weisstechnik
a schunk company

Xtreme®

Fast Change Rate Chambers

More Power for Maximum
Quality Assurance

Impressive Technology

• Real test conditions

Thermal and climatic conditions can affect the production, storage and use of your products and therefore negatively influence their functioning, properties or service life. It is essential for the support of your product development and quality assurance to test products for possible early failure.

Environmental Stress Screening refers to a method in which test specimens are exposed to climatic, thermal or mechanical stresses in order to provoke early failures. This can uncover weaknesses in design, material or production of your products.

Stress Screening makes it possible to sort out unreliable systems already during production testing. It has become established as a standard method for improving quality and contributes crucially to lengthening of the functional lifetime of products.

• More power

With test space sizes from 270 to 1300 litres and a temperature range from -70 °C to +180 °C, we are able to meet nearly all customer requirements. The model series implements common climatic testing standards.

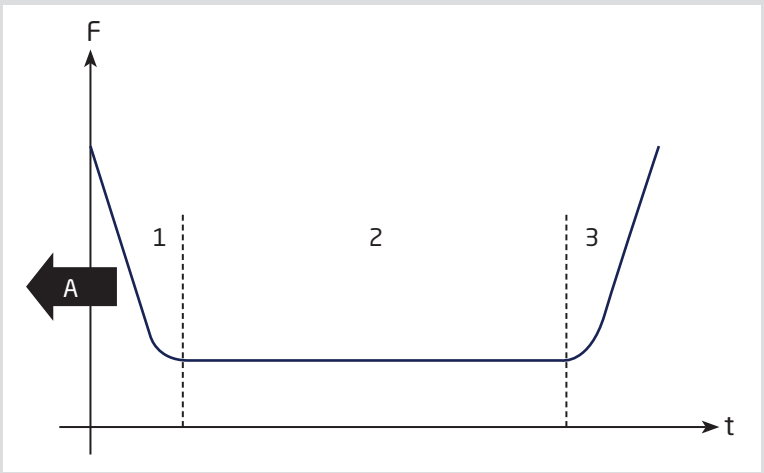
Available rates of temperature change are 5°C/min, 10°C/min, 15°C/min.

Whether in production, research, development or quality assurance – do not leave the functionality of your products to chance, entrust it to us.

• Advantages of Stress Screening

- Higher quality, greater reliability and longer service life of the products
- Minimization of risk (even for new products)
- Fast feedback in-house rather than from customers
- Cost reduction because customers do not experience product failures during the warranty period
- Increased customer satisfaction
- Reduction of follow-up costs

• Life time graph of electronic components



A: Stress Screening Method moves these failures from field to factory
F: Failures
t: Time
1: Premature failures
2: Operational lifetime
3: Wear out phase

Moves failures of operational lifetime to factory:
The Stress Screening Method

Individual solutions

• Basic equipment

- Highly efficient 32 bit control and monitoring system S!MPAC*
- 8" Color touchpanel
- Potential-free contact for swiching-off of test specimens
- USB and Ethernet interface
- 4 digital outputs (max. 24 V-DC)
- 4 digital inputs (max. 24 V-DC)
- Adjustable software temperature limiter min./max.
- Safety device for test specimens with independent, adjustable temperature limiter t_{min}/t_{max}

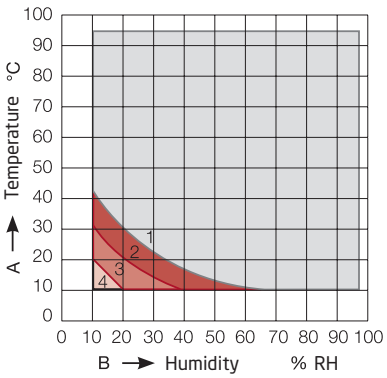
- Entry ports made of stainless steel 1 x approx. 50 mm, 1 x approx. 125 mm with slotted foam-silicone sealing plug and complete silicone sealing plug
- Door with large observation window and test space lighting
- 1 shelf made of stainless steel
- Refrigeration unit, water-cooled
- Psychrometric humidity measurement, continuously wetted, self-cleaning
- Water supply tank for humidification water
- Connection for automatic water replenishment
- Leveling Feet (10C° & 15C°/min models)
- Leveling Casters (5C°/min models)

• Options

- Interface RS 232 and others on request
- Interface converter from RS 232 – IEEE 488/GPIB/ IEC625
- Additional digital I/O
- Analog transducer card I/O (4 Pt100 inputs and 5 outputs)
- Temperature measurement on the test specimen
- Adjustable circulating air quantity (adjustable fan speed)
- Equipment for purging the test space with GN2 / Compressed air connection
- Pair of hand holes with silicon gloves (above 600l)
- Compressed air dryer
- Additional sensors
- Additional entry ports approx. 50 mm and 125 mm
- Additional shelves
- Air-cooled refrigeration unit, external
- Special voltages
- Extension for special test specifications
- Independent sensor for temperature and humidity measurement
- Humidity control via capacitive humidity measuring system
- Deep dehumidification for negative dew points
- Demineralization unit
- S!MPATI Software

Further options/special accessories, tailor-made for your special requirements, on request.

• Humidity diagram



A Test space temperature in °C

B Relative humidity in % RH

1 Standard humidity range

2 Range with intermittent operation (dew point +4 °C to -3 °C)

3 Extended humidity range with optional accessory compressed air dryer, dew point down to -12 °C controlled

4 Extended humidity range with additional equipment compressed air dryer (optional accessory) and capacitive humidity measuring system (optional accessory), dew point down to approx. -20 °C controlled

Technical Data

Model XTRT & XTRH		340/70/5	600/70/5	1000/70/5	270/70/10	480/70/10	800/70/10	1300/70/10	270/70/15	480/70/15	800/70/15	1300/70/15
Chamber Design												
Test Space Volume	Litres	335	600	990	270	480	815	1350	270	480	815	1300
	Cubic Feet	11.8	21.2	35	9.5	17	28.8	47.7	9.5	17	29	45.9
Test Space Dimensions	Width (W)	22.8" (580 mm)	31.5" (800 mm)	43.3" (1100 mm)	22.8" (580 mm)	31.5" (800 mm)	43.3" (1100 mm)	43.3" (1100 mm)	22.8" (580 mm)	31.5" (800 mm)	43.3" (1100 mm)	43.3" (1100 mm)
	Depth (D)	30.1" (765 mm)	31.5" (800 mm)	37.4" (950 mm)	24.2" (615 mm)	25.6" (650 mm)	31.5" (800 mm)	52.2" (1325 mm)	24.2" (615 mm)	25.6" (650 mm)	31.5" (800 mm)	52.2" (1325 mm)
	Height (H)	29.5" (750 mm)	37.4" (950 mm)	37.4" (950 mm)	29.5" (750 mm)	37.4" (950 mm)	36.4" (925 mm)	36.4" (925 mm)	29.5" (750 mm)	37.4" (950 mm)	36.4" (925 mm)	36.4" (925 mm)
Chamber Dimensions	Width (W)	34.3" (870 mm)	42.9" (1090 mm)	54.7" (1390 mm)	34.3" (870 mm)	42.9" (1090 mm)	54.7" (1390 mm)	54.7" (1390 mm)	34.3" (870 mm)	42.9" (1090 mm)	54.7" (1390 mm)	54.7" (1390 mm)
	Depth (D)	70.5" (1790 mm)	72.6" (1845 mm)	78.6" (1995 mm)	108.5" (2757 mm)	109.9" (2792 mm)	115.8" (2942 mm)	136.5" (3467 mm)	108.5" (2756 mm)	109.9" (2792 mm)	115.8" (2942 mm)	136.5" (3467 mm)
	Height (H)	70.7" (1796 mm)	80.6" (2048 mm)	80.6" (2048 mm)	76.2" (1935 mm)	84.1" (2135 mm)	83.9" (2131 mm)	83.9" (2131 mm)	76.2" (1935 mm)	84.1" (2135 mm)	83.9" (2131 mm)	83.9" (2131 mm)
Test Parameter Temperature (XTRT & XTRH Series)												
Min. Temperature	°C	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70
Max. Temperature	°C	+180										
Temperature change rate heating	°C/min	5	5	5	10	10	10	10	15	15	15	15
Temperature change rate cooling	°C/min	5	5	5	10	10	10	10	15	15	15	15
Temperature Deviation in time	°C	±0.1 to ±0.5										
Temperature Deviation in Space	°C	±0.5 to ±2.0										
Live Load Capacity	W	3000	5000	5000	6000	8000	8000	8000	8000	8000	8000	8000
Test Parameter Humidity (XTRH Series Only)												
Temperature Range	°C	+10 to +95										
Temperature Deviation in time	°C	±0.1 to ±0.5										
Temperature Deviation in Space	°C	±0.5 to ±1.0										
Humidity Range (XTRH)	% r.h.	10 to 98										
Dew Point Temperature Range	°C	-3 to +94										
Humidity Deviation in time	% r.h.	±1 to ±3										
Supplies and Connections												
Nominal Voltage	V	480V, 3ph, 60Hz										
Sound Pressure Level	dB(A)	68	70	72	71	75	75	75	71	75	75	75
Chamber Weight	~lbs/~kg	1146/520	1488/675	2094/950	1840/835	2755/1250	3527/1600	4078/1850	1840/835	2976/1350	3747/1700	4299/1950
Condenser		water-cooled										

Remarks:
- Temperature and humidity performance data is taken at the control sensor with an empty test space
- Exterior dimensions include touchscreen controller
- The performance values refer to +25°C cooling water inlet, voltage 480V, 3ph, 60Hz
- XTRT - Temp only
- XTRH - Temp/Humidity
- Additional options available - consult your local sales representative
- Heating/cooling rates are evaluated according to IEC 60068-3-5

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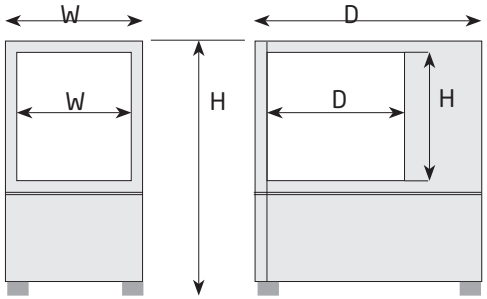
Global Partner for Environmental Test Chambers



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