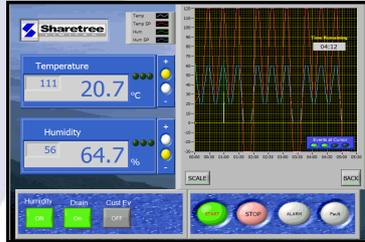


# CYCLONE-S

With **SIMPLEtouch** programmer

## Fast Cycling Thermal Stress Chambers -

*with optional Humidity Control*



- **Fast Temperature Cycling/Thermal Stress testing**
- **Humidity Control options**
- **Powerful, horizontal (side to side) airflow**
- **Mechanical cooling**
- **SIMPLEtouch programmer**
- **216 to 1500 litre capacity**
- **Wide temperature and humidity ranges**
- **Modern attractive styling**
- **Robust, reliable construction**
- **Extensive range of standard options**



**Sharetree**  
LIMITED

## Temperature Testing

**TC CYCLONE-S** chambers are suitable for Thermal Stress and temperature cycling applications. Special attention has been given to achieving an evenly distributed air-flow. This ensures consistent conditions throughout the chamber volume and therefore more meaningful test results.

Standard chambers are available with two temperature ranges, using single stage or cascade cooling plant, and with the choice to increase ramp rates through boost heating and cooling options.

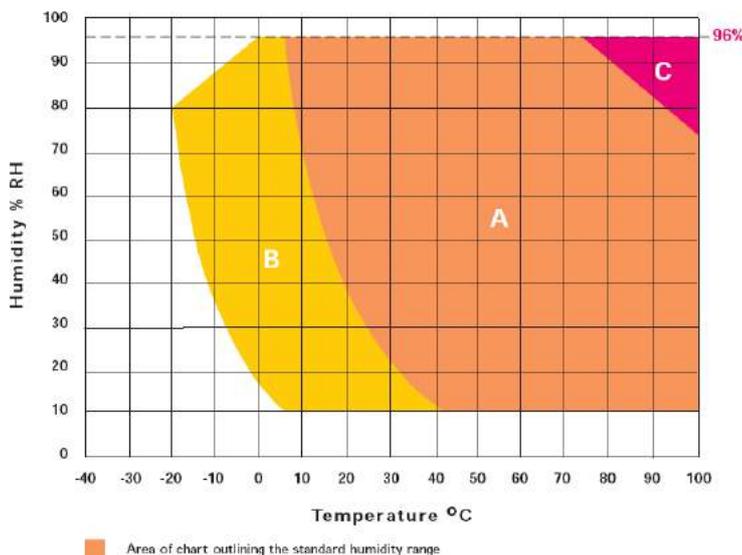
The chambers are attractively styled to blend in with modern production and laboratory equipment and available sizes cover a volume range from 216 to 1500 litres.

## Humidity Control options

The **Cyclone-S** chambers are designed to accept a wide range of humidity control options to enable a variety of steady state and cyclic damp heat tests to be performed.

Close control of temperature/humidity conditions is achieved by means of an electronic microprocessor controlled dual loop programmer. An electronic capacitive humidity probe is fitted as standard for high reliability and minimum maintenance.

Humidity generation requires a supply of de-ionised water. This may be supplied from a local reservoir or automatically from a mains supply, where available, via an optional de-ioniser unit. Chamber condensate is normally re-circulated to minimise water consumption, but may be drained at programmable intervals if required.



**HUMIDITY RANGE OPTIONS**

## Typical Applications

- Thermal Stress testing
- Temperature Cycling
- Humidity testing
- Testing of Materials, Components and Assemblies
- Electronics, Automotive and Aerospace

## Chamber Control

The **SIMPLEtouch** touch-screen programmer makes it easy to set-up and monitor the chamber conditions, and is particularly useful for simplifying the programming of complex cycles.

Comprehensive safety features are fitted as standard on all Sharetree chambers.

## Custom chambers and options

Sharetree are able to offer cost effective custom chambers and options where standard solutions are unsuitable, via our in-house manufacturing capabilities. We have many chamber variations and options in our design library that are not shown as standard designs. Sharetree has extensive experience of providing complete test systems and will be pleased to discuss specific product interfacing requirements.



*Custom Interior for product interfacing*

## Model Range—Temperature only

Order Code	Internal Size (mm)			Volume	External Size (mm)			Temp Range	Ramp Rates* EMPTY	Ramp Rates* LOADED	Test Load	
	H	W	D	Litres	H	W	D	°C	°C/min (Average)	°C/min (Average)	Kg	Watts
TC/Cyclone-S/600/-40/ME	600	600	600	216	1810	1560	1230	-40 to +150	10	5	25	100
TC/Cyclone-S/600/-70/ME	600	600	600	216	1810	1560	1230	-70 to +150	10	5	25	100
TC/Cyclone-S/1000/-40/ME	1000	1000	1000	1000	2200	2000	1540	-40 to +150	10	5	50	100
TC/Cyclone-S/1000/-70/ME	1000	1000	1000	1000	2200	2000	1540	-70 to +150	10	5	50	100
TC/Cyclone-S/1500/1000/-40/ME	1000	1500	1000	1500	2200	2500	1540	-40 to +150	10	5	50	100
TC/Cyclone-S/1500/1000/-70/ME	1000	1500	1000	1500	2200	2500	1540	-70 to +150	10	5	50	100

\*measured at the control probe, in accordance with IEC 60068-3-5

## Humidity range options

Replace 'TC' prefix in the order code with Humidity Range as shown on the graph	Area A	Area A+B	Area A+C	Area A+B+C
	TH(A)C	TH(AB)C	TH(AC)C	TH(ABC)C

## Standard Options

Order Code	Option	Type	Description
W300 W600	Window	Heated, multi-glazed	300 x 300mm with interior lighting 600 x 600mm with interior lighting
CP50 CP100	Cable Port	50mm diameter 100mm diameter	Complete with rubber bung
ECD	Extended Cold Dwells	>12 hours	Avoids frost build-up
E92	Product Protection	Electronic 2-channel	Customer settable upper and lower temperature limits
BHS	Boost Heating	20°C/min average	Over 10 to 90% of temperature range (empty)
BCS (Using indirect LN <sub>2</sub> )	Boost Cooling	20°C/min average	Over 10 to 90% of temperature range (empty)
S600 S1000 S1500	Removable Shelf (height adjustable)	600 x 600 1000 x 1000 1500 x 1000	Maximum load 10kg Maximum load 20kg Maximum load 20kg
ST600 ST1000 ST1500	Shelf with Telescopic runners	600 x 600 1000 x 1000 1500 x 1000	Maximum load 10kg Maximum load 20kg Maximum load 20kg
ER	Event Relay	Software controllable	For control of external equipment
AD(-40)	Air Dryer	-40°C dew point	Requires clean, dry compressed air supply
FLP05T	Floating probes	5 x PT100	Logging via SIMPLEtouch programmer
DIAG	Monitoring + Diagnostics	Model dependent	Monitors chamber plant and displays status
WCP	Water cooled compressors	Model dependent	Requires suitable cooling water supply
RP	Remote cooling plant	10m maximum pipe run	Reduces heat and noise from chamber
RC	Remote condenser	Model dependent	Reduces heat from chamber
VSF	Variable speed fans	Model dependent	Electronic control of fan speed/airflow

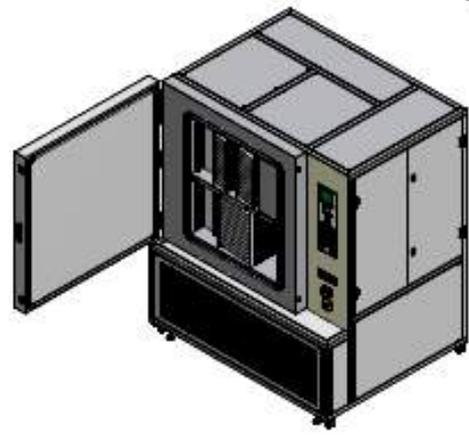
## Construction

The inner chamber is fabricated from high grade stainless steel for corrosion resistance and easy cleaning. All internal joints are seam welded to ensure a vapour tight construction. The mild steel outer cabinet is attractively styled and has an easy to clean epoxy paint finish.

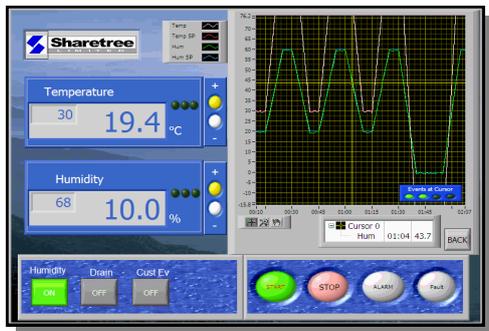
Dense mineral wool insulation blankets the entire chamber to ensure energy efficient operation.

Full access to the interior is gained through the hinged front door. This has a double sealing arrangement, pressurised by the door catch, to prevent moisture ingress at low temperatures.

Powerful fan(s) are used to ensure low thermal gradients and uniform testing of products. The fan motors are mounted outside the chamber for maximum reliability.



Sharetree chambers are designed using 3D-CAD, allowing customers to approve custom designs more easily prior to manufacture.



## SIMPLEtouch programmer

All CYCLONE-S chambers now come with our latest SIMPLEtouch touch-screen programmer at no extra cost.

The Sharetree **SIMPLEtouch** Chamber Programmer enables the temperature (and humidity where fitted) to be easily programmed and displayed on Sharetree test chambers.

The touch-screen window gives a clear, user-friendly interface with a constantly updated display of the current set and actual values for temperature and humidity.

**SIMPLEtouch** uses only commercially available components to ensure low cost of ownership over the lifetime of the chamber.

The refrigeration plant consists of a single stage or cascade system (depending on temperature range and ramp rate), and is generously sized for long term reliability. Anti-vibration mounts and vibration eliminators minimise noise and vibration.

## SIMPLEtouch Features:

- User friendly interface, Windows XPe based
- **QuikSet** Temperature and Humidity entry
- Clear, easy-to-read 10" display
- Comprehensive Graphical Display including:
  - ◇ Set and actual readings
  - ◇ Scaling
  - ◇ Cursor
  - ◇ Event Indicators
- Complex programs (Profiles) including:
  - ◇ Nested loops
  - ◇ Time Remaining display
  - ◇ Hold and Start At functionality
- Logging of results to file
- Bluetooth, LAN and USB access



Sharetree Limited  
Units D&E Stonedale Road  
Oldends Industrial Estate  
Stonehouse, GL10 3SA

Tel: +44 1453 828 642  
Email: sales@sharetree.co.uk  
www.sharetree.co.uk

Specifications may vary as part of our policy of continuing product improvement

Sharetree products are designed, manufactured and supported in the UK



fsb<sup>8</sup>  
MEMBER

