IPX1-9K R800 Rain Test Chamber for Precise Waterproof Testing Solutions

Basic Information

- Place of Origin: Guangdong , China
- Brand Name: YueXin
- Certification: ISO 20653:2013, DIN 40050-9:1993, IEC60529:2013 VW 80000:2017 LV124 K-10
- Model Number: YX-IPX19BS-R800
- Minimum Order Quantity: 1 pcs
- Price: usd+20000-50000+pcs
- Packaging Details: wooden box package
- Delivery Time: 30-45 days
- Payment Terms: T/T
- Supply Ability: 100+pcs+30

Product Specification

- Name: IPX1-9K Waterproof Testing Instrument
- Turn Table Load Bearing: 40KG
- Turntable Tilt: 0°or 15°(horizontal Direction)
- Rotating Speed: 1-5 Rounds Per Minute
- Controller: 7-inch Touch Screen + PLC
- Service Environment: Drip、Rain、Splash Water、Water Spray、Powerful Water Spray、High Temperature And High Pressure Steam Jet
- Diameter Of Detachable Turntable: 800mm
- Type: IPX1 IPX2 IPX3 IPX4 IPX5 IPX6 IPX9 IPX4K IPX6K IPX9K
- Highlight: **R800 Rain Test Chamber**, **IPX1-9K Rain Test Chamber**, **Precise Waterproof Testing Rain Test Chamber**

Product Description

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Generl specifications:

Dimension	Outer : L2100*W1900*H2450/ L400*W2300*H2200 Inner : W 1700×D 1700×H 1850(mm)
Material	External : steel plate; Internal : 304 stainless steel
Power supply	380V/50HZ
Power	18.0kw

Product introduction:

The IPX1-9 waterproof test chamber is an all-inclusive device that covers ten waterproof rating levels, ranging from IPX1 to IPX9, along with IPX4K, IPX6K, and IPX9K. These ratings reflect a gradual increase in waterproof capability, with IPX1 indicating resilience against vertical water drips and IPX9 demonstrating resilience against high-temperature, high-pressure water streams. The intermediate ratings progressively elevate waterproof performance.

A protective cover is installed at the bottom of the drip tank to prevent the head from being hurt by the nozzle during operation. The equipment uses a high-quality servo motor to drive the swing tube, so that the swing angle is more precise and the noise is low.

For IPX5/6 testing, here are two spray modes:up and down sweeping water spray and fixed water spray[5](Spray water from back to front).

The spray distance(IPX9/9K) can be adjusted manually to meet the standard (125±25mm).

The outer layer of the water tank is pasted with thermal insulation cotton to reduce heat dissipation and ensure a constant water temperature.

The flow rate is automatically adjusted by an electronic flow sensor, and the flow data will be displayed on the touch screen in real time[6].

Use a pressure gauge to display the test water pressure.

The sample power socket (220V, 10A) is mounted on the right wall of the inner box, which is convenient for the user to do the live test of the sample; and after the sample is powered on, the turntable rotation will be automatically adjusted to forward and reverse rotation to prevent winding [7].

Controller: 7-inch touch screen + PLC, using Yuexin self-developed software, which can be switched to multiple languages[8].

Test time setting: 0-999min[9].

Universal casters are mounted on the bottom, which has good load-bearing and easy to move and fix the equipment.

Using environment:

The IPX1-9 waterproof rating system is a comprehensive one, tailored to meet a wide array of demands, ranging from basic outdoor lighting requiring minimal water resistance to advanced equipment like rain-cycling gear, diving apparatus, and underwater photography tools that necessitate robust waterproofing. It's crucial to choose the right rating according to the specific application context.

Standard features for IPX1/2:

Item	Parameter
Drip area	600×600mm
Diameter of nozzles	0.4mm
Distance between nozzles	20mm
Water flow(IPX1)[10]	0.36-0.54 L/min
Water flow(IPX2)	1.08-1.26L/min
Drip distance[11]	200mm

Standard features for IPX3/4K:

Item	Parameter
Radius of swivel tube[12]	R400
Diameter of swivel tube	800mm
Internal diameter of swivel tube	15mm
Internal diameter of nozzle	IPX3/4 : 0.4mm; IPX4K : 0.8mm
Number of nozzles of swivel tube	See remark[13]
Distance between nozzles	50mm
Speed of rotation of the swivel tube	60 degree/s
Swing pipe angle	IPX3 : 120º; IPX4/IPX4K : 350º
Water volume flow	IPX3(L/min) : 1.1 ; IPX4(L/min) : 1.8 ; IPX4K(L/min):15.0
Flow error range	±5%

Standard features for IPX5/6K:

Item	Parameter
Diameter of nozzles	IPX5,IPX6K : 6.3mm; IPX6 :12.5mm
Water flow	IPX5 : 12.5±0.625 L/min IPX6 : 100.0±5.0L/min IPX6K : 75.0±3.75L/min
Spray distance[14]	2.7m
Spray direction	Spray from back to front
Spray height[15]	800mm
Nozzle swing speed	0-20 cycle/min

Standard features for IPX9K:

Item	Parameter
Spray distance	125±25mm
Number of nozzles	4个
Nozzle angle	0°,30°,60°,90°
Water flow	14-16L/min
Flow control	Automatic adjustment
Storage tank temperature	80±5
Spray pressure	8000-10000Kpa
Water jet impact	0.9-1.2N
Test time	120 seconds, 30 seconds per position

Remark:

1 The pictures in this document are for customer reference only, and there may be color differences between the actual model and the pictures.
2 This document only lists some test standards, which does not mean that other test requirements and standards cannot be conducted. Welcome to communicate and discuss with us.
3 One test only at the same time. The next project can be only carried out after the current test is completed. In addition, we can provide multi-functional customized test solutions according to user requirements.
4 Standard load-bearing upper limit of turntable is 50kg,but also can be customized per requirements.Turntables of φ200mm are provided for replacement.
5 If the sample height exceeds 150mm, it is recommended to choose the swing spray method.
6 Use flow sensor to adjust water flow automatically, the flow is set according to the corresponding test options, and does not support custom settings.
7 Please inform in advance if the voltage(220V) does not match the actual needs so that we can provide customized solutions for you.
8 At present, only Chinese and English interfaces are supported; if other languages are introduced, the software can be updated remotely.
9 It is recommended to set the test time according to the test standard. The water temperature will rise due to long time test which has an impact on the test results.
10 The data is calculated based on the dripping area, IPX1:0.6×0.6×(0.001-0.0015)=0.00036-0.00054m³/min(that is 0.36-0.54L/min).
11 200mm is the distance from the nozzle to the sample specified in the standard, and the user needs to adjust the height of the turntable to meet the distance requirement.
12 Multiple specifications of pendulum tubes can be provided, please confirm clearly before placing an order; if other specifications are added after purchase, the equipment needs to be returned to the factory to replace hardware and programs.
13 The specifications of swing pipe for IPX3/4 rain test, as shown in the figure below:

Table 9 – Total water flow rate q_v under IPX3 and IPX4 test conditions – Mean flow rate per hole q_{vl} = 0,07 l/min

Tube radius R mm	Degree IPX3		Degree IPX4	
	Number of open holes $N^{1)}$	Total water flow q_v l/min	Number of open holes $N^{1)}$	Total water flow q_v l/min
200	8	0,56	12	0,84
400	16	1,1	25	1,8
600	25	1,8	37	2,6
800	33	2,3	50	3,5
1 000	41	2,9	62	4,3
1 200	50	3,5	75	5,3
1 400	58	4,1	87	6,1
1 600	67	4,7	100	7,0

1) Depending on the actual arrangement of the hole centres at the specified distance, the number of open holes N may be increased by 1.

14 This distance is the range from the nozzle to the center of the turntable. If the user wants to extend the spraying distance, he needs to explain in advance.
15 Since the IPX5 water spray is in a parabolic shape, the water spray range will be lower than this height, and the measured maximum water spray height is close to 550mm.
16 The user needs to prepare an air compressor in advance (recommended gas storage capacity > 40L). If you need us to buy it on your behalf, you need to explain in advance.
17 The photos may not match the actual ones, and are for user reference only.

Product detail image:

power socket

Tags: Waterproof Testing Machine , IP Grade Rain Test Chamber , IPX1-9K Environmental Machine