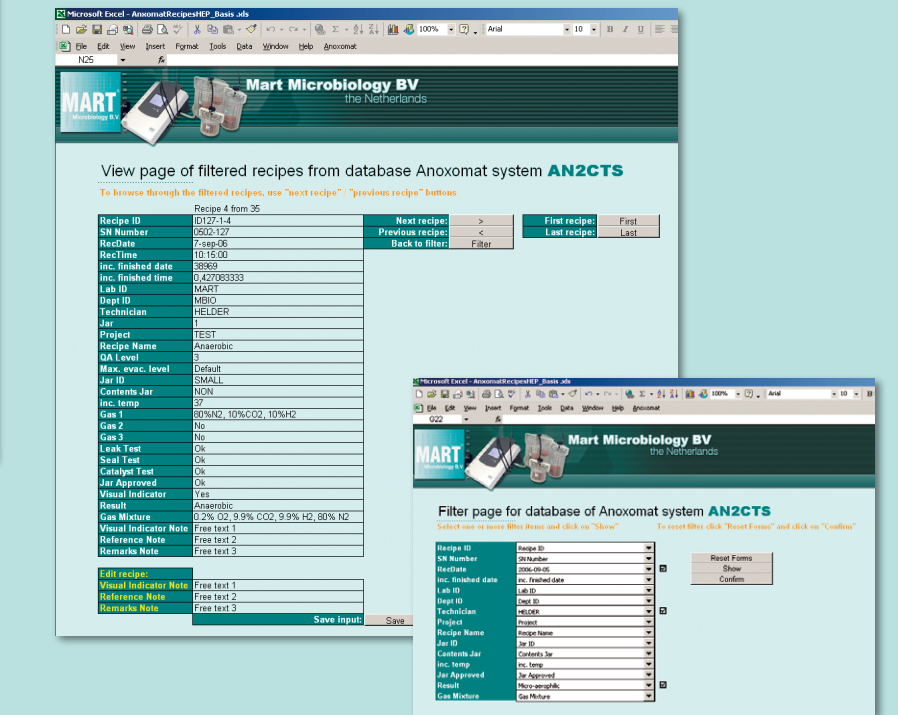
- To determine where and who processed the samples with the Anoxomat, an optional registration input screen can be added.
- The registered information is stated on the print-out. The print-out is attached under a special clip, mounted on the lid of the jar to identify the jar during and after incubation.
- The data generated by the Anoxomat (and printed out for jar identification) can also be transferred to a database:

- **To a web page as CSV file (comma separated values)**

The CSV file data can be used to transfer data into an existing Laboratory Information Management System (LIMS).

- **To a Mart Microbiology Excel database**

Within this Mart Microbiology Excel database, some additional functionality is available: 1. view and search functions 2. Remarks can be added to each recipe for future reference 3. Report page with final results per day.



Accessories

Jars

Oxygen-sensitive micro-organisms are often cultivated in anaerobic jars. Unfortunately, many brands on the market are badly constructed and often not airtight. This regularly results in failures that are not detected until AFTER the incubation.

MART Microbiology designed their jars to cope with these weaknesses.

Due to the excellent basic material, the overall solidity and the strong jar-lid-clamp construction, the MART jar satisfies the highest mechanical and microbiological standards and is guaranteed to have a longer life than competing brands.

