

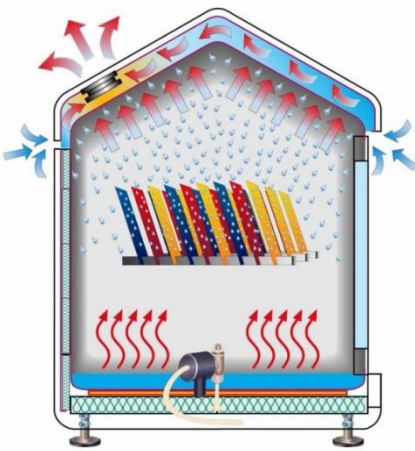


# Product Data Sheet

## CON 400-FL (+60°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	- Cabinet prepared for the Kesternich (SO <sub>2</sub> gas) test
AWRF	- Automatic Water Refill
HT	- High temperature option (max temp 80°C)



Patented Controlled Water Condensation (CWC) system



### Product Description

This compact and easy to operate front loading corrosion test cabinet is designed to conduct standard water condensation tests according to the most common international test standards such as:

- DIN EN ISO 6270-2:2005 (CH) constant humidity
- DIN EN ISO 6270-2:2005 (AT) alternating temperature
- ASTM D2247

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

- DIN EN ISO 6270-2:2005 (AHT) alternating temperature and humidity

The cabinets with the KES option are suitable for conducting Kesternich tests acc. to:

- DIN EN ISO 6988

The HT option allows max operating chamber temperature of 80°C.

All cabinets of this type include bench cabinet.

### Order Information

Basic model: CON 400-FL

Article numbers versions with the bench cabinet:

- V.701.061.020 (CH)
- V.701.261.020 (AIR)
- V.701.061.025 (ADO)
- V.701.261.021 (AIR KES)
- V.701.161.020 (CH CWC)
- V.701.361.020 (AIR CWC)
- V.701.361.030 (AIR CWC HT)
- V.850.220.100 (AWRF) optional add-on for all models

### Sales & Support:

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Monday to Friday  
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Specification subject to changes  
Pictures might differ from original

### Customer Benefits

- Cost effective solution for basic water condensation and SO<sub>2</sub> corrosion tests
- Compact front loading design with the bench cabinet (bench top versions are also available)
- The patented VLM technology allows the best possible reproducibility of the temperature conditions being created in the test chamber regardless the environmental conditions and the geographical location – for this reason are the VLM corrosion test chambers an excellent choice for international corporations with test labs across the world
- The test chamber made of steel is more robust than the competitive products made of glass reinforced plastic – refurbishing an old VLM test chamber to a perfectly new condition is possible
- 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

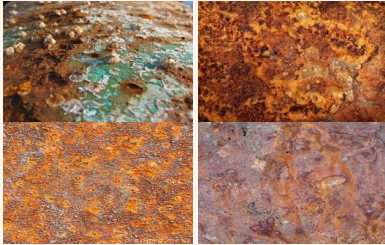


# Product Data Sheet

## CON 400-FL (+60°C)

### Relevant Test Standards

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



JUMO dTRON controller

### Accessories Included

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

### Technical Specifications

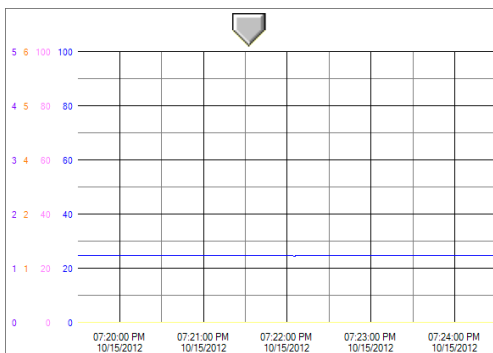
Capacity	ca. 400 L
Interior dimensions test chamber (WxDxH1/H2)	ca. 800 x 605 x 733/920 mm
Outer dimensions of the casing (overall) WxDxH	ca. 1310 x 670 x 1933 mm (height including bench cabinet)
Required power supply	230V, 50/60Hz, 800W (1300W for HT option)
Materials used	test chamber is made of stainless 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: 1x corrosion resistant and highly sensitive temperature sensor - In CWC type: 2x corrosion resistant and highly sensitive temperature sensors above the floor and under the roof
Temperature stability	$\pm 0,5^{\circ}\text{C}$
Max operating temperature	60°C (80°C with HT option)
Aeration (type AIR)	timer controlled built-in fan air flow ca. 30 m <sup>3</sup> /h
Timer	Two channel timer for automated switch over from heating to aeration mode
Weight	256 kg
Communication (option)	RS 232 interface
<b>Other specifications</b>	
Purity demineralized water / filling volume / fitting	< 5 $\mu\text{S}/\text{cm}$ / ca. 3,5 L / $\frac{3}{4}$ " outer diameter Option: Automatic water refill
Tap water (connection type)	Always via Ion-exchanging cartridge ( $\frac{3}{4}$ " outer diameter)
Compressed Air	6-8 bar (connection nipple size 5)
Waste water, drain	Pipe fittings (spiral hose ID 18 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 <sub>2</sub>	Self-closing inlet valve at the right hand side wall

### Process Control

- User friendly, microprocessor based Jumo dTRON controller
- Programmable timer function
- Option:** VisiCORR<sup>®</sup> software for visualisation of test trends, only in combination with RS 232 (only monitoring and documenting the test)
- Restricted access for authorised operators (security code)

### Operating system AIR and AWRP

- Option:** System for forced ventilation (AIR) with a variable speed fan for drying test specimens with environmental air
- Option:** Automatic water refill (AWRF) system suitable for AHT type of condensation test



Visualisation of test results with VisiCORR software (option)

Trend	Color	Marked value
Start	Green	0
AirpressureAndDoor	Red	0
HumidifierOverfilling	Green	-
HumidifierLevel	Blue	0
SetpointChamberTemp	Purple	0
ActualChamberTemp	Yellow	25
SetpointHumidifierTemp	Blue	0
ActualHumidifierTemp	Red	200001

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

- CWC system is the patented VLM technology which regulates the temperature gradient of exactly  $\Delta T=1^{\circ}\text{C}$  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  $\pm 0,5^{\circ}\text{C}$
- Air fan with the manually adjustable rotation speed for controllable drying of specimen in the Drying Phase