Endecotts

WHEN PARTICLE SIZE MATTERS

CONSISTOMETER

Instructions

WHEN PARTICLE SIZE MATTERS

Contents **Page**

Consistometer - Operating instructions

Introductions

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.

It is used extensively in the food industry by producers of jams, jellies and other highly viscous products such as tomato paste, tomato ketchup, tomato puree, condensed soup, cheese sauce, batters, cake mixes, gravies, sauces, baby foods, salad dressings, frostings, fillings, chilled food and ready meals etc. (also used by manufacturers of paints, cosmetics and chemicals).

Repairs

These operating instructions do not contain any repair instructions.

In the event of a requirement of repairs please contact Endecotts Ltd or an authorised representative (service technician).

In this case, please notify the following:

The local Endecotts representative
Your supplier
Endecotts Ltd direct

Your address for service:

WHEN PARTICLE SIZE MATTERS

Technical Specifications

General Information

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-centimetre 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.

Advantages

- Simple to perform
- Portable and easily cleaned
- Stainless Steel Construction
- Resist corrosion
- Engraved graduations of 0.5 cm divisions
- Assures accurate results
- Spring loaded gate prevents premature flowing of sample
- Complies to R-81294D & ASTM F1080-93

The Consistometer is not suitable for puréed food or high solids pastes

Description

Specifications

	Standard Consistometer	Extended Consistometer
Length	300 mm	414 mm
Trough length	240 mm	354 mm
Width:	88 mm	88 mm
Height:	104 mm	104 mm
Material	Stainless Steel	Stainless Steel
Part no:	ZXCON-CON1	ZXCON-CON3

Operating instructions

Method of use

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

2. 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.

1. Fill the reservoir behind the gate with material to be tested, up to 100 ml, and level off the top with a spatula or other straight – edge. (Fig.1)

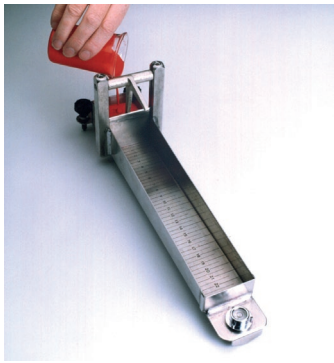

Figure 1

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

2. Release the gate by pressing the lock release lever, (the spring action ensures it opens instantaneously. (Fig.2)

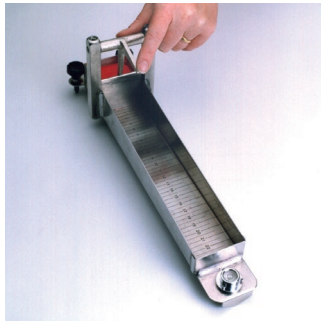

Figure 2

3. At the same time, start a stopwatch.

4. At the end of the selected time period, determine how far the material has flowed along the trough. Take the maximum reading at the centre 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.

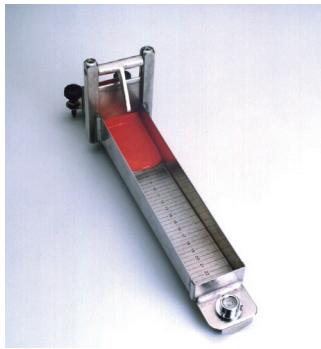

Figure 3

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.

5. Clean the Consistometer after each use. Completely dry the instrument before using it again.

Cleaning

The apparatus should always be cleaned immediately after use to prevent test material from drying on the apparatus

To clean the apparatus wash by hand with warm water with a suitable (mild) detergent followed by a fresh water rinse. A scrubbing brush or bottle brush (or similar) may be used to clean material caught in corners.

Ensure that the reservoir gate channel is suitably cleaned, under warm running water if necessary. Allow to drain and towel or air dry thoroughly before returning the apparatus to storage.

DO NOT SOAK as prolonged exposure to water may be detrimental.

The use of a laboratory washing machine (or similar) is not recommended

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.

Endecotts Ltd
Parsons Lane
Hope
Hope Valley
S33 6RB
United Kingdom

Telephone: +44 (0)20 8542 8121
E-mail: sales@endecotts.com
Web: www.endecotts.com