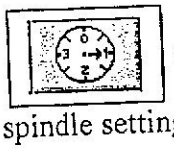
Rheometer:

Webster's defines rheology as "the study of the change in form and the flow of matter, embracing elasticity, viscosity, and plasticity." Along these lines, the Brookfield Rheometer measures the fluid parameters of shear stress and viscosity at given shear rates. The principle of operation of the DV-III is to drive a spindle (which is immersed in a test fluid) through a calibrated spring. The viscous drag of the fluid against the spindle causes the spring to deflect, which is measured by a rotary transducer. The output of this transducer is used (along with the rotational speed and spindle geometry) to calculate the shear stress and the viscosity.

Consult the Brookfield Digital Rheometer Operating Instruction manual for further information.

Procedure:

Part A - Viscosity vs Time

1. Turn on the Rheometer (if not already on) an make sure it says "EXTERNAL CONTROL." (If it doesn't, the computer cable isn't connected, or isn't the right one).
2. Turn on the computer (if not already on).
3. Run the "RheoCalc" program (the icon looks like a blue drop with "Rh" on it).
4. Zero the rheometer by pressing the  and removing any spindles.
5. Install spindle ___, and change the spindle setting to RV___.
6.

Reading #	Spindle #	Rpm	Temp.	Time	Viscosity
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					