PLANT GROWTH CHAMBER

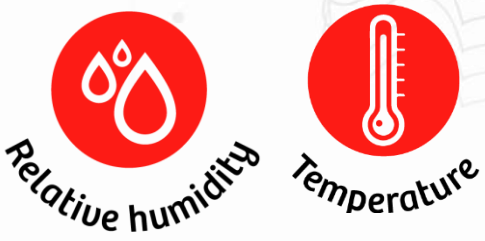
RK-340 CH

RK-500 CH

RK-1000 CH

Perfect solution for botanical and agricultural applications, plant pathology, plant tissue culture studies, seed germination studies, plant genetic research…

- Three different sizes (small, medium, large)
- Easy to use fully programmable controller
- State of the art repeatability
- Day light simulation control
- Relative humidity control
- Temperature control
- CO2 control (option)



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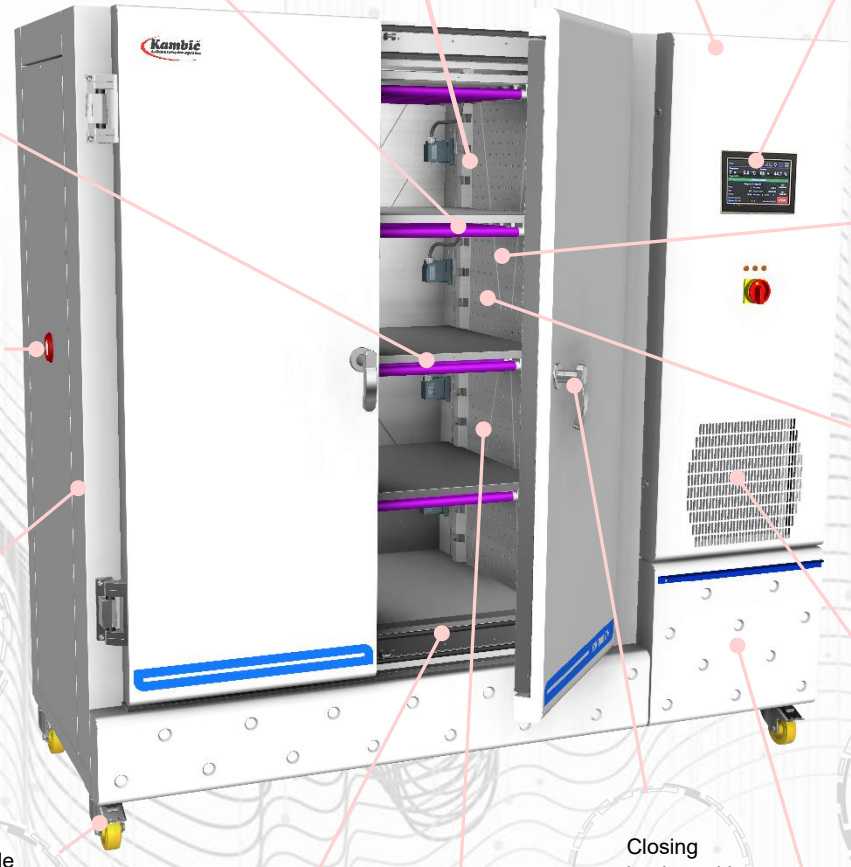
Device description:



OPTION 1:
Day light simulation with LED lights installed on the bottom of shelves

OPTION 2:
Day light simulation with LED lights installed on the doors and rear wall of the chamber

Effective specimen illumination due to a relatively short distance between light source and specimen

All exterior is galvanized and powder coated steel RAL-7035

7'' capacitive touch screen controller with user friendly interface, advance settings options, Ethernet and USB communication ports

Easily removable and height adjustable shelves

Optional system for CO2 control

Access port with booth end plugs Ø40 as standard, Ø50 or Ø90 as accessory

Special dual chamber design providing a uniform and stable temperature and Rh field throughout the entire chamber

Extensive heat insulation shield on all chamber sides and doors

Refrigeration system based on hermetic compressor and air cooled condenser.

Mobile standalone unite, with built on swivel wheels with brakes

Closing mechanism with key and lock

Fully stainless steel interior

Water tank with automatic water level control

Parallel sealed with soft profile silicone seal to ensure perfect tightness

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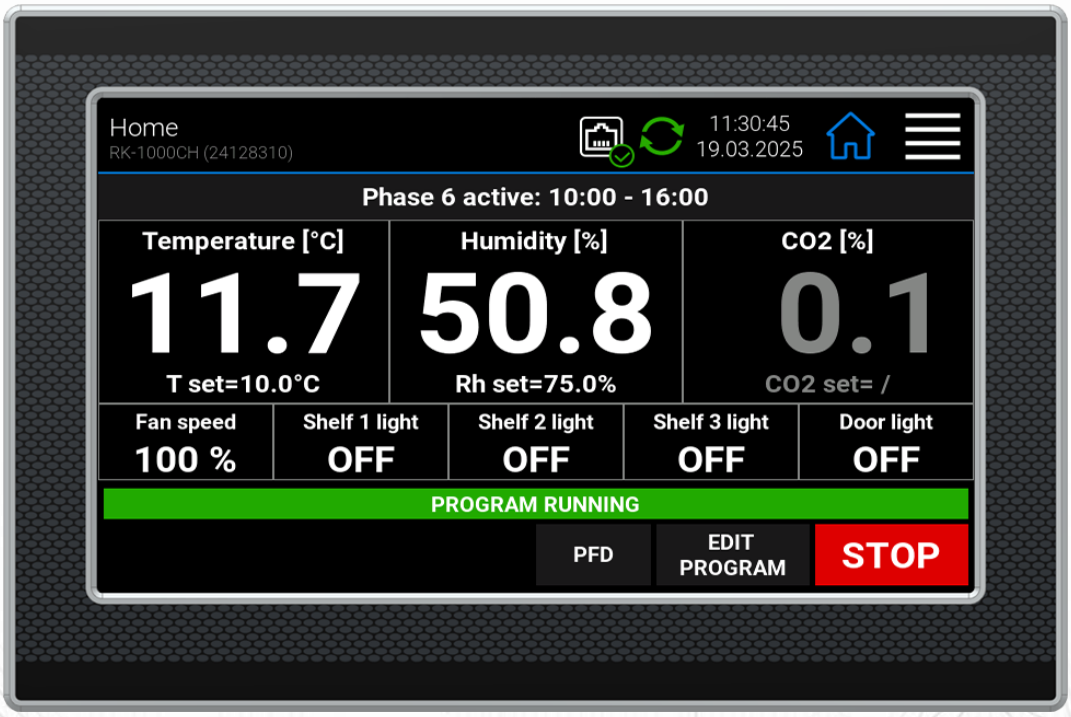
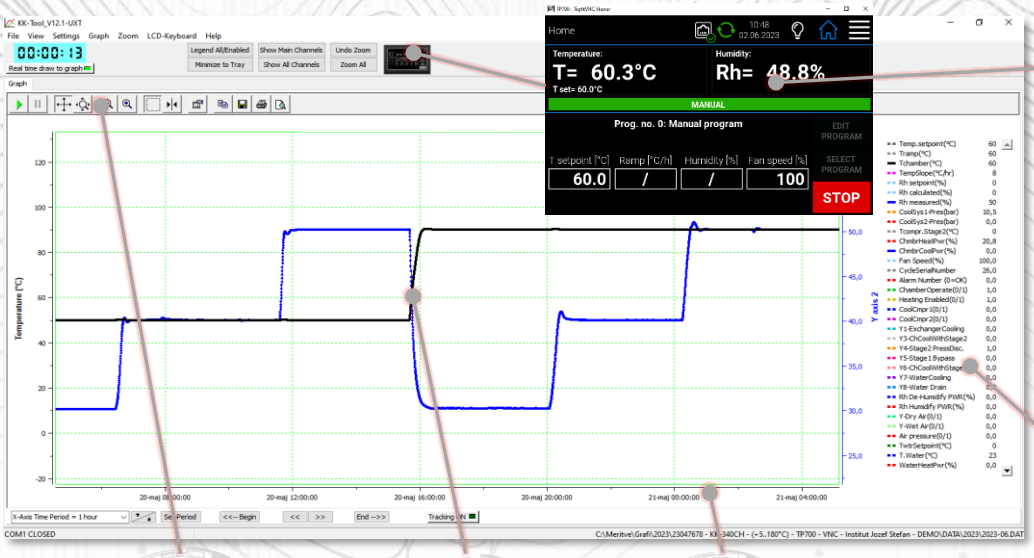
Touch display with advanced controller functions:



RK-Tool software for PC (free – included with every unit):



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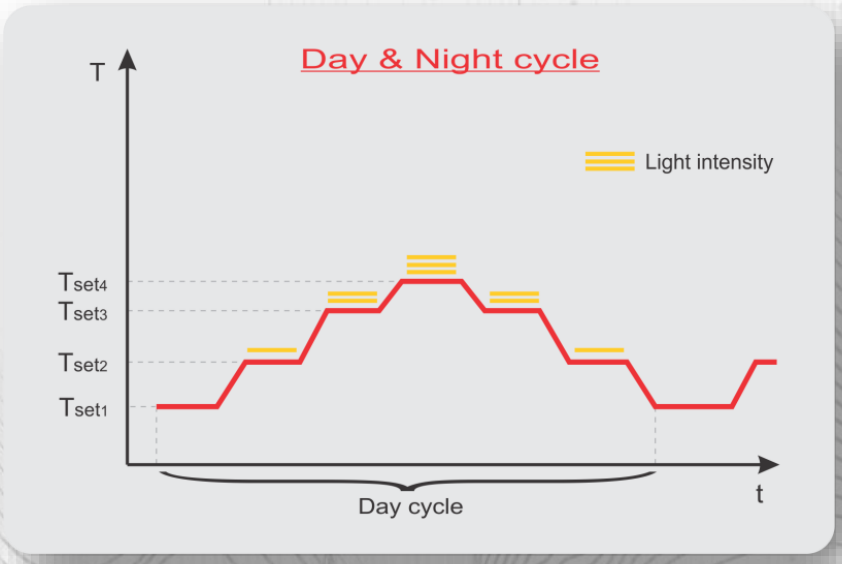
Controller functions:

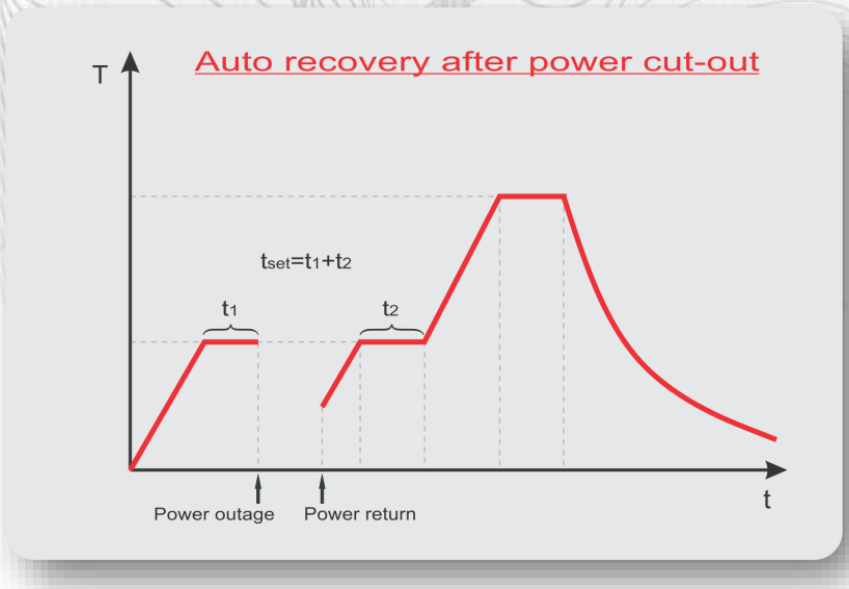
24-hour day & night cycle control:

24 hours (one day) can be divided into 10 phases!

Example:
- Phase 1 (day): 07:00 to 10:00, T = 15°C, Rh = 70%, light intensity 50%
- Phase 2 (day): 10:00 to 18:00, T = 30°C, Rh = 80%, light intensity 100%
- Phase 3 (day): 18:00 to 21:00, T = 23°C, Rh = 75%, light intensity 70%
- …..
- Phase 4 (night): 21:00 to 01:00, T = 20°C, Rh = 70%, no lights
- Phase 5 (night): 01:00 to 05:00, T = 18°C, Rh = 73%, no lights
- Phase 6 (night): 05:00 to 07:00, T = 19°C, Rh = 75%, no lights
- …..



Auto recovery after power cut-out:



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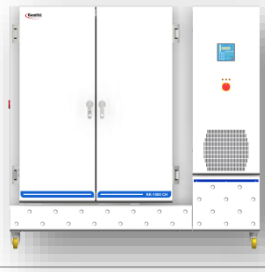
Technical data:

	RK-340 CH	RK-500 CH	RK-1000 CH
			
External dimensions (WxHxD) in mm	834 x 1895 x 1135	1600 x 1980 x 700	2040 x 1983 x 886
Internal dimensions (WxDxH) in mm	600 x 830 x 685	680 x 1400 x 520	1045 x 1400 x 700
Volume (L)	~340	~500	~1000
Number of shelves with lights (lights on shelves option)	2	3	3
Number of wire shelves (lights on door and back wall of the chamber option)	2	3	3
Temperature range (°C) (lights on or off)	+5…+60	+5…+60	+5…+60
Rh range (%) (DEW point limits)	10…95	10…95	10…95
Temperature & Rh display resolution	0.1°C / 1%	0.1°C / 1%	0.1°C / 1%
Temperature set resolution (°C)	0.1	0.1	0.1
Rh set resolution (%)	0.1	0.1	0.1
Temperature stability (°C) (lights off)	Better than ±0,3°C	Better than ±0,3°C	Better than ±0,3°C
Temperature uniformity (°C) (lights off)	< ± 1 @ +37°C	< ± 1 @ +37°C	< ± 1 @ +37°C
Rh Stability (%) (lights off)	Better than ±3	Better than ±3	Better than ±3
Heating rate	~ 2°C/min	~ 2°C/min	~ 2°C/min
Cooling rate	~ 1.5°C/min	~ 1.5°C/min	~ 1.5°C/min
Day light simulation	LED lights	LED lights	LED lights
Illumination intensity	0…100%	0…100%	0…100%
Temperature Control	PID	PID	PID
Cooling	Air cooled compressor aggregate	Air cooled compressor aggregate	Air cooled compressor aggregate
Power supply	3x400 V 50/60 Hz (± 10%)	3x400 V 50/60 Hz (± 10%)	3x400 V 50/60 Hz (± 10%)
Wattage (W)	4000	4500	5000
Interface	RS 232, USB or Ethernet	RS 232, USB or Ethernet	RS 232, USB or Ethernet
Weight (kg)	318	469	642

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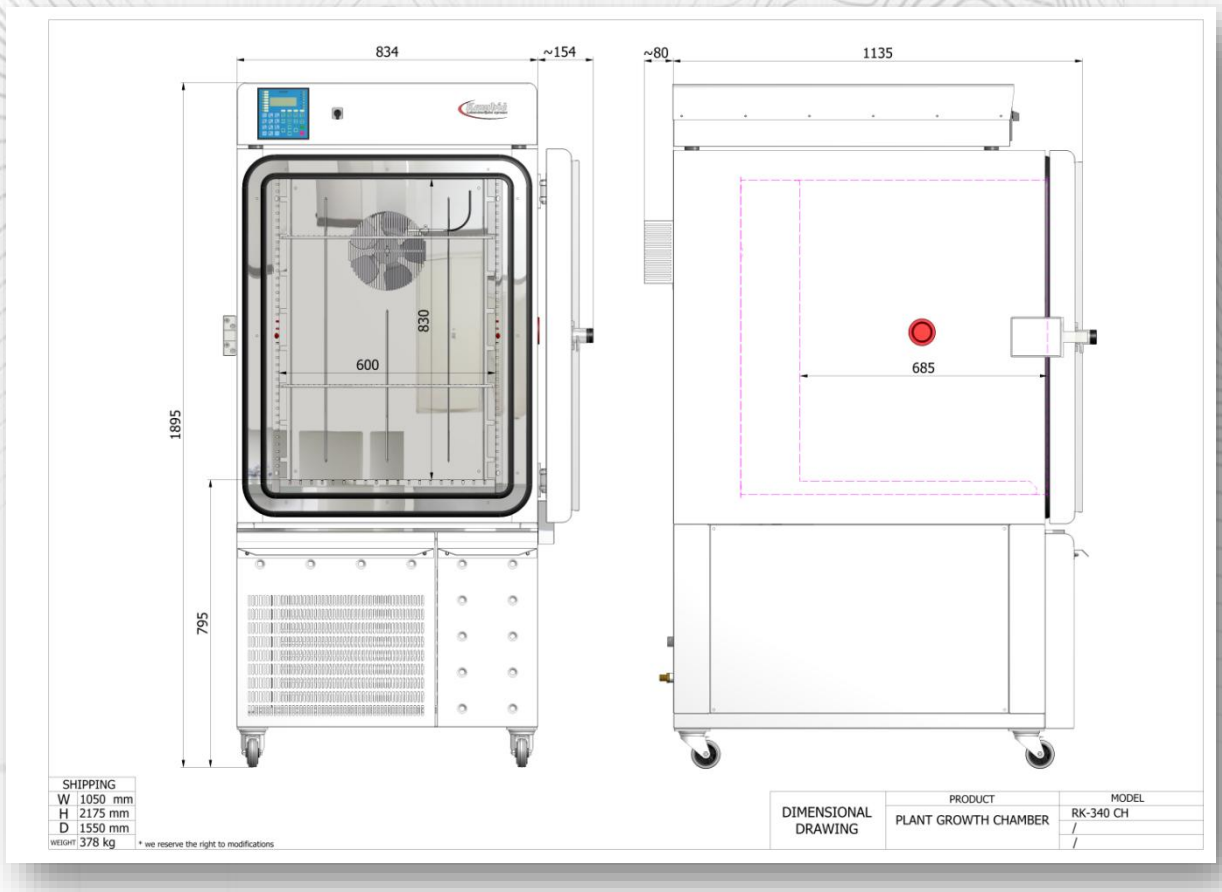
Ordering information and accessories:

Description	Part no.
Plant Growth Chamber RK-340 CH	922
Plant Growth Chamber RK-500 CH	903
Plant Growth Chamber RK-1000 CH	2638
Access Port w. Plug Ø 40 mm	2629
Access Port w. Plug Ø 50 mm	608
Access Port w. Plug Ø 90 mm	1731
Evaluation report	1719
Automatic water feeding	1744
CO2 control system	2108
Shelve wire RK-340 CH	2109
Shelve wire RK-500 CH	2110
Shelve wire RK-1000 CH	2111
Shelve with lights RK-340 CH	2112
Shelve with lights RK-500 CH	2113
Shelve with lights RK-1000 CH	2114

Device drawings:



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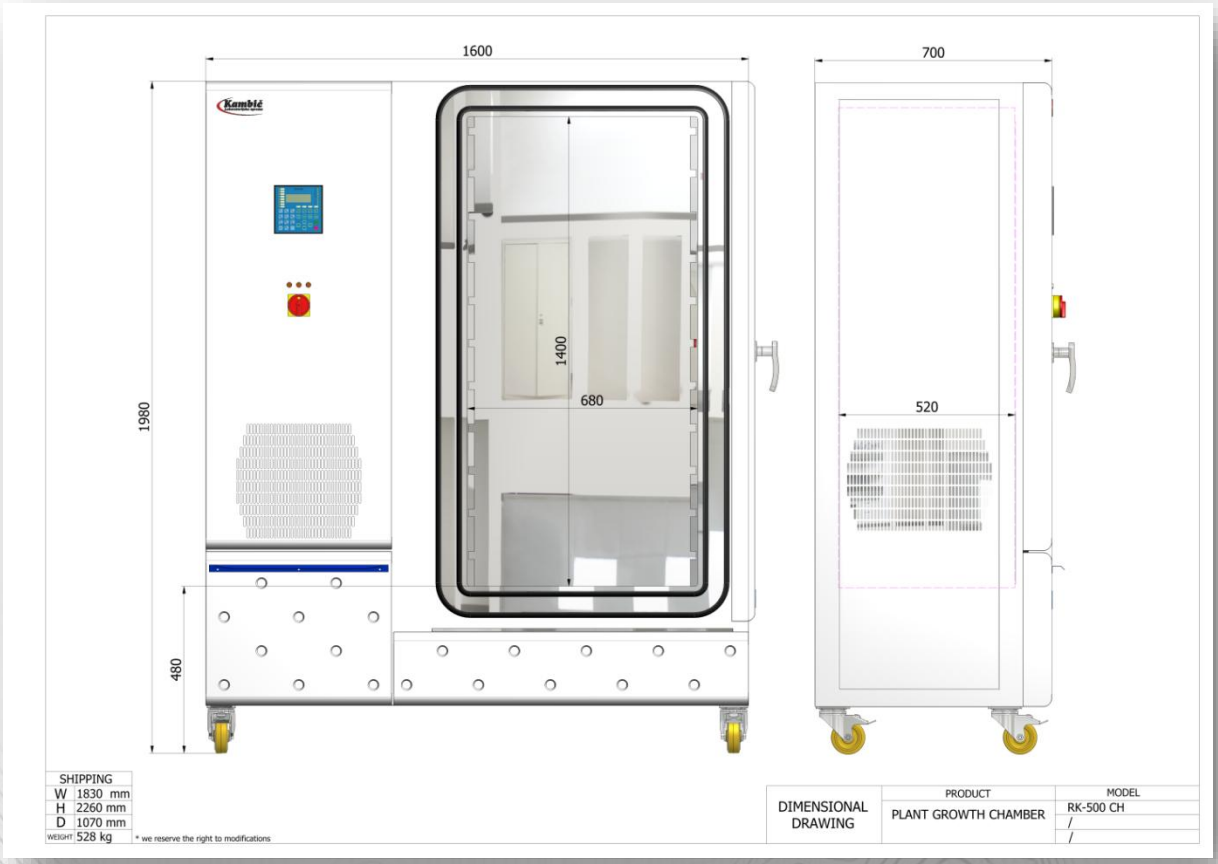
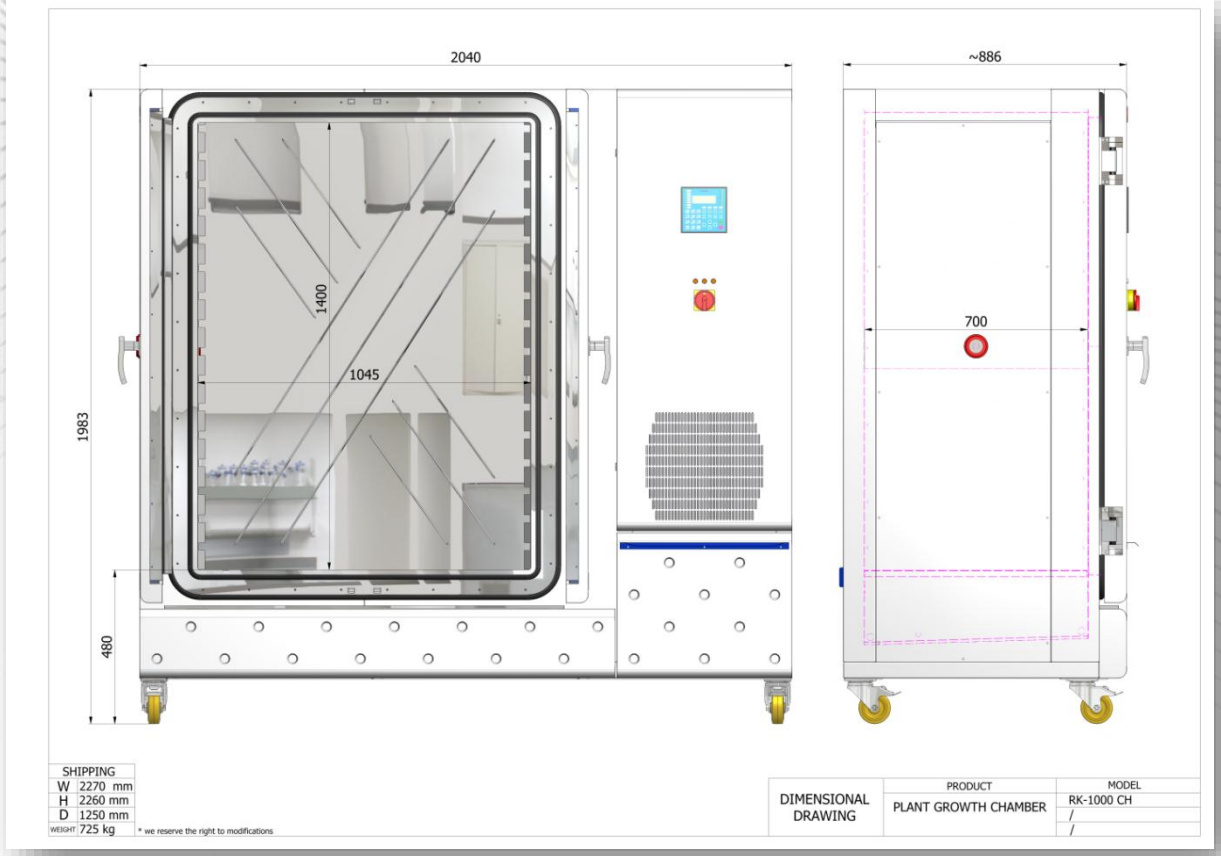


SHIPPING	
W	1830 mm
H	2260 mm
D	1070 mm
WEIGHT	528 kg

* we reserve the right to modifications

	PRODUCT	MODEL
DIMENSIONAL DRAWING	PLANT GROWTH CHAMBER	RK-500 CH
		/
		/



SHIPPING	
W	2270 mm
H	2260 mm
D	1250 mm
WEIGHT	725 kg

* we reserve the right to modifications

	PRODUCT	MODEL
DIMENSIONAL DRAWING	PLANT GROWTH CHAMBER	RK-1000 CH
		/
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