

WHY

Tightness of electrical components (fans)

HOW

Immersion pump, rain simulation, ceiling cooler

WHAT

Welded climate chamber, double bottom (with grating), irrigation system, temperature control unit, water treatment

WHY - The challenge.

The customer has the possibility to test a wide variety of test specimens as to their tightness.

In particular, many electrical components have to be permanently water-tight, as they must work reliably even under the most adverse weather conditions. Fans that are directly exposed to rain in a wide range of applications are such an example.

HOW - The idea.

A fan used outdoors is exposed to changing weather conditions. This is why the customer needs a test system that can simulate environmental conditions.

The test system allows for temperature cycles and irrigation phases, so that the weather affects test specimens at an accelerated pace.

A sprinkler system consisting of hoses and nozzles is used to simulate rain. An immersion pump supplies the system with water. The temperature is changed with a ceiling cooler with integrated heating rods.



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Welded climate chamber, double bottom (with grating), irrigation system, temperature control unit, water treatment

WHAT - The solution.

Different temperature situations and irrigation quantities are required.

Chosen product: **WK 53`/10-60/**

Depending on the specimen size and the number of specimens, a 53-m³ fully welded insulation chamber is sufficient for most applications.



Implemented modifications

- Temperature range from -10 °C to +60 °C
- Simple modifications such as two 200-mm feedthroughs into the front of the chamber to the left and right of the door, a 100-mm feedthrough in the rear wall for the customer, as well as a viewing window in the left door leaf of the double wing door and a viewing window in the rear wall
- Door opening limiter
- Moisture sensor
- Stainless steel cable trays in the chamber
- Flow rate measurement (rain quantity)
- Water temperature control circuit incl. legionella protection

