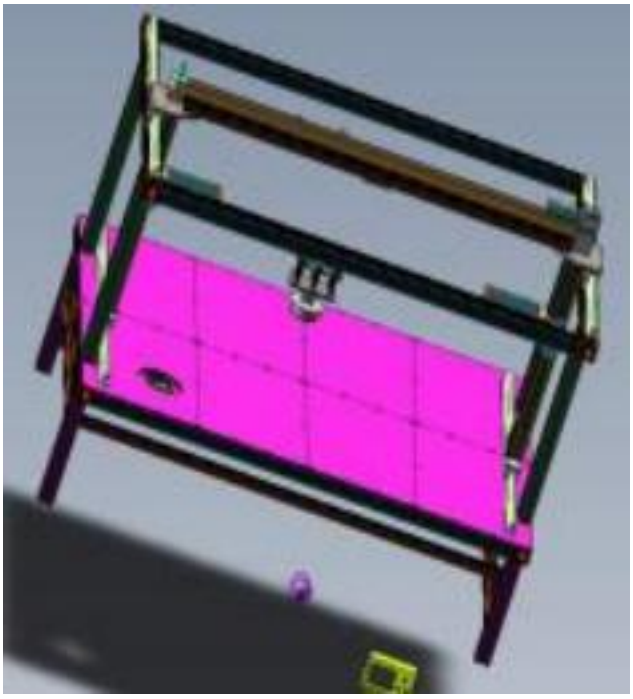
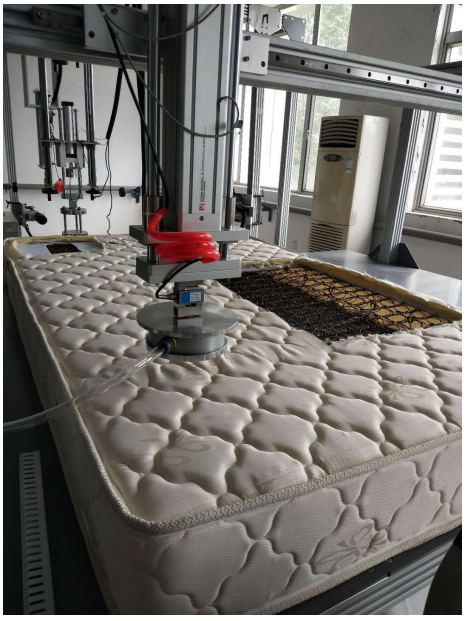
Product Information

TNJ-085 Mattress Air Permeability Test Rig

Use: The mattress air permeability tester is mainly used for testing the air permeability of mattresses.





Test Procedure

First, inflate the gas tank of the tester to the set pressure value. Operate the control system, open the intake valve, and the pressure gauge shows 100 Kpa. Place the selected mattress on the base plate of the testing instrument (below the vent port), close the intake valve of the gas tank and open the exhaust valve. The vertical loading mechanism presses down until the mattress is tightly attached. Start to release the gas from the mattress. The timer also starts timing. When the pressure in the gas tank drops to be in equilibrium with the atmosphere, that is, when the pressure indicated by the pressure gauge is 0, the control system controller automatically closes the control valve and stops the timer. The display will automatically show and record the deflation time.

Instrument features

1. High-resolution digital controller; Closed-loop control. Fatigue-level tension and compression force sensors are installed at the output end of the cylinder. The cylinder pressure control is controlled by imported SMC pneumatic-electric proportional valves, and the output force of the cylinder can be controlled through the touch screen; Achieving high-precision testing.

2. Real-time force-time curve display.
3. The frame structure design is adopted, and custom thickened aluminum profiles are used to make the frame, which is elegant and 大方.
All cylinder groups move in a sliding manner， and can be operated by a single person without any tool assistance. The adjustment part of the frame adopts a pulley structure and guide rail with bearings design， which can easily and conveniently adjust the loading position to adapt to different specifications of specimens， improving work efficiency.
4. The bottom fixing block can be adjusted to any position to adapt to different specifications of specimens.
5. The PLC controller is used to control the operation of the instrument， the operation is intuitive and simple. The force value adjustment uses a precise SMC proportional valve to adjust the air pressure to change the loading force value.
6. High-precision force sensors are configured to immediately sense the force value. Each loading group is independently adjusted and controlled， and the loading force value is stable and reliable.
7. In case of sudden power outage or manual shutdown， when power is restored or restarted， and according to the parameters set before the power outage， the operation continues to run to ensure the continuity and stability of the test and prevent the loss of test data.
8. The interface is simple to operate and easy to use.
9. The instrument has cylinder stroke limit protection function and sensor force value protection function. Cylinder stroke limit protection function
10. It adopts an electric lifting device, which can conduct different angle load tests on various samples of different heights.

	Name	Function	Brand	Detail Parameters
electric parameter	PLC	Programmable Controller -	Sanlin	
	4AD module / 4DA module	Digital analog quantity conversion input/output	Sanlin	
	Control system	Execute the automatic control program	HUST TONY	
	Force sensor	Real-time	Huananhai	High-precision force sensor, capable of real-time acquisition of force value signals
	Load the cylinder	Force detection	AirTAC	Bore x Stroke: 80mm x 500mm (1 unit)
	Cylinder magnetic switch	Provide limit protection	AirTAC	
	Proportional valve	Control the output pressure of the cylinder	SMC	
	Silencer	Eliminate the noise from the cylinder exhaust	SMC	
	Counter			0 to 999999 times can be set
	Instrument dimensions	2290*2290*1560mm(Can be customized according to customer requirements or product dimensions)		

Product Parameter	(length * width * height) mm	
	Measurable sample dimensions / minimum and maximum	Length: 300mm - 2100mm; Width: 300mm - 2100mm; Height: 50mm - 500mm
	Power supply	AC 220V 10A 50Hz
	Air source	6kgf/cm^2 Or any of the above stable gas sources
	Weight	Approximately: 1200 kilograms
	Packaging	Wooden case
	Transportation requirements	Due to its large size, this equipment needs to be disassembled for transportation and then reassembled at the usage site.
Standard configuration	1 wire, 1 air tube, 1 set of hexagon tools, 1 operation manual	