

LABORATORY



Plant Growth Chamber
MODEL : MO-7-740F/FH/FC/FHC

MoonMed Model MO-7-740 Series

Model Sizes:

Four standard model sizes 483L, 690L, 1025L 1400L (We can custom make any missing sizes on demand)



Precision, versatility, stability and innovation are the heart of MoonMed technology. Temperature, humidity, lighting, carbon dioxide or other gases in any desired programming values must be accurate to maintain a stable environment. An environment scientist experiments with utmost attention to detail and accuracy of his most important experimental facts.

MoonMed is aware of these needs, and is constantly working to provide you with the perfect solution for growth. From the plant growth chamber and controlled greenhouse environment, we have 30 years of experience in this area, which allows us to bring satisfaction to all our customers. We are looking to implement innovative technology solutions and a full range of equipment options to make the difference.

The MO-7-740-F Series is characterized by the versatility of its use while maintaining an exceptional environment uniformity. The user is free to set the interior of the chamber as he wants for Arabidopsis, insect incubation, seed storage, tissue culture storage, plant growth, and constant temperature chamber with all settings possible. The desired number of shelves and lights can be installed at any height, the air circulation will always be the same and this is the particularity for the MO-7-740-F Series.

Thanks to its side wall plenum air flow, an exceptional environment uniformity is maintained at each level of the growth chamber. The MO-7-740-F Series has been designed for the scientist who is conscious with detail and accuracy of his experiments. It is for this reason that a host of features are programmable from the 4.3\"/>

MO-7-740-F SERIES PLANT GROWTH / TISSUE CULTURE CHAMBER

The MO-7-740-F Series produced by MoonMed is based on proven standards and technologies. Ergonomics, user-friendly interface, PID microprocessor control type with multi-programming and multi-steps that have been developed and tested with the utmost rigor.



FEATURES

- Included are 4 growth areas
- Shelves easily settable (removable)
- Individually settable lighting by various combinations of lights
- T8: ON/OFF (option dimmable: 10% to 100%)
- LED: 10% to 100% dimmable
- Growth area 1.68m²
- Standard growth height 250mm (LED:300mm)
- Standard humidity up to 90%RH (Lights ON)
- The number of Growth or Culture areas can be increased on demand.



access port

OPTIONS

- High Intensity LED Lights(1 light):
- >700umols⁻¹m⁻²@30cm
- >1400umols⁻¹m⁻²@15cm
- RGB control / 8 channels control
- PAR control
- Ultra-low temperature
- Low Humidity level control
- CO2 / Other gas control
- Analog outputs 4 - 20mA
- Access ports of various diameter
- Remote Control
- CCD camera and morphology analyzer
- Antimicrobial surface



lights in chamber



Lighting can be positioned in various ways



MO-7-740-F Series AIR CIRCULATION

The MO-7-740 Series has optimized air flow, provided by centrifugal impellers, directed to each growth area (horizontally) via side wall plenum. Thanks to this Side to Side air flow, the MO-7-740F Series obtains the best temperature and humidity uniformity of all similar products in the market. The exceptional uniformity is not the only advantage of this incredible air flow system. In the competition growth chambers, the air circulates from back to front and has to find space between the doors and the shelves to reach the ceiling where the blower is placed. Furthermore, when the scientist opens the door the air is forced outside the chamber, which involves quick environment changes. In the MO-7-740-FH, as there is no obstacle in the way of the air circulation, the air doesn't go out when the door is opened, therefore the growth chamber uses less energy to operate, which means the life span of the motor elements are extended. The Side to Side air circulation system is adjustable to maintain the same air flow at every level even if you change the disposition of your shelves.

MO-7-740-F SERIES INSECT INCUBATION CHAMBER

The MO-7-740-F Series is equipped with a tempered glass door with tight light cover to observe the inner room without changing environment conditions. Contact us for optional high frequency lights to limit stroboscopic effects on the insects.

- Included 4 areas
- Shelves easily adjustable / removable
- Shelf area 1.68m²
- Individually programmable lighting by a couple of lights
- Standard humidity range 50% – 95%RH

MO-7-740-F SERIES SEED STORAGE CHAMBER

The MO-7-740-F Series standard version is adapted to the seed storage, optionally the perfect dry conditions can be achieved for long term storage.

Included 4 areas

- Shelves easily adjustable / removable
- Shelf area 1.68m²
- Standard +5°C to +10°C (lower temperature in option -20°C)
- Standard humidity range 50% – 95%RH (the seeds have to be kept in a dry environment)
- Side to Side air circulation
- Air velocity adjustable



MODEL MO-7-740F/FC/FH/FHC

TECHNICAL DATA SPECIFICATIONS

MODEL: MO-7-740	F	FC	FH	FHC
Temperature Range 0°C - +60°C	✓	✓	✓	✓
Temperature Fluctuation ±0.2°C @ 20°C	✓	✓	✓	✓
Temperature Uniformity ±0.5°C @ 20°C	✓	✓	✓	✓
Temp. Control Accuracy ±0.1°C	✓	✓	✓	✓
Humidity Range 50% - 95% RH	✗	✗	✓	✓
Humidity Uniformity ±2%	✗	✗	✓	✓
Humidity Control Accuracy ±0.1%	✗	✗	✓	✓
Humidifier Type: Ultrasonic Humidifier	✗	✗	✓	✓
CO2 Control Range: From ambient to 5000ppm	✗	✓	✗	✓
Light Type :T8 / LED SUN LIGHT Z1	✓	✓	✓	✓
Light Intensity:>150 umols-1m -2@150mm (400 - 700nm)	✓	✓	✓	✓
Light Control:ON / OFF or 10% to 100% programmable	✓	✓	✓	✓
Program:Multi programs - multi steps	✓	✓	✓	✓
Alarm :High and Low Temperature Alarm	✓	✓	✓	✓
Data :Export by USB port	✓	✓	✓	✓
Remote Control:Direct connection to unit by LAN to control HMI (by Internet in option)	✓	✓	✓	✓
Cooling System:Air or water cooled condensing unit / CFC free refrigerant	✓	✓	✓	✓
Dimensions: W870xD800xH1980 mm	✓	✓	✓	✓
Working Volume	483L	483L	483L	483L
Interior Material:Stainless Steel #304	✓	✓	✓	✓
Exterior Material:Steel powder coating	✓	✓	✓	✓
Insulation:PUF insulation	✓	✓	✓	✓
Door :with heated tempered glass observation window to avoid condensation	✓	✓	✓	✓
Growth Area:4 growth areas(1.68m2)	✓	✓	✓	✓
Growth Height:30cm adjustable (2.5cm steps)	✓	✓	✓	✓
Safety Device:Overheat protection and low temperature protection / Door open alarm / Over load protection / Compressor delay start protection	✓	✓	✓	✓
Power:Adapted to the users system	✓	✓	✓	✓