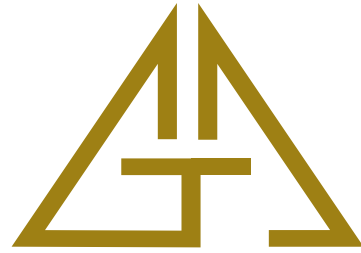


# **GULF TRADING AND AGENCIES**

QUALITY YOU DESERVE AND DEPENDABILITY YOU CAN COUNT ON

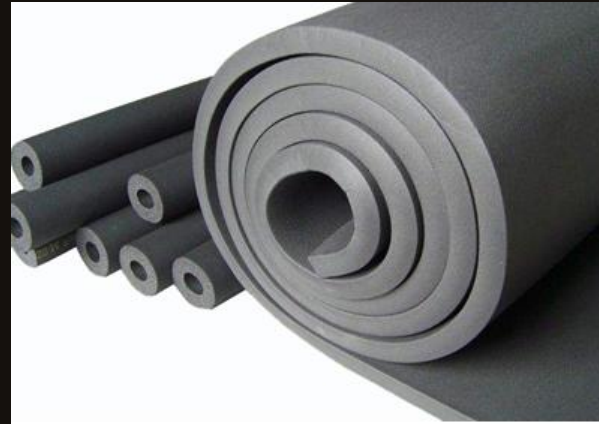
*A portrait of GTA*



*A portrait of GTA*



QUALITY YOU DESERVE AND DEPENDABILITY YOU CAN COUNT ON



## GULF TRADING AND AGENCIES

Wholesale Importers of Insulation, construction materials, soil testing and lab equipment

*Product Catalogue*

Excellence is about people. It starts with the individual. It is knowledge that enables us to achieve our goals – to be excellent over and over again. GTA is devoted to know. We equip you with the best tools to impact your customer’s business across life. With us, you benefit from the smartest infrastructure solutions and achieve infrastructure excellence wherever you are and whenever you want. In industrial insulation, fabrication and scaffolding, you get the highest return on investment with advanced operational automation and total infrastructure management. Whether you want a proven technology or an affordable infrastructure start-up, there is a solution. Together, we tailor and optimize a solution for your market needs. For us, business too is about people. Together, we always find new value to share just by knowing better. But we won’t stop there. We believe that everything, which can be connected, will be connected. Our innovation department has dozens of ideas cooking constantly. So, this is just the start. Choose GTA. And you know



**GULF TRADING AND AGENCIES**  
QUALITY YOU DESERVE AND DEPENDABILITY YOU CAN COUNT ON

# GTA

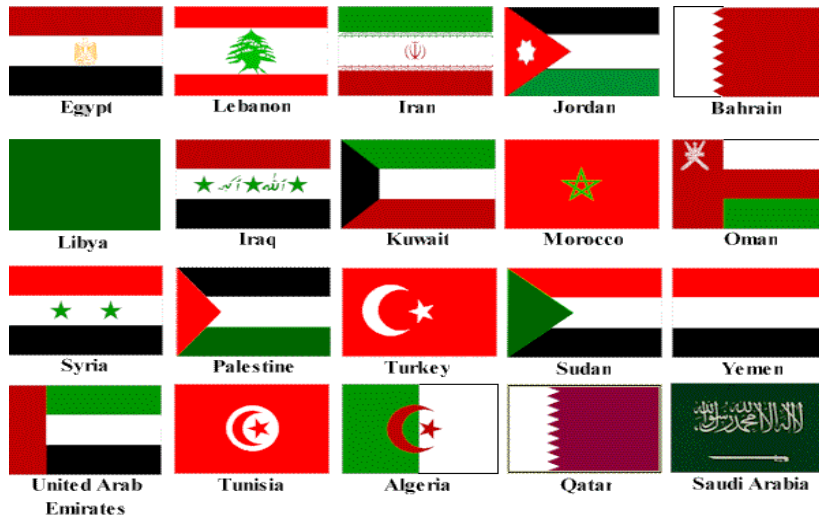
## Globally Local



**GULF TRADING AND AGENCIES**  
QUALITY YOU DESERVE AND DEPENDABILITY YOU CAN COUNT ON

- GTA business operates globally. The company headquarters are located in Oman. GTA sales organisations are established in Oman,UAE,Kuwait,Saudi Arabia and most of the Middle East. GTA also has representatives in more than 20 countries, responsible for country based product distribution, sales and customer service.

### Global Sales Channel and Target Market





**WE ARE THE AUTHORISED  
DEALERS FOR FOLLOWING  
PRODUCTS**



# Aggregates – Drying of samples - Ovens

- These extensive and diverse selection of airflow convection laboratory ovens offer solid performance and efficiency. They come in both bench-top and floor-standing models and are suited for many different drying applications. Chamber sizes range from 0.7 to 78ft<sup>3</sup> (20 to 2,210L), with maximum temperature ranges from 105° to 550°F (41° to 290°C). While most models are electric, some are available that operate with natural gas or LP.



## General equipments - Balances - Specific gravity frame

- **Specific gravity frame** and baskets. Used with a suitable electronic **balance** for **specific gravity** determination of fresh and hardened concrete and aggregates. A purpose built robust **frame** designed to support the electronic **balance**.





# ALUMINIUM SHEET

- **Standard:** ASTM B209M – Alloy 1060/1050
- **Thickness:** 0.8mm Minimum
- **Width:** 1000mm Minimum
- **Type:** Plain / Corrugated/Stucco Embossed
- **Sheet and plate can be recycled continuously**  
Sheet and plate aluminium can be recycled continuously without loss of properties. Recycling sheet and plate aluminium saves more than 90 percent of the energy otherwise required to produce primary aluminium.
- **Highest performance standards in armour**  
Military-grade aluminium armour plate meets the U.S. military's highest performance standards. Aluminium armour can deflect a .50-caliber round that would pierce other materials.
- **The "gauge" of aluminium sheet and foil**  
Aluminium from 0.008 inches to less than 0.25 inches thick is considered sheet. Thinner aluminium is foil and aluminium 0.250 inches and thicker is plate.
- **The colder, the stronger**  
Aluminium plate is used for storage tanks in many industries in part because some aluminium alloys gain strength at super cold temperatures.



# Aggregates – Drying of samples – Muffle furnaces

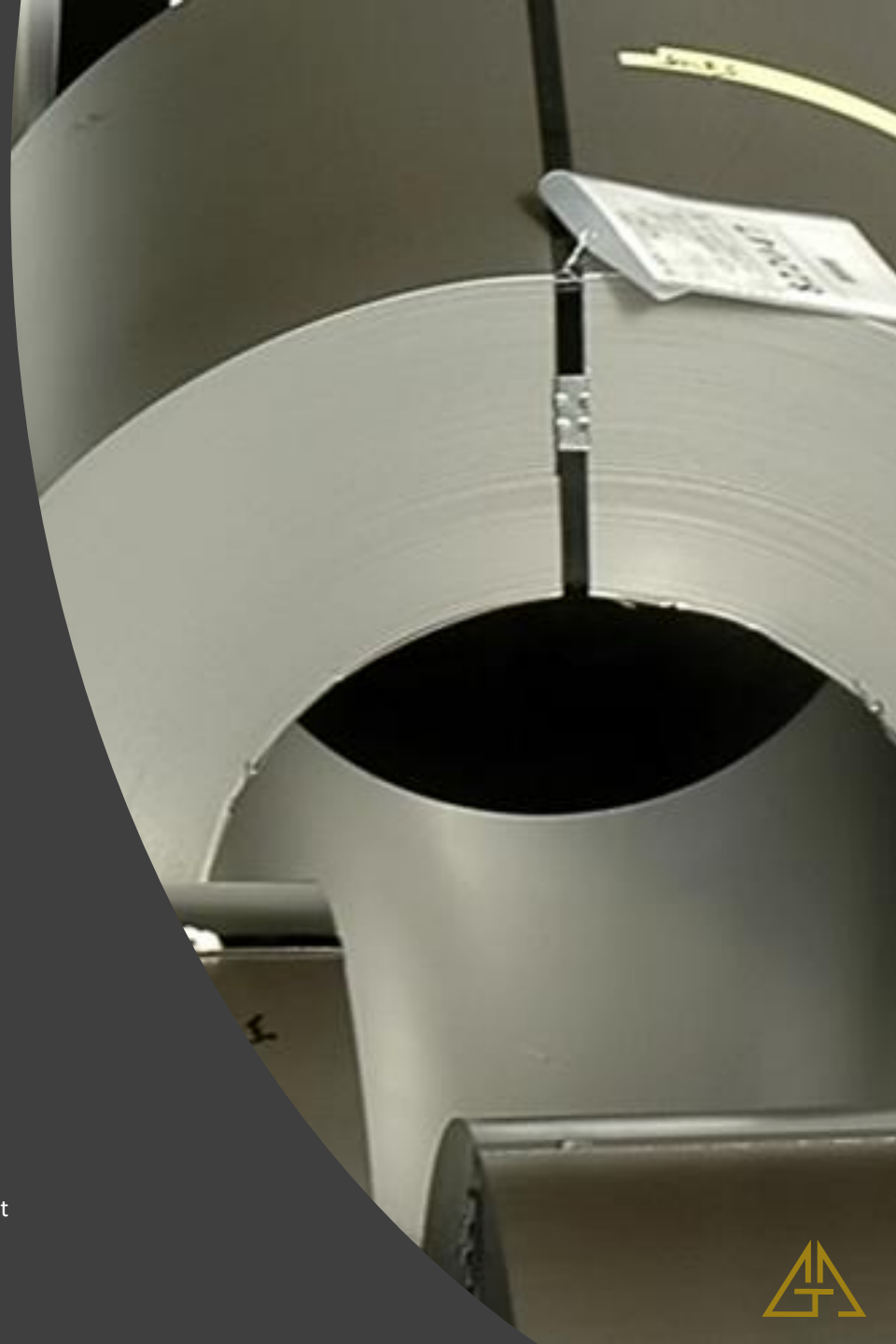
- This range of muffle furnaces cover practically all requirements of construction materials laboratory: from aggregates to concrete/cement and asphalt testing.

Models 10-	D1418 D1418/Z	D1418/A D1418/AZ	D1418/AP D1418/APZ	D1419
Max. temperature	1100°C	1200°C	1200°C	1100°C
Accuracy	±4°C	±4°C	±4°C	±4°C
Power	3.9 kW	4.2 kW	4.2 kW	9 kW
Inside dim. cm	21x32x14.5	21x28x14.5	21x28x14.5	30x22x50
Outside dim. cm	51x75x66	51x65x65	51x65x65	75x165x110
Weight approx.:	89 kg	70 kg	70 kg	400 kg
Reference standards	EN 12697-1 EN 13108	EN 196-2 EN 196-1 EN459-2		EN 1367-5



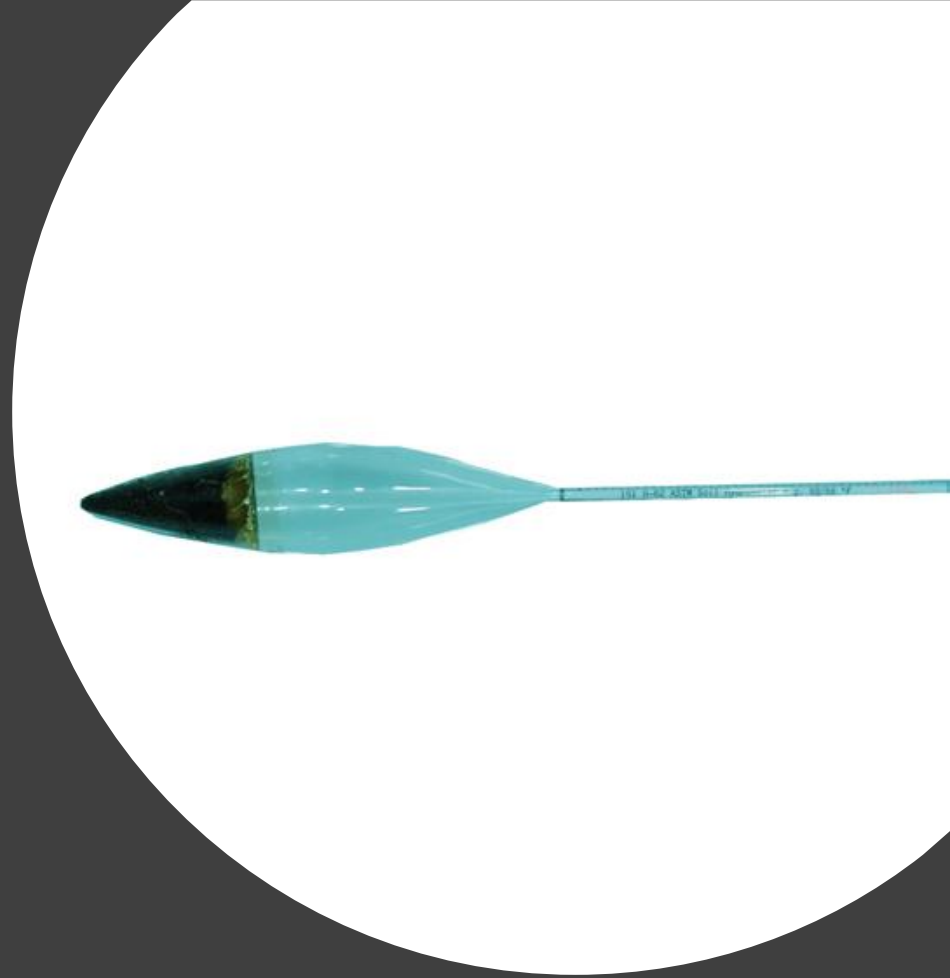
# ALUMINIZED STEEL SHEET TYPE-T2

- **Standard:** Coating Type T2-300
- **Thickness:** 0.8mm Minimum
- **Width:** 500mm Minimum
- **Type:** Plain
- Aluminium is also a popular metal used in sheet metal due to its flexibility, wide range of options, cost effectiveness, and other properties. The four most common aluminium grades available as sheet metal are 1100-H14, 3003-H14, 5052-H32, and 6061-T6.
- Grade 1100-H14 is commercially pure aluminium, highly chemical and weather resistant. It is ductile enough for deep drawing and weldable, but has low strength. It is commonly used in chemical processing equipment, light reflectors, and jewellery.
- Grade 3003-H14 is stronger than 1100, while maintaining the same formability and low cost. It is corrosion resistant and weldable. It is often used in stampings, spun and drawn parts, mail boxes, cabinets, tanks, and fan blades.
- Grade 5052-H32 is much stronger than 3003 while still maintaining good formability. It maintains high corrosion resistance and weldability. Common applications include electronic chassis, tanks, and pressure vessels.
- Grade 6061-T6 is a common heat-treated structural aluminium alloy. It is weldable, corrosion resistant, and stronger than 5052, but not as formable. It loses some of its strength when welded. It is used in modern aircraft structures.



# Soil hydrometers

- Hydrometers measure suspended solids in sedimentation cylinders over time periods of up to 24 hours and are used in hydrometer analysis of soils to test distribution of soil particle size.
- SA-1 ASTM 151H Soil Hydrometer is graduated to read specific gravity. It has a range of 0.995 — 1.038 in 0.001 divisions at 68°F (20°C). This hydrometer comes with a NIST-traceable certificate of calibration.
- SA-2 152H Soil Hydrometer measures in grams per liter (g/L) of suspension and has a range of -5 - +60 g/L, in 1g/L divisions at 68°F (20°C). It is also supplied with a NIST traceable certificate of calibration.
- **Features:**
- Measures in grams per liter
- Meets ASTM D7928 and AASHTO T 88 standards
- Comes with NIST traceable certificate of calibration





## General equipment - Hot plate with thermo regulator

- This Hot Plate feature square ceramic heating plates that are easy to clean and resistant to most chemicals. Microprocessor-controlled feedback with digital display maintains accurate, consistent temperatures with settings adjustable in 5°C (9°F) increments. Large wire-wound mica heating element assures fast, even heat up. Hot-surface alert system warns of high temperatures regardless of On/Off status. Low-profile aluminium housing prevents fluid spills into electronics. Models carry the CE Mark.

- **Features:**

- Ceramic heating plate
- Microprocessor digital controller and display
- Hi-temp alert system for safety

- **Included Items:**

- Cimarec + Hot Plate
- Power Cord



## Soil – Oedometers – Consolidation test

- Carried out on saturated soil specimens, this **test** can be used to determine **consolidation** and swelling parameters. The standard **oedometer test** is one of the most commonly used **tests** in geotechnical laboratory **testing** program. When preparing the sample, filter papers are added between the soil and the porous stones.



# High capacity sieve shaker



- Can separate up to **30 litres** (1ft<sup>3</sup>) of aggregates (65 kg approx.)
- Also suitable for sizing crushed stones, slag, coal, coke, ores, pellets etc.
- Large selection of **screen trays** available, **ASTM** and **EN** standards. See screen trays



## Soil – Laboratory air compressor

- A **rotary-screw compressor** is a type of gas compressor, such as an air compressor, that uses a rotary-type positive-displacement mechanism.





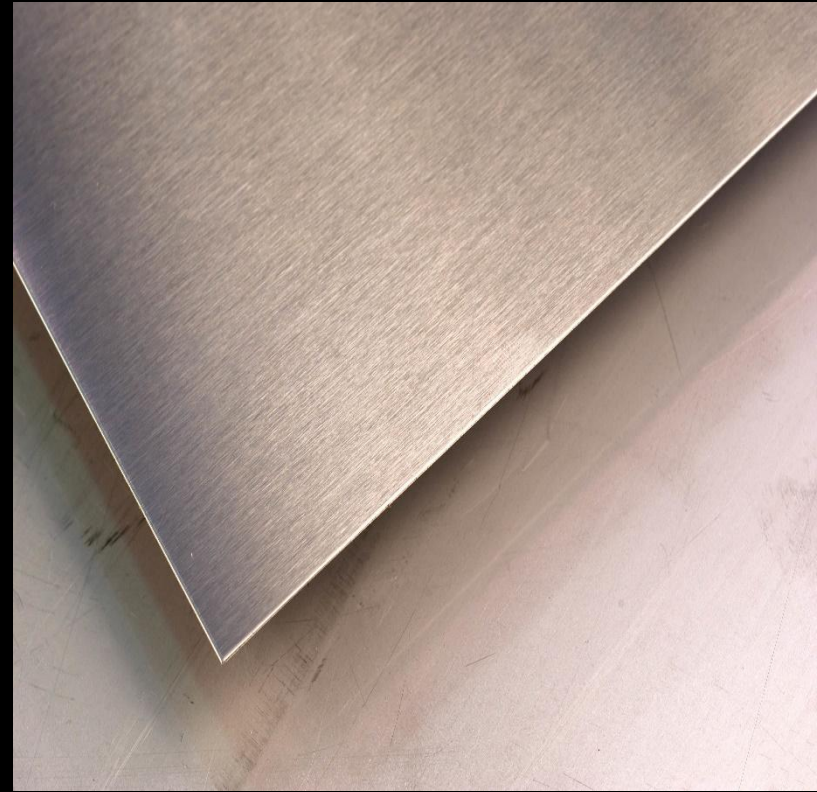
# Soil – Moisture determination balance

- Moisture Determination Balances provide a primary method for accurate moisture measurement by using the loss on drying (LOD) method. A liquid or solid sample is placed in the sample pan. The integrated balance weighs the initial sample. The balance's lid is closed, start button pressed, and the sample is dried. The balance periodically weighs the sample and when the test is completed, automatically calculates the moisture content (or solid content) of the initial sample.
- Depending on the balance, drying can be set for a fixed time, continuous mode, or to dry until a gradient of weight loss is achieved. Our top of the line models will even predict the final moisture percentage and finish the test when the predicted value and associated confidence level meets a pre-determined level of precision. All systems include a three-year warranty.



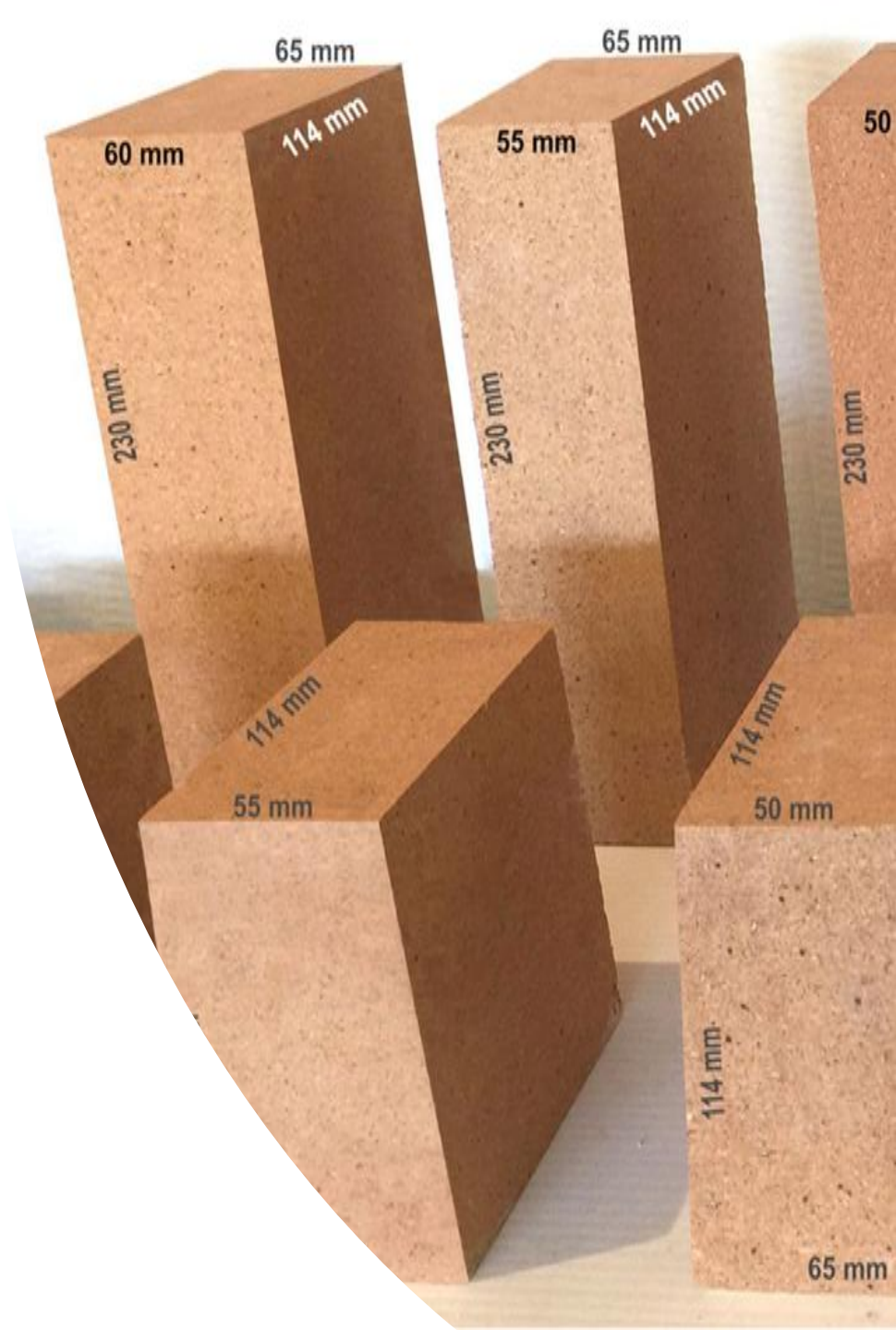
# STAINLESS STEEL SHEET

- **Standard:** Type 304 or Type 316 in accordance with ASTM A240
- **Thickness:** 0.5mm / 0.6mm / 0.8mm
- Grade 304 is the most common of the three grades. It offers good corrosion resistance while maintaining formability and weldability. Available finishes are #2B, #3, and #4. Grade 303 is not available in sheet form.
- Grade 316 possesses more corrosion resistance and strength at elevated temperatures than 304. It is commonly used for pumps, valves, chemical equipment, and marine applications. Available finishes are #2B, #3, and #4.
- Grade 410 is a heat treatable stainless steel, but it has a lower corrosion resistance than the other grades. It is commonly used in cutlery. The only available finish is dull.
- Grade 430 is popular grade, low cost alternative to series 300's grades. This is used when high corrosion resistance is not a primary criteria. Common grade for appliance products, often with a brushed finish.



# REFRACTORY BRICKS

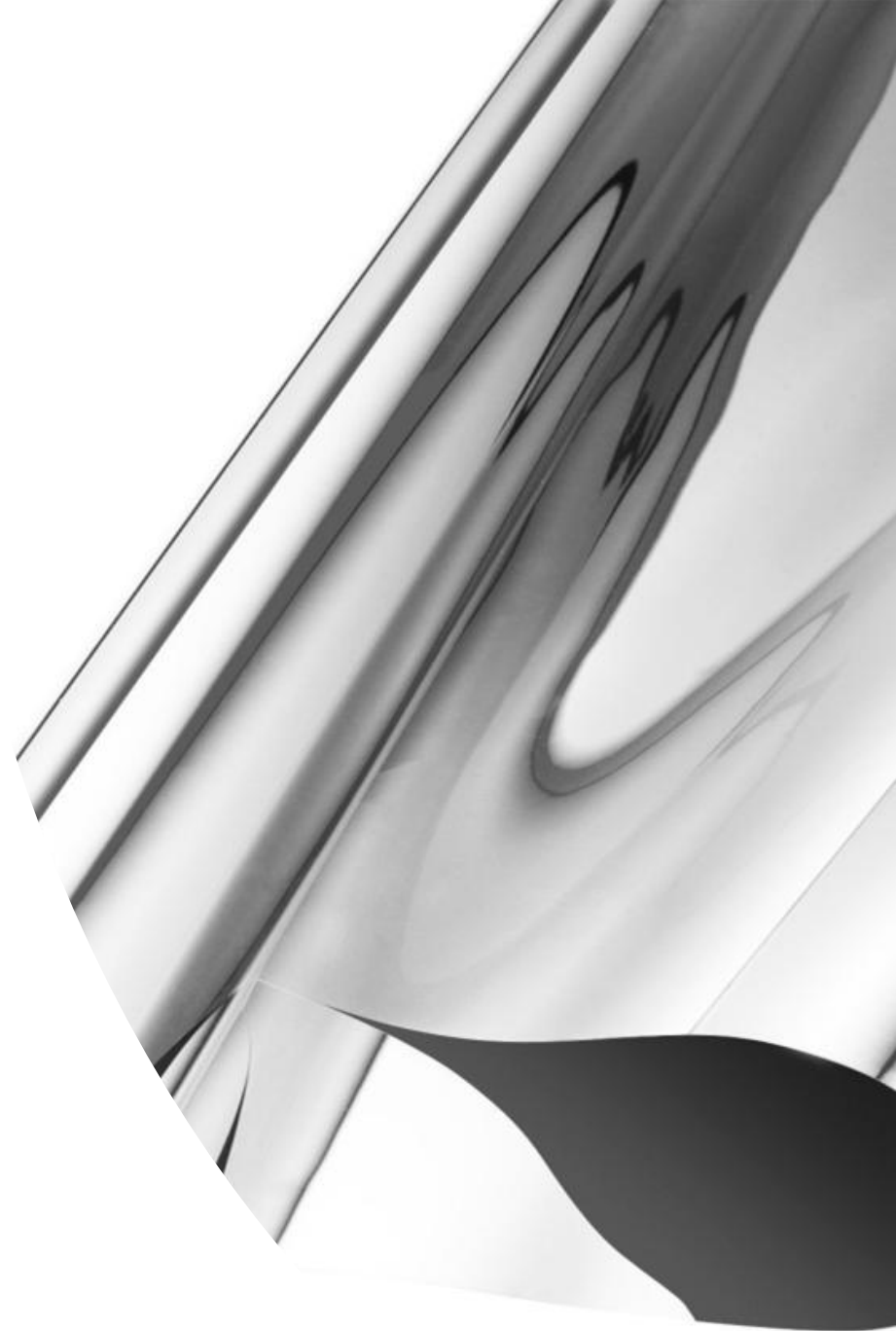
- Basic Brick are high magnesia made primarily from periclase, formed by high temperature firing of synthetic magnesium hydroxide or natural magnesium carbonates.
- Heavy duty firebrick comes in Alumina-Silica and High Alumina types, offering stability and high density with good chemical and atmosphere resistance.
- Insulating Firebrick, also of Alumina-Silica and High Alumina type compositions, is lightweight and lower density with a higher percentage of air bubbles dispersed throughout the brick.
- **Features and Benefits**
- Heavy-duty firebrick offer marked resistance to spalling, exceptional load carrying capacity at high temperatures, and maintain the ability to withstand chemical attack and high heat conditions.
- Insulating firebrick offer lower heat conductivity plus the ability to withstand chemical attack and high heat conditions without weakening. They conduct less heat away from its work within a furnace, and exhibit lower heat storage, heating quickly and economically to the operating temperature and cooling fast to speed turnarounds.
- Common markets for these brick are:
  - New Furnace and kiln builders
  - Aluminium Electrolytic pot cells
  - Carbon anode baking pits
  - Blast furnace stoves
  - Steel reheat furnaces
  - Petrochemical heaters
  - Technical ceramic kilns



# ALUMINIUM (MYLAR) FOIL

- 25 Micron Polyester Film/50 Micron Aluminum Foil /25 Micron Polyester Film
- **Thickness:** 100 micron
- Mylar is generically used to refer to polyester film or plastic sheet. However, it is also a registered trademark owned by Dupont Teijin Films to brand a specific family of plastic sheet products made from polyethylene terephthalate (PET). Mylar sheets are preferred throughout various industries because they have high-tensile strength and solvent resistance, as well as chemical, dimensional, and thermal stability. Mylar rolls can be used to produce artist overlays, charts, layouts, and other projects in which superior clarity is essential. This durable polymer resin is made by stretching the synthetic fibres of PET. Since its invention, Mylar film has been used in a broad variety of electronic, graphics, and industrial applications

Whether you require a flexible packaging solution for foods or an electrical and thermal insulator, GTA has just the answer you need at a competitive price. We offer a wide range of options when it comes to choosing Mylar rolls. Pressure-sensitive polyester film is coated with a permanent adhesive that makes it particularly resistant to humidity and water. Mylar is also ideally suited to printing, die-cutting, barrier protection, apparel, and other industrial applications. Customize our Mylar sheets to accommodate the needs of your project. You can shop by film thickness or roll size to ensure that you have enough material to complete your project with total peace of mind. When it comes to high-performance plastic film or sheet, look no further than our selection.



# QUICK RELEASE TOGGLES, LOCKABLE AND ADJUSTABLE

- **Materials:** Stainless steel according to ASTM A-167, type 304.
- **Sizes:** Depending on tensioning bandwidth & length: 150 mm.
- As part of our extensive array of products, BS Stainless supply steel toggles and latches for use in a wide variety of applications made from stainless steel, Aluminium or Galvanised (zinc coated). Guaranteed to provide strength and security, our toggles and latches are manufactured to the highest quality specifications and are supplied to our worldwide customer base.
- Steel toggle and latches are widely used within the power generation industry oil, gas, electricity, nuclear especially in grade 316 / 1.4404 stainless steel. Their most popular use is for securing covers, lids and valve boxes. Toggle latches are usually secured using rivets to fasten them into sheet metal.
- The types of toggle will depend on the strength required, the size, the type of access and the corrosion or fire resistance. The terminology used to describe toggle can vary significantly from county to county and by industry. Within the insulation industry it's common to describe them by size as 1", 2" toggles or similar, some clients will just refer to them as small, medium or large others will have a specific drawing to match or a product reference or brand name we have a large stock range to offer over 100 variations.
- Our standard toggles are manufactured to the highest standard with a product range of over 40 styles mainly in stainless steel but also in aluminium and zinc plated or galvanized steel. Our toggles can be supplied as quick release or with springs and locking device. Toggles are widely used in the oil and gas industry both on and offshore, we have a new range of toggles that are used for securing fire jet boxes for safety these include a cotter pin that cannot be misplaced due to a revolutionary safety device.



# Soil – Pinhole test equipment, dispersibility determination

- **Pinhole Dispersion Device** characterizes dispersive properties of clay soils used in construction of earth embankments and dams. Water is directed through a small hole drilled through the compacted specimen. Observation of effluent cloudiness and final size of the pinhole qualitatively classifies soil dispersiveness. Additional computations of water flow rate may also be required. Comparison with other methods indicates that the pinhole test has the best correlation with the actual erosion characteristics of cohesive soils.
- A stainless steel mold is held to the base by a unique clamping ring while the specimen is compacted. The end cap has a pilot hole for drilling the 1.0 mm (.040in) hole through the sample. All aluminium parts are anodized for corrosion resistance. Chamber and end-caps, mold, screens, base stand, a constant-head reservoir, tubing, pipet, and a tool for drilling the pinhole are included in HM-534.
- **Features:**
  - Measures dispersive characteristics of cohesive soils
  - Evaluates soils for dams and embankments
  - Anodized aluminium components resist corrosion
- **Included Items:**
  - HM-534 Pinhole Dispersion Device
    - Chamber and End Caps
    - Mold
    - Screens
    - Stand
    - Constant-Head Reservoir
    - Tubing
    - Pipet
    - Drilling Tool
- Meets Standard(s): **ASTM D4647**



# BLIND RIVETS

- **Materials:** Stainless steel according to ASTM A-167, type 304. Aluminum or galvanized steel.
- **Sizes:** 3.2 x 1 mm. and 4.8 x 1 mm., length to be determined on site.
- Blind rivets, commonly referred to as "pop" rivets (POP is the brand name of the original manufacturer, now owned by Stanley Engineered Fastening, a division of Stanley Black & Decker) are tubular and are supplied with a mandrel through the centre. The rivet assembly is inserted into a hole drilled through the parts to be joined and a specially designed tool is used to draw the mandrel into the rivet. This expands the blind end of the rivet and then the mandrel snaps off. These types of blind rivets have non-locking mandrels and are sometimes avoided for critical structural joints because the mandrels may fall out, due to vibration or other reasons, leaving a hollow rivet that has a lower load-carrying capability than solid rivets. Furthermore, because of the mandrel they are more prone to failure from corrosion and vibration. Unlike solid rivets, blind rivets can be inserted and fully installed in a joint from only one side of a part or structure, "blind" to the opposite side.
- Due to this feature, blind rivets are used mainly when access to the joint is available from only one side. The rivet is placed in a drilled hole and is set by pulling the mandrel head into the rivet body, expanding the rivet body and causing it to flare against the reverse side. As the head of the mandrel reaches the face of the blind side material, the pulling force is resisted, and at a predetermined force, the mandrel snaps at its break point, also called blind setting. A tight joint formed by the rivet body remains, the head of the mandrel remains encapsulated at the blind side, although variations of this are available, and the mandrel stem is ejected.



# Soil – CBR testing machines

- California Bearing Ratio [CBR] Test Machines. The California Bearing Ratio (CBR) test is a measure of the strength of subgrade soil and highway sub base and subgrade via a penetration test. It is designed for testing cohesive materials with a particle size less than 19mm





# WIRE MESH

**Standard:** Stainless steel according to ASTM-167, type 304

**Size:** Wire diameter 3 mm, mesh dimensions 50 x 50mm.

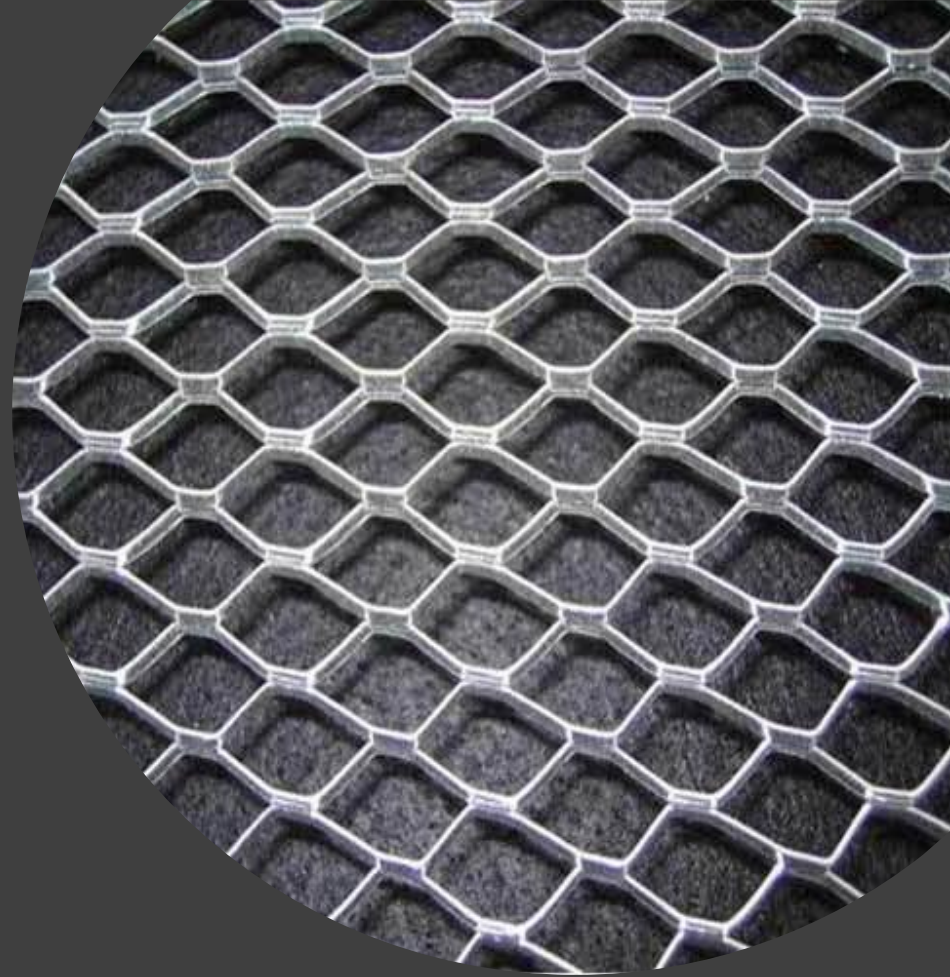
Wire mesh, also called wire cloth or wire fabric, is a versatile metal product that can be effectively used in countless applications throughout the world. From industrial to commercial uses, wire mesh is a common metal product used every day.

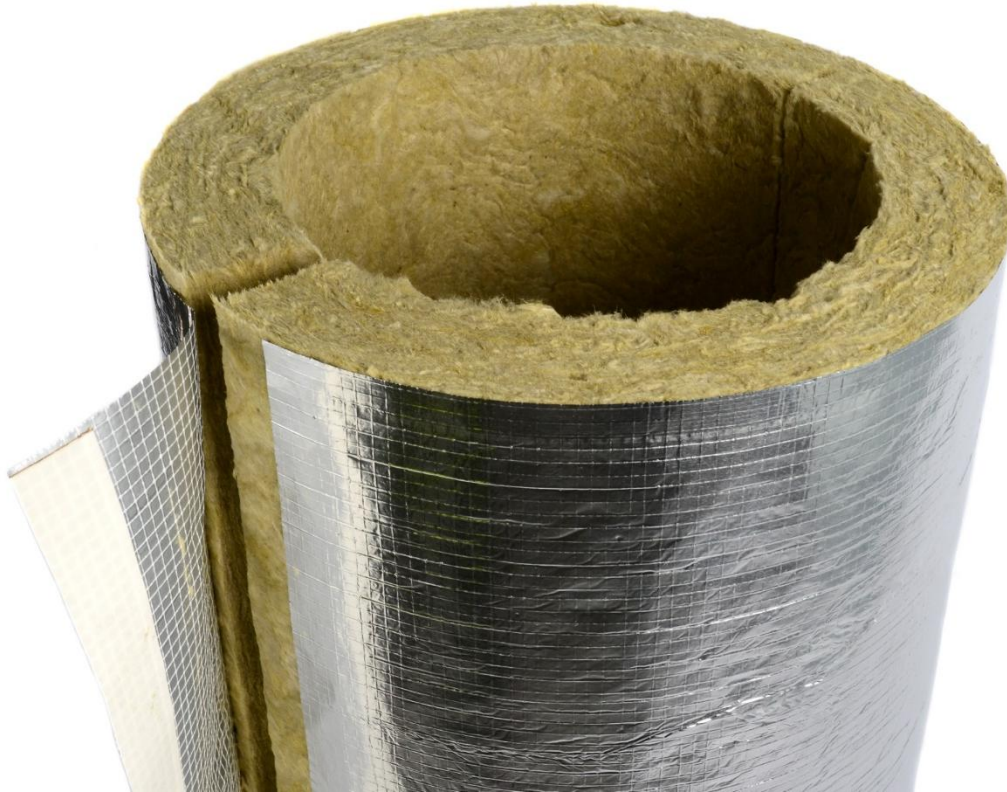
## [Welded Wire Mesh](#)

Welded wire mesh consists of perpendicular wire strands that are welded at each intersection. Economical and versatile, our welded wire mesh has a clean appearance and uniform grid patterns. It can be used for a variety of applications, such as safety barriers, security fencing, storage containers, reinforcement for heavy loads and animal kennels and cages.

## [Woven Wire Mesh](#)

Woven wire mesh is made in a similar fashion as that of fabric weave, as it is woven on looms that are used to weave cloth. The most common materials used to create woven wire mesh include carbon steel, galvanized steel and stainless steel.





## ROCKWOOL (MINERAL WOOL) PIPE SECTION

- **Standard:** ASTM C 547
- **Density:** 100 Kg/m<sup>3</sup>
- **Leachable chlorides content:** in acc. with ASTM C-871: ≤10 mg/kg.
- **Thickness:** 25mm / 30mm / 40mm / 50mm / 60mm / 70mm / 80mm / 100mm / 120mm
- Rockwool fibers are inorganic and composed mainly of silica and alumina, Rockwool is manufactured from various types of rock of predetermined chemical compositions which is melted at super high temperature in a technically advanced Cupola, The resulting molten alumino-silicate is drum spun at very high speed to produce "ROCK FIBRES"
- Mineral wool pipe insulation is fabricated from felted mineral wool bonded with a high temperature binder. The resulting product is precisely fabricated to fit NPS and tube sizes for both commercial and industrial applications. The temperature range is from -20°F (-29°C) to 1200°F (649°C). GLT Products mineral wool fabricated pipe insulation is a water repellent yet vapor permeable material.





# Aggregates – Drying of samples – Climatic chamber

- Advanced controller with cycle programmer for 50 programs and 1000 segments
- Temperature sensor movable inside the cabinet or inside the sample conforming to Standard requirement
- High accuracy:  $\pm 1^{\circ}\text{C}$ ,  $\pm 5\% \text{RH}$  (RH with 10-D1429/A model only)
- A multipurpose climatic chamber suitable for testing applications in Aggregates, Cement, Concrete, Bricks, Blocks, Asphalt and other construction materials
- Optional internal data recording facility, data output port and dedicated PC software.

## Technical Specifications

- Capacity: 520 litres
- Function controller: cycle programmer for 50 programs and 1000 segments
- Temperature range/accuracy:  $-30$  to  $+70^{\circ}\text{C}/\pm 1^{\circ}\text{C}$
- Humidity range (model 10-D1429/A only): from 20 to  $\geq 90\%$
- Power: Cooling system 1000 W, Heating system 1500 W
- Internal air circulation:  $450 \text{ m}^3/\text{h}$
- Shelves dimensions (lxd):  $530 \times 580 \text{ mm}$ , 4 included 60 kg loading cap. each
- Internal dimensions (wxdxh):  $600 \times 670 \times 1300 \text{ mm}$
- External dimensions (wxdxh):  $720 \times 800 \times 2020 \text{ mm}$
- Weight approx.: 180 kg

## **10-D1429/REC**

Upgrade of the cabinet controller with internal data recording facility, data output port and dedicated PC software.

Note: This upgrade shall be factory installed.

## **48-D0457**

Metal can 2000 ml cap. with removable lid and 1 kg ballast . Conforming to EN 1367-1.

Used for determining the resistance to freezing and thawing of aggregates including lightweight types.

- Weight approx.: 2.5 kg



# ROCKWOOL (MINERAL WOOL) BLANKETS

- **Covering:** Mesh blankets, stitched with 0.8-mm high-alloy wire on galvanized or stainless-steel wire mesh with a max. mesh width of 1"
- **Standard:** ASTM C 592
- **Density:** 100 Kg/m<sup>3</sup>
- **Leachable chlorides content:** in acc. with ASTM C-871: ≤10 mg/kg.
- **Thickness:** 25mm / 30mm / 40mm / 50mm / 60mm / 70mm / 80mm / 100mm / 120mm
- **Length X Width:** 3000 x 500mm Minimum

## Description

- High Density Semi-Refractory Felt
- Non-load-bearing, it is a selected blend of high density mineral fibre with a resin binder which also does not contain any asbestos.

## Application

- Recommended for maximum hot surface temperature applications to 1900° F one side (enclosed panel only) per ASTM C356 and C411. If used above 1400° F, vibrations may cause degradation of the insulation.
- Performs effectively over a wide range of uses, especially when replacing mineral wool block and calcium silicate insulation in high heat ovens, furnaces, precipitators, fire door cores, and many other similar installations.
- Not for use in load-bearing situations or against direct flame.

## Features and Benefits

- Economical, High performance insulation
- Provides high temperature insulating properties with excellent workability and easy application.
- Does not contain asbestos



# SEALS FOR TENSIONING BAND (WING TYPE)

- **Materials:** Aluminum 99.5 (1S) 1/2 hard (H14).  
Stainless steel according to ASTM A-167, type 304.

- **Sizes:** 13mm / 19mm / 25mm / 40mm /50mm

- **ALUMINUM WING SEALS**

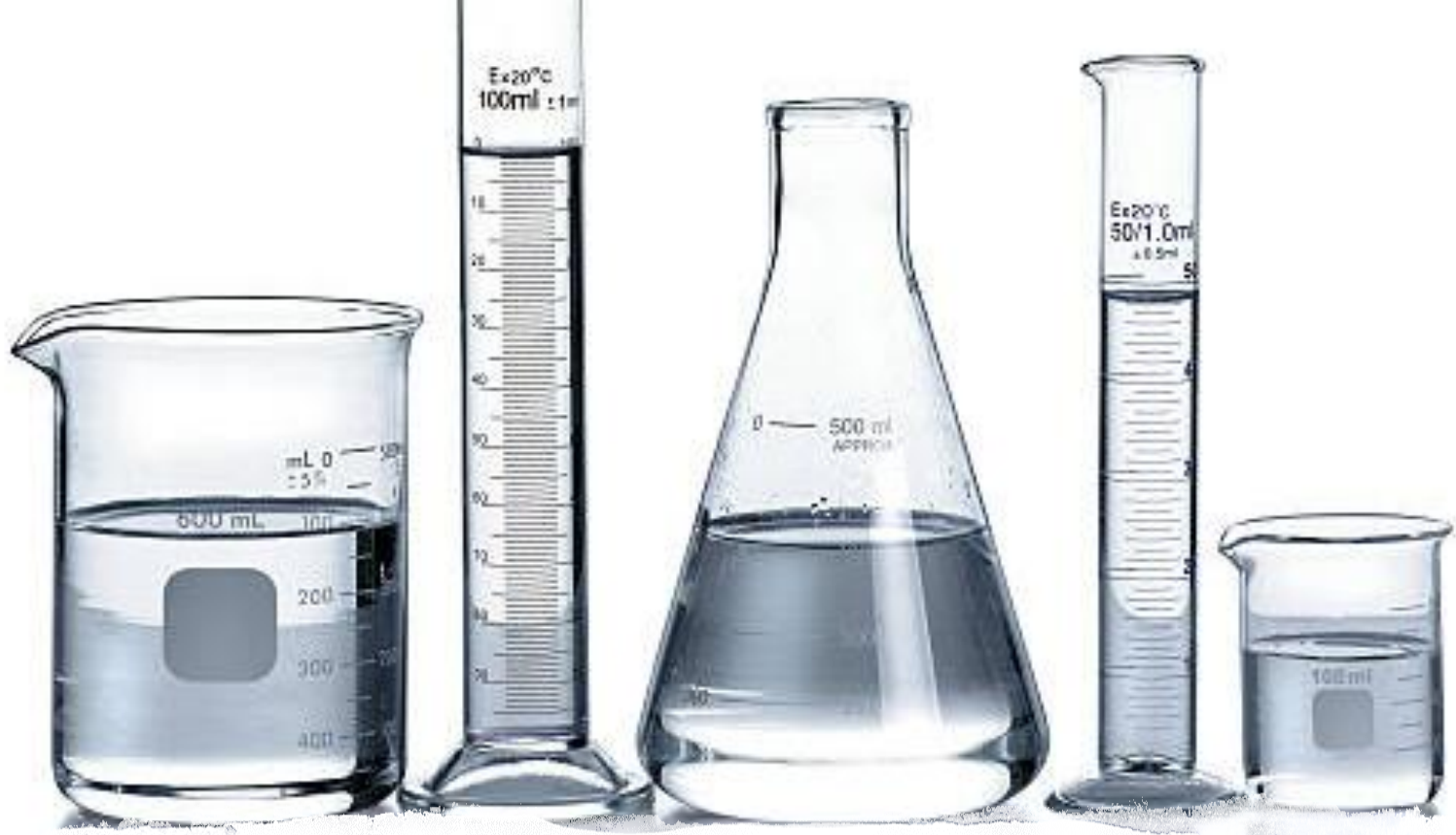
Aluminium Wing Seals are manufactured from aluminium in .032" thickness to allow for maximum strength during tensioning. The wing seal is placed onto one end of a cut piece of strapping and is then used as the closure device for the strap. Aluminium Wing Seals are available in 1/2", and 3/4" widths.

- **STAINLESS STEEL WING SEALS**

Stainless Steel Wing Seals are manufactured from heavy duty T-304 annealed stainless steel. These seals are .032" in thickness to allow for maximum tensioning and binding power. They are available in 1/2", and 3/4" widths. \*\*T-316 available upon request.

- \*Both Aluminium and Stainless Steel Wings Seals are sold in boxes of 1,000 pieces





**General equipment -**  
**Graduated pipettes, type**  
**Mohr, soda glass**

- A **graduated pipette** is a **pipette** with its volume, in increments, marked along the tube. It is used to accurately measure and transfer a volume of liquid from one container to another. It is made from plastic or **glass** tubes and has a tapered tip.



# General equipments - Reagent bottles

- **Reagent bottles**, also known as **media bottles** or **graduated bottles**, are containers made of glass, plastic, borosilicate or related substances, and topped by special caps or stoppers and are intended to contain chemicals in liquid or powder form for laboratories and stored in cabinets or on shelves.



# Aggregates – Sieving - Ultrasonic cleansing bath

- Used for a **safe and valid cleaning of sieves and glassware**, which could be damaged by ordinary cleaning methods. It is particularly suitable for fine mesh sieves. The bath accepts sieves up to 200 mm and 8" diameter.
- Supplied complete with timer 0 - 99 minutes, lid and discharge cock.
- **Internal diameter:** 260 mm, height 200 mm
- **Capacity:** 10 litres
- Stainless steel made, with incorporated electronic generator, frequency 35 KHz.
- **Power supply:** 230V 50/60 Hz 1ph 200W  
Dimensions: dia. 274 x 370 mm  
Weight. 8 kg approx.





# REFRACTORY CASTABLES

- Dry materials that can be combined with water to form a homogenous mass which can be cast in formwork similar to concrete.
- Castable refractories can be classified into four major groups - dense castables, lightweight or insulative castables, gunning castables, and special purpose castables - sometimes these classifications can be combined, such as lightweight gunning castables, or dense gunning castables.

## • **Features and Benefits**

- Castable refractories offer these advantages:
- High strength at low temperatures.
- Air and gas-tight joints result in fuel savings.



# ROCKWOOL (MINERAL WOOL) SLABS

- Standard: ASTM C 612
- Density: 100 Kg/m<sup>3</sup>
- Leachable chlorides content: in acc. with ASTM C-871: ≤10 mg/kg.
- Thickness: 25mm / 30mm / 40mm / 50mm / 60mm / 70mm / 80mm / 100mm / 120mm
- Length X Width: 1000 x 500 mm Minimum

## Description

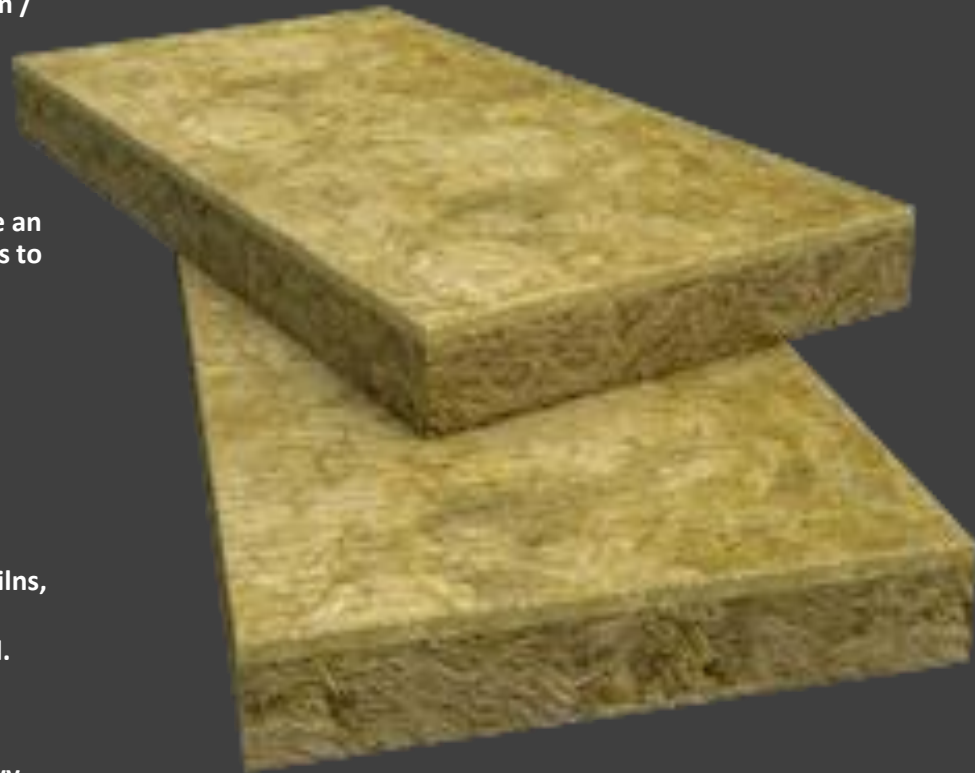
- Composed of mineral fibre and selected mineral additives.
- An organic binder is used for low temperature handling boards while an inorganic binder system allows many of the high temperature boards to be used at service temperatures up to a maximum of 1900°F.

## Application

- A superior substrate for fabric and vinyl covered wall panels, office dividers and tack boards.
- An excellent core for chalkboards, stove boards, and other such applications.
- High temperature boards are widely used in applications on precipitators, dryers, ducts and breeching, utility boilers, furnaces, kilns, etc. where high temperature materials are required.
- Not to be subject to direct flame impingement as a hot face material.

## Features and Benefits

- Outstanding resilience, excellent machinability, high "K" factor, heavy density and exceptional surface hardness.
- Laminates easily with various finish materials such as vinyl, fabrics and steel.
- Readily accepts water or solvent based adhesives.
- Provides high strength and excellent workability.



## Soil –CBR testing machines, hand-operated

- **Hand operated CBR** loading press. The **machine** feature a rigid two column frame with upper crossbeam, which can be adjusted in height and locked in position with locknuts. ... The **machine** includes a precision load ring, 50 kN cap., penetration piston and dial gauge.



# General equipments - Balances – Batching scale

- Batch scales are more accurate than human measurements, and they can be customized to suit the needs of your production line. When you work in an industry that requires precise measurement, you need maximum accuracy while still saving time on production.
- Here are just a few facts to know about batching scales:
- **Saves on Production Time:** When components must be measured manually, an employee physically weighs them before discharging and processing. With batching scales, the time-consuming nature of weighing is eliminated, and with automated scales, a system automatically delivers the appropriate amount without human intervention.
- **Scales Must Be Certified:** When using batching scales for sales charged by weight, the scale must be certified and designated legal-for-trade. Most batch scales sold to commercial warehouses are certified. However, your company can have a private certification done.
- **Suitable for Basic Batching:** Industrial digital filling scales are ideal for basic batching. A separate point value is assigned per ingredient, and once that component reaches the point value, output ceases.
- **Save Formulas for Faster Production:** With the right digital filling scale, you can save formulas in the system so that you can batch out and produce products without having to reprogram each time you switch products.
- **Multiple Component Capacity:** Today, batching scales are much more advanced. They can handle various components for single product production at a time. To change products, you can upload the new specifications and weights via a USB port.



## Soil – Chemical tests - Digital pH meter and thermometer

- High quality, accurate **pH meters** for lab & industrial applications. Contact us! Low maintenance. High accuracy & precision. Highest quality. Types: **pH Meter** for Laboratory, **pH Meter** for Industries, In-Line Measurements, Off-Line Measurements.
- A **pH meter** is a scientific instrument that measures the hydrogen-ion activity in water-based solutions, indicating its acidity or alkalinity expressed as pH. The pH meter measures the difference in electrical potential between a pH electrode and a reference electrode, and so the pH meter is sometimes referred to as a "potentiometric pH meter". The difference in electrical potential relates to the acidity or pH of the solution. The pH meter is used in many applications ranging from laboratory experimentation to quality control.





## REFRACTORY ANCHORS

- Used for anchoring and assembling refractory ceramic fibre linings or for reinforcing monolithic linings of castables, plastics or ramming mixes.



# JOINT SEALANT

- **Materials:** Foster 30-45N or equivalent
- This is a polymer-based gasket used in building and construction design applications to fill and protect joints between two substrates. It is used to seal joints, gaps and openings between two or more substrates to prevent environmental elements that provide conditions that may lead to corrosion. It is designed to protect joint edges from corrosion in concrete and clay tiles.

Some of the properties required to increase the performance of the joint sealant include:

- UV-resistant
- Non-chalking, non-staining and self-cleaning
- Resists penetration and abrasion
- Flexibility when exposed to weather and aging
- Excellent resistance to physical and chemical reactions
- Quick curing and water-tolerant



EPO JOINT SEALANT

BATCH:04268A1  
BATCH:04198B1

1-GALLON UNIT

MANUFACTURED BY  
**Dynamis**

VENICE, FL

DO NOT REFRIGERATE

EPO JOINT  
COMPO

BATCH:04198B1

Mix Thoroughly With  
Liquid In Can "A"

Manufactured by:

**Dynamis**

415 E. VENICE AVENUE  
VENICE, FLORIDA 34285  
(941) 488-3999

DO NOT ALLOW PRODUCT TO  
FREEZE

Skin Irritation  
Eye Irritation

Signal Word  
Vapor Hazard  
In case of  
contact with  
and water  
sources. Heat  
extinguish  
material as  
See Product

AN SE  
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# VAPOR BARRIER



- **Materials:** Foster 60-95 or equivalent
- Foster® 60-95™ (white) Monolar® Coating is a tough flexible, fire resistive elastomeric finish for protection of outdoor thermal insulation. It contains DuPont Hypalon\* rubber. It is an excellent vapor barrier for low temperature insulation on tanks, pipework, vessels, ductwork, and fittings.
- MONOLAR Coating provides outstanding weather barrier protection, showing good colour retention, excellent chemical resistance, and durability. It has excellent resistance to UV and sunlight. MONOLAR Coating provides outstanding weather barrier and vapor barrier protection for sprayed polyurethane foam in outdoor locations. It is a one-component, high film strength product, usually applied in two coats with standard airless spray equipment. It sprays easily and cleanly with a minimum of cobwebbing.
- MONOLAR Coating is produced under the classification and follow-up service of Underwriter's Laboratories, Inc. MONOLAR Coating meets NFPA 90A and 90B 25/50 requirements.
- **Features:**
  - Ideal finish for flexible cellular insulation tubing and sheets
  - Apply by brush in two coats.
  - No asbestos, lead, mercury, or mercury compounds.





# Soil – Compaction Proctor - Vibrating compaction hammer

Used for the compaction of Proctor and CBR soil specimens. It provides an alternative method for the compaction of soil samples in the determination of dry density/moisture content relation (called Proctor), unconfined compressive strength of stabilized soils and CBR tests. This hammer is also used for the compaction of asphalt in the percentage refusal density and for compacting concrete cube or beam samples.

- Supplied without tampers and support frame which must be ordered separately.
- **Power supply:** 230V 1ph 50/60Hz 750W
- **Dimensions:** 105x430x270 mm
- **Weight:** 6 kg approx.



# VAPOUR STOP



- **Materials:** Foster 90-66 or equivalent
- Foster® 90-66™ Cryogenic Coating/Adhesive is a two-part black elastomeric coating/adhesive designed for use in cryogenic and specific chemical resistance applications. It is suitable for application to polyurethane foam, cellular glass and fibrous glass insulations in conjunction with aluminium, steel, wood and masonry construction materials.
- Cryogenic Coating/Adhesive has excellent resistance to moisture, water vapor and other gases. It also has good resistance to most oils, mild solvents, inorganic acids, inorganic bases and salt solutions.
- **Features:**
  - Suitable for bonding and sealing lap joints in plywood and metal, and for adhering glass cloth to itself and other surfaces.
  - Can function both as a vapor barrier and adhesive in very low temperature applications where a water vapor tight insulation system is required.
  - Excellent vapor stop material.
  - No lead, asbestos, mercury, or mercury compounds.



# Soil – Aspirator pump

- Maximum free air pumping capacity of 11.5 L per min. at a water flow rate of 6.5 L per min. Operates efficiently with water pressures as low as 7.5 psig (0.517 bar) for minimum water consumption.
- **Ultimate vacuum:** 28 1/2 in. (723.9 mm) Hg. Supplied with integral check valve, 3/8-in. NPT connecting thread and 4 3/4 in. length of tubing for insertion in discharge end.
- An aspirator is a type of ejector-jet pump, which produces vacuum by means of the Venturi effect.
- In an aspirator, fluid (liquid or gaseous) flows through a tube that first narrows and then expands in cross-sectional area. When the tube narrows, the fluid pressure decreases. In this narrow area the fluid velocity must increase to conserve mass continuity. Where the tube narrows, a vacuum is drawn because of the Venturi effect.

The air ejector or Venturi pump is similar to the steam ejector but uses high-pressure air as the working fluid. They are called Vacuum Ejectors and they generate vacuum by changing the pressure of the compressed air. Multistage air ejectors can be used, but since air cannot easily be condensed at room temperature, an air ejector is usually limited to two stages.



## Soil – KIT Moisture Testers "Speedy"

- **Moisture meters** are used to measure the percentage of water in a given substance. This information can be used to determine if the material is ready for use, unexpectedly wet or dry, or otherwise in need of further inspection. Wood and paper products are very sensitive to their moisture content. Physical properties are strongly affected by moisture content and high moisture content for a period of time may progressively degrade a material.



# FLEXIBLE ELASTOMERIC FOAM (FEF)

- **Standard** :ASTM C 534
- **Density**: 50 Kg/m<sup>3</sup>
- **Leachable chlorides content**: max. 90mg/kg.
- **Thickness**: 6 mm, 9mm, 13mm, 19 mm, 25mm and 32 mm
- Elastomeric rolls & sheets have excellent dimensional stability and offer exceptional protection against condensation, thermal loss and sound transfer.
- Elastomeric rolls & sheets are made from closed-cell elastomeric foam, which has a microcell, non-porous structure and a closed cell content greater than 90%. They can be coated with different types of foils and, optionally, have a factory-applied self-adhesive backing to fit any customer needs. Elastomeric rolls & sheets have a excellent dimensional stability and offer exceptional protection against condensation, thermal loss and sound transfer. The installation time is reduced more than 40% due to the cutting ease and the quick adhesion capacity of the material.
- The flexible elastomeric rolls & sheets represent no health hazard – no CFCs or HCFCs were used in their production and they have a very low VOC level. They are considered environmental friendly products with low Ozone Depletion Potential (ODP ) or Global Warming Potential (GWP) and comply with the LEED requirements, helping buildings to get more LEED points.



# Soil – Chemical tests - Ion exchange device

- Ion exchange equipment is used to adjust the ionic content of potable and industrial process water. Water to be treated flows through a tank filled with an ion exchange resin. As the water flows through the resin it exchanges ions with similarly charged resins in the tank. The resin exchanges metallic ions such as calcium and magnesium with sodium ions.

- The result is a replacement of ions from the water with ions from the resin. Because this is an exchange of ions the resin has a fixed life before it needs to be replaced.

## **Applications**

- There are many applications for ion exchange equipment including recovery, removal, and ionic containment.

## **Recovery**

- Some devices and systems are used to recover copper, nickel, cobalt and other precious or heavy metals from water-based or solvent-based mixtures.

## **Removal**

- Some equipment removes nitrates or process organic materials.

- Sucrose processing facilities use ion exchange equipment to soften feed streams and remove sugar from molasses.

- Factories use ion exchange equipment to remove dissolved alkaline solids that can impede machine performance or reduce system life.

- Ion exchange demineralization is a two-step process that involves treatment with both cation and anion exchange resins. The net effect is the removal of electrolytes and a yield of purified water.

- Condensate polishing reduces particulate matter and dissolved contaminants in condensates from utility power plants.

- Ion exchange equipment that captures trace amounts of radioactive materials or nuclides is also available.

- Water softening and water purification systems are used to remove acids, alkalis, salts, or mixtures from anionic or slightly ionized substances. Ultra pure water is used in the fabrication of semiconductors and printed circuit boards. Residential ion exchange equipment is designed for single-family homes or high density facilities such as apartments or condominiums that supply water for drinking and bathing.

## **Ionic Containment**

- Ion exchange equipment is also used in industrial applications where ionic contamination can reduce quality and limit performance. Examples include automotive painting, automotive finishing, and electronic component assembly.



# Soil – Chemical tests - Organic matter test set



- Deleterious organic materials in fine aggregates can be easily detected with the Organic Impurities Test, a simple, widely-used test. Samples are mixed in a special graduated colourless glass bottle with a 3% sodium hydroxide solution, then allowed to stand for 24 hours. If the colour of the supernatant liquid above the test sample is darker than a standard reference colour, organic compounds may be present and further testing should be done before approval.
- Organic Impurities Test Set includes six 8oz (240ml) graduated Impurities Test Bottles w/ lids, 1lb (454g) of Sodium Hydroxide (NaOH) Pellets and a circular Colour Reference Disk with five reference colours. The sodium hydroxide pellets make enough 3% solution to perform over 150 tests. For areas with shipping restrictions, this set is available without sodium hydroxide as HM-137F. For strict compliance to ASTM and AASHTO Standards, HM-818 Reagent Grade Sodium Hydroxide Pellets can be ordered separately. Impurities Test Bottles are graduated in oz and ml measurements and have watertight screw-on caps. All individual set components can also be purchased separately.
- HM-815 Colour Reference Disk comes with five permanent, fade-free solid-glass reference colours of 5, 8, 11, 14 and 16 on the Gardner colour scale mounted in a protective plastic frame. Individual Gardner Liquid Colour Standards are alternately available for the same reference colours and also meet ASTM/AASHTO requirements.

## Features:

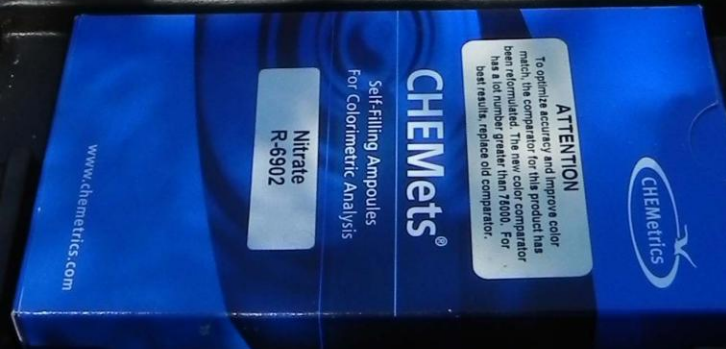
- Meets ASTM and AASHTO standards
- Sets are available with or without sodium hydroxide pellets
- Contains the components needed to perform Organic Impurities Test
- Includes enough pellets to complete at least 150 tests
- Included Items:
- Organic Impurities Test Set, with or without Sodium Hydroxide Pellets

## Accessories:

- [Sodium Hydroxide Pellets](#), 1lb available in standard or reagent grade for testing to ASTM and AASHTO standards
- HM-817 Organic Impurities Test Bottle w/ Lid is colourless glass with graduations in oz and ml .8oz/240ml size
- HM-815 [Organic Impurities Colour Reference Disk](#) for evaluation of test results
- Gardner Liquid Colour Standards individually available in Gardner Nos. 5, 8, 11, 14 and 16 for evaluation of test results

## Meets Standard(s):

- AASHTO T 21 , ASTM C40



# Soil – Chemical tests - Acidity test kit of water

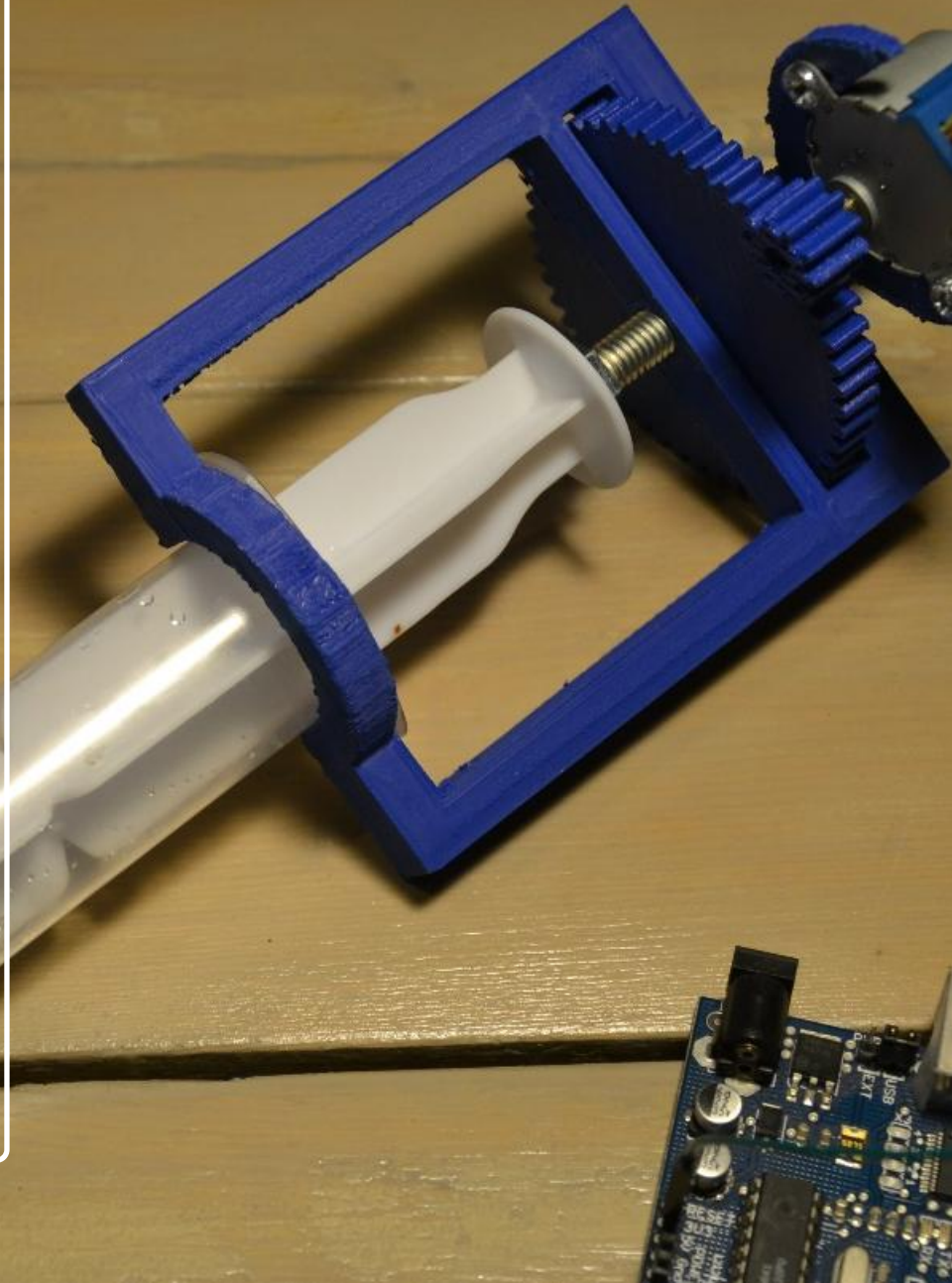
- The HI3820 is a *chemical test kit* for the determination of *acidity* to determine methyl. The *test kit* contains enough reagents for perform approximately 110 *tests*. *Acidity* is the quantitative capacity of a *water* sample to neutralize





## Soil – Universal extruders

- **Extrusion** is a process used to create objects of a fixed cross-sectional profile. A material is pushed through a die of the desired cross-section. The two main advantages of this process over other manufacturing processes are its ability to create very complex cross-sections, and to work materials that are brittle, because the material only encounters compressive and shear stresses. It also forms parts with an excellent surface finish.





# BAND ON 10-20 kg. ROLLS

- **Materials:** Aluminum 99.5 (1S) 1/2 hard (H14). Stainless steel according to ASTM A-167, type 304.
- **Sizes:** 13 x 0,5 mm., 19 x 0,5 mm. and 25 x 0,5 mm.
- Stainless Steel banding is widely used for insulation securement within the oil and gas sector. Often used to secure product like cellular glass (Foam glass) or mineral wool (Rockwool) prior to sealing these products with metal jacketing.
- **ALUMINUM BANDING**
- Aluminium banding (aka. aluminium strapping) is produced from high quality aluminium alloy conforming to ASTM B-209. Aluminium banding is used for securing insulation metal jacketing in both interior and exterior applications. Our aluminium strapping is .020" in thickness to allow for maximum tensioning with use of a push bar tensioner. Aluminium banding is available in 1/2" and 3/4" widths.
- **THICKNESS:** .020"
- **WIDTH:** 1/2" or 3/4"
- **ROLL LENGTH:** 900 linear feet
- **STAINLESS STEEL BANDING**
- Stainless Steel Banding (aka stainless steel strapping) is produced from T-304 stainless steel in a special soft annealed temper to increase tension strength. Stainless Steel strapping is available in 1/2" and 3/4" widths and in .015" and .020" thicknesses. Stainless steel strapping offers the greatest strength and corrosion resistance. T-316 Stainless Steel available upon request.
- **THICKNESS:** .015" or .020"
- **WIDTH:** 1/2" or 3/4"
- **ROLL LENGTH:** 900 linear feet



## General equipments - Conductivity meter – thermometer

- Conductivity meter – thermometer, digital and portable. **Used for site and laboratory measurements of the conductivity in soils.**
- Measuring scale: 0 -3999  $\mu\text{S}/\text{cm}$  - resolution 1  $\mu\text{S}/\text{cm}$  - accuracy 1%  
Temperature in  $^{\circ}\text{C}$  and  $^{\circ}\text{F}$ ., range 0 - 60  $^{\circ}\text{C}$   
resolution 0,1  $^{\circ}\text{C}$ .
- Temperature calibration and compensation: automatic.
- Use conditions: 0 to 50  $^{\circ}\text{C}$ ., R.H.100%
- Feeding: battery.
- Weight: 100 g



# Soil – Co action Proctor - Proctor molds



- The *Proctor compaction* test is a laboratory method of experimentally determining the optimal moisture. The *soil* is usually *compacted* into the *mold* to a certain amount of equal layers, each receiving a number of blows from a standard weighted compactor.



# SELF-TAPPING SCREWS

- **Materials:** Stainless steel according to ASTM A-167, type 304. Aluminum or galvanized steel.
- **Sizes:** 4,8 x 13,0 mm (ISO 1481 type C)
- Blunt nose and flat ended Self-tapping screws require a pilot hole slightly smaller than the screw diameter to be created before they can be driven into the material with a screwdriver. Pointed nose self-tapping screws do not require a pilot hole. The action of driving the screw in will result in the self-tapping screw cutting a thread into the material and securing the materials together. Self-tapping screws are typically used to secure wood, plastic, metal and brick together.  
There are two types of self-tapping screws, thread-forming and thread-cutting.
- **Thread-forming:** Before you can use these screws you will need to drill a pilot hole as the screw itself does not contain a pointed tip. Thread-forming screws are usually used to join plastic materials together. Due to their design they typically grip material more tightly. Care should be taken as there is a risk of over-tightening the screw, which can result in joined materials breaking from the pressure.
- **Thread-Tapping:** These screws do not require a pilot hole but one can be drilled to make fastening easier. Remember to make the pilot hole smaller than the diameter of the thread tapping screw. Thread-tapping screws remove material and create a path for the screw. The drawbacks to using this type of screw is when they are removed it can result in stripped threads. If you experience stripped threads you should use a larger thread-tapping screw when reattachment is made.





# Ceramic Fibre Module

- A prefabricated unit which can be applied as a lining block to the inner face of a furnace structure, featuring a wide variety of ceramic fibre compositions, attachment anchoring systems and construction designs.
- **Application**
- Typical module applications include:
  - Forge furnaces
  - Heat treating furnaces
  - Homogenizing furnaces
  - Incinerators
  - Kiln car block and seals
  - Preheating furnaces
  - Ethylene furnaces
  - Process heaters
  - Reformers
  - Stack linings
  - Tunnel kilns
- **Features and Benefits**
- Block module systems, including corner blocks, make for ease of installations. Veneering systems offer modules, cements and coatings designed for hot face applications over existing refractory linings, providing a reduction of heat loss without requiring refractory replacement.



# Soil – Compaction Proctor - Proctor Hammers



- Soil Compaction Hammers are sliding drop proctor hammers used for compaction of moisture-density relationship (Proctor) soil samples. Only Gilson Hammers feature 100% 303 stainless steel construction for maximum corrosion resistance and long service life. Hammer masses are enclosed in guide sleeves with vent holes that ensure unrestricted free-fall. The heavy knurled hexagonal cap is welded to the tube, and allows a secure, comfortable grip during use and prevents rolling during storage. Both hammer models have a 2in (51mm) flat, circular face.
- **HM-550 5.5lb Soil Compaction Hammer, Stainless Steel** has 5.5lb (2.5kg) hammer mass with 12in (305mm) drop.
- **HM-551 10lb Modified Soil Compaction Hammer, Stainless Steel** has 10lb (4.5kg) hammer mass and 18in (457mm) drop.
- **Features:**
  - Gilson exclusive 100% 303 stainless steel for long life and corrosion resistance
  - Knurled cap offers secure grip and will not roll
- **Included Items:**
  - Manual Compaction Hammer, 5.5lb with 12in drop, or Modified, 10lb with 18in drop
- **Meets Standard(s):**
  - [AASHTO T 134](#) , [AASHTO T 135](#) , [AASHTO T 136](#) , [AASHTO T 180](#) , [AASHTO T 99](#) , [ASTM D1557](#) , [ASTM D1558](#) , [ASTM D558](#) , [ASTM D559](#) , [ASTM D698](#)



# Soil – Compaction Proctor - Automatic programmable Proctor/CBR compactor

- The Automatic Soil Compactor is made to provide a fully automatic uniform compaction of Standard / Modified and CBR specimens assuring test conformity with the reference standard Automatic, programmable PROCTOR / CBR Compactor with microprocessor The automatic compactor provides a fully automatic and uniform compaction of specified effort, thus ensuring repeatable test results and eliminating any operator fatigue during the tests. Conforming to all the above and other major International Standards, designed for moulds 100 to 102 and 150 to 152.4 mm diameter, this programmable microprocessor-controlled soil compactor is particularly suitable for research purposes as it is possible to program a user-defined compaction sequence and a sequence conforming to standards. A sophisticated compaction technique permits the central blow required for the 150-152.4 mm diameter moulds. The end of each layer compaction is indicated by a visual and acoustic signal.

- Universal automatic application: one single model that fulfils all Standards requirements (ASTM/AASHTO/EN/NF/BS/UNE etc.), including the central blow

- User friendly selection of Standards EN, ASTM/AASHTO, BS, NF and other major International Standards by software

- Possibility to program up to 15 user defined compaction cycles and sequence

- Rammers and rammers kit for easy interchangeability according to all International standards included

- All safety features as protection guards and emergency button included as standard with the compactor

- Lateral transparent panel ensures free view on the compaction evolution

- Double doors for free access to wide test area

- Sensors controlled adjustable rotation angle from 5° to 90° (5° steps)

- Noise reduction cabinet is available (see accessories)

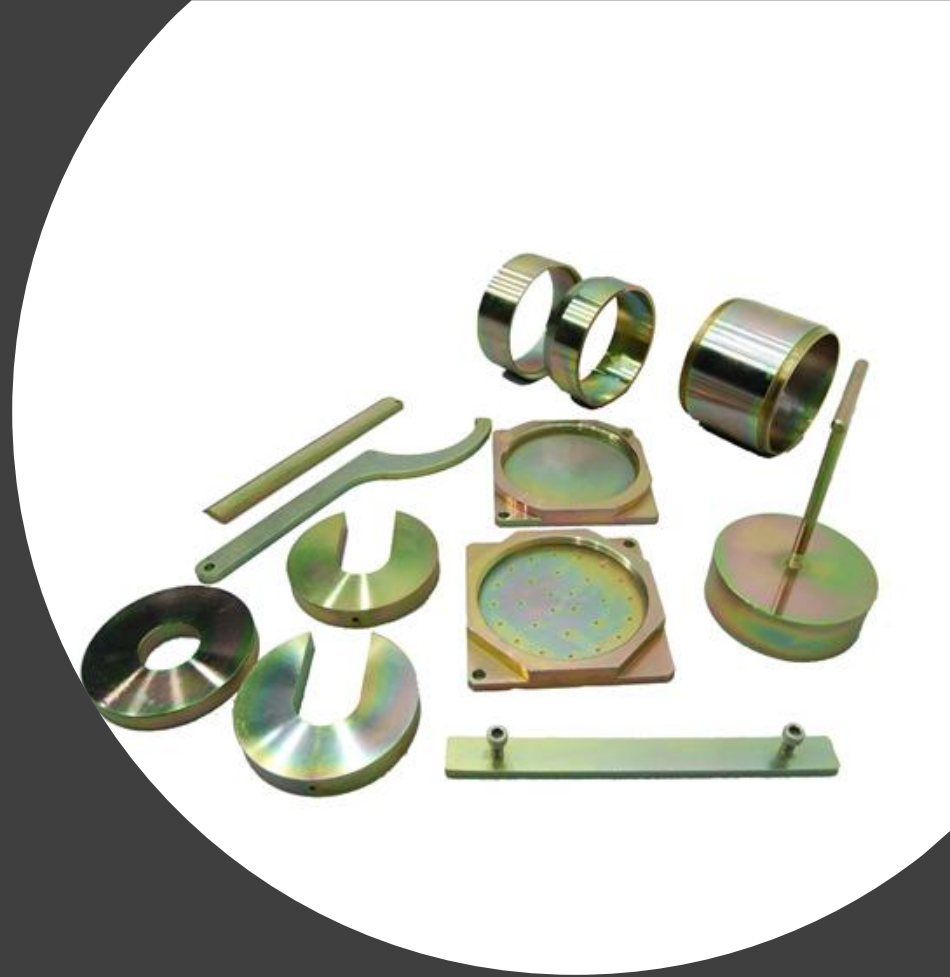
- Unique rammer lifting device to guarantee correct and long-life drop height





# Soil – CBR Equipment

- CBR Field Equipment consists of CBR Field Jacks, Load Rings, **Surcharge Plates** and Penetration Pistons to provide penetration data from in-situ field tests. LBR Equipment is similar to CBR laboratory test equipment, but uses unique Compaction Molds and **Spacer Discs**.



# CALCIUM SILICATE

**Standard: ASTM C 533**

**Density: 190 – 240 Kg/m<sup>3</sup>**

**Leachable chlorides content: in acc. with ASTM C-871: 50 mg/kg.**

**Thickness: 20mm / 25mm / 30mm / 40mm / 60mm / 75mm**

- RESOLCO CALCIUM SILICATE is a calcium silicate insulation made from tobermolite crystal reinforced with non asbestos fibres. It is a rigid material exhibiting high compressive strength, low shrinkage values and low thermal conductivity, high heat resistance at high service temperatures. It is non-corrosive, non-toxic and chemically stable. RESOLCO CALCIUM SILICATE has many diverse applications in process industries where a rigid high temperature insulation is needed. It is used for both pipe and equipment insulation to boilers, steam pipework, turbines, process plant and process pipework for temperature up to 650°C (1200°F).
- **Availability** -Slabs of thickness 25 to 90 mm,150/300 mm wide & 600/610 mm long Pipe sections from ID 16 mm (1/4") to 4800 mm(188"), 25 to 90 mm thickness 600/610 mm long



# Large capacity sample splitter

- Used to reduce large quantities of samples to a manageable size. Constructed of heavy gauge welded steel. Clamshell hopper to hold up to 28 dm<sup>3</sup> (1 cu.ft). Single splitter chute provides flexibility in sizes of chute openings. Each chute bar is 12.5 mm (1/2 in.) wide so that adjustment is provided for any increment of 12.5 mm which will divide into the total 610 mm (24 in.) chute width an even number of times.

## Technical Specification

- For aggregates up to 150 mm size
- Adjustable openings from 12.5 mm with 12.5 mm increments
- Clam shell hopper 26 dm<sup>3</sup> capacity
- Complete with two pans
- Dimensions:  
overall height 991 mm  
hopper size 737 mm long x 483 mm wide
- Weight approx.: 50 kg

## Accessories

- **15-D0430/1**  
Spare material pan



# Soil – CBR ratio indicator

- The **California bearing ratio (CBR)** is a penetration **test** for evaluation of the mechanical strength of natural ground, sub grades and base courses beneath new carriageway construction.
- The **CBR** rating was developed for measuring the load-bearing capacity of soils used for building roads.



# Soil –Shear test

- Soil shear strength tests are used to determine the load on soil. Some of these tests are: direct shear test  
triaxial shear test  
vane shear test  
unconfined compression test



## Soil – Digital shear testing machine

- The *machine* can also be fit with mechanical (analogical) measurement system. Other versions of *Shear testing machines* available: *Digital shear testing machine* , *Automatic shear testing machine*, *Large shear testing machine* for 300x300 mm square samples, *Brom head ring shear* apparatus.



# BINDING WIRE, SOFT- ANNEALED ON 5 - 25 kg ROLLS

- **Materials:** Stainless steel according to ASTM A-167, type 304.
- **Sizes:** Diam. 1,0 mm.
- Binding wires are mild steel wires used for binding rebars in the field of construction. It is extensively used in the construction sector for tying purposes. The annealing process makes it cheaper to manufacture them for any binding wire manufacturer in India. They are also known as annealed steel wires because of that process which makes them extra strong, flexible and reusable.
- They are of utter importance in keeping the construction intact especially during the initial framework before pouring concrete. The mild steel raw material provides tensile strength along with enough flexibility to bend the wires repeatedly without breaking. A good binding wire manufacturer in India uses annealing process extensively to create binding wires for construction.
- The benefits of binding wires in construction are numerous as given below:
  - Annealing allows the wires to stay soft for ease of application
  - The tensile strength of the wires helps in binding the knots without any breakage
  - A Binding wire manufacturer in India makes these wires flexible enough to fit the multiple usage needs repeatedly
  - They help in pouring the concrete into the frames without dislocation of the rebars
  - To secure secondary frame designs like chairs, spacer bars in construction
  - Holding lapped bars in ideal position





## Soil – Permeability

- Flexible wall permeability testing determines hydraulic conductivity, or flow characteristics, of water or other permeants through soils, and is commonly used to assess natural soils, fills, or clay liners in environmental and geotechnical applications. Gilson's line of testing products is high-quality, assures accurate and repeatable test results, and complies with ASTM and AASHTO test methods.





# CELLULAR GLASS

- **Standard:** ASTM C 552
- **Density:** 115 Kg/m<sup>3</sup>
- **Leachable chlorides content:** max. 45 mg/kg.
- **Thickness:** thicknesses of 40 mm, 50 mm, 60 mm, 70 mm, 80, 90 mm and 100 mm.

## **Product characteristics of cellular glass include the following:**

- Moisture Resistant
- Permeability: 0 Perm in
- Will Not Wick Flammable Liquids
- Consistent Insulation Values (No Aging)
- 100-Percent Glass/No Binder or Fillers
- Flame Spread 0/Smoke Developed 0
- High Compressive Strength
- Wide Temperature Service Range
- Dimensionally Stable
- Non-Combustible

## **Common Applications for Cellular Glass:**

- Chilled Water Pipes and Equipment
- Stainless Steel Hot Water Lines
- Hot Oil Piping and Equipment
- LNG Piping
- Green Roof Insulation
- Underground Steam Distribution
- Cold Process Pipes and Equipment
- LNG Tank Bases
- Ethylene Plant Pipes and Equipment
- Fireproof Building Panels



# Soil – Falling head permeameter

- They determine permeability of granular soil samples by either constant-head or falling-head methods. These Test Sets come in sizes ranging from 2.5-9.0in (63.5-228.6mm) diameter to accommodate granular soil permeability testing of a wide range of particle top sizes. The unit's clear acrylic sample chamber allows for easy viewing during testing. The chambers do not have sidewall ports. The sets are more economical, but do not strictly meet ASTM/AASHTO requirements.
- The test sets come with clear acrylic chamber, compression spring, anodized aluminium end caps with valves and ports. Necessary tubing is also included. The 6.0 and 9.0in models also include perforated plates for use on top and bottom of the specimens, while smaller size sets come with two porous stones. HMA-840 Single-Tube Manometer w/ Constant Head Reservoir is required for use and included with the Test Sets.

## Features:

- Clear acrylic chamber for easy viewing
- Several models to accommodate a wide range of particle top sizes
- **Included Items:**
- Constant/Falling Head Set
- Single-Tube Manometer w/ Constant Head Reservoir
- 2 Porous Stones (2.5—4.5in Chamber Size Only)
- 2 Perforated Plates (6—9in Chamber Size Only)
- Tubing and Fittings

## Accessories:

- HMA-840 **Single-Tube Manometer w/ Constant-Head Reservoir** connects to permeameter port and is required for use in constant head testing to measure soil permeability
- HMA-836 **Permeability Compaction Hammer** has sliding weight with adjustable drop height and 2in (51mm) diameter tamping foot
- HMA-837 **Constant Head Reservoir** for flow control of water during constant head permeability testing of soils
- HMA-774 **3in Filter Paper Grade 55** for use with HM-892 3in Constant/Falling Head Test Set to prevent blockage of pores
- HMA-776 **6in Filter Paper Grade 55** is used with HM-894 6in Constant/Falling Head Test Set to prevent blockage of pores





- Triaxial testing of soils provides valuable soil strength and shear information for safe and effective design and construction of embankments and foundation systems. Build the optimum system for your application by selecting from Gilson's Load Frames by Karol-Warner, Master and Auxiliary Control Panels, quality Test Cells and test accessories.

## Soil – Triaxial tests



# Soil – Digital triaxial load frame 50 kN

- Triaxial Load Frames and components are ideal for unconsolidated-undrained triaxial soil testing in compliance with ASTM D2850. For testing consolidated-undrained, or consolidated-drained specimens under ASTM D4767, only the HM-397 Load Frame model can be used. These versatile load frames can be used for different load tests in the lab.
- This 50kN Load Frame is designed, manufactured and tested to the highest quality, to ensure, reliability and durability with trouble free operation for site or laboratory environments. It is easy to use, with a fully variable speed limit and 2 pre-programmable buttons for frequently used test speeds.



# General equipments - Balances - Mechanical balances "Ohaus"

- Ohaus Heavy-Duty Solution Balance is a dual-beam mechanical balance with a maximum capacity of 20kg and 0.1g readability, offering precision and high-capacity weighing. The base and beam are cast aluminium with an epoxy powder coating that resists common acids. The 11in (279mm) diameter corrosion-resistant stainless steel platform can handle large samples or containers. Magnetic damping allows for a speedy weighing process. The two beams provide direct readings up to 1,100g, while the included slotted mass set increases weighing capacity to 20kg. Self-aligning bearings require little to no maintenance, and are protected by covers. A locking tare feature allows multiple weighing procedures for samples up to 2,270g. Offers solid and precise performance in the most rugged conditions. A stainless steel scoop is also included.

- **Features:**

- 20kg capacity using slotted mass set
- Dual beam
- Lockable tare feature
- Cast aluminium construction resists corrosion
- Self-aligning bearings
- Oversize weighing platform

- **Included Items:**

- OB-1119 Ohaus Heavy-Duty Solution Balance
- Slotted Mass Set (one 10kg, one 5kg, two 2kg and one 1kg mass)
- Stainless Steel Scoop

- **Accessories:**

- Weighing/Handling Scoops for measuring and pouring samples



# General equipments - Balances - Semi-automatic zero-centering balance

- Marking Required on Components of Automatic Weighing Systems. A **zero-balance** condition may be indicated by other than a continuous .Verification of the accuracy of the **center of zero** indication to  $\pm \frac{1}{4}$  scale division or less during . A device may be fitted with an automatic or a **semi-automatic** calibration.



# POLYISOCYANURATE(PIR)

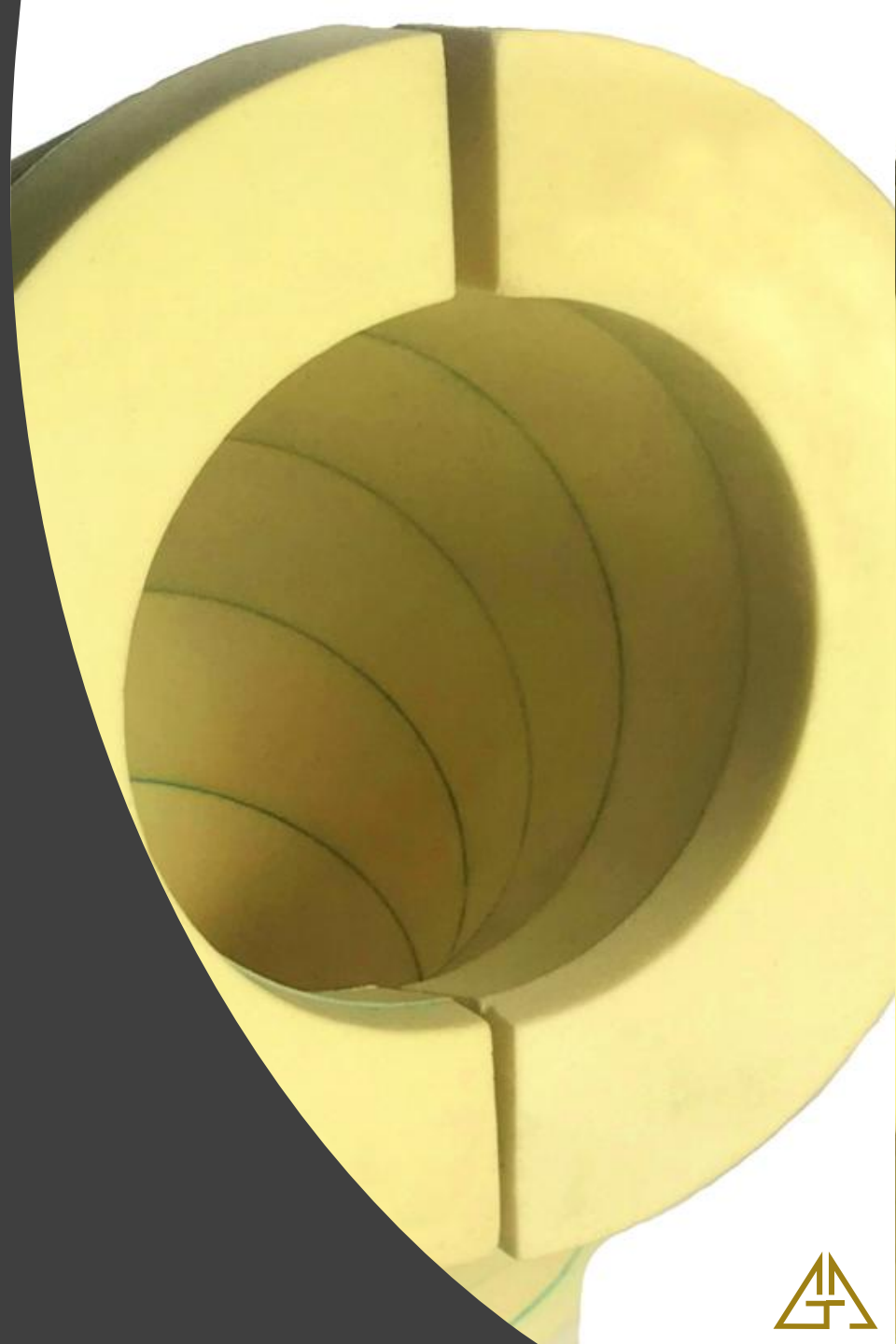
**Standard:** ASTM C 591

**Density:** 40 Kg/m<sup>3</sup>

**Leachable chlorides content:** max. 60 mg/kg.

**Thickness:** thickness, from 20 mm, up with 5 mm intervals.

Polyisocyanurate (PIR) is one of the most efficient insulation material used in construction. This product is an improvement of previously used PUR boards (polyurethane), typically produced as a foam and used as rigid thermal insulation. This type of insulation offer many advantages when compared with other traditional insulating materials, and over its useful life will save 80 times more energy than was used to make it. Most popular type of PIR insulation board comprises a rigid PIR insulation core sandwiched between two high performance aluminium foil facings to create a tough, durable, light weight insulation board that performs whilst reducing the overall cost to build.



# General equipments - Balances - Weights for balances

- Technically, a **balance** compares **weight** rather than mass, but, in a given gravitational field (such as Earth's gravity), the **weight** of an object is proportional to its mass, so the standard masses used with **balances** are usually labeled in units of mass (e.g. g or kg).





## General equipments - Balances - Rotary automatic scales


- Five pointer turns allowing a larger amplitude of the subdivision.  
Double quadrant and under quadrant sicking for multiples.  
Oil oscillation shock-absorber, with exterior adjustment.  
Displacement of the head in all positions without angulation limit.  
Pan, mass-produced, stainless steel.
- Two different models are available:
- V057: 60 kg capacity, 20 g sensitivity
- V059: 150 kg capacity, sensitivity 50 g



# General equipments - Balances - Electronic analytical balance

- Modern electronic analytical balances for your lab . High Weighing Performance.
- **Features Analytical Balances**
  - Large LCD Display with 1" Digits
  - Motorized internal calibration
  - Sealed Keypad
  - Dual tare keys
  - Parts counting and percentage weighing
  - Die cast aluminium housing
  - 16 weight units and 1 custom
  - Automatic temperature compensation
  - Bi Directional RS232 interface for GLP reporting
  - Below pan weighing
  - Density determination
  - More Balances up to 4500g





**General equipments - Balances -  
Electronic precision top loading and  
platform balances**

- From 0.001 g to 64 kg, plus with selected high performance models, we can meet all our precision weighing needs.
- Robust and easy to clean, these balances will give you years of service.
- Exceptionally stable under all conditions
- Comprehensive data management and integration
- Ergonomic solutions for outstanding performance
- Compliance with strict regulations (e.g. FDA)



# General equipments - Glassware - Measuring cylinders

- Measuring cylinders are for holding measuring varying amounts of liquids. Available in two different accuracy classes – class “A” with main ring points graduation and class “B” with line graduation. For additional differentiation, the measuring cylinders with accuracy class “A” have a blue graduation whereas the “B” class measuring cylinders a white graduation. Volume content tolerances for measuring and mixing cylinders conform to DIN and ISO accuracy limits. Thus the desired concentration can be precisely created.





**General equipments -**  
**Decanters, polypropylene**  
**made**

- A **decanter** is a vessel that is used to hold the decantation of a liquid which may contain sediment. **Decanters**, which have a varied shape and design, have been traditionally **made** from glass or crystal.



## General equipments - Sample containers

- Our **specimen containers** are ideal for the collection and transport of soil samples also for use with formalin and fixative fills.



## General equipments - Sample bags, heavy plastic

- We have a wide variety of **Plastic Bags** for various lab applications. Open End Bags and Zip Bags are versatile & economical and are available in clear or light-sensitive amber. Open end bags and zip bags are made of virgin PE and meet all USDA & FDA requirements. We also carry specialty lab bags for sampling, pharmaceutical, and lab applications including Self-Adhesive Bags, Anti-Static Bags, Biohazard Bags, Hazmat Bags, and Pre-Printed Pharmacy Bags. Custom printed bags and additional sizes available.





## General equipment - Hot plates

- Hot Plates and Ranges offer convenience and portability for drying and heating applications. Electric Ranges are inexpensive and easy to use where temperature requirements are not precise. Hot Plates control temperatures more closely.
- Stirring Hot Plates use a magnetic stirring bar for continuous sample agitation of liquids during heating. Propane Hot Plates offer portability for remote or field use.





## General equipments - Magnetic stirrer/heater

- A magnetic stirrer or magnetic mixer is a laboratory device that employs a rotating magnetic field to cause a stir bar (also called "flea") immersed in a liquid to spin very quickly, thus stirring it.

### **Features**

- Very compact and simple to operate
- Heating of material greatly improves mixing speed and result
- Heat and corrosion resistant industrial plastic housing for durability
- Teflon coated aluminium heating plate for great heat distribution and corrosion resistance
- Specially designed housing prevents spill from damaging the electronic components inside
- Secondary heat insulation plate prevents heat loss and eliminates heat damage to electronic components underneath
- Adjustable temperature and rotation speed





## General equipment - Digital thermometer

- A **thermometer** is a device that measures temperature or a temperature gradient temperature was present at a specified point in time. **Thermometers** use **electronic** means to provide a **digital** display or input to a computer.



# General equipments - Digital microprocessor thermometer



- Rugged, easy to use portable instrument with K type sensor for high temperature measurements, it is equipped with a membrane keyboard and microprocessor with memory.





## General equipments - Thermo hygrogaph

- A **thermo-hygrograph** or **hygrothermograph** is a chart recorder that measures and records both temperature and humidity (or dew point). Similar devices that record only one parameter are a **thermograph** for temperature and **hygrogaph** for humidity

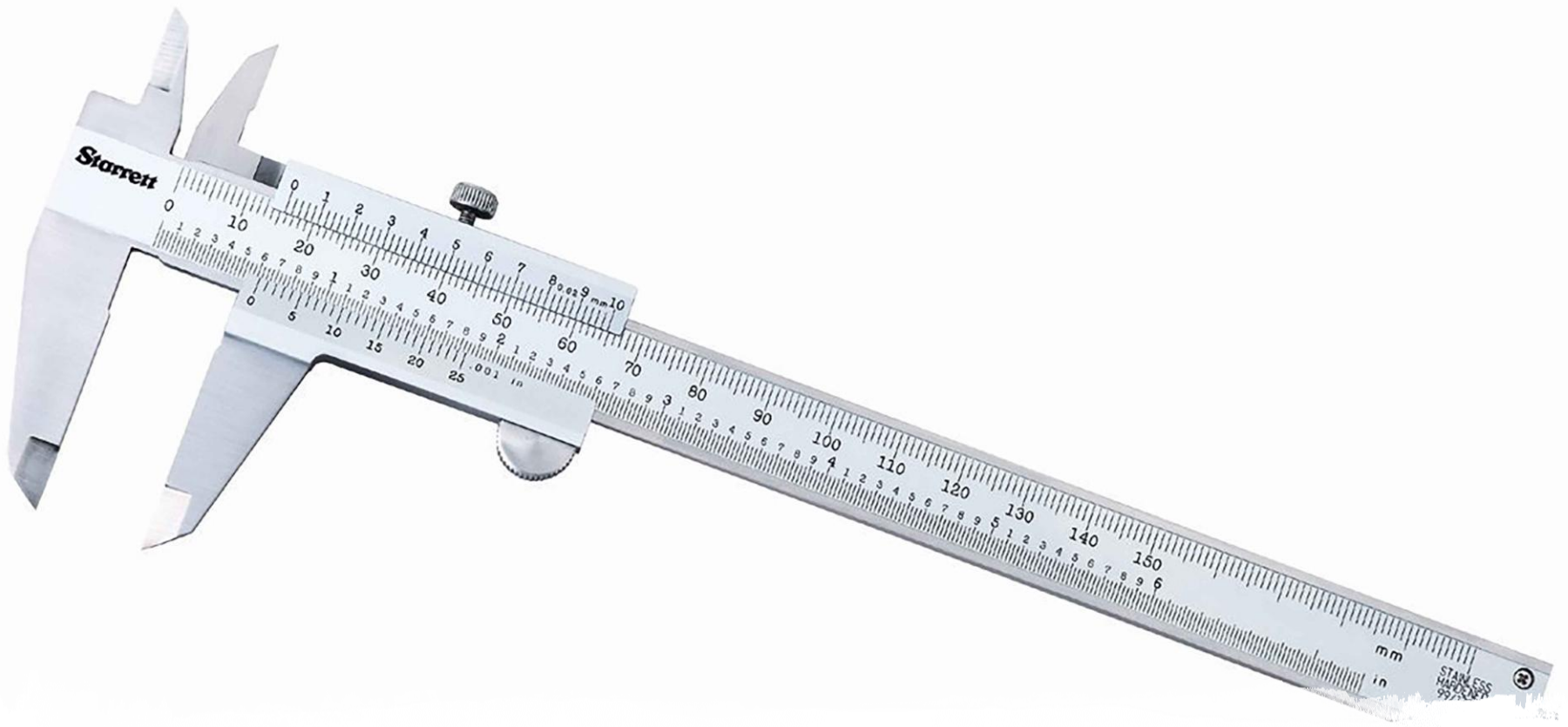




## General equipments - Stop watch

- **Stopwatch** is a handheld timepiece designed to measure the amount of time elapsed from a particular time - when it is activated - to the time when it is deactivated. In fully automatic time, both starting and stopping are triggered automatically, by sensors.





## General equipments - Vernier caliper

- The Vernier caliper is an extremely precise measuring instrument; it is used to measure internal and external distances extremely accurately – the error may be as little as 0.05 mm – depending on the make.
- A Vernier caliper is a precision measuring tool. It can be used for three types of measurements, outside distance (such as the length of an object), inside distance such as the width of a groove or the diameter of a large hole, and depth, such as the depth of a hole or the height of a step.





- **Filter paper** is a semi-permeable paper barrier placed perpendicular to a liquid or air flow. It is used to separate fine substances from liquids or air. It is used in science labs to remove solids from liquids. This can be used to remove sand from water.

## General equipments - Filter paper, set of 100 pieces



# General equipment - Hand anemometer cup

- Cup anemometers measure wind speed in a highly accurate way. Anemometers measure wind speed, and a cup anemometer is specific type of wind speed gauge that measures the speed of wind or air flow based on how quickly a set of cups turns around in a circle.
- Cup anemometers will also sometimes come as part of a larger weather station with additional instruments. They also come in different form factors: some are designed to be mounted on the outside of buildings, others work well on top of a car, and still others are meant for handheld portable use.





# General equipments - Rain gauge



- A rain gauge is an instrument you can use to measure the amount of rainfall your area receives in a given time period. With this, you won't have to rely on local weather reports.
- You can read the amount of rainfall in inches or millimeters.
- Rain gauge is a meteorological instrument to determine the depth of precipitation (usually in mm) that occurs over a unit area (usually one meter squared) and thus measuring rainfall amount. One **millimeter** of measured precipitation is the **equivalent** of one liter of rainfall per meter squared.



# Aggregates – Moisture and temperature tester

- Suitable for sands, aggregates, building materials and mixes
- Provides quick on-site moisture measurement from small batches to hundreds of tons
- Ideal in the processes of concrete manufacture, brick making, ceramics etc
- This instrument measures the moisture and temperature of building materials (such as sand, aggregates and mixes) at depths up to 1 m approx., simply by insertion. The digital readings are shown instantly. The device has a built-in computer, which gives it the flexibility to handle a wide range of materials and water contents. The meter comes with standard calibration for sands and aggregates, but is easily recalibrated in the field for virtually any material or mixture using the built-in facility.
- Complete with calibration certificate
- **Technical Specification:**
  - Battery: 4x1.5 V AA cells
  - Typical range: Moisture 0-25%; Temperature - 20 to 60°C
  - Resolution: Moisture 0.1%; Temperature 0.1°C
  - Accuracy: Moisture: better than 0.5% over a given range; Temperature: better than 0.5°C
  - Measurement principles:
    - Moisture: temperature compensated electric field
    - Temperature: BS 1904 – DIN 751Platinum resistance detector
  - Total length: 1.2 m (approx.)
  - Weight: 2 kg (approx.)



## Aggregates – Drying of samples – Melting pots

- Used mainly to melt the capping compound for concrete cylinder capping and to melt wax to seal the soil samples and other materials. The temperature is set and maintained at the desired value. Adjustable thermostat and pilot lamp fully isolated conforming to CE requirement. Complete with cover.
- Capacity: 5 l approx.
- Temperature range: +30 to +150°C
- Power: 700 W
- Internal dimensions: 200 mm dia.x160 mm high
- External dimensions: 285 mm dia.x275 mm high
- Weight approx.: 2.7 kg



# Aggregates – Humidity - digital microwave portable meter

- A **microwave power meter** is an instrument which measures the electrical power at **microwave** . Several modern power **sensor** heads contain electronics to create a **digital** output and can be plugged via USB into a PC which acts as the power ..



# Aggregates – Humidity - Chapman flask

- Used for determining the amount of surface moisture in fine aggregate. The flask is graduated to 200 ml between the two bulbs and from 375 to 450 ml above the second bulb. Weight approx.: 500 g





## Aggregates – Sieves - Stainless steel test sieves

- Test Sieves are available in a variety of configurations for use with many different particle-sizing applications. Some meet specific requirements of particular ASTM or ISO specifications. Most test sieves stack or nest with others of similar construction for efficient, sequential separations. Conventional test sieves have round metal frames of stainless steel or brass with mesh woven from stainless steel or brass wire.





## Aggregates – Sieving - Wand sieving pan and lid, stainless steel

- Sieve pans are necessary to collect the fine material passing through the bottom sieve in a sieve stack. Sieve covers, or lids, on the top sieve prevent loss of material during sieving operations. **Sieve Shakers**, except for our Rotary Sifters, feature built-in covers. Covers are required for use with many other brands and are useful for manual sieving operations as well.



# Electromagnetic sieve shaker

- The vertical sieving motion is provided by a very effective electromagnetic unit, which is set to obtain the best result with sand and aggregates. Complete with timer. The shaker can be completed with the Noise reduction cabinet recommended for use in the CE countries and with the Wet sieving attachment for washing fine materials through the sieves without any loss of sample.

- **Technical Specifications**

- Sieve capacity: up to twelve 200 mm (8") and up to eight 300-315 mm (12") sieves plus pan and cover.
- Power approx.: 400 W
- Dimensions: 496x406x946 mm
- Weight approx.: 30 kg

- **Accessories**

- **Cabinet**  
**15-D0400/CAB**

- Noise reduction cabinet suitable for sieve shaker models 15-D0411 and 15-D0407/B. Ideal for use in laboratory and essential to fulfil CE prescription. The cabinet is manufactured from sheet steel and lined internally with soundproofing material. Overall dimensions: 770x722x1415 mm

- Weight approx.: 60 kg

- **Wet sieving attachments**

Cover combining the locking plate and spray nozzle. Stainless steel pan with spout drainage plate. Location plate. Four models available:

- **15-D0400/B1**

Wet sieving attachment for 200 mm dia. sieves. Weight 2.5 kg

- **15-D0400/B2**

Wet sieving attachment for 203 mm (8") dia. sieves. Weight 2.5 kg approx.

- **15-D0400/B3**

Wet sieving attachment for 300 mm dia. sieves. Weight 5 kg approx.

- **15-D0400/B4**

Wet sieving attachment for 305 mm (12") dia. sieves. Weight 5 kg approx.





# Bulk density and voids measures

- Stainless steel construction with handles. The top rim is smooth and plane and parallel to the bottom conforming to the standards.

- **Weights approx.:**

48-D0446/1 kg 1.4

48-D0446/5 kg 4.9

48-D0446/10 kg 7.4

48-D0446/20 kg 11.9

- **Ordering Info**

- **48-D0446/1**

Bulk density measure 1 litre capacity

- **48-D0446/5**

Bulk density measure 5 litres capacity

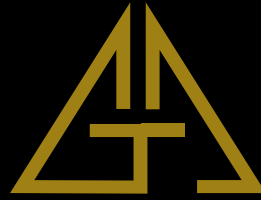
- **48-D0446/10**

Bulk density measure 10 litres capacity

- **48-D0446/20**

Bulk density measure 20 litres capacity





**QUALITY YOU DESERVE AND DEPENDABILITY YOU CAN COUNT ON**

## **GTA – QUALITY YOU CAN DEPEND ON.**

GTA is the pioneering company within the infrastructure industry. It is our role to develop solutions that make you win business. Headquartered in Oman we offer infrastructure solutions - intelligent equipment, insulation, refractory and scaffolding management and expert labour services - for both demanding industrial applications and small business needs. Local expertise is available via our global partner network covering over 20 countries.

## **GULF TRADING AND AGENCIES**

**Wholesale Importers of Insulation, construction materials, soil testing and lab equipment**