Salt Spray Corrosion Test Cabinets

Test both components and coated test panels across the whole spectrum of industry.

www.cw-spec.com
C&W cabinets are widely used to test both components and coated test panels across the whole spectrum of industry. The design ensures that they meet or exceed the requirements laid down in all major national, international and corporate standards. Pioneering designs have made C&W the UK leader in the manufacture of accelerated corrosion and environmental test cabinets.

The C&W Corrosion Test Cabinets are designed to continuously deliver the precise environmental test conditions demanded by modern industry. Through their reliability, ease of operation and robust construction, C&W salt spray cabinets have gained worldwide acceptance with applications in all major sectors of automotive manufacture as well as the paint, surface and coatings, chemical, electronics, aerospace, military and offshore industries.

Sophisticated lucite atomiser for baffle free mist generation ensuring precise fallout throughout the chamber.

Accurate salt solution flow control via a variable speed, heavy duty peristaltic pump and flowmeter. This ensures precise collection rates and eliminates blockage.

Optimum Operation

Effective corrosion testing requires close operational control and total accuracy. In C&W's salt spray cabinets these criteria are assured by:

- Easy access for filling and sterilisation to prevent excessive growth of algae.
- Mobile External Salt Solution Reservoir with integral filter systems. 114 litre capacity, giving up to 14 days continuous operation depending on model size.
- Air regulator and gauge to control and monitor the air pressure required for precise salt spray distribution.
- Flowmeter to accurately monitor salt solution flow.
- Sample Racks are supplied as standard to accept panels or suspend samples.
- Optional low level alarm system available.

Precise Control

- Cabinet temperature control: “Soft touch” waterproof membrane keypad control panel with user friendly tactile keypads giving full digital test display.
- Range ambient to 55°C, +/- 1°C.
- Temperature Control by N.T.C. Sensor.
- Humidifier: Automatic self-filling humidifier tower for compressed air saturation and heating with digital display of temperature set point. Range: Ambient to 65°C, +/-1°C. Tower includes Incoloy heater, over temperature protection and air diffusers to create bubble formation of air within the tower to produce totally saturated and heated air. With low water level protection.
- Programme Control: The microprocessor controller has the capacity to store up to seven different test programmes.
- Cycle run and cycle left counter with end of test facility.
- Intermittent test facility for spray/dry/air purge cycles.
- Fully adjustable salt spray/dry cycles from continuous and 0 to 9999 minutes.
- Air Purge: to remove corrosive airborne salt prior to sample inspection. This can be done manually or it can be included in a program to work automatically.
Standards

**British/ISO/EN Standards:**
EN-ISO 7253, BS 3900 F12, BS 3900 F4, BS 2011 Part2:1 ka,
EN 60068-2-52 kb, BS 5466, BS 7479, BS 3900 F18, ISO 20340, ISO
11 997, ISO 9227, ISO 3788.

**German Standards:**
DIN 50021, VG 9532/4, VG 95210/2

**American Standards:**
ASTM B117, ASTM D5894, ASTM G85 (1,2,3+5), ASTM B368,
SAE J2334

**French Standards:**
NF EN 41-002, CT 010304, NFA 91-101, PNX 14-002

**Japanese Standards:**
JIS Z 2371, JIS H 8502, JASCO M 6009

**Corporate Standards:**
Ford, Jaguar, Land Rover, G.M, Toyota, Honda, Nissan, Renault,
Peugeot, Citroen, Volvo, VW, Audi, BMW

Warranty

Subject to agreed maintenance procedures a two year warranty is available. The standard warranty is one year.

Corrosion resistant construction throughout.

Low maintenance - high quality.

Design Benefits

All C&W cabinets with their clean, functional design are manufactured from high quality materials selected specifically for this application:

- Specially formulated fire
  retardant glass
  reinforced polyester
  (GRP) with high
chemical and
temperature tolerance –
ivory white in colour.

- Apex lids are formed in a
  range of composite
  materials depending on
  test requirements and
  supported by gas
  springs to ensure
  smooth operation and
  an effective seal when
  closed. Fully insulated.

- Ergonomically designed
  control panel.

- Over-temperature
  protection – factory set.

- Installation in areas of
  restricted access is
  made easier due to the
  compact design
  aided by wheels and
  removable lids.

Cabinet Variants

C&W manufactures a wide range of corrosion cabinets including conventional salt spray cabinets, cyclic Prohesion cabinets, CASS cabinets, combination salt spray/humidity cabinets and combination salt spray/Prohesion-humidity cabinets.

- **Combination salt spray/cyclic Prohesion cabinets**
  These cabinets perform both standard salt spray and cyclic Prohesion functions independently, an ideal solution when space is at a premium and test requirements do not justify separate test cabinets for each function.

- **CASS Cabinets**
  Developed to carry out all standard salt spray and high temperature CASS tests typically employed when corrosion testing chrome plating on steel and plastic.

- **Prohesion**
  Prohesion cabinets, originally developed by C&W, simulate natural weathering and provide a realistic method of accelerated corrosion testing for heavy duty industrial, marine and structural steel coatings.

- **Combination salt spray/humidity cabinets**
  This variant operates as a standard salt spray cabinet but with the added benefit that it can be switched on to operate as a humidity cabinet. When in the salt spray mode all given standards can be achieved. In humidity mode the cabinet will operate between 30°C and 80°C with a constant RH of 95-100% saturation.
## Technical Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>CW1001 100 litre</th>
<th>CW1002 200 litre</th>
<th>CW1004 450 litre</th>
<th>CW1007 750 litre</th>
<th>CW1010 1000 litre</th>
<th>CW1020 2000 litre</th>
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<tbody>
<tr>
<td>External Dimensions</td>
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<td>Internal Dimensions</td>
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<td>Panel Capacity</td>
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<td>80</td>
<td>132</td>
<td>210</td>
<td>344</td>
<td>516</td>
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<td>Power Supply Amp</td>
<td>13</td>
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<td>13</td>
<td>13</td>
<td>20</td>
<td>3 Phase 380 V 50/60Hz</td>
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<tr>
<td>Style</td>
<td>Bench Mounted</td>
<td>Floor Mounted</td>
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<tr>
<td>Compressed Air</td>
<td>Type: Clean, dry, oil free Pressure: 2 to 4 bar (30 to 60 psi) Flow: 3.5cfm at 15 psi Connection: 10 mm ID plastic pipe</td>
<td>6 to 8 bar (90 to 120 psi)</td>
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The external and internal dimension may vary a few centimeters.

![Diagram of cabinet](image)

### Optional Accessories

- **Compressor switch** – for automatic switch-over to stand-by or regular air supply.
- **Entry ports** – for cable access to monitoring equipment or power induction.
- **External salt fog collection vessels.**
- **Compressor – available for continuous use or stand-by function: high specification, oil free.**
- **De-ioniser & Water filters** – recommended for areas with hard water or high total dissolved solids (50mg/litre TDS).
- **Special racking** – to support components/samples in test areas as required.
- **Low reservoir alarm.**
- **Salt fog condenser venting system.**

All cabinets are CE marked and have calibration traceable to international standards. Certificates of Conformity are supplied on request. Due to continuous development we reserve the right to introduce improvements and / or modify specifications without prior notice.

C&W Specialist Equipment Ltd. is part of the Inks & Coatings Division of Industrial Physics (www.industrialphysics.com).