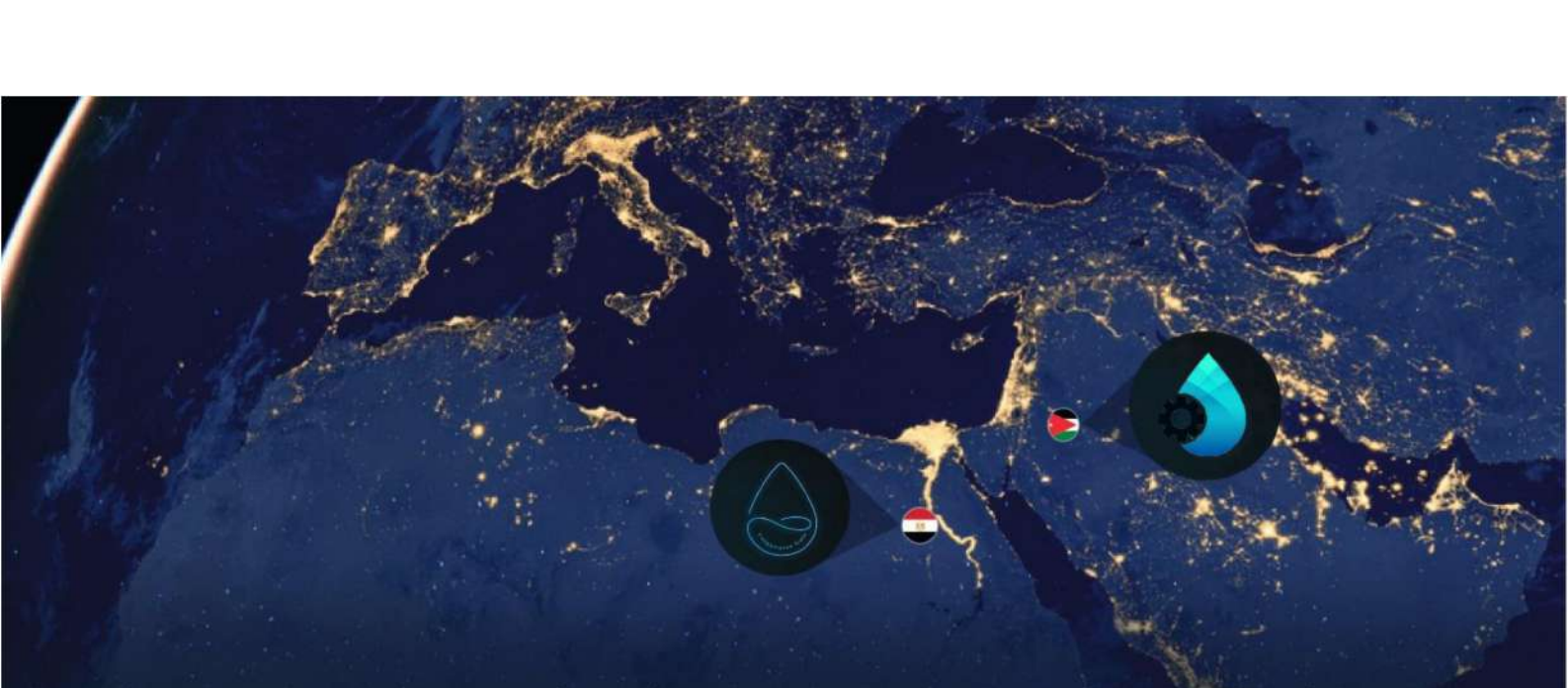




UNIQUENESS GATE GROUP

UNIQUENESS GATE FOR SUPPLY WATER NETWORKS — JORDAN

UNIQUENESS GATE FOR GENERAL SUPPLIES — EGYPT



Uniqueness Gate Group

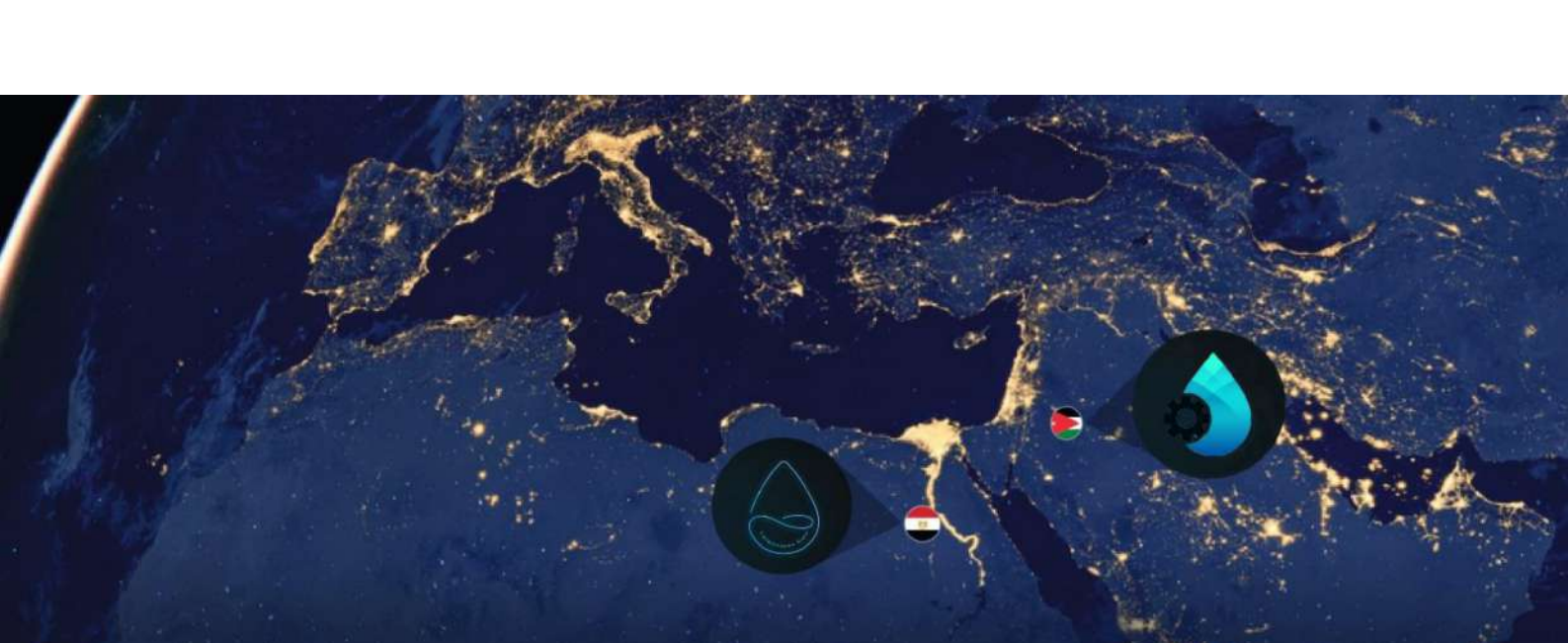
We are national Jordanian Company also national Egyptian Company, specialized in supply of all requirements and equipment for water and wastewater networks also for Oil and Gas, with the ultimate goal of offering an excellent quality in its products that Will supply, and a flawless service to the customers.

With more than Eight years of experience, UNIQUENESS GATE is recognized in the market as a solid and competent company and approved by many of authorities, continues to be a leader institution that gives direction to water networks, which is vitally important by means of the future of communities.

specialized in providing the best solutions for all the applications with quality as our objective, We perform a wide labor of promotion, advice and support to decision makers, contracting and construction companies, installers and distributors, also our company strives for the highest levels of water network technology and do to be in Markets, also we have a wide sales network, to personalize the demand and to maintain a close relationship with their clients.

We are agent for leading manufacturers, prioritizing the quality and reliability of our products, as our relationship with manufacturers, our main mission is satisfying the consumers either in supply a goods and after-sale service. For that reason, we subject our products that we supply to quality assurance controls, we comply with the established delivery dates and the expected quality in each supply, we offer a customized and value-added service to our customers and we make further progress of the supply of all our products. we have supplied substructure projects in multiple and big centers, Strong support by domestic, foreign investors and authorities that prefer our company Goods in their projects makes it the leader institution in its sector. Our company continues to be a leader institution that gives direction, which is vitally important by means for the future, with its outstanding service quality.

We can help you by supply your required goods in adapt to Your Specifications, Our company has an Extensive Range of goods for multiple sectors and uses, At our company and our Related Factories, we do not only supply the best quality, but also offer a wide range of flexibility to be comply with your Goods Specification that you want, we are totally dedicated to customer needing, we and our related factories are equipped to fully comply with the specifications required by every project with quality guarantee, we are able to fulfill every needing with total responsibility and full satisfaction guarantee from all clients We and our Related Factories available of all basics systems with many alternatives and options to allows us to offer your goods in very high quality. Our quality policy is to insure the maximum quality work by supporting the customers from first phase up to the finish including installation and continuous supervision of our goods and take feedback from our customers.



UNIQUENESS GATE GROUP

UNIQUENESS GATE FOR SUPPLY WATER NETWORKS – JORDAN

Website: www.uniquenessgategroup.com

Email: info@uniquenessgate-jo.com

Tel.: +962 6 420 6364 - Fax: +962 6 420 6374

Mob.: 0777786008 - 0797151025

Headquarters Address: Qasim Building, Al-Sakhrh Al-Musharafah Street, Amman, Jordan

UNIQUENESS GATE FOR GENERAL SUPPLIES – EGYPT

Website: www.uniquenessgategroup.com

Email: info@uniquenessgate-eg.com

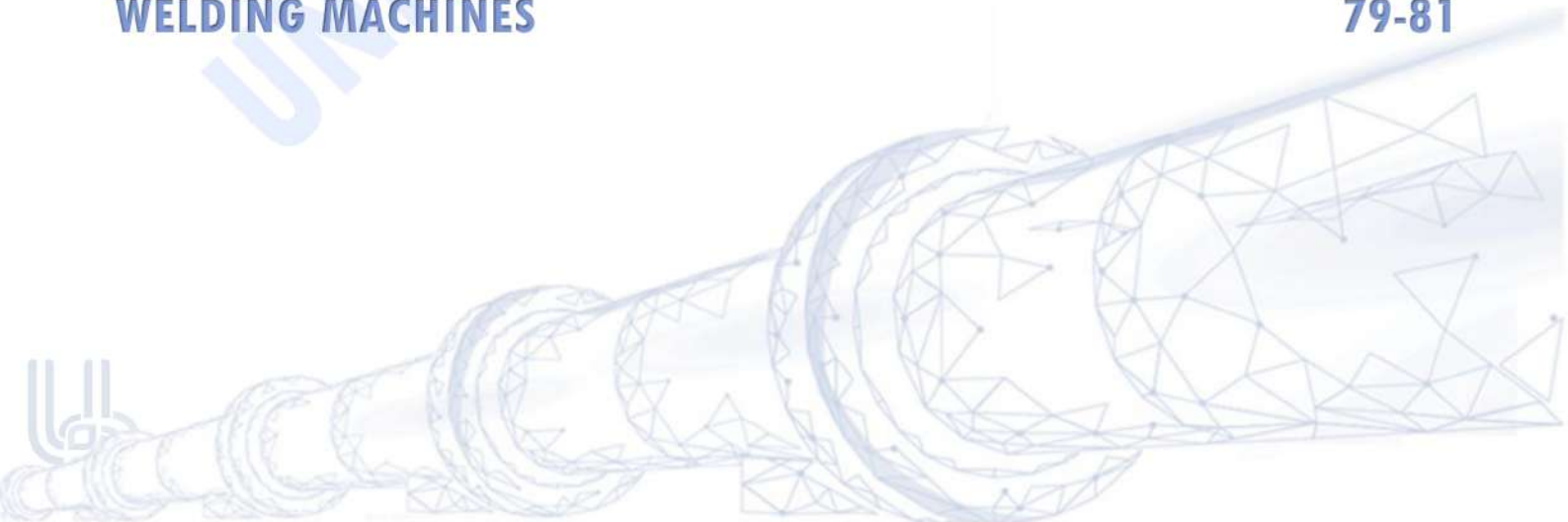
Mob.: 01226100099 - 01220609602 - 01200080634

Headquarters Address: Beverly Hills, El Sheikh Zayed City, Giza, Egypt



INDEX

VALVES	5-30
PE ELECTROFUSION AND BUTTFUSION FITTINGS	31-37
COMPRESSION & IRRIGATION FITTINGS	38-53
FLOW METER & WATER METER	54-57
HIGH-DENSITY POLYETHYLENE PIPES	58-59
DUCTILE IRON PIPES	60-61
DUCTILE IRON FITTINGS	62-63
STEEL PIPES	64-68
STEEL FITTINGS	69-70
FLANGES	71-73
UPVC PIPES & FITTINGS	74-76
CORRUGATED PIPES & FITTINGS	77-78
WELDING MACHINES	79-81



VALVES

WE ARE LEADING DISTRIBUTOR FOR MANUFACTURERS OF VALVES, PRIORITIZING THE QUALITY AND RELIABILITY OF OUR PRODUCTS

As a distribution of valves, our main mission is satisfy the consumers. For that reason, we subject our sale of products to quality assurance controls, we comply with the established delivery dates and the expected quality in each supply, we offer a customized and value added service to our customers and we make further progress in the design and manufacture of our products

WE ADAPT TO YOUR SPECIFICATIONS

At our factories, we do not only produce the best quality, but also offer a wide range of possibilities of automation of any valve, adaptations and modifications, With a quick reply and tight delivery times, we are totally dedicated to customer needing's. they are equipped with advanced technology to fully comply with all the specifications required by every project with quality guarantee. For this reason, we are a highly qualified team that thanks to extensive training, expertise and experience in several industries, we are able to fulfill every needing with total and full satisfaction guarantee.

AN EXTENSIVE RANGE OF INDUSTRIAL VALVES FOR MULTIPLE SECTORS AND USES

The availability of all basics systems with many alternatives and options allows to offer a specific valve for every need and working condition; from the smallest (1/8") up to the largest diameters (48") and highest according to kind of valve and from the lowest pressure (20 m/Bar) to the highest (720 Bar), in various materials ductile iron, carbon steel, stainless steel, bronze, brass

ASSEMBLY

We perform different types of special assemblies, all with the design of general drawings and operational diagrams. Our technicians can move to your facilities to develop an automation study according to your needs, by offering you an integrated consultancy service.

DRIVES

We can adapt a wide range of actuators to valves: these can be handwheels, encoded handwheels, remote handwheels, gearboxes, chains, hydraulic actuators, dead man levers, quick-release levers.

PAINTINGS AND COATINGS

It is increasingly necessary in the industry to eliminate maintenance costs arising from using fluids or conditions incompatible with the metals normally used in the standard manufacture. We have specialized in making paint finishes and special coatings following the requirements that our customers can specify.

KIND OF VALVES

- GATE VALVES
- BUTTERFLY VALVES
- CHECK VALVES
- KNIFE VALVES
- GLOBE VALVES
- BALL VALVES
- PLUG VALVES
- AIR VALVES
- FILTERS
- CONTROL VALVES
- NEEDLE VALVES



GATE VALVES

TYPES

Bolted Bonnet, Pressure Seal, Bellows Sealed, Outside Screw and Yoke.

SIZE

From 1/4" to 48"

PRESSURE

150 — 2500LB or PN6 — PN100 and up to PN420 for Gate Valve PS

MATERIAL

Casting WCB, LCB, WC6, WC9, C12, C5, CF8, CF3, CF3M,
and CF8M or Forged or Ductile Iron

DESIGN AND PRODUCTION STANDARD

API 600, API6D and ASME B16.34, API602, BS5352
or DIN3352, EN1171, EN1563

STANDARD DISTANCE BETWEEN FLANGES

API 6D, ASME B16.10 or DIN3202-F4/F5/F7

CONNECTED IN ACCORDANCE WITH STANDARD

Flanged ANSI B16.5, ASME B16.47, ANSI B16.25
or DIN2543-254, EN1092, or threaded and welded ends.

TEST STANDARD

API598, DIN3230, BS6755, ISO5208, EN12266

ACTUATION

Can operate with Handwheel, Gear Reducer, Chain,
Pneumatic or Electric Actuator with emergency steering wheel.

MEDIUM

Suitable for several media including Water, Sewage,
Steam, Oil, Gas, Petrol Products, Nitric Acid, Acetic Acid, etc.

WORKING TEMPERATURE

From -46°C or -50°C (Stainless Steel Constructions)
and -29°C (Carbon Steel Constructions) up to 600°C



GATE VALVES



NON-RISING STEM RESILIENT SEATED



RISING STEM RESILIENT SEATED



NON-RISING STEM METAL SEATED



RISING STEM METAL SEATED



WITH ELECTRICAL ACTUATOR



OS & Y RESILIENT SEATED



API BOLTED BONNET



API FORGED STEEL



API PRESSURE SEAL



BUTTERFLY VALVES

TYPES

Concentric Type, Eccentric Type, High Performance Triple offset

SIZE

From 2" to 144"

PRESSURE

Class 150-600/PN10-PN100

MATERIAL

Cast Iron, Ductile Iron, A216WCB, CF8, CF8M

DISK

Nickel Plated, Ductile Iron, A216WCB, CF8 CF8M

SEAT

EPDM, NBR, VITON, TFE, PTFE, RPTFE (15% Glass Fiber),
RPTFE (15% Graphite), or Nitride 316SS (Class IV Leakage)

TEST STANDARD

API-609, API-598, MSS SP-61, EN12266

DESIGN

ANSI B16.5, ANSI B16.34, BS5155, EN593

ACTUATION

Can operate with Lever, Gear Box, Pneumatic or Electric Actuator, with handwheel for Emergencies.

MEDIUM

Suitable for several media including Water, Steam, Oil, Gas, Petrol Products, Nitric Acid, Acetic Acid, etc.

WORKING TEMPERATURE

From -46°C or -50°C (Stainless Steel Constructions) and 29°C (Carbon Steel Constructions) up to 450°C



BUTTERFLY VALVES



WAFER TYPE CONCENTRIC



LUG TYPE CONCENTRIC



U-TYPE CONCENTRIC



DOUBLE FLANGE CONCENTRIC



DOUBLE FLANGE DOUBLE ECCENTRIC



HIGH PERFORMANCE



TRIPLE OFFSET



WITH ELECTRICAL ACTUATOR



WITH PENUMATIC ACTUATOR



CHECK VALVES

TYPES

Swing, Piston, Tilting Disk, Dual Plate, Wafer, Nozzle Silent, Ball, lift type.

SIZE

From 1/2" to 48"

PRESSURE

150 — 2500LB or PN6 — PN100 and up to PN420 for Check Valve PS

MATERIAL

Casting A216 WCB, CF8M and other Alloy, Forged or Ductile Iron

DESIGN AND PRODUCTION STANDARD

API6D, BS5351, API608, ISO17292, EN12516, EN1983

STANDARD DISTANCE BETWEEN FLANGES

API 6D, ASME B16.10 or DIN3202

CONNECTED IN ACCORDANCE WITH STANDARD

ANSI B16.5, ASME B16.47, ANSI B16.25 or DIN2543-254, EN1092, or threaded and welded ends.

TEST STANDARD

API598, ISO5208, EN12266

MEDIUM

Suitable for several media including Water, Sewage, Oil, Gas, Petrol Products, Acid, etc.

WORKING TEMPERATURE

From -46°C or -50°C (Stainless Steel Constructions)
and -29°C (Carbon Steel Constructions) up to 600°C



CHECK VALVES



SWING CHECK VALVE



BALL CHECK VALVE



DUAL PLATE CHECK VALVE



NON-SLAM NOZZLE CHECK VALVE



HYDRAULIC CHECK VALVE



FIRE PROTECTION CHECK VALVE



API SWING CHECK VALVE



API PRESSURE SEAL CHECK VALVE



API FORGED CHECK VALVE



KNIFE VALVES

TYPES

Flat Valve Wafer or Lug.

SIZE

From 2" to 80"

PRESSURE

Class 150 or PN6 — PN25

MATERIAL

GGG40 or GGG50, WCB, and CF8M

TYPE OF SEALING

EPDM, NBR, VITON, PTFE, METAL

DESIGN AND PRODUCTION STANDARD

API6D, MSS SP-81, MSS SP-135, ASME B16.34

CONNECTED IN ACCORDANCE WITH STANDARD

Wafer or LUG ASME B16.5, ASME B 16.47, MSS SP-81, EN-DIN

TEST STANDARD

API598, API6D

ACTUATION

Can operate with Handwheel, Gear Box, Chain,
Pneumatic or Electric Actuator

MEDIUM

Including Water, Sewage

WORKING TEMPERATURE

From -50°C for CF8M and -29°C for WCB and -10°C for Ductile



KNIFE VALVES



ELECTRICAL KNIFE VALVE



PNEUMATIC KNIFE VALVE



THROUGH KNIFE VALVE



GEAR DIRECTIONAL KNIFE VALVE



HW. DIRECTIONAL KNIFE VALVE



DAMPERS KNIFE VALVE



DOUBLE GATE KNIFE VALVE



CHAIN OPERATOR KNIFE VALVE



TRANSMITTER KNIFE VALVE



GLOBE VALVES

TYPES

Bolted Bonnet, Pressure Seal, Bellows Sealed, Inside Screw and Yoke.

SIZE

From 1/4" to 24" and up to 36" for Globe Valve PS

PRESSURE

150 — 2500LB or PN16 — PN100 and up to PN420 for Globe Valve PS

MATERIAL

Casting WCB, LCB, WC6, WC9, C12, C5, CF8, CF3, CF3M, and CF8M or Forged or Ductile Iron

DESIGN AND PRODUCTION STANDARD

API 600, API6D and ASME B16.34, API602, BS5352 or DIN3352, EN558

STANDARD DISTANCE BETWEEN FLANGES

API 6D, ASME B16.10 or DIN3202-F5/F7

CONNECTED IN ACCORDANCE WITH STANDARD

Flanged ANSI B16.5, ASME B16.47, ANSI B16.25 or
DIN2543-254, EN1092, or threaded and welded ends.

TEST STANDARD

API598, ISO5208

ACTUATION

Can operate with Handwheel, Gear Box, Pneumatic
or Electric Actuator with Handwheel for Emergencies

MEDIUM

Suitable for several media including Water, Steam,
Oil, Gas, Petrol Products, Nitric Acid, Acetic Acid, etc.

WORKING TEMPERATURE

From -46°C or -50°C (Stainless Steel Constructions)
and -29°C (Carbon Steel Constructions) up to 600°C



GLOBE VALVES



API BOLTED BONNET



API PRESSURE SEAL



API BELLOWS BOLTED BONNET



FLANGED FORGED



S.W. FORGED



ANGLED



ELECTRICAL ACTUATOR



Y PATTERN



DIN



BALL VALVES

TYPES

Floating, Trunnion, Twin, Top Entry, Fully Welded, Multiport, Cryogenic, HTF, PIG.

SIZE

From 1/4" to 40"

PRESSURE

Class 150 — 2500 or PN16 — PN40

MATERIAL

Casting A216 WCB, A352 LCC, A351 CF8M or other alloys, also forged quality

DESIGN AND PRODUCTION STANDARD

API 6D, MSS SP-81, MSS SP-135, ASME B16.34

STANDARD DISTANCE BETWEEN FLANGES

ANSI B16.5, ANSI B16.34

END CONNECTION

Flanged ANSI B16.5, EN 1092 or Welding ends

TEST STANDARD

API 598, API 6D, DIN 3230

STRUCTURE

Split body, 3 pcs, monobloc, Top entry

ACTUATION

Can operate with Handwheel, Gear Box, Pneumatic or Electric Actuator with manual override.

MEDIUM

Suitable for several media including Water, Steam, Oil, Gas, Petrol Products, Nitric Acid, Acetic Acid, etc.

WORKING TEMPERATURE

From -196 °C (Cryogenic service), -46°C or -50°C (Stainless Steel Constructions) and -29°C (Carbon Steel Constructions) up to 400°C



BALL VALVES



3P TRUNNION



TWIN TRUNNION



MULTIPORT TRUNNION



TOP ENTRY TRUNNION



PIGGABLE TRUNNION



2P TRUNNION



MONOBLOC FLOATING



3P FLOATING



MULTIPORT FLOATING



BALL VALVES



TWIN FLOATING



2P FLOATING



TOP ENTRY FLOATING



CONTROL TRUNNION



HTF



CRYOGENIC TOP ENTRY



TWO PIECES BSP & NPT



THREE PIECES 1000 WOG



BW LONG THREE PIECES 1000 WOG



PLUG VALVES

TYPES

Inverted lubricated taper, PTFE Sleeve, Lift type.

SIZE

From 1/2" to 14"

PRESSURE

150 — 1500 LB

MATERIAL

A216 WCB, A351 CF8, A351 CF8M, A351 CF3,
and A351 CF3M or another alloys

DESIGN AND PRODUCTION STANDARD

API 6D, API599

STANDARD DISTANCE BETWEEN FLANGES

ANSI B16.10

END CONNECTION

Flanged ANSIB16.5, or Welding ends

TEST STANDARD

API598, API6D

ACTUATION

Can operate with Lever, Reducer, Pneumatic or Electric Actuator with Handwheel for Emergencies.

MEDIUM

Suitable for several media including Water, Steam, Oil, Gas, Petrol Products, Nitric Acid, Acetic Acid, etc.

WORKING TEMPERATURE

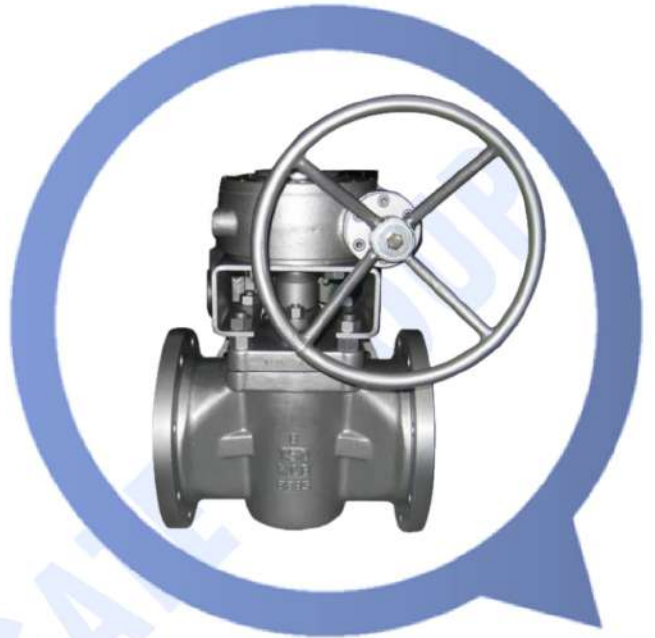
From -196 °C (Cryogenic service), -46°C or -50°C (Stainless Steel Constructions) and -29°C (Carbon Steel Constructions) up to 300°C



PLUG VALVES



LUBRICATED PLUG VALVES



NON-LUBRICATED PLUG VALVES



EXPANDABLE PLUG VALVES



ECCENTRIC PLUG VALVES



AIR VALVES

TYPES

Automatic Air Release Valve, Double Acting Valve, Combination or Triple Effect Air Valve.

TYPES OF ORIFICES

Single, Double (Single, Double and Triple Function)

SIZE

Flanged DN25 — DN400 for Clean Water, DN50 — DN250 for Sewage Water.
Threaded ¾", 1", 2"

PRESSURE

PN10 — PN40

MATERIAL

Cast Carbon Steel, Ductile Iron, Stainless Steel, Plastic

DESIGN AND PRODUCTION STANDARD

EN1074-4, AWWA C512

END CONNECTION

Flanged AMSE B16.1/16.42, AS4087, EN1092-2.
Threaded ISO228, BS21

TEST STANDARD

EN12266, ISO5208

MEDIUM

Water, Sewage

WORKING TEMPERATURE

From -10 °C up to 80°C



AIR VALVES



AIR RELEASE VALVE



AIR AND VACUUM VALVE



COMBINATION AIR VALVE



KINETIC AIR RELEASE VALVE



FILTERS

TYPES

“Y”, Bolted Cover Basket, Duplex Bas, Temporary.

SIZE

From 1/2" to 48"

PRESSURE

150 — 4500LB or PN10 — PN40

MATERIAL

Carbon Steel, Low-Carbon Steel, Steel Alloy, Stainless Steel, Ductile Iron, CF8M, Forged

DESIGN AND PRODUCTION STANDARD

ASME B16.34 or DIN3356, EN558

STANDARD DISTANCE BETWEEN FLANGES

ASME B16.10 or DIN3202

CONNECTED IN ACCORDANCE WITH STANDARD

Flanged ASME B16.5 or DIN2543-2547, EN1092, Test API 598 or DIN3230, Threaded ISO228 or Welding

TEST STANDARD

API598, ISO5208, EN12266

MEDIUM

Suitable for several media including Water,
Sewage, Oil, Petrol Products

WORKING TEMPERATURE

From -46°C or -50°C (Stainless Steel Constructions)
and -29°C OR -46 °C (Carbon Steel Constructions) up to 400°C
and -20 °C up to +200 °C (CF8M)



FILTERS



API Y STRAINER



DIN Y STRAINER



SIMPLEX STRAINER



DUPLEX STRAINER



SELF-CLEANING ELECTRIC SCREEN FILTER

TYPES

Automatic mesh filters of electric drive in line

SIZE

From DN15 — DN400

PRESSURE

150 - 2500 LB or PN16 - PN100

MATERIAL

Cast Carbon Steel, Cast Iron JS1049, alloy Steel, Forged steel.

DESIGN AND PRODUCTION STANDARD

DIN3356, EN12516

STANDARD DISTANCE BETWEEN FLANGES

EN558 Series 1

END CONNECTION

EN1092

TEST STANDARD

DIN3230, EN12266

ACTUATION

Can operate with Handwheel, Gear Box, Chain, Pneumatic or Electric Actuator

MEDIUM

The valve is suitable for several media including Water, Steam, Hot Oil

WORKING TEMPERATURE

From -196 °C up to 600°C



SELF-CLEANING ELECTRIC SCREEN FILTER



CONTROL VALVES

TYPES

Flow Control Valve, Pressure Reducing Valve, Float Level Control Valve, Hydraulic Non-Slam Check Control Valve, Pressure Relief Valve, Pressure Sustaining Valve, Water Hammer Proof Valve, Water Pump Control Valve, Solenoid Control Valve, Pressure Differential By-Pass Valve, Emergency Close Valve, Proportional Control Valve, Constant Differential Pressure Valve, Surge Anticipating Valve

SIZE

From DN40 up to DN1200

PRESSURE

PN10 — PN40

MATERIAL

Ductile Iron

STANDARD DISTANCE BETWEEN FLANGES

DIN 3202 - F4 / TS EN 558/1 — 14

CONNECTED IN ACCORDANCE WITH STANDARD

TS ISO 7005-2 / TS EN 1092-2

TEST STANDARD

EN12266

MEDIUM

Water

WORKING TEMPERATURE

Min. Operating Temperature - 10°C,
Max. Operating Temperature 80°C



CONTROL VALVES



PRESSURE REDUCING



PRESSURE SUSTAINING



PRESSURE REDUCING & SUSTAINING



PRESSURE RELIEF



FLOW LIMITER



FLOW LIMITER WITH PRESSURE REDUCING



FLOAT VALVE



SURGE ANTICIPATING



PUMP CONTROL



NEEDLE VALVES

TYPES

Isolation Needle (Plunger) Valve with Handwheel, Pressure Reducing Needle (Plunger) Valve with Electrical Actuator, Energy Dissipating Needle (Plunger) Valve with Electrical Actuator, Quick Opening and Closing Needle (Plunger) Valve with Hydraulic Actuator, Pump Control Needle (Plunger) Valve with Hydraulic Actuator, Level Control Needle (Plunger) Valve On/Off Type and Modulating Type, Flow Control Needle (Plunger) Valve Electrical Actuated.

SIZE

From DN100 up to DN1400

PRESSURE

PN10 — PN64

MATERIAL

Ductile Iron, Carbon Steel

DESIGN AND PRODUCTION STANDARD

EN1074-1, EN1074-5, EN593

CONNECTED IN ACCORDANCE WITH STANDARD

EN1092, ISO7005

TEST STANDARD

EN12266, ISO5208

MEDIUM

Portable Water

WORKING TEMPERATURE

Min. Operating Temperature - 10°C,
Max. Operating Temperature 100°C



NEEDLE VALVES



MANUAL / GEARBOX



ELECTRICAL ACTUATOR



HYDRULIC



PNEUMATIC ACTUATOR



PE FITTINGS

WE ARE LEADING DISTRIBUTOR FOR FACTORIES OF PE FITTINGS, PRIORITIZING THE QUALITY AND RELIABILITY OF OUR PRODUCTS

The quality policy of our factories fittings is to offer the high-quality products and services to meet our customers' requirements

WE ADAPT TO YOUR SPECIFICATIONS

We adapt our focus and resources to servicing the ever-changing needs of customers across many industries.

Our Factories continually strives to exceed our customer expectations for excellence, value and

AN EXTENSIVE RANGE OF ELECTROFUSION AND BUTTFUSION FITTINGS

The availability of all basics systems with many alternatives and options allows to offer a specific valve for every need and working condition; from the size 20mm up to 1600mm, for pressure SDR26-PN6 up to SDR6-PN32

SPECIALITY

We perform different types of special assemblies, all with the design of general drawings and operational diagrams. Our technicians can move to your facilities to develop an automation study according to your needs, by offering you an integrated consultancy service.

KNOWLEDGE

In our Factories we offers a thorough and intensive training package consisting of both the theoretical and the practical work of jointing PE pipe by Electrofusion technique

INNOVATION

Innovation is a key of our business, and we continues to push design boundaries by introducing new ideas and solutions based on real customer needs. Let the power of us help your project dreams become reality.

KIND OF FITTINGS



ELECTROFUSION FITTINGS



BUTT-FUSION FITTINGS



ELECTROFUSION FITTINGS

What Are Electrofusion Fittings?

Electrofusion fittings are some specific fittings used in water supply lines and gas pipelines. These fittings are available in different sizes and designed to create a strong joint and ensure equal distribution. You can find electrofusion fittings for water. You can use them in many water systems. Also, you can have specific electrofusion fittings for gas. Many types of electrofusion fittings are available. Therefore, it is essential to find the right one based on your needs.

The electrofusion fittings are known for the heat treatment technique. In this technique, electric current will be used to produce heat. The high immunity of the process makes it the only connection type that has got approval for the IGS standard. Also, this method can help to make different types of polyethylene connections that include tube-knee, tube pipe, and tube-bush. The heating technique is safe. Other benefits are cleanliness and fast result. However, the cost is the downside.

The Electrofusion fittings offer an exposed and unique coil design that makes the seal stronger compared to other systems available in the current market. The process will seal every point precisely and automatically. That will minimize the possibility of human errors.

Key Benefits of Electrofusion Fitting

The key benefits are strong joints, cost-effective solutions, lasting results, and easy installations. Here are more details.

Strong Joints

The electrofusion fittings are quality fittings. They feature fusion zones and long penetration depths. Both these make joints strong and more effective. By using these fittings, one can expect durable solutions and robust joints.

Cost-effective

The electrofusion fittings will not cost you more. The affordability makes these fittings preferable for many. The economic benefits are the outcome of the innovation and integrated system quality. Also, the computerized smart integration will minimize the risk of human errors. The absence of manual labor will also reduce the end cost.

Improved Performance

If you choose reliable electrofusion fittings suppliers, you can get the best quality products. Most of these fittings meet the safety standards and full pressure rating for different applications. For example, if you buy electrofusion fittings for gas, the pipe can ensure the best performance when it comes to gas distribution. The same is about electrofusion fittings for water. The best one can ensure equal water distribution.

Non-Toxic

These fittings are non-toxic. As heavy metal additives will not be used, these fittings will not be contaminated by a bacterium or covered with dirt. Also, they are resistant to chemical matters. Apart from that, they are resistant to electron chemical corrosion. Impact and pressure resistance are added advantages.

Low Installation Costs

These fittings are easy to install. However, you might need some expertise for the installation. But the installation cost will be less. More importantly, the installation will be less time-consuming.



ELECTROFUSION FITTINGS

Durable

Electrofusion fittings are known for their durability. They will last for more than four decades without much maintenance demands. Also, they can effortlessly and quickly operate in pipes. Therefore, you can expect a fast result after the installation. These installations are safe and minimize the repair costs.

In addition to the above, the electrofusion fittings are immune to corrosion. They are highly resistant to environmental stresses and earthquakes. Also, they are flexible and lightweight. Both features will help with fast and flawless installations.

Electrofusion Fitting Applications

Electrofusion fittings are considered a suitable choice for different applications. You might find them in transmission lines and natural gas distributions. They will create a strong joint and ensure a proper flow. They have the best safety features, and that unique quality makes them the right choice for many applications.

However, you will have to spend more on electrofusion fitting compared to other welding methods. But these fittings can help to make different connections. As stated earlier, you can use these fittings to connect pipe-coupling, tube-knee, and pipe-pipe. They will ensure a solid and durable connection.

When it comes to usages, you can use electrofusion fittings in industrial works. Also, you can use them for fire protection, gas distribution, mining, oil, water, and landfill. In brief, you can use them in all those applications where you need a strong connection between pipes, tube and knees, and pipe coupling. Make sure that you are buying a proper size based on your purpose.

Electrofusion Welding Instructions

Electrofusion welding is pipe welding. During the process, some unique connections with electrical resistance ability work to have welding melting temperature. That current will be transmitted through two ends by an electrofusion welding device and control box. Also, many sockets and saddle fittings are used in this process. The boiling process remains the same for almost all the joints. The welding process involves the steps mentioned below.

1. Prepare the pipe to remove the gaps and clean any contaminants.
2. After preparing the pipe, the connection will be made to the pipe. During this step, the surface of the pipe needs rubbing.
3. Supporting and strengthening the pipe and then applying strain on it.
4. The electrical current is applied.
5. The last step involves cooling and opening the clips.

During the entire process, they take care of a few things. First, the heat distribution needs to be uniform. The temperature and heat need to be controlled carefully. The coupler coil should not be damaged. Also, the pipe needs to be cut and cleaned. There are many other things they look after to make the process safe and seamless.

Summary

Electrofusion fittings create strong joints. The process is different from the traditional fitting method. However, the technique that involves electrofusion fitting is safe and fast. You can use these fittings in many applications. The most common usages are gas, marine, water, and even fire.

However, you will have to buy products from reputed electrofusion fittings suppliers. If you are looking for such a supplier, you can consider our PE Electro Fusion Fittings that we supply, our company provides a wide range of products. You can request a customized solution based on your specific application demands.

our PE Electro Fusion Fittings that we provide are non-toxic and last for around five decades. Also, the installation cost will be less. These fittings will offer high volume and low-pressure loss. You can check the features and specifications before deciding.



ELECTROFUSION FITTINGS

KIND OF EF. FITTINGS



COUPLER



TAPPING TEE



TAPPING VALVE



SADDLE



ELBOW 90°, 45°, 22.5°, 11.25°



EQUAL TEE



REDUCING TEE



REDAUCE



END CAP



PE-BRASS TRANSITION



FLEX RESTRAINT



REPAIR SADDLE



BUTT-FUSION FITTINGS

What Are Butt-fusion Fittings?

The butt-fusion technology is of immense usefulness in the construction and piping industry. A butt-fusion process involves the simultaneous heating of the ends of the pipes or components and their joining.

Once a molten state of the end of the components/pipes is obtained, the ends are joined together and provide for a continuous contact and flow surface. Engineers and construction companies can create elongated pipe lengths and surfaces through the use of the procedure. The process for fusion welding of polyethylene pipes enhances the usefulness of the pipes, and other kinds of components as well, in varying circumstances.

A Controlled Manufacturing Environment

A butt-fusion process is carried out for a specified heating and cooling time. Controlled pressure is applied to ensure the quality of the joints and for providing it adequate strength. At the end of the process, a homogenous fusion joint of the pipes or the components is obtained.

The new joint and the assembly can provide the same performance the original pipes and components would provide under pressure. These joints are also resistant to loads. An electric heating plate is used for heating the surfaces and the ends of the pipes. This plate can raise the temperature of the components or pipes to the requisite fusion temperature.

Butt-Fusion for the PE Pipes and the Advantages/ Benefits

The application of polyethylene or PE pipes has increased manifold in the construction sector and industry, due to its low cost, versatility, corrosion resistance, and other qualities and properties.

The butt-fusion technology can also be used to join PE pipes (including the PE 180 and PE 100 pipe materials). The technology is usually used for pipes having a size of at least 90 mm and a maximum of 1000 mm. Some new and sophisticated butt-welding machines are also being used by the leading manufacturers nowadays.

These machines can better control the fusion and joining process and can apply the various welding parameters accurately. Controlling the parameters of the fusion ensures that the pipe and the joints do not fail in any condition. Some of the control parameters include:

- Width of the bead
- Alignment
- Ovality
- The temperature of the heater plate
- Changeover time
- Heat soak time
- Pressure between the interfaces

Important Considerations for Effective and Reliable Butt-Fusion/Butt-Welding

Apart from the control parameters (of the fusion process), certain other field conditions may also lay an impact on the quality, effectiveness, and reliability of the butt joints. To obtain a reliable butt-joint, the below-given conditions should be achieved.

Cleanliness

Cleanliness is important as dirt and other undesired substances can spoil the joints and reduce their strength.

Competence and Skills

The leading manufacturers of butt joints employ certified and trained technicians for producing the fusion welding polyethylene piping systems and the butt joints.



BUTTFUSION FITTINGS

Accuracy

Any equipment and machine used in the manufacturing of butt joints and the piping systems should be well maintained. Maintenance ensures that accurate welding procedures are followed, and appropriate welding temperatures are obtained. The reliability of the pipe-facing tools is of utmost importance for good quality joints and welds.

Any equipment and machine used in the manufacturing of butt joints and the piping systems should be well maintained. Maintenance ensures that accurate welding procedures are followed, and appropriate welding temperatures are obtained. The reliability of the pipe-facing tools is of utmost importance for good quality joints and welds.

As we can see the butt-fusion and welding procedure carried out at the professional and leading manufacturing facilities is well-controlled and is followed under expert and well-trained supervision. These factors and aspects ensure that the piping systems and the butt joints do not fail during operation or installation and can withstand any loads applied.

The Regulatory Environment

Different regulatory agencies and institutions may regulate the different building and construction processes and material procurement. In the USA, the Department of Transportation (DOT) issues the regulations for the butt-fusion and the welding procedures. For instance, following the DOT regulations, all the manufacturers of PE systems and butt-fusion joints must have their manufacturing processes conforming to the written procedures and regulations issued by the department.

These procedures may provide for the production of high-strength gas-tight joints. Regulations also require that companies only employ qualified operators for the process, who are aware of the written procedures issued for the operators.

Details of the Butt-Fusion Process

As stated earlier, the butt-welding and butt-fusion process for the PE joints as well as the other components is carried out under a controlled environment. The operations at the best manufacturing facilities also conform to the regulatory standards. Some of the important steps of the butt-fusion procedure are described in brief below.

- The PE pipe is initially installed inside a welding machine. The use of non-depositing alcohol at the ends of the pipes ensures that all moisture, dirt, and greasy substances are removed. The zone for removal of dirt from the ends of the pipe is approx. 75 mm. The cleaning is carried out both inside as well as outside of the diameter face.
- A rotating cutter is used at the end of the pipes. It removes the oxidized layers and the rough ends. In the end, the parallel, square, and trimmed end-faces are obtained.
- A heater plate is used for applying heat, under a pre-designated pressure point. Once the requisite even heating temperature (at the appropriate pipe fusion heating time) is obtained at the end of the pipes, the contact is removed. Pressure is reduced at this point up until the heat-soak pressure is obtained. After the soak time is over, the contact is removed.
- Once the heating plate has been removed and the pipes have been retracted, the ends of the pipes are brought together. Uniform pressure is applied and also maintained for a certain period. Welding or the joining of the pipes and their ends takes place during this period. The fused joints are subsequently cooled for some time until they reach an ambient temperature. Joints are not disturbed during this period and are under compression. Once the period is over, the joints emerge in their full strength and capability. However, at no point in time are the joints sprayed with cold water.

Summary

The butt-fusion and welding process, as carried out by leading manufacturers of piping systems provide for high-strength welds and butt-fusions that can sustain high amounts of longitudinal loads. The homogenous joints possess the same properties as the original PE pipes, and their functionality and capability are only improved at the end of the process. The robust and accurate pressurizing and alignment processes can produce the requisite tolerances.



BUTTFUSION FITTINGS

KIND OF BF. FITTINGS



EQUAL TEE



REDUCING TEE



MACHINED TEE



CROSS TEE



REDUCING CROSS TEE



END CAP



ELBOW 90°, 45°, 22.5°, 11.25°



SWEEP BEND 90°, 45°



REDUCER



ECCENTRIC REDUCER



FLANGE ADAPTOR



PE-BRASS TRANSITION



PP FITTINGS MECHANICAL

**WE ARE LEADING DISTRIBUTOR FOR
FACTORIES OF PP FITTINGS, PRIORITIZING THE
QUALITY AND RELIABILITY OF OUR PRODUCTS**

The quality policy of our factories fittings is to offer the high-quality products and services to meet our customers' requirements.

WILL GO ALL TIME IN OUR POLICY

To do our job in the best way in line with our mission and vision, for the development of the trading we are in at the national and international scale.

AN EXTENSIVE RANGE OF FITTINGS

available of a wide product range consisting of more than 2.000 items and aims to extend its current product range consistently depending on the developments in the sector and to be a global brand

MISSION

To be a leading of all our brand in the local and global market in the production of plastic pipe fittings with the combination of high quality and technology

VISION

To become a well known world brand in the World in water systems and one of the leading companies

VALUE

Respect for Human and Environment, Leadership, Reliability, Making Feel Valuable, Open to Development and Innovation, Team Spirit

KIND OF FITTINGS

- **COMPRESSION FITTINGS**
- **CLAMP SADDLES**
- **COMPRESSION BALL VALVES**
- **VALVE BOXES**
- **LAYFLAT FITTINGS**
- **THREADED FITTINGS**
- **BARBED FITTINGS**
- **ON-LINE DRIPPERS**
- **SPRAYS AND NOZZLES**



COMPRESSION FITTINGS

What Are Compression Fittings?

PP Compression fitting is novel in structure and easy to install and use, especially in pipeline maintenance.

PP Compression fitting is composed of pipe fitting body, lock nut, pipe clamp and V-shaped sealing ring. When using, the nut and pipe clamp shall be put on the pipe in turn, and the pipe shall be inserted into the pipe body 4-5cm through the V-shaped sealing ring, and then the lock nut shall be tightened.

As the PP compression fittings are sealed with V-ring, the roundness of the pipes is strictly required, which is suitable for the installation of straight pipes.

Compression Fittings Advantages/ Benefits

- PP Compression fittings are composed of multiple parts, which are linked and water tight.
- PP Compression fittings are convenient for connection, disassembly, flexibility and recycling.
- PP Compression fittings are complete, which can be divided into equal diameter straight through, reducer straight through, straight tee, reducing tee, Elbow, internal and external thread Joint, plug, etc. in terms of dimensions from $\Phi 20$, up to $\Phi 125$.
- Pressure bearing 1.6Mpa

Comparison between PP quick connect pipe fittings than other pipe fittings:

- low labor cost and price of pipe fittings.
- there is no need for special machinery and equipment.
- it is generally applicable to diameter ≤ 125 mm pipe and can bear small pressure.
- the construction is convenient, simple, and fast.

Technical Specifications

Compression fittings of Polyethylene Pipe Fittings According to ISO 4427, TS ISO 17885, TS ISO 14236 norm.

- Polyethylene Pipe Fittings prevent the differences in dimensions of up to ± 0.5 mm in the pipe or problems that may occur from ovality thanks to taper clamping specification.
- Polyethylene Pipe Fittings are suitable for use with polyethylene pipes, ball valves and galvanized fittings.
- As Polyethylene Pipe Fittings are resistant to UV rays, doesn't allow algae and bacterial growth.
- In the production of Polyethylene Pipe Fittings isn't used shavings, junks etc. The original raw materials are only used in production.
- All semi-manufactured products of Polyethylene Pipe Fittings are in the shape of the O-ring installed in the body, the nut on the body with O-ring and pipe holder (threaded ring).
- O-ring of the Polyethylene Pipe Fittings is made of natural rubber, so O-ring provides leakage with O-ring and pipe holder (threaded ring).

It has been produced from high quality polypropylene raw material and it has resistance to impact. Thanks to the conical tightening feature, it prevents the problems that may occur because of the size differences or ovality in pipes. They prevent alga and bacteria forming due to UV proof (ultraviolet beam) structure. O-rings are made of rubber and provide leak proofness under high pressure. It has a homogeneous and non-porous inner surface. It does not contain any harmful compounds which can change the taste or the smell of the water. Female threaded products provide high leak proofness in changeable temperature values thanks to corrosion resistant reinforcing ring. Thread sizes are compatible with ISO 7-1 Standard, It is compatible with ISO 17885 Standard, and regarding to ISO 17885 test will be as a below

- Verification of long-term behavior of the plastic material Compression fittings bodies are tested according to the ISO 1167-1 test standard.
- Long-term Leak proofness under internal pressure Assembled fittings are tested according to the ISO 3458, ISO 1167-1, ISO 1167-4 test standard.
- Resistance to pull-out at 23 °C Compression fittings, assembled with PE pipes, are tested according to the ISO 3501 test standard.
- Leak proofness under internal pressure Assembled fittings are tested according to the ISO 3458 test standard.
- Leak proofness under internal pressure when subjected to bending Assembled fittings are tested according to the ISO 3503 test standard.
- Threads for compression fittings are covered by ISO 7-1 standard.
- Influence on water quality Compression fittings must not allow increasing microorganism on drinking water. It is reported with the related tests by the laboratories of international organizations.

Installation Areas

Urban Potable Water Networks, Landscaping Systems, Agricultural Irrigation, and Greenhouses

COMPRESSION FITTINGS



MALE ADAPTER



FEMALE ADAPTER



COUPLER



REDUCER



EQUAL TEE



REDUCING TEE



MALE TEE



FEMALE TEE



ELBOW



REDUCING ELBOW



MALE ELBOW



FEMALE ELBOW



END CAP



FLANGED ADAPTOR



REPAIRING COUPLER



FITTINGS SPANNER

CLAMP SADDLES

Clamp Saddles Technical Specification

- It has been produced from high-quality polypropylene raw material and it has resistance to impact.
- It is designed to prevent leakage caused by the size differences of the pipes.
- O-rings are made of rubber and provide leak proof ness under high pressure.
- Thanks to the corrosion-resistant metal ring used in our products, it can be used safely in systems not exceeding 50 °C.
- It does not contain any harmful compounds which can change the taste or the smell of the water. It is suitable to be used for drinking water.
- Reinforcing rings, bolts, nuts, and washers are varied as stainless steel and galvanized.
- Because the nuts are inserted in their housing on the lower part, it provides quick and easy installation.
- Thread sizes are compatible with ISO 7-1 Standard.
- It is compatible with ISO 13460-1 Standard, and regarding ISO 13460-1 test will be as a below
 - I. Resistance to long-term internal hydrostatic pressure Clamp Saddles are tested according to the ISO 1167-1 test standard.
 - II. Resistance to pressure during application of a bending moment ($M=0,4D$) to the branch outlet
 - III. Resistance to short-term internal hydrostatic pressure

Installation Areas

- Urban Potable Water Networks
- Landscaping Systems
- Agricultural Irrigation
- Greenhouses

Guaranteed Pressure Values

- Ø 25mm — Ø 110 mm X ½" — 1 ½" : PN-16
- Ø 75mm — Ø 110 mm X 2" : PN-10
- Ø 125mm — Ø 225mm X ½" — 2" : PN-10
- Ø 125mm — Ø 225mm 3" — 4" : PN-6

Points to take into Consideration

- Clamp saddles should be kept away from hard and sharp objects during the storage and installation. If the installation is laid under the ground, it should be covered with sand to protect it from hard and sharp objects. Any damaged adaptor should not be used absolutely.
- The o-ring should be placed in its socket properly in order not to be unsealed during the installation.
- Male adaptors to be used with Clamp Saddles, should be wrapped up with the teflon band with the tightening direction and should be wrapped enough to prevent leakage.
- Drilling the pipe after the installation of Clamp Saddles can cause the damage of the threads. Thus, drilling must be carried out in a way that it does not touch the threads with a suitable drill bit.
- If the dimension of the installed pipes is bigger than the standard values upper and lower parts will not contact each other. Under these circumstances, there is no need to tighten the bolts till the upper and lower body parts contact or hammer the slides to the end point.
- Bolts and nuts must be tightened mutually balanced during installation of the Clamp Saddles.



CLAMP SADDLES

KIND OF CLAMP SADDLES



WITH GALVANIZED BOLT & REINFORCING RING



DOUBLE ENDED WITH GALVANIZED BOLT & REINFORCING RING



WITH STAINLESS STEEL AISI304 BOLT & REINFORCING RING



DOUBLE ENDED WITH STAINLESS STEEL AISI304 BOLT & REINFORCING RING



CLAMP SADDLE WITH SLIDE



DOUBLE ENDED CLAMP SADDLE WITH SLIDE



COMPRESSION VALVES

Ball valves Technical Specification

- It has been produced from high quality polypropylene raw material and it has resistance to impact.
- It is possible to provide bidirectional flow in the valve.
- They do not cause any pressure or flow loss during fluid transition.
- They supply simple installation in your system.
- O-rings are made of rubber and provide leak proofness under high pressure.
- It does not contain any harmful compounds which can change the taste or the smell of the water

Installation Areas

- Landscaping Systems
- Agricultural Irrigation

Guaranteed Pressure Values

- Blue: ½", ¾", 1", 1 ¼", 1 ½", 2": PN-10
- Blue: 2 ½", 3", 4" : PN-6
- Green: ¾", 1", 1 ¼", 1 ½", 2": PN-10



Points to take into Consideration.

- The filter should be used in the system.
- When the filter is not used, the parts inside the valve may be damaged, and the working life will be shortened.
- Valves consist of parts that can be disassembled and assembled. The dismantled parts must be assembled correctly.
- Sealing elements such as Teflon etc. should be used in the assembly of the threaded parts.
- Ball valves are not suitable for fluids other than water.



COMPRESSION VALVES

KIND OF VALVES



**BALL VALVE
COUPLING - COUPLING**



**BALL VALVE
FEMALE - FEMALE**



**BALL VALVE
COUPLING - FEMALE**



**BALL VALVE
MALE - FEMALE**



**BALL VALVE
MALE - COUPLING**



**BALL VALVE
FEMALE - FEMALE**



**BALL VALVE
COUPLING - FEMALE**



**BALL VALVE
COUPLING - COUPLING**



**QUICK COUPLING
VALVE**



VALVE BOXES

Valve Boxes Technical Specification

- It has been produced from high quality polypropylene raw material.
- It enables easy access to the system equipment which is laid underground.
- Specially designed plastic lock system is available in the lid.
- There are specially cut holes according to pipe diameters for the passages of pipe.

Installation Areas

- Landscaping Systems
- Agricultural Irrigation
- Construction

Points to take into Consideration.

- Protect against sharp-edged impacts.
- Special cut holes according to pipe diameters should be cut by means of a saw according to need.
- Allen key must be used to unlock the locking system.



KIND OF VALVE BOXES



VALVE BOX 6" INCH



VALVE BOX 10" INCH



VALVE BOX 12" INCH



VALVE BOX 14" INCH



LAYFLAT FITTINGS & OFFTAKE NIPPLES

Layflat Fittings and offtake Nipples Technical Specification

- It has been produced from high quality polypropylene raw material and it has resistance to impact.
- O-rings are made of rubber and provide leak proofness under high pressure.
- It has a homogeneous and non-porous inner surface.
- It does not contain any harmful compounds which can change the taste or the smell of the water.

Installation Areas

- Drip Irrigation Sector
- Agricultural Irrigation System
- Construction Sector
- Sprinkler Irrigation Systems
- Drainage Systems
- Open Field Irrigation Systems
- Mining Sector

Guaranteed Pressure Values

- 2", 2 ½" : PN-10
- 3", 4", 5" : PN-6
- 6" : PN-4

Points to take into Consideration.

- To get offtake with Layflat offtake Nipple, the pipe should be drilled according to the hole diameter to be 13 mm.
- During the assembling of Layflat Fittings, it should be avoided to Layflat Pipe folding point to come up to the opened channels on the outer pipe holder.



LAYFLAT FITTINGS



MALE ADAPTER



FE MALE ADAPTER



COUPLER



REDUCER



EQUAL TEE



REDUCING TEE



MALE TEE



FEMALE TEE



ELBOW



MALE ELBOW



FEMALE ELBOW



END CAP



THREADED NIPPLE



BARBED NIPPLE



TAPE NIPPLE



TAPE WITH RING NIPPLE

THREADED FITTINGS

Threaded Fittings Technical Specification

- It has been produced from high quality polypropylene raw material and it has resistance to impact.
- They prevent alga and bacteria forming due to UV proof (ultraviolet beam) structure.
- It has a homogeneous and non-porous inner surface.
- It does not contain any harmful compounds which can change the taste or the smell of the water.

Installation Areas

- Landscaping System
- Agricultural Irrigation

Guaranteed Pressure Values

- 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 3", 4": PN-10

Points to take into Consideration.

- Sealing elements such as Teflon should be used to seal the threads of the products.
- Products should not be forced after thread end.



THREADED FITTINGS



ALL MALE TEE



TEE MALE-FEMALE-MALE



ALL FEMALE TEE



ELBOW MALE-MALE



ELBOW MALE-FEMALE



ELBOW FEMALE-FEMALE



NIPPLE



REDUCING NIPPLE



COUPLING



REDUCING COUPLING



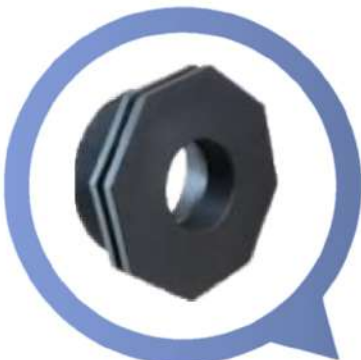
MALE END CAP



FEMALE END CAP



REDUCING MALE-FEMALE



RECUCING BUSHING



MANIFOLD TEE



BARBED FITTINGS

Barbed Fittings Technical Specification

- It has been produced from high quality polypropylene raw material and it has resistance to impact.
- Used with Ø16 mm and Ø20 mm Low Density Polyethylene (LDPE) Pipes (Flat Drip Irrigation Pipe).
- Used with Ø16 mm and Ø20 mm Drip Irrigation Circular Pipe.
- They prevent alga and bacteria forming due to UV proof (ultraviolet beam) structure.
- It has a homogeneous and non-porous inner surface.
- It does not contain any harmful compounds which can change the taste or the smell of the water.

Installation Areas

- Landscaping System
- Agricultural Irrigation
- Greenhouses

Points to take into Consideration.

- For a proper offtake with the Grommet Gasket, the pipe should be punched 16 mm or 20 mm according to the Grommet Gasket to be used.
- For a proper offtake with the Barbed Grommet Gasket, the pipe should be punched 20 mm according to the Barbed Fitting to be used.
- The pipe should be clamped with Pipe Clip after the Barbed fittings are installed to the pipe.



BARBED FITTINGS



NIPPLE



MALE NIPPLE



TEE



MALE TEE



GROMMET TEE



ELBOW



MALE ELBOW



END CAP



GROMMET NIPPLE



MULTI-COUPLING



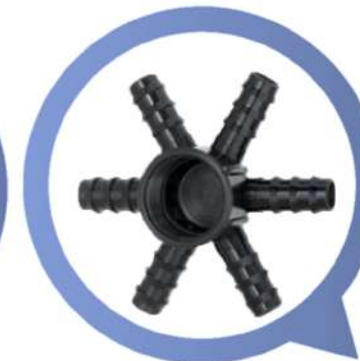
MULTI-COUPLING



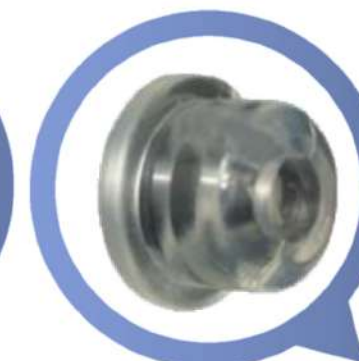
MULTI-COUPLING



MULTI-COUPLING



MULTI-COUPLING



GROMMET GASKET



PIPE CLIP

ON-LINE DRIPPERS

On-line Drippers Technical Specification

- On — Line Drippers provide easy installation.
- On - Line Drippers are used in Ø16 mm, Ø20 mm, Ø25 mm and Ø32 mm Low Density Polyethylene Pipe (LDPE) (Flat Drip Irrigation Pipe).
- On — Line Drippers are used in Ø7 mm Spaghetti Tube together with Microfittings.
- The simple demountable cover of dripper facilitates the cleaning process.

Installation Areas

- Landscaping Systems
- Flower and Vegetables Gardens
- Plantations
- Fruit Trees
- Greenhouses
- Garden Irrigations
- Pot Irrigations

Points to take into Consideration.

- On — Line Drippers are easily inserted by punching a 3 mm hole on the pipe.
- The minimum filtration capacity of the filter used in the system shall be 125 microns.

ON-LINE DRIPPERS TYPE



0-70 LT/H



0-100 LT/H



SPRAYS & NOZZLES

Sprays Technical Specification

Functional sprays with ready-made nozzle-mounted option, providing easy installation thanks to their ergonomic design. With the use of high-quality materials and innovative production technology, they are performance sprays that are resistant to harsh climatic conditions and work stably, and for Nozzles; Thanks to their special design mechanism, they are durable long-lasting nozzles that can maintain the continuity of operation without clogging or snagging with different angle settings that are most suitable for the landscape area.

Operating Features

- Intensive dirt-resistant filter.
- Nozzle assembly and disassembly thanks to ergonomic design.
- Easy angle adjustment with $\pm 5^\circ$ adjusted ribs on the nuts.
- Functional flushing cover for system cleaning.
- Self-cleaning spray feature when the system shuts down.
- Compatible with all female nozzles.
- Body resistant to sudden pressure increases in the system.
- Dynamic nozzle design with high efficiency for installation and maintenance-intensive dirt-resistant filter.
- They are long-lasting sprays with a strong body structure.
- Its aesthetic structure adapts to landscape areas.

Specification

- Working Pressure: 1.0 up to 7 Bar
- Working Range: 1.2 up to 5.2 Meters
- Inlet Diameter: $\frac{1}{2}$ "
- Closed Height: 10cm, 12.5cm, 12.7cm, 15.5cm, 18.5cm, 22.5cm, 23.8cm, and 41cm
- Pop-up Height: 5cm, 7.5cm, 10cm, 15cm, and 30cm

Nozzles Technical Specification

Long-lasting nozzles, which can maintain their working continuity even in harsh climatic conditions with their durability, work without clogging or snagging thanks to their special mechanism. Thanks to the use of high quality materials and sensitive production technology, they are performance sprays that are resistant to the most severe conditions and work stably.

Operating Features

- Easy assembly with high quality and stylish design.
- Ease of adjustment from 0° to 360° .
- Comfortable grip with edge deflector design.
- Reliable irrigation with even distribution,
- Color codes that represent shooting distances.

Specification

- Recommended Working Pressure: 2.1Bar; 210 Kpa
- Data Sheet for all details: upon request



FLOW METERS

**WE ARE LEADING DISTRIBUTOR FOR
FACTORIES OF FLOW METERS, PRIORITIZING THE
QUALITY AND RELIABILITY OF OUR PRODUCTS**

As a distribution of all kind of water meters, our main mission is satisfy the consumers. For that reason, we subject our sale of products to quality assurance controls, we comply with the established delivery dates and the expected quality in each supply, we offer a customized and value added service to our customers.

PRECISION AND QUALITY

As a result of our commitment to precision and quality, we are certified by many of authorization and governments in many countries

AN EXTENSIVE RANGE OF FLOW METERS FOR MULTIPLE SECTORS AND USES

We are currently working in two sectors where the study and control of water consumption is key, namely the agricultural irrigation or urban sector and water consumption in urban environments. We are also working on digitizing both irrigation and urban hydraulic networks, incorporating remote control and remote reading elements.

OUR PRODUCTS

High quality measurement with water meters for hydraulic supply and irrigation systems, accumulated consumptions, instantaneous readings and totalizers to carry out optimal water control.

MISSION

satisfy the consumers.

STRATEGY

Our strategies include innovation in water digitization systems, fostering a culture of cooperation and developing partnerships, as well as consolidating our internationalization process.

KIND OF FLOW METERS

- **ELECTROMAGNETIC FLOW METER**
- **ULTRASONIC WATER METER**
- **MECHANICAL WATER METER**

ELECTROMAGNETIC FLOW METERS

TYPES

Integral type and Split type

SIZE

From 3mm up to 2000mm

PRESSURE

PN0.6 — PN40 Regarding to Dimension

ELECTRODE MATERIAL

316L / Haz alloy B / Haz alloy C / titanium / tantalum / platinum optional

LINING MATERIAL

polyurethane rubber / chloroprene rubber / PTFE / EPDM / PFA / Neoprene / NBR / LINATEX / EBONITE / CERAMIC / NOVOLAK optional

APPLICATIONS

Drinking Water, Wastewater, Abrasives Liquids, Chemicals Industry, Food Industry, Effluent Industry

POWER SUPPLY

AC220V / DC24V / Battery optional

PROTECTION GRADE

IP65 / IP67 / IP68 optional

MEDIUM TEMPERATURE

-40 °C ~ + 200 °C Regarding to Material



ULTRASONIC WATER METERS

TYPES

Water Meter, Bulk Ultrasonic Water Meter, Wall-Mounted Ultrasonic Flow Meter, Handheld Ultrasonic Flow Meter, Portable Ultrasonic Flow Meter

SIZE

Water meter from 1/2" up to 4", and for Bulk from DN-50 up to DN-300, and for wall, Handheld and Portable measure from 25mm up to 6000mm

PRESSURE

PN0.6 — PN40 Regarding to Dimension

ELECTRODE MATERIAL

316L / Haz alloy B / Haz alloy C / titanium / tantalum / platinum optional

LINING MATERIAL

polyurethane rubber / chloroprene rubber / PTFE / EPDM / PFA / Neoprene / NBR / LINATEX / EBONITE / CERAMIC / NOVOLAK optional

APPLICATIONS

Drinking Water, Wastewater, Abrasives Liquids, Chemicals Industry, Food Industry, Effluent Industry

POWER SUPPLY

AC220V / DC24V / Battery optional

PROTECTION GRADE

IP68

MEDIUM TEMPERATURE

-40 °C ~ + 200 °C Regarding to Material



MECHANICAL WATER METERS

TYPES

Woltman Water Meter, Irrigation Water Meter, Single Jet Water Meter, Multiple Jet Water Meter, Prepaid Water Meter

SIZE

Jet Water meter from $\frac{1}{2}$ " up to 2", and for Woltman from DN-50 up to DN-600, and for Irrigation from DN-50 up to DN-300, Prepaid Water Meter from $\frac{1}{2}$ " up to 1"

PRESSURE

Jet and Prepaid Water Meter up to 16 Bar, and for Woltman from 10 Bar up to 25 Bar, and for Irrigation from 10 Bar up to 25 Bar

MATERIAL

Cast Iron, Ductile Iron, Plastic for Some of Jet Types

APPLICATIONS

Drinking Water, Irrigation, Hot or Cold Water

Connection

Jet water Meter threaded BSP and NPT, Woltman and Irrigation Flanged ISO7005-2

MEDIUM TEMPERATURE

0 °C ~ + 90 °C



HDPE PIPES



High-Density Polyethylene Pipe

HDPE pipe is a type of flexible plastic pipe used for fluid and gas transfer and is often used to replace aging concrete or steel mains pipelines. Made from thermoplastic HDPE (high-density polyethylene), its high level of impermeability and strong molecular bond make it suitable for high-pressure pipelines.

Excellent Performance

HDPE is characterized by the combination of superior performance to produce pipes with good long-term strength and long life which makes it the best for the transportation of water and gaseous fuels.

Resist to Environmental Variations

This property is one of the most important properties of HDPE, for this it can be used safely to transport drinking water without any side effects, corrosion is one of the most dangerous phenomena accompanying with transportation of water in steel pipes, but in the case of HDPE Pipes this phenomenon disappears. Another property in the field of environmental variations is soil movement because the great flexibility of HDPE Pipes resists soil movement.

HDPE Pipes is a Competitive Pipes

HDPE Pipes are a competitive pipe because it is characterized as light, stable, weather-resistant, waterproof, and easy to handle. HDPE Pipe installations are the most competitive by key advantages.

- Ease of handling due to flexibility and lightweight.
- Leak-tight installation due to excellent fusion-welding possibilities.
- Long life with low operational cost.
- Capability for relining pipelines.
- Possibility for on-site extrusion, and alternative installations.
- No limitations to the pH-value of the water (no corrosion)
- Taste and odor neutral
- Bacteriologically neutral
- Chemical resistance

Field of Application

Drinking Water, Gaseous Fuels, Irrigation System, Wastewater

HDPE Pipe Life

Although HDPE pipe is often estimated to last 50 years, they are in fact more likely to have life expectancies of 100 years.

Water Quality

Our HDPE pipes will supply are suitable for drinking water. Due to the high quality of our HDPE pipes. It has no effect on water taste, odor, appearance of water and growth of aquatic micro-organisms.

Sizes that we can supply and its length

We can supply From 16mm up to 1600mm.

The length from 16mm up to 32mm are available in coils of 100, 200 and 300 up to 1500 meters, Sizes from 40mm to 125mm are available in coils of 100 meters, and Larger diameters are available in straight lengths of 12 meters, also Different lengths can be supplied on request.



HDPE PIPES

Technical Specification of High-Density Polyethylene Pipe

Manufacturing Standards

- DIN8074 Polyethylene (PE) - Pipes PE 80, PE 100 — Dimensions
- DIN8075 Polyethylene (PE) - Pipes PE 80, PE 100 - general quality requirements, testing
- ISO4427 Plastic piping systems - Polyethylene (PE) pipes and fittings for water supply
- ISO4437 Plastic piping systems for the supply of gaseous fuels - Polyethylene (PE)
- AWWA C906 Polyethylene (PE) Pressure Pipe and Fittings, 4 In. thru 65 In. (100 mm Through 1650 mm), for Waterworks

Raw Materials

- Density (Compound): PE100: 959 Kg/m³, PE80: 956 Kg/m³, According to Test Method ISO 1183
- Melt Flow Rate (MFR) 190 °C / 2.16 kg: PE100: < 0.1 g/10 min, PE80: < 0.1 g/10 min, According to Test Method ISO 1133
- Melt Flow Rate (MFR) 190 °C / 5.0 kg: PE100: < 0.25 g/10 min, PE80: < 0.3 g/10 min, According to Test Method ISO 1133
- Tensile Stress at Yield 50mm/min: PE100: 25 MPA, PE80: 22 MPA, According to Test Method ISO 527-2
- Elongation at Break: PE100: >600%, PE80: >600 %, According to Test Method ISO 527-2
- Tensile Modulus 50mm/min: PE100: 900 MPA, PE80: 800 MPA, According to Test Method ISO 527-2
- Charpy Impact Notched at (0 °C): PE100: 16 Kj/m², PE80: 14 Kj/m², According to Test Method ISO 179/1eA
- Hardness, Shore D: PE100: 60, PE80: 59, According to Test Method ISO 868
- Carbon Black Content: PE100: 2 - 2.5 %, PE80: 2 - 2.5 %, According to Test Method ASTM D 1603
- Carbon Black Dispersion: PE100: ≤ Grade 3, PE80: ≤ Grade 3, According to Test Method ISO 18553
- Brittleness Temperature: PE100: < - 70 °C, PE80: < - 70 °C, According to Test Method ASTM D 746
- ESCR (10% Lgepal), F50: PE100: >10000 h, PE80: >10000 h, According to Test Method ASTM D 1693-A
- Thermal Stability (210 °C): PE100: >20 min, PE80: >20 min, According to Test Method EN 728
- Total Volatiles: PE100: ≤ 350 mg/kg, PE80: ≤ 350 mg/kg, According to Test Method EN 12009
- Water Content: PE100: ≤ 300 mg/kg, PE80: ≤ 300 mg/kg, According to Test Method EN 12118
- Coefficient of Linear Thermal Expansion: PE100: 2.0 x 10⁻⁴ mm/mm/°C, PE80: 2.0 x 10⁻⁴ mm/mm/°C, According to Test Method ASTM D 696
- Thermal Conductivity: PE100: 0.41 W/km, PE80: 0.41 W/km, According to Test Method DIN 52612

UV Resistance

HDPE 80 and HDPE 100 materials are compounded with special additional including UV stabilizers, which protect the pipe from degradation caused by intensive ultraviolet light. For specific applications, such as pipework above the ground, where it is known that the pipe will be subjected to UV light, the material can be compounded with carbon black which provides additional long-term protection.

Chemical Resistance

Our HDPE pipes will supply are generally resistant to the chemicals commonly used for water treatment and disinfection. Our HDPE pipes have excellent resistance to naturally occurring chemicals found in the soil. For industrial purposes our HDPE 100 pipes have excellent resistance to different media.

Standard Dimensions SDR

Relationship between the admissible nominal pressure PN, SDR and Performance classes PE 80, PE 100 (for water 20 °C, 50 years' service Life and C = 1.25), we can supply from SDR-41 (PN4) up to SDR-7.4 (PN25) for PE100, and from SDR-41 (PN3.2) up to SDR-6 (PN25) for PE80.

DUCTILE IRON PIPES

Ductile Iron Pipe History

Grey Iron is being produced for hundreds of years, In 1948, a major event occurred when a small amount of magnesium was added to molten cast iron, It was found that the Flaky Graphite was changed to a spheroidal shape, accordingly all properties of the metal were changed, the new metal mechanical is called Ductile Iron.

Advantages of Ductile Iron Pipe

- Strongest pipe - high tensile and beam strength
- High ring stiffness - takes care of high soil and traffic load.
- Withstands severe crushing load and high impact load.
- Can endure high working pressure.
- Every DI Pipe is hydro tested at rated pressure at works. Complete safety against the surge.
- Speedy laying/installation due to push-on type jointing
- Lightweight and not brittle - easier to handle.
- Welding is possible.
- Centrifugally applied Cement Mortar Lining offers a smooth surface and gives a higher Hazen William's C value of 140.
- Due to lesser friction - loss, offers impressive energy savings.
- Inherently corrosion resistant - also given extra protection by applying inside cement mortar lining and outside coating of zinc with a finishing layer of bitumen/epoxy.

Field of Application

- Drinking Water
- Industrial Water
- Irrigation Water
- Pressure Sewage
- Firefighting System

Manufacturing Process

- Gathering Raw Material
- Blast Furnace
- Induction Furnace
- Magnesium Converter
- Core Making
- Casting
- Annealing
- Zinc Coating
- Hydraulic Test
- Cement Mortar Lining
- Bitumen Coating



DUCTILE IRON PIPES

Technical Specification of Ductile Iron Pipe

Ductile Iron Pipe Standards

- ISO 2531 Ductile Iron Pipes, Fittings, and Accessories for Pressure Pipelines.
- ISO 7186 Ductile Iron Products for Sewage Applications.
- BSEN 545 Ductile Iron Pipes, Fittings, and Accessories and their joints for water pipelines. Requirements and test methods.
- BSEN 598 Ductile Iron Pipes, Fittings, and Accessories and their joints for sewage applications Requirements and test methods.
- ISO 4179 Ductile Iron Pipes for Pressure and Non-pressure Pipelines-Centrifugal Cement Mortar Lining General Requirements.
- BS 4027 Specification for sulfate-resisting Portland cement, Requirements for composition, strength, and physical and chemical properties of three strength classes.
- BS 8179 Ductile Iron Pipes - External Zinc Coating.
- BS 3416 Specification for Bitumen-based coatings for cold application, suitable for use in contact with potable water.
- ISO 4633 Rubber Seals-Join Rings for water supply, Drainage, and Sewerage Pipelines-Specs for materials.
- ISO 8180 Ductile Iron Pipes-Polyethylene Sleeving.
- ISO 7005- 2 Metallic flanges- part 2 cast iron flanges.
- ISO 4014 Hexagon head bolts - produced grades A and B.
- ISO 4032 Hexagon nuts, style 1 - produced grades A and B
- BS 2494 Specification for elastomeric seals for joints in pipework and pipelines.
- BS 2494 Specification for elastomeric seals for joints in pipework and pipelines.

Mechanical Properties

- Tensile Strength: 420 MPa Minimum
- Yield Strength: 300 MPa
- Elongation at break: 10% Minimum up to DN-1000, and 7% up to DN-2600
- Modulus of Elasticity: 1.7×10^{10} kg/m²
- Hardness: 230 BHN Maximum
- Density: 7050 kg/m³
- Bending/Beam Strength: Over 200 MPa
- Crush load and Impact load: Can take up Huge Impact Load (Charpy over 0.713)
- Bursting Strength: Factor of Safety against bursting is 8-10 Minimum.

Standard Product

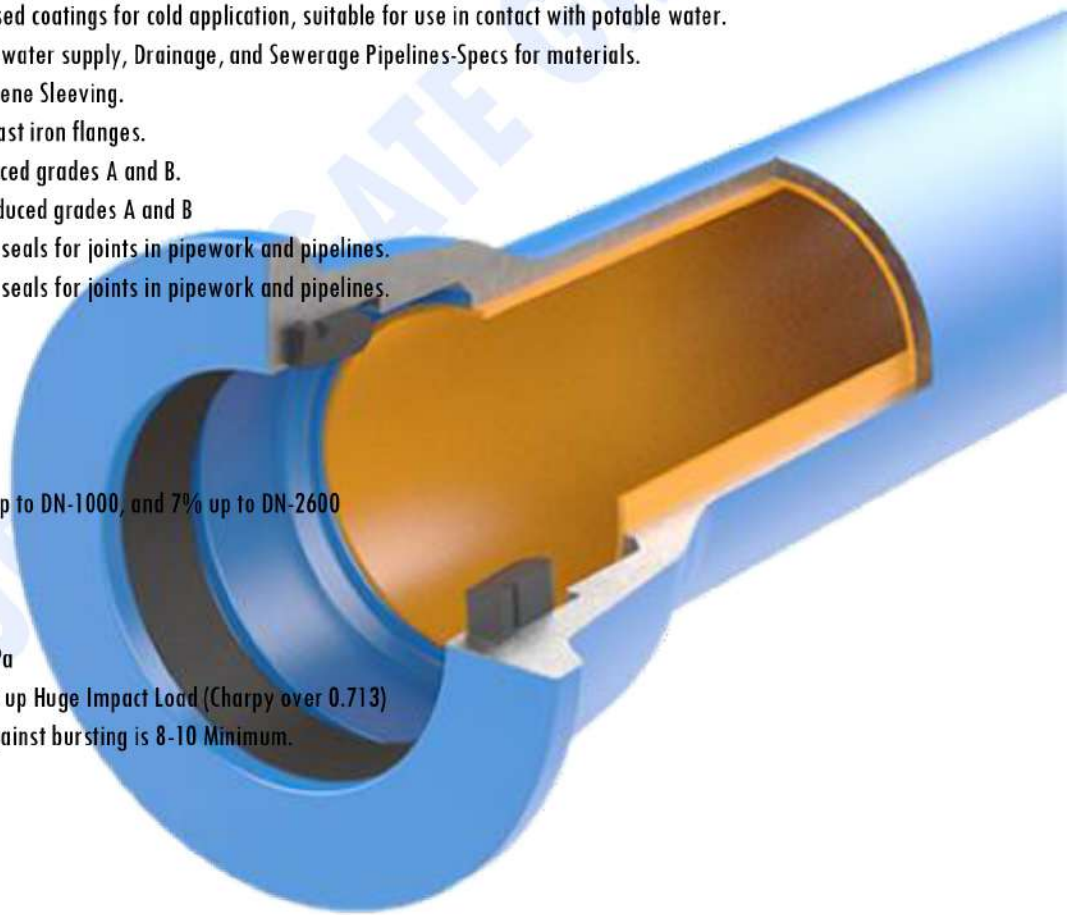
Ductile Iron Pipe Push-on Joint

Sizes that we can Supply and its Length

We can supply to cover the size range from DN-80 up to DN-2600, the standard length being 5.5 meters and 6 meters.

Class Of Pipes

C20, C25, C30, C40, C50, C64, C100, PP, K7, and K9



DUCTILE IRON FITTINGS

Ductile Iron Fittings Technical Specification

Conforming Standards:

- ISO 2531: Ductile Iron pipes, fittings, accessories, and their joints for water applications.
- BS EN 545: Ductile Iron pipes, fittings, accessories, and their joints for water pipelines-requirements and test methods.
- BS EN 598: Ductile Iron pipes, fittings, accessories, and their joints for sewerage application requirements and test methods.



Joints

- **Push-On Joint:** The push-on joints are the most jointing system with high reliability. Push-on joints are assembled with synthetic rubber gaskets which get compressed when the spigot is inserted into the socket. The joints become tighter with the increase in the internal pressure of water. It is an easy-to-join system that allows rapid low-cost laying even in wet conditions.
- **Mechanical Joint:** In this kind of flexible joint, sealing is obtained by applying pressure to the gasket by mechanical means, via through a separate gland. When bolted with the pipe, the gland exerts pressure on the sealing rubber gasket and makes the joint leakproof.
- **Flange Joint:** In any pipeline system there are certain lengths, which are exposed and are not buried under the earth. These lengths need to be tied down to pillars to avoid movements. For this kind of application, flanged joints are used. Flanged joints are also used for vertical pipelines and the interconnection of utilities.
- **Restrained Joint:** Restrained joints are special joints, which can take care of axial thrust. Flexible restrained joints are also used in high slopes or where horizontal/vertical ground movement is anticipated. These joints are necessary on fittings and a few pipes adjacent to the fittings, Restrained joints eliminate the use of concrete anchor blocks, which are costly and delay the progress of laying.
- **Blocked Restrained Joint/Positive Locking Joint:** The blocked restrained joints, also known as positive locking push-in joints can always be recognized by a welded bead on the spigot end and a retaining chamber. The positive locking inter-engagement between the welded bead and the retaining chamber is obtained by inserting locking segments. This enables forces to be transmitted mechanically between the spigot end and the socket of the next pipe or fitting.

Type of Linings

- Ordinary Portland Cement (OPC)
- High Alumina Cement (HAC)
- Sulfate Resistant Cement (SRC)
- Fusion Bonded Epoxy Coating
- Liquid Epoxy Coating
- Black Bitumen Painting

Type of Coatings

Rich Zinc, Zinc + bitumen painting, Fusion bonded epoxy coating

Finishing Layer

Blue/Black/Red Epoxy or Black Bitumen

Anti-Corrosion Coating

Both internal and external Fusion Bonded Epoxy (FBE) coating is an anti-corrosion coating. This coating ensures that the fittings are tough and durable, especially in sour conditions.



DUCTILE IRON FITTINGS

Sizes that we can Supply

We can supply to cover the size range from DN-80 up to DN-2600

Pressure for Fittings

PN-10, PN-16, PN-25, and PN-40

Connection Types

- Flanged End and Loosing Flanged End
- Socket — Spigot (T Type and K Type)
- Spigot End
- Ductile Fittings for PVC and PE Pipes

Kind of Fittings

- All Flanged Tee, Level Invert Tee, Y Tee, Radial Tee
- All Flanged Cross
- All Flanged 45° Angle Branch
- Flanged Bend 90°, 45°, 22.5°, 11.25°
- Flanged Long Bend
- Flanged Duck Foot Bend 90°
- Flanged Concentric Reducer and Eccentric Reducer
- Blank Flange
- Flanged Bell Mouth
- Flanged Spigot
- Flanged Socket
- Double Flanged Pipe
- Pipes with Puddle
- All Socket Cross
- All Socket 45° Angle Branch
- Double Socket Duck Foot Bend
- All Socket Tee, Tee with Flanged Branch, Level Invert Tee with Flanged Branch
- Double Socket Bend 90°, 45°, 22.5°, 11.25°
- Double Socket Reducer
- Socket — Spigot Bend 90°, 45°, 22.5°, 11.25°
- Socket — Spigot Tee with Socket Branch, with Flanged Branch
- Socket — Spigot Concentric Reducer
- Caps
- Plugs
- Flange Adaptor
- Dismantling Joint
- Coupling
- Saddle



STEEL PIPES

WE ARE LEADING DISTRIBUTOR FOR MANUFACTURERS OF STEEL PIPES, PRIORITIZING THE QUALITY AND RELIABILITY OF OUR PRODUCTS

As a distribution of Steel Pipes, we can provide steel pipe cover all diameter sizes. In our factories that we work with them and in quality department, they enter a strict quality control standard in each manufacturing process. Such as production, packing, transportation, etc. To ensure reliable product quality. To better serve the welded steel pipe in our markets market.

Meanwhile, to achieve high product quality. we work with factories that have the production line adopts the current international advanced molding technology and the first-class production equipment, while the excellent inspection and testing facilities to ensure the product quality.

Such as impact testing machines, bending machines, ultrasonic detectors, optical microscopy, hydraulic test equipment, etc. In our QC test center, we can provide a complete production process and finished product testing service.

WE CAN GO TO COMPETITIVE

Providing professional one-stop procurement service for customers with excellent quality, competitive price, convenient transportation, and timely delivery.



KIND OF STEEL PIPES



WELDED PIPE



SEAMLESS PIPE



CARBON STEEL PIPE



WELDED PIPES

About Welded Pipe

The welded pipe is one of the steel pipe surfaces that has the steel pipe joint, which uses the steel belt or steel plate through the bending deformation into round, square, etc. shapes. And then welded it into shaping. It has formed, bent, and welded. There are various types of welded pipe. Here show two types of welded pipe. Spiral Steel Pipe, and Straight Seam Welded Pipe.



1- Straight Seam Welded Pipe

What is the Straight Seam Welded Pipe

The straight seam welded pipe is mainly divided into ERW steel pipe and LSAW steel pipe. And the welding methods are different: high-frequency welding, arc welding, etc.

ERW Steel Pipe

High-frequency welded pipes are generally straight-slit, but straight-slit welded steel pipes are not necessarily high-frequency welded. The high-frequency straight-slit electric resistance welded steel pipe is formed by the skin effect and the proximity effect of the high-frequency current after the hot-rolled coil plate is formed by the molding machine, and the edge of the tube blank is heated and melted, and pressure welding is performed under the action of the pressing roller to realize the production. The high-frequency resistance welded steel pipe is different from the ordinary welded pipe welding process. The weld is made of the base material of the steel strip body, and the mechanical strength is better than that of the general welded pipe. The surface is smooth, high precision, low cost, and has low weld seam height, which is beneficial to the coating of 3PE anti-corrosion coating.

LSAW Steel Pipe

Longitudinal submerged arc welded is produced by using a single medium and thick plate as the raw material, pressing (rolling) the steel plate in a mold or forming machine into a tube blank, using double-sided submerged arc welding, and expanding the diameter. The steel plate feed amount can be automatically adjusted according to different steel grades, wall thicknesses, and plate widths. At the same time, the deformation compensation function effectively avoids the adverse effects of mold deformation on the forming and ensures the flatness of the full length of the steel plate during the pressing process. The feeding step is uniform during forming, ensuring the roundness of the tube blank and the flatness of the welding edge. The finished product has a wide range of specifications, and the weld has good toughness, plasticity, uniformity, and compactness. It has the advantages of large pipe diameter, pipe wall thickness, high-pressure resistance, low-temperature resistance, and strong corrosion resistance.

- Type: LSAW Pipe, ERW pipe
- OD: 21.3-1422mm, WT: 1-44.5mm, L: 5-22mtr
- Standard & Grade: LSAW: API 5L, API 5CT, ASTM 53, EN10217, DIN 2458. IS 3589, GB/T3091, GB/T9711, ERW: API 5L, API 5CT, ASTM 53, EN10217, DIN 2458. IS 3589, JIS G3452, BS1387
- Application: Fluid service, Low-pressure fluid service, Pipelines for low-pressure fluid service, Pressure purposes, Pipe piles, Cold-formed welded structural hollow sections of non-alloy and fine grain steels, The pipeline transportation system of petroleum and natural gas industries (Class A steel pipe), Using as casing or tubing for wells of petroleum and natural gas industries

2- Spiral Steel Pipe

What is the Spiral Welded Pipe

Spiral welded Pipe (SSAW pipe, also called HSAW pipe). The pipe is formed by spiral submerged arc welding technology. Spiral welded pipes are formed using narrower plates or hot rolled coils, which lowers their production costs significantly. The welding line shape like a helix. The spiral welding process permits the production of large-diameter pipes suitable for transporting large volumes of oil and gas. Some SSAW pipes were historically limited to low-pressure applications.

- Type: SSAW Pipe, HSAW Pipe
- OD: 219-3500mm, WT: 6-25mm, L: 6-18mtr, SRL, DRL
- Standard & Grade: ASTM A53 Grade A/B/C, AWWA C200
- End: Beveled, Square, LTC/STC/BTC/VAM Connection
- Application: Water supply engineering, Petrochemical industry, Chemical industry, Electric power industry, Agricultural irrigation, Urban construction, Water supply and drainage, Gas transport, Structure construction

SEAMLESS PIPES

About Seamless Pipe

The seamless steel pipe is a tubular section or hollow cylinder. It is formed by drawing a solid billet over a piercing rod to create the hollow shell, without welding or seam. It can withstand higher pressure resistance. So seamless steel pipe can use to transport flow liquid, gas, and other material. There are three types of steel pipe of the seamless pipe. Hot expanded seamless pipe, cold drawn seamless pipe, and boiler pipe.

1- Hot Expanded Seamless Pipe

What is the Hot Expanded Seamless Pipe

The hot expanded seamless steel pipe is relatively low density but the contraction of the strong seamless steel pipe can be referred to as thermal expansion. The roughing finishing process for expanding the diameter of a pipe by a cross-rolling method or a drawing method. Steel pipe thickening in a short period can produce non-standard and special types of seamless tubes with low-cost and high production efficiency, the current international developments in the field of tube rolling.

- OD size: 5mm-812mm. WT: 1mm - 30mm. Length: 5m-14m, 5.8m, 6m, 10m-12m, 12m or as customer's actual request.
- Standard: JIS G3466, EN 10219, GB/T 3094-2000, GB/T 6728-2002
- Ends: Beveled ends or plain ends with protection cap
- Application: Petrochemical Industries, Paper industries, Sugar Factory, Cement Factory, Power Plant, Petroleum Industries, Chemical Industries, Shipbuilding Plant, Construction Industries, Steel Plant, Oil Mills Industries, Fertilizers Industries, Oil & Gas Industries, Refineries Industries, Defense Industries

2- Cold Drawn Seamless Tube

What is the Cold Drawn Seamless Tube

Cold Drawn Seamless Steel Pipe as implied is made by cold drawing a larger mother seamless pipe, which is generally manufactured through an HFS process. In the Cold Drawn Seamless process, the mother pipe is pulled through a die & plugin cold without any heating. Because of the tool on the outside and inside the surface and tolerances are better in Cold Drawn Seamless. While this is an additional process over HFS, it is necessary to get smaller size pipes that otherwise cannot be manufactured in HFS. Some applications which require close tolerances and smooth surfaces also specify the requirements to be necessarily Cold Drawn Seamless. Cold Drawn Seamless pipes & tubes are extensively used in Heat-Exchanger, Bearing & Automotive sectors.

- OD size: 6mm-114mm (1/2"-4"), etc. WT: 1.0mm-30mm (SCH10-XXS), etc. Length: 1m, 3m, 5.8m, 6m, 11.8m, 12m, etc
- Standard: ASTM A106, API 5L, DIN1626, DIN1629, DIN17175, DIN2448, JIS G3452
- Ends: Beveled ends or plain ends with protection cap
- Application: Oil & Gas Sector, Automotive Industry, Hydrocarbon Process Industry, Bearing Industry, Hydraulic Cylinder, Boiler, Heat Exchanger, super heater & Condenser, Mechanical, Structural General Engineering

3- Boiler Tube

What is Boiler Tube

The boiler tube is a branch pipe of the seamless steel pipe. It is used for boiler, heat-exchanger, or superheater. It has stringent requirements for the manufacture of steel pipes. According to the working temperature. It can be divided into general boiler tubes and high-pressure boiler tubes. Some of the boiler pipes are made of carbon steel and alloy steel. Both carbon steel boiler tubes and alloy steel boiler tubes have different usage situations and temperature situations.

- Type: boiler seamless steel pipe, A192 boiler pipe
- OD: 13.72-914.4mm, WT: 1.65-40mm, L: 0.5-20m
- Standard & Grade: ASTM A179, ASTM A192, ASTM A210, EN 10216-2, JIS 3461, DIN 17175
- Application: Steam Boilers, Power Generation, Fossil Fuel Plants, Electric Power Plants, Industrial Process Plants, Co-generation Facilities



CARBON STEEL PIPES

About Carbon Steel Pipe

Carbon Steel Pipe is a kind of durable steel pipe made up of carbon steel. The steel alloy contains iron and carbon. Because of this point, its hard resistance and withstand stress be harder than others. It is widely used in infrastructure, ships, distillers, and chemical fertilizer equipment. Here are the carbon steel pipe types: API 5L Pipe, ASTM A53 Pipe, ASTM A106 Pipe, ASTM A252 Pipe, EN 10025 Pipe, EN 10219 Tube

1- API 5L Pipe

What is API 5L Pipe

API 5L pipe for pipeline transportation systems in the petroleum and natural gas industries. This steel pipe is suitable for conveying gas, water, and oil. It covers PSL1, PSL2, Sour Services, for onshore and offshore pipelines. Manufacturing types including seamless and welded. PSL1 generally uses which equivalent to ASTM A106 B and A53 B. PSL2 is a higher specification level pipe, has more strict value on chemical and mechanical strength. Moreover, PSL2 requires more test methods. API 5L B PSL2 expressed with API 5L BN/Q/R/M. Sour Services: For sour pipelines like H₂S environment, pipe material have typical restrictions on chemicals element of Carbon, P and S. API 5L B Pipe for Sour Service expressed in API 5L BNS/QS/MS

- Type: Line pipe, Seamless Line Pipe
- OD size: 50.8-660mm, WT: 3.25-17.5mm, L: 5.8-22mtr, SRL, DRL
- Standard & Grade: API 5L, PSL1/2, Gr.A/B, X42, X46, X52, X60, X65, X70, X80
- Ends: Square Ends/Plain Ends, Beveled/Threaded Ends
- Application: High technology and high value-added product, Metallurgy field, High-pressure gas transportation, High cold and corrosion service

2- ASTM A53 Pipe

What is ASTM A53 Pipe

ASTM A53 pipe is intended for mechanical and pressure applications and is also acceptable for ordinary uses in steam, water, gas and air lines. It is suitable for welding and for forming operations involving coiling, bending, and flanging, subject to certain qualifications.

- Type: A53 seamless pipe, A53 ERW pipe
- OD: 8~2540mm, WT: 1mm~50mm, L: 3-12m or Customized
- Standard & Grade ASTM A53 Grade A, B, Type E, F, S
- End: Plain, Beveled, threaded. With couplings
- Application: Construction: Under the piped up more when building extraction of underground water, boiler hot water delivery Water, Machining, bearings, processors, and other accessories, Electrical: Gas transmission pipeline, water power generation, Wind farms anti-static tubes



3- ASTM A106 Pipe

What is ASTM A106 Pipe

ASTM A106 seamless pressure pipe is commonly used in the construction of oil and gas refineries, power plants, petrochemical plants, boilers, and ships where the piping must transport fluids and gases that exhibit higher temperatures and pressure levels. It covers seamless carbon steel nominal wall pipe for high-temperature service. Suitable for bending, flanging and similar forming operations. ASTM A106 seamless steel pipe includes two processes: cold drawn and hot rolled. Among them, cold drawn has higher dimensional accuracy than hot rolled, and the surface of hot rolled steel pipe is relatively rough. The large-diameter seamless steel pipe is hot-rolled steel pipe, and the small-diameter is cold drawn.

- Type: A106 pipe, Hot finished pipe
- OD: 21.3-1219mm, WT: 1.24-25.4mm, L: SGL, or DRL, 6-12m
- Standard & Grade: ASTM A106, ASME SA106
- End: Plain end, Beveled, Threaded, with plastic connection, screwed and socket
- Application: Oil and gas Industry, Water Industry, Mineral slurry transmission Industry, Boiler Industry, Construction Industry, Structural purposes Industry



CARBON STEEL PIPES

4- ASTM A252 Pipe

What is ASTM A252 Pipe

ASTM A252 is the standard specification for welded and seamless steel pipe piles. It covers the nominal wall thickness of cylinder shape steel pipe, rectangular pipe is not included. These round pipes are used for piling purposes, playing a permanent role in load carrying and bearing the pressure. Furthermore, to act as a tank shell to fill with the concrete piles at the sight of the project.

- Type: A252 Pipe, A252 Pipe Piling
- OD size: 6mm~80mm, WT: 0.7mm~30mm, L: 5m-48m or customized
- Standard & Grade: ASTM A252
- Ends: Plain end/Beveled ends, cut square, grooved, threaded and coupling, etc.
- Application: Buildings, Retaining walls, Different structures that need a tough base



5- EN10025 PIPE

What is EN10025 Pipe

EN10025 Pipes manufacturer produce these carbon steel pipes with carbon, silicon, manganese, phosphorus, and sulfur content. The carbon content is 0.2% of the total weight. The EN 10025 Steel Pipes is made in seamless and welded conditions. The difference between the two is that the welded pipes have larger diameters and high absolute roughness where the En 10025 Seamless Pipes have low absolute roughness and smaller diameters. The seamless pipes are cold drawn or hot rolled from the raw material where the welded pipes are welded from plates to form the BS 10025 Wn 1.0570 Round Pipe. There are square, rectangular, and hydraulic pipe types available as well. The En 10025-3 Square Pipes is used for structural applications where lightweight is preferred. The square shape provides extra strength. The En 10025 ERW Pipes is used in high pressure, high-temperature applications. The material has high corrosion resistance, temperature resistance, wear and tear resistance, and toughness. The preheating or post-weld heat treatment is not necessary to weld the En 10025 Cold Drawn Pipes and it could be welded with most traditional methods.

- Type: EN10025 ERW pipe, hot rolled pipe, mild steel tube
- OD: 19-406 mm. WT: 0.7-30mm. L: 5m-14m or customized
- Standard & Grade EN10025 Pipe
- End: Plain end/Beveled, protected by plastic caps on both ends, etc
- Application: Vehicle structure, Building construction, Bridges construction, Ship building

6- EN10219 Pipe

What is EN10219 Pipe

The EN 10219 steel tubes are utilized in various industries due to their impressive list of features. For instance, this grade of Carbon Steel EN 10219 steel tube offers many good properties such as good conductivity, outstanding resistivity, while being sturdy in nature. Also, since the carbon grade, EN 10219 steel tubes produced in our factory are manufactured from good quality raw materials, it tends to be durable. The fore-mentioned properties along with the long service life of the EN 10219 steel tube make it an attractive, yet a cost-saving option.

- Type: EN10219 Pipe, Carbon steel pipe
- OD: 219—1820mm, WT: 5.0 -50mm, L: UP to 12m
- Standard & Grade: EN10219
- End: Plain end/Beveled, protected by plastic caps on both ends, grooved, threaded and coupling, etc.
- Application: Civil engineering, Bridge engineering, Water engineering



STEEL FITTINGS



Steel Pipe Fittings Specification

About Steel Pipe Fittings

Carbon steel butt welding pipe fittings is the most widely used material in butt welding pipe fittings. Carbon steel is also called carbon steel, which refers to an iron-carbon alloy with a carbon content of W_c less than 2.11%.

Carbon steel generally contains a small amount of silicon, manganese, sulfur, and phosphorus in addition to carbon. One type of butt-welded pipe fittings is made of welded pipe. For pipe fitting manufacturers, the forming process of welded pipe is basically the same as that of seamless pipe. The forming process of butt-welded pipe fittings does not include welding process; the other is made of welded pipe. The welding process required by the pipe fitting manufacturer to complete the pipe fitting forming. Butt welding flange is one of the flange pipe fittings. It is widely used and promoted in different fields and industries. The scope of application is different and the environment that needs to be used is also different. It needs to be used under certain conditions. Butt welding elbows are completed by welding two steel plates. Generally, large-diameter elbows use this process. Generally, butt-welding elbows with a diameter above 600 are basically butt-welded elbows.

Carbon steel pipe fittings are currently the most widely used pipe fitting products. The main materials are Q235 20#, 35#, 45#, 16Mn.

The main products include carbon steel elbows, carbon steel flanges, carbon steel tees, carbon steel crosses, carbon steel reducers (small heads), carbon steel heads (pipe caps), etc. The main implementation standards include national standards, American standards, Japanese standards, etc. The Chinese standards include the Ministry of Chemical Industry standards, Sinopec pipe fittings standards, and power pipe fittings standards.

The High-Pressure Equipment Company has developed a series of high-pressure products to ensure safe and convenient pipe connections at 30,000, 40,000 and 60,000 psi. These needle valves, accessories, pipeline filters, check valves, safety heads, rupture disks, anti-vibration gland components, tubing and pacifiers are all designed to the highest standards of repeatable quality.

The high-pressure components use tapered and threaded connections to adapt to the high temperatures and high pressures common in these applications. The high-pressure valve has various sizes of pipelines to choose from and has a valve body design to meet a wide range of requirements. A series of accessories are provided to easily adapt to tapered sealing, medium pressure or other high pressure threaded pipe systems.

- Standard: ASME/ANSI B16.9, ASME/ANSI B16.28, JIS B2311, JIS B2312, DIN 2605, DIN 2615, DIN 2616, DIN 2617, GOST 17375, GOST 30753, GOST 17378
- Connection: Welded, Flanged
- Bending Radius: Short Radius (SR), Long Radius (LR), 2D, 3D, 5D, multiple
- Degree: 10° - 180° , or customized degree
- Size Range: Seamless type: 1/2" to 28", and Welded type: 28" to 80"
- WT Schedule: SCH10, SCH20, SCH30, STD, SCH40, SCH80, SCH100, SCH120, SCH140, SCH160, XS, XXS
- Carbon Steel: A234 WPB, WPC; A106B, ASTM A420 WPL9, WPL3, WPL6, WPHY 42WPHY-46, WPHY-52, WPHY[^]O, WPHY65, WPHY-70
- Alloy Steel: A234 WP1, WP11, WP12, WP22, WP5, WP9, WP91
- Special Alloy Steel: Inconel 600, Inconel 625, Inconel 718, Inconel X750, Incoloy 800, Incoloy 800H, Incoloy 825, Hastelloy C276, Monel 400, Monel K500, WPS 31254 S32750, UNS S32760
- Stainless Steel: ASTM A403 WP304/304L, WP316/316L, WP321, WP347, WPS 31254
- Duplex stainless steel: ASTM A815 UNS S31803, UNS S32750, UNS S32760
- Applications: Petroleum industry, chemical, power plant, gas piping, shipbuilding, construction, sewage disposal. And nuclear power etc.



STEEL FITTINGS



TEE
(EQUAL & REDUCING)



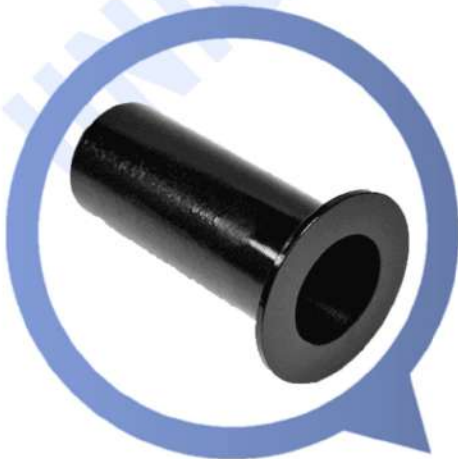
REDUCER
(CONCENTRIC & ECCENTRIC)



ELBOW 45°, 90°, 180°
(LONG RADIUS & SHORT RADIUS)



FABRICATED FITTINGS



STUB END



CAP



FLANGES



Flanges Specification

About Flanges

Pipe flanges are one of the most used connection types for pipes. These connections consist of three different parts: the pipe flange, a gasket, and bolting. They are used for various industrial applications, pressure classes, and media. They can connect piping in a system, connect components such as valves, containers, vessels, and many more applications. These connectors benefit from a straight-through connection without loss of flow or pressure. This article explores the most common pipe flange variants, their uses, and their most used applications. It also provides easy access for cleaning, inspection or modification. Joining is done using bolts that join two parts together, with a gasket in between to ensure the connection is leak-free. Piping is connected to the flange by use of a threaded connection, a weld such as the connection in Figure 2, or through the use of a stub-end.

Standard Type of Flanges

1- Welded Neck

This flange is circumferentially welded into the system at its neck which means that the integrity of the butt-welded area can be easily examined by radiography. The bores of both pipe and flange match, which reduces turbulence and erosion inside the pipeline. The weld neck is therefore favored in critical applications, a welding neck flange has a long-tapered hub that can be welded to a pipe. This type of pipe flange is used for high-pressure applications with high or low temperatures and offers an unrestricted flow of the media in the piping. Because there is no obstruction, there are no issues with turbulence, erosion, or corrosion of the joints. The pipe and flange should be connected through a full penetration V-shaped butt weld. The purpose of this type of weld is to transmit the full load-carrying capacity of the components.

2- Long welding neck

Like the weld neck flanges, although these flanges have an extended neck that is not tapered. The neck, in this case, acts as a bore extension. Industrial weld neck flanges are used in high-pressure applications and high temperatures. These flanges usually have the same bore sizes as pipes in the same system, although this can be adjusted as needed. Applications include those in the oil, gas, and petrochemical industries. They are often used as nozzles and to replace pipe sections, they can withstand higher pressures and find their use in water mains and factory piping systems. Long neck welding flanges usually have a square end instead of the beveled edge available on welding neck flanges, a butt weld joint connects the weld-neck flanges. For high-pressure applications such as drilling rig standpipes, welding the neck will make a strong connection and is a good option for pressure vessels.

3- Slip-On

This flange is slipped over the pipe and then fillet welded. Slip-on flanges are easy to use in fabricated applications, these flanges are similar to threaded flanges in appearance but lack the thread inside the flange. Instead, the pipe is held in place by two fillet welds, one on the outside of the flange and one on the inside. Also known as tee joints, these welds consist of two pieces of metal perpendicular to one another. The ID of the flange is slightly larger than the OD of the pipe. This allows the pipe to slide into the flange snugly before being welded into place.

4- Blind

Blind flanges seal or close a pipeline to block fluid flowing. It is easy to access the pipeline when the blind flanges are unbolted so that the operator can perform activities inside the terminal end of the pipeline, it can also be used as an inspection cover. It is sometimes referred to as a blanking flange. These are mounted against flat face-type joints.

5- Socket Weld

This flange is counter bored to accept the pipe before being fillet welded, the bore of the pipe and flange are both the same therefore giving good flow characteristics, these flanges are used primarily for small-size and high-pressure pipes. The pipe is slotted into the flange and held there using a solid fillet weld outside the socket flange. There should be an expansion gap between the shoulder and the end of the pipe. These flanges are not suitable for highly corrosive environments as the expansion gap between the pipe end and the socket's shoulder is susceptible to crevice corrosion.

FLANGES



6- Threaded

Threaded flanges are joined using the male thread on a pipe and the female thread inside the bore of the flange. Typically, these do not need to be welded together, although doing so will strengthen the connection. If the connection is not welded, a thread tape or liquid sealant is recommended. This flange type is generally used for relatively low pressure and low temperatures, such as water and compressed air. In gasoline stations and other areas where the risk of explosions is high, threaded flanges are mandatory. Welding in these environments would pose a significant danger.

7- Lap Joint

These flanges are always used with either a stub end or taft which is butt welded to the pipe with the flange loose behind it, this means the stub end or taft always makes the face. The lap joint is favored in low pressure applications because it is easily assembled and aligned, to reduce cost these flanges can be supplied without a hub and/or in treated, coated carbon steel. The use of lap joint flanges effectively minimizes the cost of connections in stainless steel or nickel alloy pipeline systems. These flanges are always used in combination with stub ends so that the flange itself can be of a lower grade, cheaper, material, such as carbon steel, while the stub end, which meets the media in the system, can be of the same material as the piping system. The pipe can be welded in place with a butt weld for extra strength.

8- Ring Type Joint

This is a method of ensuring leak proof flange connection at high pressures. A metal ring is compressed into a hexagonal groove on the face of the flange to make the seal, this jointing method can be employed on Weld Neck, Slip-on and Blind Flanges.

Other Flange types

Besides the more standard flange types mentioned above, more varieties have been designed for specialistic applications. Below we cover these specific types.

1- Nipoflange

Nipoflanges are used for pipeline branches at 90 degrees. Nipoflanges are formed by combining a welding neck flange with a forged Nipolet in a single piece of forged steel. Installing a Nipoflange involves welding the Nipolet part on the run pipe and bolting the flanged portion to the branch pipe.

2- Weldoflange

A Weldoflange is similar in design to a Nipoflange; they are a combination of a weld neck flange, and a branch fitting connection called a Weldolet. Weldoflanges are made of a single piece of solid forged steel.

3- Swivel flange

The swivel ring flange allows quick alignment of bolt holes on mating flanges. This feature is ideal for installing large pipelines, offshore and subsea pipelines that transport oil, gas, hydrocarbons, and other demanding fluids in petrochemical applications. Swivel flanges combine a welding neck on one pipe and the swivel on the other pipe. They are then connected by the rotation of the swivel flange on the pipe so that the bolts can be connected easily.

4- Expander flange

Expander flanges are used to increase the bore of the pipeline from one specific point to another or connect pipes to other mechanical devices such as pumps, compressors, and valves with different inlet sizes. Expanding flanges can only increase the run pipe bore by a maximum of two sizes. A standard flange and a butt weld reducer should be used for larger pipe bore increases.

5- Reducer flange

The function of a reducer flange is opposite that of an expander flange. A reducer flange allows the pipeline bore to be decreased. It is only safe to reduce the bore of the run pipe by one or two sizes; otherwise, a butt weld reducer and a standard flange must be used.

6- Storz flange

Storz couplings are often used and designated as fire hose couplings. However, they have wide usage in many industries, including refineries, agricultural, construction, maritime safety, and military use due to their resistance against corrosion, acids, and water. The Storz flange has a Storz coupling on one side, and a flat face on the other.



FLANGES



Materials

- Carbon Steel: ASTM A105, ASTM A350 LF1, LF2 CL1/CL2, LF3 CL1/CL2, ASTM A694 F42, F46, F52, F56, F60, F65, F70.
- Stainless Steel: ASTM A182 F304/304L/304H, F321/321H, F316/316L/316H, F310, F317/317L, F44(UNS S31254), F347
- Alloy Steel: ASTM A182 F1, F5a, F9, F11, F12, F22, F91.
- Duplex & Super Duplex Stainless Steel: ASTM A182 F51/UNS S31803, F53/UNS S32750, F55/UNS S32760.
- Special Alloy: Inconel 600, Inconel 625, Inconel 718, Inconel X-750, Incoloy 800, Incoloy 800H, Incoloy 825, Hastelloy C276, C22, Monel 400, 600, K-500.

Face Type

The choice of face type will significantly impact flanges' performance and service life. A flange's facing determines both the type of gasket required for installation and the characteristics of the seal it creates. Below is an overview of the most common face variants.

- Flat Face (FF): A flat face flange has an even, flat surface combined with a full-face gasket covering a large portion of the flange surface.
- Raised Face (RF): These flanges are equipped with a small raised ring around the bore and a gasket inside the bore circle.
- Lap Joint (LJ): The lap joint connection means that the stub end facing is also the flange facing; this makes it similar to the raised face.
- Ring Joint Face (RTJ): The grooves and raised areas in these flanges match. This design provides a reservoir for gasket adhesive and allows the flanges to self-align during installation.
- Male & Female (M&F): The gasket is secured with matching grooves and raised sections, similar to tongue and groove flanges. In contrast to tongue and groove flanges, these retain the gasket on the female face, providing more accurate positioning and a more comprehensive range of options for gasket materials.
- Seal finish: Many types of faces have either a serrated or smooth finish. It is important to choose between the options because this will determine the optimal gasket for a reliable seal. Metallic gaskets are best used with smooth faces, while soft gaskets benefit from serrated faces.

Application

Water, Petroleum, chemical, machinery, electric power, shipbuilding, papermaking, construction, Sewage, etc.

Sizes that we can Supply

We can supply to cover the size range from 1/2" up to 160", DN-15 up to DN-4000

Pressure for Flange

PN-2.5 up to PN-100, Class 150 up to Class 2500

Standard

ANSI B16.5, ASME B16.47 Series A (MSS SP-44), ASME B16.47 Series B (API 605), ASME B16.48, ASME B16.36, ASME B16.9, AWWA C207, API 6A, API 598, EN 1092-1, DIN 2627, DIN 2638, DIN 2527, DIN 2543, DIN 2576, BS 3293, BS 4504, BS 10/1962, AS2129, GB/T9112-9124, JB/T74-86.2, HG20592-20635, HG20592, SH3406, JB4701-4703

Surface

Anti-rust Oiled, Black/Yellow/Blue/Red Painting, Hot Dipped Galvanized, Zinc-Plated



UPVC PIPES & FITTINGS

Unplasticized Polyvinyl Chloride Pipe

UPVC is a type of plastic that is used in a variety of applications, from plumbing to window frames. It is made from PVC resin, which is combined with other chemicals to create a strong and durable material. UPVC is an excellent choice for piping because it is resistant to corrosion, chemical damage, and weathering. UPVC pipes are available in a variety of sizes and can be cut to fit any application. They are easy to install and require minimal maintenance. UPVC pipes are also much more cost-effective than other types of piping materials.

There are two main types of UPVC pipes: pressure pipes and gravity pipes. Pressure pipes are designed for use in high-pressure applications, such as irrigation systems or water supply lines. Gravity pipes are used in low-pressure applications, such as drainage systems.

UPVC pipes are an excellent choice for any piping application because of their many advantages. They are durable, easy to install, and require minimal maintenance. If you are looking for affordable and reliable piping material, UPVC is the way to go!

Advantages of UPVC Pipe

- **Non-Toxic:** UPVC pipes are made from PVC resin, which is a non-toxic material. This makes UPVC an excellent choice for potable water applications. Since UPVC is non-toxic, it will not leach chemicals into the water supply. UPVC pipes are also FDA-approved for use in food and beverage applications. This makes UPVC an excellent choice for piping in restaurants, hospitals, and other food service applications. UPVC Pipes behave neutrally irrespective of the nature of their carrier fluid/water and since they are completely odorless and tasteless, which makes them the safest bet for drinking water transportation. What's more important is that UPVC pipes are 100% lead-free, which means they are safe for your family.
- **Durable:** UPVC pipes are extremely durable and can last up to 100 years with proper maintenance and assuming pipelines are installed as per the engineer's design and installation is done by adhering to the standard pipeline installation and jointing procedures. This makes UPVC an excellent choice for long-term piping projects. UPVC is also resistant to corrosion, chemical damage, and weathering. This means that UPVC pipes will not rust, rot, or degrade over time.
- **Easy to Install:** UPVC pipes are easy to install because they are lightweight and can be cut to fit any application. UPVC pipes are also easy to join using solvent cement or threaded fittings. This makes UPVC an excellent choice for do-it-yourself projects.
- **Low Maintenance:** UPVC pipes require minimal maintenance and are easy to clean. This makes UPVC an excellent choice for piping in hard-to-reach places. UPVC pipes are also resistant to scale build-up, so they will not need to be descaled like other types of piping materials.
- **Cost-Effective:** UPVC pipes are very cost-effective because they are easy to install and require minimal maintenance. UPVC is also an environmentally friendly material that can be recycled. This makes UPVC an excellent choice for sustainable projects.
- **Leak Resistant:** UPVC pipes are extremely leak resistant because they are made from a single piece of material. This makes UPVC an excellent choice for high-pressure applications. UPVC pipes are also less likely to burst in freezing temperatures.
- **Smooth Flow:** UPVC pipes have a smooth inner surface that reduces friction and increases flow. This makes UPVC an excellent choice for piping applications that require high water volume.
- **Acid Resistance:** UPVC pipes are resistant to acid damage, making them an excellent choice for chemical processing applications. UPVC is also resistant to alkalis, salts, and other corrosive materials.
- **Temperature Resistance:** UPVC pipes can withstand temperatures up to 60 degrees Celsius without deforming. This makes UPVC an excellent choice for hot water applications. UPVC is also resistant to cold temperatures and will not burst in cold weather.

Field of Application

- Water supply lines
- Sewer lines
- Solid, Waste, and Drainage systems
- Irrigation systems
- Electrical and Telecommunications Cables
- Industry
- Mining



UPVC PIPES & FITTINGS

Types of UPVC Pipes

- **Solid Wall UPVC Pipes**

Solid wall UPVC pipes are the most common type of UPVC pipe. They are made from a single piece of material and have a smooth inner surface. Solid wall UPVC pipes are available in a variety of sizes and can be used for a variety of applications, including drainage, sewer, water supply, and electrical conduit.

- **Cellular Core UPVC Pipes**

Cellular core UPVC pipes have an inner layer of foam that makes them lighter than solid wall UPVC pipes. Cellular core UPVC pipes have various applications, including insulation, soundproofing, and impact absorption.

- **Multi-Layer UPVC Pipes**

Multi-layer UPVC pipes are made from multiple layers of material bonded together. They are available in a variety of sizes and can be used for a variety of applications, including drainage, sewer, water supply, and electrical conduit. Multi-layer UPVC pipes are more resistant to chemical damage and temperature fluctuations than a solid wall or cellular core UPVC pipes.

Manufacturer Standard of UPVC Pipe

- DIN: 8062, 19531, 19532, 19534
- ASTM: 1785, D-2241, F-512
- BS: 3505, 3506, 5481, 4660, 4514, 5255, 2665, 6099, 4607
- EN: 1452, 1329, 1401
- NEMA: TC-2, TC-6, TC-8V
- ISO: 161/1
- SSA: 255/1981
- SASO: 14

End of Pipes

- Rubber Ring
- Solvent Cement

Sizes of Pipe that we can Supply

We can supply to cover the size range as a below:

- DIN Standards from 20mm, up to 1200mm outside diameter
- ASTM are ranging from 1/2 inch up to 8 inches in various pressure
- (SCH 40, SCH 80) with white and gray color.

Range of Pipe Pressure that we can Supply

From 4 Bar up to 16 Bar



UPVC PIPES & FITTINGS

Materials of Fittings

- **Fittings:** UPVC (unplasticized polyvinyl chloride)
- **Gaskets:** EPDM (Ethylene - Polypropylene Rubber) FPM (Fluor carbonic - Rubber)
- **Other materials are available on request.**

Manufacturer Standard of UPVC Fittings

Jointing Fittings According to: ISO 727, DIN 8063, UNI 7442/75, KIWA 54, NFT 54/028, BRL-K 17301, EN ISO 1452.

Threaded Fittings According to: ISO 71/, DIN 2999, BS 21, UNI ISO 2281. BS 4346/1

Sizes of Fittings that we can Supply

We can supply to cover the size range as a below:

- Jointing Fittings from 16mm, up to 400mm outside diameter
- Threaded Fittings from 3/8 inch up to 4 inch.

Pressure temperature of Fittings

The maximum working pressure is 16 kg/cm² (227,6 PSI) from -20°C to +25°C. Above +25°C the working pressure decrease by a linear way down to 4 kg/cm² (56,9 PSI) to +60°C.

THERMAL EXPANSION

The thermal coefficient of linear expansion for PVC is $7 \times 10^{-5} / ^\circ\text{C}$. It is necessary in certain situations to make special provision for this expansion and contraction.

METRIC SERIES

Fittings U-PVC of metric series can be glued to each other and on pipes in the same material provided the sizes and tolerances are in accordance with the standardizations and tolerances given, a strong, dense-type glue is recommended, especially for coupling large diameters, where the clearance may be high due to the ovalization effect; such clearance anyhow, in order to guarantee a perfect seal, should never exceed 0,6 mm with a dense-type glue and 0,3 mm with a fluid-type glue. To obtain a perfect gluing, it is recommended that the glue manufacturer's instructions be strictly followed. These instructions can be summarized as follows:

- remove all traces of grease, oil or simply dust from both the pipe (properly cut at 90° and beveled at the tip) and the fitting by means of a clean cloth soaked in diluent.
- apply by a suitable brush, a uniform layer of glue, both to the fitting and to the pipe, so as to cover the entire surface to be glued.
- immediately (in 1 to 2 minutes) insert the part to be glued in the female keying of the fitting.
- it is recommended that all glue in excess, which is not held by the coupling, be quickly removed.

It is also recommended that freshly glued parts should not be submitted to mechanical stresses. The glue manufacturer's instructions concerning how long to wait before handling, and concerning sticking and pressure testing the system should be carefully followed.

THREADED SERIES

Fittings in U-PVC of the threaded series or of the adaptor series can be screwed to each other or to pipes and other threaded parts in other materials in accordance with the rules. In order to obtain easy screwing and perfect seal, the use of high-quality PTFE tape is recommended in a quantity sufficient to avoid clearance without causing too tight shutting. The use of hemp, tow and lint, usually employed for metal fittings, is to be absolutely avoided. Such materials, contrary to what happens with PTFE, are not rejected by coupling even when used in excess, making the female fitting expand in such a way as to cause breakages both during the assembly stage and later, during operation.

SOLVENT CEMENT

The correct solvent cement, which creates a bond between pipe and fittings, must be used for solvent welding.



CORRUGATED PIPES & FITTINGS

About Corrugated Pipe

High-density polyethylene (HDPE) double-wall corrugated pipe is a new type of pipe with smooth inner wall and ring-shaped outer wall structure. It is an environmentally friendly product that combines the corrosion resistance of plastic with the toughness of steel. It has strong pressure bearing capacity, lightweight, simple installation, safety and reliability, good sealing performance, and strong corrosion resistance.

Corrugated HDPE pipes are starting to use on infrastructural systems for removing and carrying wastewater and liquids, Corrugated pipes have superior resistance against waste waters, chemical materials, corrosion, and bad environmental conditions Corrugated pipes are also resistant to heavy traffic and soil loads because of their special designs, Corrugated pipes don't affect from seismic movements because of their flexible structures. They provide great fluidity speed and can't hang on any dreg and conglomeration due to their inner surfaces smooth structure and low adhesion coefficient; they are completely hygienic and don't include toxic materials, other pipe types left rapidly because of their low resistance and high cost, HDPE corrugated pipes have service life at least 50 years. Corrugated pipes and pieces produced from high density polyethylene as two walls.

Advantages of Corrugated Pipe

- Economic and low cost
- Friendly for the environment
- Lightweight and flexible
- Easy installation and low maintenance
- High fluidity and low friction coefficient
- Durable and long life
- Inert Chemically

Field of Application

➤ HDPE Double Wall Corrugated Pipes are mainly used in:

- Drainage projects.
- Sewage pipeline projects.
- Storm water discharge projects.
- Sub-roadway wastewater carriage projects.
- Power cable protection projects.
- Wastewater discharge pipeline projects and storm water discharge projects as perforated pipe — slotted pipe.

➤ Steel Reinforced Corrugated Pipes are mainly used in:

- Drainage pipeline
- Big airports underground infrastructure projects
- Sub-railway passage projects
- Stadium sewage network projects
- Big irrigation pipeline projects
- City sewage network projects
- Storm water discharge projects
- Discharge of underground water projects to produce big manholes.



CORRUGATED PIPES & FITTINGS

Types of Corrugated Pipe

- **HDPE Corrugated Pipes — Double Wall Corrugated Pipes:**

HDPE Corrugated Double Wall Pipes are produced as SN 2, SN 4, SN 6 and SN 8 as their corrugated pipe diameter table. Corrugated Pipes outer surface of the corrugated and the smooth inner surface of the double-walled and because produced from HDPE have high resistance against corrosion. Uses of the HDPE Corrugated Double Wall Pipes, drainage projects produce as Perforated Corrugated Pipe and Corrugated Pipe. Use of Corrugated pipe minimum life of 50 years and when used in accordance with the SN value of the project and can be use more years accurate by using appropriate methods.

Double Wall Corrugated Pipes used in sewerage projects, industrial waste transportation, storm water drainage and drainage waters transportation project. Corrugated Pipe thanks to its flexible structure demonstrate compliance with the underground motion. Corrugated Pipes provide many years of trouble-free operation in infrastructure projects. Corrugated pipes ensure a longer life of the filling being laid solid ground.

Corrugated Pipes have superior corrosion resistance, provide ease transportation because of lightness. By combining the floor seals are completed quickly. Due to the sealing properties do not spread sewage into the groundwater. Corrugated Pipes are usually produced in 6 m lengths.

- **Spiral Corrugated Pipes — Steel Reinforced Corrugated Pipes:**

Spiral Corrugated Pipes — Steel Reinforced Corrugated Pipe is produced by HDPE raw materials and usually known as larger diameters (diameters of 500 mm and above) are preferred for. In the welding of Corrugated Spiral Pipes combined by electrofusion coupler method therefore once assembled with tightness level reached a maximum and doesn't disperse on. Spiral Corrugated Pipes — Steel Reinforced Corrugated Pipe are using even if the terrain is gravelly which will be laid is prevent fracture due to the resiliency. The lengths are usually produced as 6 meters and 7 meters of Spiral Corrugated Pipes — Steel Reinforced Corrugated Pipe. However, in order to provide advantages in transportation costs in the local shipments 14 meters and produced 13.5 meters for abroad and the vehicles are loaded with the maximum volume for take optimum loadings.

Corrugated Pipe Standards

TS EN 13476-3, TS EN 13475-1, TS 12132, DIN 16961, EN 155, EN 13476

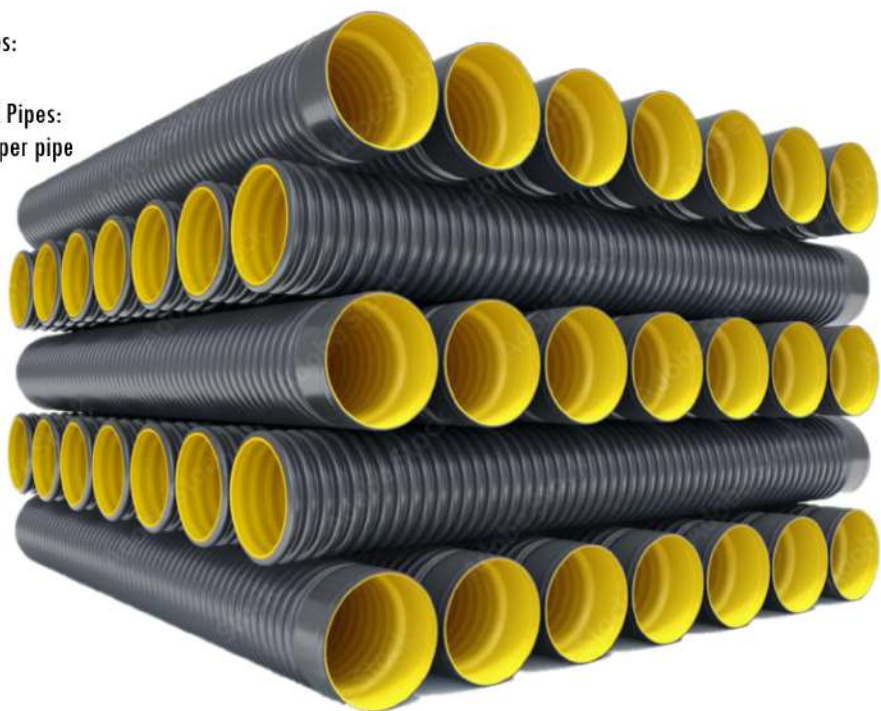
Sizes of Pipe that we can Supply

We can supply to cover the size range and length as a below:

- HDPE Corrugated Pipes — Double Wall Corrugated Pipes:
100mm up to 600mm in 6 meters per pipe
- Spiral Corrugated Pipes — Steel Reinforced Corrugated Pipes:
500mm up to 3600mm in 5.8, 6, 11.8, 12, 13.5 meters per pipe

Sizes of Fittings that we can Supply

- Socket
- Reducer
- Elbow 45° and 90°
- End Cap
- Tee Equal and Reducing
- Tee for PVC Connection
- Y shape
- Y shape for PVC Connection
- Adaptor for PVC
- Adaptor



WELDING MACHINES

WE ARE LEADING DISTRIBUTOR FOR MANUFACTURERS OF WELDING MACHINES

we are specialized in the sale of thermoplastic welding equipment. Designed to combine industrial-grade design, performance, and quality.

We offer different levels of programs for different markets where they are suitable.

We are specialized in Electrofusion welding machines and butt-welding machines.

we can design and supply automatic, manual, hydraulic, and standard and non-standard welding machines according to the requirements of different users, with warranty and lifetime.



WE CAN GO TO COMPETITIVE

Providing professional one-stop procurement service for customers with excellent quality, competitive price, convenient transportation, and timely delivery.

KIND OF WELDING MACHINES

➤ **ELECTROFUSION WELDING MACHINES**

➤ **BUTT-WELDING MACHINES**



ELECTROFUSION WELDING MACHINES

About Electrofusion Welding machines

Electrofusion welding machines are welding machines used to fix two plastic pipes together with the help of fittings. The machines controlled by a computer are functional on HDPE-PP-PVDF pipe types. It is used in connection parts between 10 and 32 bars. Conformity to international standards has been determined as ISO 12176-1. It is light and offers easy installation. The working power of the machines suitable for working at $-15^{\circ}\text{C} \sim +60^{\circ}\text{C}$ ambient temperature is 120 Amps.

Machines called HDPE machines connect polyethylene pipes and fittings. In this way, the pipes attached to each other are used according to the purpose. It becomes functional with the help of additional parts in connecting pipes made of materials other than polyethylene.

Electrofusion Welding Machines Working Method

In the electrofusion method, the pipes placed in the fittings are connected to the welding machine. These machines work with a barcode system. Heat transfer is made according to the information received from the barcode on the piece. In this way, HDPE pipes followed by electrofusion parts are combined.

With this method, HDPE pipes from 20 mm to 1600 mm in diameter are combined. After the welding is completed, the resource report can be obtained. The welding machine is operated with 220 V electricity by the welding operator. HDPE electrofusion welding machines work automatically.

Electrofusion Welding Machines Used

Electrofusion welding can be done in all areas where HDPE pipes are used such as Subway water supplies, plumbing, drinking water, building, hydraulics, construction, and engineering. Electrofusion welding machines provide ease of use and transportation savings with their light structure. It plays an important role in the repair of pipes thanks to its fittings and offers long-lasting products.

Technical Features of Electrofusion Welding Machines

Welding machines offer many advantages as HDPE pipe electrofusion welding machine; It provides a combination of pipes in PE, PP, PVDF material. It provides the connection of pipes with fittings up to a diameter of 40 mm and 2800 mm.

These machines adapt to every work area. Since it is easy to move, it provides great convenience to the operator and the company that makes the transaction. Welding made by the electrofusion method is durable. It does not require any subsequent control. It protects the structure of the pipes and does not damage the pipe. Thanks to the technological possibilities it offers, the welding is completed quickly.

Electrofusion welding machine provides a reliable and cost-effective solution for industrial applications. This welding technique is particularly useful when joining large components or pipes that require a high-strength weld. The process is fast and efficient, and the resources are strong and reliable.

Electrofusion welding machines are easy to use and require minimal training, making them suitable for a wide variety of industrial applications. Machines that can be used to join materials of various thicknesses and sizes, and welds are highly resistant to corrosion and other environmental factors.

The electrofusion welding machine is also safe and reduces the risk of hazardous fumes and other hazardous materials. Overall, the electrofusion welding machine is an excellent choice for industrial applications and provides a reliable and cost-effective solution for joining components and pipes.

Types of Electrofusion Welding machines that we Can Supply

We can supply many types of Electrofusion welding machines, that have different of working range

- 20mm up to 160mm
- 20mm up to 315mm
- 20mm up to 630mm
- 20mm up to 1200mm
- also, we can supply one machine for all size of Fittings



BUTT-WELDING MACHINES

About Butt-Welding machines

Butt-fusion welding machine is an innovative tool used to weld two pieces of metal together using the method of butt joint welding. Similar to gas or arc welding, thermal energy is used to melt and fuse the metal parts together. This kind of weld is incredibly strong because it creates a deep pool of molten metal that rapidly cools, forming a solid and dependable bond.

Butt welding machines are lightweight and easy to operate, making them great for use in custom fabrication shops, manufacturing plants, auto repair garages, and more. They can be adapted to suit all kinds of different industrial applications which ensures they remain a go-to option for many users. Butt welding machines and CNC Butt welding machines are highly efficient and Butt-welding machines are manufactured with the latest technology. We can get yield in the most difficult terrain conditions, we can combine PE, PP, PVDF plastic pipes and fittings with by using Butt Welding machine. Clean water, wastewater, sea discharge etc. It can be used in all areas where liquid transfer is done. Butt welding machines work with hydraulic system. The electrical type is 380V (three- phase). 220V (single- phase) production can be done in some machine sizes.

The benefits of using a Butt-welding machine

For those in need of a reliable, efficient welding machine, there are many advantages to using a butt-welding machine. Butt welding machines are perfect for joining pieces that require precision because they create ultrasonic welds with speed and accuracy while producing very little heat. This helps protect the integrity of the materials being joined, ensuring that no unwanted warping takes place.

Additionally, butt welding machines allow welders to join lightly coated metals with ease, making them ideal for those needing to join bigger projects like pipelines and boats. Thanks to their portability and easy setup, butt welding machines offer an intuitive workflow for operators big or small.

How to use a butt-welding machine

Using a butt-welding machine is relatively easy and straightforward, especially with the introduction of computer-based models. This powerful welding equipment is specially designed to easily fuse together two pieces of metal that fit into the machine — typically at right angles — and that can be used to create strong bonds in many different applications and types of material.

To use the welding machine safely, remember to read through the user manual before starting, wear protective gear while operating it, keep your workspace organized and clear, and ensure that all settings are adjusted correctly for the type of metal being worked on. With these points in mind and following any safety protocols specified by local laws or regulations, you'll be able to master using a butt-welding machine quickly and efficiently.

Intend of Use

Butt Welding Machines connect PE, PP; PVDF plastic pipes with diameters from Dia. 40 to Dia. 2000 in proportion to machine sizes and their attachments through butt welding using a heating system.

Area of Use

Butt Welding machines can be used in all areas where liquids are transferred such as clean water, waste water, sea discharge, etc. through plastic pipes made of PE, PP; PVDF.

Method of Operation

Butt Welding machines operate on a hydraulic system. The power type required to operate the machine is 380V (triphase) however for certain machine sizes 220V (Monophase) can also be supplied based on user preference.

Size of Butt-Welding machines that we Can Supply

We can supply many types of Butt-welding machines, that have different of working range
40mm up to 160mm, 90mm up to 250mm, 90mm up to 315mm, 160mm up to 400mm,
180mm up to 500mm, 315mm up to 630mm, 500mm up to 800mm, 630mm up to 1000mm,
710mm up to 1200mm, 1000mm up to 1600mm, 1600mm up to 2000mm

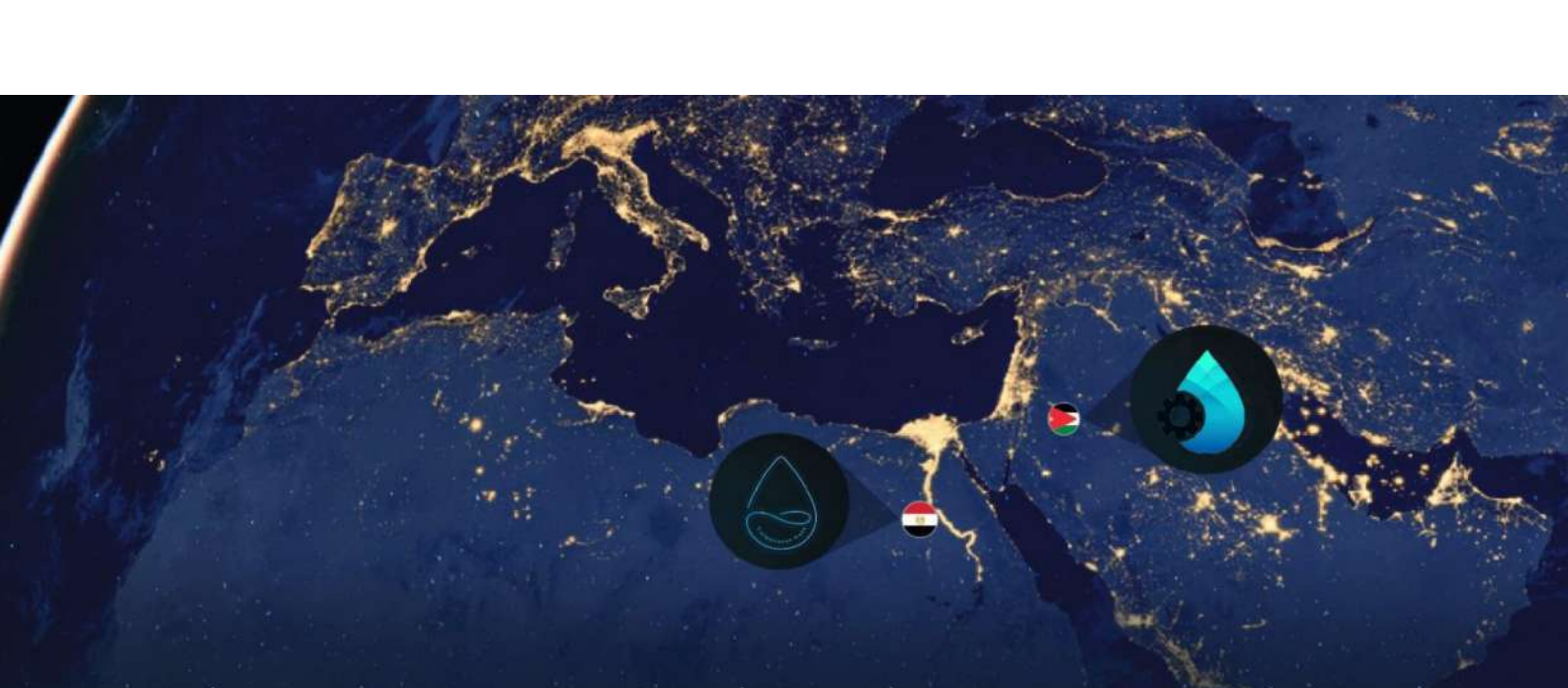


NOTES



UNIQUENESS GATE Group





UNIQUENESS GATE GROUP

UNIQUENESS GATE FOR SUPPLY WATER NETWORKS – JORDAN

Website: www.uniquenessgategroup.com

Email: info@uniquenessgate-jo.com

Tel.: +962 6 420 6364 - Fax: +962 6 420 6374

Mob.: 0777786008 - 0797151025

Headquarters Address: Qasim Building, Al-Sakhrh Al-Musharafah Street, Amman, Jordan

UNIQUENESS GATE FOR GENERAL SUPPLIES – EGYPT

Website: www.uniquenessgategroup.com

Email: info@uniquenessgate-eg.com

Mob.: 01226100099 - 01220609602 - 01200080634

Headquarters Address: Beverly Hills, El Sheikh Zayed City, Giza, Egypt