



Suspended Solids % Volume in just 15 minutes



F-10300 \$967

Timely process control adjustments

The Raven Process Centrifuge is specifically designed for process control sampling applications to determine solids concentration in percent volume as low as two tenths of one percent (0.2%).

Electronic timer and digital display with a 15-minute speed key and one-minute increment and decrement keys. A bright green LED alerts the operator when the unit is powered on. The LCD display indicates when the rotor is spinning. An audible sounds when the cycle is complete.

Stainless steel structure with aluminum cover and lid.

Six place horizontal rotor, 1/8 hp motor, 3,000 fixed rpm.

Bronze trunnion rings accommodate both 19mm and 17mm diameter sample tubes.

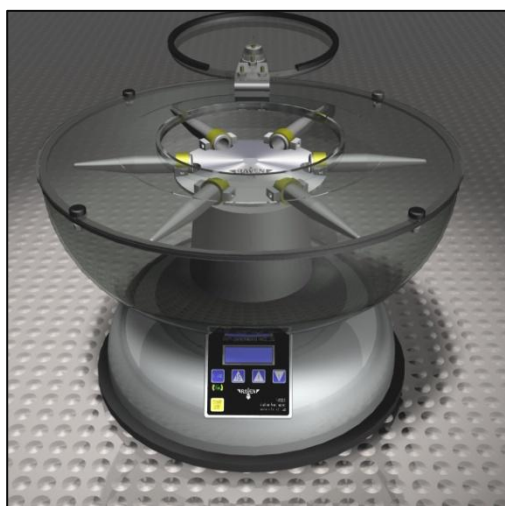
Rubber feet and a heavy base provide smooth and quiet operation.

Includes six 19mm polycarbonate conical bottom test tubes.

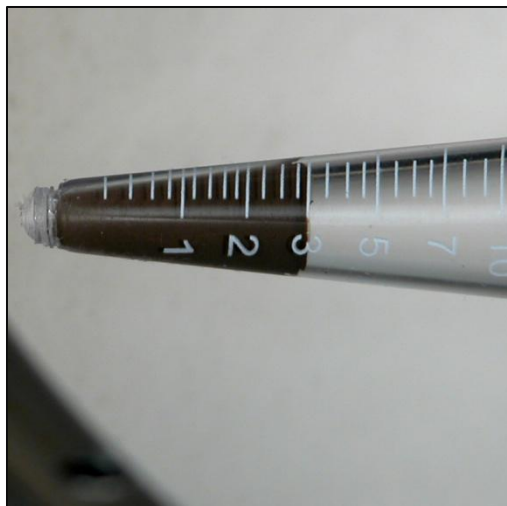
“Centrifuges can be used to determine the solids concentrations of sludge samples. The centrifuge test gives rapid results: six or more sludge samples can be run in 15 minutes in a lab centrifuge. The data obtained from this test has been proven to be more than adequate for process control.”

Activated Sludge Manual of
Practice OM-9 first edition page 173.

West, A.W. “Updated Summary of the Operational Control Procedures
for the Activated Sludge Process” US EPA, Cincinnati, OH



Tubes rotate at a full right angle to axis of rotation providing a horizontal line between the solids at the bottom and the fluid on top.



Includes six polycarbonate 19mm diameter conical bottom tubes. Clearly marked for solids concentration in percent volume as low as 0.20%.

SPECIFICATIONS

Horizontal Swing Out 6 Place Rotor

Fixed RPM 3000

Motor

Brushless

Permanent Split Capacitor (PSC)

Totally Enclosed Fan Cooled (TEFC)

110V (other voltages available)

1.8A 1/8 hp

Relative Centrifugal Force (RCF) 1792g

Ship Weight

25 lbs – Net weight 20 lbs.

Product Dimensions

16 inches diameter

13 inches tall

1 year warranty



Centrifuge Basics

Tubes filled with a sample are spun at high speed to separate the liquid from the solids. Solids are concentrated into the bottom of the tube. The amount of solids in the bottom of the tube represents the "Percent of Solids" of the sample. Fifteen minutes is all it takes to determine solids concentrations that are used for return and waste sludge flow rates. Concentrations are easily correlated to TSS calculations using the Weight to Concentration ratio formula.



Source of Sample	Name of Sample	Symbol	Location of Sample	Tool
Aeration Tank	Aeration Tank Concentration	ATC	discharge flume	Mini Dipper
Clarifier - Secondary	Clarifier Sludge Concentration	CSC	1/3 from sidewall	CORETAKER
Return Sludge	Return Sludge Concentration	RSC	return sludge line	Mini Dipper
Waste Sludge	Waste Sludge Concentration	WSC	waste sludge line	Mini Dipper

Application to Wastewater Process Control

The Percent of Solids shown on the centrifuge tube is the basis for calculating the amount of sludge in a given tank or flowing through a pipe. The unit of measure is called a Sludge Unit (SU).

Number of Sludge Units in Tank = Percent of Solids x Tank Volume

Number of Sludge Units in Flow = Percent of Solids x Gallons of Flow Per Day

