

ASPHALT EQUIPMENT

SPECIFIC GRAVITY OF SEMI-SOLID BITUMINOUS MATERIALS BI-100A



ASTM D-70

AASHTO T-228

For determining the specific gravity of semi-solid bituminous materials, asphalt cement, and soft tar pitches by use of a picnometer

Type	Parts Name	Specification	Qty
BI-101	Picnometer	Hubbart type, 24 ml capacity	1 Pc
BI-102	Picnometer	Hubbart type, 25 ml capacity	1 Pc
GE-642	Thermometer	ASTM 63 C, 8-32°C	1 Pc

Dimension (l x w x h): 20 x 20 x 20 cm

Gross Weight: 3 kg

Also Required, but not part of this set:

- GE-191 Hot Plate
- GE-363 Mixing Bowl
- GE-473 Funnel

ASPHALT EQUIPMENT

DISTILATION OF CUTBACK ASPHALTS (BI-110A)



ASTM D-402

AASHTO T-78

For measuring the amount of the more volatile constituents in cut back asphaltic product

Type	Parts Name	Specification	Qty
BI-111	Flask	Heat resistance glass 500 ml capacity, with side arm	1 Set
BI-112	Condenser	Glass, jacketed	1 Set
BI-113	Adapter	Heat resistance glass	1 Set
BI-114	Shield	Metal, asbestos lined, glass window	1 Set
BI-115	Shield and Flask Support	Variable height adjustment	1 Set
BI-116	Support and Clamp	Metal, provided with clamps	1 Set
GE-230	Bunsen Burner	Heat resource	1 Pc
GE-237	Asbestos Wire Gauze	15 x 15 cm	1 Pc
GE-649.1	Thermometer	ASTM 7 C, 2 to 300°C	1 Pc

Dimension (l x w x h): 100 x 80 x 80 cm

Gross Weight: 10 kg

Also Required, but not part of this set:

- GE-152 Triple Beam Balance
- GE-222 Butane Field Heater
- GE-473 Glass Funnel
- GE-748 Leather Gloves
- GE-203 Cooling System

ASPHALT EQUIPMENT

WATER CONTENT IN PETROLEUM PRODUCTS (BI-120)



ASTM D-95

AASHTO T-55

For determining water in crude petroleum, tars and products derived from these materials

Type	Parts Name	Specification	Qty
BI-121	Flask	Heat resistance glass, 500 ml capacity	1 Pc
BI-122	Water Trap	Glass for receiving distilled water	1 Pc
BI-123	Condenser	Glass, jacketed	1 Pc
BI-124	Support Assembly	For holding apparatus assembly	1 Set
BI-125	Flask Support	Variable height adjustment	1 Pc
GE-230	Bunsen Burner	Heat resource	1 Pc
GE-237	Asbestos Wire Gauze	15 x 15 cm	1 Pc

Dimension (l x w x h): 25 x 25 x 60 cm

Gross Weight: 10 kg

Also Required, but not part of this set:

- GE-152 Triple Beam Balance
- GE-203 Cooling System
- GE-222 Butane Field Heater
- GE-473 Glass Funnel
- GE-748 Leather Gloves

ASPHALT EQUIPMENT

SAYBOLT VISCOSIMETER (BI-150A)



ASTM D-88

AASHTO T-72

For determining saybolt viscosity of petroleum products at specified temperature between 21.1 and 98.8 C.

Type	Parts Name	Specification	Qty
BI-151	Viscosimeter	Stainless steel bath, motor stirrer, 220 V-AC, Thermostat control panel, 2 tubes capacity	1 Set
BI-154	Viscosimeter Tube	Brass, seamless, provided with tips and tip wrench	2 Pcs
BI-155	Tube Wrench	T-wrench	1 Pc
BI-156	Pipet	Brass with rubber bulb	1 Pc
BI-157	Thermometer Support	Alumunium plate	2 Pcs
BI-158	Flask	60 ml capacity	2 Pcs
BI-159	Funnel	Brass, 60°angle, complete with mesh 100 / mesh 200	1 Pc
GE-644.1	Thermometer	ASTM 17 C, 19 to 27°C	2 Pcs
GE-644.2	Thermometer	ASTM 18 C, 34 to 42°C	2 Pc
GE-644.3	Thermometer	ASTM 19 C, 49 to 57°C	2 Pcs

GE-644.4	Thermometer ASTM	20 C, 57 to 65°C	2 Pc
GE-644.5	Thermometer ASTM	21 C, 79 to 87°C	2 Pcs
GE-644.6	Thermometer ASTM	22 C, 95 to 103°C	2 Pc

Dimension (l x w x h): 70 x 70 x 70 cm

Gross Weight: 25 kg

Also Required, but not part of this set:

- GE-700 Stop Watch

ASPHALT EQUIPMENT

FLASH AND FIRE POINT BY CLEVELAND OPEN CUP (BI -200)



ASTM D-92

AASHTO T-48

For determining flash and fire point by cleveland open cup for petroleum product and other liquids, except fuel oils and materials having an open flash point below 79 C (173 F) as determined by cleveland open cup tester

Type	Parts Name	Specification	Qty
BI-201	Flash Cup	Brass, insulation handle	1 Pc
BI-202	Cleveland Gas		
Consist of :			
BI-202.1	Burning Pipe	Brass pipe, insulation handle	1 Pc
BI-202.2	Flash Cup Plate	Steel Plate	1 Pc
BI-202.3	Support	Adjustable height metal, thermometer holder	1 Pc
BI-203	Y-Connector	Brass, provided with gas hose	1 Set
GE-230	Bunsen Burner	Heat resources	1 Pc
GE-648	Thermometer	ASTM 11 C, 6 to 400°C	1 Pc

Dimension (l x w x h): 150 x 30 x 30 cm

Gross Weight: 10 kg

Also Required, but not part of this set:

- GE-222 Butane field heater
- GE-363 Mixing Bowl

ASPHALT EQUIPMENT

FLASH AND FIRE POINT BY CLEVELAND OPEN CUP (BI-200A)



ASTM D-92

AASHTO T-48

For determining flash and fire point by cleveland open cup for petroleum product and other liquids, except fuel oils and materials having an open flash point below 79 C (173 F) as determined by cleveland open cup tester

Type	Parts Name	Specification	Qty
BI-201	Flash Cup	Brass, insulation handle	1 Pc
BI-202A	Cleveland Electric	Electric, 220 V-AC, heating speed control	1 Set
GE-648	Thermometer ASTM	11 C, 6 to 400°C	1 Pc

Dimension (l x w x h): 100 x 50 x 50 cm

Gross Weight: 20 kg

Also Required, but not part of this set:

- GE-363 Mixing Bowl

ASPHALT EQUIPMENT

SOFTENING POINT TEST SET (BI-210A)



ASTM D-36

AASHTO T-53

For determining softening point of asphalt and tar using the ring and ball method

Type	Parts Name	Specification	Qty
BI-211	Shouldered Ring Assembly	Machined brass, height adjustment	1 Set
BI-212	Standard Ball	Steel ball, 9.52 mm dia.	2 Pcs
BI-213	Flash Support	Mesh wire gauze variable height adjustment	1 Set
BI-214	Support Assembly	Metal, provided with thermometer holder	1 Set
GE-230	Bunsen Burner	Heat resources	1 Pc
GE-237	Asbestos Wire Gauze	15 x 15 cm	1 Pc
GE-424	Beaker Glass	1000 ml capacity	1 Pc
GE-646.1	Thermometer	ASTM 15 C, 2 to 80°C	1 Pc

Dimension (l x w x h): 90 x 30 x 30 cm

Gross Weight: 10 kg

Also Required, but not part of this set:

- CO-473 Ladle
- GE-222 Butane Field Heater
- GE-363 Mixing Bowl
- GE-700 Stop Watch
- GE-820 Spatula

ASPHALT EQUIPMENT

LOSS ON HEATING/THIN-FILM TEST (BI-220A)



ASTM D-6/D-1754

AASHTO T-47/T-179

For determining the loss in mass (exclusive of water) of asphaltic compounds after heating

Type	Parts Name	Specification	Qty
BI-221	Resolving Shelf Oven	Variable temperature oven, cast aluminium rotating shelf, 5-6 RPM, external electromotor drive, 220 V-AC, 1400 Watt.	1 Set
GE-390	Thin Box	55 mm i.d. approx. aluminium sheet, seamless	12 Pcs
GE-643	Thermometer	ASTM 13 C, 155 to 170°C	1 Pc

Dimension (l x w x h): 100 x 100 x 100 cm

Gross Weight: 45 kg

Also Required, but not part of this set:

- CO-473 Ladle
- GE-150 Cent O-Gram Balance
- GE-222 Butane Field Heater
- GE-363 Mixing Bowl
- GE-748 Leather Gloves

ASPHALT EQUIPMENT

LABORATORY PENETRATION TEST SET (BI-230)



ASTM D-5

AASHTO T-49

For determining consistency of bituminous materials

Type	Parts Name	Specification	Qty
BI-231	Penetrometer	Cast aluminium frame, 4 1/2" dial indicator, 400 x 0.1 mm dial, single knob control, weight of needle and plunger: 50 gr	1 Set
BI-232	Penetration Needle	Steel needle with brass shank, 1 mm dia.	2 Pcs
BI-233	Transfer Dish	Glass, 100 mm i.d approx.	1 Pc
GE-390	Thin box	55 mm i.d approx, aluminium sheet, seamless	2 Pcs

Dimension (l x w x h): 50 x 50 x 70 cm

Gross Weight: 20 kg

Also Required, but not part of this set:

- GE-222 Butane Field Heater
- GE-363 Mixing Bowl
- GE-600 Thermometer

ASPHALT EQUIPMENT

LABORATORY PENETRATION TEST SET (BI-230A)



ASTM D-5

AASHTO T-49

For determining consistency of bituminous materials

Type	Parts Name	Specification	Qty
BI-231A	Penetrometer	Electric control box, 220 V-AC variable timer, ON-OFF and START switch for automatic plunger release cast aluminium frame, 4 1/2" dial indicator, 400 x 0.1 mm dial, knob control : manual + electric weight of needle and plunger : 50 gr.	1 Set
BI-232	Penetration Needle	Steel needle with brass shank, 1 mm dia.	2 Pcs
BI-233	Transfer Dish	Glass, 100 mm i.d approx.	1 Pc
GE-390	Thin box	55 mm i.d approx, aluminium sheet, seamless	2 Pcs

Dimension (l x w x h): 50 x 50 x 70 cm

Gross Weight: 25 kg

Also Required, but not part of this set:

- GE-363 Mixing Bowl
- GE-600 Thermometer

ASPHALT EQUIPMENT

DUCTILITY OF BITUMINOUS MATERIALS TEST SET (BI - 250)



ASTM D-113

AASHTO T-51

For determining ductility of formed asphalt/cement or semi solid bitument by measuring distance of elongation before breaking point when two end of briquet are pulled a part at a apecific speed and temperature/

Type	Parts Name	Specification	Qty
BI-251	Ductility Mold	Form sample shape and hold end during test, made of brass, provided with base	1 Set
BI-253	Ductility Machine	Electric 220 V-AC, stainless steel bath, provided with temperature control. Pulling speed: 5 cm/min Travel range: 150 cm	1 Set

Dimension (l x w x h): 244 x 80 x 80 cm

Gross Weight: 150 kg

Also Required, but not part of this set:

- BI-254 Glycerin
- BI-255 Talk
- GE-222 Butane Field Heater
- GE-363 Mixing Bowl
- GE-600 Thermometer
- GE-820 Spatula

ASPHALT EQUIPMENT

CENTRIFUGE EXTRACTOR TEST SET (BI-300)



ASTM D-2172

For determining bitument content in hot mixed paving mixture and pavement sample

AASHTO T-164

Type	Parts Name	Specification	Qty
BI-301	Centrifuge Extractor	Centrifuge Extractor Hand operated, alumunium housing removeable cover abd bowl, 1500 gr capacity.	1 Set
BI-303	Filter Paper	Low ash filter paper	1 Box

Dimension (l x w x h): 60 x 40 x 60 cm

Gross Weight: 50 kg

Also Required, but not part of this set:

- BI-304 Solvent (CCL4)
- GE-152 Triple Beam Balance
- GE-174 Drying Oven
- GE-363 Mixing Bowl
- GE-403 Graduated Cylinder
- GE-748 Leather Gloves

ASPHALT EQUIPMENT

CENTRIFUGE EXTRACTOR TEST SET (BI-300A)



ASTM D-2172

AASHTO T-164

For determining bitument content in hot mixed paving mixture and pavement sample

Type	Parts Name	Specification	Qty
BI-305	Centrifuge Extractor	Electric, 220 V-AC, variable speed DC motor up to 3600 rpm, alumunium housing, removable cover and bowl, 1500 gram capacity.	1 Set
BI-303	Filter Paper	Low ash filter paper	1 Box

Dimension (l x w x h): 60 x 40 x 60 cm

Gross Weight: 50 kg

Also Required, but not part of this set:

- BI-304 Solvent (CCL4)
- GE-152 Triple Beam Balance
- GE-174 Drying Oven
- GE-363 Mixing Bowl
- GE-403 Graduated Cylinder
- GE-748 Leather Gloves

ASPHALT EQUIPMENT

REFLUX EXTRACTOR TEST SET (BI-310)



ASTM D-2172

AASHTO T-164

For determining bitument content in hot mixed paving mixture and pavement sample

Type	Parts Name	Specification	Qty
BI-311	Reflux Extractor		
Consist of :			
BI-311.1	Glass Jar	Pyrex 6" i.d approx.	1 Pc
BI-311.2	Funnel	Two wire mesh screen cone	1 Pc
BI-311.3	Condensor	Brass/copper	1 Pc
BI-312	Hot Plate	220 V-AC, 1000/1500 Watt	1 Set
BI-313	Filter Paper	Low ash filter paper	1 Box
GE-216	Asbestos Wire Gauze	15 cm x 15 cm	1 Pc

Dimension (l x w x h): 90 x 50 x 50 cm

Gross Weight: 15 kg

Also Required, but not part of this set:

- BI-304 PCE /TCE
- GE-152 Triple Beam Balance
- GE-174 Drying Oven
- GE-203 Cooling System

ASPHALT EQUIPMENT

MARSHALL TEST SET (BI-320)



ASTM D-1559

AASHTO T-245

For determining the resistance to plastic flow of cylinder specimen of bituminous paving mixture loaded on the lateral surface by means of the marshall apparatus.

Type	Parts Name	Specification	Qty
BI-321	Compression Machine	Steel frame, electric, 220 V-AC, 1/2 HP, 1 Phase, speed: 2" per minute	1 Set
BI-322	Compaction Mold	Machined steel, galvanized, 4" dia., 3" height, with collar and base plate	1 Set
BI-323	Stability Mold	Cast aluminium, split type 4" i.d., 4" wide	1 Set
BI-324	Compaction Hammer	Machined steel, galvanized, 10 lbs, hammer weight, 18" drop height	1 Set
BI-326	Compaction Pedestal	Wooden base with steel platen	1 Pc
BI-327	Compaction Mold Holder	Machined steel, quick clamping system	1 Set
BI-328	Extruder	Steel frame, hydraulic system	1 Set
BI-329	Flow Meter	Cast aluminium, clamping bolt, with dial indicator 30 x 0.01 mm	1 Set
GE-200	Water Bath	Stainless steel, water heater 220 V-AC, thermostat 30-85°C	1 Set
GE-101.6	Proving Ring	6000 lbs capacity	1 Set

Dimension (l x w x h): 67 x 50 x 100 cm

Gross Weight: 200 kg

Also Required, but not part of this set:

- GE-161 Digital Balance
- GE-222 Butane Field Heater
- GE-363 Mixing Bowl
- GE-622 Dial Thermometer

ASPHALT EQUIPMENT

CORE DRILLING TEST SET (BI-400A)



For cutting core samples from asphalt, concrete and other material on the road, run ways and structures.

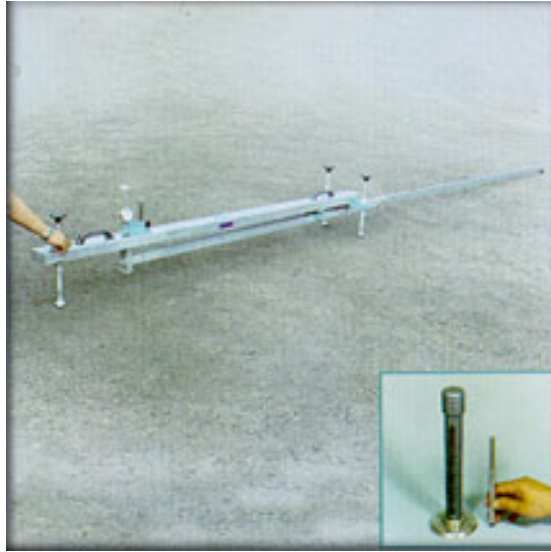
Type	Parts Name	Specification	Qty
BI-401	Core Drilling Machine	Cast aluminium frame, gasoline engine 5,5 HP, 4 cycle vertical drilling position: rubber caster, up to 4" dia. bit	1 Set
BI-406	Diamond Bit	4" inner dia.	1 Pc
BI-407	Sample Tong	4" dia.	1 Pc
BI-408	Breaking Strip	Galvanized steel	1 Pc
BI-409	Spanner	Steel 42 mm and 32 mm	2 Pcs

Dimension (l x w x h): 97 x 57 x 150 cm

Gross Weight: 145 kg

ASPHALT EQUIPMENT

BENKLEMEN BEAM (BI-450)



For measuring the deflection of flexible pavement under the action of moving wheel loads.

Type	Parts Name	Specification	Qty
BI-451	Fixed Beam	Alumunium profile frame, 3 points adjuster, with vibrator and dial holder. Alumunium strip arm, 1: 2 lever ratio	1 Set
BI-455	Tire Gauge	120 psi capacity	1 Pc
BI-456	Surface Thermometer	Range 30 x 0.01 mm	1 Pc

Dimension (l x w x h): 244 x 50 x 50 cm

Gross Weight: : 45 kg