



# Product Data Sheet

## SAL 400-FL (+60°C)

### Relevant Test Standards

#### Salt Spray Test:

- DIN EN ISO 9227
- DIN 50942, DIN 53167
- ASTM B 117-16, ASTM B 287-74
- ASTM B 368-68
- ISO 7253 ISO 3678
- BS 1224, BS 2011, BS3900 F4
- BS 3900 F12
- BS 5466 Part I, BS 5466 Parts 2 + 3
- NFX 41002,
- AS 21331 Section 3.1
- SIS 1841190
- JIS Z 2371
- IEC 60028-2-1 KA



### Product Description

**These compact and easy to operate front loading corrosion test cabinet is designed for conducting salt spray tests pursuant to the most common international corrosion tests such as:**

- **DIN EN ISO 9227 (SAL, ASS, CASS)**
- **ASTM B117-73**
- **IEC 60028-2-11 KA**

**This type of cabinet also allows conducting standard water condensation (high humidity) tests acc. to ISO 6270-2 (CH) but only with manual refilling of the chamber with demineralized water. The compressed air and the solution pump should be also switched off manually.**

### Order Information

#### Basic model:

SAL 400-FL (V.711.062.020)

#### Other versions:

SAL 400-FL I CCL ST (V.711.762.320)

#### Options:

V.850.231.200 Chamber cleaning

#### Sales & Support:

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Specification subject to changes  
Pictures might differ from original

### Customer Benefits

- Cost effective solution for basic salt spray (SAL)
- Compact front loading (cabinet) design
- The VLM technology allows the best possible reproducibility of the temperature conditions
- The test chamber with the bottom 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
- Possible to manually configure and operate this test cabinet acc. to ISO 6270-2 CH water condensation (high humidity) test
- Test cabinet is made of recyclable materials



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Figure 1 JUMO 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)

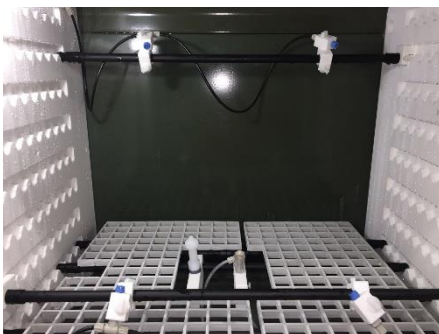


Figure 2 Option: System for specimen treatment

### Technical Specifications

<b>Capacity</b>	ca. 400 L
<b>Inner test chamber dimensions WxDxH1/H2</b>	ca. 800 x 605 x 920 / 733 mm
<b>Outer dimensions of the casing (overall) WxDxH</b>	ca. 1210 x 922 x 1983 mm
<b>Required power supply</b>	230 V, 50/60 Hz, 1800 W
<b>Materials used</b>	The walls of the chamber are made of Polypropylene while the bottom is made of stainless steel and coated with ECTFE. The walls have milled openings for supporting rods
<b>Heating</b>	Flat Micanite heaters under the bottom of the chamber for fast and uniform heat transfer
<b>Sensors</b>	- 1x corrosion resistant and highly sensitive temperature sensor
<b>Temperature stability</b>	$\pm 0,2^{\circ}\text{C}$
<b>Aeration</b>	NA
<b>Programmable tests</b>	yes
<b>Weight</b>	256 kg
<b>Communication</b>	RS 232 interface (optional)
<b>Max operating temp.</b>	+ 60°C
<b>Other specification</b>	
<b>Purity demineralized water / filling volume / fitting</b>	< 5 $\mu\text{S}/\text{cm}$ / ca. 3,5 L / $\frac{3}{4}$ " outer diameter Option: Automatic water refill
<b>Tap water (connection type)</b>	Always via Ion-exchanging cartridge ( $\frac{3}{4}$ " outer diameter)
<b>Compressed Air</b>	6-8 bar (connection nipple size 5)
<b>Waste water, drain</b>	Pipe fittings (spiral hose ID 18mm)
<b>Exhaust pipe outer diameter</b>	Pipe fitting (50 mm external diameter)
<b>Supporting rods / max load</b>	5 stainless steel rods coated with plastic / 30 kg each

### Process control

- Basic version of the SAL 400-FL test chamber is equipped with the user friendly, microprocessor based Jumo dTRON controller (Figure 1)
- Programmable timer function
- **Option:** VisiCORR software for visualisation of test trends, only in combination with RS 232 (option)
- **Option:** the SAL 400-FL-I CCL ST version (with chamber cleaning and specimen treatment) is equipped with the Jumo IMAGO controller
- Restricted access for authorised operators (security code)

### Operating system salt spray test (SAL) according to ISO 9227

- Electronically controlled membrane pump (flow monitor)
- High performance nozzle with adjustable air cap made of PEEK
- Transparent humidifier of Duran glass with easily replaceable PE-sintered filters for fine distribution of compressed air or full saturation with moisture and automatic water refill
- Manually controlled air purge in order to blow out the salt mist from the test area before opening the lid

### Options

- **CCL:** Chamber cleaning with rotating nozzle after the salt spray test is finished
- **ST:** The specimen treatment option is required when test procedure prescribes the corrosion process to be stopped after the salt spray test is finished. It is done by flushing the specimens with demineralized water and drying them with warm air. A number of nozzles are used to spray the demineralized water directly upon specimens and removing the remnants of the salt crust. In addition a ventilation system with air heater is added to enable fast drying of the specimens.