



Heal Force

CO₂ Incubator

Ideal Culture Conditions for your success



Accurate, reliable and intuitive

Heal Force leads you to healthier life

Water-Jacketed CO₂ Incubator

Water-jacketed

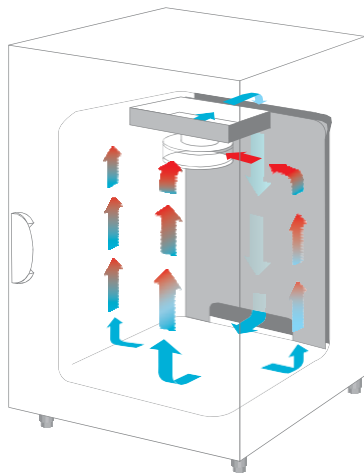
The large size AL160W CO₂ incubator incorporates a water jacketed system. Because of the heat retention characteristics of water, there is no sudden temperature change in the event of an unexpected power failure. A stable temperature environment is ensured.

HEPA filter

AL160W applies long term effectiveness of the HEPA filter to protect your cultures. The filter is very efficient to entrap particulates larger than 0.3µm at 99.97%. The HEPA filter system runs continuously and within every 60 seconds, the volume of entire chamber is disinfected. With help of HEPA filter, the air quality achieves Class 100 clean room levels within 5 minutes following a door opening.



HEPA filter



HEPA filter and airflow pattern

Airflow system

Optimized air flow system ensures the temperature and CO₂ concentration to be stable and uniform within the chamber.

AUTO-ZERO/AUTO-START

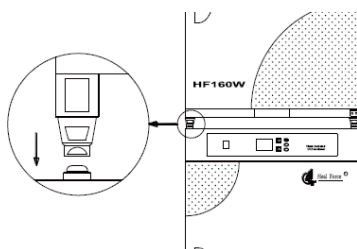
AL160W combines precise CO₂ control with a choice of TC or IR sensors. The microprocessor will automatically "Zero" the incubator (IR type) using room air as a reference every 24 hours. Auto-start function for TC type ensures the sensor's baseline automatically reset without manual adjustment. These features will maintain an accurate CO₂ control without worrying about CO₂ drift.

Automatic control door heater

The outer door incorporates a door heater which is interlocked with the surrounding temperature monitoring system. This prevents temperature differences between the chamber and the inner door, thereby preventing condensation.

Humidity display and alarming system

AL160W is able to create a high humidity environment and the relative humidity (RH) is displayed on the panel, readable in 0.1% increments, including low RH programmable alarm (alerts you of need to add water)



Space Utility

Stackable design takes up less space. Two or three units can be stacked according to available space and usage



Automatic gas cylinder switchover system

This system automatically switches from the primary to secondary gas cylinder when CO₂ gas level does not change while an injection valve is open.



- A. power switch
- B. camber gas sample port
- C. fill port
- D. CO₂ sensor
- E. temperature sensor
- F. humidity sensor
- G. piling leg
- H. mirror finish shelves
- I. water jacket
- J. glass fibre insulator
- K. high efficiency HEPA
- L. magnetic gasket
- M. outer door heater
- N. water pan
- O. water jacket drain
- P. coved corner

AL160W Specifications

Construction

| | |
|-----------------------------|---|
| Exterior dimensions (WxDxH) | 655x656x1030(mm) 25.8x25.8x40.5(inch) |
| Interior dimensions (WxDxH) | 544x504x681(mm) 21.4x19.8x26.8(inch) |
| Interior Volume | 185L/6.5cu.ft. |
| Water jacket volume | 43.5L/1.54cu.ft. |
| Net Weight | 110kg/242lbs |
| Interior | Type 304, mirror finish stainless steel |
| Exterior | cold-rolled steel, power coated |
| Inner door | one inner door standard |

Temperature

| | |
|----------------------|---------------------------------------|
| Heating method | Water Jacket |
| Temp. control system | Microprocessor |
| Temp. sensor | PT1000 |
| Temp. range | 5°C above ambient temperature to 55°C |
| Temp. uniformity | ±0.2°C |
| Temp. stability | ±0.1°C |

CO₂

| | |
|--------------------------------|-------------------------------|
| Inlet pressure | 0.1 MPa |
| CO ₂ control system | Microprocessor |
| CO ₂ sensor | Thermal conductivity/Infrared |
| CO ₂ range | 0 to 20% |
| CO ₂ stability | ±0.1% |

Humidity

| | |
|------------------------|--------------------|
| Humidifying system | Humidity pan |
| Humidifying sensor | Standard |
| Relative humidity | ≥95% |
| Display | In 0.1% increments |
| Water reservoir volume | 3L |

Shelves

| | |
|------------------------|--|
| Shelf dimensions (WxD) | "466x440(mm)18.3x17.3(inch) |
| Shelf construction | Type 304, mirror finish, stainless steel |
| Standard, Maximum | 3,11 |

Fittings

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|-----------------------|--|
| Access port | Standard |
| Air filter | 0.3µm, Efficiency:99.998% (for CO ₂) |
| Remote alarm contacts | Standard |

De-contamination

| | |
|------------------|--------------------|
| De-contamination | HEPA filter system |
|------------------|--------------------|

Rated power

| | |
|-------------|------|
| Rated power | 430W |
|-------------|------|

Power supply

| | |
|--------------|---|
| Power supply | 220V/50Hz (standard), 110V/60Hz (Optional) |
|--------------|---|

Alarm system

| | |
|--------------|---|
| Alarm system | Power interruption * High/low temperature * Deviation of CO ₂ * RH * Door ajar * Independent overheat protection |
|--------------|---|

| | |
|-------------|-------|
| Data output | RS232 |
|-------------|-------|