



Prentex

ALLOY FABRICATORS, INC.

The Prentex VDO 9900 degasses through the use of an integrated self-contained vacuum oven and vacuum supply controlled by a digital microprocessor with the vacuum pressure indicated directly in kPa absolute, as specified in the Standard Practice, providing the operator with simplicity of operation and reducing the chance of error in performing the degassing process.

The measurement method differs from most vacuum ovens in that conventional vacuum ovens measure temperature of the “vacuum”, which by definition a very poor conductor of heat. Instead, our device measures where degassed asphalt temperature has shown to stabilize; namely, at the aluminum support for the sample tins which is machined from 1/4” [6.4mm] thick aluminum.

Samples being degassed may be monitored visually through the glass viewing window located on the units cover.

Compliant with ASTM, AASHTO, and EN-14769 Standards.

General Specifications

Opt. 1: 115-125 Volts, 60 Hz AC, 10 Amps max.

Opt. 2: 220-230 Volts, 50 Hz AC, 5 Amps max.

Dimensions

14.25” wide by 17.75” deep by 14.5” high;
(360mm X 450mm X 370mm)

Weight

60lbs (27 kg)

Shipping weight: 70lbs

Temperature Display:

Degrees Celsius
Preset Preheat: 170°C

Pressure Display

Direct-reading Relative Pressure Gauge mounted to align with external kPa Absolute Scale reads 0 to -30 Hg and 0 to -115 kPa

Digital Controller Integral Temperature with 2-stage timing and relay control of vacuum system. Alerts operator to load sample.

Vacuum

Adjustment is provided through a 10-turn metering valve located on the removable lid

Process

10 minute reheat time followed by 30 minutes of heat with vacuum

Sample Tins Four 8 ounce / 250 ml sample tins are furnished with the Model 9900. These tins are often referred to as “ointment tins” and are approximately 3” / 75 mm diameter x 2” / 50 mm deep. Smaller tins may be required to meet the minimum sample depth of 15 mm. (See Prentex’ parts and accessory catalog)

Model Specific Details:

Model E is equipped with a self-contained oil-less electric vacuum pump.

Model A is equipped with an air-driven vacuum generator operating on a user’s compressed air supply. The unit draws very little airflow during the 30 minute vacuum degassing cycle, and is very quiet with no moving parts other than an electric solenoid valve. This model requires dry, filtered, compressed air at a minimum 100psi/7 bar, with a flow of 2 cubic ft. (56 liters) per minute for 30 minutes.

The Model 9900 Vacuum Degassing Oven is designed specifically for degassing PAV-aged bitumen [asphalt] samples.

Both AASHTO PP-1 and ASTM D-6521 versions of the Standard Practice for Accelerated Aging of Asphalt Binder using a Pressurized Aging Vessel (PAV) require vacuum degassing of the PAV-aged samples

