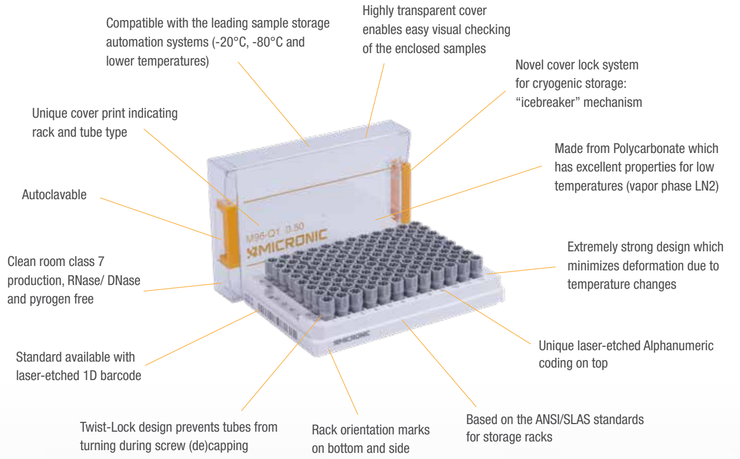
SUPERIOR RACK FEATURES



OPTIONAL SERVICES / FEATURES

Custom 1D Rack Barcode

Micronic offers the service to supply unique laser-etched 1D barcodes in customized formats on any side of the rack. The standard barcoded racks of Micronic are provided with a unique laser-etched barcode on the A1-H1 side of the rack.

STERILIZATION

Sterilization by Gamma Irradiation

Gamma irradiation is the most common sterilization method used on labware. Sterilization by gamma irradiation can ensure a SAL of 10-6: a one millionth probability of microbial survival. Irradiation itself cannot guarantee that the product is free from any detectable RNases, DNases or pyrogens. Class 7 clean room production is therefore an essential requirement.

Sterilization by EtO Treatment

Using a novel Ethylene Oxide Treatment process - Micronic's labware is independently certified to be absolutely DNA-free and therefore provides the perfect medium for long-term, high integrity storage of forensic samples. Micronic is offering the DNA-free products in a special Tyvek packaging.

Snap Tubes

The tubes are locked into the rack wells to prevent sample loss from overturned racks. There is no extra charge and the feature is available for 0.50ml, 0.75ml, 1.10ml and 1.40ml tubes with internal thread.

CRYOGENIC SAMPLE STORAGE

Storing samples at low temperatures is associated with extended viability of the preserved samples. While many samples are stored in mechanical freezers at -80°C, it is important to note that at this temperature metabolic activity has not ceased, it has only slowed down. By reducing sample temperatures to below the glass transition phase of water (-132°C), all metabolic activity comes to a halt. Sample storage below this temperature - in vapor phase LN2 - therefore assures a safe form of preservation.

Testing shows that the Micronic ULT Racks can be used in cryogenic temperatures until vapor phase LN2. Vapor phase LN2 temperatures range between -150°C and -196°C, depending on the location and the distance away from the liquid nitrogen vessel.

Micronic does not recommend to store samples in liquid phase nitrogen, as there are several risks associated with storing samples in these kind of storage systems:

- Storage in LN2 includes the risk of the tubes being flooded by LN2 when the storage vessel is filled - LN2 may seep inside the tube when not correctly capped. LN2 trapped in a cavity expands rapidly when the tube is retrieved into room temperature, which may cause a significant explosion risk. No manufacturer can guarantee that LN2 will never penetrate into any tube during storage.
- Research shows that laboratory staff should be aware of potential cross-contamination from e.g. viruses that retain infectivity after suspension in LN2.

COMPATIBILITY LABWARE EQUIPMENT

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MICRONIC
INNOVATION IN SAMPLE STORAGE

MICRONIC
INNOVATION IN SAMPLE STORAGE

BROCHURE

SERVING SCIENTISTS SINCE 1984

CERTIFIED CLASS 7 CLEAN ROOM MANUFACTURING

PRODUCTION IN THE NETHERLANDS AND THE UNITED STATES

NEXT GENERATION RACK RANGE

For Ultra-Low Temperature Storage

MICRONIC
INNOVATION IN SAMPLE STORAGE

NEXT GENERATION RACK RANGE

FOR ULTRA-LOW TEMPERATURE STORAGE

Class 7 clean room ✓ | RNase DNase Free ✓ | ✓ | SLAS ✓ | 4001456789 ✓

A STATE OF THE ART RACK RANGE WITH UNMATCHED FEATURES

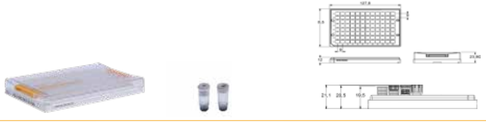
Drawing upon 35 years of experience in manufacturing and supplying traceable sample storage solutions to research centers and laboratory facilities, Micronic has developed a Next Generation Ultra-Low Temperature Tube Storage Rack Range. The Micronic Ultra-Low Temperature (ULT) Racks do not simply have a nicer design - they are better in every way. The racks have many unique features including its extremely strong design for cryogenic storage, a novel "icebreaker" cover lock mechanism, cover prints indicating rack and tube type, rack orientation marks and a highly transparent cover which enables easy visual checking of the enclosed samples.

Precision manufactured in a certified Class 7 clean room production facility, the Micronic ULT Racks are based on the Society for Laboratory Automation and Screening (ANSI/SLAS) standards for storage racks and accommodate 96, 48 or 24 tubes. Absolute traceability and reproducibility on the racks is ensured through novel laser-etched alphanumeric visual location aids on top of the racks and a unique laser-etched 1D barcode on the side of the racks. The open bottom design of the storage racks facilitate quick defrosting of samples.

Micronic 96-1 Rack

Internal Thread: 0.50ml tubes with Push Caps or Low Profile Screw Caps

External Thread: 0.30ml tubes with Screw Caps

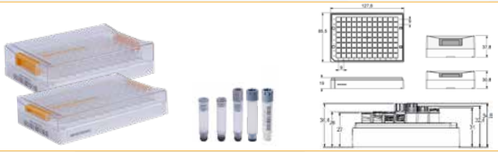


Micronic 96-Q1 Rack

Internal Thread: 0.50ml tubes with Screw Caps

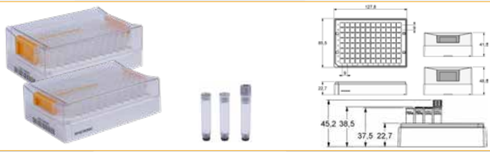
Micronic 96-2 Rack

Internal Thread: 0.75ml tubes with Push Caps or (Low Profile) Screw Caps
External Thread: 0.75ml (hybrid) tubes with Screw Caps



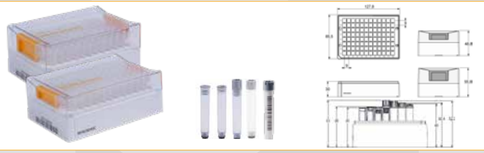
Micronic 96-3 Rack

Internal Thread: 1.10ml tubes with Push Caps or (Low Profile) Screw Caps



Micronic 96-4 Rack

Internal Thread: 1.40ml tubes with Push Caps or (Low Profile) Screw Cap
External Thread: 1.40ml (hybrid) tubes with ScrewCaps



THE USE OF THE MOST ADVANCED MATERIALS - A RESULT OF EXTENSIVE RESEARCH

One of the most important properties tube storage racks need to have is their resistance to extreme conditions. Micronic conducted research on all kinds of materials and rack designs in order to come to a perfect match for use in ultra-low temperatures. As a result of extensive testing, the Micronic ULT Racks are manufactured from virgin Polycarbonate. Racks made from this material have excellent properties for low temperature conditions which make them ideal for long term use in automated cryogenic storage facilities. The racks have an extremely strong design which minimizes deformation due to temperature changes.

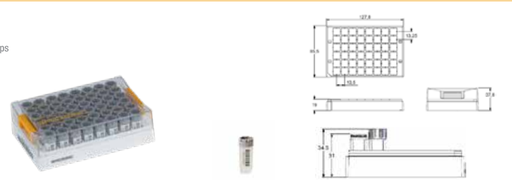
The Micronic ULT Racks, as well as its tubes and caps, are manufactured and assembled under US Federal Standard 209E Class 7 clean room conditions. Micronic manufactured products comply with the highest injection molding standards and are free of any detectable RNase or DNase contamination. Micronic is also able to limit the endotoxin (pyrogen) level of produced and packaged articles to an acceptable minimum (< 0.01 EU/ml).

Micronic 48-1 Rack

External Thread: 1.00ml tubes with Screw Caps

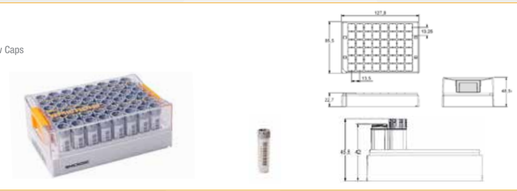
Micronic 48-2 Rack

External Thread: 2.00ml hybrid tubes with Screw Caps



Micronic 48-3 Rack

External Thread: 3.00ml hybrid tubes with Screw Caps



Micronic 48-4 Rack

Internal Thread: 4.00ml tubes with Screw Caps
External Thread: 4.00ml tubes with Screw Caps

DESIGNED IN COOPERATION WITH AUTOMATION COMPANIES

There is a trend among biorepositories and other laboratory facilities towards laboratory automation in order to increase and maintain sample integrity. This means that tube storage racks need to be designed in such a way that they are compatible with automated storage and handling systems. The Micronic ULT Racks therefore have an automation compatible American National Standards Institute/ Society for Laboratory Automation and Screening (ANSI/SLAS) dimensional footprint.

In addition to the standard ANSI/SLAS footprint, the ULT Racks are provided with more features ideal for automation. These features include: an outstanding Twist-Lock design which prevents tubes from turning during screw (de)capping, easy lead-in tube and cover placement, closed side walls with minimal notches for perfect rack orientation and the 1D rack barcode is inseparable with the rack for absolute tracking and tracing of the samples. The Micronic ULT Racks are already tested and in operation at low temperature automated storage systems.

Micronic 24-1 Rack

External Thread: 1.50ml and 3.00ml hybrid tubes with Screw Caps

Micronic 24-2 Rack

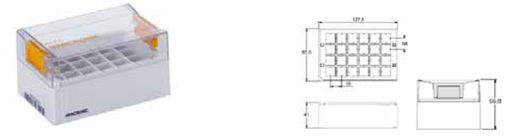
External Thread: 3.50ml tubes with Screw Caps

Micronic 24-4 Rack

Internal Thread: 6.00ml tubes with Screw Caps
External Thread: 6.00ml hybrid tubes with Screw Caps

Micronic 24-5 Rack

Contact us for compatible tubes



Micronic 24-6 Rack

Contact us for compatible tubes