

Mechatronics CO₂ Incubator

SCALE120



Photo: SCALE120

The incubator, on which the handling robot is mounted, strongly supports automation of cell culture using the AsuRa® (synthesis scheduling software package for bio automation).

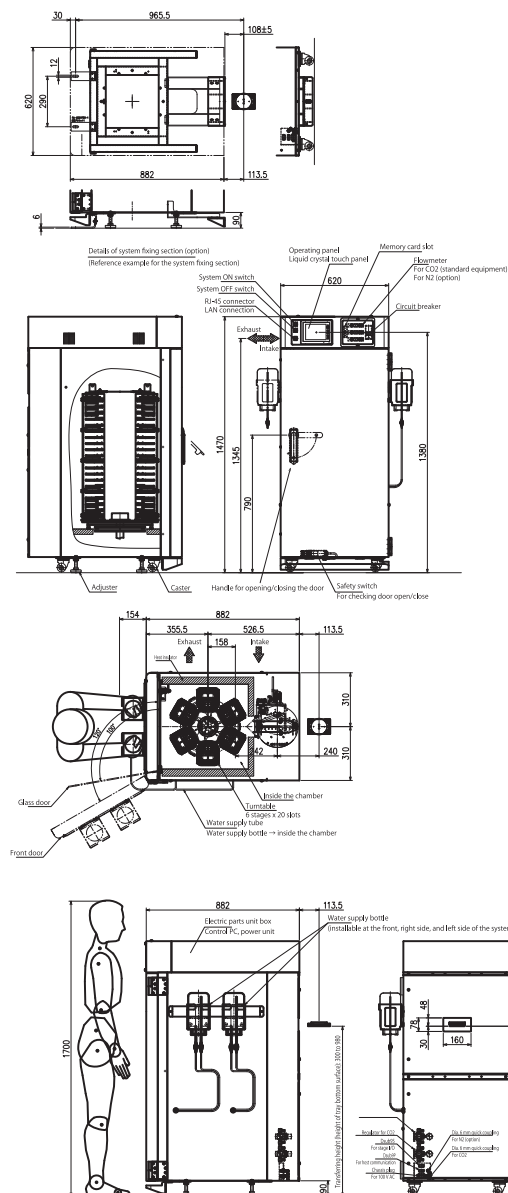
Features

- The dry heat sterilization function using direct dry heating is provided as standard equipment.
- High reliability is realized by completely isolating the electrical components and drive system from inside the chamber.
- Stable culture for up to 120 plates is performed using the carousel type turntable.
- The chamber inside becomes flat by removing the turntable; therefore, cleaning can be easily performed.
- Change of the environment inside the chamber when carrying in the plate is reduced using the shutter method.

Main specifications

Type	SCALE120	
Containing plate	120 pcs (20x6 racks)	
System size	W620xD882xH1470	
Capacity/Mass	230 L/255 kg	
Heating method	Direct heater	
Temperature control method	PID control	
Power source	100V AC, 15A	
Remote control	RS232C or TCP/IP	
Display function	Plate contained state	
	Environment state: Real time	
Temperature setting	Cultivation temperature	Room temperature: +7°C to +50°C
	Accuracy	37 ± 0.5°C
	Sterilization	125°C or more
Humidity	90% or more	
CO ₂	0% to 20%	
N2 for low oxygen (option)	to 1% (oxygen concentration)	
Finish time	25°C to 36.5°C	Within 2 hours
	25°C to 125°C	Within 3 hours
Interlock	Door lock when sterilizing	

Outside dimensions



Smart Lab Scheduling Package

AsuRa[®] (Asura)



AsuRa[®] is the synthesis scheduling software package for bio automation that is newly developed for strongly supporting the cell culture technology "to give life" to the cell that is the base of the life sciences.

Centralized management and automation for all related to culture of cells

For the culture of the cell including iPS cells, the condition settings and management of a complicated process including dissemination, culture, nutrient medium exchange, monitoring, and collection are required. The management of necessary expendables supply and disposal of nutrient medium (reagent), and input information and output data is required. To perform all automation (unmanned) of them, the flexible and powerful synthesis scheduling software together with the systematized hardware is required. The control has been assumed to be disabled by the conventional scheduling software.

AsuRa[®] automatically manages and completes fully automated culture plan of the condition and progress of a series of cell culture process for every plate (dish) by totally controlling the robot, transferring system, incubator, dispenser, detector expendables, and reagent supply and disposal devices which comprise automated system according to parameters and protocol (schedule) set by the user.

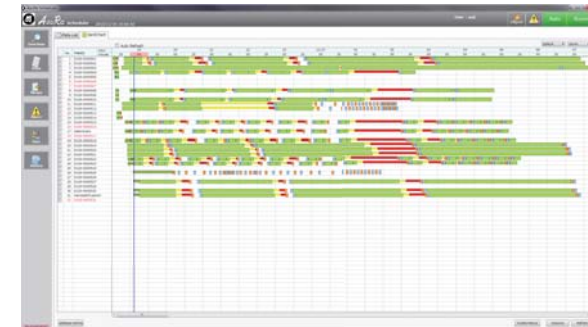
Furthermore, the data such as cell information, culture condition, and work/monitoring/detection results are stored and managed.

In addition, the big characteristic is that the culture plan can be interactively added/changed at any time without stopping the culture plan in progress.
(The etymology of AsuRa is "Asu" (life) and "Ra" (give) of Sanskrit word.)

Example for software screen



Overview screen



Schedule (Gantt chart)

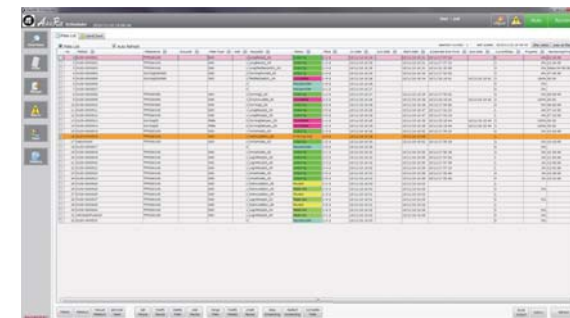


Plate control screen



Recipe control screen