

ascott

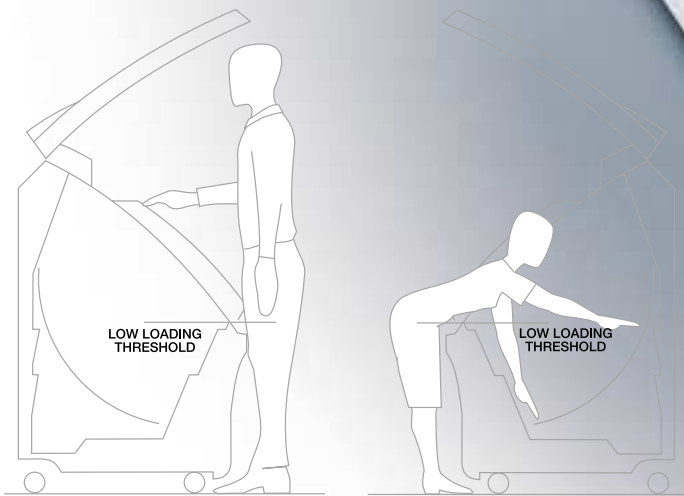
testing corrosion resistance to the limit

Salt spray corrosion test chambers



Ascott, the leading innovative
manufacturer of corrosion testing
equipment

ascott



every chamber is built using advanced
engineering principles to stringent
international standards



testing corrosion resistance to the limit

Salt spray corrosion test chambers

Ascott salt spray chambers - one of the world's most modern and most versatile salt spray corrosion test systems - and with design and quality that's in a class of its own.

When you choose a new Ascott salt spray chamber, you are buying one of the most sophisticated in the world - one where a great deal of effort has gone into not just the test performance but also into the ergonomics. For example, a very low threshold enables loading and unloading with ease. And, push-button pneumatic canopy operation means effortless chamber opening and closing. There's also automatic purging to minimize the risk of corrosive salt fog escaping into the laboratory. We've even removed the old-fashioned water trap seal and replaced it with a dry gasket so you don't get wet clothes any more.

Practical and thoughtful features abound to make testing simpler and more efficient. Many are standard, some are optional - the new Ascott range is easy to adapt, depending on how you want to use it.

The stunning look of the range and a choice of canopy colors will enhance any modern laboratory. There are four model sizes; from the baby S120 bench top, for the smallest items, to the massive S2000 with space for the largest samples, so avoiding the need to cut them into sections before testing.

There are three specification levels for Ascott salt spray chambers - *Standard*, *Plus* and *Premium*, and these cover every testing requirement from straightforward continuous salt spray test through to condensation humidity and modified tests. These specification levels are described fully on the next page. So whether you are testing to ASTM, BS, DIN, ISO, IEC, JIS or automotive test standards such as Ford, Honda, GM, VW, Toyota, Renault or Volvo an Ascott chamber is right for you.



S1000s chamber



S2000xp chamber



key features

All models feature:



Pneumatically operated canopy for opening and closing chamber at the push of a button. Dry seal gasket to canopy prevents wetting of operator's clothes, etc.



Low loading threshold on all floor standing models for ease of loading/unloading especially at the back of the chamber.



Unique salt spray atomizer made from thermally stable, high performance polymer to guarantee uniform salt spray distribution. An integral filter unit minimizes blockages.



Catchpots® - salt spray remote fall-out facility allows salt spray to be continuously collected and measured without opening the chamber and interrupting the test.



Large capacity salt solution reservoir, removable cassette for bench model and mobile tank for floor standing models. Features graduated sight glass for ease of monitoring solution levels.

Additionally, all models feature:

- automatic air purge facility
- calibration certificate
- canopy color choice (see optional accessories)
- sample racks
- transparent interior viewing window
- consumables spares kit

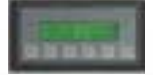


S450s chamber

Standard, Plus or Premium model specifications to cover every need

Ascott salt spray test chambers are available in three specifications:

Standard chambers feature all the facilities described in the key features and have:



- alpha-numeric messaging interface for easily understood programming and control commands
- timed test stop facility which stops test after a user programmable time period
- hours run counter

Standard chambers cover the requirements for continuous salt spray testing to ASTM B117 & similar international test standards.

Plus chambers feature all the facilities of the Standard model and have additional features, including:



- condensation humidity test facility
- display of relative humidity
- 0-9 number entry keypad for entering set values and parameters

For Salt Spray Testing to ASTM B117 or Humidity Testing to ASTM D2247 & similar international test standards.

Premium chambers feature all the facilities of the Standard and Plus models and have additional features, including:



- touch screen, menu driven programming with graphical logging of actual and set conditions
- user programmable for 'modified' salt spray tests
- automatic cycling between two different conditions/temperatures, eg salt spray and condensation humidity

For Salt Spray Testing to ASTM B117, ASTM G85 (Annex A1, A2, A3, A4* & A5) & Humidity Testing to ASTM D2247 & similar test standards.

* requires optional accessory; ACC46

A full list of standard salt spray tests covered by the Ascott range is available separately and can be downloaded from the Ascott web site at www.ascott-analytical.com

A large choice of optional accessories is available to enable customers to customize chamber specifications to suit their exact requirements.

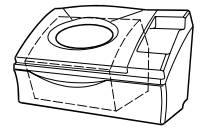
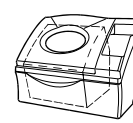
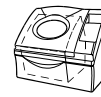
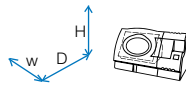


S120+ chamber



S450s and S1000xp chambers

technical specifications



Standard chambers		S120s	S450s	S1000s	S2000s
Plus chambers		S120+	S450+	S1000+	S2000+
Premium chambers		S120xp	S450xp	S1000xp	S2000xp
Chamber capacity		120 Ltrs./4.2 cu.ft	450 Ltrs./15.8 cu.ft	1000 Ltrs/35.3 cu.ft	2000 Ltrs/70.6 cu.ft
Mounting format		Bench top	Floor standing	Floor standing	Floor standing
Loading threshold		280mm/11"	800mm/31.5"	800mm/31.5"	800mm/31.5"
Chamber external dimensions, max	W	1315mm/51.8"	1660mm/65.4"	2025mm/80.0"	2885mm/113.6"
	D	680mm/26.8"	840mm/33.1"	1205mm/47.5"	1205mm/47.5"
	H	800mm/31.5"	1510mm/59.5"	1720mm/67.5"	1720mm/67.5"
Chamber internal dimensions, max	W	715mm/28.2"	1010mm/39.5"	1300mm/51.2"	2160mm/85.0"
	D	490mm/19.3"	640mm/25.0"	980mm/38.5"	980mm/38.5"
	H	490mm/19.3"	1140mm/45.0"	1320mm/52.0"	1320mm/52.0"
Salt solution reservoir ext. dimensions	W	n/a (integral)	330mm/13.0"	330mm/13.0"	330mm/13.0"
	D	n/a (integral)	620mm/24.5"	620mm/24.5"	620mm/24.5"
	H	n/a (integral)	700mm/27.5"	700mm/27.5"	700mm/27.5"
Salt solution reservoir capacity <small>(for extra capacity, see optional accessory ACC02)</small>		40 Ltrs/10.5 US gal	100 Ltrs/26 US gal	140 Ltrs/37 US gal	140 Ltrs/37 US gal
Removable slotted sample racks <small>(see also optional accessories ACC17/ACC18)</small>		4 racks each with 24 angled slots	6 racks each with 28 angled slots	8 racks each with 46 angled slots	16 racks each with 46 angled slots
Chamber construction		Glass reinforced plastic, Polypropylene & PVC parts			
Color		White & light gray with a striking turquoise canopy (alternative canopy colors available - see optional accessory ACC60)			
Temperature range		Adjustable from ambient to +50°C/+122°F			
Salt spray fall-out rates		Adjustable from 0.5 to 3.0 ml per 80 cm ² per hour			

Service utilities required

Electricity supply	Standard models	1 phase	1 phase	1 phase	1 phase
	Plus & Premium models	1 phase	1 phase	1 phase	3 phase
Voltage (VAC) and frequency (Hz) dependant on country/region of installation					
Water	Deionized/distilled for topping up air saturator and making salt solution. As standard, air saturator is topped up automatically and requires a continuous water connection 0.5–6.0 bar (7.3–87 psi). If air saturator is topped up manually, option ACC66 must be ordered				
Air	Clean dry & oil free, 4.0 to 6.0 bar (58-87psi) with 75 Ltrs (2.6cu.ft) per minute flow				
Exhaust	3m (10ft) exhaust pipe is provided which should be terminated outside building				
Drain	3m (10ft) drain pipe provided which should be terminated into floor level drain				
Operating environment conditions	+5 to +30°C (+41 to 86°F), 85% max RH (non-condensing) ambient				

optional accessories

All Ascott chambers are supplied comprehensively equipped and are ready to run, once connected to the necessary external service utilities. The following optional accessories may not therefore be necessary, but some may be considered desirable. Most of the accessories on this page may be used with any of our chamber types. The color key ●●● shown alongside each item provides a clear guide to the compatibility between the accessory and the chamber types.

Standard chambers
Plus chambers
Premium chambers
F = factory fitted only
A = available separately

Optional testing facility

SO₂ Gas Dosing ACC46
Comprising of a chamber mounted dispersion tube, through which SO₂ gas can be introduced, at a rate determined by the user adjustable control valve, and monitored by a flowmeter. The gas can be switched on and off automatically, at user programmable times. Designed to enable chambers to meet the requirements of ASTM G85 A4, and similar tests. Note: the provision of the SO₂ gas cylinder and connector are the user's responsibility and are not included as part of this option.

- - ● F

External service utilities

Additional 100 Ltrs salt solution reservoir ACC02/100
100 Ltrs/26gallon capacity; transparent front with graduated scale for viewing contents hinging lid for filling & cleaning, mounted on castors.

●●● A

Additional 200 Ltrs salt solution reservoir ACC02/200
200 Ltrs/52gallon capacity; transparent front with graduated scale for viewing contents hinging lid for filling & cleaning, mounted on castors.

●●● A



Air agitation of salt solution reservoir ACC96
Designed to assist dissolving salt within an Ascott salt solution reservoir to create a thoroughly mixed salt solution. Uses adjustable regulated compressed air supply a bubbling device that rests in the bottom of the reservoir. Not available for 120 Ltr models
Note: requires connection to own compressed air supply.

●●● F

ACC24 & ACC02/100

Waste water trough & pump ACC20
Where a floor level drain connection is unavailable this option provides a holding tank into which the chamber drain outlet is terminated. When full, waste water is automatically pumped to an existing remote drain/effluent tank, up to 10m/32ft horizontally & 3m/10ft vertically from the chamber.

●●● F



Trolley ACC24
Converts the bench standing chamber to floor standing. Mounted on lockable castors. There is space underneath for one additional reservoir (separate option ref; ACC02/100).

●●● A

ACC06

Regenerable cylinder water deionizer system ACC06
Provides water of suitable purity for topping up a salt spray chamber air saturator, and for making up salt solution. Requires a continuous mains water supply (max 6 bar/90 psi) Supplied with conductivity indicator. Must be regenerated or replaced when exhausted.

●●● A

Air compressor ACC04/SSC
Provides continuous supply of oil free compressed air to enable chamber to function without local compressed air supply. Can be used to back-up a main compressed air supply if fitted with a pressure switch (separate option ref; ACC21/SSC).

●●● A

Air compressor pressure switch ACC21/SSC
Pressure switch and components to enable air compressor (separate option ref; ACC04/SSC) to operate as a back-up to a local main compressed air supply.

ACC04/SSC A

ACC92

Exhaust salt scrubber ACC92 †
Removes highly corrosive salt fog from the chamber exhaust where it is not convenient or possible to vent to the outside of the building. Removes salt through condensation and by spraying with water.
† Specify as: ACC92/120, ACC92/450, ACC92/1000 & ACC92/2000 for 120, 450, 1000 and 2000 Ltrs models respectively.

●●● A

Data measurement & recording

1 pen chart recorder paper type †† ACC08/1
1 pen, 100mm/4" wide, paper strip chart recorder, coupled to a temperature sensor, for continuously recording the chamber air temperature (°C).

●●● F

2 pen chart recorder paper type †† ACC08/2
2 pen, 100mm/4" wide, paper strip chart recorder, coupled to temperature and humidity sensors, for continuously recording chamber air temperature (°C) & relative humidity (%RH).

- ●● F

2 pen chart recorder paperless type †† ACC40/2
2 pen paperless chart recorder, coupled to temperature and humidity sensors, for continuously recording the chamber air temperature (°C) and relative humidity (%RH). Records values electronically on 'virtual' chart. Data can be stored on integral floppy disk drive and/or downloaded to a network computer running appropriate software (see option ACC41) via ethernet connector.
†† Recorder is free-standing for 120 Ltrs chambers, & chamber mounted for other models.

- ●● F

ACC40/2



Software for paperless chart recorder ACC41
Software for paperless chart recorder (separate option ACC40). When loaded on a network computer enables monitoring and graphical storage of actual chamber temperature and humidity profiles.

ACC40/2 A

Hand held pH meter ACC11
Digital pH meter, for measuring the pH of salt solution fallout over range 0-14 pH with a resolution of 0.01 pH. Supplied complete with buffers.

●●● A

Hand held temp & humidity probe ACC28
Precision hand-held thermo-hygrometer for independently checking the chamber temperature and humidity. Special salt resistant measuring probe with 5m/196" cable. Range: -40 to +85°C & 0 to 100%RH. Requires any size entry port (see option ACC10) to access the chamber interior.

●●● A



ACC28

Re-transmission of temperature & humidity signals ACC36
Re-transmission of chamber temp & humidity as 2 x 0-10VDC signals via externally mounted socket. For remote data logging.

- ●● F

Temperature data logger ACC50
A battery powered mini data logger and temperature sensor. Continuously records the chamber air temperature (°C). Logs can be downloaded to a computer running appropriate software (provided).

●●● F

Temperature & humidity data logger ACC52
As ACC50, but also records humidity (%RH) levels using a combined temperature and humidity sensor. Requires any size entry port (see option ACC10) to access the chamber interior.

●●● F

Remote communications

Salt solution reservoir low level alarm ACC70
Operates if the salt solution level falls below requirement for approximately 18 hours testing at 1-2ml/hour fall-out rates. Sounds audible alarm and displays warning message. If reservoir is not refilled within 18 hours the running chamber program will automatically pause/stop.

●●● F

Other Ascott corrosion chambers

In addition to the Ascott comprehensive range of salt spray chambers, the company also manufactures a range of Cyclic Corrosion Test (CCT) chambers. Ascott CCT chambers can be programmed to link together a variety of environments, in a sequence, which can be automatically cycled within the chamber. This technique can be used to simulate naturally occurring corrosive conditions, which can often combine synergistically to bring about a corrosion failure. Combining environments in this way, within a CCT chamber, can produce more realistic corrosive conditions, than exposure to a single environment alone. This can therefore be a useful method for predicting service life expectancy, under laboratory conditions. For further information on cyclic corrosion chambers contact Ascott.

ISO 9001:2000

accredited quality management system

All Ascott chambers are **CE** marked.

Catchpots® is a trademark of Ascott Analytical Equipment Limited
Prohesion® is a trademark of Croda Mebon Ltd

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Issue D

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