

TK Series

TEST CABINETS



TK Series

TK series test cabinets are developed to simulate real environmental conditions by controlling temperature, humidity and day & night lighting cycles. By means of their wide temperature and humidity control range various kinds of tests could be performed in different areas. Stability, artificial aging and storage tests can be easily done as well. The excellent design of TK series test cabinets allows them to be used for different purposes in different sectors such as :

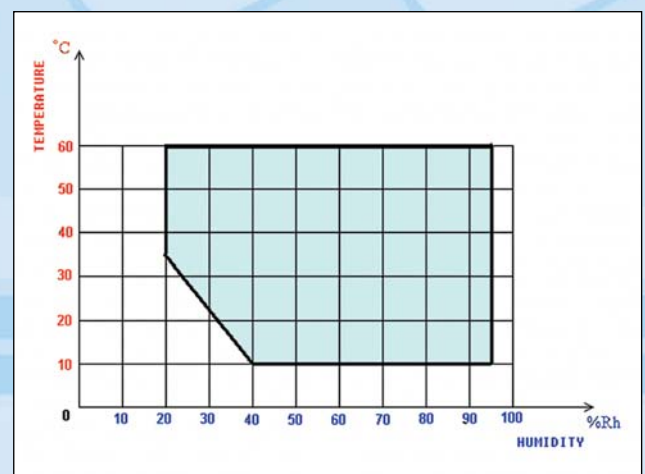
- Electric and electronic industry
- Automobile industry
- Automobile supply industry
- Chemical industry
- Plastic industry
- Textile industry
- Pharmaceutical industry
- Food industry
- Packaging industry
- Plant growth
- Seed germination
- Acclimation of plants
- Culture of plant cells and tissues
- Genetic manipulations of plants
- Cultivation of protoplasm and cells
- Incubation and rearing of insects

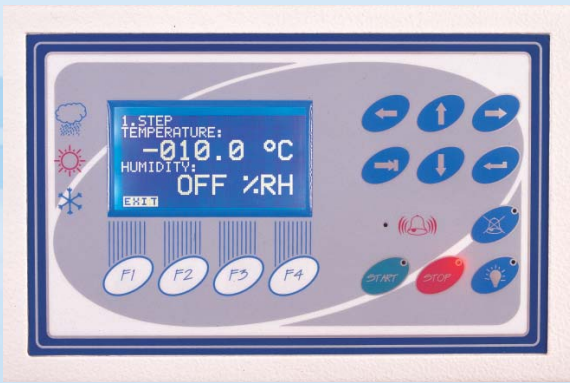


To ensure maximum durability and reliability, adequate materials were chosen for the construction of the product. The chamber is made of stainless steel. The outer body including the door is made of epoxy-polyester powder coated stainless steel to resist high humidity levels. The lights are located inside the door and protected with a glass window. There is also an internal glass door which allows controlling the samples without disturbing the temperature and humidity conditions inside the chamber. Ø25 mm access port on the left side of the body is offered as standard.

The insulation becomes more important for the efficiency of the product when cold and hot temperatures are concerned. The insulation of TK 120/252/600 is of high density injected polyurethane.

The humidity is produced by the humidity generator and measured by a humidity sensor. The recovery time is fast and humidity measurement is sensitive. The heating function is controlled by PID while cooling and humidity functions are controlled by proportional system.





- Temperature sensor failure
- Humidity sensor failure
- Low water level
- Full reserve tank
- Open door

In addition to self-diagnostic system, there is also an adjustable safety thermostat for heating.

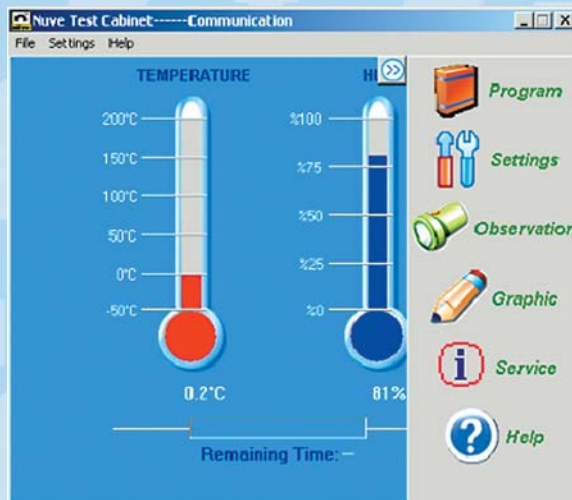
Powerful air circulation system maintains temperature and humidity uniformity and stability even at low temperatures. Directional airflow assures quick recovery after door openings.

Automatic defrost system prevents the frost on cooling coils for efficient refrigeration.

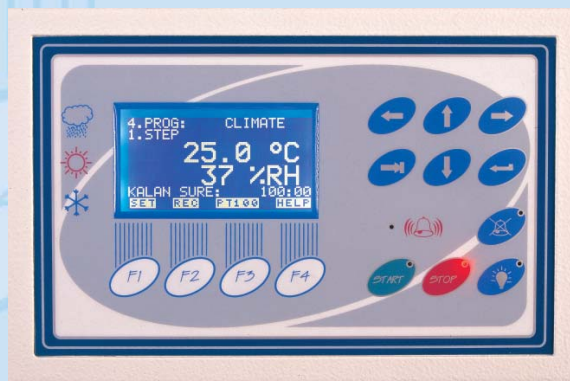
The state-of-art control system is based on programmable microprocessor technology. Easy to use control system allows to program the following parameters :

- Program name:** There are ten program memories.
- Temperature:** -10°C / 60°C
- Humidity:** 20 % - 95 % RH
- Alarm:** 2 - 10°C, 5 - 20 % RH
- Lighting:** 0 - 24 hours, 2 periods lights on, 2 periods lights off
- Time:** 0 - 999 hours 59 minutes and hold position.
- No of steps:** 1 - 9
- No of program repetitions:** 1 - 99

User friendly control panel includes 128x64 pixel LCD display. The messages written on the display lead the user to make a new program. The control system of TK 120/252/600 has 32 kb memory which can be upgraded to 256 Kb as an option.



Printer port is standard and the operated programs in the memory and the current operating program can be printed easily by the connection of a dot-matrix printer. By means of the optional RS 232 connection, TK 120/252/600 can be connected to a computer. Optional NuveClimate software allows programming the instrument and controlling the operations via computer.



Besides all the technical advantages, TK 120/252/600 is environmentally friendly with CFC-free insulation and refrigerant.

The control system also contains a comprehensive self-diagnostic system to provide information regarding any system malfunction. The self-diagnostic system warns the user in case of:

- Overheating
- Cooling system failure
- Communication failure
- Power failure



TECHNICAL SPECIFICATIONS

	TK 120	TK 252	TK 600
Useful Volume	120 liters	252 liters	632 liters
Temperature range without humidity	-10°C / + 60°C (Lights Off)		
	0°C / + 60°C (Lights On)		
Temperature range with humidity	10°C / +60°C		
Humidity range	20 % - 95 % Rh		
Temperature set and reading sensitivity	0.1°C		
Humidity set and reading sensitivity	1 % Rh		
Max. light level	6,000 lux	12,000 lux	12,000 lux
Lighting timer	0 – 24 hours		
Program timer	0-999 hours and 59 minutes + Hold position		
No of program memory	10		
No of steps	9		
No of program repetitions	1 - 99		
Memory capacity	32 Kb		
No of shelves (standard / max)	2 / 9 pcs.	2 / 21 pcs.	2 / 27 pcs.
Internal material	Stainless steel		
External material	Epoxy-polyester powder coated stainless steel		
Internal dimensions (WxDxH) mm	475x540x485	475x540x985	760x650x1315
External dimensions (WxDxH) mm	675x785x1150	675x785x1845	935x910x1995
Power consumption	1800 W	2000 W	3000 W
Power supply	230 V, 50 Hz.		

ACCESSORIES

- R 01 139 Shelf
- R 01 146 Shelf For TK 600
- K 23 040 Shelf Carrier


OPTIONS

- A 08 099 Water supply unit
- K 13 018 NuveClimate data control software and RS 232 interface
- E 05 073 256 Kb memory



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ISO 9001: 2008 
ISO 13485: 2003