

COMBINED COOPERATION

GENERAL TRADING & CONTRACTING COMPANY



PIPING SYSTEMS & ACCESSORIES





COMPANY PROFILE



Combined Cooperation Company specializes in pipeline contracting. We stock a wide range of products for MEP projects which include water supply, drainage, irrigation, plumbing, electrical, HVAC and more.

Our products encompass enhanced features which result in high quality and low maintenance piping systems. In addition, all items are designed to be safe and easy to install. We represent the top manufacturers around the world which are backed by numerous certifications and approvals. Combined Cooperation also ensures that all products are manufactured in a method that is environmentally friendly and sustainable in order to lower the carbon footprint.

With over 20 years of experience, our experts offer full technical backup in areas like product selection, application, design & calculation of the support systems, positioning of pipe guides, anchors, expansion joints etc. We also provide cost-effective solutions to upgrade existing under-performing or damaged piping systems.

Our main products include:

- HDPE Pipes (PN16, PN10, PN 6)
- HDPE Fittings (Butt-Welded, Electro-fusion & Socket-fusion)
- HDPE Sheets, Liners & Geo-membranes
- Plastic Pipe Welding Machines (Butt fusion & Electrofusion)
- Custom Fabricated HDPE products
- Pipe Supports, Hangers, Vibration Isolators, HVAC Accessories
- Industrial Valves (Check Valves, Ball Valves, Butterfly Valves etc.)
- EPDM Thermal Insulation for HVAC & Plumbing
- Irrigation & Landscaping
- Building Materials

HDPE Piping System

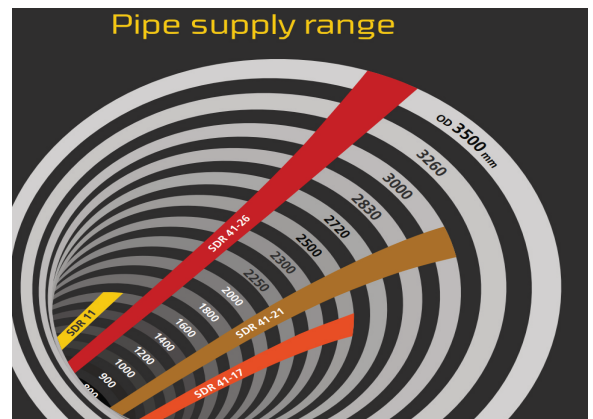
We supply a system of electrofusion and butt fusion fittings made of High Density Polyethylene for conveying water, gas and chemicals under pressure (PN10, PN16, PN20, PN25).

All products are made of non-toxic materials, in conformity with international safety regulations and comply with the following standards:

UNI EN ISO 15494 – Plastic piping systems for industrial applications – Polyethylene (PE100)

UNI EN 1555-3 – Plastic piping systems for the supply of gaseous fuels – Polyethylene (PE80-PE100)

UNI EN 12201-3 - Plastic piping systems for water supply – Polyethylene (PE100)



Properties of the Material

All fittings are made of High Density Polyethylene by injection moulding.

- **ANTI CORROSION:** Even on aggressive soils. HDPE can be laid underground without any protection
- **NO STRAY CURRENTS:** HDPE has very poor electricity conductivity
- **IMPACT RESISTANT:** Even at low temperatures (-20°C)
- **CHEMICAL AGENTS:** HDPE can withstand most chemical substances
- **ABRASION RESISTANCE:** HDPE allows high water speed without erosion problems
- **RELIABILITY:** More than 50 years with no maintenance required

Fields of Use

- Conveyance of drinking water and alimentary fluids
- Conveyance of gaseous fuels (Natural Gas, Manufactured Gas, LPG)
- Conveyance of Industrial fluids and compatible chemicals
- Wastewater treatment plants
- Irrigation systems
- Chemical plants
- Pressurised sewerage for industrial and civil use
- Underground Fire Protection
- Pipe Relining (Renovation of old networks)



HDPE Piping System

Electrofusion Fittings

The fittings contain a resistive wire with cable terminals outside, where the welding machine can be connected. By applying a determined voltage for a stated time, the welding machine runs the electrical current through the resistance, thus generating the heat needed to melt the polyethylene: the energy is directly transmitted to the contact surface between the fitting and the pipe causing heat welding of the parts. When it cools down, the joint is homogeneous, strong, safe and reliable. The main feature of these fittings is the high quality and reliability of the joint.



Buttfusion Fittings

Buttfusion fittings are a more cost effective alternative compared to electrofusion fittings. These fittings can be fused using a butt-welding machine. Fittings can be cut as per requirements. We offer a full line of HDPE Buttfusion fittings. If you are in need of something specific please call or email us for more information.

- HDPE Buttfusion 45° and 90° Elbows
- Tees, Reducers, Flange Adaptors and SS/PP Coated Backing Rings
- Threaded Stainless Steel to HDPE Transition Fittings
- Large fabricated HDPE fittings can be special ordered



Pipe Supports and Accessories

Pipe Hangers & Supports



- Adjustable Clevis Hanger, Sprinkler Pipe Hangers
- Riser Clamps, Lined Split Clamps, Plain Split Clamps
- U Bolts, U strap clamps
- Adjustable Roller Hangers
- All kinds of pipe rollers

Piping Accessories



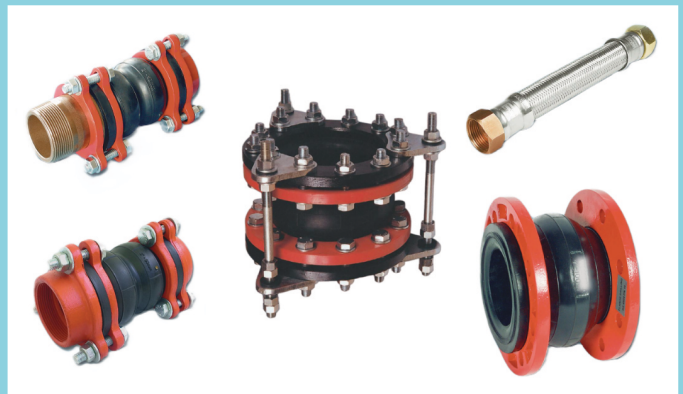
- Dielectric Unions
- Gauge Cocks
- Automatic Brass Air Vents
- Dielectric Flange
- Heavy Duty Air Vents

Vibration Isolators



- Cased and Open Spring Mounts
- Spring Hangers
- Inertia Base Frames
- Neoprene Hangers and Floor Mounts
- Modular and Multi-Layer Pads

Expansion Joints & Flexible Connectors



- Threaded Pipe Joints
- Flanged Spherical Pipe Joints
- Control Units
- Flanged SS Expansion Joints w/ Control Rods
- SS Expansion Joint with Threaded Pipe Connection

HDPE Gravity Pipes & Fittings



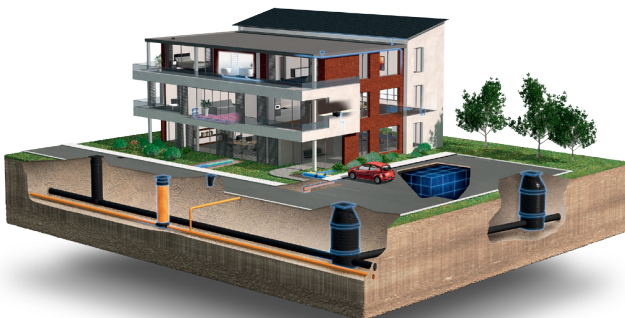
We provide a complete HDPE universal system approved for pipe installation in buildings to DIN 19535 and DIN EN 1519. The product range includes pipes and fittings with dimensions between 40mm and 315mm. Soil and waste systems are designed to convey soil drainage and waste safely away from appliances to a soil stack or drain. The systems are suitable for above ground sanitary fittings and appliances in domestic, commercial and public buildings.

Applications

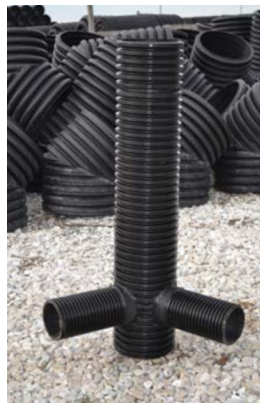
- Domestic Waste Water System
- Rainwater Piping
- Industrial Wastewater
- All other types of drainage applications

Material Characteristics

- Flexibility
- High Temperature resistance
- UV Resistance
- Ease of welding
- Low Weight
- Impact Resistance
- Smooth surface allows for optimum flow



Corrugated PE Pipes & Fittings



GENERAL CHARACTERISTICS

CONSTRUCTION	Double-wall corrugated pipe, entirely black with co-extruded green band on the outside and slots.
USE	Drainage, underground water (agriculture, building or dispersion).
CRUSHING RESISTANCE	300N with internal diameter deformation $\leq 5\%$ (measured according to EN 61386-24).
RADIUS OF CURVATURE	15 times the external diameter.
LIMITS FOR USE	-50 °C / +60 °C.
PACKAGING	50 metre rolls (or 25 metre rolls for \varnothing 200mm).
ACCESSORIES	Couplings.
INSTALLATION	Underground trench.
GEOTEXTILE FIBRE WRAPPING	Rot-proof synthetic fibre integral with the pipe over its entire length, perfectly adherent and possessing the following characteristics:
MASS	≥ 150 gr/m ² (EN 9864)
TRANSVERSAL TENSILE STRENGTH	kN/m MD 5,00 -0,75 / CMD 5,00 -0,75 (EN ISO 10319)
LONGITUDINAL TENSILE STRENGTH	$\geq 6,0$ kN/m (EN ISO 10319)
ULTIMATE ELONGATION	$\geq 80\%$ (EN ISO 10319)
STATIC PUNCTURE RESISTANCE	1,0 kN (EN ISO 12236)

Leaders in HDPE Supply and Installation

www.combinedcooperation.com

GRP Pipes & Fittings



Glass Reinforced Plastics “GRP” or Reinforced Thermosetting Resin ‘RTR’ pipes exhibit excellent adhesion, fatigue-resistance, impact strength, chemical-resistance and low shrinkage, leading to lesser stresses in the finished pipe, superior mechanical and chemical properties, long-term performance and excellent fatigue-resistance under cyclic loading.

Different types of resins are used, leading to the following categories :

- **GRP** Using Isophthalic Resin in structural wall and Vinylester Resin in liner (where applicable). For both underground and aboveground applications, restrained and non-restrained systems, in media temperature upto 60
- **GRV** Using Vinylester Resin throughout. For industrial application where specific chemical resistance is required. Used mainly in aboveground applications in media temperature upto 85
- **GRE** Using Epoxy Resin throughout. For industrial application in media temperature upto 120 C. Additional external protection can be applied to allow for additional fire-retardance.



APPLICATIONS

- | | | |
|--|----------------------------------|-----------------------------|
| m Condenser water | m Irrigation Line | m Sewer force mains |
| m Chilled water | m Manhole liners | m Sleeves for road crossing |
| m Chemical and petrochemical industry | m NDM | m Structural manholes |
| m Duct for odour control | m Power plants | m Thrust boring |
| m Duct for HVAC | m Pumping stations | m Valve chambers |
| m Effluent water | m Sanitary sewers | m Water transmission |
| m Fire mains | m Storm water & Drainage systems | m Water desalination plants |
| m Food industries (refineries and breweries) | | |



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U-PVC Pressure System

U-PVC Pressure Pipes



We also supply and install high quality UPVC pipes

Properties

uPVC is a thermoplastic material derived from common salt and fossil fuels. The pipe material has the longest track record of all plastic materials. The first uPVC pipes were made in the 1930s. Beginning in the 1950s, uPVC pipes were used to replace corroded metal pipes and thus bring fresh drinking water to a growing rural and later urban population. uPVC pipes are certified safe for drinking water per NSF Standard 61 and used extensively for water distribution and transmission pipelines throughout the world. uPVC is allowed for waste lines in homes and is the most often used pipe for sanitary sewers.

Material

Tin stabilised compound conforming to the EEC safety levels for vinyl chloride monomer (VCM) and the WRC requirements for use with potable water.

U-PVC Pressure Fittings



Fields of Applications:

- Distribution of cold water under pressure
- Underground Drainage and Sewerage Lines
- Air Conditioning Drain Systems
- Piping Networks for Swimming Pools facilities
- Piping Networks for rainwater utilization
- Irrigation Networks
- Circulation of cold fluids in industry
- Food Processing Industries
- Transport of wide range of chemicals and corrosive fluids in the industry

Above Ground Drainage Systems

Fireproof In-house System



Chemical Resistance:

- Discharge of aggressive media in the range pH2 - pH12
- Marking Pipes and Fittings Permanent marking with manufacturer label, nominal diameter, DIN standard (DIN EN 1451-1), date of manufacture, material, building material class (fire behaviour) (Fittings additionally bear information about the nominal angle.)

Material:

Polypropylene (PP)

- hot water resistant
- permanent low inflammability as per DIN 4102 B1

Application:

Drainage within the building structure as

- waste water pipe
- rain water pipe
- ventilation pipe

Silent Piping System



Excellent Soundproofing :

A smooth inner surface and an optimised material formula ensure exceptional soundproofing that is unique in its class. At a threshold of just 17 dB (for a 4-litre flow rate according to measurements with Bismat 1000 (P-BA 221/2016)), this pipe system is often selected in all areas of the demanding civil engineering field.

Patented 3 lip seal:

The new patented 3 lip seal can now be used more quickly than ever before and guarantees secure sealing even under the most adverse conditions.

Environmentally Compatible:

This product is free of halogens and heavy metals and is 100% recyclable.

Other Piping Systems

PPR Pipes and Fittings

Applications:

Hot and cold potable water piping in residential, industrial and public installations. Transferring water, sanitary liquids, liquid food products, compressed air and aggressive chemicals – highly acidic or highly alkaline solutions. Building central radiator heating water, usually in a circular loop piping arrangement.



Characteristics:

- Low Thermal Conductivity
- Long Service Life & Durability
- Efficient Inner Surface
- Chemical & Mechanical Endurance
- Ecological & Economic Efficiency

UPVC Underground Drainage System

Features:

Sewer drain pipes are a proven part of modern building and civil engineering for sewerage and drainage application.

The sewer drain system is manufactured in sizes from 110mm to 630mm with a single wall thickness to diameter ration of SDR41.

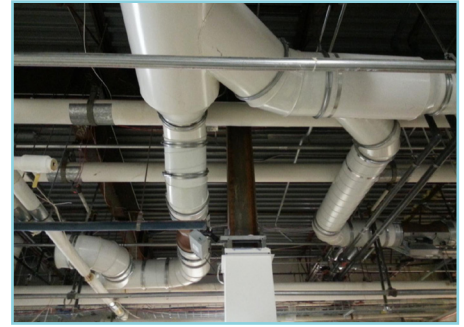
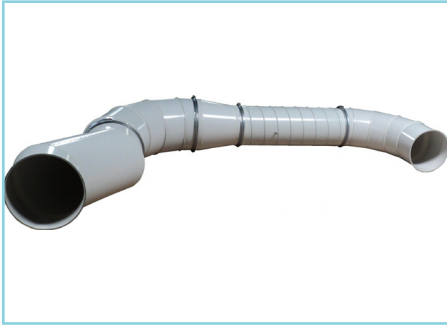
Pipes can be supplied with either plain, solvent weld or integral push-fit joints. The range is manufactured according to BSEN1401 Standard with kitemark certification.



Properties:

- Specific Gravity: 1.42
- Flammability: does not support combustion
- Specific heat: 1.00kJ/kg/0C
- Thermal conductivity: 0.180J/m²/s/0C/m
- Impact Strength: complies with EN 1401-1, 3505
- Tensile Strength: in excess of 45MN/m² at 200C

PVC Ducts for HVAC System



Commonly used in Hospitals and Research Centres. PVC duct is impressively strong and it possesses a host of other beneficial qualities like low thermal conductivity, flammability properties, and chemical and corrosion resistance. PVC duct pipe comes in sizes from 2 inch all the way up to 60 inch! Depending on size, duct can be made two ways: by extrusion or by rolling PVC sheet. Generally, smaller sizes are extruded while larger sizes must be rolled.



Benefits:

Resistance to Corrosion: Corrosion can be an issue in any setting, but more so in a commercial building where fumes, gases, or exhaust can put a HVAC system at risk of becoming damaged over time. PVC is considered a good option for mitigating the risk and is often used to comply with mandated safety regulations. In homes, PVC ductwork can allow a heating and cooling system to run beneath the house without being corroded by moisture or even radon. Overtime, metal ductwork can rust and will need to be replaced. Ultimately, you could save money with PVC ductwork.

Versatility: PVC comes in handy if a builder prefers to design a home with heating and cooling grilles in the floor rather than in the ceiling. It is especially useful if the house will not have a crawlspace that would make space for metal ductwork. For a house built on a concrete slab, PVC ductwork is a preferable option for being placed directly beneath a floor. And as mentioned above, PVC material protects against moisture-related corrosion that can occur at the floor level.

Insulation: One of the key reasons that PVC is used for heating and cooling is that the material is much better at insulating than metals—which are conductors that do not hold heat well. As hot and cold air makes its way through thin mill steel, it is dispersed, resulting in a heating and cooling system that is not as efficient as PVC. While metal ductwork is generally fine for smaller buildings, PVC is often preferred in larger buildings, where heat and cool air need to travel farther through the ducts.

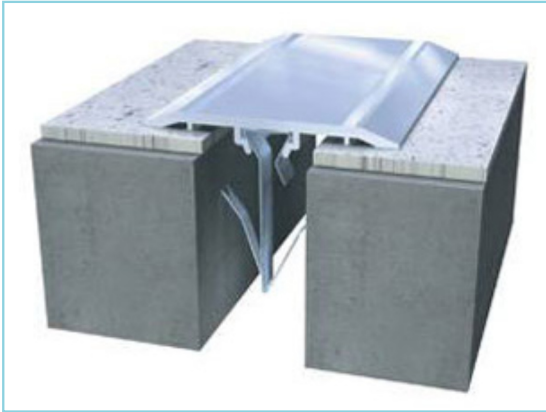
Architectural & Other Finishing Items



Outdoor Street Furniture



Corner Guards for Wall Protection



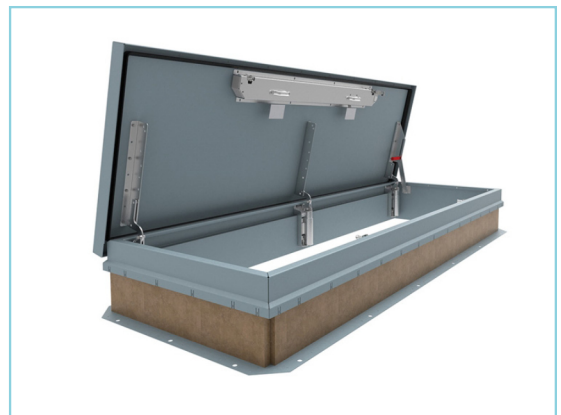
Expansion Joints



Locker Systems



Commercial Recycle Bins



Roof Hatches

Architectural & Other Finishing Items



Safety Bollards



Commerical Washroom Accessories



Entrance Mats



Flag Poles

We also deal with the below Items:

- Dock Bumpers (Heavy Duty Wall Protection)
- Floor/entrance Mats for Commercial Use
- Staircase Nosing, Metallic Joint Cover, Dividing Strips, Floor/Cover Trims & Accessories
- Decorative Metal Grills and Wall Panels (Brass, Stainless Steel & Bronze)
- Access Panels/Doors
- Toilet Partitions, Folding/Operable Partitions (All types)
- Storage Systems & Motorized Shelving
- Rubber Flooring Material
- Airport Smokers' Cabin & Architectural Ashtrays
- Motorized Rising Computer Desks
- Rubber/EPDM fenders & special rubber components
- Apron & airfield signage
- Safety/Security items: Bollards, Sliding gates, Handrails, Crash Rails Bullet-resistant Guard Booth, Ropes & All types of barriers

Services

HDPE installation



Combined Cooperation' provides installation services of HDPE pipes and fittings. We have a proven track record of leakproof and timely installations. Please contact us for more details.

Welding Machines



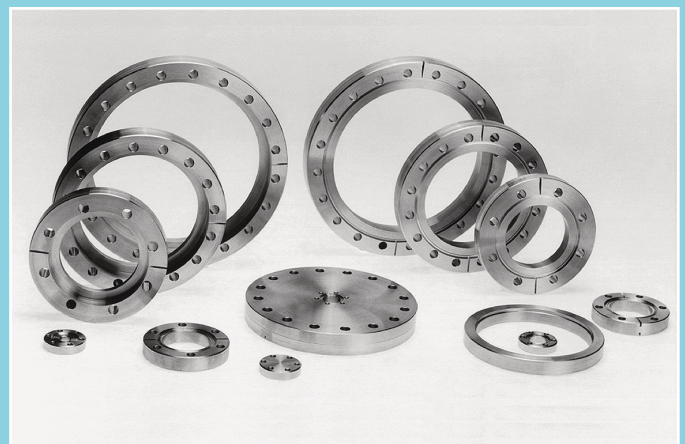
We deal with all kinds of welding machines – Buttfusion, Electrofusion, PPR Welding and other related tools. Available for sale and rent. We also handle all maintenance requests for machines.

HDPE Fabrication



Our skilled craftsmen have years of HDPE fabrication experience. All HDPE fabrication is done as per exact customer specifications and in house customized design.

Custom Flanges



Combined Cooperation' also has a production facility for all types of flanges – GI Flange, PP Coated Flange, DI Flange and many more. Please send us your requirements for detailed information and specifications.

Past Projects



Repair and Upgrading piping systems
Bulk Acid Plant. Ahmadi, Kuwait (Client:
Haliburton Overseas Ltd.)



Joint Operations (Chevron) at Wafra
Installation of HDPE pipeline (Client: Gulf
Combined Est. – KSA)



Installation of HDPE pipes & Fittings
Kuwait Oil Company, Ahmadi (Client: Turki Al
Dabbos)



Installation of large HDPE pipe (Dia 315mm) &
fittings
Sahara Golf Club, Kuwait



Installation of HDPE works for pump room
Mubarak Hospital (Client: Ali Alghanim & Sons)



Supply & Installation of HDPE & PVC pipes and
fittings
Sulaibiya Wastewater Treatment Plant (Client:
ABJ Engineering & Contracting Co. – Division of
Kharafi National)



HDPE external work & Firefighting piping system
PAAET Project Student Campus at Ardiya (M/s.
United Gulf Construction Co. – UGCC)



Installation of PVC pipes & fittings for Chlorine
Dosing System at Shuwaikh Power Plant
(Client: Doosan Engineering Co – Korea)



Supply & installation of HDPE gravity pipes and
fittings
KNPC Mina Abdullah Refinery, Ammonia Injection
CB/1259



Design, Supply, Installation and Maintenance of
Temporary firefighting system consisting of HDPE
underground pipes and above ground steel pipes
Jaber Al Ahmad Al Jaber Al Sabah Hospital



Installation of MEP works, Laying of electrical
cables and HDPE pipes & fittings for pontoons on
Marina Jetty
Sabah Al Ahmad Sea City Phase A2

Other projects:

- Supply & installation of HDPE pressure pipes & fittings - Joint Operations (Client: Chevron, Al Zour)
- Replacement of Steel pipes with HDPE piping system; Replacement of HDPE pipes & fittings for Debris filter back wash discharge - Shuwaikh Power Station MEW (Client: 3B General TradinWg & Contracting Co.)
- Replacement of HDPE pipes & fittings for Debris filter back wash discharge at Subiya Power Station (MEW)
- Supply & Installation of HDPE pipes & fittings - Nuwaiseeb Housing area
- Supply & Installation of service points for HDPE tanks used for Hydrochloric Acid – Amgara (Client: S.Y. Dan Trading & Cont. Co.)
- PTFE lining for Sulphuric Acid storage tank at KNPC



CERTIFICATE OF REGISTRATION

This is to certify that the Management System of

COMBINED COOPERATION COMPANY GENERAL TRADING & CONTRACTING CO.

P.O.BOX: 6940, SALMIYA-22080, KUWAIT

has been assessed and registered by TIS as conforming to the requirements of

ISO 9001:2015 QUALITY MANAGEMENT SYSTEM

The Scope of Registration is

SUPPLY, INSTALLATION, COMMISSIONING, OF MEP WORKS FOR GOVERNMENT, PRIVATE AND OIL & GAS SECTORS, TRADING IN ENGINEERING GOODS, ELECTROMECHANICAL EQUIPMENTS AND OTHER COMMODITIES, CONSTRUCTION CONTRACTS INVOLVING CIVIL, ELECTRO-MECHANICAL, HVAC, PLUMBING, FIREFIGHTING, AND PIPE FABRICATION

Certificate Number	Initial Registration Date	Date of Last Issue	Valid till
TUTIS-092105002	31-May-2021	30-May-2023	30-May-2024

Note: Certificate is valid for 3 years (31-May-2021 to 30-May-2024) from the date of Initial Registration. Upon successful completion of Re-certification Audit, a new certificate with Extended validity shall be issued.

Authorised Signatory
Rev. 02 dated 30-May-2023



MSCB157



Accredited by:
ASIB (Accred Services International Board (Europe) Limited) | Kemp House, 160 City Road, London, United Kingdom

To verify the validity of the certificate, visit: <https://asib.co.uk/verifycertificate.php>
The authenticity of this certificate can be re-affirmed by writing to cm@tiscertification.com

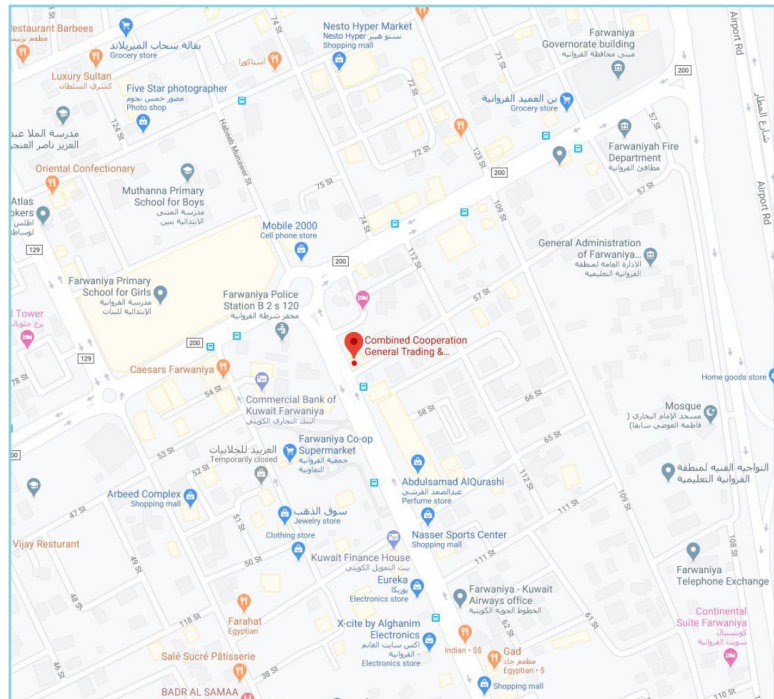


This certificate remains valid while the holder maintains the management system in accordance with the standard(s) above, which will be periodically audited by TIS. This certificate remains the property of TIS and must be returned on request. Lack of fulfillment of condition as set out in the certification agreement may render this certificate invalid. In the issuance of this certificate, TIS assumes no liability to any party other than to the client, and then only in accordance with the agreed upon certification agreement.



COMBINED COOPERATION COMPANY

GENERAL TRADING & CONTRACTING



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For product specifications and catalogs, please visit us at

www.CombinedCooperation.com

