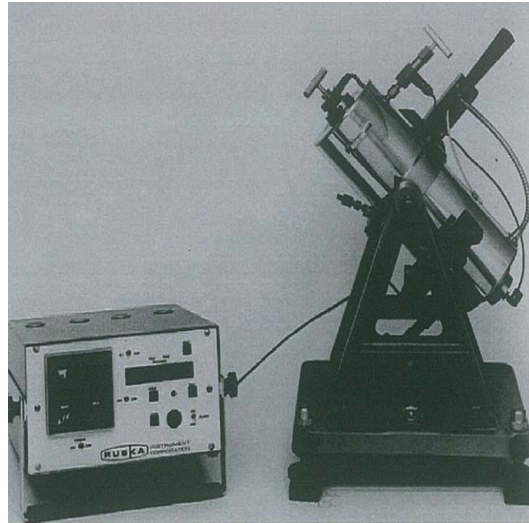


VISCOPTV HIGH PRESSURE RESEARCH VISCOMETER

The model 1602 Viscometer is a high-pressure precision instrument for determining the relative viscosity of liquid samples at elevated temperature.

The principle of operation is to measure the time it takes for a metal ball to fall through a fluid medium. The resistance to the gravitational pull on the ball is due to the fluid density and viscosity. By measuring roll times of several viscosity standard fluids, the user can develop calibration curves relating viscosity to roll time (corrected for fluid density). The relative viscosity of the unknown fluid is then determined from the graph.

The Model 1602 viscometer is integrated into the Model 2370 Console along with the Model 2353 Flash Separator, Model 2331 Gasometer, vacuum pump and fluid flow manifold as a comprehensive test bench apparatus. The Model 1602 may also be configured as an individual test system.



Rolling Ball Viscometer

Specifications

Pressure Rating:	10,000 psi
Volume:	70 cc (test chamber is 20 cc)
Temperature:	300 °F (150 °C)
Roll Angles:	23°, 45°, 70°
Power:	240 V, 3 amp (1 ph) 50/60 Hz

For limited ranges of viscosities, this relationship is linear and can be expressed in the following form

$$\mu = Kt (\rho_b - \rho_f)$$

Where: μ = absolute viscosity

K = proportionality constant

ρ_b = density of stainless steel ball

ρ_f = density of the fluid

t = roll time