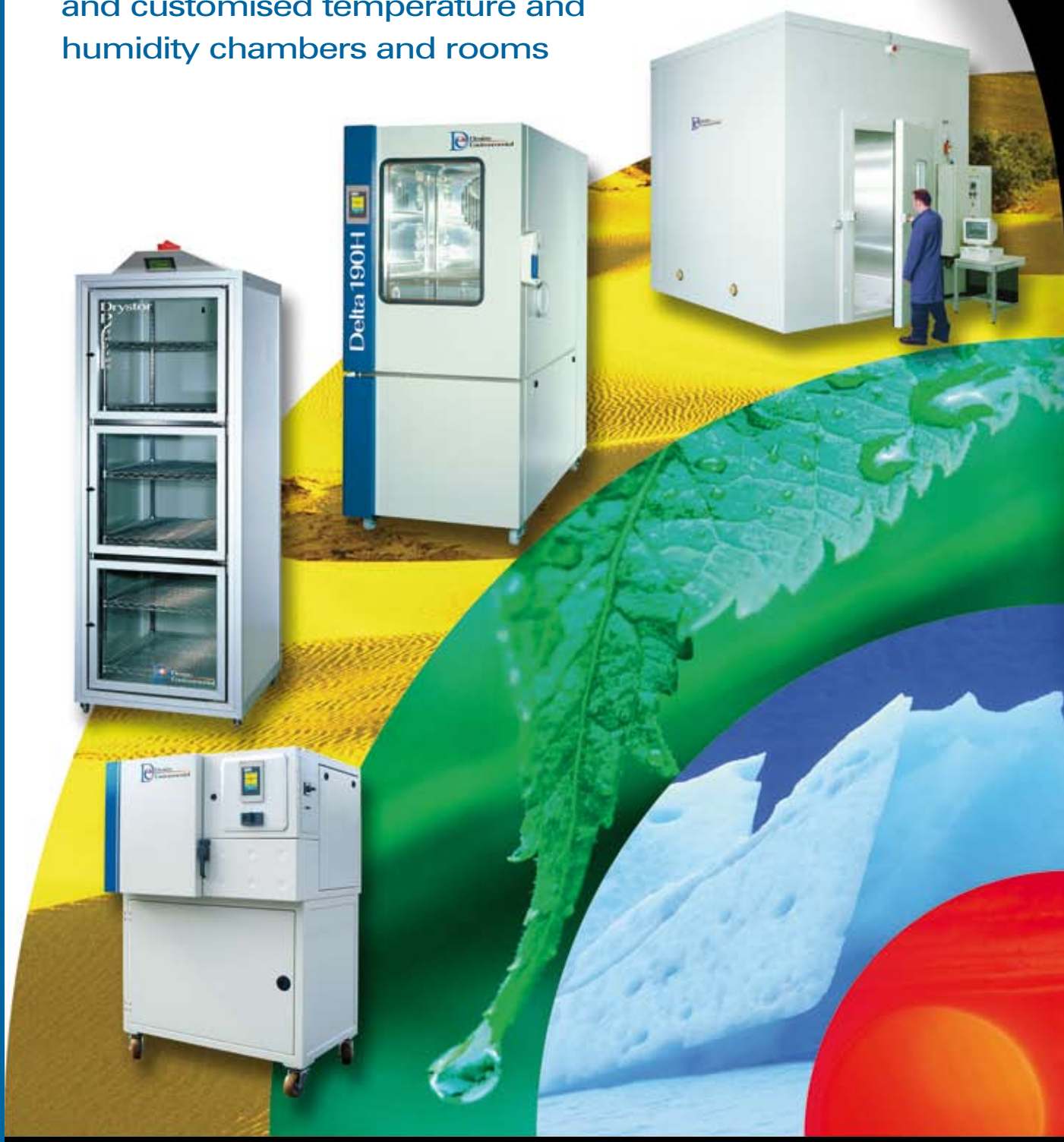
Product Guide

Design Environmental

Design, manufacture and service standard and customised temperature and humidity chambers and rooms



Environmental Test Solutions

from an industry leader

Bench Mounted Chambers

BT, BTH & BS range of temperature or temperature and humidity chambers with compressor cooling. Programmable or set point control.

Internal capacities:	30 to 220 litres
Temperature ranges:	-70°C up to +180°C
Optional humidity range:	10-98% RH

CO_2 and liquid Nitrogen cooled models also available.

Small Floor Standing

FS & FT range of programmable temperature test chambers with compressor cooling.

Internal capacities:	55 to 200 litres
Temperature ranges:	-40°C up to +180°C
	-70°C up to +180°C

CO_2 and liquid Nitrogen cooling also available.

Floor Standing

Alpha & Delta climatic chambers and **Delta T** temperature only chambers with compressor cooling.

Internal capacities:	190, 335, 610, 990 and 1550 litres
Temperature ranges:	-70°C/-40°C up to +180°C
Humidity range:	10-98% RH

Fully programmable with logging of temperature and humidity standard on Alpha range and optional on Delta. Customised versions of Delta chambers are available.

HALT HASS Chambers

Xess range of liquid Nitrogen cooled chambers with fast rates of heating and cooling coupled with high air velocity.

Internal capacities:	200 to 1,000 litres
Temperature ranges:	from -100°C up to +200°C
Temperature rate of change:	up to 80°C/min

Fully programmable with optional Contour software for logging.

HALT HASS with vibration

Sigma range of HALT HASS chamber with liquid Nitrogen cooling combined with a multi axis vibration table providing up to 100grms, 5Hz to 10,000Hz.

Internal capacities:	500, 1,000 and 2,000 litres
Temperature ranges:	-100°C up to +200°C
Temperature rate of change:	up to 80°C/min
Vibration Table sizes:	610mm x 610mm, 760mm x 760mm, 914mm x 914mm, 1,117mm x 1,117mm and 1,220mm x 1,220mm

Customised Chambers

We manufacture almost any size of test chamber with temperature and humidity control to close tolerances if required. This could be coupled with fast rates of temperature change with compressors, liquid Nitrogen cooling or maybe a combination of both. There are no set boundaries.

We have extensive experience of interfacing test chambers with electrodynamic or hydraulic vibration generators and also a wide variety of test machines.

Turnkey packages are also available.

Remote Air Conditioning Systems

The **RACS** range of **R**emote **A**ir **C**onditioning **S**ystems can be designed and manufactured to supply temperature controlled air via flexible hoses to an insulated enclosure housing the test unit or part of a structure to be tested.

RACS are usually compressor cooled but are also available with liquid Nitrogen cooling or a combination of both. Humidity control is also available.

Walk in/Drive in Rooms

Rooms are constructed from insulated panels which have tongue and groove joints sealed and fastened with cam locks. This build technique allows almost any size of room to be constructed in a cost effective manner.

Temperatures from -70°C to +150°C are available with or without humidity control. Parameters can be set point or programmable over time with a full range of data logging and software options.

Compressor cooling plant can be located adjacent to the room or remote either internal or external.

Rooms can also be fitted with many options such as solar lighting or vehicle exhaust extraction and can also be interfaced with vibration systems and dynamometers.

Sports Science Rooms

The **SSR** range of sports and exercise science rooms are designed to simulate some of the World's most inhospitable conditions to allow the study of human performance under adverse conditions.

Not only temperature and humidity are controlled but there is also a Hypoxic option which adjusts the rooms Oxygen content to simulate altitude whilst also providing fresh air make up for test subjects.

Size:	Customised
Typical temperature range:	-40°C to +55°C
Typical humidity range:	10% to 98%RH
Hypoxic range:	20.9% Oxygen (sea level) to 12.7% Oxygen (4,000m).

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Low Humidity Storage

Drystor low humidity cabinets for storage of all moisture absorbing products such as SMD's and multi layer circuit boards.

Storing at low humidity prevents such problems as "pop corning" and de-lamination of boards during the solder process. Particularly relevant with the higher temperatures required with lead free solder.

Internal capacities:	1236 litres and 2463 litres
Heating Option:	+40°C

Nitrogen purge versions are also available for long term storage applications.

Salt Spray Chambers

These chambers can create salt spray and salt spray with humidity and also have a drying mode. Temperature controlled models are also available.

Internal capacities:	450 litres and 1,000 litres
Can be used for standards such as:	**DIN 50015** **DIN 50017** **DIN 50021** **EN ISO 6988**

Ovens and Incubators

PF and **PIF** range of bench top and floor standing ovens with air circulation fans or natural convection.

Temperature range:	+80°C to +300°C
Internal Capacities:	27 – 800 litres

PIC range of cooled incubators/ovens.

Temperature range:	0°C to +60°C
Internal Capacities:	30 – 200 litres

Service

We offer a full range of preventative maintenance contracts for all Design Environmental and other makes of environmental test chambers.

Contracts can be tailor made to specific customer requirements and include calibration traceable to UKAS if required.

Equipment relocation and refurbishment is also available.

schunk ENVIRONMENTAL Holdings (UK) LTD

FM 25843

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Design Environmental

Design Environmental Limited. 32 Rassau Industrial Estate,
Ebbw Vale, Gwent, NP23 5SD, South Wales, UK.
Tel: +44 (0)1495 305 555. Fax: +44 (0)1495 303 595.
Website: www.designenvironmental.co.uk Email: sales@designenvironmental.co.uk