Specifications for Sand and Dust Chamber

Model: KM-SC1000

Manufacturer: KOMEG Technology Ind Co., Limited

1. Dimension	
Volume	1 cubic
Interior dimension	W1000×D1000×H1000 mm
Exterior dimension	About W1450×H1900×D1100 mm
2. Technical specification	
Test environmental conditions	Ambient temperature +25℃. Relative humidity≤85% Atmospheric pressure：86～106kpa
Temperature range	Room temperature
Humidity range	<65%R.H
Dust concentration (dust)	2～4kg/m^3
Airflow velocity	2-10M/S
Blowing dust time	1s～99h adjustable
Vibrating time	1s～99h adjustable
Dust for experiment	The talcum power can pass through a aquare-meshed sleve 75μm the nominal wire diameter is 50μm Dust 2-4Kg/m^3
Noise	A sound level ≤ 75dB (A) (1m away from the ground in front of the ground height 1.2m, free space)
3. Structure and composition	
3.1. Structure	
Interior material	304 Stainless steel
Exterior material	Double-sided galvanized steel, the surface spray treatment
Sealing strip	Using high-quality silicone rubber seal, good sealing to prevent leakage, has good anti-aging and high temperature characteristics.

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Door	Single door
Observation window	Tempered glass observation window with manual wiper
Lights	Inside chamber installed high penetration indoor explosion-proof lights
Cable port	With 1* Φ100 cable port on the left side of the chamber
Dustproof socket	Box with 220V power outlet
3.2. Dust system	
Blowing dust fan	Domestic brand-name high-power vortex fan
Blowing dust	The upper part of the chamber is equipped with sand dust outlet. The sand and dust in the dust funnel are blown into the laboratory through the dust blower to carry out sand and dust test.
Sample housing evacuated	Equipped with a vacuum pump for evacuating the sample housing
Dust collection	The inner box adopts a conical bottom which gathers in the vicinity of the blow hole of the inner box when the dust falls, and equipped with a periodic vibrator, dust outlet, shut down to remove dust.
System Configuration	Equipped with a pressure gauge, vacuum pump, air filtration, pressure regulator triple pieces, connecting pipe
Dust filtration	Precision dust filters, filter bag. Balance the pressure inside and outside the box
3.3. Dust drying system	
Temperature control equipment	Heating ring, before the nozzle of dust
Control method	Heater control: non-contact cycle pulse width modulation, SSR (solid state relay)
3.4. Control Panel	Siemens true color touch screen + Siemens PLC control
3.5. Remote control system (optional)	Controller remote control software is available. The customer installs by themself. (RS485 interface must be on the computer, the company can provide the RS485 interface, PCI card) or provide the computer installation and commissioning by the company. (Optional)

3.6. Vacuum pumping system	
Vacuum pump	Exhaust flow 3000L / h, the ultimate pressure of 2pa (vacuum pump parameters)
Pressure Sensor	High-precision voltage sensor -100 ~ 0KPa
Electronic flowmeter	High - precision gas flow sensor
3.7. Sample holder	Bearing more than 450KG
3.8. Standard configuration	Sample rack: 1 set Test hole: Φ100 test hole 1, Lighting: 1
3.9. Power cord hole	On the back of power distribution cabinet
3.10. Fixed foot	6# Channel steel chassis + high-strength casters
4. Electrical control system	
4.1. Controller	
Controller	7 inch Programmable LCD touch screen controller, standby constant (manual) parameter settings and program settings. Real-time display the vacuum pressure, flow.
Program execution	With four output points at the same time complete the four different time program execution
Time period control	Each output point of the programmable controller has two time period control (namely start time and stop time)
Time control mode	Separate or collective time control of the blower fan, dust vibration and total test time.
Test time	Maximum 9999
Vacuum control	Through the pressure sensor, flow sensor controlled pressure
4.2. Temperature measurement	PT100
5. Other configurations	

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Dust catching device	No
Dust collector	Industrial dust collector (Optional)
Power cable	Five-core cable 1 (about 5m)
The total power switch of the equipment	Leakage circuit breakers
6. Security protection	
Equipment protection	Power overload, short circuit protection Grounding protection Voltage protection Motor phase failure protection Alarm sound prompt
7. Meet standard	
Test standard	IEC60529：2001 Enclosure protection class (IP code) GB4208-2008 Enclosure protection class (IP code) GB/T4942.1-2001 Rotating motor enclosure protection classification GB/T4942.2-1993 Protection class of low - voltage electrical apparatus enclosure GB / T GB/T7001-1986 Protection class of luminous protection enclosure
Acceptance Criteria	GB4208-2008 Enclosure protection class IP5X IP6X
8. Transportation	Equipment for the whole, the overall transport
9. Working condition	Ensure following conditions by the user, and complete the corresponding connection
9.1. Installation Site	The ground is flat and the inclination of the installation position is not more than 1 ° Ground load-bearing capacity of not less than 500kg / m2 The site is well ventilated and has a drainage system. There is no strong vibration around the device There is no strong electromagnetic field around the device No flammable, explosive, corrosive substances and dust around the equipment Appropriate use and maintenance space around the equipment: Equipment rear, left and right side, top: 600mm Front side of the equipment: 1000mm

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	It is necessary to ensure the overall size of the handling and moving space
9.2. Environmental conditions	Temperature：10℃～35℃ Relative humidity：≤85% Air pressure：86kPa～106kPa
9.3. Power supply	
Voltage frequency	AC380V±10%　50Hz±10%　Three-phase four-wire + protection ground
Installed power	5kW
Protection grounding resistance	Protection grounding resistance is less than 4Ω
Power switch	The user is required to configure the device at the installation site for the corresponding capacity of the air or power switch, and this switch must be independent for the use of the device Do not use a knife switch or a power outlet The switch is located no more than 2 meters from the equipment
Battery capacity	According to installed power configuration
9.4. Storage Environment Requirements	When equipment does not work, the environment temperature should be maintained 0 ℃ ~ +45 ℃ or less, and keep dry.
10. spare parts	Talcum powder particle size＜75uM，20KG