Humidity Cabinet

HYGROTHERM 519/529

For humidity tests in accordance with international standards

Also available with test chambers of 1000 l or 2000 l capacity(Model 529)

testing equipment for quality management

ERICHSEN

DIN EN ISO 6270-2
DIN 50 018
DIN 50 958
DIN 53 771
DIN 55 991
NFT 30-055

ISO 3231
ISO 4541
ISO 11 503

ASTM D 2247

Purpose and application

Corrosion protection systems and materials are tested in the humidity cabinet **HYGROTHERM 519** in accordance with international standards and specifications. Examples are the reaction of protection-treated carrier media in the condensed water climate or the reaction of industrial finishes to sulphur dioxide containing atmospheres. For this purpose the specimens are exposed to aggressive climates or media for a specific period of time.

The multiplicity of standards requires the use of a proven, universally applicable instrument for example the **HYGROTHERM 519** or **529**. This ensures optimum results.

Design

The humidity cabinet **HYGROTHERM 519** corresponds to the latest standards of technology. Setting-up and monitoring functions are kept to a minimum, or are undertaken automatically.

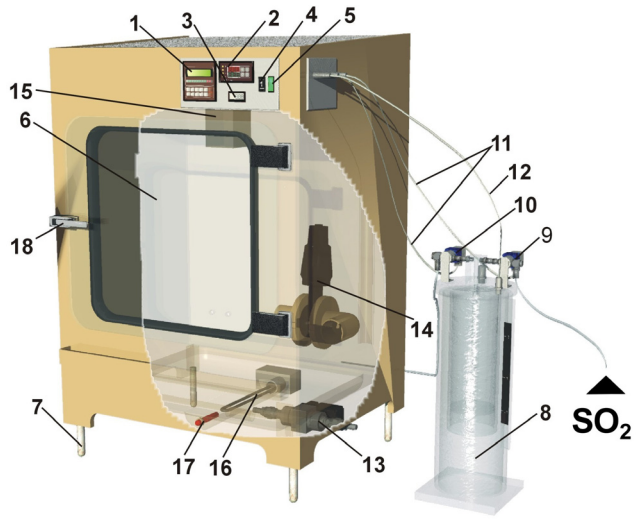
The 300 l standardised test chamber made of acidproof and thermoresistant plastic material ensures that the **HYGROTHERM 519** is ideally suited to large-scale batch testing. The large, transparent access door allows easy mounting of specimens, which are hung from seven free-standing cross rails.

The temperature is set on an electronic temperature regulator and the set value and actual value are shown on LED displays. According to the standards the test temperatures are between 20 °C and 40 °C (max. temperature 50 °C).

The addition of sulphur dioxide, e. g. for tests in accordance to DIN 50 018 (Kesternich Test) is undertaken by a gas injector, or a mini gas injector, working on the principle of gas expulsion using a blocking fluid. The quantity of gas required for corrosion purposes can therefore be easily and accurately adjusted.

The **HYGROTHERM 519 SA** equipped with a **semi-automatic control system**, operates time-independent and especially economically. The operations which need to be undertaken after an 8-hour cycle, such as acid draining, evacuation and replacement of air and the control of the heating system are executed automatically. A special venting connection also prevents the leakage of SO_2, which is a well-known and particularly burdensome phenomena.

The **HYGROTHERM 519 FA** is a **fully automatic version** using a PLC (programmable logic control) for the automatic sequence, i. e. the control of heating, acid feeding and draining, filling of the bottom trough with water as well as draining, refilling of the trough water tank, and evacuation and replacement of air (manual operation also possible).



This automatic version also includes a gas injector for tests in SO_2 containing atmosphere.

1 PCL for fully automatic or manual control of the test sequence
2 Temperature control with display of nominal and actual value as well as pilot lamp for heating
3 Running time meter with reset function showing the actual time of cycle
4 Preseclector for tests
5 Main switch
6 Standardized test chamber
7 Adjustable feet
8 Gas dosing unit filled with paraffine oil
9 Gas supply valve for the dosing unit
10 Gas valve from dosing unit to test chamber
11 Valve trip lines
12 Fibre optic cable for monitoring the filling quantity of SO_2
13 Automatic trough water outlet valve
14 Air evacuation valve
15 Switch for automatic refilling of trough water tank
16 Trough water heating
17 Float switch acting as protection against overheating
18 Lockable closure

Technical Data

HYGROTHERM 519/300 l

Dimensions (W x D x H)	750 x 600 x 1100 mm
Net weight:	approx.40 kg
Power supply:	230 V 1~, 50 Hz
Heating capacity:	1000 VA

Gas injector

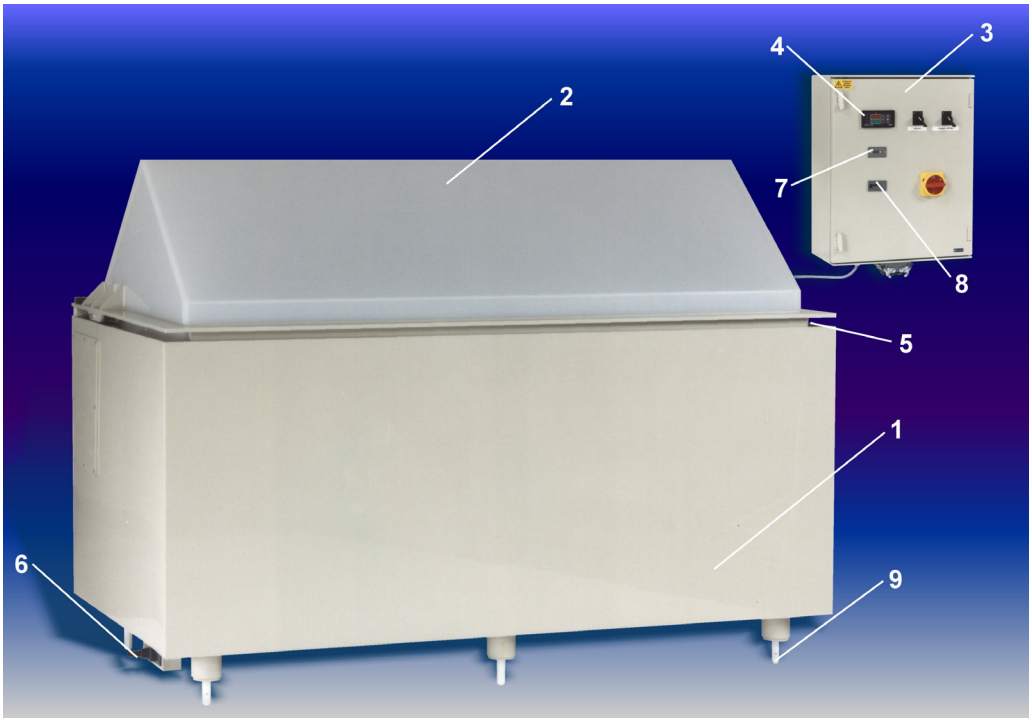
Dimensions: (W x B x H)	210 x 500 x 210 mm
Net weight:	approx. 4.5 kg

Mini gas injector

Dimensions: (W x D x H)	120 x 350 x 120 mm
Net weight:	approx. 2.5 kg

For tests of bulky parts in condensed water climate (without addition of gas), e. g. in accordance with DIN EN ISO 6270-2, the **HYGROTHERM 529 with a test chamber capacity of 1000 l** or **2000 l** is available.

The instrument consists of a control unit and a separate test chamber, hemispherical or rectangular design at choice (Model 529/2000 l only rectangular version).



1 Double-walled test chamber
2 Test chamber hood opened pneumatically
3 Control cabinet, e.g. fixed on the wall
4 Temperature display and control (nominal and actual value)
5 Circulating water seal, wear and maintenance free
6 Trough water drain valve
7 Test duration counter, resettable
8 Working hour meter
9 Test chamber feet, adjustable

HYGROTHERM 529/1000 l

Control unit

Dimensions: (W x D x H)	400 x 210 x560 mm
Net weight:	approx. 20 kg
Power supply:	230/400 V 3~, 50 Hz
Heating capacity:	2.400 W

Test chamber

Dimensions (W x D x H)	1800 x 1000 x 1350 mm
Net weight:	approx. 154 kg

HYGROTHERM 529/2000 l

Control unit

Dimensions: (W x D x H)	400 x 210 x560 mm
Net weight:	approx. 20 kg
Power supply:	230/400 V 3~, 50 Hz
Heating capacity:	3.600 W

Test chamber

Dimensions: (W x D x H)	3000 x 1000 x 1350 mm
Net weight:	approx. 257 kg

Order Information	
Ord. No.	**Product Description**
0124.01.31	**HYGROTHERM 519**
0135.01.31	**HYGROTHERM 519 SA** semi-automatic version
0213.01.31	**HYGROTHERM 519 FA** fully automatic version
0188.01.31	**HYGROTHERM 529/1000 l** test chamber capacity 1000 l
0188.02.31	**HYGROTHERM 529/2000 l** test chamber capacity 2000 l

For further details and accessories please refer to our price list 519/529 E.

Subject to technical modifications.
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Further <u>Corrosion Test Instruments</u> supplied by ERICHSEN:

Corrosion Testing Apparatus for Salt Spray Tests, Model 606
cylindrical or rectangular version,
with 400 l or 1000 l test chamber capacity

Corrosions Testing Apparatus for Alternating Tests, Model 608
e.g. in accordance with VDA 621-415 or VW Specification
with 400 l, 1000 l or 2000 l test chamber capacity

Corrosion Test Instrument CORROTHERM 610
simple, inexpensive test instrument, approx. 400 l or 1000 l volume

Corrosion Test Instrument CORROTHERM 610 E
semi automatic version with programmable Micro Controller and LCD,
with 400 l or 1000 l test chamber capacity

Corrosion Test Instrument CORROCOMPACT 612
standard version for the implementation of salt spray tests,
with 120 l, 450 l or 1000 l test chamber capacity

Corrosion Test Instrument CORROCOMPACT 614
comfortable version for the implementation of different salt spray and condensed water tests,
with 120 l, 450 l, 1000 l or 2000 l test chamber capacity

Corrosion Test Instrument CORROCOMPACT 616
universal version for the implementation for the testing of varying climate conditions,
e.g. according to VDA 621-415 or VW Specification, as well as many other options,
with 450 l, 1000 l or 2000 l test chamber capacity

SOLARBOX, Model 522
Light exposure test apparatur, with optional microprocessor controls
and programmable flooding system as well as interface RS232C

For the <u>specimen preparation</u> we recommend the following instruments/tools:

Scratching Tool acc. to van Laar , Model 426

SCRATCHMARKER 427

Test Panel Scratcher CORROCUTTER 639

Scratch Stylus acc. to Sikkens, Model 463

Multi-Cross Cutter, Modell 295/III

Please ask for our detailed leaflets and price lists.

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