Multitron

INFORS HT
We bring life to your laboratory

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This Is The Multitron

The Multitron is the number-one choice for reliable, convenient cultivation of microorganisms and cell cultures. The incubation shaker guarantees homogeneous conditions and delivers reproducible results, leaving nothing to be desired regarding its features and capacity.

Multitron, three stacked units with top cooling, working height: 1.40 m

Up to 63 L or 23,040 parallel batches with 3 mm shaking throw

Compact footprint of just under one square meter

The perfect conditions for cultivation

Offering homogeneous conditions for reproducible results, the Multitron has been setting standards for temperature uniformity for decades. Thanks to its ingenious design, its precise CO_2 control system is extremely efficient, and the bidirectional humidification produces no condensation. The practical door mechanism and the quick, automated start-stop feature keep interruptions in the cultivation process to a minimum.

Experience seamless cultivation

Unlock the full potential of your research and cultivate with confidence using our workflow-oriented incubator shaker. Its practical door mechanism, quick automated start-stop feature, and user-friendly display combine seamlessly to streamline your workflow, minimize interruptions, and ensure optimal productivity at every step.

Features

The Multitron can be used for cultivating microorganisms and cell cultures alike, and is suitably equipped for the type of application at hand.

Climate Control
- Optional hygienic pressure-less and condensate-free humidity control with precise bidirectional control allowing humidification with direct steam and dehumidification with sterile air
- Optional active CO_2 control with low consumption designed due to tight housing

Drive unit
- Quiet, uniform and reliable every time you load it
- Dynamically balanced table eliminates the need for manual adjustments
- Automatic tray release eliminates handling errors
- Easy to clean

Hygiene
- Rounded corners make the interior easy to clean
- Optional antimicrobial coating
- Optional UV sterilization of the air flow

Connections and interfaces
- Ethernet interface for connecting to eve® or process control systems
- Optional analog outputs for interface with building monitoring and alarm systems
- Cable pass through as a standard for external sensors

Temperature control
- Tight control of temperature across the incubator shaker ensures identical conditions for every batch
- Can be connected to existing laboratory cooling system
- Optional cooling in base or on the top unit for optimum space utilization
- Excellent insulation and avoiding heat sources in the incubation chamber keep energy demand low

Graphical colour display
- Simultaneous overview of all parameters
- Event list showing e.g. door opening, alarms, etc.
- On-screen guidance
- Simplified timer programming
- Clear, informative status icons and messages
- Registered as an international design

Accessories

For automation, safety and flexibility – and meeting GMP requirements

Digital integration into the facility network
- Ethernet interface provides connectivity to eve® bioprocess platform software or 3rd party process control systems
- Optional analog outputs

Qualification and process validation
- Design qualification
- Installation qualification
- Operational qualification
- Factory acceptance test (FAT)
- Site acceptance test (SAT)
- Software validation for eve®

Trays
- Corrosion-resistant, anodized aluminum
- Can be configured with a variety of flask clamps, adjustive tube racks or adhesive mats
- Autoclavable
- Special trays for 96-well plates

“Sticky Stuff” adhesive matting
- Compatible with all vessels with a flat bottom
- Reliable fixation even at high agitation speeds and temperatures
- Long lifespan
- Easily cleaned and regenerated with water

Retaining clamps
- Stainless steel retaining clamps can be screwed onto universal trays
- For Erlenmeyer and Fernbach flasks
- Special mounting hardware upon request

Test tube holders
- Perforated inserts made of foam rubber ensure a reliable hold and prevent rattling noises
- Test tubes can be incubated in a vertical position or at an adjustable angle
- Compatible with universal and “Sticky Stuff” trays

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Features

Technical data

	One unit	Three units
Dimensions with low base (W x D x H)	1070 mm x 880 mm x 695 mm	1070 mm x 880 mm x 1850 mm
Maximum load	55 kg, 21 L or 7680 parallel batches	165 kg, 63 L or 23,040 parallel batches
Maximum working height	290 mm	1400 mm
Shaking throw	3 mm / 25 mm / 50 mm / adjustable	
Rotation speed range	20 min^{-1} to 400 min^{-1} (3 mm: 1000 min^{-1})	
Temperature range	without cooling max. 10 °C above AT to 65 °C; Minimum temperature from 4 °C depending on cooling system	
Standard parameters	Temperature, rotation speed, timer	
Optional parameters	Cooling, humidity, CO_2 control	
Interface	Ethernet	
Ambient humidity (rH)	Up to 85 % non-condensing	

Contact us and we'll be happy to advise you.

Sample Configurations

Microorganisms

Maximum oxygen introduction, even when filled to maximum capacity in stacked units

- 25 or 50 mm shaking throw for optimal mixing from tubes to 5 L shake flasks
- High shaking frequencies for maximum oxygen transfer

Cell culture

Optimum conditions for mammalian and insect cells

- Active CO_2 control
- Hygienic condensate-free bidirectional humiditiy control designed to limit evaporation loss
- Housing with antimicrobial coating as an option
- Optimized for gentle mixing and good oxygen transfer

Screening in 96-well plates

Conduct over 7,000 experiments in parallel

- Perfect conditions thanks to 3 mm shaking throw and 1000 min^{-1}
- Hygienic, condensate-free humidity control designed to limit evaporation loss
- Technology proven to increase yields over traditional methods
- Active CO_2 control