



Thermal shock with splash water tester



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Purpose:

This test simulates the exposure of the component to splash water as it occurs when driving through puddles.

The test is intended to verify the function of the component when exposed to abrupt cooling by means of water.

Test:

Operating mode of DUT:

If the component is not operated with operating load in driving mode:

II.a during the entire test

If the component is operated with operating load in driving mode:

Intermitting II.a and II.c during working condition driving

Test procedure:

Heating of DUT to test temperature.

This is followed by the cyclic splashing of the DUT as per Figure 35.

The DUT shall be splashed over its entire width.

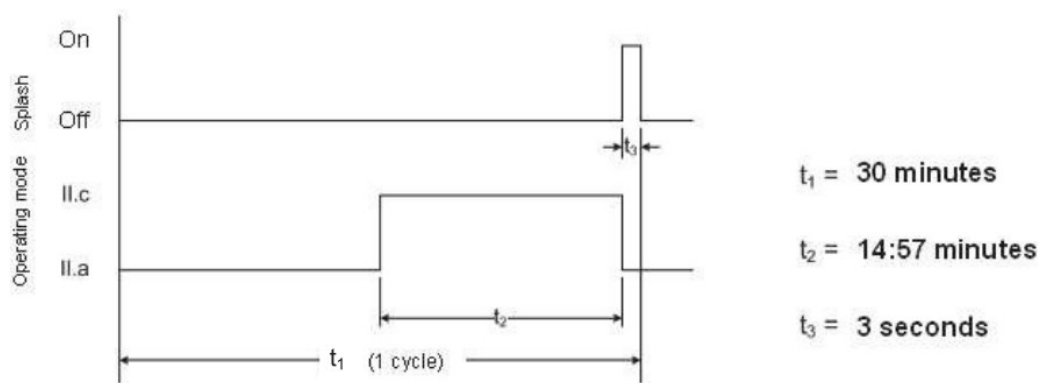
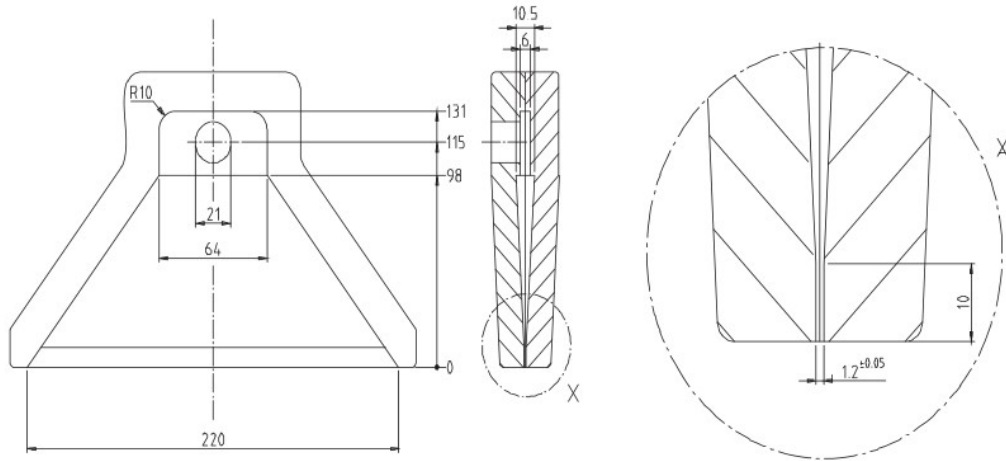


Figure 35: Splash water test, splashing times



Dimensions in mm

Figure 36: Splash water test - splash nozzle

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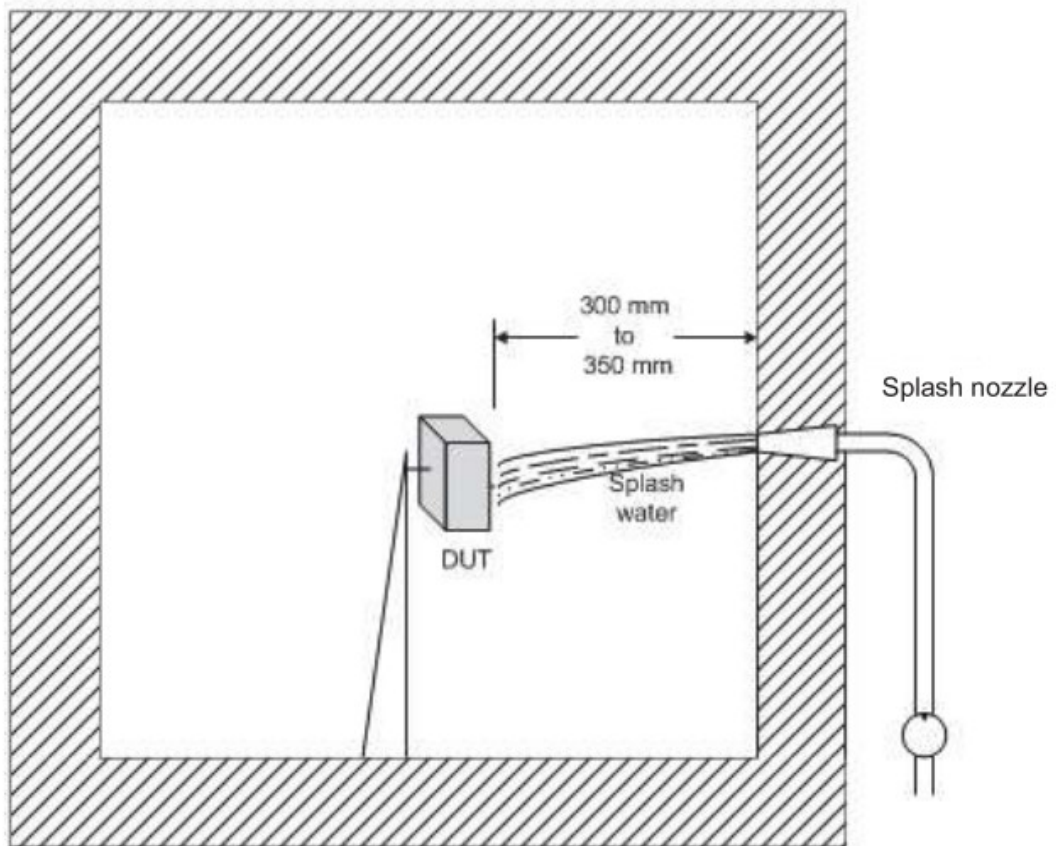


Figure 37: Splash water test setup



Technical parameters :

Model	KP-IW16750A
Studio size	1300X900X900mm(D×W×H)mm
Test samples max	700X700X500mm
maximum load bearing	150kg
temperature range	RT+10℃~200℃
Temperature fluctuation:	±2℃
Temperature deviation:	±2℃
Test hole	Φ100mm
Power	AC380V 50Hz 25kw
Control system	PLC Electric Control
Operation interface	7 inch color touch screen operation
Test model	Splash water test
Test cycle	Default 100 cycles, 0-9999 can be preset
Splash duration	3s
Splash water temperature	0-4℃
Water flow	3-4L/3s
Distance of nozzle to DUT	300-350mm
Orientation of the splash water	The sample is placed on the turntable according to the actual use, according to the actual situation to choose the positioning (single-direction splash) or rotation mode (multi-directional spray)
DUT heating	Heating system

Introduction to structural design

1. The outer casing of the equipment is made of 2mm high-quality galvanized steel plate CNC machine tool, and the surface of the outer casing is sprayed, which is more smooth and beautiful.
- 2, the liner is SUS316 high-quality stainless steel mirror panel; in order to facilitate the recycling of the test medium and the cleaning after the Zui, the bottom of the equipment studio is designed as a funnel;
- 3, insulation material: high-density fiberglass cotton to ensure insulation performance, maintain indoor balance and stable temperature;
4. The door is provided with a transparent window for observing the change of the indoor sample, and the observation window is made of multi-layer hollow tempered glass;
5. The mixing system adopts long-axis fan motor and high-low temperature resistant stainless steel multi-wing impeller to achieve vertical convection vertical diffusion cycle, so that the temperature and humidity in the laboratory are uniform and stable;



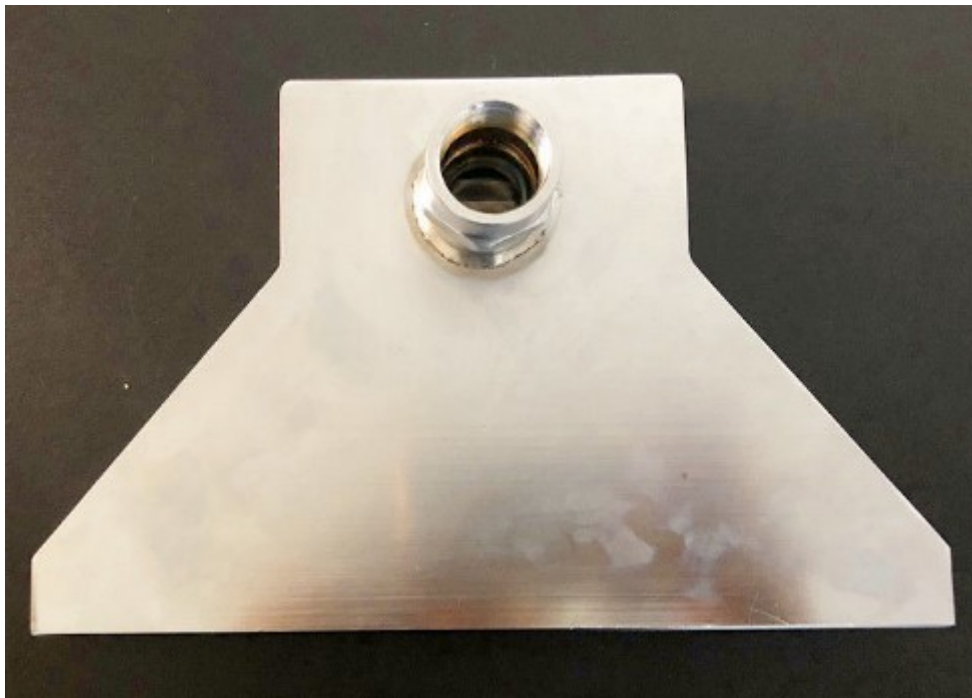
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6. Double-layer high-temperature resistant high-strength sealing strip is used between the door and the cabinet to ensure the sealing of the test area. The inner door material of the door is made of stainless steel, and the door handle is made without reaction, which makes the operation easier;
7. Test hole (left side of the machine) can be used for external test power cable or signal cable (100mm aperture);
8. The refrigeration system of the equipment is installed at the bottom, and the compressor is imported from Taikang brand in France to ensure the cooling effect and reliability.
9. The bottom of the machine is equipped with a high-quality fixed PU movable wheel, which can easily move the machine to the designated position, and fix the caster after the Zui;
10. The control part of the equipment is designed on the right side of the equipment. It is distributed with temperature controller and control switch. It is easy to operate, simple and easy to maintain.

Equipment use conditions

1. the ambient temperature: 5 ° C ~ +32 ° C;
2. Ambient humidity: ≤85%;
3. power requirements: AC380 (±10%) V / 50HZ three-phase five-wire system;
4. pre-installed capacity: about 3KW

Spray Nozzle-Kingpo





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PLC Controller-SIEMENS

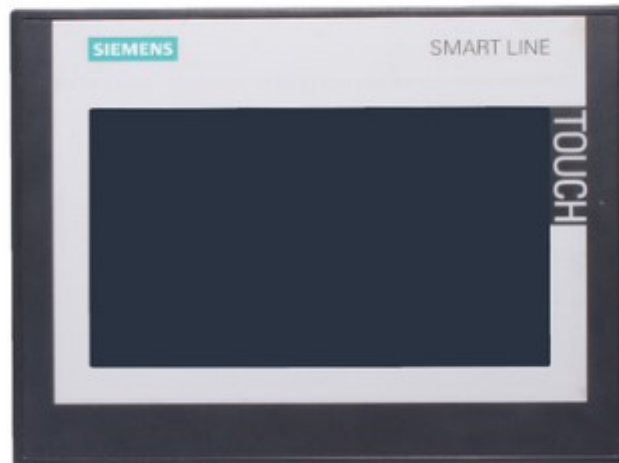
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Touch screen- SIEMENS

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