

Water Vapor Permeability Tester – WVP-300 Series (Weight reduction method)

ASTM E96, ASTM D1653, ISO 2528, DIN 53122-1, JIS Z0208

Applications

WVP-300 Series Water Vapor Permeability Tester is designed to test the water vapor transmission rate (WVTR) of a wide range of packaging materials such as plastic film, composite film, aluminum foil, thin sheets, rubber, porcelain, solar panel, medical patch, etc. that widely used in the industries of food, pharmaceuticals, personal care, household, electronics by weight reduction method (one of the gravimetric method). It is the ideal water vapor permeability tester for R&D institutions, factories, universities with reliability, speed, versatility and accuracy that required for Quality Control testing.

ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials, cover the determination of water vapor transmission (WVT) of materials through which the passage of water vapor may be of importance, such as paper, plastic films, other sheet materials, fiberboards, gypsum and plaster products, wood products, and plastics. The test methods are limited to specimens not over 1 1/4 in. /32 mm in thickness. Two basic methods, the Desiccant Method and the Water Method, are provided for the measurement of permeance.

Advantages and features

Precise & Reliable

- High precision sensor, continuous data collecting, accurate and reliable.
- Test accuracy 0.001g / (m²·24h), top performance of the industry.
- Same sample data discreteness is less than 5%.

Easy Operation and Real-time Curves Exhibition

- Fully automatic operation, One-click test, automatic judgment and automatic stop.
- Supported by professional software. Software interface is simple and easy to operate.
- Built-in operating system, can work independently without computer.
- Curves of temperature, humidity, weight and transmission rate: real time display and zoom in/out.
- Professional test report can be exported in Office or PDF easily.

Advanced Technology

- Configured with a 7-inch color touch screen for setting parameters or display curves and report.
- Advanced electromagnetic technology is adopted by temperature control system. Program stepping controlling allows the temperature rises and drops automatically.
- Built-in advanced ARM controlling system, machine can runs independently without computer.
- Automatic over range protection.
- Humidity control utilizes proportioning dry and wet gas, performing excellently.
- Parameters are stored with password automatically.

Wide Test Range

- Added external fittings for packaging container test, machine is able to test bag, pouch, bottle, can, bowl, aluminum foil, aluminum-plated film, and many other packaging containers.
- The only tester in the industry that can test High barrier materials like aluminum foil and aluminum-plated film.

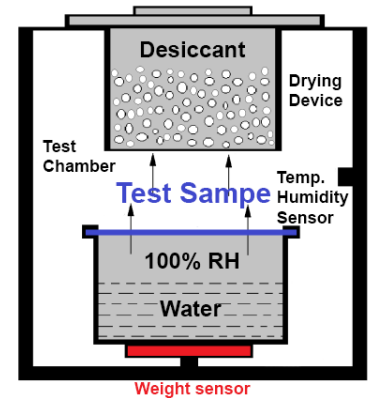
Professional Calibration

- Adopt two calibrating methods: Weight calibration and standard film calibration. Configured with appropriate mouthpiece of temperature and humidity.



Working Principle

Weight reduction method belongs to gravimetric method. User has to seal the cup with test sample, keep humidity difference between inside and outside of the cup, then water vapor will penetrate the test sample. Finally, measure the difference of cup weight to calculate transmission rate.



Technical Specifications

Model	WVP-301	WVP-302	WVP-303
Chamber	1	2	3
Testing Range	0.001~10000 g/(m ² · 24h)		
Testing Precision	0.001 g/(m ² · 24h)		
Temperature Range	15~45°C		10~50°C
Temperature Precision	±0.1°C		
Humidity Range	Dry method: 0~20%RH, dual gas flow method: 30~90%RH		
Humidity Precision	±2%RH		
Number of Samples	1 piece	2 pieces	3 pieces
Test Area	50.24cm ² each chamber		
Sample Size	Φ90mm		
Sample thickness	≤ 2mm		
Dimensions	520 × 420 × 340mm	870×420×340mm	1220 × 420 × 340mm
Weight	43kg	73kg	103kg
Power	500W	750W	750W
Power Supply	AC 220V 50Hz (110V optional)		
Standard Configuration	<ul style="list-style-type: none"> ▪ QT-WVP-301/302/303 Series Water Vapor Permeability Tester 1 set 		
	<ul style="list-style-type: none"> ▪ Power cable 1 pc 	<ul style="list-style-type: none"> ▪ RS 232 communication cable 1 pc 	
	<ul style="list-style-type: none"> ▪ Weighting scale 1 pc 	<ul style="list-style-type: none"> ▪ Test dish 1 pc 	
	<ul style="list-style-type: none"> ▪ Sample cutter 1 pc 	<ul style="list-style-type: none"> ▪ Sealing grease 1 pc 	
	<ul style="list-style-type: none"> ▪ Mouse 1 pc 	<ul style="list-style-type: none"> ▪ Standard weight 1 pc 	
	<ul style="list-style-type: none"> ▪ 4 A molecular sieve 1 pc 	<ul style="list-style-type: none"> ▪ Allen wrench 2 pcs 	
	<ul style="list-style-type: none"> ▪ Injector 1 pcs 	<ul style="list-style-type: none"> ▪ Standard film 1 box 	
	<ul style="list-style-type: none"> ▪ User manual and operation regulations 		



Please Note

Oakland Instrument is always dedicated to the innovation and improvement of product performance and function. Therefore, technical specifications are subject to change without further notice. Please visit our website at www.OaklandInstrument.com for the latest updates. Oakland Instrument reserves the rights of final interpretation and revision

Note : Prices for accessories are valid only when ordered with the main unit
Prices : Ex Works Minneapolis, MN USA/
 or nearest Distribution Center – depending upon availability
Delivery : Approx. 6 - 8 weeks depending on stock availability
Warranty : 12 months limited

Ordering Information

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