

# INVICTUS NEXT-GEN<sup>®</sup>

**Ultraquiet, State-of-the-Art, Thermoelectric Drosophila Incubators**



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## INVICTUS NEXT-GEN® Thermoelectric Advantages

Thermoelectric (Peltier) cooling technology is the most advanced and reliable cooling technology currently available, and we've applied it to our INVICTUS NEXT-GEN *Drosophila* incubators. With multiple independent thermoelectric cooling units, your chamber will be able to maintain temperature even in the unlikely case of multiple failures; a feature unavailable in any refrigeration-based chamber.

All INVICTUS NEXT-GEN incubators are backed by the best warranty in the industry, which includes a 7-year warranty on the thermoelectric cooling block, a 2-year warranty on all parts, and a 1-year warranty covering all parts and labor.



### No Technician Needed

Engineered so that if the cooling block does fail, it can easily be replaced with simple hand tools



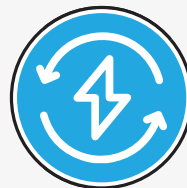
### Extremely Quiet

Ideal for all laboratory workspaces with fans designed to be no louder than the ones in your computer



### Long Life Expectancy

Peltier cooling devices never run at full capacity, so the MTBF (mean time before failure) is well over 20 years



### Energy Efficient

Thermoelectric cooling utilizes 33% less energy than compressor cooled models



### Resistant to Corrosion

The thermoelectric cooling block is impenetrable to the acidic environment caused by *Drosophila*

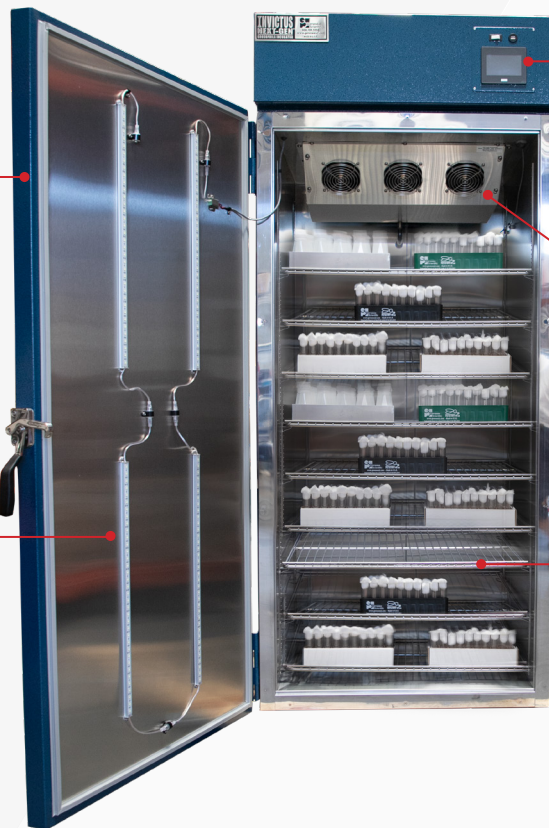
# INVICTUS NEXT-GEN® Exquisite Design

## Heavy-Duty Exteriors

Single-door models feature an exterior made of heavy-duty steel, powder coated blue or off-white. Double-door models have a natural stainless steel front and brushed aluminum sides.

## Corrosion Resistant Interiors

Single door models have interiors comprised of corrosion resistant 304 stainless steel. Double door models have aluminum walls and stainless steel floors and ceilings.



## Fail-Safe Protection

Incubators are equipped with a shutdown function that activates when temperatures reach the set failsafe. This safety feature helps prevent your flies from freezing or overheating in the unlikely event of a malfunction.

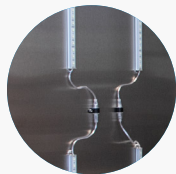
## Self-Servicing

All units are thoughtfully engineered so that nearly every part the chamber is “plug-n-play” self-serviced with basic hand tools - including the thermoelectric cooling system. This means no more expensive repair bills and less downtime in the event of a malfunction.

## Optimal Shelving

Stainless steel shelves are rated to hold up to 150lbs each. We supply the maximum number of shelves that leave 2 inches of clearance between vials or bottles and the next shelf. Each shelf can hold 4 trays of any combination of narrow vials, wide vials, or bottle trays.

## Customization and Add-On Options



### Glass Door and LED Lighting

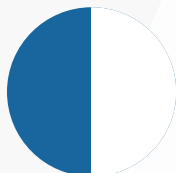
Every INVICTUS NEXT-GEN® model is available with either a solid steel door or transparent glass door option. All solid door models include timed LED light strips installed on the interior side of the door. Glass door models do not include timed LED light strips, but are customizable to include this feature for an additional fee.



### Ultrasonic Humidifier

The optional ultrasonic humidification system provides excellent, uniform humidity control, which can save you 93% on operating costs from reduced energy consumption and less heat output into the surrounding room. This system must be connected to a Type 3 water source, (filters are available if needed). For ventilation, a compressed air connection is standard on all incubators. This must be utilized during operation to allow chamber humidity to lower from set points.\*

\*Order the catalog number ending in "H" for this add-on.



### Exterior Color

All single door models are powder coated in our standard "INVICTUS Blue," but we can customize any single door model to be powder coated off-white for an additional fee. Double door models are not powder coated and come standard with stainless steel fronts and aluminum side walls. Please reach out to us for more information on how to purchase this option.

## INSTALLATION ADD-ON OPTION

INVICTUS NEXT-GEN incubators are manufactured for Genesee Scientific exclusively by Darwin Chambers. If you would like professional installation by an expert technician, you may add this service to your order at the time of purchase.

This service includes uncrating, final placement of the chamber, basic installation and start-up, and complete owner training from the technician. You'll learn about all of the features and how to expertly operate and maintain your new incubator.

**This installation service is different from white glove service.** The technician is not guaranteed to arrive on the same day as your new incubator and the installation price does not include freight or delivery charges.

To purchase this professional installation package, please reach out to us for a quote.

# INVICTUS NEXT-GEN® Touchscreen Control

The most advanced controller on the market for *Drosophila* incubators. Every model of INVICTUS NEXT-GEN incubators feature upgraded IDEC H1G1 touchscreen controllers. These controllers are fully programmable with the option to program the incubator to **automatically change temperature or humidity at 24 set time intervals**. They also have a built in alarm system that connects to Wi-Fi to notify you via email and text message if there is an issue with your incubator.



**INVICTUS Exclusive Mite Cycle Mode** runs a pre-programmed decontamination cycle at 50°C for a minimum of two hours



Built-in alarm system has the ability to set up 3 different alarms for different conditions and takes you to the **Alarm Screen**. Alerts via text and email



Email notifications can be set up for multiple email addresses to send alerts when the alarm is set off



Feedback settings allow for control over how the incubator alerts when an alarm is triggered



Network settings to connect the incubator to the internet enabling text and email alarm notifications



Control for date and time settings



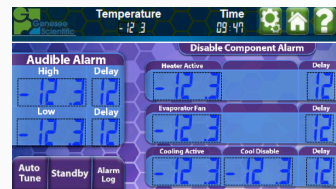
**Wi-Fi Enabled  
Touchscreen Controller  
with Pre-Programmed  
Mite Cycle Mode**



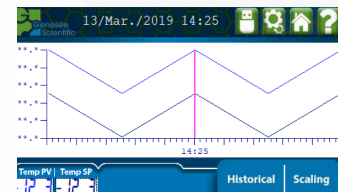
## Home Screen



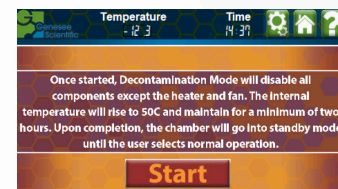
## Alarm Screen



## Chart Screen



## Mite Cycle Screen



**EMAIL:** [support@geneseesci.com](mailto:support@geneseesci.com)

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# INVICTUS NEXT-GEN® 12 ft³ Benchtop Model

Thermoelectric Technology

Touchscreen Control



Cat #	Description	Door Type
59-800T	INVICTUS NEXT-GEN 12 ft³ Glass Door	Glass, Left Side Hinge
59-800TL	INVICTUS NEXT-GEN 12 ft³ with Lighting	Solid, Left Side Hinge
59-800TLH	INVICTUS NEXT-GEN 12 ft³ with Lighting and Humidity Control	Solid, Left Side Hinge

## CAPACITY

12 ft³

## SHELVING

4 shelves included - each shelf fits 4 trays of any combination of narrow vials, wide vials, or bottle trays

## TEMPERATURE RANGE

14°C to 50°C  
(at 22.2°C ± 4.5°C ambient)

## EXTERIOR DIMENSIONS

34.5in W x 28.25in D x 44in H

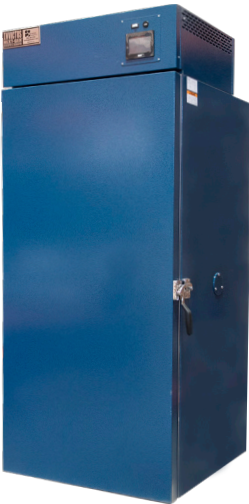
## INTERIOR DIMENSIONS

29.75in W x 23in D x 29.75in H

# INVICTUS NEXT-GEN® 32 ft³ Single Door Model

Thermoelectric Technology

Touchscreen Control



Cat #	Description	Door Type
59-807T	INVICTUS NEXT-GEN 32 ft³ Glass Door	Glass, Left Side Hinge
59-807TL	INVICTUS NEXT-GEN 32 ft³ with Lighting	Solid, Left Side Hinge
59-807TLH	INVICTUS NEXT-GEN 32 ft³ with Lighting and Humidity Control	Solid, Left Side Hinge



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## CAPACITY

32 ft³

## SHELVING

9 shelves included - each shelf fits 4 trays of any combination of narrow vials, wide vials or bottle trays

## TEMPERATURE RANGE

16°C to 50°C  
(at 22.2°C ± 4.5°C ambient)

## EXTERIOR DIMENSIONS

34in W x 35in D x 80.5in H

## INTERIOR DIMENSIONS

29.5in W x 29.75in D x 58.25in H

# INVICTUS NEXT-GEN® 47ft³ Double Door Model

Thermoelectric Technology

Touchscreen Control



Cat #	Description	Door Type
59-808T	INVICTUS NEXT-GEN 47 ft³ Glass Door	Glass
59-808TL	INVICTUS NEXT-GEN 47 ft³ with Lighting	Solid
59-808TLH	INVICTUS NEXT-GEN 47 ft³ with Lighting and Humidity Control	Solid

## CAPACITY

47 ft³

## SHELVING

18 shelves included - each shelf fits 4 trays of any combination of narrow vials, wide vials or bottle trays

## TEMPERATURE RANGE

18°C to 50°C  
(at 22.2°C ± 4.5°C ambient)

## EXTERIOR DIMENSIONS

52.88in W x 35.81in D x 80.5in H

## INTERIOR DIMENSIONS

47.5in W x 29in D x 58.5in H



# Compare INVICTUS NEXT-GEN® Models

## Thermoelectric Models



12 ft³ Mini

Available in  
White or Blue



32 ft³ Single Door



47 ft³ Double Door

<b>Temperature Range</b> (at 22.2°C ± 4.5°C ambient)	14°C to 50°C	16°C to 50°C	18°C to 50°C
<b>Temperature Control</b>	± 0.2°C		
<b>Humidity Range (LH Models Only)</b>	Ambient to 90% @ 40°C dewpoint		
<b>Exterior</b>	Glass door on Cat #: 59-800T models. 18 gauge powder-coated galvanized steel door, front, and sides	Glass door on Cat #: 59-807T models. 18 gauge powder-coated galvanized steel door, front, and sides	Glass door on Cat #: 59-808T models. Stainless steel 300 series on front, door and brushed aluminum finish sides
<b>Interior</b>	20 gauge 304 grade stainless steel liner, top, bottom, back and sides	20 gauge 304 grade stainless steel liner, top, bottom, back and sides	Coated aluminum side walls, back, door liner, and stainless steel floor and ceiling
<b>Shelving</b>	4 shelves included	9 shelves included	18 shelves included
<b>Shelf Dimensions</b>	21.5in W x 26.25in D	28.75in W x 26in D	21.5in W x 26.25in D
<b>Controller</b>	IDEC H1G1 Wi-Fi enabled touchscreen controllers		
<b>Energy Consumption</b>	Cooling requires 33% less energy than compressor cooling leading to hundreds or even thousands of dollars saved in energy consumption per year		

# INVICTUS® Compressor Model Incubators

E-Coated Evaporator Coil

Watlow Digital Controller



Cat #: 59-400



Cat #: 59-407



Cat #: 59-408



Fits 4 standard narrow or wide vial trays per shelf

Cat #	Description	Door Type	Cubic Ft.	Temp. Control	# of Shelves
59-400	INVICTUS Drosophila Incubator	Glass, Hinged on Right Side	22	5 – 60°C	6
59-400L	INVICTUS Drosophila Incubator with Lighting	Solid, Hinged on Right Side	22	5 – 60°C	6
59-407	INVICTUS Drosophila Incubator	Glass, Hinged on Right Side	26	5 – 60°C	6
59-407L	INVICTUS Drosophila Incubator with Lighting	Solid, Hinged on Right Side	26	5 – 60°C	6
59-408	INVICTUS Drosophila Incubator	Glass, Double Door with Outside Hinges	43	5 – 60°C	12
59-408L	INVICTUS Drosophila Incubator with Lighting	Glass, Double Door with Outside Hinges	43	5 – 60°C	12

# Which INVICTUS® is Right for You?

## INVICTUS NEXT-GEN® Thermoelectric Incubators

vs.

## INVICTUS® Compressor Cooled Incubators

Cooling block completely resistant to corrosion from acidic *Drosophila* environment, meaning the longest lifespan available

### LIFESPAN

E-Coated evaporator coil helps prevent coolant leaks significantly better than a phenolic coated coil

Engineered so that virtually every part is replaceable with simple hand tools; no need for a refrigeration technician

### MAINTENANCE

Uses coolant in cooling system, so a refrigerator repair technician is required if there is an issue

Thermoelectric cooling requires 33% less energy than compressor cooled incubators

### ENERGY CONSUMPTION

Smart compressor only turns on when necessary, meaning it uses less energy than units with continuously running compressors

Fully programmable Wi-Fi enabled touchscreen controller with built in alarm that sends alerts via text message and email

### CONTROLLER

Simple watlow digital controller. Alarm not included

7 years on TE cooling block, 2 years all parts, 1 year all parts and labor

### WARRANTY

Lifetime warranty on evaporator coil part, 5 year warranty on compressor part, 1 year all parts and labor

Optional ultrasonic humidification system available for additive humidity

### HUMIDITY

Humidity is not an option for these models. Additive humidity causes acidic water to sit on the coils leading to faster corrosion

Variable cooling strength of solid-state blocks allows for more conformity throughout the chamber

### TEMPERATURE CONFORMITY

"On/Off" mechanism of compressor means slightly less conformity throughout the chamber

Extremely quiet and operates no louder than a computer fan

### NOISE LEVEL

Compressor turns on only when necessary, greatly reducing noise compared to constantly running compressors

# One-Stop Shop for Drosophila Research



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