



INVICTUS

DROSOPHILA INCUBATOR

NEW!

Thermoelectric INVICTUS!

Never have coil corrosion again!

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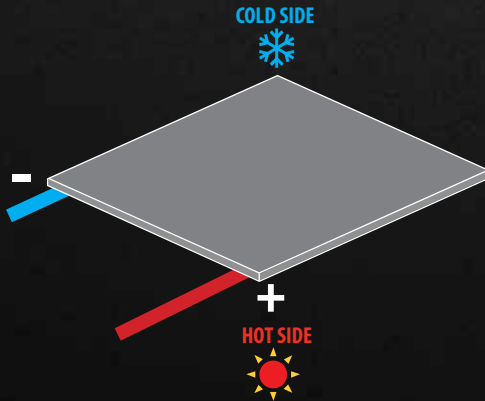


Thermoelectric Models **NEW!**

Thermoelectric (Peltier) cooling technology has been rapidly advancing in previous years, and we've applied it to provide you an exciting new model of INVICTUS incubator. Thermoelectric cooling works by running a current through solid-state blocks. As the current runs through, one side of the block becomes relatively cool, while the other becomes relatively hot. As the fan blows air past the block, the chamber is brought to the desired temperature.

- Thick solid-state blocks withstand the acidic environment caused by *Drosophila* much better than hollow coils.
- Fewer moving parts results in fewer repairs long-term.
- Tightest temperature control available.
- Absolute minimal noise output.
- Additional heating coil in the unit produces the Mite Cycle.

**Never Have
Coil Corrosion
Again!**



Since thermoelectric technology only allows either side of the block to become relatively hotter or cooler than the ambient temperature, thermoelectric models can cool up to 7°C from ambient temperature.



Vapor Compression Models

Smart Compressor

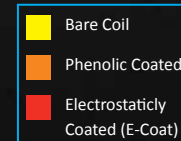
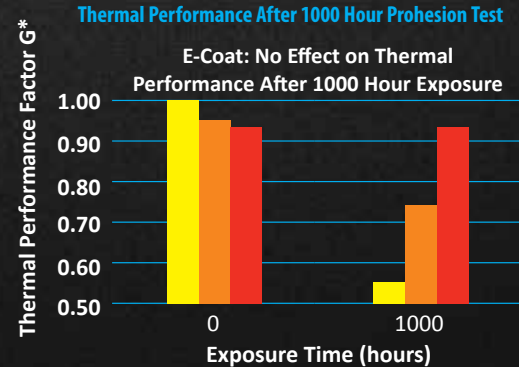
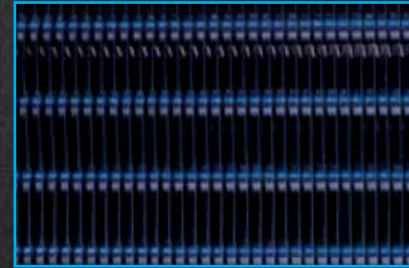
The compressor in Drosophila incubators compresses and forces air past the evaporator coil, where it is cooled and then cycled back into the incubator to maintain temperature. The INVICTUS smart compressor only turns on when necessary, saving energy and reducing wear on the compressor!

- Helps preserve relative humidity in chamber.
- Prolongs compressor life.
- Reduces energy consumption.
- Reduces heat and noise output.
- Continuous run compressor available if humidity reduction is desired.

Electrostatically Coated Evaporator Coils

The INVICTUS evaporator coils differ from the competition in their size and their strength. Our E-coated evaporator coils are 25% larger than other Drosophila incubator coils. Compared to standard phenolic/conformal coated coils these electrostatically coated (E-coated) coils offer the best in corrosion resistance.

- Bigger coils offer the fastest temperature recovery.
- Bigger coils mean tighter temperature control.
- E-coating is unrivaled in coil corrosion resistance.
- Immersion E-coating maximizes uniformity for best performance.
- E-coating significantly extends the lifetime of your incubator.



The INVICTUS Standard

Construction - The INVICTUS shell is comprised of non-compressing/non-thermal conducting material sandwiched between electro-zinc plated steel (22-gauge exterior) and 040 white painted aluminum interiors for rust resistance. Two inches of non-CFC urethane and welded seams and joints of outer and inner shells make this Drosophila chamber completely self-contained.

Shelving - Every model comes with 6 shelves (12 for the double door model) coated with a durable epoxy finish. Each shelf is adjustable to half inch increments and can support up to 125lbs.



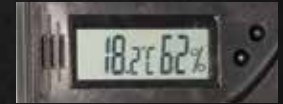
Lighting - Warm white (3500K) LED lamps run vertically in the chamber. These energy-efficient lamps very clearly illuminate every sample in the chamber, and conserve significant amounts of energy compared to traditional fluorescent lights.

Temperature Failsafes - Every INVICTUS is equipped with temperature failsafes to prevent your Drosophila from freezing or overheating in the event of any mechanical malfunction in the chamber.

Mite Cycle - INVICTUS Drosophila incubators have an increased high-temperature capability of 60°C* in order to perform an INVICTUS mite cycle: a 2-hour run at INVICTUS maximum temperature to kill mites that may be living in your chamber.



Temperature Control - The intuitive Watlow EZ-Zone PM Express Controller provides a simple interface for advanced temperature control inside the chamber.



Interior temperature and relative humidity display. Standard on all models.

Warranty - Both the vapor compression and thermoelectric models come with the most comprehensive warranty in the industry. For the vapor compression models, it is the lifetime of the original evaporator coil in the unit; 5 years on the compressor motor (part only); and 1 year anything, top to bottom (parts and labor included). For the thermoelectric models, it is 5 years on the solid-state cooling modules (part only), and 1 year anything, top to bottom (parts and labor included).



INVICTUS Narrow

Exterior Dimensions

(W x D x L): 28 x 31 x 78.5in (71 x 79 x 200cm)

Interior Dimensions

(W x D x L): 24 x 27 x 57.5in (61 x 69 x 146cm)



Fits 4 standard narrow trays per shelf.



Casters	Capacity	Temperature Control	Shelving	Door
4 Casters adding 4in of height	22 cu ft	Vapor Compression or Thermoelectric	6 Included Shelves	Swinging Door Hinged on Right Side

Cat#	Light Control	Humidity Control	Door	Temperature Control	Temperature Range
59-400	-	-	Glass Door	Vapor Compression	5-60°C
59-400L	✓	-	Solid Door	Vapor Compression	5-60°C
59-400LH	✓	✓	Solid Door	Vapor Compression	12-60°C
59-400L-TE	✓	-	Solid Door	Thermoelectric	15-60°C
59-400LH-TE	✓	✓	Solid Door	Thermoelectric	15-60°C

INVICTUS Wide

Exterior Dimensions

(W x D x L): 33 x 31 x 78.5in (84 x 79 x 200cm)

Interior Dimensions

(W x D x L): 29 x 27 x 57.5in (74 x 69 x 146cm)



Fits 4 standard wide trays per shelf.



Casters	Capacity	Temperature Control	Shelving	Door
4 Casters adding 4in of height	26 cu ft	Vapor Compression or Thermoelectric	6 Included Shelves	Swinging Door Hinged on Right Side

Cat#	Light Control	Humidity Control	Door	Temperature Control	Temperature Range
59-407	-	-	Glass Door	Vapor Compression	5-60°C
59-407L	✓	-	Solid Door	Vapor Compression	5-60°C
59-407LH	✓	✓	Solid Door	Vapor Compression	12-60°C
59-407L-TE	✓	-	Solid Door	Thermoelectric	15-60°C
59-407LH-TE	✓	✓	Solid Door	Thermoelectric	15-60°C

INVICTUS Double Door

Exterior Dimensions

(W x D x L): 52 x 31 x 78.5in (132 x 79 x 200cm)

Interior Dimensions

(W x D x L): 48 x 27 x 57.5in (122 x 69 x 146cm)

Casters	Capacity	Temperature Control	Shelving	Door
4 Casters adding 4in of height	43 cu ft	Vapor Compression	12 Included Shelves	Swinging Doors Hinged on Outside, Opening in Center

Cat#	Light Control	Humidity Control	Door	Temperature Control	Temperature Range
59-408	-	-	Glass Door	Vapor Compression	5-60°C
59-408L	✓	-	Solid Door	Vapor Compression	5-60°C
59-408LH	✓	✓	Solid Door	Vapor Compression	12-60°C



Compressor-Based or Thermoelectric: Which Invictus is Right for You?

Feature	Vapor Compression Models	Thermoelectric Models
Temperature Control	Compressor-based	Solid-state blocks
Temperature Recovery	Very fast temperature recovery	Longer temperature recovery time due to lower cooling power
Temperature Conformity	"On/Off" mechanism of compressor means slightly less conformity throughout the chamber	Variable cooling strength of solid-state blocks allows for more conformity throughout the chamber
Temperature Range	5-60°C	15-60°C (@22°C ambient)
Noise Level	Compressor turns on only when necessary, greatly reducing noise compared to constantly running compressors	No compressor to turn on, remains virtually silent from the outside
Energy Consumption	Energy-efficient smart compressor turns on only when necessary	Cooling requires 33% less energy than vapor compression
Humidity	Additive humidity will shorten the life of your evaporator coil, leading to coolant leaks	Solid-state blocks don't have refrigerant, so they can't leak
Lifespan	E-Coated evaporator coil helps prevent coolant leaks significantly better than a phenolic coated coil	No exposed coils in thermoelectric models means longest lifespan available
Doors	Glass, Solid, Single, or Double	Solid, Single
Warranty, Best in Class	L:5:1	5:1
Mite Cycle	Yes	Yes
Drain (Additive Humidity Only)	Not Required	Required

