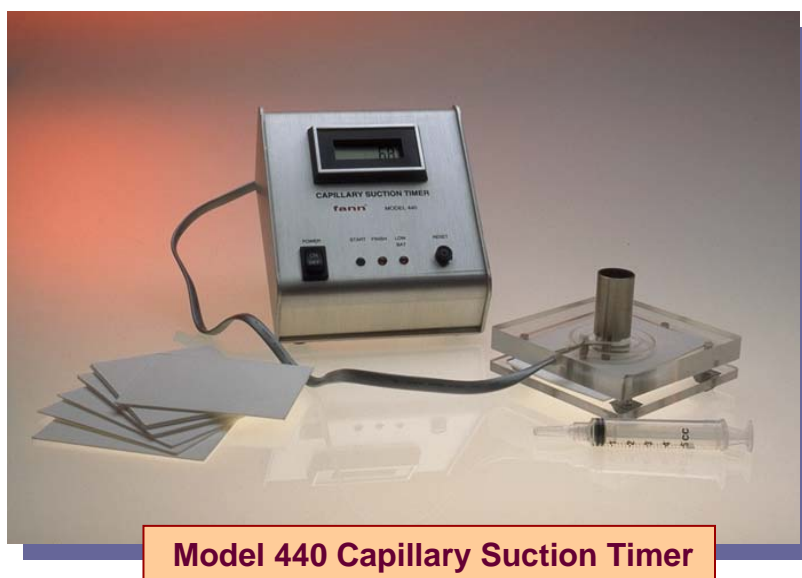


CAPILLARY SUCTION TIMER



Model 440 Capillary Suction Timer

The **Model 440** Capillary Suction Timer (CST) consists of a digital timer, sample cell, and a specially selected filter paper composed of unidirectional fibers. Aqueous samples are placed in the sample cell, resulting in variable rates of water passing into the filter paper through capillary suction action. The rates of filtration are dependent upon particle size, solids content, and settling rates of flocculation state. Thus, the instrument is adaptable for use as a control parameter for waste disposal facilities and for classification and qualification of soil types in geotechnical use, evaluation of soil/bentonite liners, and analysis of slurry trench fluids and drilling fluids.

Drilling Fluids

The CST test measures the hydrating and dispersion properties of shales by simulating the shear and chemical forces present during drilling. For the CST test, the shale-solids content and mixing time are held constant, while the chemical characteristics such as pH and salinity are varied.

CST test results show the inhibitive effects of various salts and their concentrations on the dispersion of a shale. Results can be graphed to show the CST value in time versus test fluid type.

The CST value is an indication of cake permeability. Highly dispersed particles give low cake permeability and high CST values. Flocculated particles give high cake permeability and low CST values. The CST value depends on solids type and content of the slurry, degree of mixing, pH, and salinity, deflocculant of dispersant type and concentration, polymer type and concentration.

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Drilling problems such as stuck pipe, tight hole, washout, and sloughing can be related to shale stability. Tests used to determine if specific shales are likely to cause drilling and completion problems include:

Capillary Suction Timer (CST)

Linear Swell Meter (LSM)



Model 2000 Linear Swell Meter

Contact Fann for additional information about the Linear Swell Meter

Waste Water Treatment

Flocculants are often used to clarify and remove waste materials from effluent waters. The CST is used to indicate rate of sedimentation versus flocculant quantity or type. Progressively greater CST values are attributed to more rapid sedimentation. Additional analytical information supplied as to the nature of the sediment will also result in CST value changes. For example, comparative analyses of two flocculants may indicate identical sedimentation rates using normal methods. An increased of CST value of one flocculant in comparison to the other gives information concerning the volume, compactibility and water retention of the sediment.

The CST is ideal for use in the field as it operates on a single 9-volt battery which provides over 40 hours of use. A battery eliminator is supplied for laboratory use. The complete CST device consist of a timer unit, test head assembly with funnel, 9 VDC battery and battery eliminator (115 VAC), one box of filter paper, and instructions.

Ordering Information

Part No.	Description
209703	Capillary Suction Timer
206059	Filter Paper, 170/Box
209710	Funnel, Stainless Steel
205235	Syringe, 5cc Disposable
205643	Battery, 9VDC
209998	Battery Eliminator, 115VAC
209999	Battery Eliminator, 230VAC

Contact Fann about our complete line of Fluids Testing Instruments

Fann offers a complete line of fluids testing equipment used for all types of drilling
fluids and slurries in accordance with **API Recommended Procedures**

Fann Instrument Company
P O Box 4350
Houston, Texas USA 77210

北京科氏力科学仪器有限公司 fann中国区域代理
www.coriolis-china.com

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Phone: 281-871-4482
Fax: 281-871-4358
Email: Fannmail@fann.com

China Tel: (+86)10-63971078