# Product Data Sheet

## CON 300-FL CH CWC (+50°C)

### Legend

**CH** – Constant Humidity

**AT** – Alternating Temperature

**AHT** – Alternating Humidity and Temperature

**AIR** – Forced air circulation

**ADO** – Automatic door opening

**CWC** – Controlled water condensation

**KES** – Test cabinet prepared for conducting Kesternich ($SO_2$ gas) test

Patented Controlled Water Condensation (CWC) system

### Product Description

**These compact and easy to operate bench top cabinets are designed for conducting water condensation (constant humidity) tests pursuant to the most common international corrosion test standards such as:**

- **DIN EN ISO 6270-2:2005**
- **ASTM D2247**

**Cabinets with AIR or ADO option are applicable for the additional water condensation tests:**

- **Alternating temperature (AT)**
- **Alternating temperature and humidity (AHT)**

**With optional Manual or Electronic dosing systems for $SO_2$ gas the (KES) version of CON 300-FL test cabinet is suitable for conducting Kesternich tests acc. to:**

- **DIN EN ISO 6988 (DIN 50018)**

### Order Information

**Basic model: CON 300-FL CH CWC**

Article numbers versions:

- V.702.361.001 (AIR CWC KES)
- V.702.161.000 (CH CWC)
- V.702.361.000 (AIR CWC)
- V.702.061.005 (ADO CWC)
- V.850.220.100 (AWRF – Option for all types)

All variations of 300 L CON test cabinets feature Jumo dTRON controller

### Customer Benefits

- Cost effective solution for basic water condensation and $SO_2$ corrosion tests
- Compact bench top design
- The patented VLM technology allows the best possible reproducibility of the temperature conditions being created in the test chamber regardless the environmental conditions and geographical location – same type of VLM corrosion test chamber will produce same test results in any geographical region
- The test chamber made of steel is more robust and less susceptible for damages compared to the competitive products made of glass reinforced plastic
- Lower cost of ownership compared to the competitive products where the test chamber is made of glass reinforced plastic (shorter test periods, better energy efficiency, easier for service and maintenance, longer life cycle, more resistive to mechanical damages)
- User friendly control system with preconfigured test parameters

**Sales & Support:**
**+49 5205 87963 0**
Monday to Friday
8:00 am – 17:00 pm

VLM GmbH
Heideblümchenweg 50
33689 Bielefeld
info@vlm-labtec.com
www.vlm-labtec.com

Specification subject to changes
Pictures might differ from original

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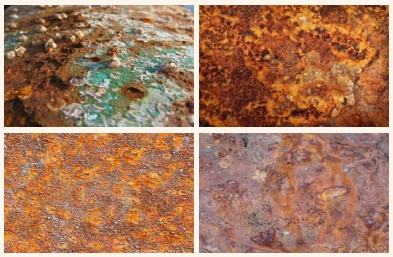
**Relevant Test Standards:**

**Water condensation tests:**
- DIN EN ISO 6270-2:2005
- BS 3900 F2
- BS 3900 F15
- ASTM D2247




Jumo dTRON controller

| Technical Specifications | |
|---|---|
| **Capacity** | ca. 300 L |
| **Interior dimensions test chamber (WxDxH1/H2)** | ca. 800 x 605 x 533/720 mm |
| **Outer dimensions of the casing (overall) WxDxH** | ca. 1100 x 700 x 900 mm |
| **Required power supply** | 230V, 50/60Hz, 700W |
| **Materials used** | test chamber is made of stainless steel, bottom coated with ECTFE, side walls made of Polyethylene with milled openings for supporting rods |
| **Heating** | Flat Micanite heater under the bottom of the chamber for fast and uniform heat transfer |
| **Sensors** | - In basic type: 2x corrosion resistant and highly sensitive temperature sensors (floor and roof) |
| **Temperature stability** | ±0,5°C |
| **Aeration (type AIR)** | timer controlled built-in fan air flow ca. 16 $m^3/h$ |
| **Timer (Jumo dTRON)** | Two channel timer for automated switch over from heating to aeration mode |
| **Weight** | 110 kg |
| **Communication** | RS 232 interface |
| **Other specification** | |
| **Purity demineralized water \| filling volume \| fitting** | < 5 µS/cm \| ca. 3,5 L \| ¾“ outer diameter<br>**Option:** Automatic water refill |
| **Tap water (connection type)** | Always via Ion-exchanging cartridge (¾“ outer diameter) |
| **Compressed Air** | 6-8 bar (connection nipple size 5) |
| **Waste water, drain** | Pipe fittings (spiral hose ID 19 mm) |
| **Exhaust pipe outer diameter** | Pipe fitting (50 mm external diameter) |
| **Number of supporting rods / max load** | 5 stainless steel rods coated with plastic / 30 kg each |
| **Introduction of $SO_2$** | Self-closing inlet valve |

### The following accessories are included:

- **6 rods for supporting test specimen**
- **2 m exhaust hose Ø 50 mm**
- **2 m drain water hose Ø 18 mm**
- **1 female connector for compressed air hose (size no. 5)**

### Process Control

- User friendly, microprocessor based Jumo dTRON controller for all types of 300 L test chambers
- Programmable timer function
- **Option:** VisiCORR software for visualisation of test trends, only in combination with RS 232 (option)
- Restricted access for authorised operators (security code)

### Operating system Constant Humidity (CH) with Controlled Water Condensation system - CWC (according to ISO 6270-2 CH)

- CWC system is the patented VLM technology which regulates the temperature gradient of exactly ΔT=1°C between the bottom and the roof of the test chamber – this is essential for an optimal condensation process in the test chamber at 100% RH regardless the environmental conditions outside the test chamber
- Flat heaters under the bottom of the chamber for uniform and rapid heating of the water in the trough
- Temperature stability in the chamber ±0,5°C
- Air fan with adjustable rotation speed for controllable drying of specimen

### Optional: Operating system AIR

- A fan with controllable RPM is used for the forced drying phase (Aeration) after the Constant Humidity phase

### Optional: Operating system AWRF (Automatic Water Refill)

- Automatic water refill inside the test chamber at the beginning of the test and water draining at the end of the test. Very useful with Kesternich ($SO_2$) tests and switching between CH, AT and AHT type of DIN EN ISO 6270-2.