

**Testing Apparatus
to carry out tests in
altering climates as well
as various salt spray and
condensation water tests**

Corrosion Testing Instruments Model 618

**Corrosion chamber
inclusive interface for
connecting an
Air Conditioning Unit**



Model 618/400 I with the Compact Air Conditioning Unit PLUS

testing equipment for quality management



Technical Description

**Tests in accordance
with international
standards**

General Information

In connection with preparatory treatment techniques and new materials, coating systems have achieved a high technical level. In addition, growing working requirements and environmental aspects are leading to further improvements of the coating systems. Therefore corrosion tests for quick quality monitoring and examination of weakest points are now as before indispensable.

All corrosion testing instruments of the 618 series are „Made in Germany“. The test chambers are made of special resistant glass fibre reinforced plastic and are suitable for low-temperature cycles (down to -40 °C) and dry heat (up to +70 °C).

The salt spray cabinets are opened pneumatically, and therefore both hands can be used to handle the test samples. The ergonomic design of the combined cabinet/chest shaped instrument enables a very user-friendly placing in of the test samples.

Different sample holder are available as accessories.



All relevant test parameters are entered and read using a “Full Color Touch Panel” with multilingual menu navigation.

By simply touching the display the required functions can be initiated. The graphics display indicates the set and the actual value, shows graphically the course of the last 72 hours.



Via touch-screen operation the user can store up to 40 main programmes, which can each consist of 50 individual steps. Therefore tests in varying climatic condition with differing specifications from the automotive standards can be pre-programmed. Furthermore, the basic instrument is equipped with a humidity regulation function, which allows the regulation during tests from ambient conditions up to 95 % relative humidity. The actual temperature as well as the air humidity are displayed both graphically and numerically.

The 618 series are equipped with a control unit for the humidity for tests from ambient conditions up to 95% (+/-5%) relative humidity and up to a maximum temperature of 50 °C. During salt spray tests the humidity sensor removed pneumatically from the test chamber.

The communication between test chamber control and PC will be realised by an Ethernet RJ45 communications port. This port is also used for data acquisition of test chamber temperature, humidifier temperature, relative humidity, spray pressure, etc.

The quantity of test solution is adjusted by means of the infinitely variable spray pressure and the dosing pump. This optimises the quantity of test solution proportionally to the required salt spray precipitation rate.

The control and display instruments of the test apparatus are ergonomically designed and clearly arranged so that only one glance is sufficient to inspect and act immediately if necessary.



The dosing pump (peristaltic pump) is mounted on the outside of the test instrument (rear) thus enabling an easy check and exchange of the squeeze tube.

A separate reservoir (semitransparent) for the absorption of approx. 210 l spray solution is included in the scope of supply. For simple level control the tank is equipped with float switches.



All versions of the 618 series can be combined with a Compact Air Conditioning Unit to cool the test chamber (**all testers are already prepared for the connection of an air conditioner as standard.**)



Depending on the application the following versions are available:

Compact Air Conditioning Unit

for cooling the test chamber down to **-20 °C** and for the humidity control between 30% and 95% rel. humidity at +25 °C, for corrosion cycling tests, eg. according to VDA 233-102, VDA 621-415, DIN EN ISO 11997-1

Compact Air Conditioning Unit

for cooling the test chamber down to **-40 °C** and for the humidity control between 30% and 95% rel. humidity at +25 °C, for corrosion cycling tests, eg. according to VDA 233-102, VDA 621-415, DIN EN ISO 11997-1

The specified data are valid for installation in rooms with standard ambient conditions 23/50 (DIN 50014 / ISO 554).

In non-standard ambient conditions, we recommend to use Compact Air Conditioning Units as split version.

Various optional accessories are available for additional control functions of the corrosion test apparatus 618 (please refer to the price list no. 618 or contact us).

Order Information	
Ord.-No.	Product-Description
0307.01.31	Corrosion Testing Instrument, Model 618 , with 400 l cabinet volume, incl. 6 specimen holder for weathering panels
0318.01.31	Corrosion Testing Instrument, Model 618 , with 1000 l cabinet volume, incl. 8 specimen holder for weathering panels
0319.01.31	Corrosion Testing Instrument, Model 618 , with 2000 l cabinet volume, incl. 16 specimen holder for weathering panels
	Scope of supply: -apparatus frame in resistant glass fibre reinforced plastic design; -electric control room, separated from water-bearing parts; -silicone-free -color touch panel for input and control of all necessary test parameters, - incl. control unit for humidity -dry heat up to +70 °C -Ethernet interface and software for data recording -remote diagnostics via Ethernet -dosing pump for the optimum setting to be sprayed salt solution -electronic flowmeter -Separate storage container for the spray liquid -Compressed air scrubber and condensate receptacle -the instrument ready and incl. interface for connection to the Compact Air Conditioning Unit

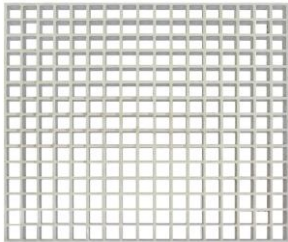
Technical Data

Cabinet volume (in liter)	400 l	1000 l	2000 l
Dimensions (W x D x H) in mm	approx. 1600 x 800 x 1500	approx. 2100 x 1350 x 1670	approx. 3250 x 1350 x 1670
Internal dimensions (W x D x H) in mm	approx. 980 x 500 x 820	approx. 1190 x 815 x 1040	approx. 2380 x 815 x 1040
Height in mm (opened)	approx. 2100	approx. 2500	approx. 2500
Net weight in kg (approx.)	220	600	700
Power supply	400 V, 3~ N-PE/50	400 V, 3~ N-PE/50	400 V, 3~ N-PE/50
Power consumption	5.5 kVA	5.5 kVA	9 kVA
Storage capacity for test panels	160	360	720
Temperature range (from ambient)	up to +50 °C	up to +50 °C	up to +50 °C
Salt solution tank capacity (separate tank)	approx. 210 l	approx. 210 l	approx. 210 l
Compressed air supply	6 - 10 bar	6 - 10 bar	6 - 10 bar
Demineralized water supply	2 – 5 bar	2 – 5 bar	2 – 5 bar
Connecting plug	32 A	32 A	63 A

Technical Data for the Compact Air Conditioning Unit / Compact Air Conditioning Unit PLUS

	Compact Air Conditioning Unit	Compact Air Conditioning Unit PLUS
Dimensions (W x D x H) in mm	approx. 1700 x 900 x 1900	approx. 2400 x 1150 x 1950
Cooling temperature	down to -20 °C	down to -40 °C
Net weight in kg (approx.)	500	700
Power supply	by corrosion testing device	by corrosion testing device
Consumption	9 kW	15 kW
Continuous sound pressure level db(A)	68 - 72	68 - 72

Order Information		
Figure	Ord.-No.	Description
	0307.01.31	<u>Corrosion Testing Apparatus, Model 618</u> with test chamber volume 400 l; to carry out tests in altering climates as well as various salt spray and condensation water tests, incl. external storage container for spray solution; test apparatus ready including the interface for connection to the Compact Air Condition Unit Dimensions: approx. 1600 x 800 x 1500 mm (W x D x H) Dimensions (inside): approx. 980 x 500 x 820 mm (W x D x H) Net weight: approx. 220 kg
	0318.01.31	<u>Corrosion Testing Apparatus, Model 618</u> with test chamber volume 1000 l; to carry out tests in altering climates as well as various salt spray and condensation water tests, incl. external storage container for spray solution; test apparatus ready including the interface for connection to the Compact Air Condition Unit Dimensions: approx. 2100 x 1350 x 1670 mm (W x D x H) Dimensions (inside): approx. 1190 x 815 x 1040 mm (W x D x H) Net weight: approx. 600 kg
	0319.01.31	<u>Corrosion Testing Apparatus, Model 618</u> with test chamber volume 2000 l; to carry out tests in altering climates as well as various salt spray and condensation water tests, incl. external storage container for spray solution; test apparatus ready including the interface for connection to the Compact Air Condition Unit Dimensions: approx. 3250 x 1350 x 1670 mm (W x D x H) Dimensions (inside): approx. 2380 x 815 x 1040 mm (W x D x H) Net weight: approx. 700 kg
Accessories / Compact Air Condition Unit		
	2093.01.32 2211.01.32 2212.01.32	<u>Compact Air Condition Unit</u> for cooling the test chamber down to -20 °C for 400 l version for 1000 l version for 2000 l version Dimensions: approx. 1700 x 900 x 1900 mm (W x D x H) Net weight: approx. 500 kg

Figure	Ord.-No.	Description
	2213.01.32	<u>Compact Air Condition Unit PLUS</u> for cooling the test chamber down to -40 °C for 400 l version
	2214.01.32	for 1000 l version
	2215.01.32	for 2000 l version
		Dimensions: approx. 2400 x 1150 x 1950 mm (W x D x H) Net weight: approx. 700 kg
Further Accessories		
	2285.01.32	<u>Specimen holder for weathering panels</u> for 400 l version – upper test chamber
	2285.02.32	for 400 l version – lower test chamber
	2285.03.32	for 1000 l or 2000 l version – upper test chamber
	2285.04.32	for 1000 l or 2000 l version – lower test chamber
	2286.01.32	<u>Specimen holder grid (lattice spacing 40 x 40 mm) to take up bulky parts</u> for 400 l version – upper test chamber
	2286.02.32	for 400 l version – lower test chamber
	2286.03.32	for 1000 l or 2000 l version – upper test chamber
	2286.04.32	for 1000 l or 2000 l version – lower test chamber For covering the complete test chamber of the 400 l or 1000 l version, 2 grids (each) are necessary; for the 2000 l version 4 grids are necessary.
	2287.01.32	<u>Reinforced shelf (lattice spacing 40 x 40 mm) incl. feet to take up bulky parts</u> for 400 l version
	2287.02.32	for 1000 l version
	2287.03.32	for 2000 l version

Accessories		
Figure	Ord.-No.	Description
	0994.01.32	<u>Wastewater Pumpout Unit</u> for use in wastewater disposal below the flood level, if there is no floor drain available.
	0159.01.32	<u>Water deionizer behropur® B10dN</u> max. flow rate 300 l/h
	0159.02.32	<u>Water deionizer behropur® B22dN</u> max. flow rate 500 l/h

For further accessories please refer to our price list no. 618.

Further Corrosion Test Instruments supplied by ERICHSEN:

Humidity Cabinet HYGROTHERM 519 / 529

for humidity tests in accordance with international standards (519 / 519 Smart) or consisting of a control unit with a separate test chamber (529)

Accelerated Weathering Instrument BANDOL WHEEL® 532

in a compact design for acceleration of natural weathering, optional for „dry“ or „wet/dry“ weathering cycles

Corrosions Testing Apparatus for Salt Spray and Condensation Water Tests , Model 606

cylindrical or rectangular version, with 400 l or 1000 l test chamber capacity

Corrosions Testing Apparatus (compact design) for Salt Spray and Condensation Water Tests , Model 606-Basic

rectangular version, with 400 l, 1000 l or 2000 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

Corrosions Testing Apparatus (compact design) for Alternating Tests, Model 608-Basic

rectangular version, with 400 l, 1000 l or 2000 l test chamber capacity

Corrosion Test Instrument CORROTHERM 610

simple, in expensive test instrument, approx. 400 l or 1000 l volume

Corrosion Test Instrument CORROTHERM 610e-PLUS

semi automatic version with programmable Micro Controller and LCD, with 400 l or 1000 l test chamber capacity

SOLARBOX, Model 522

Light exposure test apparatus, with optional microprocessor controls and programmable flooding system as well as interface RS232C

For the specimen preparation 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 / Model 463-Pro

Multi-Cross Cutter, Model 295/III

Please ask for our detailed leaflets and price lists.