

RAIN TEST chamber

SPECIAL



This one-piece chamber meets the requirements of the MIL-STD-810F standard (Method 506.4) which defines laboratory tests intended to certify materials of military use, as well as civilian, against environmental damages due to water.

Within the scope of watertightness tests described in the standard, the chamber reproduces conditions of rain with wind up to 18 m/s according to the Procedure I, as well as conditions of rain and calm air according to the Procedure III (the Procedure II being not applied as it is only for very large volumes).

To realize these procedures, different functioning modes are proposed in manual mode or are programmed inside profiles of the software SPIRALE 3 reachable from the touch screen.

In complement to these different functioning modes, an electrical plate is embedded to power various accessories while spinning at 360°.

The demineralised water used for spraying is refrigerated and recycled thanks to a retention tank with automatized fillings and drainings.

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Technical features

Procedure I : Rain and blowing rain

- Wind mode: ventilation loop associated with 18 m/s wind velocity setpoint (64 km/h, 40 mph) within the scope of the standard, and up to 30 m/s
- Blowed Rain mode, associated with the Wind mode: water injected in the air flow from the swivelling and adjustable blades



Procedure III : Drip

Use of a rain tank on the ceiling of the cabinet, equipped with 900 nozzles calibrated to generate standard water droplets (from 3,5 to 4,5 mm).

- Heavy Rain mode : high rainfall rate (17 mm/min)
- Light Rain mode : low rainfall rate (8 mm/min)



Electric spinning plate

- Diameter 500 mm
- 2 probes for the product temperature measurement
- 6 wires (24 V, 5 A max) for the product power supply and controls
- Plate rotation programmable by quarter turn via the software (360° rotation)



dimensions (mm)	Width	Depth	Height	Diameter
Useful sample	----	----	600	500
Inside	700	750	700	----
Overall	2760	1792	2125	----

Equipments

- Test cabinet in stainless steel
- Frame in aluminium profile, shafts and sheets in stainless steel
- Door opening safety
- Inner cabinet light : adjustable waterproof spotlight
- Waterproof cabinet for PC and electric board
- Removable motor protective casings for maintenance access
- Easy maintenance based on Spirale 3 possibilities
- Access to the retention tank for cleaning, to refrigerating components, to pumps and valves, to filters (by removable trapdoor)
- Food-grade filters with cartridges
- Automatism (Plate) by programmable variators-encoders ensuring accuracy, reliability and potential evolutions
- Encoder programming software embedded in the chamber PC