LABORATORY REQUIREMENTS

Around the laboratory

CORROSION TESTING EQUIPMENT

wet chemical quality testing

METAL BLOCK THERMOSTATS

liquidless temperature control

Liebisch®
LABORTECHNIK

the sign of future

Liebisch - Your partner for the lab

We offer you a reliable all-around-service for your laboratory.
From test tube to the complete planning of the facility - we are happy to help. Just call!

Liebisch®
LABORTECHNIK

the sign of future

Liebisch Laboratory Technology

For more than five decades, the name Liebisch has been synonymous for high quality and reliability. Liebisch develops and produces high quality testing equipment for accelerated simulation of atmosheric conditions on materials and products of all kinds. These testing systems are tested and proven worldwide in a wide variety of industry, laboratory and research areas. In-house research in connection with universities, institutes, expert groups etc. and regular communication with the users lead to continuous updating of the products and development of new systems. The results are backed constantly by patents.

CORROSIONTESTING EQUIPMENT

Desk-type unit with 300 L chamber volume

Cabinet-type unit with 400 L chamber volume

More than 70 variants

The Liebisch devices program offers a unique variety of models.

The desk-, cabinet- and chest-type units with differently sized chamber volumes ranging from 300 to 2500 litres create the maximum space conditions for your test specimens.

Die Gehäusegrößen können technisch unterschiedlich ausgestattet sein.

Depending on the test specifications, the process systems Salt Spray, Condensation water, Ambient air, Hot air, Pollution gas and controlled Relative humidity can be combined individually or as combinations

Chest-type unit with 400 L chamber volume [three-piece, with and without tank]

Diversity of models

Cabinet-type unit with
1000 L chamber volume

Cabinet-type unit with
2000 L chamber volume

SC

TR

Chest-type unit with 1000 L chamber volume [three-piece, with and without tank

Chest-type unit with 2500 L chamber volume

CORROSIONTESTING EQUIPMENT

S · K · B · W · F · G

Process system S
(Salt Spray)

For these test, sodium chloride solutions have to be atomized continuously or periodically through one or multiple nozzles in a heated test chamber using compressed air. The Process system consists of an indirectly heated test chamber including electronic temperature control, a two-component nozzle, a built-in storage tank for test solutions and a compressed air humidifying system with automatic water refilling and electronic temperature control. The two-component nozzle postioned in the heated test chamber is operated with humidified air and in accordance with the injector principle takes in test solution from a secondary tank. The test solution is mixed with the airflow and evenly distributed in the test chamber.

SALT SPRAY

Process system K
(Condensation Water)

The performance of these tests is described in various standards (e.g. DIN 6270-2). Condensation water tests are tests in the humid climate of a heated test chamber. The air humidity condenses on the sample surface whose temperature is lower than of the ambient air. The condensation water testing temperature can be constant or alternating. The process system consists of an indirectly heated testing chamber with electronic temperature control and a water refilling system with level control (except for Constanzo®). The prozess water in the test chamber bottom is heated, evaporates and heats the test chamber.

CONDENSATION WATER

Process system B
(Ventilation)

The process system B is used for ventilation, drying and cooling down of the test chamber and the specimens. This test section is part of some standards (e.g. DIN 6270-2 AHT). During the ventilation phase, the test chamber is vented via fan and valve system with filtered process air from the environment of the unit using the open-tube process. The test chamber temperature is lowered to room temperature and the relative air humidity in the test chamber is reduced to ambient conditions.

VENTILATION

Process system W
(Hot Air)

The process system W is used for heating and accelerated drying of the test chamber and the specimens. The test section hot air is required primarily for alternate tests of Japanese automotive manufacturers. The hot air system can be operated in conjunction with an existing automatic ventilation system (B) only. During the hot air phase, the test chamber is vented and heated via fan and valve system of the automatic ventilation system with filter process air from the environment of the unit using the open-tube process. The test chamber temperature i selectronically controlled and can be up to 70°C.

HOT AIR

Process systems

- C 1000 A - TR

Process system F
(Humidity)

The process system F is used for adjustment of a relative humidity in the heated test chamber. Test sections using controlled relative humidity are part of various combinations tests. The humidity control system can be operated only in conjunction with an existing automatic ventilation (B) and the hot air system (W). The air humidity is generated by the humidifier atomizing system or by the condensation water evaporation system. The relative air humidity is sensed via a capacitive foil sensor. Excessive moisture is controlled via the hot air ventilation system (W,B)

HUMIDITY

Process system G
(Gas dosing)

The process system G is required for automatic dosing of pollution gas quantities (SO_2). These differnt volume concentrations according to DIN 50018 and DIN EN ISO 6988 are supplied via a computer-controlled calibrated dosing system to the yet unheated test chamber at the beginning of the process. The sulphur dioxid comes from the internal mini steel cylinder.
The automatic gas dosing system (G) is offered exclusively in the material testing cabinet KBG 400 / 1000 A-SC. The manual Gasomat gas dosing systems can be used as peripheral units in connection with the Constanzo® device series.

GAS DOSING

Process system C
(Cooling)

The operating system C is used for rapid cooling of the chamber temperature below room temperature to support the operating system humidity (F). Also frost climates to -20 ° C are possible. The ambient air will be cooled and flows through the test chamber.

COOLING

Chamber volume

desk-types:
- **300** litres

cabinet-types:
- **400** litres
- **1000** litres
- **2000** litres

chest-types:
- **400** litres
- **1000** litres

VOLUME

Unit oprations

M- types:
manually controlled cabinet- or chest-type units to perfrom salt spray tests or condensation water tests

A- types:
automatically controlled cabinet- or chest-type units to perform single tests or combination tests

OPERATION

Types

SC - cabinet-type:
Due to the particularly ergonomically favourable design of the cabinet, comfortable operation of the unit and quick loading of the test chamber from the front are possible.

TR - chest-type:
The chest is charged from the top. The low loading edge makes easy positioning of the samples possible even with larger test chamber volume.

TYPES

CORROSIONTESTING EQUIPMENT

Cooling aggregate - normal climate/ frost

For units of type A and SC-A-TR
Cooling system for the rapid cooling down of the test chamber temperature below room temperature to support the operating system humidity (F).

- Normal climate
  Order no. 7116 6014

- Frost climate
  Order no. 7216 6014

also be retrofitted

CorroControl® Software (for A-TR / A-SC)

Documentation software included dongle for visualization of the operating parameters of one or more
Liebisch Corrosion testing systems of types A-TR or A-SC (max. 10). All relevant test datan will be graphically displayed and stored in a table.. Comfortable, simple user interface with Windows, clear status display, logging / Archiving of events and errors, and data export to MS Excel.

Order no. 1000 0070

also be retrofitted

CorroControl®M Software (for M-TR / M-SC / K...300)

Complete system for capturing important device parameters, consisting of data logger, documentation software and wiring.
With the 4-channel data logger max. 4 Temperature controller can be recorded, capacity 43 000 measuring points. The documentation software is used to visualize the operation data of one or more data Liebisch Corrosion testing systtems of the types M-TR or M-SC as well as K...300. The temperatures of the test chamber and the humidifier can be displayed graphically by reading out the data logger. comfortable, simple Windows user interface, clear status display and data export to MS Excel.

Order no. 1000 0175

Extract from our list
list of accessories

NaCl, chemically pure, 25 kg

Sodium chloride 99.5% for the test solution

Order no. 1100 0060

Microprocessor / pH-meter

Dust and waterproof Mobil-Mikroprozessor-pH/MV-Meter with great multi-function display.
Parallel temperature display, automatic calibration, data storage and SenTix 97/T-electrode.

Order no. 1100 0018

Refractometer

Refractometer for salinity determination
Concentration of 0-10% (at 20°C)

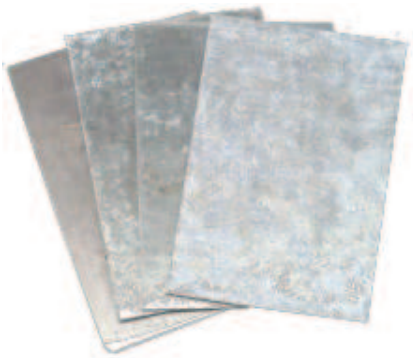
Order no. 1100 0064

Hydrometer

To determine the density of the test solution at 20°C
(Scale from 1.000 to 1.060 g / ml, length 160 mm)

Order no. 1100 0065

Test panels ISO 3574 with certificate



Steel sheet metal cut for functional testing of the device for salt spray tests according to DIN EN ISO 9227.

CR4 steel to ISO 3574
Dimensions: 150 x 70 x 1 mm
Incl. certificate for traceability
Minimum quantity: 16 pc.
(According to recommendation. ISO 9227)

Order no. 1100 0017

and more...
ask for our catalog!