Ploog Engineering Company
Condensed Product Catalog

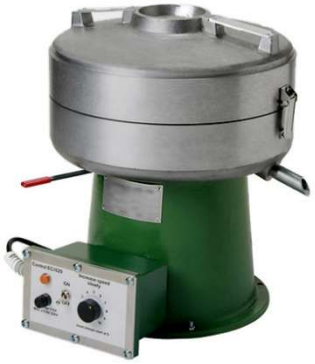
Centrifuge Extractors

Centrifuge Extractors determine the amount of bitumen content in paving mixtures. The weight before and after extraction determines the proportion.

All units have solid state electronic speed control adjustable from 0 to 3600 rpm.
Models M205 and M207 have an integral controller and a hand operated braking mechanism.
Models M210 and M211 have a remote mounted controller and electronic braking to stop rotation. Includes 100 filter papers.
Meets ASTM D2172.

		integral controller		remote controller	
		1500 g	3000 g	1500 g	3000 g
115 V	open motor	M205	M207	M210-15	M210-30
	explosion proof motor	MX205	MX207	MX210-15	MX210-30
230 V	open motor	M205-2	M207-2	M211-15	M211-30
	explosion proof motor	MX205-2	MX207-2	MX211-15	MX211-30

M255 1500 gram bowl for all electric extractors
M257 3000 gram bowl for all electric extractors
M245 1500g bowl cover
M247 3000g bowl cover



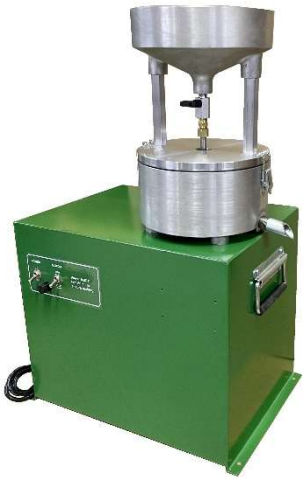
Additional Filter Paper for above.

1500 g	F265
3000 g	F267

Packages of 100.

Filterless High Speed Centrifuge

For testing in accordance with ASTM D1856.
Comes with one #18 sieve, one #200 sieve, and two beakers.

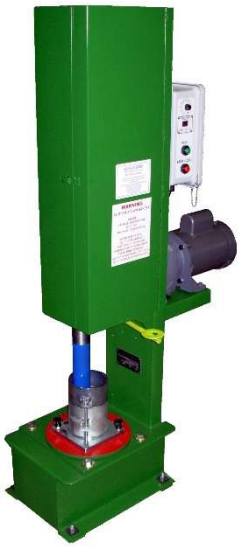


115 V	M280
230 V	M280.1

M281 replacement beaker for above.

Compactors

Compactors are for Proctor testing. This test determines the optimum moisture content of a soil being compacted, to achieve the maximum soil density when dried. Models M100 and M100.1 meet ASTM D698 and ASTM D1557. Model M105C meets CA Test 216.



Mechanical

Mechanical compactors use electric motors and electronic controls to automate the compaction process.

	115 V, 60 Hz	230 V, 50 Hz
standard model	M100	M100.1
for CA test 216	M105C	

M100 and M100.1 include one round hammer, one pie hammer, one weight to make a 5.5 lb hammer 10 lbs, one 4" mold and one 6" mold.

M100.1 includes T110 230V (1.5 kVA) transformer and 50 Hz motor.

M105C includes 10 lb round hammer, mold must be ordered separately. (M105C hammer is aligned with the center of the turntable for CA216.)

M125 calibration kit with micrometer and 50 lead cylinders for above.

M130 package of additional 100 lead cylinders for above.
Meets ASTM D2168.

Optional Upgrades for Above Mechanical Compactors

M100-B mold safety cage installed on new machine.

M100-B-1 mold safety cage for customer retrofit.

Replacement Hammers for Above Mechanical Compactors

		new style (-2 or -3*)		old style (-1*)	
		round	pie	round	pie
M100	both 5.5 lb and 10 lb adjustable	M2415	M2416	M415	M416
M105 off center	5.5 lb only (obsolete)	obsolete	obsolete	obsolete	obsolete
	10 lb only	M1415.5	M1416.5	M1415	M1416
M105C on center	10 lb only (CA216)	M3415.5	n/a	M3415	n/a

5.5 lb hammers are for the Standard Proctor test (ASTM D698). 10 lb hammers are for the Modified Proctor test (ASTM D1557). Hammers for M100 have a removable weight which allows the same hammer to be used at either 5.5 or 10 lb. Round hammers are for a 4" diameter mold. Pie shaped hammers are for a 6" diameter mold.

*New style hammers are for compactors having a “-2" or “-3" serial number (1987 or newer). Old style hammers are for compactors having a “-1" serial number (1987 or older).

Molds for Ploog compactors

		standard (solid)	split
4" dia	1/30 cu.ft.	S1410	S1411
6" dia	1/13.33 cu.ft.	S1415	S1416

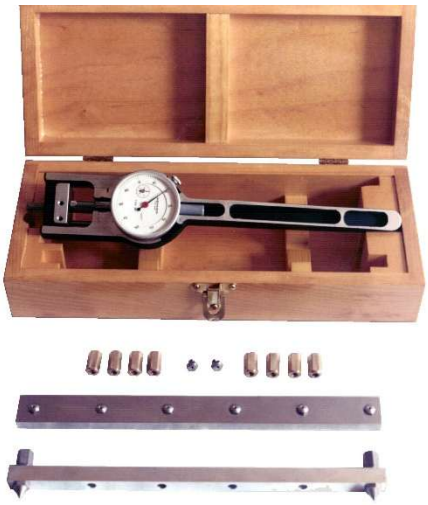
also:
S1418 LBR (Limerock Bearing Ratio) with perforated base, 6" ID x 6" tall
S1421 CBR (California Bearing Ratio) with perforated base, 6” ID x 7” tall
S1422 CBR (California Bearing Ratio) with plain base, 6” ID x 7” tall
S1412 for Texas DOT method Tex-114-E, 4" ID x 6" tall
S1419 for Texas DOT method Tex-113-E, 6" ID x 8.5" tall
S1430C CA Test 216 mold 2-7/8" ID x 16" tall

Manual Compaction Hammers
M150 manual rammer 5.5 lb x 12"
M151 manual rammer 10 lb x 18"
M154 COE (US Army Corps of Engineers) manual rammer 5.5 lb x 12"
M155 COE (US Army Corps of Engineers) manual rammer 10 lb x 18"

Strain Gauges

Commonly referred to as Demountable Mechanical (Demec) Strain Gauges, they are a simple, reliable, and relatively inexpensive means to measure relative movements across existing cracks in concrete. Also used to measure strain in masonry materials, structural components under load, structural cracks, and drying shrinkage of concrete. Meet ASTM C426.

C1300 inch analog model, includes storage case, two contact points, two contact seats, and eight brass inserts
C1320 same as above except with metric analog dial
C1330 digital indicator model, specify either inch or metric gauge body
C1301 inch master reference bar, made of Invar nickel-iron alloy for high precision.
C1302 inch punch bar
C1321 metric master reference bar, made of Invar nickel-iron alloy for high precision.
C1322 metric punch bar
C1305 contact points
C1306 contact seats
C1307 brass inserts, 100
C1308 punch bar points
C1309 punch bar nuts
C1310 replacement analog inch dial
C1311 replacement analog metric dial
C1313 replacement digital dial inch/metric



Soil Cement Apparatus

Used to make compression test specimens of soil cement in the laboratory. Meets ASTM D1632 and D1633

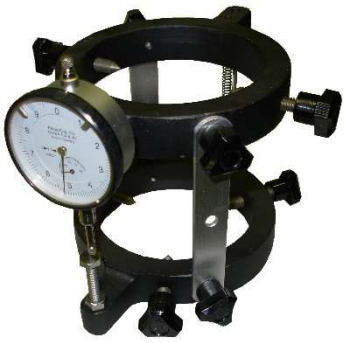
SC800 compaction machine only

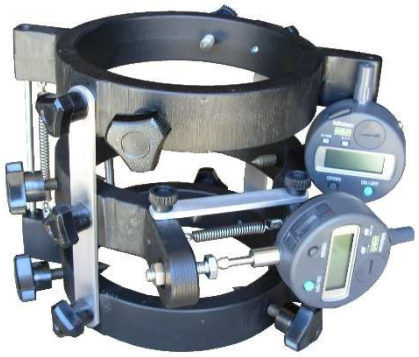
SC810 complete mold set, includes one top piston, one bottom piston, two spacer discs, one split spacer, one 9" tall mold and mold extension, and one ½" diameter bar
SC811 mold only, 9" tall
SC812 mold and mold extension
SC813 top and bottom piston
SC815 tamping rod
SC814 spacer disc

Compressometers

Used to determine Young's Modulus and Poisson's Ratio in concrete cylinders per ASTM C469. Compressometers come with one dial to measure axial strain, used for Young's Modulus. Compressometer/extensiometers have an extra collar and dial to also measure radial strain, used for Poisson's Ratio.
Available with analog inch (.0001 x .2 in) or metric (.002 x 5 mm) dials,
or with digital dials (.001 mm/.0001 in). Digital dials are both inch or metric.

		analog dial	digital dial
compressometer	2" x 4"	C1222	n/a
	3" x 6"	C1218	C1218.1
	4" x 8"	C1220	C1220.1
	6" x 12"	C1210	C1212
	8" x 16"	C1224	C1225
compressometer/extensiometer	3" x 6"	C1219	C1219.1
	4" x 8"	C1221	C1221.1
	6" x 12"	C1215	C1216
	8" x 16"	C1226	C1228

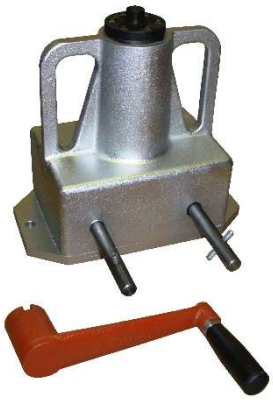




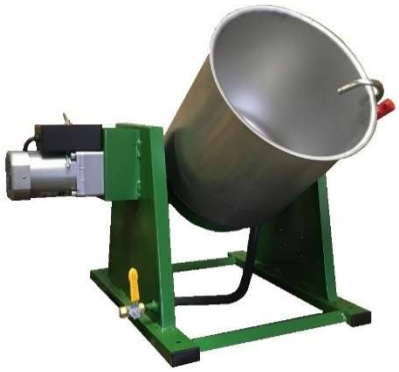
CBR (California Bearing Ratio) Equipment

The California Bearing Ratio determines the strength of pavement subgrades. It measures the force required to penetrate a soil with a standard size piston. This is then compared to the force required to obtain the same penetration in a standard material. The laboratory test is described in ASTM D1883, and the field test in ASTM D4429.

SC920 two speed CBR jack with crank
SC925.1 swivel base for SC920
SC926 CBR mold, 6" x 7" perforated base
SC927 CBR mold, 6" x 7" plain base
SC933 surcharge weight 5 lb 2-1/8" hole
SC934 same with slotted hole
SC1046 surcharge weight 20 lb, 8.5" diameter, slotted
SC1047 surcharge weight 10 lb, 8.5" diameter, slotted
SC1048 surcharge weight 10 lb, 10" diameter, 2-1/8" ID
SC1050 CBR extension set
SC1055 CBR connector set, 10 pieces
SC1055-1 connector 1.5" x 1.5" male
SC1055-2 connector 1.5" x .75" male
SC1055-3 connector 1.5" male x .75" female
SC1060 penetration piston, 1.954" diameter x 4"
SC1061 penetration piston, 1.954" diameter x 7"
SC1062 penetration piston, 2" diameter x 4"
SC1065 8 foot steel bridge support



Aggregate Washers



W600 aggregate washer, left hand or right hand with GFI cord (15 lb capacity)
W610 aggregate washer, table top (8 lb capacity)
1505P0036 extra bucket for W610

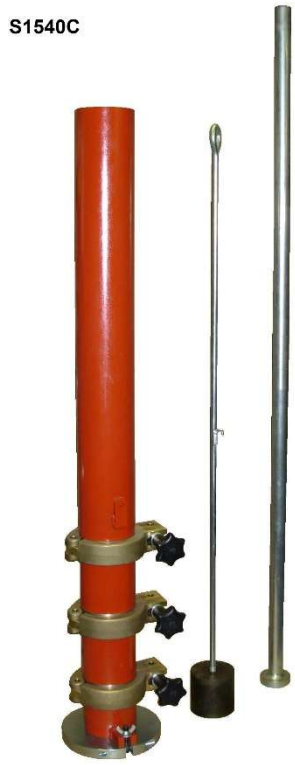
Sand Shaker

This gear driven sand shaker enables testing per ASTM D2419

SC1165 sand equivalent shaker, 115V 60 Hz
SC1166 sand equivalent shaker, 230V, 60 Hz
SC1168 sand equivalent shaker, 230V, 50 Hz

Molds, Other (not for use with Ploog compactors)

S1530 4" standard compaction mold, 1/30 cubic foot
S1531 4" split compaction mold, 1/30 cubic foot
S1532 6" standard compaction mold, 1/13.333 cubic foot
S1533 6" split compaction mold, 1/13.333 cubic foot
S1535 LBR (Limerock Bearing Ratio) with perforated base, 6" ID x 6" tall
S1545 for Texas DOT method Tex-113-E, 6" ID x 8.5" tall
SC926 CBR (California Bearing Ratio) with perforated base, 6” ID x 7” tall
SC927 CBR (California Bearing Ratio) with plain base, 6” ID x 7” tall



S1540C California impact compaction mold manual mold set