



## ≈ SETTLEOMETER KIT ≈ C-10202



**Thank you for purchasing a Raven Environmental Products process control instrument. Please contact our Customer Service Department at 800-545-6953 for any service needs.**

The Raven Settleometer Kit is a rugged precision laboratory instrument. Each unit is built with quality and craftsmanship in the USA.

### **Unit and Use**

The Raven Settleometer Kit is used in water and wastewater treatment to evaluate sludge quality settling characteristics. The Settleometer test measures the rate and amount of solid/liquid separation of sludge samples. This test is commonly used to evaluate secondary clarifier and aerobic digesters to determine settling periods.

Each kit is shipped with the following items:

- C-10102 Settleometer, 1.4 liter cylinder
- C-10103 Mixing Paddle,
- C-10104 Snap-on Lid

### **Description & Maintenance**

Constructed of clear scratch resistant acrylic plastic for excellent visibility and durability, the Raven Settleometer is designed for accurate measurement of settled sludge volumes (SSV). Distinct bright white markings contrast vividly with most sludge samples. Made of the same material, the paddle will not scratch the Settleometer during normal use. The soft plastic lid snaps tightly on the Settleometer so that samples may be collected directly and transported without spillage. Both plastics are compatible with normal sludge samples encountered at most treatment plants.

Practice these precautionary measures when cleaning and during use:

1. Use warm detergent solution to clean and rinse with tap water.
2. Never use abrasive material, e.g. steel wool, scouring powder.
3. Use only the paddle provided (same hardness) to prevent scratches.

### **Applications**

Settleometers are used to determine percent (%) volume and/or settled sludge volumes (SSVs) for quantifying settling of sludge samples. Used in conjunction with aeration tank mixed liquor concentrations by volume (ATCs - obtained from the Centrifuge Test) the SSV data can yield Settled Sludge Concentration (SSCs) at respective times. When compared to the return activated sludge concentration by volume (RSC), a powerful process control tool is provided for return sludge flow control.

When mixed liquor samples are diluted with un-chlorinated secondary effluent, e.g. 75% & 50% mixed liquor, faster settling is noticed with decreasing concentration in most sludge samples. However, a mixed liquor composed of mostly young, un-deroxidized, light, fluffy, low density sludge particles is one that settles slowly regardless of how low the concentration because of the sludge quality. This variation of the Settleometer Test provides a valuable troubleshooting tool for evaluating sludge quality (commonly referred to as Multiple Dilution Test).

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### ***Other Raven Environmental Products process control instruments:***

B-10104	CORETAKER (Sludge core sampler that Floats)
E-10200SID	Sludge Interface Detector with sludge probe (Portable infrared device senses solids concentration gradient in sludge blanket)
C-10102	Settleometer Kit (Measures sludge settling characteristics)
F-10300	Laboratory Centrifuge with six (19mm) TWC Tubes
B-10101-19	19mm Tubes for Centrifuge (calibrated in percent volume)
B-10101-17	17mm Tubes for Centrifuge (calibrated in percent volume)

Visit our web site at [www.ravenep.com](http://www.ravenep.com) for additional information.

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