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Endecotts Limited, Lombard Road, London SW19 3TZ England  
Tel: + 44 (0) 20 8542 8121 Fax: + 44 (0) 20 8543 6629  
E-mail: [sales@endecotts.com](mailto:sales@endecotts.com) web site <http://www.endecotts.com>



(866) 244-1578

QAQC LAB LLC 593 HOLLY HAVEN WEEMS VA 22576

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## **CONSISTOMETER**

### **User Guide**

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#### Contents

Introduction		Page	1
	Description Specifications		
Setting Up			2
	Method of Use		
Care and Maintenance			3

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**Introduction**  
**Description - Specifications**

The Consistometer is an instrument used to determine the consistency of viscous materials by measuring the distance that the material flows under its own weight in a given time interval. The instrument allows producers of such viscous products as jellies, preserves, sauces, etc to predetermine formulas for their product and to standardize production lots.

**Description**

The Consistometer is made of stainless steel. It consists of a trough divided into two sections by a gate. The smaller section serves as a reservoir for the material to be tested. The larger section is graduated along the bottom in one half-centimeter divisions beginning at the gate. The gate is spring-operated and is held by a trigger that permits instantaneous release. In operation, the gate slides vertically in the grooves of two posts extending upward from the sides of the trough. The L-shaped trigger release hooks over the top of the gate to hold it in a closed position. Two levelling screws are located at the reservoir end of the trough and a circular spirit level is located at the other end of the trough.

Specifications:  
Length: 355mm  
Width: 88mm  
Height: 104mm  
Material: Stainless Steel

## Setting Up the Instrument Method of Use

Place the Consistometer on a level surface and adjust the levelling screws until the bubble in the circular level is centered.

Close the gate and hook the trigger release over the top.

The material to be tested should be prepared by holding it at a constant temperature (usually 20 degrees C or 68 degrees F) for several hours to assure a uniform temperature throughout.

### Method of Use

Fill the reservoir behind the gate with material to be tested, usually 75 ml, and level off the top with a spatula or other straight – edge. (Fig.1)

Release the gate by pressing the lock release lever, (the spring action ensures it opens instantaneously. (Fig.2) at the same time, start a stopwatch. At the end of the selected time period, determine how far the material has flowed along the trough. Take the maximum reading at the center of the trough and the minimum reading at the edge of the trough and average the values. (Fig.3) The average value is then compared against previously determined standards.



Fig.1.  
Fill Reservoir with sample



Fig.2.  
Release Gate



Fig.3.  
Records flow rate

## **Care and Maintenance**

When using the Consistometer, make certain that the gate is fully closed before filling the reservoir. The reservoir should always be filled completely to the top.

A material should always be tested as quickly as possible after being removed from the constant temperature oven or bath to prevent any consistency changes caused by temperature change or exposure to air.

### **Maintenance**

No maintenance should be necessary except occasional checking of the level, as explained in 'setting up instructions' and cleaning of the troughs after each test. Should any difficulty occur contact *Endecotts Ltd* for further instructions.