

## ATMOSFÄR TEST CHAMBERS



Atmosfär chambers have been specifically designed for fully automatic testing in accordance with highly demanding laboratory-accelerated corrosion tests which have become increasingly popular in some sectors of the automotive industry. These tests are cyclic in nature and comprise of exposure under controlled and varying conditions of temperature and humidity, with intermittent spraying of a salt solution directly on to the samples under test, from a high level swaying spray bar.

### Such tests include:

- Ford CETP 00.00-L-467
- Volvo VCS 1027,149 (ACT-1)
- Volvo VCS 1027,1449 (ACT-2)
- Volvo STD 423-0014
- Volvo STD 1027,1375
- ISO 16701
- Scania STD 4319

For added flexibility, Atmosfär chambers also retain the ability to perform conventional salt spray tests and Cyclic Corrosion Tests (CCT) in accordance with a wide range of international test standards.



1

The air system collection tube is easily removed.



2

The combined air dispersal and oscillating spray bar unit simply lifts out.



3

The Atmosfär chamber is now ready for other types of corrosion testing.

## Performance

Wetting mode

Temperature range

Adjustable from ambient to +70°C/+158°F

Humidity range

Fixed at 95% - 100% RH

Oscillating salt spray mode

Temperature range

Adjustable from ambient to +50°C/+122°F

Conventional salt spray mode

Salt spray fall-out rates

Adjustable from 5 to 10 Ltrs/m<sup>2</sup> per hour

Drying mode

Temperature range

Adjustable from ambient to +50°C/+122°F

Salt spray fall-out rates

Adjustable 0.5 to 2.5 ml per 80 cm<sup>2</sup> per hour

Temperature range

Adjustable from ambient to +70°C/+158°F

Humidity range

Uncontrolled

## Features

### Swaying spray bar

Set high in the chamber, spray nozzles oscillate backwards and forwards to produce a fan shaped spray pattern that ensures test samples are 'swept' uniformly with spray of salt solution.



### Separate air conditioning unit

Combines refrigeration and dehumidification to extend the range of temperature and humidity control (down to -20°C/-4°F or -40°C/-40°F depending on the model) under programmable control.



### High velocity vertical air-flow

High velocity air, from the separate air conditioning unit, passes vertically through the test samples, evenly from top to bottom, during the climate controlled testing phase.



### MAG-DRIVE™ - magnetically coupled spray bar drive system

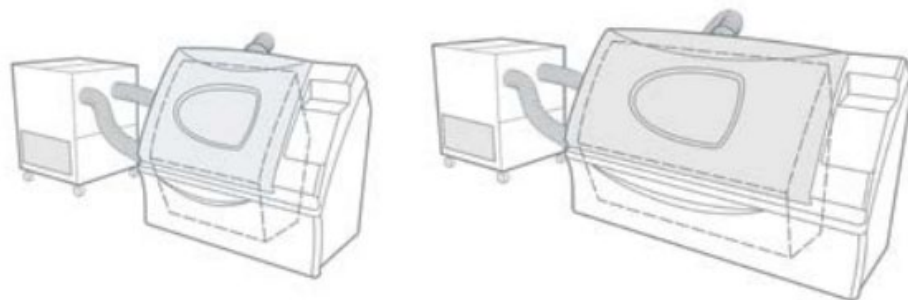
Enables quick spray bar removal from the chamber if conventional salt spray testing is required. With no drive shaft passing through the chamber wall, there is no risk of salt solution leakage and it is safe as it will stall if the spray nozzles are obstructed.

### Adjustable sample racks

Accommodates variable thickness test panels up to 6mm/0.25" thick. Angle adjustment from vertical to up to 20° from vertical depending on test panel thickness. Design minimizes standing moisture accumulation.



# Specifications



ATMOSFÄR TEST CHAMBERS		AT1300IP/1	AT1300IP/2	AT2600IP/1	AT2600IP/2
<b>Minimum controlled temperature</b>		20°C/-4°F	40°C/-40°F	20°C/-4°F	-40°C/-40°F
<b>Chamber Capacity</b>		1300 Ltrs/45.9 cu.ft	1300 Ltrs/45.9 cu.ft	2600 Ltrs/91.8 cu.ft	2600 Ltrs/91.8 cu.ft
<b>Chamber weight</b>		340 kg	340 kg	440 kg	440 kg
<b>Mounting Format</b>		Floor standing	Floor standing	Floor standing	Floor standing
<b>Loading threshold</b>		800mm/31.5	800mm/31.5	800mm/31.5	800mm/31.5
<b>Chamber external dims, max</b>	W	2025mm/80.0"	2025mm/80.0"	2885mm/113.6" 2	2885mm/113.6" 2
	D	1316mm/51.8"	1316mm/51.8"	1316mm/51.8"	1316mm/51.8"
	H	1965mm/77.4"	1965mm/77.4"	1965mm/77.4"	1965mm/77.4"
<b>Chamber internal dims, max</b>	W	1300mm/51.2"	1300mm/51.2"	2160mm/85.0"	2160mm/85.0"
	D	980mm/38.5"	980mm/38.5"	980mm/38.5"	980mm/38.5"
	H	1500mm/59.0"	1500mm/59.0"	1500mm/59.0"	1500mm/59.0"
<b>Refrigeration unit</b> seperate unit, one supplied, to be located to the rear or left hand side of the chamber	W	1510mm/59.4"	1510mm/59.4"	1510mm/59.4"	1510mm/59.4"
	D	1550mm/60.0"	1550mm/60.0"	1550mm/60.0"	1550mm/60.0"
	H	1055mm/41.5"	1055mm/41.5"	1055mm/41.5"	1055mm/41.5"
<b>Salt solution reservoir</b> <b>115 Ltrs/30.4 US gal</b>	W	560mm/22.0"	560mm/22.0"	560mm/22.0"	560mm/22.0"
	D	620mm/24.5"	620mm/24.5"	620mm/24.5"	620mm/24.5"
	H	675mm/26.6"	675mm/26.6"	675mm/26.6"	675mm/26.6"
<b>Salt solution reservoir</b> <b>160 Ltrs/42.2 US ga</b>	W	840mm/34.0"	840mm/34.0"	840mm/34.0"	840mm/34.0"
	D	500mm/19.7"	500mm/19.7"	500mm/19.7"	500mm/19.7"
	H	790mm/31.1"	790mm/31.1"	790mm/31.1"	790mm/31.1"
<b>Removable slotted sample racks to suit lower rack mounting position</b>		1 set of 8 racks each with 24 slots	1 set of 8 racks each with 24 slots	1 set of 16 racks each with 24 slots	1 set of 16 racks each with 24 slots
<b>Chamber construction</b>		Glass reinforced plastic, Polypropylene & PVC parts.			
<b>Colour</b>		9 standard colors to choose from.			
<b>Electricity supply</b>		Two 3-phase electrical supplies are required (one for the chamber and one for the separate air conditioning unit). The voltage (VAC) and frequency (Hz) are dependent on country/region of installation (to be confirmed at the time of ordering).			
<b>Water</b>		The air saturator, humidity generator and salt solution reservoir all require separate connections to a continuous, pressurized deionized/distilled water supply of 0.5–5.0 bar (7.3–73 psi).			
<b>Air</b>		Clean dry & oil free compressed air, 4.0 to 6.0 bar (58–87psi) with 240 Ltrs (8.5cu.ft) per minute flow. Two separate supplies are required, one for the chamber and one for the separate salt solution reservoir.			
<b>Exhaust</b>		3m (10ft) exhaust pipe is provided which should be terminated outside building.			
<b>Drain</b>		3m (10ft) drain pipe provided which should be terminated into floor level drain.			
<b>Operating environment conditions</b>		Indoors, with ambient maintained at +18 to +23°C (+64 to 73°F), 85% max RH (non-condensing).			