

The mixer is connected via a special steel ring to a vessel for adding (measured amounts of) liquid to the mixer--the dosimeter L, and to another vessel for measuring the change in volume of the system upon solution of the liquid in the gas--the volumeter V.

The dosimeter is a calibrated cylinder in which a piston travels. The piston is connected at the top to a reduction gear, driven by a motor. The dosimeter fills with liquid when the piston is in the upper extreme position, and when the piston moves down, the liquid batch is put into the mixer. A schematic of the dosimeter is shown in Fig. 3. Its working volume is 6 cm^3 .

The volumeter is a calibrated cylinder with a piston--an exact copy of the dosimeter. By varying the volume of the volumeter (raising or lowering the piston) during the test, we cancel out the drop in pressure created between the equalizer and the mixer upon solution of the liquid in the gas.

The scheme for connecting the dosimeter and the volumeter to the mixer is shown in Fig. 4.

The system in the assembled form is placed in the thermostat filled with transformer oil. The thermostat is equipped with two power shaft stirrers and two heaters mounted on the stirrer shafts. This arrangement of the heaters and stirrers secures a uniform distribution of temperature in the thermostat. Supplementary heaters, directly connected with a contact thermometer and a relay, ensure the constance of the temperature to within $\pm 0.2^\circ \text{C}$ during the test.

The head of the mixer, on which is mounted the solenoid, and into which passes the magnetic end of the stirrer, is separately thermostated. The solenoid is enclosed by an iron jacket into which oil from the thermostat