

SOIL DISPERSION MIXER

When performing the hydrometer method of testing subgrade soils this mixer is used for dispersing soil suspensions. The mixer operates at speeds above 13,000 RPM (no load) and has three speeds for maximum mixing flexibility. The mixer is furnished with a chrome-plated dispersion cup and a steel-plated stirring paddle. The front panel is stainless steel while the housing is die-cast aluminum. Also furnished is a 5' cord and a 3-prong plug. Dimensions are 19-7/16" x 6-9/16" x 7".



MODELS	DESCRIPTION	POWER	STANDARDS
S1211	SOIL DISPERSION MIXER	120V 60 Hz	ASTM D-422 AASHTO T-88
S1212		220V 50 Hz	

ACCESSORIES	DESCRIPTION
S1215	EXTRA BLADE, TYPE B
S1218	EXTRA DISPERSION CUP
X3211	SODIUM HEXA-METAPHOSPHATE

HYDROMETER

The **S1245** Soil Hydrometer Type A has seamless and symmetrical bulb and is accurately calibrated to reduce errors caused by variable dilution. The hydrometer is graduated in grams of soil colloids per liter (Bouyoucos Scale). The temperature of standard is 68° F. The scale range is 5 to 60 grams with 1 gm divisions (ASTM 152H) which meets ASTM method D-422 and AASHTO method T-88. Total length of the hydrometer is 11" (280mm). The **S1246** Hydrometer Type B is similar to the **S1245** except that it is graduated 0.995 to 1.038 specific gravity and the temperature of standard is 68°/68° F. The ASTM scale is 151H. The **S1247** Thermo-Hydrometer is for liquids heavier than water. The thermometer has a range of 20° to 130° F (2° F divisions).



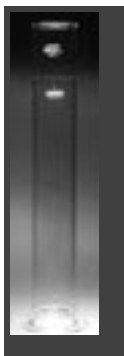
S1245



S1246

MODELS	DESCRIPTION	RANGE	STANDARDS
S1245	SOIL HYDROMETER, TYPE A	-5 - 60 G	ASTM D-422 / AASHTO T-88
S1246	SOIL HYDROMETER, TYPE B	0.995 - 1.038 G	
S1247	THERMO-HYDROMETER	20 - 130° F	

HYDROMETER JAR



The **S1251** calibrated Hydrometer jar is used with the hydrometer to determine the amount of soil in dispersed suspensions. The jar has a heavy beaded finish at the top and white graduation rings. The graduation ring and capacity is 1000 ML at 20° C (68° F). The height is 460mm with an O.D. of 2-1/2". The **S1255** is very similar except that the graduation ring is at 1130 ML and 1205 ML.

MODELS	DESCRIPTION	CAPACITY	STANDARDS
S1251	HYDROMETER JAR	1000 ML	ASTM D-422 / AASHTO T-88
S1255		1205 ML	

HYDROMETER JAR BATH



The **S1265** & **S1266** are designed to maintain constant temperature of 68°F (20°C) for particle size distribution test in accordance with ASTM and AASHTO specifications. Stainless Steel shelves hold one to ten jars. Immersion pump constantly circulates water vertically and horizontally during test. Temperature uniformity is insured to ± 0.5 C. Heat diffuser plate eliminates "hot spots". Tank capacity is 21.6 gal (82 L). Inside dimensions are 38" x 8" x 15-1/2" outside dimensions is 50" x 12" x 18" deep. All internal parts are stainless steel, exterior is enameled steel. Meets ASTM D-422; AASHTO T-88.

MODELS	DESCRIPTION	POWER	STANDARDS
S1265	HYDROMETER JAR BATH	115V / 60 Hz	ASTM D-422 / AASHTO T-88
S1266		230V / 50 Hz	

LIQUID LIMIT DEVICE

The characteristics of soils can be changed by the moisture content of the soil. The liquid limit of a soil is the moisture content in which a soil passes from the plastic state to the liquid state. This liquid limit device uses the Casagrande method in which a soil pat is placed in the brass cup, divided using the grooving tool, and then subjected to a series of blows from a given height against a rubber base of known rebound until the soil meets along a certain distance. The **S1451** durometer is used to test the hardness of the base of a Liquid Limit Machine. The durometer features sealed springs to maintain load deflection rate to a tolerance of .0004". The precision construction delivers lifetime accuracy. The **S1452** Resiliency Tester is used to test the hard rubber base of liquid limit machines, which should be performed at 90-day intervals to insure the base is in compliance with ASTM standards. The device consists of a clear acrylic plastic tube and cap, a 5/16" diameter steel ball and a small bar magnet.

MODELS	DESCRIPTION	STANDARDS
S1411	LIQUID LIMIT DEVICE W/ TOOL	ASTM D-4318 AASHTO T-89
S1412	LIQUID LIMIT DEVICE W/ COUNTER	
S1413	LIQUID LIMIT DEVICE W/ MOTOR, 110V / 60 Hz	
S1414	LIQUID LIMIT DEVICE W/ MOTOR, 220V / 50 Hz	

ACCESSORIES	DESCRIPTION
S1415	GROOVING TOOL, PLATED STEEL (AASHTO)
S1425	GROOVING TOOL, FLAT W/ HEIGHT GAUGE (ASTM)
S1427	PLASTIC GROOVING TOOLS, PKG 10
S1416	EXTRA CUP, LESS HANGER
S1417	EXTRA CUP W/ HANGER
S1418	EXTRA CUP, W/ SLIDE
S1419	BASE W/ RUBBER FEET FOR S1411
S1451*	DUROMETER
S1452	RESILIENCY TESTER

*S1451 MEETS ASTM D-4318 & D-2240



S1411



S1425



S1415



S1451



S1452