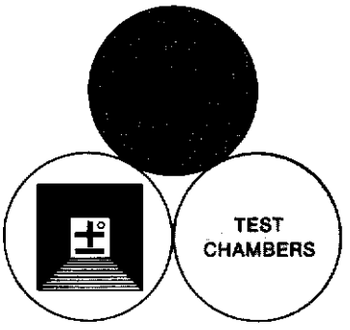
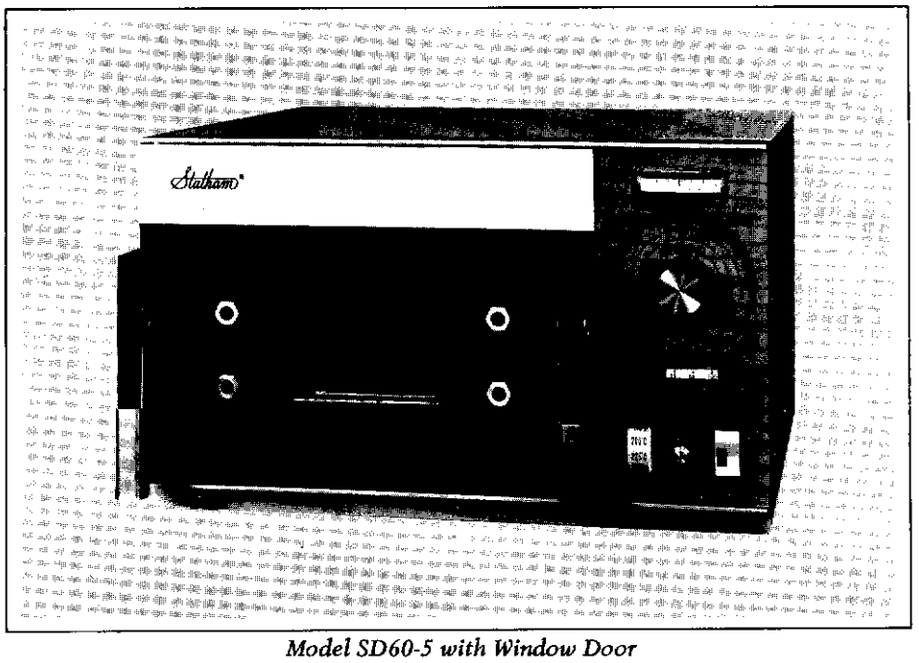
NOW **RANSCO INDUSTRIES**

Environmental Simulation Equipment
Formerly Manufactured by Statham Instruments and INRECO
2221 Statham Boulevard Oxnard, California 93030
Telex 6-59235 805/487-7777

HIGH-PERFORMANCE TEMPERATURE TEST CHAMBERS, MODELS SD12, SD60, AND SD80





Model SD60-5 with Window Door

FEATURES

- High-gain, all solid-state circuitry
- 24-lineal-inch set-point dial and optional push-button temperature control *
- Automatic heating/cooling for facility in programming temperature
- Adjustable failsafe circuitry
- Ambient control

DESCRIPTION

Statham's high-performance Temperature Test Chambers are adaptable to both conventional and special testing programs. Various types of control modules, of solid-state electronic design, employ set-point dial, push button, or a combination of push button and dial.

The standard control panel consists of a 24-lineal-inch set-point dial and a deviation meter calibrated in 1° increments. The faceplate of the set-point dial is designed for quick visual reference. The deviation meter reads out any discrepancy between the inside chamber temperature and the set point by measuring the balance condition of the resistance bridge circuitry. This method of measurement offers greater accuracy and meter readability than can be attained by conventional methods.

Statham's push-button temperature control provides a convenient method for obtaining frequently repeated temperature settings with speed and accuracy. The standard push-button model contains 4 buttons and the 24-inch lineal dial, providing 3 preselected temperatures as well as the convenience of the dial. Models may

* Patented in USA

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March, 1974 5M
Revision 2

be ordered with as many as 16 buttons with or without the dial. A wide variety of programmed temperature ranges can be achieved readily through use of the optional Statham Rate-Time Programmer or Cycle Time Controller.

Radio noise interference is reduced by an exclusive Statham circuit design which complies with MIL-I-26-600 on the controllers.

Ambient control is an exclusive control circuit which not only eliminates excessive cycling about the ambient temperature but also precludes manual switching of temperature modes. Simply dial the required temperature.

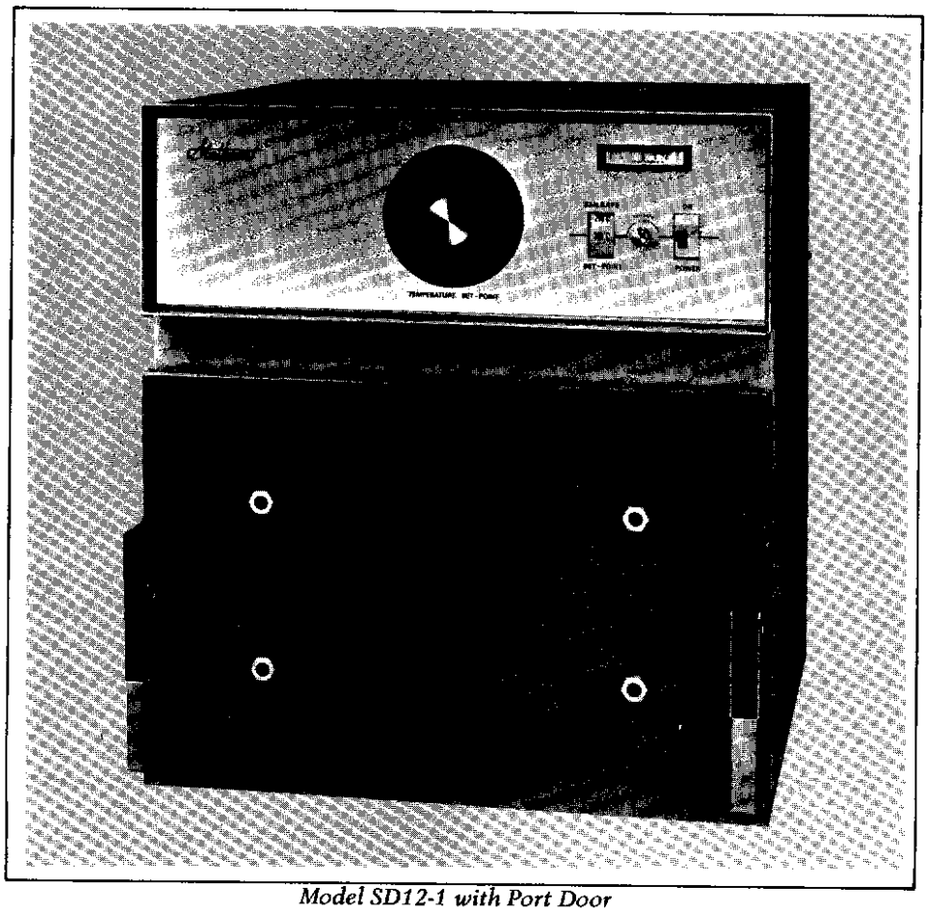
Ambient compensation of 0.01°C/°C (0.01°F/°F) is a feature of the Precision Series Chambers.

The failsafe feature prevents damage to test specimens and test chamber. The failsafe is adjustable and can be set to any desired temperature range between +50 and +300°C (+100 and +600°F). The solid-state failsafe controller has a locking mechansim and is located on the front panel for facility of adjustment.

A high-gain, all-solid-state controller senses and controls the test area temperature. The Precision Series Controller has two resistance sensors to measure air flow temperature. A remote control outlet for temperature control and chamber ON/OFF control is also provided. Transient voltage protection is provided for short-duration line surges.

Statham high-performance Temperature Test Chambers carry the standard Statham warranty against defects in workmanship and material under normal usage.

Accessories: A coolant hose, a 3-wire power cord, plugs for ports as applicable, and an Instruction Manual are furnished with each model.



Model SD12-1 with Port Door

SPECIFICATIONS

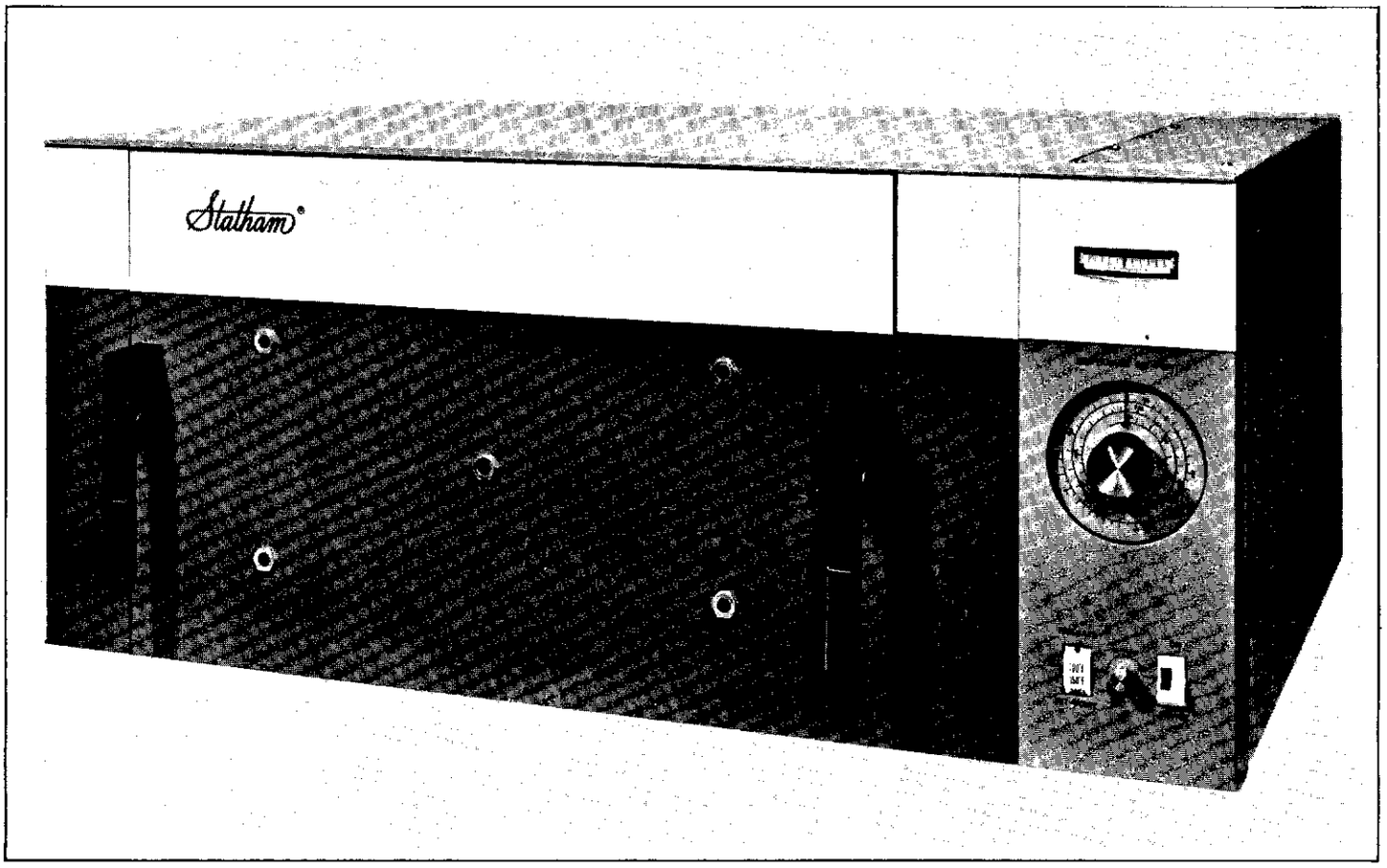
	SD60-1 *	SD60	SD12-1 *	SD12	SD80-1 *	SD80
Temperature range	-73.3 to +273.9°C	-100 to +525°F	-73.3 to +273.9°C	-100 to +525°F	-73.3 to +273.9°C	-100 to +525°F
Control accuracy	±0.14°C	±0.25°F	±0.14°C	±0.25°F	±0.14°C	±0.25°F
Controller calibration	Celsius	Fahrenheit	Celsius	Fahrenheit	Celsius	Fahrenheit
Heating rate °/minute	25°C	45°F	22°C	39°F	14°C	25°F
Cooling rate °/minute	31°C	55°F	28°C	54°F	19°C	35°F
Air flow	Horizontal	Horizontal	Vertical	Vertical	Horizontal	Horizontal
Live-load capacity	500W at -65°C	500W at -85°F	700W at -65°C	700W at -85°F	1 kW at -65°C	1 kW at -85°F
Inside dimensions	178 mm H x 254 mm W x 254 mm D	7 in H x 10 in W x 10 in D	222 mm H x 369 mm W x 254 mm D	8.8 in H x 14.5 in W x 10 in D	279 mm H x 508 mm W x 356 mm D	11 in H x 20 in W x 14 in D
Volume	0.0115 m^3	0.405 ft^3	0.021 m^3	0.734 ft^3	0.05 m^3	1.78 ft^3
Outside dimensions	273 mm H x 445 mm W x 470 mm D	10.8 in H x 17.5 in W x 18.5 in D	489 mm H x 445 mm W x 445 mm D	19.3 in H x 17.5 in W x 17.5 in D	394 mm H x 890 mm W x 687 mm D	15.5 in H x 35 in W x 27 in D
Net weight	17 kg	38 lbs	26 kg	58 lbs	46.5 kg	102 lbs
Shipping weight (Air – domestic)	25 kg	56 lbs	31.5 kg	71 lbs	58.5 kg	131 lbs
Power input 115V AC 50-60 Hz	15A	15A	22A	22A	20A	20A
Failsafe, high-temperature, adjustable on front panel	+50 to +300°C (+100 to +600°F)					
Coolant	Liquid CO_2, high pressure (900 psi) standard Low pressure CO_2 (300 psi) or LN_2 optional					
Insulation	Non-settling Fiberglass					
Heat source	Quick-response electric resistance heaters					
Color of exterior	Grey with white and soft blue					

*To order test chambers which indicate temperatures in °C, add -1 to the model number, e.g., SD60-1. Otherwise, test chambers will be furnished with indicators in °F.

OPTIONS

- Push-button temperature control
- 230V 50-60 Hz, single phase*
- Liquid nitrogen coolant, pressurized to 25 psi in exchange for or in addition to liquid CO_2; maximum low temperature, 73.3°C (-100°F)
- Low-pressure CO_2 (300 psi)
- Rack mounting, 480 mm (19-inch) for models SD12 and SD60
- High-temperature operation to 316°C (600°F)
- Choice of hinged doors available
- Special exterior color per customer specification

*To order models for 230V operation, please specify model number and -901 for °C; model number and -900 for °F; for example, SD60-901 for 230V in °C and SD60-900 for 230V in °F.



Model SD80 with Port Door

Represented by:

Statham strives constantly to improve the quality of all its products, both in design and in construction. As a consequence, detailed specifications are subject to change without notice.

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