

Piping

1. Mild Steel (MS) Piping

Applications

- **Industrial Process Pipelines:** MS pipes are widely used in industries for transporting fluids such as oil, gas, and chemicals. Their durability and strength make them suitable for demanding industrial applications.
- **Oil and Gas Industry:** MS pipes are commonly used for transporting oil and gas in both upstream and downstream operations. Their durability and resistance to extreme conditions make them ideal for this critical application.
- **Water Supply Systems:** MS pipes play a crucial role in water distribution networks for industrial, commercial, and residential areas due to their robustness and corrosion resistance.
- **Fire Protection Systems:** MS pipes are essential components in fire sprinkler systems, ensuring a reliable and effective water supply for firefighting.
- **Water Treatment Plants:** MS pipes are employed in water treatment facilities for the distribution of treated water. Their resistance to corrosion is particularly important in this application.

Installation Processes:

- **Welding Techniques:** Utilization of welding methods suitable for mild steel, such as arc welding and oxy-fuel welding.
- **Pipe Routing:** Precise planning and routing for optimal efficiency and functionality.

2. Stainless Steel (SS) Piping

Applications

- **Chemical and Petrochemical Industries:** SS pipes are employed in transporting corrosive chemicals and substances where corrosion resistance and material purity are critical.
- **Food and Beverage Processing:** SS pipes are used in the food industry for conveying food-grade materials, maintaining hygiene standards, and preventing contamination.
- **Pharmaceutical Industry:** Stainless steel piping is vital for transporting pharmaceutical products in sterile and corrosion-resistant conditions, meeting stringent regulatory requirements.

Installation Processes:

- **Welding:** Specialized welding techniques, such as argon welding or Orbital Welding, for clean & precise joints.
- **Passivation:** Post-installation treatment to enhance the corrosion resistance of stainless steel.



3. Copper Piping

Applications

- **Heating Systems:**

Radiant Floor Heating: Copper pipes are integral components in radiant floor heating systems, where warm water circulates through pipes beneath the floor, providing efficient and even heating.

Boiler Systems: Copper is a common material in boiler systems, where it efficiently transfers heat, contributing to the overall performance and energy efficiency of the system.

- **Medical Gas Systems**

Hospitals and Healthcare Facilities: Copper pipes are used for transporting medical gases in healthcare facilities due to their cleanliness, resistance to bacterial growth, and ability to maintain gas purity.

- **Refrigeration Systems:**

Commercial Refrigeration Units: Copper piping is crucial in refrigeration systems, ensuring the efficient and reliable transport of refrigerants. Its excellent thermal conductivity contributes to the overall efficiency of the refrigeration process.

- **Industrial Applications:**

Manufacturing Processes: Copper pipes find application in various industrial processes where a reliable and corrosion-resistant material is required for fluid transport.

Chemical Processing Plants: In certain chemical applications, where copper's resistance to corrosion is advantageous, copper pipes may be used for the transport of specific chemicals

- **Installation Processes:**

Soldering and Brazing: Copper pipes are often joined using soldering or brazing methods, creating strong and durable connections.

Proper Bending Techniques: Copper's malleability allows for easy bending, ensuring smooth and efficient routing in complex plumbing or HVAC systems.

Pressure Testing: Rigorous pressure testing to ensure the integrity and leak-tightness of copper piping installations.



4. Polypropylene Random Copolymer (PPR) Piping

Applications

Hot and Cold Water Systems: PPR pipes are widely used in plumbing systems for residential, commercial, and industrial buildings due to their resistance to scaling and corrosion.

- **Heating Systems:** PPR pipes are suitable for use in radiant floor heating and radiator connections, providing efficient heat transfer.
- **Chemical Transportation:** PPR pipes, with their chemical resistance, find application in certain chemical conveyance scenarios, especially where corrosive substances are handled.
- **Residential Plumbing:** PPR pipes are commonly used in residential plumbing systems for hot and cold water supply. Their smooth interior surface minimizes scaling and ensures a consistent flow.
- **Radiant Floor Heating Systems:** PPR pipes are suitable for radiant floor heating systems, providing efficient heat distribution across floors in residential and commercial buildings.
- **Chemical Laboratories:** PPR pipes find application in laboratories for conveying certain chemicals. Their resistance to corrosion and chemical inertness makes them a safe choice

Installation Processes:

- **Thermal Fusion Welding:** Joining PPR pipes using heat to create a strong, seamless connection.
- **Proper Jointing Techniques:** Ensuring secure and leak-free joints through correct fusion procedures.

5. Unplasticized Polyvinyl Chloride (uPVC) Piping

Applications

- **Water Supply Systems:** uPVC pipes are commonly used for the distribution of potable water in residential, commercial, and industrial settings due to their non-corrosive nature and long lifespan.
- **Drainage Systems:** uPVC pipes are effective for conveying wastewater and stormwater, offering durability and resistance to chemical degradation.
- **Irrigation Systems:** uPVC pipes are employed in agricultural and landscaping irrigation systems, providing a cost-effective and efficient solution for water transport.

Installation Processes:

- **Solvent Cement Jointing:** Joining uPVC pipes using solvent cement for a strong and watertight bond.
- **Proper Sloping and Supports:** Ensuring correct pipe inclinations and supports for efficient drainage.



6. Quality Control:

- **Inspection and Testing:**

Regular inspections during installation to ensure proper alignment, fit, and adherence to industry standards.

Non-destructive testing (NDT) methods for weld quality and integrity.

Pressure testing to verify the strength and integrity of the installed piping systems.

7. Key Features:

- **Material Expertise:**

Comprehensive knowledge of the properties and characteristics of MS, SS, PPR, and uPVC materials.

Selection of appropriate materials based on the specific requirements of each application.

8. Safety Measures:

Strict adherence to safety protocols during welding and installation activities.

Implementation of safety features in the design and layout of piping systems.

9. Client Satisfaction:

- **Communication and Collaboration:**

Close collaboration with clients to understand the unique needs of each application.

Regular updates on the progress of piping installation projects.

Flexibility to accommodate any adjustments or modifications based on client feedback.

- **Efficiency and Timeliness:**

Streamlined processes for efficient project completion without compromising quality.

Adherence to project timelines and deadlines.

Prompt response to client inquiries and concerns, ensuring a smooth and satisfactory project experience.



MS Pipe Work



SS Pipe Work



Copper Pipe Work



PPR Pipe Work



uPVC Pipe Work