CORROTHERM 610/610e

Salt Spray Tests

Condensation Tests

testing equipment for quality management

ERICHSEN

CORROSION TEST APPARATUS

In accordance with the most required standards (DIN, DIN EN ISO, ISO, ASTM, BS, JIS, IEC, MIL-STD)

Simple
Economical
Space saving

CORROTHERM 610/610e

Purpose and application

Ferrous and non-ferrous metals are attacked continuously by humidity, acids, solutions, gases etc.. Therefore these materials require the necessary preparatory techniques and protective coatings. Over and above this, the increase in preparatory treatment demands and environment protection aspects lead to further system improvements of coating substances. The choice of the correct combination of material and the surface protection is therefore of decisive importance for the corrosion resistance of work pieces and assemblies. Corrosion tests are therefore still very essential for quick quality control and for the investigation of weak areas. In order to make these tests comparable, national and international standards have been drawn up for test conditions and duration.

Procedure

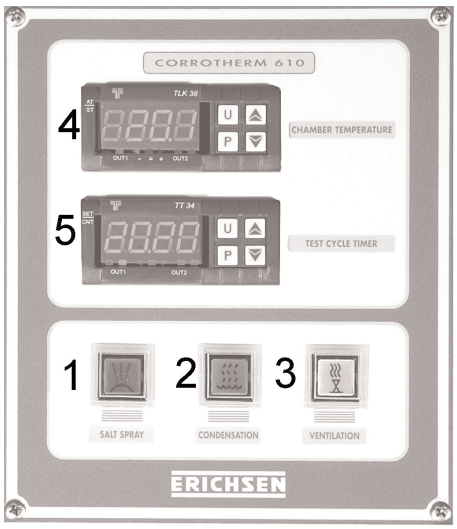
The **CORROTHERM 610** (Fig. 1) is an extremely compact, space-saving corrosion test apparatus, made entirely of non-polluting PP material and contains all the necessary equipment for testing in accordance with the most frequently used spray mist and condensation water tests (DIN 50 021, DIN EN ISO 6270-2, DIN EN ISO 7253, ISO 11503, ASTM B 117, ASTM B 368 T "CASS TEST").
Two different capacities (400 l and 1000 l) and two different versions (610 and 610e) are available.

Special features

The box-type construction with the front door makes provision for ease of control and accessibility to the test chamber. The spray nozzle is fitted into the inner rear panel so that the entire test chamber is available for the specimens. Suspension rods are fitted across the test chamber at three different levels and on these smaller assemblies, directly or test panels can be placed on "U" shaped holders.
In the bottom of the test chamber is a heating element to provide optimum conditions for humidifying and temperature control in the test chamber.
Within the test chamber itself is the storage tank for up to 100 litres (400 l Version) or up to 280 litres (1000 l Version) of spray solution. This enables the test apparatus to work over the weekend without supervision. The Corrosion Test Apparatus of the **CORROTHERM 610** series is manually operated. Clearly arranged buttons (Fig. 2) are available for functions such as the salt spray test, condensation water test and vapour evacuation. Via the control buttons, which are at eye level, the temperature display, time switch, and the test duration display functions are available and also permits the automatic switch off function on completing the pre-programmed test time (i.e. 240 h). The display is reversible and can represent the test time in hours and minutes. With an adjustable valve, also at eye level, the spray pressure can be finely adjusted and can be read from the manometer directly above. A continuous controllable dosing pump (low-maintenance **diaphragm pump**) ensures the correct quantity of spray solution to the nozzle and the humidifier works automatically.

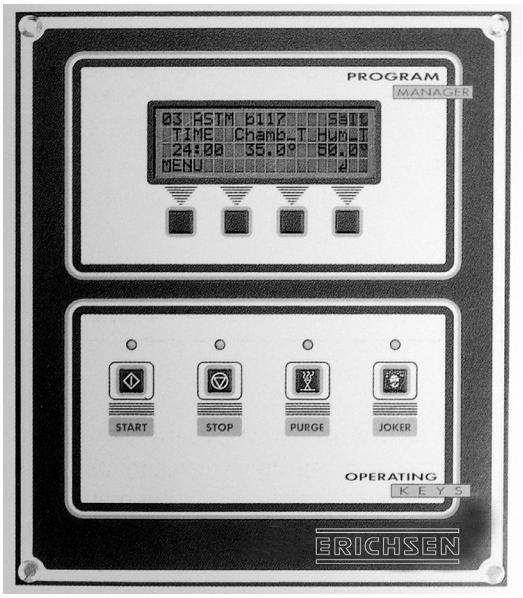
Fig. 1 CORROTHERM 610

Fig. 2 Control Panel (Model 610)



The **CORROTHEM 610e** has the same capacity as Model 610, but is operated with a microcontroller and a four-lined LCD (Fig. 3) whereby all important parameters can be called up and entered. The display shows, amongst other things, the chamber temperature, the humidifier temperature and the spray pressure. As well as the pre-programmed test cycles (from the manufacturer) a total of up to 15 programmes can be stored. Optionally, via an interface, the data can be transferred to a built-in printer.

Fig. 3 Control Panel (Model 610e)



Order Information	
Order No.	**Description**
0183.01.31	Corrosion Test Apparatus **CORROTHERM 610** test chamber volume 400 l incl. 3 specimen holders for weathering panels
0183.02.31	Corrosion Test Apparatus **CORROTHERM 610e** test chamber volume 400 l incl. 3 specimen holders for weathering panels
0183.03.31	Corrosion Test Apparatus **CORROTHERM 610** test chamber volume 1000 l incl. 4 specimen holders for weathering panels
0183.04.31	Corrosion Test Apparatus **CORROTHERM 610e** test chamber volume 1000 l incl. 4 specimen holders for weathering panels
	Additional Control Function
0183.02.32	Built in printer (only for model 610e)
	Accessories
0183.03.32 0183.04.32	Specimen Holder for Weathering Panels for 400 l version for 1000 l version
0161.02.32	Compressed Air Cleaning Unit
0224.01.32	Condensate receptacle

Technical Data

CORROTHERM 610/610e	**400 l**	**1000 l**
Capacity in l without dome area (approx.)	450	970
Dimensions (W x D x H) in mm	1320 x 720 x 1460	1640 x 820 x 1760
Dimensions without dome area (W x D x H) in mm	800 x 710 x 800	1100 x 800 x 1100
Net weight in kg (approx.)	210	300
Capacity of test panels (approx.)	80	150
Test temperature range in °C	from ambient temperature up to +50	
Capacity of salt solution in l (approx.)	100	280
Power supply	230 V/AC, 50/60 Hz	
Power consumption in VA (approx.)	2100	3500
Compressed air supply in bar, approx. 5 - 8 Nm^3/h	4 - 6	4 - 6
Water supply in bar (water de-mineralised), approx. 1l/h	2 - 4	2 - 4

Further corrosion test apparatus from our production programme:

Humidity Cabinet HYGROTHERM 519 (for condensed tests)
Humidity Cabinet HYGROTHERM 529 (for condensed tests)
Corrosion Test Apparatus, Model 606 (for salt spray and condensed tests)
Corrosion Test Apparatus, Model 608 (for climate change test)
Corrosion Test Instrument CORROCOMPACT 612 (for salt spray tests)
Corrosion Test Instrument CORROCOMPACT 614 (for salt spray and condensed tests)
Corrosion Test Instrument CORROCOMPACT 616 (for varying climate conditions)
Light Exposure Test Apparatus SOLARBOX 522

For the specimen preparation we recommend the following instruments:

Multi-Cross Cutter, Model 295/III
Scratching Tool acc. to van Laar , Model 426
SCRATCHMARKER 427
Scratch Stylus acc. to Sikkens, Model 463
Test Panel Scratcher CORROCUTTER 639

Please ask for our detailed leaflets.

Group 21 - TBE 610/610e - XI/2005

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