

# INCUBATORS

## DR-36VL Drosophila Incubator



**Applications** These chambers have been designed for drosophila rearing.

Many other applications exist for this product. Please compare your requirements to the specifications.

**Controller** Percival's Intellus Ultra controller is capable of controlling temperature, humidity, CO<sub>2</sub> and lighting. The Intellus Ultra Control System is a single-board electronic solid-state design which includes a 10 key membrane keypad with LED indicators and a vacuum fluorescent display. Programs may be configured to run in real time or countdown (circadian) mode. Ramping and non-ramping program methods are available for each programming mode. Multiple programs can be linked to create complex environmental profiles. The Intellus Web Server (optional) allows for monitoring and controlling of the chamber via a web browser (requires Internet Explorer 6.0 +). This option allows for remote monitoring and programming of your chamber including alerts and current condition updates for up to five e-mail addresses. Please refer to [www.percival-scientific.com](http://www.percival-scientific.com) for additional information regarding the control system.

**Lighting System** Four 32W fluorescent lamps mounted vertically on each side of shelf. Intensity is adjustable up to 80  $\mu\text{moles/m}^2/\text{s}$  of light irradiance measured @ 6" from the lamps. Programming and control of the lighting is done via Intellus real time controller.

Temp Range (with all lights on)	Interior Space (volume)		Work Area		Maximum Growing Height		Exterior Dimensions in. (cm)			Light Intensity (6" from lamps unless otherwise noted)	# of Tiers
	° C	ft <sup>3</sup>	m <sup>3</sup>	ft <sup>2</sup>	m <sup>2</sup>	in.	cm	(W)	(D)		
4-44±0.5	29.6	.84	23.5	2.2	9.5	24.13	33.5(85.1)	33.63(85.4)	77(195.6)	80	5

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**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" (5.1cm). One 1 1/4" diameter access port is provided on the R.H. wall. Chamber floor is equipped with a floor drain and hose assembly. The chamber also contains 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" (5.1cm), ample insulation for maintenance of stated temperature range.

**Door** One door opening 29 3/16" x 57 1/2" (74 cm x 146 cm) provides full access to the chamber interior. A magnetic gasket provides a tight seal to door frame.

**Interior Space** 29.6 ft<sup>3</sup> (0.84 m<sup>3</sup>) with a work area 23.5 ft<sup>2</sup> (2.2 m<sup>2</sup>) provided on five tiers.

**Shelving** Five tiers of white epoxy coated steel wire shelving. Each shelf is 27" D x 25 1/8" 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" (24.13 cm) per tier with all five shelves installed and the water pan humidifier as standard. The maximum clearance between shelves is 10.5" (26.7 cm) without the water pan humidifier.

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

**Refrigeration** 1/4 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. Coil is phenolic coated to prolong the life of the chamber from the acidic environment that can be created by drosophila. 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 shutdown all the power to the chamber, and activates alarms. When the temperature returns to the normal range the system will automatically reset.

**Humidity Control** Additive humidity control of higher than ambient to 85% ( $\pm 10\%$ ) lights on for set temperatures between 15° to 30° C. Humidity control of higher than ambient to 90% ( $\pm 10\%$ ) lights off for temperatures between 15° to 30° C.

**Convenience Receptacles** Two 115/1/60 convenience receptacles provided inside chamber.

**Electrical Service Requirements** 115/1/60 - 15 amps (total) for standard chamber. Power cord and grounded plug provided. Humidity system requires a de-mineralized water supply line which terminates to a 1/2" MPT connector.



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