MBT

PT.MBT UTAMA

Construction Material Testing Equipment



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(SINCE 1974)



HA. PAWENNEI BEDDU DALENG

Pendiri & Owner pt.mbt utama

PT. MBT UTAMA

- Produksi, Suplai, Trading
- Impor, Expor, Training, Service
- Dan Recondition, Peralatan laboratorium
- Material Testing Equipment (MTE)
- Untuk Construction.

TABLE OF CONTENT

Company Profile	01
Unit Content	02
Soil Equipment	06
Agreegate Equipment	24
Cement Equipment	32
Concrete Equipment	35
Asphalt equipment	42
Miscelaneous Equipment	48
General Equipment	49
Hydraulic Equipment	58
Mobile Laboratory	59
Other Equipment	60
Index By Type	61



Anggota Asosiasi Pengusaha MTE
ASPEMTEINDO

Company Profile



PT. MBT UTAMA

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PT.MBT UTAMA

Pelopor produksi Dalam negeri untuk peralatan Laboratorium Material Testing Equipment sejak tahun 1974, dikenal dengan trademark MBT oleh para costumer yang aktivitas bisnisnya didukung penuh oleh Bank Bapindo saat itu, dengan skema kredit modal kerja yang mengantarkan MBT menjadi Debitur Prima Utama Bapindo saat itu.

Namun setelah Bapindo di likuidasi masuk ke Bank Mandiri, skema yang sudah menjadi acuan kerja produksi, pemasaran dan costumer, tidak lagi bisa dipertahankan, sehingga MBT terpaksa tidak dapat memenuhi beberapa kewajiban jatuh tempo, dan berakhir di tangan BPPN saat itu.

Sehubungan dengan hal tersebut, management MBT segera menetapkan kebijakan untuk mendirikan beberapa group usaha kecil mandiri pada bidang produksi, trading, pelatihan dan kaliberasi, yang sampai saat ini berkembang menjadi perusahaan yang berdiri sendiri dengan badan hukum usaha masing-masing.

Dan sejak saat PT MBT UTAMA masuk perawatan BPPN, sampai semua asset MBT di ambil alih oleh BPPN, maka praktis PT MBT UTAMA menghentikan kegiatannya saat itu.

Alhamdulillah atas permintaan para costumer dan good will yang dimiliki MBT sejak tahun 1974 sebagai pelopor produsen MTE dalam negeri, maka Desember 2012 ini, PT MBT UTAMA, hadir kembali untuk memberikan pelayanan costumer dengan skema khusus MBT JILID DUA, bersama catalog edisi 12 bulan Desember 2012.



Table of Content

Hand Bor....6
Ladle....6
Butane Field Heater....6
Mixing Bowl....6
Sample Can....6
Plastic Bag....6
Wire Saw....6
Drilling Rod....6
Iwan Type Auger....6
Straight Choping Auger....6
T-Piece....6
Tube Adaptor....6
Turning Rod....6
Sampling Tube....6
Rod Head....6
Parafin....6
Vertical Guide....6
Standard Penetration Test....6
Split Barrel Sampler....6
Sampling Rod....6
Drive Weight Assembly....6
Hammer....6
Anvil....6
Guide Rod....6
Tripod Assembly....6
Tripod Stand....6
Pulley....6
Rope....6
Sample Extruder....6
Triple Beam Balance....7
Sample Extruder-electric....7
Dynamic Cone Penetrometer....7
Handle....7
Penetration Rod....7
Cone....7
Penetration Scale....7
Carrying Bag....7
Corps of Engineer Soil Surface Sampler....7
Moisture Content Test Set....7
Manometer - cap. 60 Kg/cm3....8
Manometer - Cap. 500 Kg/cm3....8
Levels....8
Leather Gloves....8
Roll Meter....8
Hydraulic Oil....8
Dutch Cone Penetrometer-2.5 tons capacity....8
Press-In Apparatus....8
Sounding Rod....8
Plunger Rod....8
Adaptor....8
Push Adaptor....8
Pull Adaptor....8
Spiral Anchor....8
Spiral Anchor....8
Handle and T-Piece....8
Mantel Cone....8
Friction Cone....8
Wrenches Set....8
Fasten Press....8
Fasten Press - Long....8
Fasten Press - Short....8
Dutch Cone Penetrometer-5 tons capacity....8
Plate Bearing Test Set....9
Manometer - 6" dia. 50 ton....9
Hydraulic Jack....9
Circular Bearing Plate - 6" dia....9
Circular Bearing Plate - 10" dia....9
Circular Bearing Plate - 12" dia....9
Circular Bearing Plate - 18" dia....9
Circular Bearing Plate - 24" dia....9
Circular Bearing Plate - 30" dia....9
Square Bearing Plate....9
Field CBR Test Set....9
Mechanical Jack....9
Mechanical Jack....9
Swivel Hand....9
Field Penetration Piston....9
Extension Set....9
Penetration Piston....9
Reference Beam....9
Circular Surcharge Weight....9
Slotted Surcharge Weight - 8" dia. 10 lbs....9
Slotted Surcharge Weight - 8.5" dia 20 lbs....9
Proving Ring Penetrometer....10
Holder....10
Carrying Case....10
TVA Penetrometer....10
Penetration Rod and Chamber....10
Penetration Rod....10
Hydraulic Chamber....10
Penetration Needle....10
TVA Manometer....10
Liquid Limit Test Set....10
ASTM Grooving Tool....10
Casagrande Grooving Tool....10
Liquid Limit Device-Hand Operated....11
Liquid Limit Device-electric....11
Plastic Limit Test Set....11
Plastic Limit Plate....11
Reference Rod....11
Shrinkage Limit Test Set....12
Prong Plate....12
Monel Shrinkage Dish....12
Crystalizing Dish....12
Dish....12
Overlow Dish....12
Mercury....12
Hydrometer Analysis Test Set....12
Hydrometer A (152 H)....12
Hydrometer B (151 H)....12
Mechanical Stirer....12
Dispersion Cup....12
Hydrometer Jar Bath....12
Bath....12
Water Heater....12
Dispension Agent....12
Sodium Hexa....12
Water Glass....12
Hydrometer Jar....12
Mechanical End Over End Shaker....13
Vacuum Stand....13
Specific Gravity (Heating Method)....13
Specific Gravity of soil sample (Vacuum Method)....13
Vacuum Stand....13
Filter Paper....14
Specific Gravity of soil/aggregate sample (Vacuum Method)....14
Vacuum Hose....14
Compaction Test Set....14
Standard Proctor Mold - 4" i.d.....14
Standard Proctor Mold - 6" i.d.....14
Standard Proctor Hammer - 5.5 lbs....14
Standard Proctor Hammer - 10 lbs....14
Extruder....14
Laboratory CBR Test Set-electric....14
Electrical Loading machine....14
CBR Mold....14
Spacer Dish....14
Cutting Edge....14
Circular Surcharge Weight....14
Slotted Surcharge Weight....14
Laboratory CBR Test Set-Hand operated....15
Mechanical Loading Machine....15
Combination Permeameter....16
Sample Chamber....16
Funnel....16
Frame....16
Porous Stone....16
Frame....16
Compaction Permeameter....16
Compaction Permeameter Test Set....16
Sand Cone Test Set....16
Sand Cone Bottle....16
Sand Cone Funnel....16
Base Plate....16
Graduated Sand....16
Speedy Moisture Tester....17
Speedy Gauge....17
Speedy Balance....17
Calcium Carbide....17
Measuring Spoon....17
Crushing Ball....17
Cleaning Brush....17
Carrying Case....17
Moisture Content Test Set....17
Unconfined Compression Machine-Hand Operated....17
Unconfined Compression Machine - electric....17
Sample Tube....17
Sample Tube....17
Sample Tube....17
Sample Tube....17
Split Sample Tubes....17
Split Sample Tubes....17
Split Sample Tubes....17
Split Sample Tubes....17
Extruder....17
Extruder....17
Extruder....17
Extruder....17
Trimmer....17
Unconfined Compression Machine-Electric....18
Consolidation Test Set....18
Consolidation Frame....18
Frame....18
Loading Set....18
Consolidometer....18
Loads....18
Load - 500 gr....18
Load - 1000 gr....18
Load - 2000 gr....18
Load - 4000 gr....18
Load - 8000 gr....18
Sample Tube....18
Direct Shear Test Set - hand operated....19
Direct Shear Test Set - electric....19
Loading Machine....19
Frame....19
Loading Hanger....19
Shear Box....19
Relative Density Set....20
Triaxial Test Set - 1 ton....20
Triaxial Compression Machine....20
Load Measuring....20
Displacement Measuring....20
Control Panel....20
Triaxial Cell....20
Air Compressor....20
Vacuum Pump....20
O-Ring - 35 mm....20
O-ring - 50 mm....20
Sunction Membrane - 35 mm....20
Sunction Membrane - 50 mm....20
Two-way Split Former - 35 mm....20
Two-way Split Former - 50 mm....20
Sample Tube & Extruder - 35 mm....20
Sample Tube & Extruder - 50 mm....20
Rubber Membrane - 35 mm....20
Rubber Membrane - 50 mm....20
Membrane Sealing Ring - 35 mm....20
Membrane Sealing Ring - 50 mm....20
Hydraulic Ducth Cone Penetrometer 25 kN 2,5 ton capacity....21
Hydraulic Ducth Cone Penetrometer 25 kN 2,5 ton capacity....21
Hydraulic Pump....21
Sounding Rod & Plunger....21
Push and Pull Adaptor....21
Spiral Anchor....21
Mantel Cone....21
Friction Cone....21
Handle and T-Piece....21
Wrench Set....21
Long Fasten Press....21
Short Fasten Press....21
Manometer - 60 Kg/cm2....21
Manometer - 250 Kg/cm2....21
Triaxial Test Set - 300 kgf....21
Hydraulic Ducth Cone Penetrometer 50 kN 5 ton capacity....22
Hydraulic Ducth Cone Penetrometer 50 kN 5 ton capacity....22
Hydraulic Pump....22
Sounding Rod & Plunger....22
Push and Pull Adaptor....22
Spiral Anchor....22
Mantel Cone....22
Friction Cone....22
Handle and T-Piece....22
Wrench Set....22
Long Fasten Press....22

Short Fasten Press 22
Manometer - 60 Kg/cm2 22
Manometer - 500 Kg/cm2 22
Hydraulic Ducth Cone Penetrometer 100 kN 10 ton capacity 22
Hydraulic Ducth Cone Penetrometer 100 kN 10 ton capacity 22
Hydraulic Pump 22
Sounding Rod & Plunger 22
Push and Pull Adaptor 22
Spiral Anchor 22
Mantel Cone 22
Friction Cone 22
Handle and T-Piece 22
Wrench Set 22
Long Fasten Press 22
Short Fasten Press 22
Manometer - 60 Kg/cm2 22
Manometer - 1000 Kg/cm2 22
Water Level Indicator 22
Water Level Indicator - 50 meter cable marked 22
Water Level Indicator - 100 meter cable marked 22
GeoGauge 23
Infrared (IR) serial interface adapter 23
Verifier Mass - 10 Kg 23
Percentage Refusal Density 23
Vibrating Hammer 23
Small Tamping Foot 23
Large Tamping Foot 23
Shank - 300 mm 23
Sample Splitter 24
Sample Splitter - 3/2", 12 holes 24
Sample Splitter - 1", 12 holes 24
Sample Splitter - 3/2", 8 holes 24
Sample Splitter - 2", 8 holes 24
Sample Splitter - 2 1/2", 8 holes 24
Sample Splitter - 3", 8 holes 24
Gilson Sample Splitter 24
Precission Sample Splitter 24
Length Gauge 24
CD 100 - Core Drill 24
CD 100 - Core Drill 220V single phase 24
Core Drilling bit 24
Sieve 4" 25
Sieve 3 1/2" 25
Sieve 3" 25
Sieve 2 1/2" 25
Sieve 2" 25
Sieve 1 3/4" 25
Sieve 1 1/2" 25
Sieve 1 1/4" 25
Sieve 1" 25
Brass Round Sieve 25
Sieve 7/8" 25
Sieve 3/4" 25
Sieve 5/8" 25
Sieve 1/2" 25
Sieve 7/16" 25
Sieve 3/8" 25
Sieve 5/16" 25
Sieve 1/4" 25
Sieve # 4 25
Sieve # 8 25
Sieve # 10 25
Sieve # 12 25
Sieve # 16 25
Sieve # 20 25
Sieve# 30 25
Sieve # 40 25
Sieve # 50 25
Sieve # 60 25
Sieve # 70 25
Sieve # 80 25
Sieve # 100 25
Sieve # 120 25
Sieve # 140 25
Sieve # 170 25
Sieve # 200 25
Pan & Cover 25
Sieve 4" 25
Sieve 3 1/2" 25
Sieve 3" 25
Sieve 2 1/2" 25
Sieve 2" 25
Sieve 1 3/4" 25
Stainless Steel Round Sieve 25
Sieve 1 1/2" 26
Sieve 1 1/4" 26
Sieve 1" 26
Sieve 7/8" 26
Sieve 3/4" 26
Sieve 5/8" 26
Sieve 1/2" 26
Sieve 7/16" 26
Sieve 3/8" 26
Sieve 5/16" 26
Sieve 1/4" 26
Sieve # 4 26
Sieve # 8 26
Sieve # 10 26
Sieve # 12 26
Sieve # 16 26
Sieve # 20 26
Sieve# 30 26
Sieve # 40 26
Sieve # 50 26
Sieve # 60 26
Sieve # 70 26
Sieve # 80 26
Sieve # 100 26
Sieve # 120 26
Sieve # 140 26
Sieve # 170 26
Sieve # 200 26
Pan & Cover 26
Wooden Sieve 4" 26
Wooden Sieve 3 1/2" 26
Wooden Sieve 3" 26
Wooden Sieve 2 1/2" 26
Wooden Sieve 26
Wooden Sieve 2" 26
Wooden Sieve 1 3/4" 26
Wooden Sieve 1 1/2" 26
Wooden Sieve 1 1/4" 26
Wooden Sieve 1" 26
Wooden Sieve 7/8" 26
Wooden Sieve 3/4" 26
Wooden Sieve 5/8" 26
Wooden Sieve 1/2" 26
Wooden Sieve 7/16" 26
Wooden Sieve 3/8" 26
Wooden Sieve 5/16" 26
Wooden Sieve 1/4" 26
Wooden Sieve # 4 26
Wet Washing Sieve - 4" depth 26
Wet Washing Sieve - 8" depth 26
Sieve Shaker - Hand Operated 27
Sieve Shaker - Electric 27
Sand Equivalent Test Set 27
Graduated Cylinder 27
Stoper Assembly 27
Weight Foot Assembly 27
Stock Solution 27
Carrying Case 27
Sand Equivalent Shaker 27
Bottle Roller 27
Los Angeles Abrassion Machine 28
Los Angeles Abrassion Machine Frame 28
Drum 28
Automatic Counter 28
Power 28
Drum Speed 28
Steel Ball 28
Catching Plan 28
Aggregate Impact Test 28
Impact Machine 28
Cylindrical Measure 28
Tamping Rod 28
Aggregate Crushing Value Apparatus 28
Cylinder 28
Plunger 28
Base Plate 28
Metal Measure 28
Tamping Rod 28
Aggregate Crushing Value Apparatus 29
Cylinder 29
Plunger 29
Base Plate 29
Tamping Rod 29
Bulk Density Test Set 29
Container - cap. 3 litrer 29
Container - cap. 10 liter 29
Container - cap. 15 liter 29
Container - cap. 30 liter 29
Absorption of Fine Aggregate Test Set 29
Cone and Tamper 29
Cone 29
Tamper 29
Metal Measure 29
Sample Basket 30
Sample Basket 30
Specific Gravity & Absorption of Coarse AggregateTest Set-Hand Operated 30
Dunagan Balance 30
Mounting Table 30
Water Container 30
Specific Gravity & Absorption of Coarse AggregateTest Set-Electric 30
Dunagan Balance 30
Mounting Table 30
Water Container 30
Organic Impurities Test Set 30
Glass Bottle 30
Stock Solution 30
Standard Color Chart 30
Ro-Tap Sieve Shaker 31
Soundness Test Set 31
Stock Solution 31
Skid Tester 31
Air Permeability of Portland Cement by Fineness Device 32
Stand 32
U-Tube Manometer 32
Permeabillity Cell 32
Perforated Disc 32
Plunger 32
Stock Solution 32
Filter Paper 32
Standard Cement 32
Specific Gravity of Hydraulic Cement Test 32
Le Chatelier Flask 32
Kerosene 32
Time of Setting of Hydraulic Cement by Vicat Needle 32
Vicat Apparatus 32
Initial Needle 32
Final Needle 32
Conical Ring Mold 32
Glass Plate 32
Compressive Strenght of Hydraulic Cement Mortar-Hand Operated 33
Compressive Strength of Hydraulic Cement Mortar-Electric 33
Cement Cube Mold 33
Cement Cube Mold 33
Flow Table 33
Frame 33
Flow Mold 33
Flow Table 33
Frame 33
Flow Mold 33
Tamper 33
Compression Machine-100kN Capacity 33
Compression Machine-250kN Capacity 34
Blaine Apparatus 34
Vibrating Machine for 70.7 mm Cubes 34
Vibrating Machine - 220V 1Ph 34
Cube Mould for 70.7mm specimens with base plate 34
Jolting Table 34
Jolting Table Machine - 220V 1Ph 34
Three-gang mould 34
Concrete Cylinder Mold 35
Concrete Cylinder Mold 35
Concrete Cube Mold 35
Concrete Cube Mold 35
Concrete Beam Mold 35
Concrete Beam Mold 35
Compression Machine-Electric 35
Compression Machine-Hand Operated 36

Compression Machine-Hand Operated 1500 kN capacity 36
Compression Machine-Hand Operated 2000 kN capacity 36
Compression Machine-Hand Operated 3000 kN capacity 36
Compression Machine-Electric 1500 kN capacity 36
Compression Machine-Electric 2000 kN capacity 36
Compression Machine-Electric 3000 kN capacity 36
Hydraulic Concrete Beam Testing Machine ..37
Mechanical Concrete Beam Testing Machine 37
Compacting Factor Apparatus 37
Slump Test Set....37
Slump Cone....37
Inspection Scale 37
Base Plate....37
Slump Test Set....38
Base Plate....38
Vebe Time 38
Vibro Consistometer....38
Air Content of Fresh Mixed Concrete 38
Air Entrainment Meter....38
Carrying Case....38
Vibrating Table 38
Vertical Cylinder Capping Set 39
Vertical Cylinder Capper....39
Capping Compound Warmer....39
Capping Laddle 39
Cylinder Carrier....39
Capping Compound....39
Modulus of Elasticity in Concrete Test Set 39
Split Tensile Test 39
Concrete Test Hammer....39
Calibration Anvil....40
Laboratory Concrete Mixer....40
Drying Shrinkage and Moisture Apparatus....40
Large Laboratory Concrete Mixer 40
Flexural Testing Machine....40
Specimen Cutting Machine 41
Demec Mechanical Strain Gauge 41
Multi Flow Pan Mixer 41
Specific Gravity of Semi-Solid Bituminous Materials 42
Picnometer - 24 ml cap. 42
Picnometer - 25 ml cap. 42
Distilation of Cutback Asphalt 42
Flask 42
Condenser 42
Adapter 42
Shield....42
Shield and Flask Support....42
Support and Clamp 42
Water Content in Petroleum Products 42
Flask 42
Water Trap....42
Condenser 42
Support Assembly 42
Flask Support 42
Saybolt Viscosimeter 43
Viscosimeter 43
Viscosimeter Tube 43
Tube Wrench....43
Pipet....43
Thermometer Support....43
Flask....43
Funnel....43
Flash and Fire Point by Cleveland Open Cup - Gas....43
Flash And Fire Point By Cleveland Open Cup - Electric 43
Flash Cup 43
Cleveland Gas 43
Burning Pipe 43
Flash Cup Plate 43
Support....43
Cleveland Electric....43
Y-Connector 43
Softening Point Test Set 44
Shouldered Ring Assembly....44
Standard Ball 44
Flash Support 44
Support Assembly 44
Loss On Heating/Thin-Film Test 44
Resolving Self Oven 44
Laboratory Penetration Test Set-Hand Operated 44
Penetrometer 44
Penetration Needle 44
Transfer Dish....44
Laboratory Penetration Test Set-Electric 45
Penetrometer electric control box 45
Penetration Needle 45
Transfer Dish....45
Ductility of Bituminous Material Test Set 45
Ductility Mold 45
Ductility Machine 45
Glyserin....45
Talk....45
Centrifuge Extractor Test Set-Hand Operated....45
Centrifuge Extractor....45
Filter Paper....45
Solvent (CCL4) 45
Centrifuge Extractor Test Set-Electric....46
Centrifuge Extractor Electric....46
Reflux Extractor Test Set 46
Reflux Extractor....46
Glass Jar....46
Funnel....46
Condensor....46
Hot Plate 46
Filter Paper....46
Marshall Test Set 46
Compression Machine 46
Compaction Mold 46
Stability Mold 46
Compaction Hammer 46
Compaction Pedestal 46
Compaction Mold Holder 46
Extruder 46
Flow Meter 46
Core Drilling Test Set 47
Core Drilling Machine....47
Diamond Bit....47
Sample Tong....47
Breaking Strip....47
Spanner 47
Benkleman Beam 47
Fixed Beam....47
Tire Gauge....47
Surface Thermometer....47
Mot Straight Edge 47
Mot Straight 47
Metric Wedges....47
Bottle Roller 47
Double Bottle Roller Machine....47
Steel Bottle with stopper 7000 ml capacity....47
Steel Bottle with stopper 2500 ml capacity....47
Steel Bottle with stopper 600 ml capacity....47
Automatic Marshall Compactor....47
Rain Gauge 48
Core Trimmer/Cut-off Machine 48
Hard Grove Grindability Tester 48
Proving Ring 49
Proving Ring 100kg Capacity....49
Proving Ring 250 lbs Capacity....49
Proving Ring 500 lbs Capacity....49
Proving Ring 1,000 lbs Capacity....49
Proving Ring 2,000 lbs Capacity....49
Proving Ring 6,000 lbs Capacity....49
Proving Ring 10,000 lbs Capacity....49
Dial Indicator....49
Dial Holder 49
Cent O-Gram Balance 49
Cent O-Gram Balance - 311 gr capacity....49
Cent O-Gram Balance - 311 gr capacity with dial type adjustment 49
Dial O-Gram Balance....49
Triple Beam Balance....49
Triple Beam Balance - 2.610gr Capacity....49
Dial O-Gram Balance - with dial type adjustment 49
Heavy Duty Solution Balance....49
Platform Scale....49
Digital Balance....49
Digital Balance - 310 x 0.001gr Capacity 49
Digital Balance - 6100 x 0.1gr Capacity 49
Drying Oven - 14 Liter Capacity 49
Oven (Memmert)....49
Drying Oven - 32 Liter Capacity 49
Drying Oven - 39 Liter Capacity 49
Drying Oven - 53 Liter Capacity 49
Drying Oven - 108 Liter Capacity 49
Drying Oven - 256 Liter Capacity 49
Drying Oven - 416 Liter Capacity 49
Drying Oven - 749 Liter Capacity 49
Hot Plate 50
Hot Plate - Electric (Single Burner Plate) 50
Hot Plate - Electric (Double Burner Plate)....50
Water Bath 50
Cooling System 50
Butane Field Heater 50
Bunsen Burner 50
Statif 50
Tripod Stand 50
Asbestos Wire Gauze 50
Glass Clamp 50
Square Pan 50
Square Pan - 25 x 25 x 5 cm 50
Square Pan - 40 x 40 x 5 cm 50
Square Pan - 65 x65 x 7.5 cm 50
SquarePan - 50 x 50 x 7.5 cm 50
Rectangular Pan 50
Rectangular Pan - 30 x 20 x 10....50
Rectangular Pan - 45 x 30 x 15....50
Rectangular Pan - 60 x 40 x 25....50
Rectangular Pan - 90 x 60 x 40....50
Round Pan 50
Mixing Bowl 50
Mixing Bowl - 10cm dia. 50
Mixing Bowl - 14cm dia. 50
Mixing Bowl - 20cm dia. 50
Mixing Bowl - 24cm dia. 50
Sample Can 51
Glass Plate 51
Thin Box....51
Thin Box - 60 Gr Capacity 51
Thin Box - 120 Gr Capacity 51
Graduated Cylinder - 25 ml Capacity....51
Graduated Cylinder-Glass 51
Graduated Cylinder-Plastic....51
Graduated Cylinder - 50 ml Capacity....51
Graduated Cylinder - 100 ml Capacity....51
Graduated Cylinder - 250 ml Capacity....51
Graduated Cylinder - 500 ml Capacity....51
Graduated Cylinder - 1,000 ml Capacity....51
Volumetric Flask 51
Volumetric Flask - 100 ml Capacity....51
Volumetric Flask - 250 ml Capacity....51
Volumetric Flask - 500 ml Capacity....51
Breaker Glass 51
Beaker Glass - 100 ml Capacity 51
Beaker Glass - 250 ml Capacity 51
Beaker Glass - 600 ml Capacity 51
Beaker Glass - 800 ml Capacity 51
Beaker Glass - 1,000 ml Capacity 51
Volumetric Flask - 1,000 ml Capacity....51
Erlenmeyer Flask....51
Erlenmeyer Flask - 125 ml Capacity 51
Erlenmeyer Flask - 250 ml Capacity 51
Erlenmeyer Flask - 500 ml Capacity 51
Erlenmeyer Flask - 1,000 ml Capacity 51
Erlenmeyer Flask - 2,000 ml Capacity 51
Vacuum Flask 52
Vacuum Flask - 125 ml Capacity....52
Vacuum Flask - 250 ml Capacity....52
Vacuum Flask - 500 ml Capacity....52
Vacuum Flask - 1,000 ml Capacity....52
Vacuum Flask - 2,000 ml Capacity....52
Density Bottle....52
Density Bottle - 50 ml Capacity 52
Density Bottle - 100 ml Capacity 52
Separatory Funnel 52
Separatory Funnel - 250 ml Capacity....52
Separatory Funnel - 500 ml Capacity....52
Filter Funnel....52
Filter Funnel - 125 ml Capacity....52
Filter Funnel - 500 ml Capacity....52

Desicator-Non Vacuum Type....52
Dessicator - 21 cm dia.....52
Desicator-Vacuum Type....52
Dessicator - 24 cm dia.....52
Dessicator - 30 cm dia.....52
Silica Gel 52
Funnel....52
Funnel - Plastic, Narrow Mouth 52
Funnel - Plastic, Wide Mouth....52
Funnel - Glass, Narrow Mouth....52
Funnel - Glass, Wide Mouth 52
Burrete 52
Burrete - 10 ml Capacity....52
Burrete - 25 ml Capacity....52
Burrete - 50 ml Capacity....52
Burrete - 100 ml Capacity....52
Evaporating Dish 53
Evaporating Dish - 100 ml 53
Evaporating Dish - 250 ml 53
Evaporating Dish - 350 ml 53
Evaporating Dish - 500 ml 53
Mortar and Pestle 53
Mortar and Pestle - 12 cm dia. Approx....53
Mortar and Pestle - 15 cm dia. Approx....53
Mortar and Pestle - 18 cm dia. Approx....53
Wash Bottle....53
Wash Bottle - 250 ml....53
Wash Bottle - 500 ml....53
Wash Bottle - 1000 ml....53
Pipette....53
Pipette - 5ml....53
Pipette - 10ml....53
Pipette - 15ml....53
Crucibles....53
Crucible - 13ml 53
Crucible - 18ml 53
Crucible - 25ml 53
Crucible - 40ml 53
Thermometer....53
Thermometer - range 0 - 50º C 53
Thermometer - range 0 - 100º C 53
Thermometer - range 0 - 150º C 53
Thermometer - range 0 - 200º C 53
Thermometer - range 0 - 300º C 53
Thermometer - range 0 - 600º C 53
Pocket Dial Thermometer....53
Pocket Dial Thermometer - range 0 - 100º C.53
Pocket Dial Thermometer - range 0 - 200º C.53
Pocket Dial Thermometer - range 0 - 250º C.53
Dial Thermometer....53
Dial Thermometer - Range 0° - 100° C....53
Dial Thermometer - Range 0° - 200° C....53
Dial Thermometer - Range 0° - 250° C....53
ASTM Thermometer (Specific Gravity)....54
ASTM Thermometer 54
ASTM Thermometer (Loss on Heating) 54
ASTM Thermometer (Saybolt Viscosimeter)..54
Thermometer - range 17º C, 19 to 27º C....54
Thermometer - range 18º C, 34 to 42º C....54
Thermometer - range 19º C, 49 to 57º C....54
Thermometer - range 20º C, 57 to 65º C....54
Thermometer - range 21º C, 79 to 87º C....54
Thermometer - range 22º C, 95 to 103º C....54
ASTM Thermometer (Softening Point) 54
Thermometer - range 15º C, 2 to 80º C....54
Thermometer - range 16º C, 30 to 200º C....54
ASTM Thermometer (Open Flash) 54
ASTM Thermometer (Distilation) 54
Thermometer - range 7º C, 2 to 300º C....54
Thermometer - range 8º C, 2 to 400º C....54
Manometer....54
Manometer - 25 kg/cm^2 54
Manometer - 60 kg/cm2 54
Manometer - 150 kg/cm3 54
Manometer - 250 kg/cm4 54
Manometer - 300 kg/cm5 54
Manometer - 500 kg/cm6 54
Manometer - 700 kg/cm7 54
Manometer - 1000 kg/cm8 54
Vacuum Manometer 54
Hydraulic Cylinders 54
Vacuum Pump 54
Hydraulic Cylinders - 30 ton....54
Hydraulic Cylinders - 50 ton....54
Hydraulic Cylinders - 100 ton....54
Hydraulic Cylinders - 150 ton....54
Hydraulic Cylinders - 200 ton....54
Hydraulic Hand Pump 54
Hand Pump - single acting....54
Hand Pump - double acting 54
Hydraulic Electric Pump 55
Electric Pump - single acting....55
Electric Pump - double acting 55
Hydraulic Hose 55
Hydraulic Hose - 60 cm 55
Hydraulic Hose - 120 cm....55
Hydraulic Hose - 180 cm....55
Stop Watch 55
Stop Watch - 60 sec. Sweep x 30 min. 55
Stop Watch - 30 sec. Sweep x 10 min. 55
Vernier Caliper 55
Vernier Caliper - 6"....55
Vernier Caliper - 8"....55
Vernier Caliper - 10"....55
Vernier Caliper - 12"....55
Levels-Round Type 55
Levels-Straight Type 55
Open and Wrench 55
Open end Wrench - Metric Unit....55
Open end Wrench - Imperials Unit....55
Ring Spanner....55
Ring Spanner - Metric Unit 55
Ring Spanner - Imperials Unit 55
Allen Key....55
Allen Key - Metric Unit 55
Allen Key - Imperials Unit 55
Pipe Wrench 55
Pipe Wrench - 8"....55
Pipe Wrench - 12"....55
Pipe Wrench - 18"....55
Pipe Wrench - 24"....55
Strap Wrench....55
Strap Wrench - 4"....55
Strap Wrench - 6"....55
Adjustable Wrench 56
Adjustable Wrench - 6"....56
Adjustable Wrench - 8"....56
Adjustable Wrench - 10"....56
Adjustable Wrench - 12"....56
Rubber Gloves 56
Leather Gloves 56
Asbestos Gloves 56
Quatering Canvas 56
Round Scoop....56
Scoop - Round Bottom, Large size....56
Scoop - Round Bottom, small size....56
Flat Scoop....56
Scoop - Flat Bottom, Large size....56
Scoop - Flat Bottom, smal size 56
Scoop Pan 56
Aggregate Scoop 56
Spatula 56
Scraper 56
Spoon 56
Spoon - small size 56
Spoon - large size....56
Trowel....56
Trowel - pointed type....56
Trowel - round type....56
Gardener's Type Trowel 56
Wire Saw 57
Chissel 57
Straight Edge....57
Straight Edge - 30 cm....57
Straight Edge - 40 cm....57
Ruler....57
Ruler - 30 cm 57
Ruler - 60 cm 57
Rubber Mallet 57
Hammer....57
Hammer - 1 kg....57
Hammer - 5 kg....57
Steel Wire Brush 57
Brass Wire Brush 57
Soft Brush 57
Tamping Rod 57
Tamping Rod - 16 mm dia. 57
Tamping Rod - 20 mm dia. 57
Mortar Mixer....57
Mortar Mixer - 5 liter....57
Mortar Mixer - 10 liter....57
Hydraulic Bench 58
Pipe Friction....58
Bernoulli's Theorem Apparatus....58
Open Channel Flow and Close Channel Flow 58
Mobile Lab for Soil 59
Mobile Lab for Concrete 59
Asphalt Mixing 60
Digital Theodolite 61
0/30mm Universal Prism with Metal Yoke 61
Prism Pole & Range Pole Bags 61
Quick-Lok Prism Poles 62
20x 203B Transit-Level 62
Tilting Triple Prism 62
Heavy Duty Aluminum Tripods 62
Value Line Elevator Tripod 62
Heavy Duty Value Line Tripods 63
Contractor's Tripod 63
Lasermark LM400 Series Self-Leveling Rotary Laser 63
Lasermark LMH Automatic Self-Leveling Rotary Laser 63
Lasermark Pipe Lasers 64
20x Econo Model 135 Level & 136 Transit Level 64
Digital Planimeters 64
Chicago Planimeters 64
Run-Mate "Club" Curvimeter 64
Run-Mate "Hi-Tech" Curvimeter 64
Quick-Lok Laser Poles 65
Telescoping Aluminum Rods 65
Rod Level for Wood Rods 65
Targets for Wood Rods 65
Leather Plumb Bob Scabbards 65
Laser Distance Meter 65
Magnetic Locators 66
Magna-Trak 100 66
Graduated in 8th and metric 66
Measuremark - Measuring Wheels 66



Hand Bor (SO - 110A)

Type	Parts Name	Specification	Qty
SO-111	Drilling Rod	Mslid Bar, 1 meter length, 1 1/4" dia.	10 Pcs
SO-112	Iwan Type Auger	Welded Steel, two radial blades, 4" dia.	1 Pc
SO-113	Straight Chopping Auger	Steel Bar, hardened tip, 45 mm width	1 Pc
SO-114	T-Piece	Welded Steel	1 Pc
SO-115	Tube Adaptor	Machined Steel, with 3 clampings bolts	1 Pc
SO-116	Turning Rod	Machined Steel, 1 1/4" dia., 60 cm length	2 Pcs
SO-117	Sampling Tube	68 mm dia., 40 cm length with 3 bolt holes	10 Pcs
SO-118	Rod Head	Hardened, machined steel, 2 1/2" dia.	1 Pc
SO-119	Parafin		2 Kg
SO-120	Vertical Guide	Machined Steel	1 Pc
SO-735A	Allen Key	Hardened Steel, 1/4"	1 Pc
GE-739	Pipe Wrench	24" length	2 Pcs
GE-902	Hammer	5 Kg weight	1 Pc
GE-920	Steel Wire Brush	Wooden Handle	1 Pc

Dimension (l x w x h) : 105 x 60 x 60 cm
Gross Weight : 130 Kg

Also Required, but not part of this set:

SO-140 Sample Extruder
CE-473 Ladle
GE-222 Butane Field Heater
GE-363 Mixing Bowl

Standard Penetration Test (SO - 130A)

ASTM D-1586 **AASHTO T-206**

For driving a split barrel sampler to obtain a representative soil sample and measure the soil resistance to penetration.

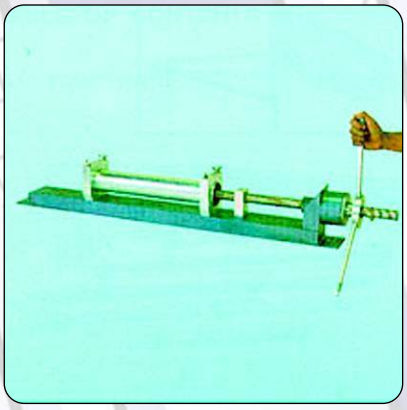
Type	Parts Name	Specification	Qty
SO-131	Split Barrel Sampler	Hardened machined steel, 1 3/8" i.d., 18" length	1 set
SO-132	Sampling Rod	Steel Pipe, 1.5 meter length	20 Pcs
SO-133	Drive Weight Assembly		
consist of			
SO-133.1	Hammer	Steel, 63.5 Kg weight	1 Pc
SO-133.2	Anvil	20 cm dia.	1 Pc
SO-133.3	Guide Rod	Steel, 76.2 cm drop weight	1 Pc
SO-134	Tripod Assembly		
consist of			
SO-134.1	Tripod Stand	Steel Pipe	1 Pc
SO-134.2	Pulley	20 cm dia.	1 Pc
SO-134.3	Rope	3/4" dia. x 15 meter	1 Rol
SO-137	Vertical Guide	Machined Steel	1 Pc
GE-739	Pipe Wrench	24" length	2 Pcs

Dimension (l x w x h) : 330 x 60 x 60 cm
Gross Weight : 445 Kg

Also required, but not part of this set:

GE-755 Plastic Bag





Sample Extruder (SO - 140)

For extruding soil specimen from 68 mm sampling tube, welded steel, screw type. Supplied without sampling tube.

Dimension (l x w x h) : 125 x 15 x 25 cm
Gross Weight : 45 Kg

also required, but not part of this set:

GE-380 Sample Can
GE-840 Wire Saw

Sample Extruder (SO - 145)

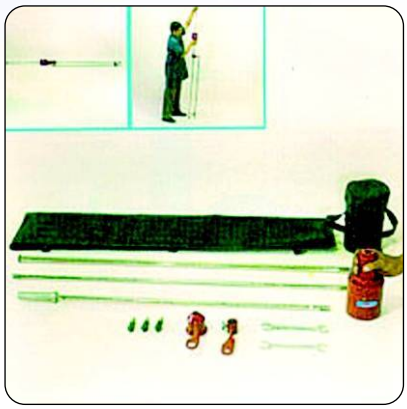
For extruding soil speciment from 68 mm sampling tube, welded steel, electric, 220 Volt, 750 Watt, 1 phase, Supplied without sampling tube.



Dimension (l x w x h)	:	125 x 15 x 25 cm
Gross Weight	:	45 Kg

Also required, but not part of this set:

GE-380 Sample Can
GE-840 Wire Saw



Dynamic Cone Penetrometer (SO - 150A)

For rapid determination of field CBR value (rapid quality control).

Type	Parts Name	Specification	Qty
SO-151	**Handle**	Stainless Steel	1 Pc
SO-152	**Hammer**	Machined Steel, Painted, 8 Kg weight	1 Pc
SO-153	**Guide Rod**	Stainless Steel, 16 mm dia., drop height 575 mm	1 Pc
SO-154	**Anvil**	Machined Steel, welded, painted	1 Pc
SO-155A	**Penetration Rod**	Stainless Steel, 16 mm dia., 75 cm effective length	1 Pc
SO-156	**Cone**	Hardened tool steel cone tip, 60° angle, 20 mm dia., stainless steel adaptor	3 Pcs
SO-157A	**Penetration Scale**	Stainless Steel, 16 mm dia., 75 cm scale	1 Pc
SO-158	**Carrying Bag**	Water Proof Cloth	1 Pc
GE-730A	**Open End Wrench**	Vanadium Steel 12/13, 14/15	2 Pcs

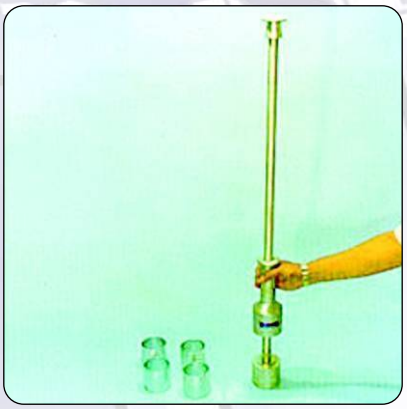
Dimension (l x w x h)	:	115 x 20 x 20 cm
Gross Weight	:	15 Kg

Also required, but not part of this set:

SO-450 Moisture Content Test Set

Corps of Engineer Soil Surface Sampler (SO - 170)

ASTM D-2937
For determining soil density in place.



Type	Parts Name	Specification	Qty
SO-171	**Hammer**	Machined Steel, galvanized, 10 lbs, slidding weight : 27 1/4" falling heigth.	1 Set
SO-172	**Hammer**	Machined Steel, Galvanized, 3" o.d., 2-7/8" i.d. 2-13/16" length.	12 Pcs

Dimension (l x w x h)	:	25 x 25 x 100 cm
Gross Weight	:	35 Kg

Also required, but not part of this set:

SO-450 Moisture Content Test Set
GE-152 Triple Beam Balance



Dutch Cone Penetrometer (SO - 200)

ASTM D-3441

For determining cone resistance and friction resistance of soil layers.

Type	Parts Name	Specification	Qty
SO-201	**Press-in Apparatus**	Steel construction, manually operated 2.5 tons capacity	1 Set
SO-202A	**Sounding Rod**	Machined steel, 36 mm o.d., 1 mtr effective length, tappered thread	20 Pcs
SO-203	**Plunger Rod**	Round bar, 15 mm dia, 1 mtr length	20 Pcs
SO-204	**Adaptor**		
Consist of			
SO-204.1	**Push Adaptor**	Machined steel	1 Pc
SO-204.2	**Pull Adaptor**	Machined steel	1 Pc
SO-205	**Spiral Anchor**		
Consist of			
SO-205.1	**Spiral Anchor**	Machined steel, elded 1.5 mtr length	4 Pcs
SO-205.2	**Handle and T-piece**	Machined steel, welded	1 Set
SO-206A	**Mantel cone**	Precision machined steel, hardened, tappered thread, 60° angle, 35.7 mm dia.	1 Pc
SO-207A	**Friction cone**	Precision machined steel, hardened, with friction jacket, tappered thread, 60° angle, 35.7 mm dia.	
SO-208	**Wrenches Set**	Pipe wrench (2), adjustable wrench (1), spanner wrench (1), allen key (1), screw driver (1), oil can (1), steel brush (1), piston wrench (1), seals tape (2), oil seals (2), steel box (1)	1 Set
SO-209	**Fasten Press**	Beam Cannal	
Consist of			
SO-209.1	**Long Fasten Press**	1.5 mtr length, 8 cm width	2 Pcs
SO-209.2	**Short Fasten Press**	1 mtr length, 12 cm width	2 Pcs
GE-671	**Manometer**	60 kg/cm^2 capacity	1 Pc
GE-673	**Manometer**	250 kg/cm^2 capacity	1 Pc

Dimension (l x w x h) : 220 x 120 x 80 cm
Gross Weight : 460 kg

Also required, but not part of this set:

GE-721 Levels
GE-748 Leather Gloves
GE-897 Roll Meter
GE-965 Hydraulic Oil

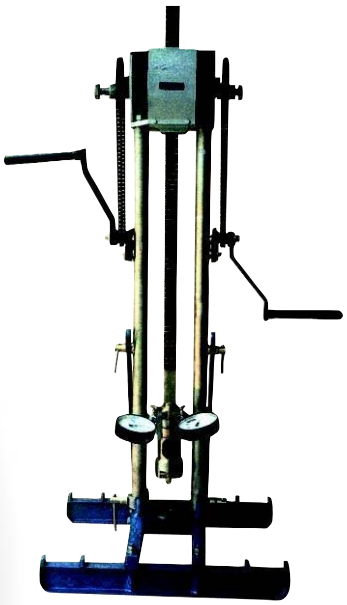
Dutch Cone Penetrometer (SO - 210)

ASTM D-3441

For determining cone resistance and friction resistance of soil layers.

Type	Parts Name	Specification	Qty
SO-211	**Press-in Apparatus**	Steel construction, manually operated 5 tons capacity	1 Set
SO-202A	**Sounding Rod**	Machined steel, 36 mm o.d., 1 mtr effective length, tappered thread	20 Pcs
SO-203	**Plunger Rod**	Round bar, 15 mm dia, 1 mtr length	20 Pcs
SO-204	**Adaptor**		
Consist of			
SO-204.1	**Push Adaptor**	Machined steel	1 Pc
SO-204.2	**Pull Adaptor**	Machined steel	1 Pc
SO-205	**Spiral Anchor**		
Consist of			
SO-205.1	**Spiral Anchor**	Machined steel, elded 1.5 mtr length	4 Pcs
SO-205.2	**Handle and T-piece**	Machined steel, welded	1 Set
SO-206A	**Mantel cone**	Precision machined steel, hardened, tappered thread, 60° angle, 35.7 mm dia.	1 Pc
SO-207A	**Friction cone**	Precision machined steel, hardened, with friction jacket, tappered thread, 60° angle, 35.7 mm dia.	
SO-208	**Wrenches Set**	Pile wrench (2), adjustable wrench (1), spanner wrench (1), allen key (1), screw driver (1), oil can (1), steel brush (1), piston wrench (1), seals tape (2), oil seals (2), steel box (1)	1 Set
SO-209	**Fasten Press**	Beam Cannal	
Consist of			
SO-209.1	**Long Fasten Press**	1.5 mtr length, 8 cm width	2 Pcs
SO-209.2	**Short Fasten Press**	1 mtr length, 12 cm width	2 Pcs
GE-671	**Manometer**	60 kg/cm^2 capacity	1 Pc
GE-673	**Manometer**	500 kg/cm^2 capacity	1 Pc

Dimension (l x w x h) : 220 x 120 x 80 cm
Gross Weight : 460 kg



Also required, but not part of this set:

GE-721 Levels
GE-748 Leather Gloves
GE-897 Roll Meter
GE-965 Hydraulic Oil

Plate Bearing Test Set (SO - 250A)

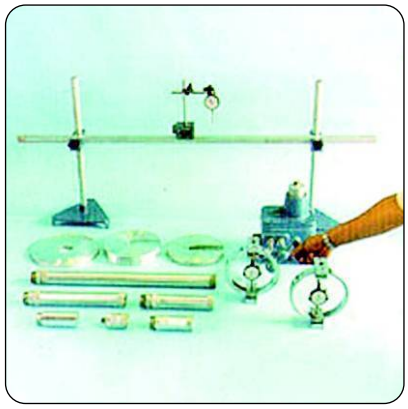


ASTM D-1194 **AASHTO T-235**

For determining ultimate bearing capacity of soil on place by means of field loading test.

Type	Parts Name	Specification	Qty
SO-251A	**Hydraulic Jack**	50 tons capacity, manometer read out, hand operated.	
Consist of :			
SO-251.2	**Manometer**	6" dia., 50 tons capacity, 0.5 tons increament	1 Pc
GE-682	**Hidraulic Cylinder**	50 tons capacity	1 Pc
GE-691	**Hidraulic Hand Pump**	Single action, 10.000 psi capacity	1 Pc
GE-699	**Hydraulic Hose**	10.000 psi, 180 cm length	2 Pcs
SO-252	**Reference Beam**	Steel pipe, 2 x 150 cm span	1 Set
SO-253	**Circular Bearing Plate**	6" dia., machined steel, 1" thick	1 Pc
SO-254	**Circular Bearing Plate**	10" dia., machined steel, 1" thick	1 Pc
SO-255	**Circular Bearing Plate**	12" dia., machined steel, 1" thick	1 Pc
SO-256	**Circular Bearing Plate**	18" dia., machined steel, 1" thick	1 Pc
SO-257	**Circular Bearing Plate**	24" dia., machined steel, 1" thick	1 Pc
SO-258	**Circular Bearing Plate**	30" dia., machined steel, 1" thick	1 Pc
SO-259	**Square Bearing Plate**	12" x 12" machined steel, 1" thick	1 Pc
GE-137	**Dial Indicator**	Range 30 x 0.01 mm	4 Pcs
GE-140	**Dial Holder**	Magnetic	4 Pcs

Dimension (l x w x h) : 150 x 80 x 80 cm
Gross Weight : 300 kg



Field CBR Test Set (SO - 260)

ASTM D-4429

For determining CBR value on place.

Type	Parts Name	Specification	Qty
SO-261	**Mechanical Jack**	Cast alumunium housing, 5 tons cap, hand operated, 2 speeds.	
Consist of :			
SO-261.1	**Mechanical Jack**	5 tons capacity	1 Pc
SO-261.2	**Swivel Hand**	Cast alumunium	1 Pc
SO-262	**Field Penetration Piston**	Machined steel, galvanized, adjustable height	
Consist of :			
SO-262.1	**Penetration Piston**	Machined steel, galvanized, 1.954" piston dia.	1 Pc
SO-262.1	**Extension Set**	Machined steel, galvanized, 5 cm, 10 cm, 20 cm and 60 cm, provided with connecting adaptor	1 Set
SO-263	**Reference Beam**	Steel pipe, 160 cm span	1 Set
SO-264	**Circular Surchange Weight**	Machined steel, galvanized, 10" dia., 10 lbs weight	1 Pc
SO-265	**Slotted Surchange Weight**	Machined steel, galvanized, 8" dia., 10 lbs weight	1 Pc
SO-266	**Slotted Surchange Weight**	Machined steel, galvanized, 8.5" dia., 20 lbs weight	1 Pc
GE-101.5	**Proving Ring**	2.000 lbs capacity	1 Set
GE-101.7	**Proving Ring**	10.000 lbs capacity	1 Set
GE-136	**Dial Indicator**	Range 20 x 0.01 mm	1 Pc
GE-140	**Dial Holder**	Magnetic Work	1 Pc

Dimension (l x w x h) : 145 x 40 x 40 cm
Gross Weight : 77 kg

Also required, but not part of this set:

SO-450 Moisture Content Test Set
GE-700 Stop Watch
GE-721 Levels
GE-871 Trowel
GE-881 Chisel
GE-960 Hidraulic Jack



Proving Ring Penetrometer (SO - 270)

For determining penetration resistance of soil layers.

Type	Parts Name	Specification	Qty
SO-271	**Penetration Rod**	Round bar, 3/4" dia., 51.5 cm/49 cm length with 5 cm increment lines.	2 Pcs
SO-272	**Penetration Cone**	Machined steel, hardened, plated, 1 sq. in cross section area, 30°angle	2 Pcs
SO-273	**Holder**	Alumunium handle	1 Pc
SO-274	**Carrying Case**	Wooden case	1 Pc
GE-101.1	**Proving Ring**	100 kg capacity	1 Set
GE-730A	**Open End Wrench**	Vanadium steel	2 Pcs

Dimension (l x w x h) : 65 x 35 x 20 cm
Gross Weight : 10 kg

Also required, but not part of this set:

SO-450	Moisture Content Test Set	
GE-390	Thin Box	
GE-965	Hudraulic Oil	2 Pcs

TVA Penetrometer (SO - 280)

Widely used in analyzing soil surface.



Type	Parts Name	Specification	Qty
SO-281	**Penetration Rod and Chamber**	Steel pipe, 65 cm length with hydraulic chamber	
Consist of :			
SO-281.1	**Penetration Rod**	Round bar, 40 cm length	2 Pcs
SO-281.2	**Hiydraulic Chamber**	Machine steel, 100 kg cap.	1 Pc
SO-282	**Penetration Needle**	Machine steel, hardened, tip 0.5, 1.0, 2.0, 3.0, sq. cm. Cross section area	1 Set
SO-283	**Holder**	Alumunium handle	1 Pc
SO-284	**TVA Manometer**	100 kg capacity	1 Pc
SO-285	**Carrying Case**	Wooden case	1 Pc
GE-730A	**Open End Wrench**	Vanadium steel	2 Pcs

Dimension (l x w x h) : 65 x 35 x 20 cm
Gross Weight : 10 kg

Also required, but not part of this set:

GE-965 Hudraulic Oil



Liquid Limit Test Set (SO - 310)

ASTM D-4318 **AASHTO T-89**

For determining liquit limit of soil sample.

Type	Parts Name	Specification	Qty
SO-311	**Liquid Limit Device**	Hand operated, brass cup, hard rubber base	1 Set
SO-312	**ASTM Grooving Tool**	Machined steel, head gauge	1 Pc
SO-313	**Cassagrande Grooving Tool**	Brass plate	1 Pc
GE-390	**Thin Box**	Alumunium, 60 gr capacity	12 Pcs
GE-396	**Glass Plate**	Galss, 10 mm thick, 30 x 30 cm	1 Pc
GE-402	**Graduated Cylinder**	100 ml capacity	1 Pc
GE-501	**Porcelain Dish**	12 cm dia., 250 ml capacity	1 Pc
GE-820	**Spatula**	150 mm blade	1 Pc
GE-825	**Scraper**	100 mm blade	1 Pc

Dimension (l x w x h) : 40 x 40 x 40 cm
Gross Weight : 7 kg

Also required, but not part of this set:

SO-450	Moisture Content Test Set
AG-232A	Sieve No. 40
AG-250	Pan & Cover
GE-511	Mortar and Pastle
GE-521	Wash Bottle

Liquid Limit Device (SO - 311A)

ASTM D-4318 **AASHTO T-89**

Hand operated, brass cup, hard rubber base, provided with **counter**.

Dimension (l x w x h)	:	40 x 40 x 40 cm
Gross Weight	:	7 kg





Liquid Limit Device (SO - 311B)

ASTM D-4318 **AASHTO T-89**

Electric, 220 V-AC, brass cup, hard rubber base, provided with counter.

Dimension (l x w x h)	:	40 x 40 x 40 cm
Gross Weight	:	7 kg

Plastic Limit Test Set (SO - 315)

ASTM D-4318 **AASHTO T-90**

For determining plastic limit of soil sample

Type	Parts Name	Specification	Qty
SO-316	**Plastic Limit Plate**	Glass made	
Consist of :			
SO-316.1	**Reference Rod**	Stainless steel rod, 3.2 mm dia.	1 Pc
GE-396	**Glass Plate**	Glass, 10 mm thick, 30 x 30 cm	1 Pc
GE-390	**Thin Box**	Alumunium 60 gr capacity	12 Pcs
GE-402	**Graduated Cylinder**	100 ml capacity	1 Pc
GE-501	**Porcelain Dish**	12 cm dia., 250 ml capacity	1 Pc
GE-820	**Spatula**	150 mm blade	1 Pc
GE-825	**Scraper**	100 mm blade	1 Pc

Dimension (l x w x h)	:	40 x 40 x 40 cm
Gross Weight	:	5 kg



Also required, but not part of this set:

SO-450	Moisture Content Test Set
AG-232A	Sieve No. 40
AG-250	Pan & Cover
GE-511	Mortar and Pastle
GE-521	Wash Bottle



Shrinkage Limit Test Set (SO - 320)

ASTM D-427 **AASHTO T-92**
For determining shrinkage limit of soil sample

Type	Parts Name	Specification	Qty
SO-321	**Prong Plate**	1.6 mm thick hard plastic, 76.2 mm square, 3 stainless steel needles, 0.8 mm dia., 3.2 mm height	1 Pc
SO-322	**Monel Shrinkage Dish**	Flat bottom, 44,4 mm i.d., 12.7 mm height	1 Pc
SO-323	**Cristalizing Dish**	Glass made	
Consist of :			
SO-323.1	**Dish**	Glass, 57.2 mm i.d., 12,7 mm height approx.	1 Pc
SO-323.2	**Overflow Dish**	9 cm dia. approx.	1 Pc
SO-324	**Mercury**	Bottled	1 kg
GE-396	**Glass Plate**	Glass 10 mm thick, 30 x 30 cm	1 Pc
GE-402	**Graduated Cylinder**	100 ml capacity	1 Pc
GE-502	**Porcelain Dish**	15 cm dia., 350 ml capacity	1 Pc
GE-820	**Spatula**	150 mm blade	1 Pc
GE-825	**Scraper**	100 mm blade	1 Pc

Dimension (l x w x h) : 10 x 10 x 30 cm
Gross Weight : 6 kg

Also required, but not part of this set:

SO-450 Moisture Content Test Set
MA-232A Sieve No. 40
MA-250 Pan & Cover
GE-511 Mortar and Pastle

Hydrometer Analysis Test Set (SO - 330A)

ASTM D-422 **AASHTO T-88**
For determining grain size distribution of fine soil sample.



Type	Parts Name	Specification	Qty
SO-331	**Hydrometer A (152 H)**	Glass, stream line, range 0-60 gr soil/ltr	1 Pc
SO-332	**Hydrometer B (151 H)**	Glass, stream line, range 0.995-1.038	1 Pc
SO-333	**Mechanical Stirer**	Electric, 220 V, cast alumunium frame, 10.000 rpm	1 Pc
SO-334	**Dispersion Cup**	Stainless steel cup, 3.75" top dia., 2.6" bottom dia. 7" height brass baffles	1 Pc
SO-335	**Hydrometer Jar Bath**	Steel sheet, fibre glass couted, temperature control	
Consist of :			
SO-335.1	**Bath**	Steel sheet, fibre glass coated, 60 x 30 x 40 cm	1 Pc
SO-335.2	**Water Heater**	Electric, range ambient to 40°C	1 Pc
SO-336	**Dispension Agent**		
Consist of :			
SO-336.1	**Sodium Hexa**	Bottled, powder	1 kg
SO-336.2	**Water Glass**	Bottled, liquid	1 kg
SO-337	**Hydrometer Jar**	Glass, 1000 ml capacity, 2 1/2" dia. approx.	3 Pcs
SO-405	**Graduated Cylinder**	1000 ml capacity	1 Pc
GE-600	**Thermometer**	Range 0 - 50°C	1 Pc

Dimension (l x w x h) : 90 x 90 x 50 cm
Gross Weight : 50 kg

Also required, but not part of this set:

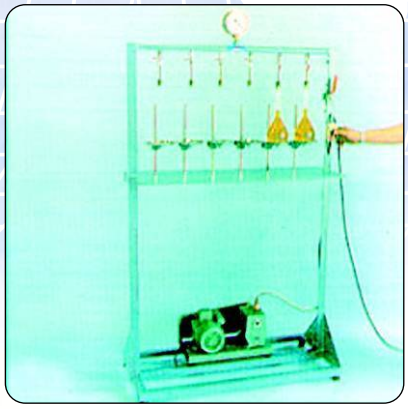
SO-153 Cent O-Gram Balance
GE-174 Drying Oven
GE-363 Mixing Bowl
GE-424 Beaker Glass
GE-452 Dessicator
GE-521 Wash Bottle
GE-700 Stop Watch
GE-747 Rubber Gloves

Mechanical End Over End Shaker (SO - 338)



BS-1377
Electric, 220 V/ 50 Hz, 1 Phase, 50 RPM. Supplied complete with 2 glass jar 1000 ml and rubber bungs

Dimension (l x w x h)	:	40 x 60 x 60 cm
Gross Weight	:	30 kg



Vacuum Stand (SO - 339A)

To facilitate evacuation of air from soil/fine aggregate in flask. Welded steel frame, vacuum valve, adjustable platen height, provided with vacuum gauge, 6 flasks capacity. Supplied complete with vacuum pump and flasks

Dimension (l x w x h)	:	125 x 75 x 165 cm
Gross Weight	:	82 kg

Specific Gravity (Heating Method) (SO - 340)



ASTM D-854 **AASHTO T-100**
For determining specific gravity of soil sample.

Type	Parts Name	Specification	Qty
GE-191	**Hot Plate**	Electric, 220 V	1 Pc
GE-237	**Asbestos Wire Gauze**	15 cm x 15 cm	1 Pc
GE-363	**Mixing Bowl**	Stainless steel, 250 mm dia.	1 Pc
GE-441	**Density Bottle**	100 ml capacity	3 Pcs
GE-473	**Funnel**	Glass	1 Pc
GE-521	**Wash Bottle**	250 ml capacity	1 Pc
GE-601	**Thermometer**	Range 0 - 100°C	1 Pc

Dimension (l x w x h)	:	40 x 40 x 40 cm
Gross Weight	:	10 kg

Also required, but not part of this set:

AG-218A	Sieve No. 4
AG-250	Pan & Cover
GE-150	Cent O-Gram Balance
GE-174	Drying Oven
GE-452	Dessicator
GE-749	Asbestos Gloves



Specific Gravity (Vacuum Method) (SO - 340A)

ASTM D-854 **AASHTO T-100**
For determining specific gravity of soil sample.

Type	Parts Name	Specification	Qty
SO-341	**Vacuum Stand**	Wooden base, steel pipe column, 2 valves	1 Set
GE-363	**Mixing Bowl**	Stainless steel, 250 mm dia.	1 Pc
GE-404	**Graduated Cylinder**	500 ml capacity	1 Pc
GE-412A	**Volumetric Flask**	500 ml capacity, vacuum	2 Pcs
GE-473	**Funnel**	Glass, wide mouth	1 Pc
GE-521	**Wash Bottle**	250 ml capacity	1 Pc
GE-530	**Pipette**	Glass, 5 ml capacity	1 Pc
GE-600	**Thermometer**	Range 0 - 50°C	1 Pc
GE-679	**Vacuum Manometer**	4" dia., 0-76 cn HG	1 Pc
GE-680	**Vacuum Pump**	Rotary pump	1 Pc

Dimension (l x w x h)	:	70 x 70 x 70 cm
Gross Weight	:	45 kg

Also required, but not part of this set:

AG-218A	Sieve No. 4
AG-250	Pan & Cover
GE-150	Cent O-Gram Balance
GE-174	Drying Oven



Specivic Gravity (SO - 340B)

ASTM D-854 **AASHTO T-100**

For determining specific gravity of soil/aggregate sample.

Type	Parts Name	Specification	Qty
SO-342	**Vacuum Hose**	Plastic hose with rubber bung, 1 valve	1 Set
GE-363	**Mixing Bowl**	Stainless steel, 250 mm dia.	1 Pc
GE-404	**Graduated Cylinder**	500 ml capacity	1 Pc
GE-412A	**Volumetric Flask**	500 ml capacity, vacuum	2 Pcs
GE-473	**Funnel**	Glass, wide mouth	1 Pc
GE-521	**Wash Bottle**	250 ml capacity	1 Pc
GE-530	**Pipette**	Glass, 5 ml capacity	1 Pc
GE-600	**Thermometer**	Range 0 - 50°C	1 Pc
GE-679	**Vacuum Manometer**	4" dia., 0-76 cn HG	1 Pc
GE-680	**Vacuum Pump**	Rotary pump	1 Pc

Dimension (l x w x h) : 60 x 60 x 60 cm
Gross Weight : 40 kg

Also required, but not part of this set:

AG-218A	Sieve No. 4
AG-250	Pan & Cover
GE-150	Cent O-Gram Balance
GE-174	Drying Oven

Compaction Test Set (SO - 350)

ASTM D-698 / D-1557 **AASHTO T-99 / T-180**

For determining moisture - dnesity relationship.



Type	Parts Name	Specification	Qty
SO-351	**Standard Proctor Mold**	Machined steel, galvanized, 4" i.d., 4.584" height, 2" height of collar	1 Pc
SO-352	**Modified Proctor Mold**	Machined steel, galvanized, 6" i.d., 4.584" height, 2" height of collar	1 Pc
SO-353	**Standard Proctor Hammer**	Machined steel, galvanized, 2" i.d., 12" drop height, 5,5 lbs weight	1 Pc
SO-354	**Modified Proctor Hammer**	Machined steel, galvanized, 2" i.d., 18" drop height, 10 lbs weight	1 Pc
SO-355	**Extruder**	Steel frame, hydraulic jack	1 Set
GE-303	**Square Pan**	Galvanized steel, l 65 x 65 x 7.5 cm	1 Pc
GE-390	**Thin Box**	Alumunium, 60 gr capacity	12 Pcs
GE-405A	**Graduated Cylinder**	Plastic, 1.000 ml capacity	1 Pc
GE-801	**Scoop**	Cast Alumunium	1 Pc
GE-871	**Trowel**	Pointed type	1 Pc
GE-890	**Straight Edge**	30 cm length	1 Pc
GE-900	**Rubber Mallet**	Wooden handle	1 Pc
GE-920	**Steel Wiire Brush**	Wooden handle	1 Pc

Dimension (l x w x h) : 62 x 62 x 40 cm
Gross Weight : 120 kg

Also required, but not part of this set:

SO-450	Moisture Content Test Set
AG-218A	Sieve No. 4
GE-157	Heavy Duty Solution Balance
GE-760	Filter Paper

Laboratory CBR Test Set (SO - 360A)



ASTM D-1883 **AASHTO T-193**

For determining the bearing ratio of soil.

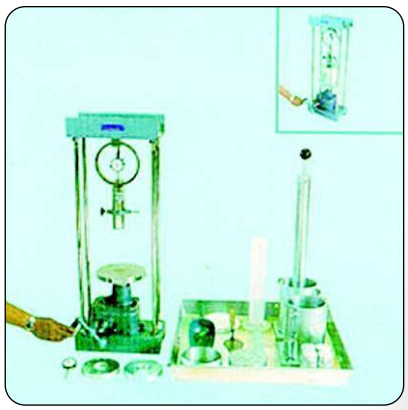
Type	Parts Name	Specification	Qty
SO-361A	**Electrical Loading Machine**	Electric, 220 V-AC, 1/2 HP, 1 Phase, speed 0.05"/min reversing switch, 10.000 lbs capacity	1 Set
SO-362	**CBR Mold**	Machined steel, 6" i.d, 7" weight, 2" height of collar	3 Pcs
SO-363	**Spacer Dish**	Machined steel, 5 15/16" dia., 2.416" height	1 Pc
SO-364	**Cutting Edge**	Machined steel, sharp edge	1 Pc
SO-365	**Circular Surcharge Weight**	Machined steel, 5 7/8" o.d., 2 1/8" i.d, 5 lbs weight	3 Pcs
SO-366	**Slotted Surcharge Weight**	Machined steel, 5 7/8" o.d., 2 1/8" slotted width, 5 lbs weight	3 Pcs

Type	Parts Name	Specification	Qty
SO-354	**Modified Proctor Hammer**	Machined steel, galvanized, 2" dia., 18" drop height, 10 lbs weight	1 Pc
SO-369	**Filter Paper**	6" dia., 100 sheet/box	1 Box
GE-101.6	**Proving Ring**	6.000 lbs capacity	1 Set
GE-131	**Dial Indicator**	Range 0.01" x 1"	1 Pc
GE-303	**Square Pan**	Galvanized steel, 65 x 65 x 7.5 cm	1 Pc
GE-390	**Thin Box**	Alumunium, 60 gr capacity	12 Pcs
GE-405A	**Graduated Cylinder**	Plastic, 1000 ml capacity	1 Pc
GE-801	**Scoop**	Cast Alumunium	1 Pc
GE-871	**Trowel**	Pointed Type	1 Pc
GE-890	**Straight Edge**	300 mm length	1 Pc

Dimension (l x w x h) : 60 x 60 x 60 cm
Gross Weight : 40 kg

Also required, but not part of this set:

SO-355	Extruder
SO-367	Swell Plate
SO-368	Swell Tripod
SO-450	Moisture Content Test Set
AG-218A	Sieve No. 4
GE-136	Dial Indicator
GE-157	Heavy Duty Solution Balance
GE-323	Rectangular Pan



Also required, but not part of this set:

SO-355	Extruder
SO-367	Swell Plate
SO-368	Swell Tripod
SO-450	Moisture Content Test Set
AG-218A	Sieve No. 4
GE-136	Dial Indicator
GE-157	Heavy Duty Solution Balance
GE-323	Rectangular Pan

Laboratory CBR Test Set (SO - 360B)

ASTM D-1883 **AASHTO T-193**

For determining the bearing ratio of soil.

Type	Parts Name	Specification	Qty
SO-361B	**Mechanical Loading Machine**	Steel frame, hand operated, two speeds, 10.000 lbs cap., 1.954" piston dia.	1 Set
SO-362	**CBR Mold**	Machined steel, 6" i.d, 7" weight, 2" height of collar	3 Pcs
SO-363	**Spacer Dish**	Machined steel, 5 15/16" dia., 2.416" height	1 Pc
SO-364	**Cutting Edge**	Machined steel, sharp edge	1 Pc
SO-365	**Circular Surcharge Weight**	Machined steel, 5 7/8" o.d., 2 1/8" i.d, 5 lbs weight	3 Pcs
SO-366	**Slotted Surcharge Weight**	Machined steel, 5 7/8" o.d., 2 1/8" slotted width, 5 lbs weight	3 Pcs
SO-354	**Modified Proctor Hammer**	Machined steel, galvanized, 2" dia., 18" drop height, 10 lbs weight	1 Pc
SO-369	**Filter Paper**	6" dia., 100 sheet/box	1 Box
GE-101.6	**Proving Ring**	6.000 lbs capacity	1 Set
GE-131	**Dial Indicator**	Range 0.01" x 1"	1 Pc
GE-303	**Square Pan**	Galvanized steel, 65 x 65 x 7.5 cm	1 Pc
GE-390	**Thin Box**	Alumunium, 60 gr capacity	12 Pcs
GE-405A	**Graduated Cylinder**	Plastic, 1000 ml capacity	1 Pc
GE-801	**Scoop**	Cast Alumunium	1 Pc
GE-871	**Trowel**	Pointed Type	1 Pc
GE-890	**Straight Edge**	300 mm length	1 Pc

Dimension (l x w x h) : 110 x 70 x 70 cm
Gross Weight : 200 kg



Combination Permeameter (SO - 370)

ASTM D-2434 **AASHTO T-215**

For determining coefficient of permeability of soil sample.

Type	Parts Name	Specification	Qty
SO-371	**Sample Chamber**	Transparent fibre glass, 2 1/2" i.d., 8" height, compessive spring, cast alumuniium body	1 Set
SO-372	**Funnel**	Plastic, wide mouth, with over flow	1 Pc
SO-373	**Frame**	Alumunium	1 Pc
SO-374	**Porous Stone**	2.47" dia., 1/2" thick	2 Pcs
GE-376	**Burette**	Glass, 100 ml capacity, without scale	1 Pc
GE-420	**Beaker Glass**	100 ml capacity	1 Pc
GE-700	**Stop Watch**	60 sec. sweep x 15 min.	1 Pc

Dimension (l x w x h) : 110 x 40 x 30 cm
Gross Weight : 10 kg

Also required, but not part of this set:

GE-600 Thermometer
GE-710 Vernier Caliper

Compaction Permeameter Test Set (SO - 395A)

For determining coefficient of permeability of compacted soil sample.

Type	Parts Name	Specification	Qty
SO-395	**Compaction Permeameter**	1/13.33 cu. ft. mold, 6" i.d., inlet-outlet connector, overflow valve, porous stone	1 Set
SO-391	**Frame**	Cast alumunium base, alumunium column, 3 burette (5, 10, 15 mm diameter)	1 Set
GE-402	**Graduated Cylinder**	100 ml capacity	1 Pc
GE-700	**Stop Watch**	60 sec. sweep	1 Pc

Dimension (l x w x h) : 30 x 30 x 50 cm
Gross Weight : 35 kg

Also required, but not part of this set:

SO-354 Modified Proctor Hammer
SO-450 Moisture Content Test Set
AG-218A Sieve No. 4
GE-157 Heavy Duty Solution Balance
GE-800 Round Scoop





Sand Cone Test Set (SO - 400)

ASTM D-1556 **AASHTO T-191**

For determining the density of compacted soil in place.

Type	Parts Name	Specification	Qty
SO-401	**Sand Cone Bottle**	Plastic, 4 ltr cap. approx.	1 Pc
SO-402	**Sand Cone Funnel**	Seamless metal, turning stoper, 6 1/2" dia. bottom, 1/2" neck dia.	1 Pc
SO-403	**Base Plate**	Cast alumunium, 12" x 12"	1 Pc
SO-404	**Graduated Sand**	Uncemented sand, passing # 10, retained # 60, 25 kg capacity	1 Zak
GE-380	**Sample Can**	Round can, tinned metal	6 Pcs
GE-801	**Round Scoop**	Cast alumunium	1 Pc
GE-861	**Spoon**	Stainless steel	1 Pc
GE-871	**Trowel**	Pointed type	1 Pc
GE-880	**Chisel**	Hardened type	1 Pc
GE-900	**Rubber Mallet**	Wooden handle	1 Pc

Dimension (l x w x h) : 70 x 50 x 50 cm
Gross Weight : 50 kg

Also required, but not part of this set:

SO-450 Moisture Content Test Set
GE-157 Heavy Duty Solution Balance
GE-396 Glass Plate

Speedy Moisture Tester (SO - 430)



AASHTO T-217

For determining the moisture content of soil by means of calcium carbide gas pressure meter.s

Type	Parts Name	Specification	Qty
SO-432	**Speedy Gauge**	M/C range 0-20 %, sens.: 0.2%, smple weight 20 gr	1 Pc
SO-434	**Speedy Balance**	Brass beam, Cast aluminum frame, 10 gr counter balance	1 Pc
SO-435	**Calcium Carbide**	Calcium Carbide	1 Can
SO-436	**Measuring Spoon**	Cast alumunium	1 Pc
SO-437	**Crushing Ball**	Steel ball	2 Pcs
SO-438	**Cleaning Brush**	Wooden / plastic holder	1 Pc
SO-439	**Carrying Case**	Wooden Case with handle	1 Pc

Dimension (l x w x h) : 45 x 45 x 30 cm
Gross Weight : 15 kg



Moisture Content Test Set (SO - 450)

For determining moisture content of soil sample.

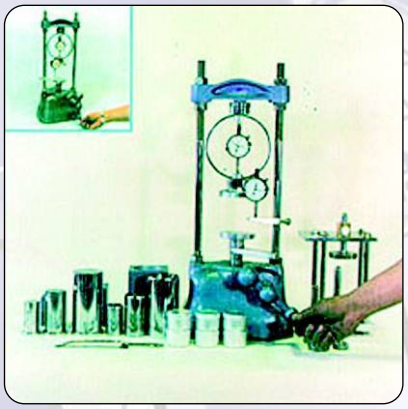
Type	Parts Name	Specification	Qty
GE-150	**Cent O-Gram Balance**	311 gr cap., 0.01 gr sens	1 Pc
GE-174	**Drying Oven**	53 ltr capacity, internal dimension (l x w x h) 400 x 400 x 330 mm, 220 V, 1400 W	1 Pc
GE-390	**Thin Box**	Alumunium, 60 gr capacity	12 Pcs
GE-451	**Dessicator**	Transparant glass, 24 cm dia. approx.	1 Pc

Dimension (l x w x h) : 80 x 80 x 110 cm
Gross Weight : 100 kg

Also required, but not part of this set:

GE-455 Silica Gel

Unconfined Compression Machine (SO - 500)



ASTM D-2166 **AASHTO T-208**

For determining stress strain relationship of cohesive soil without confining pressure.

Type	Parts Name	Specification	Qty
SO-501	**Unconfined Compression Machine**	Cast alumunium, gear box, adjustable height of top platen, hand operated 200 kg capacity	1 Set
SO-502	**Sample Tubes**		
Consist of :			
SO-502.1	**Sample Tubes**	35.0 mm x 70 mm height	1 Pc
SO-502.2	**Sample Tubes**	47.5 mm x 95 mm height	1 Pc
SO-502.3	**Sample Tubes**	70.0 mm x 140 mm height	1 Pc
SO-503	**Split Sample Tubes**		
Consist of :			
SO-503.1	**Split Sample Tubes**	35.0 mm x 70 mm height	1 Pc
SO-503.2	**Split Sample Tubes**	47.5 mm x 95 mm height	1 Pc
SO-503.3	**Split Sample Tubes**	70.0 mm x 140 mm height	1 Pc
SO-504	**Extruder**		
Consist of :			
SO-504.1	**Extruder**	34.5 mm x 71 mm height	1 Pc
SO-504.2	**Extruder**	47.0 mm x 96 mm height	1 Pc
SO-504.3	**Extruder**	69.5 mm x 141 mm height	1 Pc
SO-505	**Trimmer**	Steel frame, 3 tubes size	1 Set
GE-101.1	**Proving Ring**	100 kg capacity	1 Set
GE-137	**Dial Indicator**	Range 30 mm x 0.01 mm	1 Pc
GE-390	**Thin Box**	Alumunium, 60 gr capacity	12 Pcs
GE-840	**Wire Saw**	10 cm length approx.	1 Pc

Dimension (l x w x h) : 45 x 45 x 30 cm
Gross Weight : 15 kg

Also required, but not part of this set:

SO-450 Moisture Content Test Set
GE-700 Stop Watch



Unconfined Compression Mchine (SO -500A)

ASTM D-2166 **AASHTO T-208**

For determining stress strain relationship of cohesive soil without confining pressure.

Type	Parts Name	Specification	Qty
SO-501A	**Unconfined Compression Machine**	Electric, 220 V-AC, 200 W, variable speed, adjustable height	1 Set
SO-502	**Sample Tubes**		
Consist of :			
SO-502.1	**Sample Tubes**	35.0 mm x 70 mm height	1 Pc
SO-502.2	**Sample Tubes**	47.5 mm x 95 mm height	1 Pc
SO-502.3	**Sample Tubes**	70.0 mm x 140 mm height	1 Pc
SO-503	**Split Sample Tubes**		
Consist of :			
SO-503.1	**Split Sample Tubes**	35.0 mm x 70 mm height	1 Pc
SO-503.2	**Split Sample Tubes**	47.5 mm x 95 mm height	1 Pc
SO-503.3	**Split Sample Tubes**	70.0 mm x 140 mm height	1 Pc
SO-504	**Extruder**		
Consist of :			
SO-504.1	**Extruder**	34.5 mm x 71 mm height	1 Pc
SO-504.2	**Extruder**	47.0 mm x 96 mm height	1 Pc
SO-504.3	**Extruder**	69.5 mm x 141 mm height	1 Pc
SO-505	**Trimmer**	Steel frame, 3 tubes size	1 Set
GE-101.1	**Proving Ring**	100 kg capacity	1 Set
GE-137	**Dial Indicator**	Range 30 mm x 0.01 mm	1 Pc
GE-390	**Thin Box**	Alumunium, 60 gr capacity	12 Pcs
GE-840	**Wire Saw**	10 cm length approx.	1 Pc

Dimension (l x w x h) : 80 x 70 x 100 cm
Gross Weight : 60 kg

Also required, but not part of this set:

SO-450	Moisture Content Test Set
GE-700	Stop Watch

Consolidation Test Set (SO -515)

ASTM D-2435 **AASHTO T-216**

For determining the rate and magnitude of consolidation of soil when it is restrained laterally, loadded and drain axially.



Type	Parts Name	Specification	Qty
SO-516	**Consolidation Frame**		
Consist of :			
SO-516.1	**Frame**	Cast alumunium, two test unit	1 Set
SO-516.2	**Loading Set**	Three alternative lever arm 1:9, 1:10, 1:11	2 Set
SO-517	**Consolidometer**	Brass, 50.5 mm sample dia., porous stone, loading cap.	2 Set
SO-518	**Loads**	Slotted, machined steel	
Consist of :			
SO-518.1	**Load**	500 gr	4 Pcs
SO-518.2	**Load**	1000 gr	2 Pcs
SO-518.3	**Load**	2000 gr	2 Pcs
SO-518.4	**Load**	4000 gr	2 Pcs
SO-518.5	**Load**	8000 gr	2 Pcs
SO-519	**Sample Tubes**	Machine steel, 50.5 mm dia., galvanized, with extruder	1 Set
GE-135	**Dial Indicator**	Range 10.0 mm x 0.01 mm	2 Pcs
GE-840	**Wire Saw**	10 cm length approx.	1 Pc

Dimension (l x w x h) : 80 x 80 x 150 cm
Gross Weight : 130 kg

Also required, but not part of this set:

SO-450	Moisture Content Test Set
GE-521	Wash Bottle
GE-700	Stop Watch
GE-710	Vernier Caliper
GE-820	Spatula

Direct Shear Test Set (SO - 525)



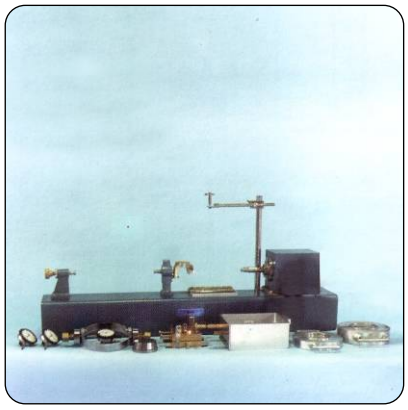
ASTM D-3080 **AASHTO T-236**
For determining shearing resistance of soil sample.

Type	Parts Name	Specification	Qty
SO-526	**Loading Machine**		
Consist of :			
SO-526.1	**Frame**	Welded steel frame hand operated	1 Pc
SO-526.2	**Loading Hanger**	Machined steel, galvanized, supplied without load	2 Pc
SO-527	**Shear Box**	Cast alumunium box, 63.5 mm sample dia., porous stone, loading cap.	1 Set
SO-523	**Loads**	Slotted, machined steel, galvanized	
Consist of :			
SO-523.1	**Load**	3167 gr weight	2 Pcs
SO-523.2	**Load**	6334 gr weight	1 Pc
SO-524	**Sample Tube**	Machine steel, 63.5 mm dia., galvanized, with extruder	1 Set
GE-101.1	**Proving Ring**	100 kg capacity	1 Pc
GE-135	**Dial Indicator**	Range 10.0 mm x 0.01 mm	1 Pc
GE-136	**Dial Indicator**	Range 20.0 mm x 0.01 mm	1 Pc
GE-840	**Wire Saw**	10 cm length approx.	1 Pc

Dimension (l x w x h) : 130 x 50 x 130 cm
Gross Weight : 25 kg

Also required, but not part of this set:

SO-450	Moisture Content Test Set
GE-521	Wash Bottle
GE-700	Stop Watch
GE-710	Vernier Caliper
GE-820	Spatula



Electric Direct Shear Test Set (SO - 525A)

ASTM D-3080 **AASHTO T-236**
For determining shearing resistance of soil sample.
Voltage : 220V, variable speed

Type	Specification		Qty
SO-526	**Loading Machine**		
Consist of :			
SO-526.1	**Frame**	Welded steel frame	1 Pc
SO-526.2	**Loading Hanger**	Machined steel, galvanized, supplied without load	2 Pc
SO-527	**Shear Box**	Cast alumunium box, 63.5 mm sample dia., porous stone, loading cap.	1 Set
SO-523	**Loads**	Slotted, machined steel, galvanized	
Consist of :			
SO-523.1	**Load**	3.167 gr weight	2 Pcs
SO-523.2	**Load**	6.334 gr weight	1 Pc
SO-524	**Sample Tube**	Machine steel, 63.5 mm dia., galvanized, with extruder	1 Set
GE-101.1	**Proving Ring**	100 kg capacity	1 Pc
GE-135	**Dial Indicator**	Range 10.0 mm x 0.01 mm	1 Pc
GE-136	**Dial Indicator**	Range 20.0 mm x 0.01 mm	1 Pc
GE-840	**Wire Saw**	10 cm length approx.	1 Pc

Dimension (l x w x h) : 135 x 55 x 135 cm
Gross Weight : 127 kg

Also required, but not part of this set:

SO-450	Moisture Content Test Set
GE-521	Wash Bottle
GE-700	Stop Watch
GE-710	Vernier Caliper
GE-820	Spatula



Triaxial Test Set (SO - 550)

ASTM D-2850

The Triaxial Test Set provides test Load up to 1000 kgf (1 ton) at any speed 0,00 mm to 5.00 mm per minute. This feature provides the capability for use in application such as constant rate of load and constant rate of stress. Measuring and single switch for loading or unloading of sample making it extremely easy to use. A moveable cross head allow a wide range of sample sizes to be tested with simple adjustment. Ideal for UU, CD and CU test version.

Specification

Load Capacity	: 1000 kgf (1 ton)
Loading Speed	: 0.00 to 5.00 mm per minute
Cell (speciment) size	: dia. 38 mm & dia. 50 mm
Control	: Power ON-OFF Switch Load-Stop-Unload by Selector Switch
Power	: AC-220 V / 150 W
Overall Dimension	: 210 x 160 x 80 cm
Gross Weight	: 130 Kg

Accessories

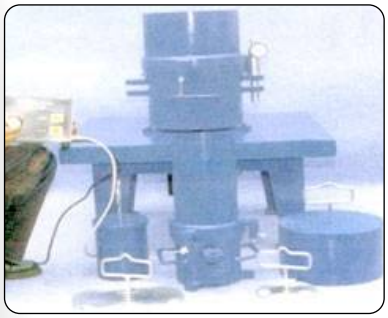
SO-550.1	**Triaxial Compression Machine**	1 ton Variable switch, hand operated and Motorized operated 220 V	1 set
SO-550.2	**Load measuring**	300 kgf (include calibration certificate)	1 set
SO-550.3	**Displacement measuring**	Dial Gauge 30 x 0.01mm	1 pc
SO-550.4	**Control Panel** (Compact Assemble) - Air regulator and Pressure gauge 10 kg/cm2 (CP) and volume change 100 ml capacity - Air regulator and Pressure -auge 10 kg/cm2 (BP) and volume change 100 ml capcity - Pressure Pump and Pressure Gauge 10 kg/cm2 (PP) with Mercury Manometer and Null Indicator - Water Tank 2 set, Porous Stone		1 set
SO-550.5	**Triaxial cell**	(cell chamber) sample pad dia. 38 mm and 50 mm	1 set
SO-550.6	**Air Compressor**	5 kg/cm2 220V	1 set
SO-550.7	**O-Ring**	placing tool 38 mm	1 pc
SO-550.8	**O-Ring**	placing tool 50 mm	1 pc
SO-550.9	**Suction membrane**	device 38 mm	1 pc
SO-550.10	**Suction**	membrane device 50 mm	1 pc
SO-550.11	**Two ways split former**	dia. 38 mm	1 pc
SO-550.12	**Two ways split former**	dia. 50 mm	1 pc
SO-550.13	**Sample tube**	dia. 38 mm and extruder	1 set
SO-550.14	**Sample tube**	dia. 50 mm and extruder	1 set
SO-550.15	**Rubber membrane**	38 mm	10 pcs
SO-550.16	**Rubber membrane**	50 mm	10 pcs
SO-550.17	**Membrane sealing ring**	38 mm	4 pcs
SO-550.18	**Membrane sealing ring**	50 mm	4 pcs

Relative Density Set (SO - 560)

Testing Standard ASTM D-2049

Set of equipment for measuring relative density of cohesionless soils.

Type	Part Name	Specification	Qty
SO-560.1	**Vibrating table**	762 x 762 mm, variable amplitude 0.05 0.4 mm, 220 volt /single phase	1 set
SO-560.2	**Relative density mould**	0.1 Cu. Ft.	1 set
SO-560.3	**Relative density mould**	0.5 Cu. Ft.	1 set
SO-560.4	**Dial Indicator**	50 x 0.01 mm	1 set
SO-560.5	**Calibration bar, plated metal**	3" x 12" x 1/8"	1 set



Triaxial Test Set (SO - 600)

ASTM D-2850

The Triaxial Test Set provides test Load up to 300 kgf at any speed 0,00 mm to 5.00 mm per minute. This feature provides the capability for use in application such as constant rate of load and constant rate of stress. Measuring and single switch for loading or unloading of sample making it extremely easy to use. A moveable cross head allow a wide range of sample sizes to be tested with simple adjustment. Ideal for UU, CD and CU test version.



Specification

Load Capacity	: 300 kgf (1 ton)
Loading Speed	: 0.00 to 5.00 mm per minute
Cell (speciment) size	: dia. 35 mm & dia. 50 mm
Control	: Power ON-OFF Switch Load-Stop-Unload by Selector Switch
Power	: AC-220 V / 150 W
Overall Dimension	: 200 x 160 x 80 cm
Gross Weight	: 120 Kg

Accessories

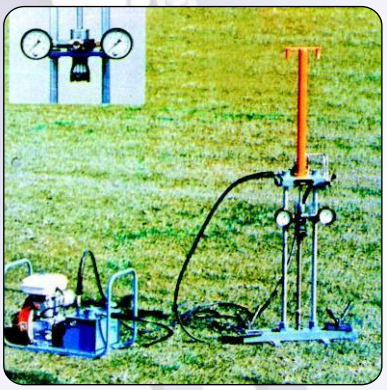
SO-600.1	**Triaxial Compression Machine**	1 ton Variable switch, hand operated and Motorized operated 220 V	1 set
SO-600.2	**Load measuring**	300 kgf (include calibration certificate)	1 set
SO-600.3	**Displacement measuring**	Dial Gauge 30 x 0.01mm	1 pc
SO-600.4	**Control Panel** (Compact Assemble)		1 set

- Assemblied measuring pore pressure 10 kg/cm^2 digital system
- Cell Pressure 10 kg/cm^2
- Back Pressure 10 kg/cm^2 (manometer system)
- Constant Pressure Unit Air Regulator
- Burette Top Water Tank
- Bottom Water Tank
- Vacuum Tank

SO-600.5	**Triaxial cell**	(cell chamber) sample pad dia. 35 mm and 50 mm	1 set
SO-600.6	**Air Compressor**	8 kg/cm^2 220V	1 set
SO-600.7	**Vacuum Pump**	0-76 cmHg 220V	1 set
SO-600.8	**O-Ring**	placing tool 35 mm	1 pc
SO-600.9	**O-Ring**	placing tool 50 mm	1 pc
SO-600.10	**Suction membrane**	device 35 mm	1 pc
SO-600.11	**Suction membrane**	device 50 mm	1 pc
SO-600.12	**Two ways split former**	dia. 35 mm	1 pc
SO-600.13	**Two ways split former**	dia. 50 mm	1 pc
SO-600.14	**Sample tube**	dia. 35 mm and extruder	1 set
SO-600.15	**Sample tube**	dia. 50 mm and extruder	1 set
SO-600.16	**Rubber membrane**	35 mm	10 pcs
SO-600.17	**Rubber membrane**	50 mm	10 pcs
SO-600.18	**Membrane sealing ring**	35 mm	4 pcs
SO-600.19	**Membrane sealing ring**	50 mm	4 pcs

Hydraulic Dutch Cone Penetrometer 25 kN 2,5 Ton Capacity (SO - 710)

This Penetrometer is mainly used for Soil investigation in place. The Penetration rod is pressed in the soil by hydraulic pump, driver by Gasoline Engine.



Type	Part Name	Specification	Qty
SO-710.1	**Hydraulic Dutch Cone Penetrometer**	2,5 ton capacity	1 unit
SO-710.2	**Hydraulic Pump**	driver by gasoline engine hand starter	1 unit
SO-710.3	**Sounding Rod & Plunger**	50 cm length	40 pcs
SO-710.4	**Push and Pull Adaptor**		1 set
SO-710.5	**Spiral Anchor**	25 cm dia.	4 pcs
SO-710.6	**Mantle Cone**	60 deg tip	1 pc
SO-710.7	**Friction Cone**	60 deg tip	1 pc
SO-710.8	**Handle and T-Piece**		1 set
SO-710.9	**Wrench Set**		1 box
SO-710.10	**Long Fasten Press**		2 pcs
SO-710.11	**Short Fasten Press**		2 pcs
SO-710.12	**Manometer**	60 Kg/cm^2	1 pc
SO-710.13	**Manometer**	250 Kg/cm^2	1 pc







Hydraulic Dutch Cone Penetrometer 50 kN 5 Ton Capacity (SO-720)

This Penetrometer is mainly used for Soil investigation in place. The Penetration rod is pressed in the soil by hydraulic pump, driver by Gasoline Engine.

Accessories

SO-720.1	**Hydraulic Dutch Cone Penetrometer**	5 ton capacity	1 unit
SO-720.2	**Hydraulic Pump**	driver by gasoline engine hand starter	1 unit
SO-720.3	**Sounding Rod & Plunger**	50 cm length	40 pcs
SO-720.4	**Push and Pull Adaptor**		1 set
SO-720.5	**Spiral Anchor**	25 cm dia.	4 pcs
SO-720.6	**Mantle Cone**	60 deg tip	1 pc
SO-720.7	**Friction Cone**	60 deg tip	1 pc
SO-720.8	**Handle and T-Piece**		1 set
SO-720.9	**Wrench Set**		1 box
SO-720.10	**Long Fasten Press**		2 pcs
SO-720.11	**Short Fasten Press**		2 pcs
SO-720.12	**Manometer**	60 Kg/cm^2	1 pc
SO-720.13	**Manometer**	500 Kg/cm^2	1 pc

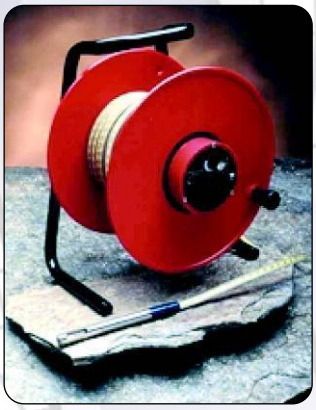
Hydraulic Dutch Cone Penetrometer 100 kN 10 Ton Capacity (SO-730)

This Penetrometer is mainly used for Soil investigation in place. The Penetration rod is pressed in the soil by hydraulic pump, driver by Gasoline Engine.



Accessories

SO-730.1	**Hydraulic Dutch Cone Penetrometer**	10 ton capacity	1 unit
SO-730.2	**Hydraulic Pump**	driver by gasoline engine hand starter	1 unit
SO-730.3	**Hydraulic Anchor Spanner**		1 set
SO-730.4	**Sounding Rod & Plunger**	100 cm length	40 pcs
SO-730.5	**Push and Pull Adaptor**		1 set
SO-730.6	**Spiral Anchor**	10 cm dia.	4 pcs
SO-730.7	**Mantle Cone**	60 deg tip	1 pc
SO-730.8	**Friction Cone**	60 deg tip	1 pc
SO-730.9	**Wrench Set**		1 box
SO-730.10	**Long Fasten Press**		2 pcs
SO-730.11	**Short Fasten Press**		2 pcs
SO-730.12	**Manometer**	150 Kg/cm^2	1 pc
SO-730.13	**Manometer**	1000 Kg/cm^2	1 pc



Water Level Indicator (SO-800)

The following two models are drum mounted with ON/OFF indicator. A light and audible signal are activated when the probe touches the water. Battery operated, the cable is marked at meter intervals.

Ordering Information

SO-810	**Water Level Indicator**	Visual and sonic, 50 meter cable marked at meter interval
SO-820	**Water Level Indicator**	Visual and Sonic, 100 meter cable marked at meter interval

GeoGauge™ In-Place Soil Stiffness & Modulus Compaction Gauge (SO-570)



GeoGauge is the only hand portable gauge available that provides a simple, immediate and précis means of directly measuring in-place structural stiffness and in place Young's / resilient modulus. This allows effective evaluation and control of many construction applications. With GeoGauge, one simple test links design specification, construction and maintenance in about on minute. GeoGauge allows compliance for impending modulus based mechanistic design guidelines.

- Optimize compaction with minimum effort via real time stiffness measurements
- Quantify the curing and modulus of stabilized materials
- Enhance development of performance specification via-in-place modulus databases
- Use efficiently all day (one person use, non- destructive, on nuclear)
- Enable more uniform stiffness (strength) for longer structural life
- Measure effectively near vibrating equipment (immediate results without construction delays of interference)
- Accurate, fast measurements on sub rages, sub bases, fills, embankments, soils, aggregates, mixtures asphalt and concrete
- Evalaute modulus of subgrade reaction, CBR unconfined compressive strength and other measures of strength
- Estimate dry density from stiffness and moisture content
- For in-place layer's stiffness and material's Young's modulus Ideal for compaction process monitoring
- Needs no license, completely safe, fast and simple
- Lightweight, portable, only 10kg (22 lbs)
- For all engineered soils, pavements, foundations and bedding

Specification

Display Panel	LCD display with membrane function keypad and infrared communication port,
Stiffness Range	17 to 400 klbf/in (3 to 70 MN/m)
Young's Modulus Range	40 to 90 kpsi (26 to 610 mpa)
Measurement Depth Range	9 to 12° (230 to 310mm)
Operating Temperature	0°C to 38°C (ambient)
Power Source	(6) "D" cell 1-5 volt batteries, Sufficient for 500 to 1.500 measurements.
Gauge Dimensions	11" (280mm) diameter by 10" (255mm) height (less handle)
Gauge weight	22 lbs (10kg)
Shipping weight	Gauge with case 39 lbs (17kg)

Ordering Information

SO-570	GeoGauge™, Stiffness/Modulus Gauge, with carrying case, batteries and manual

Accessories

SO-570.1	Infrared (IR) serial interface adapter cable with spreadsheet software template, 3.5" disk (Microsoft Hyper Terminal required)
SO-570.2	Verifier Mass, 10 Kg



Percentage Refusal Density (SO-610)

BS 598-104, EN 12697-32, 13280-4
Percentage Refusal Density (PRD) is defined as the ratio of the initial dried density of the sample to the final density (refusal density) expressed as a percentage.

The sample bulk density is determined by weighing in air and water. It is then heated in a split mould and compacted to refusal using a vibrating hammer. The final density is obtained by weighing in air and water.

Ordering Information

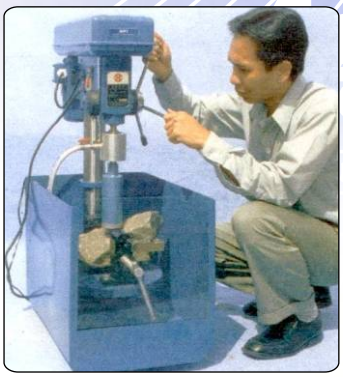
SO-610	**PRD Split Mould and Baseplate**	weight 10.7 Kg

Accessories

SO-611	**Vibrating Hammer**	suitable for compacting asphalt samples. weight 12.5 Kg, 220 - 240 V AC, 50-60 Hz, 1ph
SO-612	**Small Tamping Foot**	102 mm diameter
SO-613	**Large Tamping Foot**	146 mm diameter
SO-614	**300mm Shank**	for tamping foot

Also required, but not part of this

GE-176	Drying Oven
AG-830	Specific Gravity & Absorption of Coarse Aggregate Test Set



CD-100 Core Drill (CO-660)

The machine is capable of cutting cores up to 90mm in length without adjustment of the drill head assembly.

Cores may be cut from regular or irregular samples of rock or other material for final end preparation prior to strength testing.

Type	Specification	Qty
CO-660.1	CD-100 Core drill 220V/AC single phase	1 set
CO-660.2	Core drilling bit 2" x 8" length	1 pc

Sample Splitter (AG-100)

For deviding dry material such as gravel and sand.



Type	Parts Name	Specification
AG-100	Sample Splitter	Stainless steel, chute width 1/2", 12 holes, supplied complete with scoop and pans.
AG-101	Sample Splitter	Stainless steel, chute width 3/2", 12 holes, supplied complete with scoop and pans.
AG-102	Sample Splitter	Stainless steel, chute width 1", 12 holes, supplied complete with scoop and pans.
AG-103	Sample Splitter	Stainless steel, chute width 1-1/2", 8 holes, supplied complete with scoop and pans.
AG-104	Sample Splitter	Stainless steel, chute width 2", 8 holes, supplied complete with scoop and pans.
AG-105	Sample Splitter	Stainless steel, chute width 2-1/2", 8 holes, supplied complete with scoop and pans.
AG-106	Sample Splitter	Stainless steel, chute width 3", 8 holes, supplied complete with scoop and pans.

Dimension (l x w x h) : 65 x 40 x 40 cm
Gross Weight : 15 kg



Gilson Sample splitter (AG-111)

Painted plate frame, alumunium chute, variable chute width, 1/2" increment (1/2", 1", 1 1/2", 2", etc), supplied with pans.

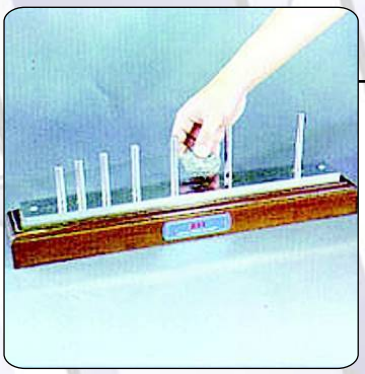
Dimension (l x w x h) : 110 x 50 x 50 cm
Gross Weight : 65 kg



Precission Sample Splitter (AG-122)

Stainless steel, chute width 1/4" x 32 holes, supplied complete with scoop and pans.

Dimension (l x w x h) : 50 x 50 x 50 cm
Gross Weight : 10 kg



Length Gauge (AG-170)

BS-812

For rapid measuring the length of aggregates. Hard wood base, steel base plate, distance: 89.0, 62.86, 39.9, 28.5, 20.1, 14.2 mm

Also required, but not part of this set:

GE-159 Dial O-Gram Balance
GE-363 Mixing Bowl

Dimension (l x w x h) : 50 x 12 x 18 cm
Gross Weight : 5 kg

Thickness Gauge (AG-180)

BS-812

For determining the flakiness index of coarse aggregate. Galvanized metal sheet, hole size 100 x 33.9, 90 x 26.3, 80 x 19.7, 60 x 14.4, 50 x 10.2, 40 x 7.2, 30 x 4.9



Also required, but not part of this set

GE-153	Dial O-Gram Balance
GE-363	Mixing Bowl

Dimension (l x w x h)	:	30 x 20 x 5 cm
Gross Weight	:	3 kg



Brass Round Sieve (AG-208A / AG-250)

For determining grain size distribution of soil particles or sand / gravel.
Brass frame 8" dia.

Type	Parts Name	Specification
AG-200 A	**Sieve 4"**	Mesh 101.6 mm opening
AG-201 A	**Sieve 3 1/2"**	Mesh 88.9 mm opening
AG-202 A	**Sieve 3"**	Mesh 76.2 mm opening
AG-203 A	**Sieve 2 1/2"**	Mesh 62.5 mm opening
AG-204 A	**Sieve 2"**	Mesh 50.8 mm opening
AG-205 A	**Sieve 1 3/4"**	Mesh 44.4 mm opening
AG-206 A	**Sieve 1 1/2"**	Mesh 38.1 mm opening
AG-207 A	**Sieve 1 1/4"**	Mesh 31.7 mm opening
AG-208 A	**Sieve 1"**	Mesh 25.4 mm opening
AG-209 A	**Sieve 7/8"**	Mesh 22.2 mm opening
AG-210 A	**Sieve 3/4"**	Mesh 19.0 mm opening
AG-211 A	**Sieve 5/8"**	Mesh 15.8 mm opening
AG-212 A	**Sieve 1/2"**	Mesh 12.7 mm opening
AG-213 A	**Sieve 7/16"**	Mesh 11.1 mm opening
AG-214 A	**Sieve 3/8"**	Mesh 9.5 mm opening
AG-215 A	**Sieve 5/16"**	Mesh 7.9 mm opening
AG-216 A	**Sieve 1/4"**	Mesh 6.3 mm opening
AG-218 A	**Sieve # 4**	Mesh 4.75 mm opening
AG-222 A	**Sieve # 8**	Mesh 2.36 mm opening
AG-223 A	**Sieve # 10**	Mesh 2.00 mm opening
AG-224 A	**Sieve # 12**	Mesh 1.70 mm opening
AG-226 A	**Sieve # 16**	Mesh 1.18 mm opening
AG-228 A	**Sieve # 20**	Mesh 0.850 mm opening
AG-230 A	**Sieve # 30**	Mesh 0.600 mm opening
AG-232 A	**Sieve # 40**	Mesh 0.425 mm opening
AG-234 A	**Sieve # 50**	Mesh 0.300 mm opening
AG-235 A	**Sieve # 60**	Mesh 0.250 mm opening
AG-236 A	**Sieve # 70**	Mesh 0.212 mm opening
AG-237 A	**Sieve # 80**	Mesh 0.180 mm opening
AG-238 A	**Sieve # 100**	Mesh 0.150 mm opening
AG-239 A	**Sieve # 120**	Mesh 0.125 mm opening
AG-240 A	**Sieve # 140**	Mesh 0.106 mm opening
AG-241 A	**Sieve # 170**	Mesh 0.090 mm opening
AG-242 A	**Sieve # 200**	Mesh 0.075 mm opening
AG-250	**Pand & Cover**	

Dimension (l x w x h)	:	22 x 22 x 6.5 cm
Gross Weight	:	0.75 kg

Stainless Steel Round Sieve (AG-308/AG-350)

For determining grain size distribution of soil particles or sand / gravel.
Stainless steel frame 8" dia.



Type	Parts Name	Specification
AG-300 A	**Sieve 4"**	Mesh 101.6 mm opening
AG-301 A	**Sieve 3 1/2"**	Mesh 88.9 mm opening
AG-302 A	**Sieve 3"**	Mesh 76.2 mm opening
AG-303 A	**Sieve 2 1/2"**	Mesh 62.5 mm opening
AG-304 A	**Sieve 2"**	Mesh 50.8 mm opening
AG-305 A	**Sieve 1 3/4"**	Mesh 44.4 mm opening



Type	Parts Name	Specification
AG-306 A	Sieve 1 1/2"	Mesh 38.1 mm opening
AG-307 A	Sieve 1 1/4"	Mesh 31.7 mm opening
AG-308 A	Sieve 1"	Mesh 25.4 mm opening
AG-309 A	Sieve 7/8"	Mesh 22.2 mm opening
AG-310 A	Sieve 3/4"	Mesh 19.0 mm opening
AG-311 A	Sieve 5/8"	Mesh 15.8 mm opening
AG-312 A	Sieve 1/2"	Mesh 12.7 mm opening
AG-313 A	Sieve 7/16"	Mesh 11.1 mm opening
AG-314 A	Sieve 3/8"	Mesh 9.5 mm opening
AG-315 A	Sieve 5/16"	Mesh 7.9 mm opening
AG-316 A	Sieve 1/4"	Mesh 6.3 mm opening
AG-318 A	Sieve # 4	Mesh 4.75 mm opening
AG-322 A	Sieve # 8	Mesh 2.36 mm opening
AG-323 A	Sieve # 10	Mesh 2.00 mm opening
AG-324 A	Sieve # 12	Mesh 1.70 mm opening
AG-326 A	Sieve # 16	Mesh 1.18 mm opening
AG-328 A	Sieve # 20	Mesh 0.850 mm opening
AG-330 A	Sieve # 30	Mesh 0.600 mm opening
AG-332 A	Sieve # 40	Mesh 0.425 mm opening
AG-334 A	Sieve # 50	Mesh 0.300 mm opening
AG-335 A	Sieve # 60	Mesh 0.250 mm opening
AG-336 A	Sieve # 70	Mesh 0.212 mm opening
AG-337 A	Sieve # 80	Mesh 0.180 mm opening
AG-338 A	Sieve # 100	Mesh 0.150 mm opening
AG-339 A	Sieve # 120	Mesh 0.125 mm opening
AG-242 A	Sieve # 200	Mesh 0.075 mm opening
AG-350	Pand & Cover	

Dimension (l x w x h) : 22 x 22 x 6.5 cm
Gross Weight : 0.75 kg

Wooden Sieve (AG-404)

For determining grain size distribution of soil particles or sand / gravel.
Wooden frame : 60 x 40 x 7 cm



Type	Parts Name	Specification
AG-400 A	Wooden Sieve 4"	Mesh 101.6 opening
AG-401 A	Wooden Sieve 3 1/2"	Mesh 88.9 mm opening
AG-402 A	Wooden Sieve 3"	Mesh 76.2 mm opening
AG-403 A	Wooden Sieve 2 1/2"	Mesh 62.5 mm opening
AG-404 A	Wooden Sieve 2"	Mesh 50.8 mm opening
AG-405 A	Wooden Sieve 1 3/4"	Mesh 44.4 mm opening
AG-406 A	Wooden Sieve 1 1/2"	Mesh 38.1 mm opening
AG-407 A	Wooden Sieve 1 1/4"	Mesh 31.7 mm opening
AG-408 A	Wooden Sieve 1"	Mesh 25.4 mm opening
AG-409 A	Wooden Sieve 7/8"	Mesh 22.2 mm opening
AG-410 A	Wooden Sieve 3/4"	Mesh 19.0 mm opening
AG-411 A	Wooden Sieve 5/8"	Mesh 15.8 mm opening
AG-412 A	Wooden Sieve 1/2"	Mesh 12.7 mm opening
AG-413 A	Wooden Sieve 7/16"	Mesh 11.1 mm opening
AG-414 A	Wooden Sieve 3/8"	Mesh 9.5 mm opening
AG-415 A	Wooden Sieve 5/16"	Mesh 7.9 mm opening
AG-416 A	Wooden Sieve 1/4"	Mesh 6.3 mm opening
AG-418 A	Wooden Sieve # 4	Mesh 4.75 mm opening

Dimension (l x w x h) : 130 x 30 x 25 cm
Gross Weight : 1.5 kg



Wet Washing Sieve (AG-492)

For wet sieving of soil, cement and fine aggregates.

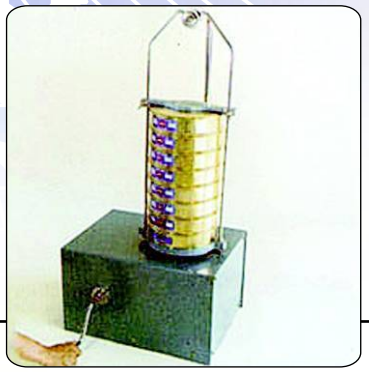
Type	Parts Name	Specification
AG-492	Wet Washing Sieve	# 200, 8" dia., 4" depth
AG-493	Wet Washing Sieve	# 200, 8" dia., 8" depth

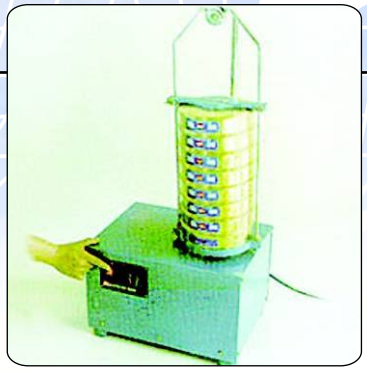
Dimension (l x w x h) : 30 x 30 x 25 cm
Gross Weight : 1.5 kg

Sieve Shaker (AG-510)

Hand operated, steel box, cast alumunium pulley, 8" sieve dia., 8 sieve capacity, supplied without sieve/pan & cover.

Dimension (l x w x h)	:	50 x 50 x 100 cm
Gross Weight	:	50 kg





Electric Sieve Shaker (AG-515)

Electric, 220 V-AC, 200 Watt, steel base, cast alumunium pulley, 8" sieve dia., 8 sieve capacity, supplied without sieve/pan & cover.

Dimension (l x w x h)	:	50 x 50 x 100 cm
Gross Weight	:	55 kg

Sand Equivalent Test Set (AG-600)

ASTM D-2419 **AASHTO T-176**

For indicating relative proportion of clay like material and fine dust in granular soil or graded aggregate.

Type	Parts Name	Specification	Qty
AG-601	**Graduated Cylinder**	Transparent fibre glass, 1 1/4" i.d, 1 1/2" o.d 17" height, with scale.	2 Pcs
AG-602	**Stoper Assembly**	Rubber Stoper, irrigation tube, hose, sypon.	1 Set
AG-603	**Weight FootAssembly**	Machine steel, galvanized, 1000 gr weight, sand reading indicator.	1 Set
AG-604	**Stock Solution**	Calcium cloride, glyserin and formaldehyde solution. Supplied in a plastic container (1 ltr).	1 Btl
AG-605	**Carrying Case**	Wooden case with handle	1 Pc
GE-390	**Thin Box**	Alumunium 60 gr capacity	2 Pcs
GE-470	**Funnel**	Plastic, narrow mouth	1 Pc



Also required, but not part of this set

AG-218A	Sieve No. 4
AG-250	Pan & Cover
GE-747	Rubber Gloves

Dimension (l x w x h)	:	70 x 50 x 20 cm
Gross Weight	:	20 kg



Sand Equivalent Shaker (AG-610)

ASTM D-2419 **AASHTO T-176**

To give greater uniformity action, hand operated mounting bracket with cylinder holder, two spring steel strapes, built in counter, wooden case. Supplied without graduated cylinder.

Dimension (l x w x h)	:	60 x 30 x 90 cm
Gross Weight	:	20 kg



Bottle Roller (AG-621)

BS-812 **ASTM C-117**

Electric, 220 V, 100 Watt, 50 Hz, 1 Phase, 80 RPM. Supplied complete with 1 kg capacity glass jar.

Dimension (l x w x h)	:	60 x 30 x 90 cm
Gross Weight	:	20 kg



Los Angeles Abrassion Machine (AG-700)

ASTM C-131 **AASHTO T-96**

For measuring degradation of mineral aggregates from abrassion, impact and grinding.

Type	Parts Name	Specification	Qty
AG-701	Los Angeles Abrassion Machine		1 Set
	Frame	Welded steel frame, 8 and 12 cm (steel profile)	
	Drum	1/2" thick steel plate 28" inner diameter 20" inner width	
	Automatic Counter	Digital, module system for easy maintenance Panel button: ON-OFF-RESET-500-1000	
	Power	Electromotor, dual voltage 110-220 V, 750 Watt, 1 Ph, Heavy duty speed reducer.	
	Drum Speed	30-33 RPM	
AG-702	Steel Ball	Steel 1 7/8" diameter	12 Pcs
AG-703	Catching Pan	Galvanized steel	1 Pc

Also required, but not part of this set

AG-224A	Sieve No. 12
GE-157	Heavy Duty Solution Balance
GE-174	Drying Oven
GE-363	Mixing Bowl
GE-801	Round Scoop

Dimension (l x w x h) : 120 x 100 x 150 cm
Gross Weight : 450 kg

Aggregate Impact Test (AG-750)

BS-812

For determining the aggregate impact value and resistance of aggregate to sudden shock or impact.

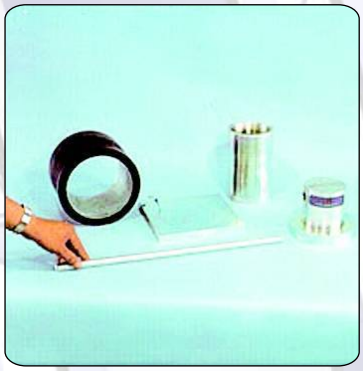


Type	Parts Name	Specification	Qty
AG-751	Impact Machine	Heavy duty construction, safety locking bar, built in counter	1 Set
AG-752	Cylindrical Measure	Machine steel, 75 mm dia., 50 mm deep.	1 Pc
AG-753	Tamping Rod	Galvanized steel, 3/8" dia., 8" length	2 Pcs

Also required, but not part of this set

AG-212A	Sieve 1/2"
AG-214A	Sieve 3/8"
AG-222A	Sieve No. 8
AG-250	Pan & Cover
GE-152	Triple Beam Balance
GE-174	Oven
GE-363	Mixing Bowl
GE-922	Soft Brush

Dimension (l x w x h) : 50 x 30 x 90 cm
Gross Weight : 80 kg



Aggregate Crushing Value Apparatus (AG-760)

BS-812

For determining the chrushing properties of bulk aggregate applying 400 kN load over a periode of 10 minutes.

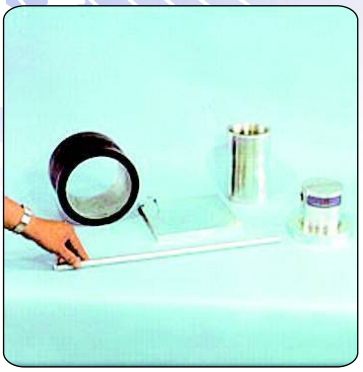
Type	Parts Name	Specification	Qty
AG-761	Cylinder	Machine steel, 154 mm dia.	1 Pc
AG-762	Plunger	Machine steel	1 Pc
AG-763	Base Plate	Machine steel	1 Pc
AG-764	Metal Measure	115 mm dia., 180 mm deep.	1 Pc
AG-765	Tamping Rod	Galvanized steel, 16 mm dia., 500 mm length, hemispherical at both ends.	1 Pc

Dimension (l x w x h) : 30 x 30 x 55 cm
Gross Weight : 30 kg

Aggregate Crushing Value Apparatus (AG-760A)

BS-812

For determining the chrushing properties of bulk aggregate applying 400 kN load over a periode of 10 minutes.



Type	Parts Name	Specification	Qty
AG-761A	**Cylinder**	Machine steel, 78 mm dia.	1 Pc
AG-762A	**Plunger**	Machine steel	1 Pc
AG-763A	**Base Plate**	Machine steel	1 Pc
AG-764A	**Metal Measure**	57 mm dia., 90 mm deep.	1 Pc
AG-765A	**Tamping Rod**	Galvanized steel, 8 mm dia., 300 mm length, hemispherical at both ends.	1 Pc

Dimension (l x w x h) : 20 x 20 x 35 cm
Gross Weight : 20 kg



Bulk Density Test Set (AG-800)

ASTM C-29 **AASHTO T-19**

For determining bulk density of fine, coarse or mix aggregate.

Type	Parts Name	Specification	Qty
CO-410	**Vibrating Table**	Variable speed up to 3600 rpm, separate control box, 50 x 50 cm table.	1 Set
AG-801	**Container**	Machined steel, galvanized, 3 ltr capacity.	1 Pc
AG-802	**Container**	Machined steel, galvanized, 10 ltr capacity.	1 Pc
AG-803	**Container**	Machined steel, galvanized, 15 ltr capacity.	1 Pc
AG-804	**Container**	Machined steel, galvanized, 30 ltr capacity.	1 Pc

Also required, but not part of this set

GE-159	Platform Scale
GE-801	Scoop
GE-891	Straight Edge
GE-900	Rubber Mallet
GE-930	Tamping Rod

Dimension (l x w x h) : 60 x 60 x 100 cm
Gross Weight : 150 kg

Absorption of Fine Aggregate Test Set (AG-810A)

ASTM C-128 **AASHTO T-84**

For determining the water absorption of fine aggregate at saturated surface dry.



Type	Parts Name	Specification	Qty
AG-811	**Cone and Tamper**		
Consist of :			
AG-811.1	**Cone**	Brass, 40 mm i.d at the top, 90 mm i.d at the bottom, 75 mm height.	1 Pc
AG-811.2	**Tamper**	Machine steel, galvanized, 340 gr weight, 25 mm dia.	1 Pc
GE-363	**Mixing Bowl**	Stainless steel, 25 cm dia.	1 Pc
GE-396	**Glass Plate**	10 mm thick, 30 x 30 cm	1 Pc
GE-412	**Velometric Flask**	500 ml capacity	1 Pc
GE-820	**Spatula**	Plastic handle	1 Pc

Also required, but not part of this set

AG-100	Sample Splitter
AG-232A	Sieve No. 40
AG-250	Pan & Cover
GE-152	Triple Beam Balance
GE-174	Drying Oven
GE-521	Wash Bottle
GE-530	Pipette
GE-747	Rubber Gloves
GE-750	Quartering Canvas
GE-800	Scoop
GE-922	Soft Brush

Dimension (l x w x h) : 40 x 40 x 30 cm
Gross Weight : 7 kg



Specific Gravity & Absorption of Coarse Aggregate Test Set (AG-825)

ASTM C-127 **AASHTO T-85**

For determining specific gravity and water absorption of coarse aggregate.

Type	Parts Name	Specification	Qty
AG-826	**Dunagan Balance**		
Consist of :			
AG-826.1	**Mounting Table**	Welded steel table, elevated container support.	1 Set
AG-826.2	**Water Container**	Galvanized container, 20 ltr capacity.	1 Pc
GE-157	**Heavy Duty Solution Balance**	20 kg capacity, 1 gr sensitivity supplied complete with weights.	1 Set
AG-822	**Sample Basket**	# 8 mesh, 200 mm dia., 200 mm height.	1 Pc

Also required, but not part of this set

AG-105	Sample Splitter
GE-174	Drying Oven
GE-303	Square Pan
GE-750	Quartering Canvas
GE-801	Scoop

Dimension (l x w x h) : 85 x 50 x 130 cm
Gross Weight : 60 kg

Specific Gravity & Absorption of Coarse Aggregate Test Set (AG-830)

ASTM C-127 **AASHTO T-85**

For determining specific gravity and water absorption of coarse aggregate.

Type	Parts Name	Specification	Qty
AG-831	**Dunagan Balance**		
Consist of :			
AG-831.1	**Mounting Table**	Welded steel table, elevated container support.	1 Set
AG-831.2	**Water Container**	Galvanized container, 20 ltr capacity.	1 Pc
GE-161	**Balance**	Digital balance, 220 V, 6100 gr x 0.1 gr capacity.	1 Pc
AG-822	**Sample Basket**	# 8 mesh, 200 mm dia., 200 mm height.	1 Pc

Also required, but not part of this set

AG-105	Sample Splitter
GE-174	Drying Oven
GE-303	Square Pan
GE-750	Quartering Canvas
GE-801	Scoop

Dimension (l x w x h) : 85 x 50 x 120 cm
Gross Weight : 50 kg





Organic Impurities Test Set (AG-910)

ASTM C-40 **AASHTO T-21**

For an approximate determination of organic compound in sand.

Type	Parts Name	Specification	Qty
AG-911	**Glass Bottle**	350 ml cap., graduated glass with stoper	1 Pc
AG-912	**Stock Solution**	Sodium hydroxide solution (NaOH), 1 litre	1 Btl
AG-913	**Standard Colour Chart**	5 Standard colour	1 Pc

Also required, but not part of this set

AG-100	Sample Splitter
GE-750	Quartering Canvas

Dimension (l x w x h) : 25 x 25 x 25 cm
Gross Weight : 8 kg

Soundness Test Set (AG-920)



ASTM C-88 **AASHTO T-104**

For determining aggregate resistance to desintegration by saturated solution of sodium sulfate or magnesium sulfate.

Type	Parts Name	Specification	Qty
AG-921	**Stock Solution**	Sodium sulphate solution (Na_2SO_4), 1 litre	1 Btl
GE-363	**Mixing Bowl**	Stainless steel, 24 cm dia.	1 Pc
GE-424	**Breaker Glass**	1000 ml capacity	1 Pc
GE-600	**Thermometer**	Glass, 0 - 100°	1 Pc

Also required, but not part of this set

AG-214A	Sieve 3/8"
AG-234A	Sieve No. 50
GE-152	Triple Beam Balance
GE-174	Drying Oven
GE-200	Water Bath
GE-530	Pipette
GE-747	Rubber Gloves

Dimension (l x w x h)	:	80 x 50 x 40 cm
Gross Weight	:	8 kg



Ro-Tap Sieve shaker (AG-520)

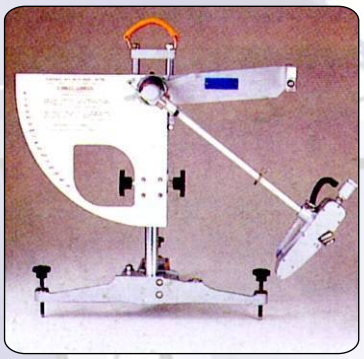
This machine has an unique action eccentric rotation and a tapping motion by means of Electro Motor Force.

Specification

Revolution	:	246 rpm 5
Number of Tapping	:	65 time/min 5
Time Control	:	Electronic Timer
Sieve Capacity	:	7 sieve and pan, cover
Sieve Size	:	8" diameter frame
Power consumption	:	3/4 HP / 220V / 600 Watts Single phase Overall

Dimension (l x w x h)	:	100 x 60 x 90 cm
Gross Weight	:	60 kg

Skid Tester (AG-950)



Calculation of Polished Stone Value

The test gives a measure of resistance to the polishing action of vehicle types under conditions similar to those occurring on a road. Low speed skidding resistance is determined mainly by aggregate PSV, and is an important factor in road safety.

Relevant British Standard

BS 812 : Part 114 : 1989

Relevant European Standard

PrEn 1097/8

Machine Features

Scales for both laboratory and road use are engraved onto the main scale of the machine.

Calibration

All Skid Testers are calibrated and certificated by British Standards

Standard Accessories

AG-950.1	Base Plate (for laboratory test)
AG-950.2	Rubber Sliders-Small
AG-950.3	Rubber Sliders-Large



Air Permeability of Portland Cement by Fineness Device (CE-100)

ASTM C-204 **AASHTO T-153**

For determining fineness of porland cement by air permeability

Type	Parts Name	Specification	Qty
CE-101	**Stand**	Polished wood	1 Pc
CE-102	**U-Tube Manometer**	Glass Tubing with valve	1 Pc
CE-103	**Permeability Cell**	Stainless Steel	1 Pc
CE-104	**Perforated Disc**	Non corroding metal	1 Pc
CE-105	**Plunger**	Stainless steel	1 Pc
CE-107	**Stock Solution**	Dibutylphtalate	0.25 Ltr
CE-108	**Filter Paper**	Type 1, grade B	1 Box
GE-473	**Funnel**	Glass	1 Pc

Also required, but not part of this set

CE-109	Standard Cement
GE-363	Mixing Bowl
GE-860	Spoon
GE-965	Mercury

Dimension (l x w x h) : 30 x 25 x 70 cm
Gross Weight : 10 kg

Specific Gravity of Hydraulic Cement Test (CE-110)

ASTM C-188 **AASHTO T-133**

For determining specific gravity of hydraulic cement

Type	Parts Name	Specification	Qty
CE-111	**Le Chatelier Flask**	250 ml cap., the neck graduated 0-1 ml and 15-24 ml	1 Pc
CE-112	**Kerosene**	Deaired kerosene	1 Ltr
GE-473	**Funnel**	Glass, narrow mouth	1 Pc
GE-521	**Wash Bottle**	Plastic, 250 ml capacity	1 Pc
GE-530	**Pipette**	Glass, 5 ml capacity	1 Pc
GE-600	**Thermometer**	Glass, 0-50°C	1 Pc
GE-820	**Spatula**	150 mm blade length	1 Pc
GE-922	**Soft Brush**	Round type	1 Pc

Also required, but not part of this set

GE--**150** Cent o-gram balance

Dimension (l x w x h) : 20 x 20 x 30 cm
Gross Weight : 8 kg





Time of Setting of Hydraulic Cement by Vicat Needle (CE-120)

ASTM C-187/C-191 **AASHTO T-129/T-133**

For determining normal consistency and time of setting of hydraulic cement

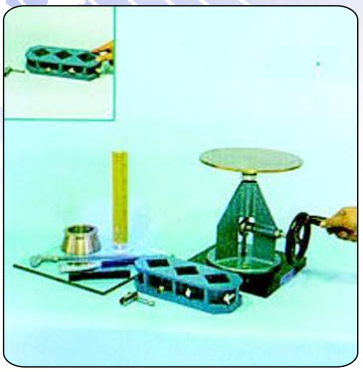
Type	Parts Name	Specification	Qty
CE-121	**Vicat Apparatus**	Cast alumunium frame, stainless steel rod 10 mm dia., 300 gr. weight with needle, 0-50 mm scale	1 Pc
CE-123	**Initial Needle**	Steel needle, 1 mm dia., with footing, brass thread	1 Pc
CE-124	**Final Needle**	Steel needle, 1 mm dia., brass thread	1 Pc
CE-125	**Conical Ring Mold**	70 mm base dia., 60 mm top dia., 40 mm height	1 Pc
CE-126	**Glass Plate**	Glass, 10 mm thich, 12 x 12 cm	1 Pc

Also required, but not part of this set

GE-152	Triple Beam Balance
GE-360	Mixing Bowl
GE-396	Glass Plate
GE-403	Graduated Cylinder
GE-700	Stop Watch
GE-747	Rubber Gloves
GE-825	Scapper
GE-950	Mortar Mixer

Dimension (l x w x h) : 60 x 30 x 30 cm
Gross Weight : 8 kg

Compressive Strenght of Hydraulic Cement Mortar (CE-160)



ASTM C-109 **AASHTO T-106**

For determining compressive strength of hydraulic cement mortar by using 2" cube speciment

Type	Parts Name	Specification	Qty
CE-161	**Cement Cube Mold**	Cast iron, 3 gang, 2" x 2"	1 Pc
CE-162	**Flow Table**	Hand Operated	
Consist of:			
CE-162.1	**Frame**	Welded steel, brass table, 10" dia., 0.3" thick, 1/2" drop	1 Pc
CE-162.2	**Flow Mold**	Brass, base 101.6 mm dia., top 69.85 mm dia., top 69.85 mm dia., height 50.8 mm	1 Pc
GE-713	**Vernier Caliper**	300 mm capacity	1 Pc
CE-168	**Tamper**	Plastic, 1/2" x 1" face, 6" strength	1 Pc
GE-396	**Glass Plate**	Glass, 10 mm thick, 30 x 30 cm	1 Pc
GE-403	**Graduated Cylinder**	250 ml capacity	1 Pc
GE-825	**Scraper**	Plastic handle	1 Pc

Also required, but not part of this set

CE-169 Standard Sand (# 20; # 30)
GE-170 Compression Machine
GE-152 Triple Beam Balance
GE-363 Mixing Bowl
GE-700 Stop Watch
GE-747 Rubber Gloves

Dimension (l x w x h) : 60 x 60 x 60 cm
Gross Weight : 50 kg



Compressive Strength of Hydraulic Cement Mortar (CE-160A)

ASTM C-109 **AASHTO T-106**

For determining compressive strength of hydraulic cement mortar by using 2" cube mold

Type	Parts Name	Specification	Qty
CE-161 A	**Cement Cube Mold**	Cast iron, 3 gang, 2" x 2"	1 Pc
CE-162 A	**Flow Table**	Electric, 100 rpm, 200 volt, 100 watt, 1 phase	
Consist of:			
CE-162A.1	**Frame**	Welded frame, brass table, 10" dia., 0.3" thick, 1/2" drop	1 Pc
CE-162A.2	**Flow Mold**	Brass, base 101.6 mm dia., top 69.85 mm dia., top 69.85 mm dia., height 50.8 mm	1 Pc
GE-713	**Vernier Caliper**	300 mm capacity	1 Pc
CE-168	**Tamper**	Plastic, 1/2" x 1" face, 6" strength	1 Pc
GE-396	**Glass Plate**	Glass, 10 mm thick, 30 x 30 cm	1 Pc
GE-403	**Graduated Cylinder**	Glass, 250 ml capacity	1 Pc
GE-825	**Scraper**	Plastic handle	1 Pc

Also required, but not part of this set

CE-169 Standard Sand (# 20; # 30)
GE-152 Triple Beam Balance
GE-170 Compression Machine
GE-700 Stop Watch
GE-747 Rubber Gloves
GE-950 Mortar Mixer

Dimension (l x w x h) : 60 x 60 x 60 cm
Gross Weight : 50 kg

Compression Machine (CE-170)



ASTM C-109

For determining compressive strength of cement mortar
For sample size 2" x 2" x 2" cube or 2" dia. x 4" height cylinder.
Steel frame, 12" dia. force gauge (calibrated). Hand operated hydraulic pump, 100 kN capacity.

Dimension (l x w x h) : 50 x 50 x 80 cm
Gross Weight : 150 kg



Compression Machine (CE-175)

ASTM C-109
For determining compressive strength of cement mortar
For sample size 2" x 2" x 2" cube or 2" dia. x 4" height cylinder.
Steel frame, 12" dia. force gauge (calibrated). Hand operated hydraulic pump, 250 kN capacity.

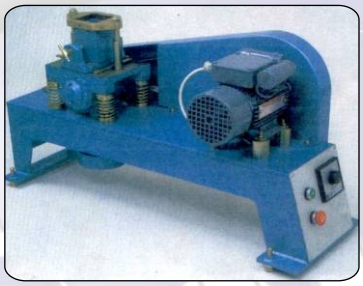
Dimension (l x w x h)	:	50 x 50 x 80 cm
Gross Weight	:	150 kg

Jolting Table (CE-510)

This machine consist of mould seated on a rotating can driven at so revolutions per minute. The apparatus is supplied with main switch box, automatic counter. Push button start/stop control, and automatic stop control at end of test.



Type	Specification	Qty
Consist of :		
CE-510.1	**Jolting table machine 220 volt/single phase**	1 unit
CE-510.2	**Three-gang mould 40.1 x 40 x 160 mm**	1 pc



Vibrating Machine for 70.7 mm Cubes (CE-300)

A special vibrating machine is available for this purpose, which vibrates the specimen at up to 12.000 cycles per minute. The mould is clamped onto the table which has 4 equal strength springs. An exentric shaft provides the vibrating motion.

Type	Specification	Qty
CE-300.1	**Vibrating Machine 220 Volt/single phase**	1 Unit
CE-300.2	**Cube mould for 70.7 mm specimens with base plate**	1 Pc

Blaine Air Permeability Apparatus (CE-200)

ASTM C204; AASHTO T153
Determines fineness of Portland cement in terms of specific surface expressed as total surface area in square centimeters per gram of cement. Consists of: calibrated U-tube manometer, ground glass joint, stainless steel test cell and plunger, rubber aspirator bulb and perforated disc. Includes 8 oz (226.8g) bottle of red manometer fluid, filter paper, wood block for holding test cell during filling and funnel. Mounted on finished wood panel with rubber-footed base.



Ordering Information

CE-200	Blaine Air Permeability Apparatus

Accessories

CE-200.1	Stainless steel test cell and plunger
CE-200.2	Perforated brass disc
CE-200.3	Perforated stainless steel disc
CE-200.4	Manometer fluid, 8 oz. (240ml) bottle
CE-200.5	Manometer U-tube, calibrated
CE-200.6	Filter paper discs, medium retentive. Package of 500
CE-200.7	NBS 114 Portland calibration testing cement. 1 vial
CE-200.8	NBS 114 Portland calibration testing cement. 20 vials
CE-200.9	Rubber Bulb

Shipping Weight	:	15 lbs (6.8 Kg)

Concrete Cylinder Mold (CO-300)

Cast iron, for forming concrete cylinder sample



Type	Parts Name	Specification
CO-300	**Concrete Cylinder Mold**	10 cm dia x 20 cm height
CO-301	**Concrete Cylinder Mold**	15 cm dia x 30 cm height

Dimension (l x w x h) : 15 x 15 x 25 cm / 20 x 20 x 35 cm
Gross Weight : 12 kg / 17 kg



Concrete Beam Mold (CO-317A)

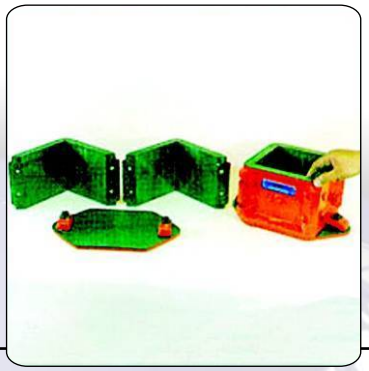
Cast iron, for forming concrete beam sample

Type	Parts Name	Specification
CO-317A	**Concrete Beam Mold**	15 x 15 x 60 cm
CO-319A	**Concrete Beam Mold**	20 x 20 x 80 cm

Dimension (l x w x h) : 20 x 70 x 20 cm / 25 x 90 x 25 cm
Gross Weight : 40 kg / 60 kg

Concrete Cube Mold (CO-312)

Cast iron, for forming concrete cube sample



Type	Parts Name	Specification
CO-311	**Concrete Cube Mold**	10 x 10 x 10 cm
CO-312	**Concrete Cube Mold**	15 x 15 x 15 cm

Dimension (l x w x h) : 20 x 20 x 15 cm / 25 x 25 x 20 cm
Gross Weight : 14 kg / 19 kg



Compression Machine (CO-325)

ASTM C-39
For determining compressive strength of concrete cube 15 x 15 x15 cm or concrete cylinder 15 cm dia. x 30 cm height

Parts Name	Specification
Frame	Heavy-duty welded steel construction 30 cm profile steel columns 10 thick bottom and upper plate
Hydraulic System for 1500 kN Cap.	Cast iron cylinder, Hard-chromed piston, 230 mm diameter Maximum working pressure 50.000 kPa Overall dimension 280 mm dia. x 320 mm height Single action, gravity return
Hydraulic System for 2000 kN Cap.	Cast iron cylinder, Hard-chromed piston, 230 mm diameter Maximum working pressure 50.000 kPa Overall dimension 300 mm dia. x 320 mm height Single action, gravity return
Hydraulic System for 3000 kN Cap.	Mild-Steel Cylinder, Hard-chromed piston, 250 mm diameter Maximum working pressure 50.000 kPa overall dimension 330 mm dia. x 320 mm height Single action, gravity return
Hydraulic Pump	Electric, 220 V AC, 50-60 HZ, 1000 Watt, 1 Phase Single action, variable speed 6.000 ml reservoir capacity Maximum working pressure 50.000 kPa Single action, gravity return



Parts Name	Specification
Force Gauge	Bourdon tube manometer, 280 mm dial diameter With maximum load pointer. Steel box housing. Calibrated by JNK
Compressive Platen	Upper : 180 x 180 mm, ball seating Lower : 250 mm diameter
Clearance	Horizonta l: 290 mm Vertikal : 310 mm

Type	Parts Name	Specification
CO-325.3	**Compression Machine**	1500 kN capacity, 10 kN increments
CO-325.4	**Compression Machine**	2000 kN capacity, 10 kN increments
CO-325.5	**Compression Machine**	3000 kN capacity, 20 kN increments

Dimension (l x w x h) : 760 x 320 x 1400 mm
Gross Weight : 500 kg

Compression Machine (CO-321)

ASTM C-39
For determining compressive strength of concrete cube 15 x 15 x15 cm or concrete cylinder 15 cm dia. x 30 cm height



Parts Name	Specification
Frame	Heavy-duty welded steel construction 30 cm (profile steel columns 10 thick botttom and upper plate)
Hydraulic System For 1500 kN Cap.	Cast iron cylinder, Hard-chromed piston, 230 mm diameter Maximum working pressure 50.000 kPa Overall dimension 280 mm dia. x 320 mm height Single action, gravity return
Hydraulic System For 2000 kN Cap.	Mild-Steel cylinder, Hard-chromed piston, 230 mm diameter Maximum working pressure 50.000 kPa Overall dimension 300 mm dia. x 320 mm height Single action, gravity return
Hydraulic System For 3000 kN Cap.	Mild-Steel cylinder, Hard-chromed piston, 250 mm diameter Maximum working pressure 50.000 kPa Overall dimension 330 mm dia. x 320 mm height Single action, gravity return
Hydraulic Pump	Hand operated, single action 6.000 ml reservoir capacity Maximum working pressure 50.000 kPa Single action, gravity return
Force Gauge	Bourdon tube manometer, 280 mm dial diameter With maximum load pointer. Steel box housing. Calibrated by JNK
Compressive Platen	Upper : 180 x 180 mm, ball seating Lower : 250 mm diameter
Clearance	Horizontal : 290 mm Vertikal : 310 mm

Type	Parts Name	Specification
CO-321.3	**Compression Machine**	1500 kN capacity, 10 kN increments
CO-321.4	**Compression Machine**	2000 kN capacity, 10 kN increments
CO-321.5	**Compression Machine**	3000 kN capacity, 20 kN increments

Dimension (l x w x h) : 660 x 600 x 1400 mm
Gross Weight : 500 kg

Mechanical Concrete Beam Testing Machine (CO-351)

ASTM C-78

For determining the flexural strength of concrete beam by using a simple beam with third point loading. 50 kN cap., mechanical jack, proving ring reading, sample size 15 x 15 x 60 cm, welded steel construction

Dimension (l x w x h)	:	100 x 40 x 100 cm
Gross Weight	:	110 kg





Hydraulic Concrete Beam Testing Machine (CO-330)

ASTM C-78

For determining the flexural strength of concrete beam by using a simple beam with third point loading. 100 kN cap., hidraulic hand pump, manometer reading, sample size 15 x 15 x 60 cm, welded steel construction

Dimension (l x w x h)	:	100 x 50 x 100 cm
Gross Weight	:	110 kg

Compacting Factor Apparatus (CO-355)

BS-1881

For determining workability of compacting factor concrete of low, medium and high workability. Welded steel frame construction, two conical mold, one cylinder mold.

Dimension (l x w x h)	:	30 x 60 x 130 cm
Gross Weight	:	75 kg





Slump Test Set (CO-370)

ASTM C-143 **AASHTO T-119**

For determining slump/workability of concrete both in the laboratory and in the field

Type	Parts Name	Specification	Qty
CO-371	**Slump Cone**	Heavy gauge sheet steel, 4" top dia., 8" bottom dia., 12" height	1 Pc
CO-372	**Inspection Scale**	Machine steel, 0-10 cm slump measurement, 1 cm increment	1 Pc
CO-375	**Base Plate**	Steel sheet, carryng handle, 600 x 600 x 5 mm	1 Pc
GE-801	**Scoop**	Cast alumunium	1 Pc
GE-871	**Trowel**	Pointed type	1 Pc
GE-920	**Brush**	Steel wire	1 Pc
GE-930	**Tamping Rod**	Machine steel, galvanized 16 mm dia., 600 mm length	1 Pc

Dimension (l x w x h)	:	70 x 70 x 50 cm
Gross Weight	:	30 kg



Slump Test Set (CO-370A)

ASTM C-143 **AASHTO T-119**
For determining slump/workability of concrete both in the laboratory and in the field

Type	Parts Name	Specification	Qty
CO-371	**Slump Cone**	Heavy gauge sheet steel, 4" top dia., 8" bottom dia., 12" height	1 Pc
CO-375A	**Base Plate**	Cast alumunium with inspection scale	1 Pc
GE-801	**Scoop**	Cast alumunium	1 Pc
GE-871	**Trowel**	Pointed type	1 Pc
GE-920	**Brush**	Steel wire	1 Pc
GE-930	**Tamping Rod**	Machine steel, galvanized 16 mm dia., 600 mm length	1 Pc

Dimension (l x w x h) : 50 x 50 x 80 cm
Gross Weight : 30 kg

Vebe Time (CO-380)

BS-1881
This method mechanised variation of the slump test and includes a determinaton of the workability of concrete

Type	Parts Name	Specification	Qty
CO-381	**Vibro Consistometer**	Electric, 220 V, 50 Hz, 1 Phase, 200 Watt	1 Set
GE-700	**Stop Watch**	60 sec.sweep x 30 min	1 Pc
GE-801	**Scoop**	Cast alumunium	1 Pc
GE-930	**Tamping Rod**	Machine steel, galvanized 16 mm dia., 600 mm length	1 Pc

Dimension (l x w x h) : 40 x 40 x 100 cm
Gross Weight : 25 kg





Air Content of Fresh Mixed Concrete (CO-400)

ASTM C-231 **AASHTO T-152**
For determining the air content of freshly mixed concrete from observation of the change in volume of concrete with a change in pressure.

Type	Parts Name	Specification	Qty
CO-401	**Air Entrainment Meter**	5 ltr capacity, 3" maximum agregate size, direct reading 0-10%, manometer, hand pump	1 Pc
CO-402	**Carryng Case**	Wooden box	1 Pc
GE-801	**Scoop**	Cast alumunium	1 Pc
GE-871	**Trowel**	Pointed type	1 Pc
GE-891	**Straight Edge**	40 cm length	1 Pc
GE-900	**Rubber Mallet**	Rubber head, wooden handle	1 Pc
GE-920	**Brush**	Steel wire	1 Pc
GE-930	**Tamping Rod**	Machine steel, galvanized 16 mm dia., 600 mm length	1 Pc

Dimension (l x w x h) : 40 x40 x 100 cm
Gross Weight : 20 kg

Vibrating Table (CO-410)

Steel construction 50 x 50 cm table Separated control box, variabel speed up to 3.600 rpm. For compacting aggregate in steel container or concrete sample in cube / cylinder mold.

Dimension (l x w x h) : 55 x 55 x 85 cm
Gross Weight : 70 kg



Vertical Cylinder Capping Set (CO-470)



ASTM C-617

Equipment for forming caps on ends of 15 cm diameter concrete cylinder to provide uniform loading surface for compression test.

Type	Parts Name	Specification	Qty
CO-471	Vertical Cylinder Capper	Cast alumunium frame, rotating ground table, for 150 mm dia. concrete cylinder	1 Pc
CO-472	Capping Compound Warmer	Approx. 3 ltr cap, heating temperature up to 200°C, 220 V-AC	1 Pc
CO-473	Capping Ladle	Stainless steel ladle, Wooden handle	1 Pc
CO-474	Cylinder Carrier	Double handle, snap clamp, for 150 mm dia., concrete cylinder	1 Pc
CO-475	Capping Compound	Powder, approx. 115°C Pouring temperature	25 kg

Dimension (l x w x h) : 100 x 60 x 60 cm
Gross Weight : 35 kg

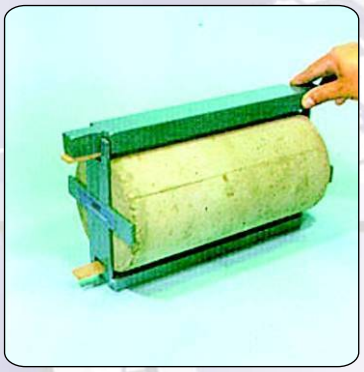


Modulus of Elasticity in Concrete Test Set (CO-500)

For measuring average axial deformation of concrete cylindrical sample during compression test, cast alumunium, dial indicator 0.001 x 5 mm

Dimension (l x w x h) : 30 x 30 x 35 cm
Gross Weight : 5 kg

Split Tensile Test (CO-525)



BS-1881

For split cylinder test on specimens of 150 x 300 mm (dia. x length) self-supporting lower platen

Dimension (l x w x h) : 35 x 20 x 25 cm
Gross Weight : 4 kg



Concrete Test Hammer (CO-550)

ASTM C-805

For rapid quality control of concrete works, with built in pointer scale and graph for various angle

Dimension (l x w x h) : 15 x 15 x 40 cm
Gross Weight : 2 kg



Calibration Anvil (CO-555)

ASTM C-805
For periodic calibration of concrete test hammer CO-550, complete with hammer guide

Dimension (l x w x h)	:	20 x 20 x 30 cm
Gross Weight	:	30 kg

Laboratory Concrete Mixer (CO-610)

For mixing trial bathes of concrete for mix design. Approx. 70 ltr cap., 4 mixing blades, welded steel frame, 2 wheels for easy movement, electromotor 1/3 HP, 220 V-AC, 1 Phase.

Also required, but not part of this

GE-159 Platform Scale
GE-303 Square Pan
GE-405A Plastic Graduated Cylinder
GE-871 Trowel

Dimension (l x w x h)	:	20 x 20 x 30 cm
Gross Weight	:	30 kg





Large Laboratory Concrete Mixer (CO-700)

This equipment designed for laboratory concrete mixing (Mix Stiff Consistency Concrete)

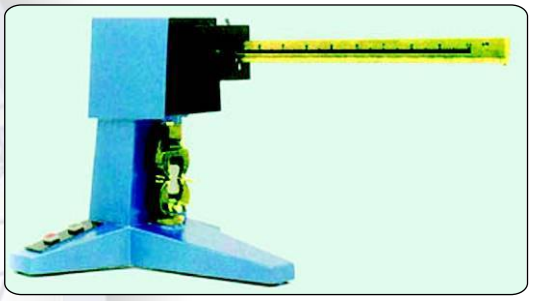
Specification

Drum diameter	± 120 cm
Electromotor	2 HP, 3 phase, 220/380 Volt, 1500 watt
Primary Mixing	3
Secondary Mixing	2
Capacity	100 liter

Dimension (l x w x h)	:	200 x 160 x 80 cm
Gross Weight	:	65 kg

Flexural Testing Machine (CO-725)

This single lever machine is designed for flexural Test on 40 x 40 x 160 mm and Tensile Test on Mortar Briquettes. Supply complete with Briquette Mold and two gang Prism Mold. 10 KN capacity. The rate of applied loading is 2.67 Kn/minutes scale engrave on the beam range from 0 to 10 KN (2248 lbf) and is graduated : 0.02 KN divisions and complete with flexural or te3nsile Jaws.





Drying Shrinkage and Moisture Apparatus (CO-650)

The apparatus has been designed and manufactured to the recommendation ASTM-C490, where test are required on laboratory specimens taken from exiting structures. The test procedure specifies a method for determining the change in length of a concrete or mortar sample brought about by a change in moisture content.

Type	Part Name	Specification	Qty
CO-650.1	**Drying shrinkage and moisture movement apparatus**	Comprising a steelfream with and adjustable height With dial indicator 5 x 0,001mm / devision	1 set
CO-650.2	**ASTM length comparator**	made by stainless steel	1 pc
CO-650.3	**Two gang prism mould**	25mm square x 305 mm long to ASTM C-490	
CO-650.4	**Insert**	for use with prism mould	10 pcs

Multi Flow Pan Mixer (CO-605)

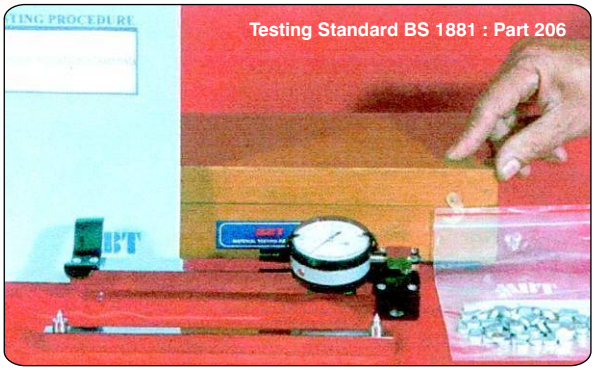
This machine Multi-flow pan mixer system, requires shorter mixing time and grants perfect homogeneity in mixtures a low cement ratio.The blades are hardened against wear.



Specification

Mixing Capacity	56 liter
Mixing Speed	50 rpm, 5
Mixing Pan	640 mm diameter 330 mm deep
Power Consumption	220/380 Volt, 3 Phase,1500 watt

Dimension (l x w x h) : 90 x 80 x 90 cm
Gross Weight : 200 kg



"Demec" Mechanical Strain Gauge (CO-515)

The Demec range of mechanical strain measurement devices are ideally suited for the measurement of strain in concrete structures, rock strata etc.

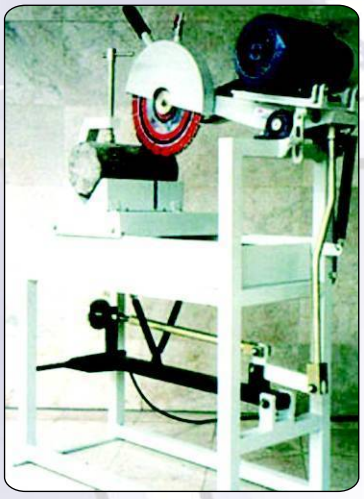
The instrument consist of an invar main beam with two conical locating points. One in a fixed position at one end, and other pivoting movement is transmitted to a dial gauge.

Consist of

MC-500.1	Demec mechanical strain gauge 200 mm gauge length	1 set
	complete with dial gauge 5mm x 0.001mm / division	
MC-500.2	Reference bar for checking setting on strain gauge	1 pc
MC-500.3	Locating dish made by brass	100 pcs

Specimen Cutting Machine (CO-318)

This cutting machine is suitable to cut any type of construction material and is especially designed to cut concrete and rock cores. The machine is foreseen of a device to adjust the vertical stroke of the head, pedal guide for vertical cutting, movable protection caster, device to fix oscillating head, protection device against breakage of blade.



Specification

Diamond Blade Size	12 inch Diameter
Specimen Size Rock or Concrete	5 cm, 10 cm and 15 cm
Water Cooling Pump	Medium Size, 220 VAC Single Phase

Dimension (l x w x h) : 130 x 60 x 140 cm
Gross Weight : 65 kg



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

Also required, but not part of this set

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

Dimension (l x w x h) : 20 x 20 x 20 cm
Gross Weight : 3 kg

Distilation of Cutback Asphalt (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-402	**Graduated Cylinder**	100ml Capacity	1 Pc
GE-649.1	**Thermometer**	ASTM 7 C, 2 to 300°C	1 Pc

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

Dimension (l x w x h) : 10 x 80 x 80 cm
Gross Weight : 10 kg



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 distilated 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

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

Dimension (l x w x h) : 25 x 25 x 60 cm
Gross Weight : 10 kg

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 stirer, 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

Also required, but not part of this set

GE-700 Stop Watch

Dimension (l x w x h) : 70 x 70 x 70 cm
Gross Weight : 25 kg



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, expect 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

Also required, but not part of this set

GE-222 **Butane Field Heater**
GE-363 **Mixing Bowl**

Dimension (l x w x h) : 150 x 30 x 30 cm
Gross Weight : 8 kg

Flash And Fire Point By Cleveland Open Cup (BI-200A)



ASTM D-92 **AASHTO T-48**

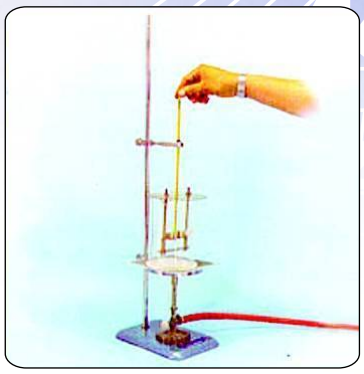
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Type	Parts Name	Specification	Qty
BI-201	Flash Cup	Brass, insulation handle	1 Pc
BI-202A	Cleveland Electric	Electric, 220 V-AC, heating speed control	1 Set
GE-648	Thermometer	ASTM 11° C, 6 to 400°C	1 Pc

Also required, but not part of this set

GE-363 Mixing Bowl

Dimension (l x w x h) : 100 x 50 x 50 cm
Gross Weight : 20 kg



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

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

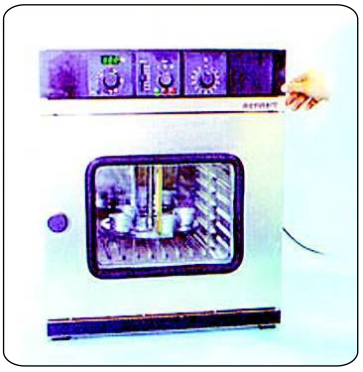
Dimension (l x w x h) : 90 x 30 x 30 cm
Gross Weight : 10 kg

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, cas alumunium rotating shelf, 5-6 RPM, external electromotor drive, 220 V-AC, 1400 Watt.	1 Set
GE-390	Thin Box	55 mm i.d. approx alumunium sheet, seamless	12 Pcs
GE-643	Thermometer	ASTM 13 C, 155 to 170°C	1 Pc



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

Dimension (l x w x h) : 100 x100 x 100 cm
Gross Weight : 45 kg



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 alumunium 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, alumunium sheet, seamless	2 Pcs

Also required, but not part of this set

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

Dimension (l x w x h) : 50 x 50 x 70 cm
Gross Weight : 20 kg

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 alumunium 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, alumunium sheet, seamless	2 Pcs

Also required, but not part of this set

GE-363 Mixing Bowl
GE-600 Thermometer

Dimension (l x w x h) : 50 x 50 x 70 cm
Gross Weight : 25 kg



Ductility of Bituminous Material 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

Also required, but not part of this set

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

Dimension (l x w x h) : 244 x 80 x 80 cm
Gross Weight : 150 kg

Centrifuge Extractor Test Set (BI-300)

ASTM D-2172 **AASHTO T-164**

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



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

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

Dimension (l x w x h) : 50 x 40 x 60 cm
Gross Weight : 40 kg



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

Also required, but not part of this set

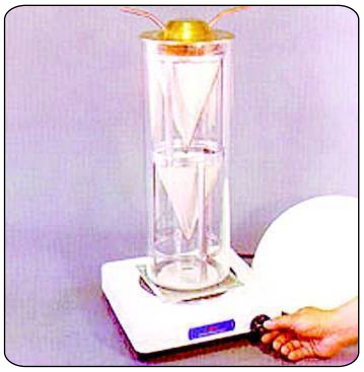
BI-304	Solvent (CCL4)
GE-152	Triple Beam Balance
GE-174	Drying Oven
GE-363	Mixing Bowl
GE-403	Graduated Cylinder
GE-748	Leather Gloves

Dimension (l x w x h) : 60 x 40 x 60 cm
Gross Weight : 50 kg

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

Also required, but not part of this set

BI-304	Solvent (CCL4)
GE-152	Triple Beam Balance
GE-174	Drying Oven
GE-203	Cooling System

Dimension (l x w x h) : 90 x 50 x 50 cm
Gross Weight : 15 kg



Dimension (l x w x h): 67 x 50 x 100 cm
Gross Weight : 200 kg

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.

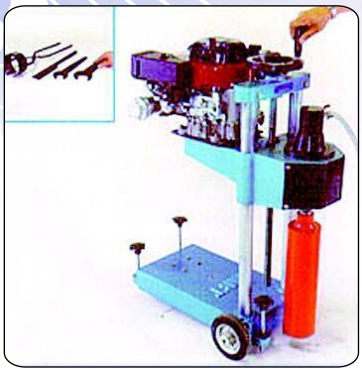
Type	Parts Name	Specification	Qty
BI-321	Compression Machine	Steel frame, electric, 220 V-AC, 1/2 HP, 1 Phase, speed:2" per minute	1 Set
BI-322	Compaction Mold	Machined steel, galvanized, 4" dia., 3" height, with collar and base plate	1 Set
BI-323	Stability Mold	Cast alumunium, split type 4" i.d., 4" 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 alumunium, 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

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

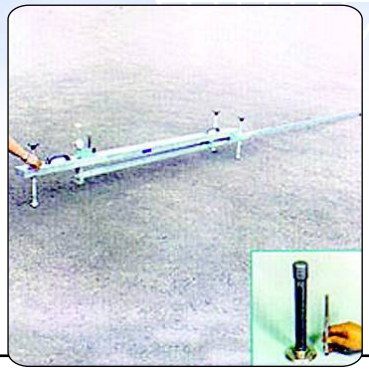
Core Drilling Test Set (BI-400A)

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 alumunium frame, gasoline engine 7 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



Benkleman 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 0 - 100 °C	1 Pc
GE-137	**Dial Indicator**	Range 30 x 0.01mm	1 Pc

Dimension (l x w x h) : 244 x 50 x 50 cm
Gross Weight : 45 kg

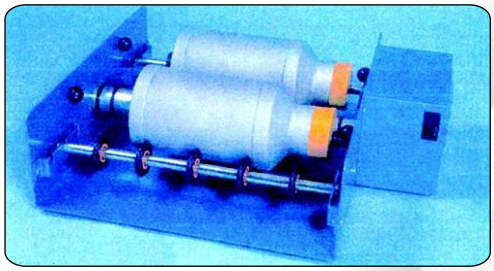
Mot Straight Edge (BI-470)

For measuring the irregulation of road surface both asphalt and concrete pavement



Type	Parts Name	Specification	Qty
BI-471	**Mot Straight**	Alumunium profile, 3 meter length, with handle	1 Pc
BI-472	**Metric Wedges**	Variable measurement from 2.5 - 7.5 cm, machine cast alumunium	1 Pc

Dimension (l x w x h) : 350 x 30 x 30 cm
Gross Weight : 20 kg



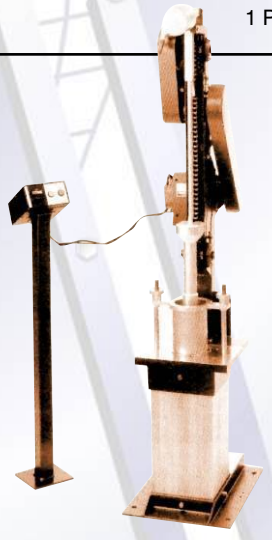
Bottle Roller (BI-500)

The compact double bottle roller two bottles simultaneously around their longitudinal axes, rotation speed 33 r.p.m 2 r. p. m. Designed to accept bottles of various sizes.

Type	Specification	Qty
consist of :		
BI-500.1	Double bottle roller machine 220 Volt/single phase	1 Unit
BI-500.2	Steel bottles with stopper 7000 ml capacity	1 Pc
BI-500.3	Steel bottles with stopper 2500 ml capacity	1 Pc
BI-500.4	Steel bottles with stopper 600 ml capacity	1 Pc

Automatic Marshall Compactor (MB-410)

Asphalt Compactor is ideally suited for preparing bituminous mix specimens used in Marshall Stability Testing.



Specification	
Controls	Mounted on separate pedestal to prevent shock, power, start and counter
Counter	Push-Button; count setting and push-button reset
Motor	1/3 hp with belt guards
Hammer	10 lb. (4.54 kg) weight with 18" (457 mm) drop; circular face
Raising Mechanism	Lever with retaining pin; catches and lifts hammer
Pedestal	Two clamps studs for mold clamp rings. Separa te guide pins for 4" (101 mm) and 6" (152 mm) molds.
Mold Holder	Clamp ring with knurfed nuts for 4" (101 mm) diameter molds.
Overall Dimensions	14" w x 18" d. s 64" h. (355 x 457 x 1.625 mm)
Weight	Net 250 lbs. (113 kg); shpg. 325 lbs. (147 kg)

Models
4" (101 mm) Compacting Molds Assembly included BI-410. 220VAC, 50Hz



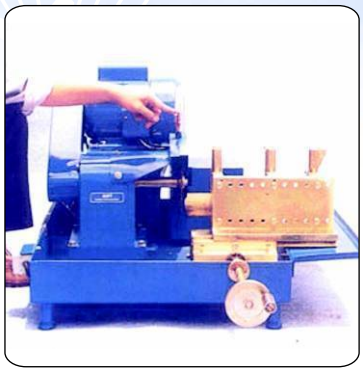
Rain Gauge (MI-130)

Bucket type 100 cm2 mouth area, made of metal sheet, supplied complete with measuring glass with special scale.

Dimension (l x w x h)	:	20 x 20 x 70 cm
Gross Weight	:	5 kg

Core Trimmer/Cut-off Machine (MI-140)

This machine designed for use in rock mechanics can also be use in mineralogy, ceramic and refractory sample preparation



Specification

Cutting Balde Size	200 mm. or 8 inch
Sample Clamp Wide	100 mm
Sample for Cut-Off Max	100 mm. Diameter
Power Consumption	750 Watt/220 Volt / 1Phase
Circulation pump small size	220 Volt / 1 Phase
Dimension (l x w x h)	85 x 75 x 50 cm
Gross Weight	60 kg



Hard Grove Grindability Tester (MI-500)

This equipment is use to determine the relative grindability of coals wich the result of test will describe the hard grove grrindability index (HGI) of the sample

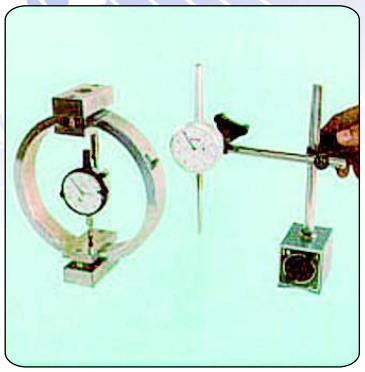
Specification

Motor Drive	20 rpm ± 1 rpm
Constant Pressure Weight	29 Kg ± 200 gr
Controls	Auto shut motor-off after 60 revolution by digital auto control
Power Consumption	220-240 VAC, 200 Watt

Dimension (l x w x h)	:	70 x 55 x 75 cm
Gross Weight	:	70 kg

Proving Ring (GE-100)

Precision measuring device, high grade steel with plated finishing 3/4" tapped hole at both end. Supplied complete with dial and calibration chart.



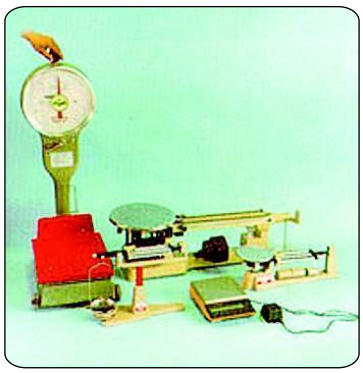
Type	Parts Name	Qty	
GE-101.1	Proving Ring	100	kg capacity
GE-101.2	Proving Ring	250	lbs capacity
GE-101.3	Proving Ring	500	lbs capacity
GE-101.4	Proving Ring	1.000	lbs capacity
GE-101.5	Proving Ring	2.000	lbs capacity
GE-101.6	Proving Ring	6.000	lbs capacity
GE-101.7	Proving Ring	10.000	lbs capacity

Dial Indicator

Type	Parts Name	Qty		
GE-130	Dial Indicator	0.2 in.	x	0.0001 in.
GE-131	Dial Indicator	1.0 in.	x	0.0100 in.
GE-135	Dial Indicator	10 mm	x	0.01 mm
GE-136	Dial Indicator	20 mm	x	0.01 mm
GE-137	Dial Indicator	30 mm	x	0.01 mm
GE-138	Dial Indicator	50 mm	x	0.01 mm

Dial Holder (GE-140)

Chrome plated shaft with simple clamping device.
Powerful magnet with on-off switch. Precision ground surface.



Balance

Cent O-Gram Balance

GE-150	Cent O-Gram Balance	311 gr capacity 0.01 sensitivity
GE-151	Cent O-Gram Balance	311 gr capacity 0.01 sensitivity with dial type adjustment

Triple Beam Balance

GE-152	Triple Beam Balance	2.610 gr capacity 0.1 sensitivity. Supplied complete with weights.
GE-153	Dial O-Gram Balance	2.610 gr capacity 0.1 sensitivity with dial type adjustment. Supplied complete with weights.

Heavy Duty Solution Balance

GE-157	Heavy Duty Solution Balance	20 kg capacity, 1 gr sensitivity. Supplied complete with weights

Platform Scale

GE-159	Platform Scale	50 kg capacity, 10 gr sensitivity, dial type.

Digital Balance

GE-160	Digital Balance	Capacity	310	x	0.001 gr
GE-161	Digital Balance	Capacity	6100	x	0.100 gr

Oven (Memmert)

Universal oven, double walled metal shield.
temperature range from room temperature t0 200°C



Type	Parts Name	Qty
GE-171	Drying Oven	14 ltr capacity, internal dimension (l x w x h) 320 x 240 x 175 mm
GE-172	Drying Oven	32 ltr capacity, internal dimension (l x w x h) 400 x 320 x 250 mm
GE-173	Drying Oven	39 ltr capacity, internal dimension (l x w x h) 480 x 320 x 250 mm
GE-174	Drying Oven	53 ltr capacity, internal dimension (l x w x h) 400 x 400 x 330 mm
GE-175	Drying Oven	108 ltr capacity, internal dimension (l x w x h) 560 x 480 x 400 mm
GE-176	Drying Oven	256 ltr capacity, internal dimension (l x w x h) 800 x 640 x 500 mm
GE-177	Drying Oven	416 ltr capacity, internal dimension (l x w x h) 1040 x 800 x 500 mm
GE-178	Drying Oven	749 ltr capacity, internal dimension (l x w x h) 1040 x 1200 x 600 mm



Hot Plate (GE-191)

Type	Parts Name	Specification
GE-191	Hot Plate Electric,	1000 Watt, 220 V V Single burner plate
GE-192	Hot Plate Electric,	1500 Watt, 220 V V Double burner plate

Water Bath (GE-200)

Specification
12 litre capacity, internal bath dimensiion 35 x 27 x 12 cm (l x w x h) Temperature range from room temperature to 70°C (working temperature 60°C)

Cooling System (GE-203)

Electric, 220 V-AC. Supplied complete with water tank.



Butane Field Heater (GE-222)

Ideal for field or laboratory use. LPG consumption, single burner, supplied complete with LPG tank.

Bunsen Burner (GE-230)

LPG consumption, complete with fiting base and air consumption control

Statif (GE-233)

Painted rectaangular iron base, vertical round rod

Tripod Stand (GE-235)

Painted iron, circular top, 15 cm dia. approx.

Asbestos Wire Gauze (GE-237)

Asbestos centre, 15 x 15 cm

Glass Clamp (GE-239)

Cast alumunium with adjustable opening



Square Pan (GE-300)

Galvanized steel provided with handles on both sides.

Type	Parts Name	Dimension
GE-300	Square Pan	25 x 25 x 5 cm
GE-301	Square Pan	40 x 40 x 5 cm
GE-302	Square Pan	50 x 50 x 7.5 cm
GE-303	Square Pan	65 x 65 x 7.5 cm

Rectangular Pan

Galvanized steel provided with handles on both sides.

Type	Parts Name	Dimension
GE-320	Rectangular Pan	30 x 20 x 10 cm
GE-321	Rectangular Pan	45 x 30 x 15 cm
GE-322	Rectangular Pan	60 x 40 x 25 cm
GE-323	Rectangular Pan	90 x 60 x 40 cm

Round Pan

Alumunium sheet, without handle, 25 cm dia. approx.

Mixing Bowl

Stainless steel, round type

Type	Parts Name	Dimension
GE-360	Mixing Bowl	10 cm diameter approx.
GE-361	Mixing Bowl	14 cm diameter approx.
GE-362	Mixing Bowl	20 cm diameter approx.
GE-363	Mixing Bowl	24 cm diameter approx.

Sample Can (GE-380)

Thinned metal, provided with cap, 3 ltr capacity, 20 cm dia. approx.

Thin Box

Alumunium sheet, provided with cap.

Type	Parts Name	Qty
GE-390	Thin Box	60 gram capacity
GE-391	Thin Box	120 gram capacity

Glass Plate (GE-386)

Glass, 10 cm thick, 30 x 30 cm





Graduated Cylinder

Glass made, single numbering

Type	Parts Name	Qty
GE-400	Graduated Cylinder	25 ml capacity
GE-401	Graduated Cylinder	50 ml capacity
GE-402	Graduated Cylinder	100 ml capacity
GE-403	Graduated Cylinder	250 ml capacity
GE-404	Graduated Cylinder	500 ml capacity
GE-405	Graduated Cylinder	1000 ml capacity

Graduated Cylinder

Plastic made, single numbering

Type	Parts Name	Qty
GE-400A	Graduated Cylinder	25 ml capacity
GE-401A	Graduated Cylinder	50 ml capacity
GE-402A	Graduated Cylinder	100 ml capacity
GE-403A	Graduated Cylinder	250 ml capacity
GE-404A	Graduated Cylinder	500 ml capacity
GE-405A	Graduated Cylinder	1000 ml capacity

Volumetric Flask

Heat resistance glass

Type	Parts Name	Qty
GE-410	Volumetric Flask	100 ml capacity
GE-411	Volumetric Flask	250 ml capacity
GE-412	Volumetric Flask	500 ml capacity
GE-413	Volumetric Flask	1000 ml capacity

Breaker Glass

Glass made, with spout

Type	Parts Name	Qty
GE-420	Breaker Glass	100 ml capacity
GE-421	Breaker Glass	250 ml capacity
GE-422	Breaker Glass	600 ml capacity
GE-423	Breaker Glass	800 ml capacity
GE-424	Breaker Glass	1000 ml capacity

Erlenmeyer Flask

Glass made, provided with scale.

Type	Parts Name	Qty
GE-430	Enlenmeyer Flask	125 ml capacity
GE-431	Enlenmeyer Flask	250 ml capacity
GE-432	Enlenmeyer Flask	500 ml capacity
GE-433	Enlenmeyer Flask	1000 ml capacity
GE-434	Enlenmeyer Flask	2000 ml capacity





Vacuum Flask

Thick glass with side tabulation for vacuum hose, provided with scale.

Type	Part Name	Qty.
GE-430A	Vacuum Flask	125 ml capacity
GE-431A	Vacuum Flask	250 ml capacity
GE-432A	Vacuum Flask	500 ml capacity
GE-433A	Vacuum Flask	1000 ml capacity
GE-434A	Vacuum Flask	2000 ml capacity

Density Bottle

Type	Part Name	Qty.
GE-440	Density Bottle	50 ml capacity
GE-441	Density Bottle	100 ml capacity

Separatory Funnel

Glass with stoppet and cap.

Type	Part Name	Qty.
GE-445	Separatory Funnel	Glass, 250 ml capacity
GE-446	Separatory Funnel	Glass, 500 ml capacity



Filter Funnel

Porcelain with perforated base for filtering purpose.

Type	Part Name	Qty.
GE-448	Filter Funnel	125 ml capacity
GE-449	Filter Funnel	500 ml capacity



Desicator

Non vacuum type, supplied without silica gel.

Type	Parts Name	Dimension
GE-450	Dessicator	21 cm diameter
GE-451	Dessicator	24 cm diameter
GE-452	Dessicator	30 cm diameter

Desicator

Vacuum type, supplied without silica gel.

Type	Parts Name	Dimension
GE-450A	Dessicator	21 cm diameter
GE-451A	Dessicator	24 cm diameter
GE-452A	Dessicator	30 cm diameter

Silica Gel (GE-445)

Water vapour absorbent.

Funnel

Type	Part Name	Qty.
GE-470	Funnel	Plastic, narrow mouth
GE-471	Funnel	Plastic, wide mouth
GE-472	Funnel	Glass, narrow mouth
GE-473	Funnel	Glass, wide mouth

Burrete

Graduated glass, with stopper.

Type	Part Name	Qty.
GE-480	Burrete	21 ml capacity
GE-481	Burrete	25 ml capacity
GE-482	Burrete	50 ml capacity
GE-483	Burrete	100 ml capacity



Evaporating Dish

heat resistance porcelain.



Type	Parts Name	Specification
GE-500	Evaporating Dish	9 cm dia., 100 ml capacity
GE-501	Evaporating Dish	12 cm dia., 250 ml capacity
GE-502	Evaporating Dish	15 cm dia., 350 ml capacity
GE-503	Evaporating Dish	17 cm dia., 500 ml capacity

Mortar and Pestle

Thick porcelain dish grinding materials.

Type	Parts Name	Specification
GE-510	Mortar and Pestle	12 cm diameter approx.
GE-511	Mortar and Pestle	15 cm diameter approx.
GE-512	Mortar and Pestle	18 cm diameter approx.

Wash Bottle

Plastic bottle, with tubing

Type	Parts Name	Specification
GE-521	Wash Bottle	250 ml capacity
GE-522	Wash Bottle	500 ml capacity
GE-523	Wash Bottle	1000 ml capacity

Pipette

Graduated glass for accurate water leaving in flask

Type	Parts Name	Specification
GE-530	Pipette	5 ml capacity
GE-531	Pipette	10 ml capacity
GE-532	Pipette	15 ml capacity

Crucibles

Porcelain with perforated bottom without cover.

Type	Parts Name	Specification
GE-540	Crucible	13ml capacity approx.
GE-541	Crucible	18ml capacity approx.
GE-542	Crucible	25ml capacity approx.
GE-543	Crucible	40ml capacity approx.



Thermometer

Glass, alcohol indicator, 30 cm length.

Type	Parts Name	Range
GE-600	Thermometer	Range 0 - 50°C
GE-601	Thermometer	Range 0 - 100°C
GE-602	Thermometer	Range 0 - 150°C
GE-603	Thermometer	Range 0 - 200°C
GE-604	Thermometer	Range 0 - 300°C
GE-605	Thermometer	Range 0 - 360°C

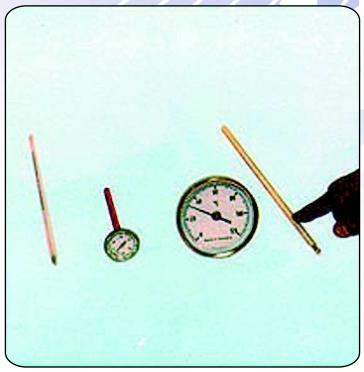
Pocket Dial Thermometer

Type	Parts Name	Range
GE-610	Pocket Dial Thermometer	Range 0 - 100°C
GE-611	Pocket Dial Thermometer	Range 0 - 200°C
GE-612	Pocket Dial Thermometer	Range 0 - 250°C

Dial Thermometer

Stainless steel sterm and housing.

Type	Parts Name	Range
GE-620	Dial Thermometer	Range 0 - 100°C
GE-621	Dial Thermometer	Range 0 - 200°C
GE-622	Dial Thermometer	Range 0 - 250°C



ASTM Thermometer (Specific Gravity)

GE-641 **Thermometer** 12 C, 20 to 102°C

ASTM Thermometer

GE-642 **Thermometer** 63 C, 8 to 32°C

ASTM Thermometer (Loss on Heating)

GE-643 **Thermometer** 13 C, 155 to 170°C

ASTM Thermometer (Saybolt Viscosimeter)

Type	Parts Name	Specification
GE-644.1	Thermometer	17 C, 19 to 27°C
GE-644.2	Thermometer	18 C, 34 to 42°C
GE-644.3	Thermometer	19 C, 49 to 57°C
GE-644.4	Thermometer	20 C, 57 to 65°C
GE-644.5	Thermometer	21 C, 79 to 87°C
GE-644.6	Thermometer	22 C, 95 to 103°C



ASTM Thermometer (Softening Point)

Type	Parts Name	Specification
GE-646.1	Thermometer	15 C, 2 to 80°C
GE-646.2	Thermometer	16 C, 30 to 200°C

ASTM Thermometer (Open Flash)

GE-648 **Thermometer** 11 C, 6 to 400°C

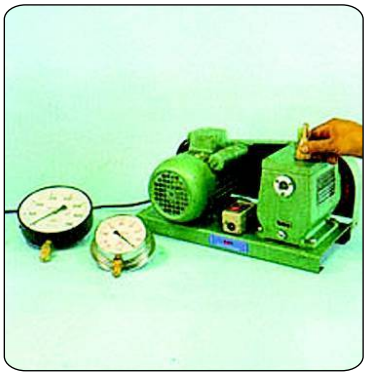
Hydraulic Hose

Type	Parts Name	Specification
GE-698	Vibrator Concrete	120 cm Length 10.000 psi

Manometer

For measuring pressure, single pointer

Type	Part Name	Specification
GE-670	Manometer	25 kg/cm^2 capacity, 6" dia.
GE-671	Manometer	60 kg/cm^2 capacity, 6" dia.
GE-672	Manometer	150 kg/cm^2 capacity, 6" dia.
GE-673	Manometer	250 kg/cm^2 capacity, 6" dia.
GE-674	Manometer	300 kg/cm^2 capacity, 6" dia.
GE-675	Manometer	500 kg/cm^2 capacity, 6" dia.
GE-676	Manometer	700 kg/cm^2 capacity, 6" dia.
GE-677	Manometer	100 kg/cm^2 capacity, 6" dia.



Vacuum Manometer (GE-679)

For measuring vacuum condition, 4" dia. 0-76 cm HG.

Vacuum Pump (GE-680)

Rotary type, 220 V-AC, 1/4 HP, 1 Phase, for creating vacuum air.



Hydraulic Cylinders

Type	Parts Name	Specification
GE-681	Hydraulic Cylinder	30 capacity
GE-682	Hydraulic Cylinder	50 capacity
GE-683	Hydraulic Cylinder	100 capacity
GE-684	Hydraulic Cylinder	150 capacity
GE-685	Hydraulic Cylinder	200 capacity

Hydraulic Hand Pump

Type	Parts Name	Specification
GE-690	Hand Pump	10.000 psi, single acting
GE-691	Hand Pump	10.000 psi, double acting

Hydraulic Electric Pump

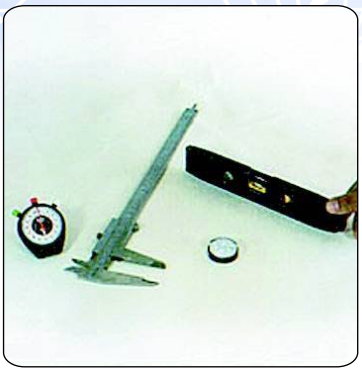
Electric, 220 V-AC, 750 Watt, 1 Phase.

Type	Parts Name	Specification
GE-694	Electric Pump	10.000 psi, single acting
GE-695	Electric Pump	10.000 psi, double acting



Hydraulic Hose

Type	Parts Name	Specification
GE-697	Hydraulic Hose	60 cm length, 10.000 psi
GE-698	Hydraulic Hose	120 cm length, 10.000 psi
GE-699	Hydraulic Hose	180 cm length, 10.000 psi



Stop Watch

Precision timer, plastic body.

Type	Parts Name	Specification
GE-700	Stop Watch	60 sec sweep x 30 min
GE-701	Stop Watch	30 sec sweep x 10 min

Vernier Caliper

stainless steel, double scale, for measuring inner and outer diameter

Type	Parts Name	Specification
GE-710	Vernier Caliper	6" (150 mm) capacity
GE-711	Vernier Caliper	8" (200 mm) capacity
GE-712	Vernier Caliper	10" (250 mm) capacity
GE-713	Vernier Caliper	12" (300 mm) capacity

Levels (GE-720)

For checking the level of an apparatus / instrument, round type.

Levels (GE-721)

For checking the level of an apparatus / instrument, straight type.

Open and Wrench

Type	Parts Name	Specification
GE-730	Open End Wrench	Metric unit, 8 pcs
GE-731	Open End Wrench	Imperial unit, 8 pcs



Ring Spanner

Type	Parts Name	Specification
GE-732	Ring Spanner	Metric unit, 8 pcs
GE-733	Ring Spanner	Imperial unit, 8 pcs

Allen Key

Type	Parts Name	Specification
GE-734	Allen Key	Metric unit, 8 pcs
GE-735	Allen Key	Imperial unit, 8 pcs

Pipe Wrench

Type	Parts Name	Specification
GE-736	Pipe Wrench	8" length
GE-737	Pipe Wrench	12" length
GE-738	Pipe Wrench	18" length

Strap Wrench

Type	Parts Name	Specification
GE-740	Strap Wrench	4" capacity
GE-741	Strap Wrench	6" capacity



Hydraulic Electric Pump

Electric, 220 V-AC, 750 Watt, 1 Phase.

Type	Parts Name	Specification
GE-694	Electric Pump	10.000 psi, single acting
GE-695	Electric Pump	10.000 psi, double acting

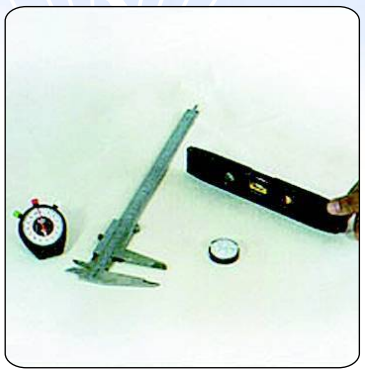
Hydraulic Hose

Type	Parts Name	Specification
GE-697	Hydraulic Hose	60 cm length, 10.000 psi
GE-698	Hydraulic Hose	120 cm length, 10.000 psi
GE-699	Hydraulic Hose	180 cm length, 10.000 psi

Stop Watch

Precision timer, plastic body.

Type	Parts Name	Specification
GE-700	Stop Watch	60 sec sweep x 30 min
GE-701	Stop Watch	30 sec sweep x 10 min



Vernier Caliper

stainless steel, double scale, for measuring inner and outer diameter

Type	Parts Name	Specification
GE-710	Vernier Caliper	6" (150 mm) capacity
GE-711	Vernier Caliper	8" (200 mm) capacity
GE-712	Vernier Caliper	10" (250 mm) capacity
GE-713	Vernier Caliper	12" (300 mm) capacity

Levels (GE-720)

For checking the level of an apparatus / instrument, round type.

Levels (GE-721)

For checking the level of an apparatus / instrument, straight type.



Open and Wrench

Type	Parts Name	Specification
GE-730	Open End Wrench	Metric unit, 8 pcs
GE-731	Open End Wrench	Imperial unit, 8 pcs

Ring Spanner

Type	Parts Name	Specification
GE-732	Ring Spanner	Metric unit, 8 pcs
GE-733	Ring Spanner	Imperial unit, 8 pcs

Allen Key

Type	Parts Name	Specification
GE-734	Allen Key	Metric unit, 8 pcs
GE-735	Allen Key	Imperial unit, 8 pcs

Pipe Wrench

Type	Parts Name	Specification
GE-736	Pipe Wrench	8" length
GE-737	Pipe Wrench	12" length
GE-738	Pipe Wrench	18" length

Strap Wrench

Type	Parts Name	Specification
GE-740	Strap Wrench	4" capacity
GE-741	Strap Wrench	6" capacity

Wire Saw (GE-820)

For preparing soil sample.

Chissel (GE-880)

Hard steel, for compact material, 30 cm length approx.

Straight Edge

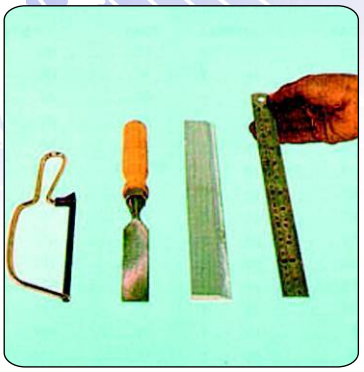
Galvanized steel, for leveling samples in molds.

Type	Parts Name	Specification
GE-890	Straight Edge	30 cm length
GE-891	Straight Edge	40 cm length

Ruler

Stainless steel, double scale.

Type	Parts Name	Specification
GE-895	Ruler	30 cm length
GE-896	Ruler	100 cm length





Rubber Mallet (GE-900)

For preparing soil sample.

Hammer

Type	Parts Name	Specification
GE-901	Hammer	Steel, 1 kg weight
GE-902	Hammer	Steel, 5 kg weight

Steel Wire Brush (GE-920)

For cleaning laboratory / field apparatus.

Brass Wire Brush (GE-921)

For cleaning laboratory / field apparatus.

Soft Brush (GE-922)

Black hair, round type.

Tamping Rod

Machined steel, galvanized, for consolidating concrete and other materials.

Type	Parts Name	Specification
GE-930	Tamping Rod	16 mm dia., 60 cm length
GE-931	Tamping Rod	20 mm dia., 60 cm length

Mortar Mixer

Bench model, electric 220 V-AC, supplied complete with beaters.

Type	Parts Name	Specification
GE-950	Mortar Mixer	5 litre capacity
GE-951	Mortar Mixer	10 litre capacity

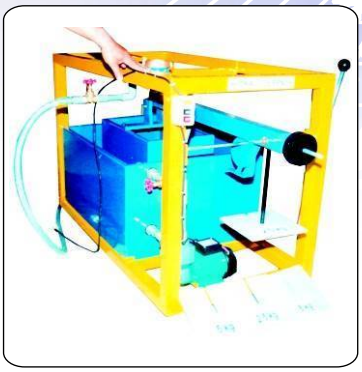




Hydraulic Electric Pump (GE-960)

Hydraulic Pump which operated by electric motor is easy to use, no need large energy but could reach incredible powerful of energy, just push the switch to ON position. Usually on pressure testing process have to guided by British Standard (BS-1881). In this case, the process must use variable speed pump, because if using hand pump (manual) this can't reach the British Standard (BS-1881).

Specification	
Power Supply	220 Volt/750 watt/ 1 Ph
Max. Pressure	700 bar/700 Kg/Cm2/10.000 psi
Oil flow/discharge	0-500 ml/min (variable)



Hydraulic Bench (HD-100)

Hydraulic Bench is device for giving fluid wiring, and for ease calculation water discharge at specimen device like pipe friction, bernoulli's theorem apparatus, piping loss apparatus, etc.

Technical Specification

Water Tank Capacity	± 150 liter
Measuring Tank Capacity	30 liter
Water Pump Discharge	± 40 liter/min/220 Volt
Weighing Arm	1 : 3

Parts Name	Specification	Qty
Water Tank Capacity	± 150 liter	1 set
Measuring Tank Capacity	30 Liter	1 set
Water Pump Discharge	± 40 liter/min/220 volt	1 set
Weighing Arm	1 : 3	1 set
Weighing Load	2.5 Kg	2 set
Weighing Load	5 Kg	2 set

Pipe Friction (HD-200)

This equipment is used to measure pressure drop water flows through a pipe at various flow rates. It consist of adjustable constant head water source for laminar flow.

Parts Name	Specification	Qty
Frame Friction		1 unit
Mercury Manometer	500 mm (pairing)	1 set
Water Manometer	500 mm (pairing)	1 set
Stainless Steel Specimen Pipe And crane	3 mm dia.	1 set
Specimen Point	510 mm (pairing)	1 set
Cylinder Glass	1000 ml	1 bh





Bernoulli's Theorem Apparatus (HD-100)

Bernoulli's Theorem is applied on flow through a Venture Tube. Static pressures at various point along the wall of a transparent venture tube are directly measured on a manometer equipped with a vent valve and a hand air pump.

Parts Name	Specification	Qty
Bernoulli's Theorem Apparatus Frame		1 unit
Venturi		1 set
Water Manometer	8 tube x 500 mm	
Diameter both end venturi	28 mm	
Center diameter	14 mm	
Angle	10 and 21	
Flow recommended	5 35 liter/min.	

Open Channel Flow and Close Channel Flow (HD-400)

At Open Channel Flow, this equipment used to measures characteristic of fluid flow through width threshold, flow through sharp threshold and flow through curve threshold. At Close Channel Flow, this equipment used to measures head loss on fluid at straight pipe and curve pipe.



Technical Specification

Open Channel Long	450 cm
Open Channel High	25 cm
Open Channel Width	8 cm
Close Channel Long	± 800 cm
Nominal Pipe Diameter	½", ¾", and 1"
Curve	90 and 45
Water Discharge Meter	Venturi Meter
Pressure Meter	Water Manometer
Max. Pump Discharge	50 200 liter/min
Power Supply	220 VAC/350 watt

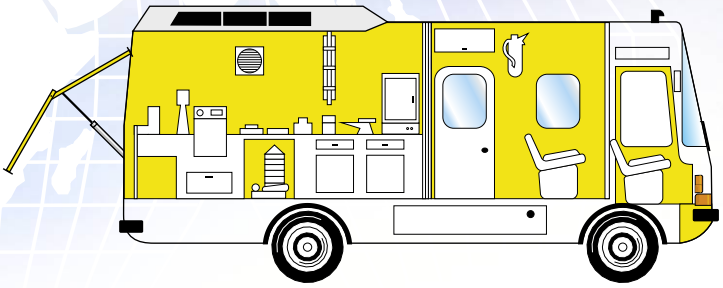
Mobile Lab For Soil (SOM-01)

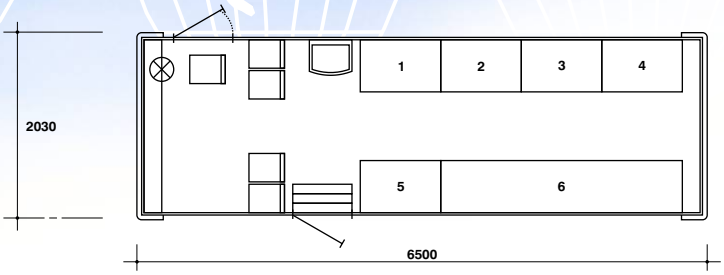
Features

To execute the investigation and soil, asphalt, concrete and aggregate research on the far or isolated place at development and rehabilitation road project need readiness laboratory equipment which satisfy and achieved.

For solve this problem, we have build Mobile laboratory equipment unit. On this mobile have many equipment which can use to solve the problem in the field. Hope with this unit the new development or maintenance project problem can be resolved.

The Mobile Laboratory can be use on the field or laboratory.



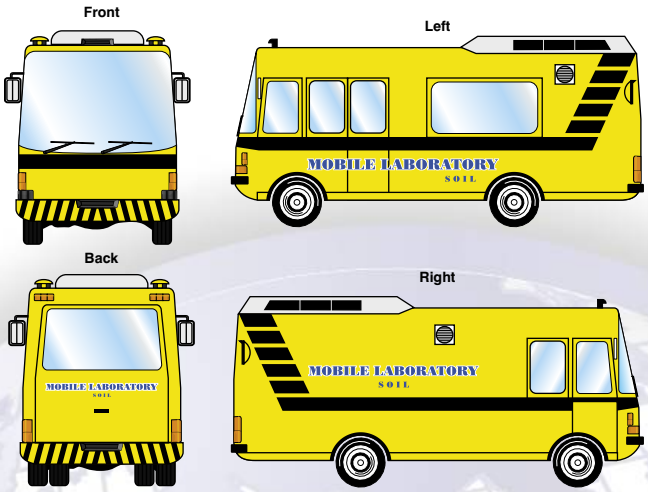


The advantages of using this unit

1. Economical, because complete with proper equipment and technician which can safe time and cost.
2. Efficiently, because the sample can be directly tested on the field or location.
3. Does not need a lot of cost for build the laboratory building. Besides that, this mobile unit can be used for other project on the different location.
4. Guarantee the better quality control on the field

Specification

Dutch Cone Penetrometer	1 set
Field CBR	1 set
Laboratory CBR	1 set
Unconfined	1 set
Hydrometer	1 set
Sieve	28 pcs
Sieve Shaker	1 set
After Berg Limit	1 set
Permeability	1 set
Compaction	1 set
Sand Cone	1 set
Hand Bor	1 set
Speedy	1 set
DCP	1 set
Specific Gravity	1 set



Mobile Lab For Concrete (COM-01)



Features

To execute the investigation and soil, asphalt, concrete and aggregate research on the far or isolated place at development and rehabilitation road project need readiness laboratory equipment which satisfy and achieved.

For solve this problem, we have build Mobile laboratory equipment unit. On this mobile have many equipment which can use to solve the problem in the field. Hope with this unit the new development or maintenance project problem can be resolved.

Specification

Sand Equivalent	1 set
Dunagan	1 set
Concrete Testing Machine	1 set
Cube Mold	12 pcs
Cylinder Mold	12 pcs
Slump Test	1 set
Air Meter	1 set
Sample Splitter	5 set
Concrete Test Hammer	1 set
Bulk Density	1 set
Organic Impurities	1 set
Soundness	1 set

Specification

Arbsorption of Finest Aggregate	1 set
Impact	1 set
Specivic Gravity of Cement	1 set
Vicat	1 set
Mortar Cement	1 set
Concrete Beam	1 set



Asphalt Mixing (MBT-300 Freedy Mix)

With this implement, in the work of the maintenance Street hot mix does not depend on Asphalt Mixing Plant (AMP). So as very effective is utilised in the work of the maintenance of the road in areas.

This implement is relatively small and is easy to be moved by using the vehicle (the pulling implement), in part:

- Pick Up
- Jeep
- And the other pulling implement

The pulling implement can function as the material transport implement (the stone breaks, stone ash, sand, asphalt). Moreover this implement can be also used to make Hot Mix with type:

- ATB
- ATBL
- AC
- HRS

The other use can be used to recycling unloaded goods asphalt hot mix by increasing a little bitumen.

Technical Specification

Total Weight	475 Kg
Tube Length	140 cm
Capacity	260 Kg/35 min
Production Time	35 minute
Fuel	Kerosine
Motor	Kubota 3 PK, 1800 RPM, 4 tak
Auxiliary Equipments	Hydraulic Jack

Soil Equipment

SO-110A 6
SO-111 6
SO-112 6
SO-113 6
SO-114 6
SO-115 6
SO-116 6
SO-117 6
SO-118 6
SO-119 6
SO-120 6
SO-130A 6
SO-131 6
SO-132 6
SO-133 6
SO-133.1 6
SO-133.2 6
SO-133.3 6
SO-134 6
SO-134.1 6
SO-134.2 6
SO-134.3 6
SO-140 6
SO-145 7
SO-150A 7
SO-151 7
SO-155A 7
SO-156 7
SO-157A 7
SO-158 7
SO-170 7
SO-200 8
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SO-202A 8
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SO-208 8
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SO-800 22
SO-810 22
SO-820 22

Aggergate Equipment

AG-100 24
AG-101 24
AG-102 24
AG-103 24
AG-104 24
AG-105 24
AG-106 24
AG-111 24
AG-122 24
AG-170 24
AG-200A 25
AG-201A 25
AG-202A 25
AG-203A 25
AG-204A 25
AG-205A 25
AG-206A 25
AG-207A 25
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AG-921 31
AG-950 31

Cement Equipment

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CE-101 32
CE-102 32
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CE-510.2 34

Concrete Equipment

CO-300 35
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CO-555 40
CO-605 41
CO-610 40

CO-650 40
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CO-660.1 24
CO-660.2 24
CO-700 40
CO-725 40

Asphalt Equipment

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BI-500.4 47

Miscellaneous

MI-130 48
MI-140 48
MI-500 48

General Equipment

GE-100 49
GE-101.1 49
GE-101.2 49
GE-101.3 49
GE-101.4 49
GE-101.5 49
GE-101.6 49
GE-101.7 49
GE-130 49
GE-140 49
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GE-178 49
GE-191 50
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GE-192 50
GE-200 50
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GE-239 50
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GE-950 57
GE-950 57
GE-951 57
GE-965 8

Hydraulika

HD-100 58
HD-200 58
HD-300 58
HD-400 58

Mobile Laboratory

SOM-01 59
COM-01 59

Other Equpment

MBT-300 60

MBT

PT MBT UTAMA,
jalan jalur sutra kav 30 D no,17,
Alam Sutera ,serpong Tangerang 15311

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Jalan Raya Batujajar. Puspa Regency
Blok A No.1Bandung Barat 40561

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