



Drosophila Chambers

DR-36VI



Applications

These chambers have been designed for drosophila rearing. Many other applications exist for this product. Please compare your requirements to the specifications.

Controller

The IntellusUltra™ controller is capable of controlling temperature, humidity, CO2 and lighting events. The controller is a single-board electronic solid-state design with vacuum fluorescent display and ten-key membrane touch pad. Programs can be created in four modes: manual, diurnal, 24-hour, and non circadian.

Lighting System

Four 32W fluorescent lamps mounted vertically on each side of shelf. Light irradiance measured @ 6" from the lamps. Programming and control of the lighting is done via IntellusUltra™ controller.

Cabinet Construction

22-gauge interior and 18-gauge exterior electro-zinc plated steel construction. All seams and joints on the outer and inner shells are welded. Inner shell is supported by a non-compressing and non-thermal conducting material to lock the inner liner in place without a metal-to-metal bond to the outer case. The chamber is completely self-contained. Overall wall thickness is 2" (5.1 cm). One 1¼" diameter access port is provided on the R.H. wall. Chamber floor is equipped with a floor drain and hose assembly. The chamber also offers caster assembly and adjustable leveling legs to compensate for floor unevenness in the lab.

Insulation

Woodless construction using CFC free insulation. Overall wall thickness is 2" (5.1 cm), ample insulation for maintenance of stated temperature range.

Door

One door opening 29.2" x 57.5" (74 cm x 146 cm) provides full access to the chamber interior. A magnetic gasket provides a tight seal to door frame.

Interior Space

29.7 ft³ (0.8 m³) with a work area 23.6 ft² (2.2 m²) provided on five tiers.

Shelving

Five tiers of white epoxy coated steel wire shelving. Each shelf is 27" D x 25.2" W (68.6 cm x 63.8 cm). Shelves are supported by shelf clips which allows 1/2" vertical adjustments. The maximum clearance between shelves is 9.5" (24.1cm) per tier with all five shelves installed.

Finish

Interior and exterior painted with highly reflective, environmentally friendly, high temperature baked white powder coating.

Temp Range Lights On	Interior Space (volume)		Work Area		Maximum Growing Height		Exterior Dimension in (cm)			Light Intensity 6" from lamp μmoles/m ² /s	# of Tiers
	°C	ft ³	m ³	ft ²	m ²	in	cm	(W)	(D)		
4-44 ± 0.5	29.7	0.8	23.6	2.2	9.5	24.1	33.5 (85.1)	33.6 (85.4)	77.2 (196.1)	80	5

DR-36VL Drosophila Chamber

Refrigeration

¼ h.p. self-contained air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and close temperature control. This continuous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to the coil; this also prolongs the life of the compressor, and eliminates the risk of ice build up in the coil. Top mounted refrigeration system allows easy access for maintenance (e.g. cleaning). Also, as heat is rejected, it rises and is dissipated into the room without having any effect on the inside temperature cabinet. Solenoid valves have an extended stem for quiet and long life operation. Evaporator coil is ceiling mounted and incorporates twin air circulation fans in an aluminum housing. Heat rejection to ambient (standard chamber) =3500 BTU/hr.

Temperature Range

4° - 44° C lights on ($\pm 0.5^\circ$ C) and 2° - 44° C lights off ($\pm 0.5^\circ$ C).

Temperature Safety Limit Controls

(Experiment Protection) Adjustable high and low temperature controls, audible alarms, and visual indicators are provided. The controls shut down all the power to the chamber, and activates alarms. When the temperature returns to the normal range the system will automatically reset.

Coils

Phenolic Coated Coils are provided to protect coils from acidic secretion from drosophila.

Humidity Control (Included)

(Additive humidity control of higher than ambient to 85% (lights on or off) for temperatures between 15° to 30° C. A Humidifier requires distilled or demineralized water. Optional dehumidification via independent dehumidifying coil and reheat heaters will maintain humidity levels down to 40% between 15° to 30° C. Humidity control $\pm 10\%$ with Humichip Electric Sensor and $\pm 5\%$ with Advanced Sensor. Additional humidity ranges available.

Options (most popular)

Access Port with cover (Q10), Glass door (Q12), IntellusUltra™ Web Server with Gateway Device (C9), Communications Software (C9+), IntellusUltra™ with Touchscreen and Internet capabilities (C10), Pan-type humidifier and dehumidifier with Electronic RH sensor (H3), Ultrasonic Humidifier with advanced RH Sensor (H11), Dehumidification via independent dehumidifying coil with reheat heaters and Ultrasonic Humidifier (H12), Ultrasonic Humidifier with Electronic RH sensor (H14), CO2 enrichment package, door with observation window and cover (Q2), door with fresh air ports (Q1), self-contained water-cooled condensing unit, dry alarm contacts (S2), dimmable lighting (closed loop with PAR light sensor)(Q22), dimmable lighting (open loop control)(Q23), extended temperature ranges available. Contact Geneva Scientific for additional options available.

Convenience Receptacles

Two 115/1/60 convenience receptacle provided inside chamber.

Electrical Service Requirements

115/1/60 - Power cords and grounded plugs provided. Consult Geneva Scientific for amperage draw and other electrical requirements.

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REV. 04/2011