



PLANT BIOTECHNOLOGY / MICROPROPAGATION

PLANT TISSUE CULTURE GROWTH RACK

Modular illuminated culture space for controlled growth workflows.

A configurable multi-level rack system for plant tissue culture and micropropagation laboratories. Shelf dimensions, construction material, LED spectrum, photoperiod control and mobility are selected according to the approved laboratory requirement.



WORKING LEVELS

Typically 3-6; custom available

TYPICAL SHELF SIZE

1200 x 450 mm / 1200 x 600 mm

CONSTRUCTION

Powder-coated steel / SS-304 / SS-316 on request

PROPOSED SERIES

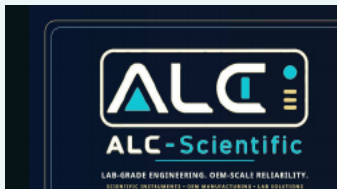
ALC-TCR

COMMON MODELS

TCR-3 / 4 / 5 / 6

PROPOSED SPECIFICATION SET

Final dimensions, lighting, controls, accessories and performance are confirmed in the approved model-specific quotation.



PRODUCT OVERVIEW

Organized vertical culture space with configurable illumination.

ALC-Scientific Plant Tissue Culture Growth Racks provide organized vertical culture space for bottles, jars, vessels and trays used in plant tissue-culture and micropropagation workflows. Configurations can combine multiple illuminated levels, fixed or mobile construction, selectable shelf materials, LED lighting and programmable photoperiod control. Final rack size and lighting arrangement are selected according to vessel height, room space, target illumination and laboratory workflow.



WORKING LEVELS

Typically 3-6

SHELF SPACING

Approx. 350-450 mm

ELECTRICAL

220-240 V AC, 50 Hz

Key Features

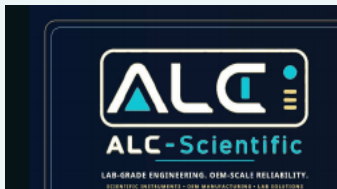
- Modular multi-level rack construction
- Configurable shelf width, depth and spacing
- White, full-spectrum, red/blue or multi-spectrum LED options
- Individual shelf, timer or centralized lighting control
- Powder-coated steel, SS-304 or SS-316 on request
- Fixed, lockable-castor or levelling-foot configurations
- Optional guard rails, removable shelves and cable management
- Custom room-layout support for multi-rack projects

Working Principle

Culture vessels are arranged vertically on illuminated shelves. LED light bars positioned above or below each working level provide artificial illumination according to the selected spectrum and working distance. A timer or controller can establish programmed light/dark cycles. Shelf spacing, airflow clearance and lighting output are configured for the intended vessels and culture-room arrangement.

TYPICAL APPLICATIONS

Plant tissue culture / Micropropagation / Agricultural research / Horticulture laboratories / Plant-growth studies / Culture-room installations



PROPOSED TECHNICAL DATA

Product-family values require model-specific confirmation.

PARAMETER	PROPOSED SPECIFICATION
Product type	Plant Tissue Culture Growth Rack
Working levels	Typically 3-6; custom configurations available
Typical shelf width	1200 or 1800 mm
Typical shelf depth	450 or 600 mm
Shelf-to-shelf spacing	Approximately 350-450 mm
Construction	Powder-coated steel / SS-304 / SS-316 on request
Shelf type	Solid / perforated / platform / rail type
Lighting	White / full-spectrum / red-blue / multi-spectrum LED
Lighting control	Individual shelf / timer / centralized
Photoperiod control	Optional programmable controller
Mobility	Fixed / lockable castor-mounted / levelling feet
Electrical supply	220-240 V AC, 50 Hz - standard Indian configuration
Customization	Dimensions, shelf count, lighting and controls available

STANDARD SUPPLY

- Rack frame and selected shelf set
- LED light bars / drivers as quoted
- Switching / control arrangement
- Cable routing and power cord
- Castors or feet as selected
- Operation / installation guidance

OPTIONAL / MODEL-DEPENDENT

- Digital photoperiod timer
- Central rack controller
- IoT / network control package
- Additional LED bars / spectrum options
- Guard rails / removable shelf panels
- Custom electrical distribution

TO BE CONFIRMED

- Final overall dimensions
- Exact shelf count and spacing
- LED wattage / spectrum / light bars
- Controller and accessory scope
- Materials and finish
- Warranty and project documentation



APPLICATIONS & ENQUIRY

LABORATORY APPLICATIONS

Flexible illuminated rack systems for plant culture-room workflows.

Applications

- Plant micropropagation
- Agricultural research
- Commercial tissue culture
- Biotechnology research
- Horticulture research
- Controlled plant-growth studies

Product Advantages

- Efficient vertical use of culture-room floor space
- Multiple shelf and construction options
- Configurable LED spectrum and photoperiod
- Fixed or mobile configurations
- Custom dimensions for project requirements

INDUSTRIES SERVED

Plant tissue-culture laboratories / Agricultural universities / Biotechnology research /
Horticulture laboratories / Research institutions / Commercial micropropagation facilities

SCAN PRODUCT PAGE



Request a model-specific quotation.

Share room dimensions, culture-vessel format, required rack quantity, working levels, preferred construction and lighting needs. Final specifications and accessories are issued with the approved quotation and technical documentation.

ALC-SCIENTIFIC LABORATORY SYSTEMS

OEM / PRIVATE LABEL AVAILABLE

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Product images are for reference and may vary by configuration. Specifications, dimensions, accessories and designs are subject to change. Final specifications are those in the approved technical datasheet and commercial quotation.