

SPECIFIC GRAVITY BOTTLE

The **B5501** (Hubbard) featuring a straight side is for determining the specific gravity of road oils, tar, asphalt and cement. The solid stopper has a hole approximately 1.6 mm in dia. through the center to allow air to escape. The **B5511** (Hubbard-Carmick) features a tapered side utilized for determining the specific gravity of viscous and semisolid bitumen.



B5501



B5511

MODELS	DESCRIPTION	STANDARDS
B5501	SPECIFIC GRAVITY BOTTLE, STRAIGHT SIDE	ASTM D-70, D-115, D-234 / AASHTO T-43, T-228
B5511	SPECIFIC GRAVITY BOTTLE, TAPERED SIDE	

ORBITAL SHAKERS

The **B5518** Digital Big Bill® Orbital Shaker is the new alternative to the Rice Test equipment. The shaker is compact and well designed to provide a uniform balanced shaking motion. The speed controller provides accurate regulation of the shaker speed from 40 to 400 rpm and is displayed on a large LED readout. Also featured, is a built-in timer which can be set for continuous operation or for timed shaking up to 60 minutes. The exterior is constructed from molded polyethylene that will not chip, rust or corrode. The drive mechanism produces 3/4 inch diameter circular motion and is counter balanced to ensure smooth, vibration free operation at any speed. Power is delivered by a 1/50 HP motor and runs off of 120V-50/60Hz. The shaker dimensions are 11" x 13-1/2" x 7". The combination platform allows you to design your own platform to meet specific shaking requirements. The **B5522** dedicated platform rotates on nine sealed bearings and is 13" x 11" and is furnished standard with clamps for four 2 liter Erlenmeyer flasks. The combination platform is 18" x 18". The clamps (**B5524**) for 4,000 ml flasks are used in conjunction with the combination platform to securely hold glassware in place while shaking. The clamps have four prongs and are constructed from stainless steel and also includes a retaining spring for extra grip.



B5518



B5520 - B5521

MODELS	DESCRIPTION
B5518	DIGITAL BIG BILL® ORBITAL SHAKER
B5520	BENCH TOP ORBIT SHAKER, 120V / 50-60 Hz
B5521	BENCH TOP ORBIT SHAKER, 240V / 50-60 Hz

ACCESSORIES	DESCRIPTION
B5522	DEDICATED PLATFORM
B5523	COMBINATION PLATFORM
B5524	4000 ML ERLLENMEYER FLASK CLAMP FOR B5523
B5518A	ACCESSORY CLAMP, 2000 ML FOR B5518

VACUUM PYCNOMETER, RICE TEST



This large capacity vacuum pycnometer is used to determine the theoretical maximum specific gravity of bituminous paving mixtures. The pycnometer has a sample capacity of 13 lbs. (6 kgs) with maximum aggregate size of 2" (50 mm). The unit consists of a transparent top for visual inspection, a vacuum gauge with quick disconnect fitting, a water inlet valve, hoses for the water and vacuum valves, and an aspirator pump. The unit has an approximate volume of 10 liters. The maximum clearance above plate is 7-3/4". The dimensions are 9-7/16" I.D. x 12-1/8".

MODELS	DESCRIPTION	STANDARDS
B5541	VACUUM PYCNOMETER (RICE TEST)	ASTM D-2041 / AASHTO T-209, T-283

ACCESSORIES	DESCRIPTION
G8201	VACUUM PUMP, 2 STAGE, 110V / 60 Hz
G8202	VACUUM PUMP, 2 STAGE, 220V / 50 Hz
G8270	VACUUM PUMP, OILLESS 2 STAGE, 110V / 60 Hz

VACUUM PYCNOMETER, 2,000 GRAM

This vacuum pycnometer is used to determine the theoretical maximum specific gravity of bituminous paving mixtures by Pennsylvania test method # 740, a modification of AASHTO T-209. The pycnometer has a sample capacity of 4.4 lbs (2 kgs) with maximum aggregate size of 3/4" (19.1 mm). The unit consists of a transparent top for visual inspection, a vacuum gauge with quick disconnect fitting, a water inlet valve, hoses for the water and vacuum valves, and an aspirator pump. The unit has an aluminum volumetric canister that measures 7^{1/2}" I.D. x 6" deep.



MODELS	DESCRIPTION	STANDARDS
B5551	VACUUM PYCNOMETER, 2000 G	ASTM D-2041 / AASHTO T-209, T-283 / PA 740

ACCESSORIES	DESCRIPTION
B5551A	O-RING FOR PLASTIC LID
B5551B	IN-LINE VACUUM GAUGE, 0-30 HG, 2" DIA
G8201	VACUUM PUMP, 2 STAGE, 110V / 60 Hz
G8202	VACUUM PUMP, 2 STAGE, 220V / 50 Hz
G8270	VACUUM PUMP, OILLESS 2 STAGE, 110V / 60 Hz
G8274	VACUUM PUMP 1/3 HP, 2 STAGE, 110V / 60 Hz

VIBRATING TABLES

The **B5552** vibrating table is used in conjunction with the with the **B5541** 6000 gram Vacuum Pycnometer. The heavy duty construction keeps sample material loose for more reliable test results. The tables feature a strong vibrators and sturdy bases with integral on/off switch. Exclusive quick release cam/lock fasteners allow quick placement and removal of canister. The open-end model has a sliding scale and is graduated above and below zero to 130 x 1 mm. The **B5542** & **B5543** vibratory tables are used with the **B5551** 2000 gram Vacuum Pycnometer. The pycnometer canister is held to the table via clamps. The table vibrates 3,000 times per minute and is available in 110V/60Hz. The **B5554** Vibro-Deairator is designed for consistent shaking of Rice test vacuum pycnometers while freeing the lab technician for other work. It is also a useful deaeration device for specific gravity tests of fine aggregates (ASTM C-128) and soils (ASTM D-854), for sample preconditioning per ASTM D-4867 and AASHTO T-283. Case has built-in 0 to 99 min., 59 sec. digital timer with 0.25 sec. accuracy, vibration speed control, and a 3-position switch for manual or timed operation—all front panel mounted for ease of use. Speed control allows setting of agitation to avoid stripping of asphalt. The **B5554A** Adapter Set is used with Filter Flasks, Volumetric Flasks, LeChatelier Flask, mason jar pycnometers. Special "speed knobs" tighten easily to secure the pycnometer. After a few loosening turns, they tilt and slide for quick removal. The unit is fully grounded and fused. The aluminum case has rubber feet; no mounting is required.

**B5542 & B5543****B5552****B5554**

MODELS	DESCRIPTION
B5542	VIBRATING TABLE, 3000 VPM, FOR USE WITH B5541 , 115V / 60 Hz
B5543	VIBRATING TABLE, 2400 VPM, FOR USE WITH B5541 , 230V / 50 Hz
B5552	VIBRATING TABLE, FOR USE WITH B5551 , 110V / 60 Hz
B5554	VIBRO DEAIRATOR

ACCESSORIES	DESCRIPTION
B5552A	FLASK ATTACHMENT, FOR USE WITH B5552
B5554A	ADAPTER SET FOR 2LT / 4LT FLASK, FOR USE WITH B5554

HUMIDIFIER

The **G6801** & **G6802** Humidifiers are capable of producing up to two pounds of water vapor (.09 kg) per hour. These units have a directional dome can be positioned in any direction enabling the discharged moisture to travel only a few feet while completely evaporating into the atmosphere. The rotating assembly produces centrifugal force whereby fine moisture particles are created. These units are quiet, dependable and requires very little maintenance. The **G6821** & **G6822** are very similar to the aforementioned except they are capable of producing up to five pounds (2.3 kg) of water vapor per hour.

**G6801 & G6802****G6821 & G6822**

MODELS	DESCRIPTION	OUTPUT	POWER
G6801	HUMIDIFIER	2 LB / HOUR	110V / 60 Hz
G6802			220V / 50 Hz
G6821		5 LB / HOUR	110V / 60 Hz
G6822			220V / 50 Hz

ACCESSORIES	DESCRIPTION
G6841	CONTROLLER

MULTI-PURPOSE WATER BATH

These general purpose water baths feature a microprocessor control for simple, accurate and repeatable operation. The digital display reads the setpoint and water temperature at the same time. An audible and visual warning is provided when the temperature deviates 5° C above the setpoint. The temperature range is from ambient to +90° C. The tank is constructed from polished stainless steel and the chamber walls are insulated to improve temperature stability and energy efficiency. The seamless interior tank and the integrated pump both improve water circulation and maintains temperature uniformity.



MODELS	DESCRIPTION	TANK DIM.	CAPACITY	POWER
G6881	MULTI-PURPOSE WATER BATH	18" X 12" X 7-1/2"	7 GAL	120V / 60 Hz
G6882				120V / 50 Hz
G6883		20" X 18" X 9-1/2"	14.8 GAL	120V / 60 Hz
G6883A				208-240V / 50 Hz
G6885		36" X 18" X 9-1/2"	26.6 GAL	208-240V / 60 Hz
G6886				208-240V / 50 Hz

ACCESSORIES	DESCRIPTION
G6884	REMOVABLE GABLE COVER FOR G6881 & G6882
G6887	REMOVABLE GABLE COVER FOR G6883 & G6883A
G6888	REMOVABLE GABLE COVER FOR G6885 & G6886

POLYETHYLENE WATER TANKS

These polyethylene water tanks, pictured here with the specific gravity bench are molded 1/4" thick seamless and translucent for water level visibility. They are also equipped with a drain faucet and overflow outlet. The maximum operating temperature is 140° F (60° C). The **G6891** has a capacity of 30 gal and is suitable for most tests. However, the **G6892** has a capacity of 45 gal which is more suitable for performing ASTM D-2041, AASHTO T-209 and similar tests.



MODELS	DESCRIPTION	CAPACITY	STANDARDS
G6891	POLYETHYLENE WATER TANK	30 GAL	ASTM D-2041 AASHTO T-209
G6892		45 GAL	

ACCESSORIES	DESCRIPTION
G6890	SPECIFIC GRAVITY BENCH