Supplyable products of SOIT

1-Valve

2-Pump

3-Membrane

4-Siemens

5-Power plant equipment

Valve

Manufacturer's factory information

brand name: Eicmation

Main office location: Germany

Factory location: China

Eicmation®

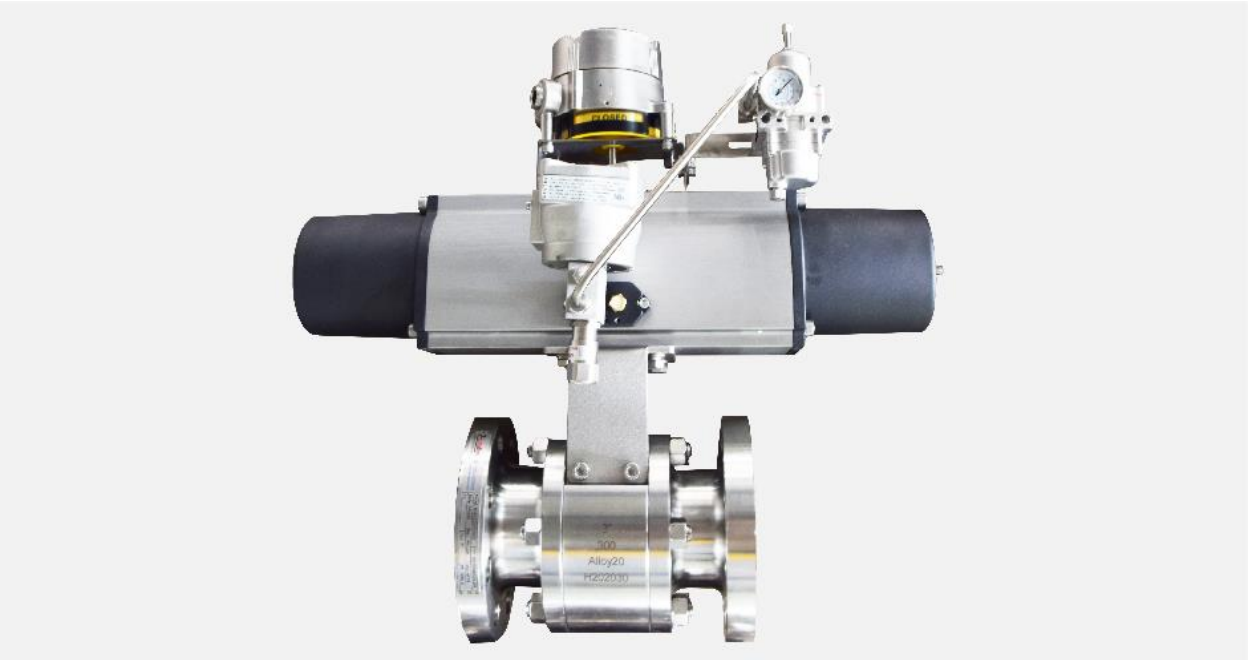
eicmation control valves system

List of products

1- Ball valve

1-1- Forged Steel Floating Ball Valve

A forged floating ball valve is an industrial valve primarily used in systems operating under high-pressure and high-temperature conditions. The valve body and components are made of forged steel. It is commonly employed in the oil and gas industries, petrochemicals, power generation, refineries, and chemical processing. This valve is ideal for applications demanding reliability, durability, and high performance in challenging operational conditions.



1-2- Trunnion Ball Valve

A trunnion ball valve is an industrial valve that uses a fixed ball to control fluid flow. Trunnion ball valves are used in industries such as oil and gas, petrochemicals, refining, power generation, and pipelines, where high pressure, high temperature, and large flow rates are encountered. They are also suitable for on/off applications. Their safe design and ability to withstand high pressures and temperatures make them essential in various industrial systems where safety and performance are top priorities.

1-3- Two Pieces Ball Valve

A two-piece ball valve is an industrial valve consisting of two main components: the body and the bonnet. These valves are commonly used in various industries, including oil and gas, petrochemicals, water treatment, and utilities. They are particularly suitable for systems requiring quick shutdowns. The design and functionality of this valve make it ideal for a wide range of applications where rapid closure is critical during emergencies.

1-4- High Pressure Ball Valve

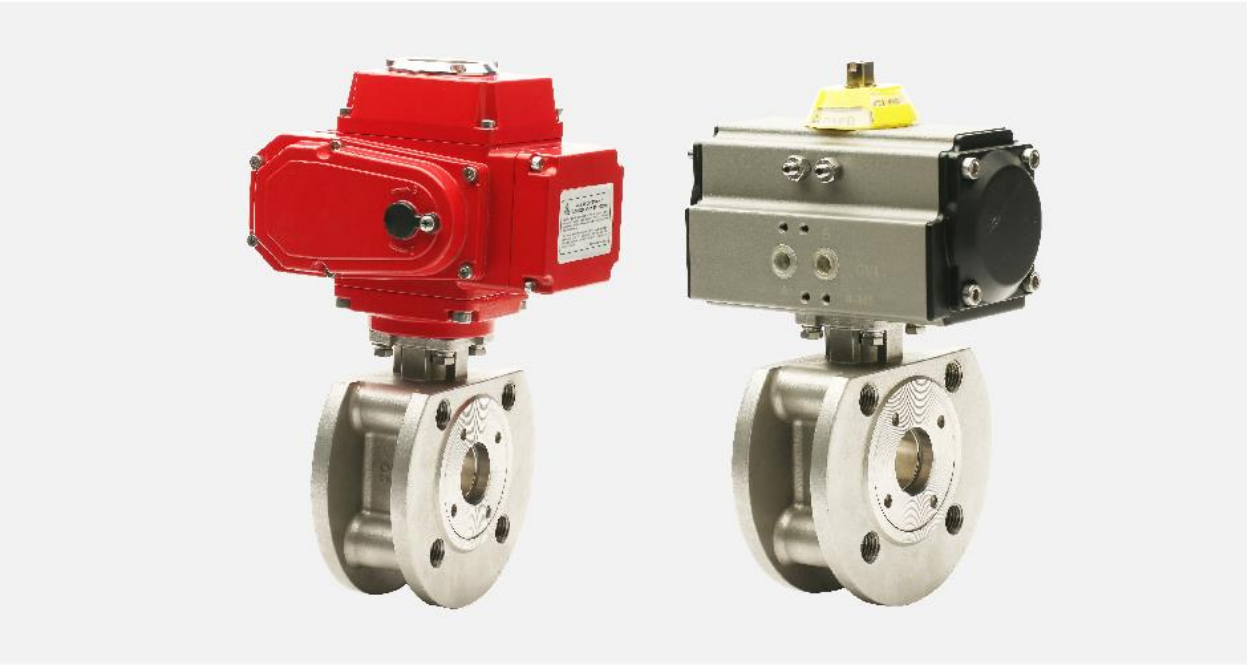
This is a type of valve designed for high-pressure systems. When the valve is open, the ball allows fluid to flow through its center, while in the closed position, it completely blocks the flow. These valves are commonly used in industries such as oil and gas, petrochemicals, power generation, and hydraulic systems, where controlling high-pressure fluids is crucial.

1-5- Three Pieces Ball Valve

A three-piece ball valve is a type of valve composed of three main components: the body, the ball, and external connections. Its three-piece design provides easier maintenance and repair compared to one-piece or two-piece valves. Due to its robust construction, ease of maintenance, and reliable performance, the three-piece ball valve is highly regarded in various industrial and commercial fluid control applications where frequent maintenance or hygiene is critical.

1-6- Wafer Ball Valve

A wafer ball valve is a type of valve designed to be installed between two flanges using bolts. Instead of having threaded or welded connections like traditional valves, the body of the wafer ball valve is positioned between the flanges. Wafer ball valves are commonly used in industries such as refineries, chemical processing, HVAC systems, water and wastewater treatment, and general industrial applications. They are favored by engineers and users for their compact design and reliable performance.



2-butterfly valve

2-1- Low Load Butterfly Valve

A low-load butterfly valve is specifically designed for operation in low-pressure or low-differential-pressure systems. These valves are typically lightweight and constructed with materials optimized for performance under low-pressure conditions. Low-load butterfly valves are commonly used in systems where the pressure differential across the valve is minimal, such as HVAC systems, water treatment plants, low-pressure industrial processes, and other applications where precise flow control at low pressures is essential.

2-2- Double Eccentric Butterfly Valve

A double eccentric butterfly valve, also known as a double offset butterfly valve, is designed with a flange that features two offsets from the center. These valves are widely used in industries such as oil and gas, chemical processing, water treatment, HVAC systems, and more. They are particularly suited for systems requiring precise flow control, offering enhanced sealing performance and reduced wear due to their unique design.

2-3- Concentric Butterfly Valve

The design of this valve enables it to control fluid flow and completely block the flow when fully closed. Centered butterfly valves are commonly used in industries such as water treatment, HVAC systems, chemical processes, and other industrial applications where reliable flow control is essential.

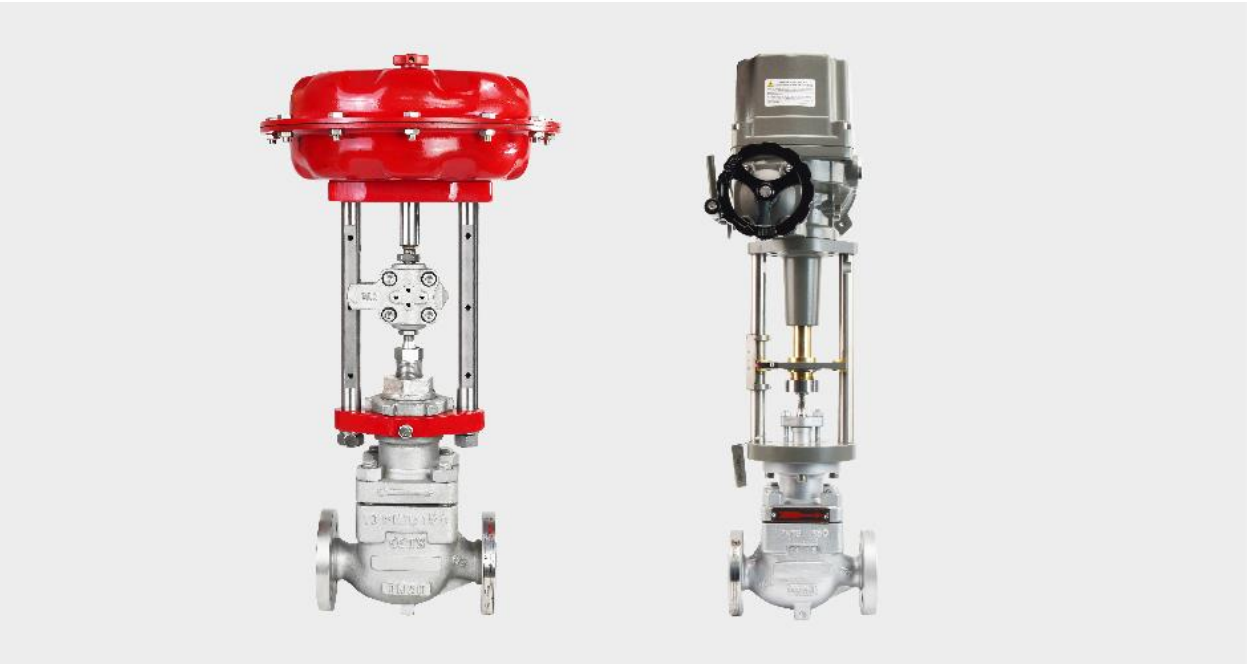
2-4- Triple Eccentric Butterfly Valve

This type of valve is used for controlling fluid flow in piping systems. It is specifically designed to improve performance and adapt to harsh operating conditions such as high pressures and temperatures. This valve enhances the sealing capabilities and performance of standard butterfly valves, enabling it to function effectively in industrial systems to prevent leaks and ensure optimal performance. They are often used in large systems where precise sealing is crucial, such as in power plants, oil refineries, and chemical industries.

3-control valve

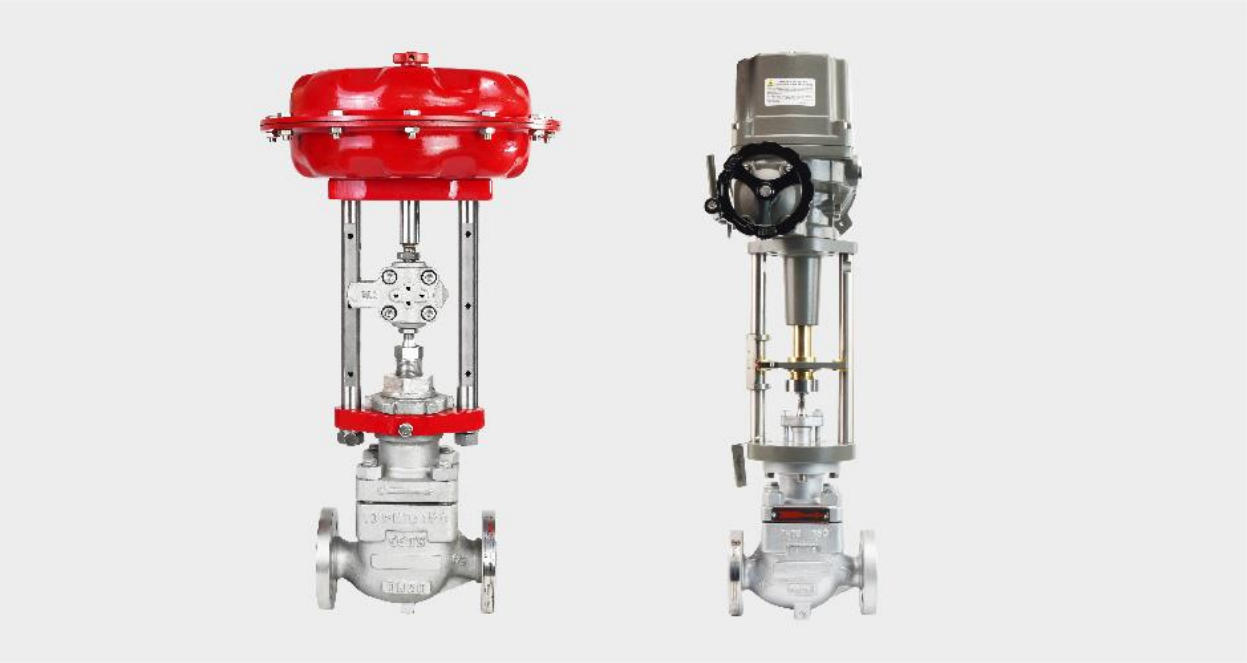
3-1- **Balance Type Control Valve**

This type of valve is used in fluid flow control systems based on the pressure conditions at the inlet and outlet of the valve to regulate flow precisely. These valves are typically used in systems that require accurate flow control and pressure reduction. They are commonly employed in industries such as oil and gas, chemical processes, power generation, and HVAC systems, where different process conditions demand precise control.



3-2- Unbalanced Type Control Valve

An unbalanced control valve is used in fluid flow control systems where the pressure at the inlet and outlet of the valve differs. Unbalanced control valves are applied in systems that require flow regulation under conditions where the inlet and outlet pressures are not equal. They may be used in various industries, including chemical processes, food processing, power generation, and more.



3-3- T Junction Type Control Valve

A T-junction control valve is a type of valve installed at the point where a main pipe splits into two branches. This valve is used to control the flow of liquids at this junction, allowing the flow to be controlled in two independent directions. They are used in industries such as chemical processes, water distribution networks, HVAC systems, and oil and gas pipelines.

HREE-WAY FLOW
CONTROL VALVE

4-gate valves

4-1- One-way Sealed Knife Gate Valve

One-way sealed knife gate valves are a type of industrial valve primarily used for controlling the flow of high-viscosity materials, such as powders, grains, and liquids containing suspended solids. A One-way Sealed Knife Gate Valve is a specific type designed for industrial environments to control the flow of slurry-like liquids while minimizing pressure drop in one direction. They are typically used in industries where controlling sticky liquids or materials with fine solids is essential, such as in water treatment plants, paper and pulp mills, mining operations, and chemical processing plants.

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4-2-Two-way Sealed Knife Gate Valve

Two-way sealed knife gate valves are a type of control valve used to stop or allow the flow of materials through pipelines. These valves are used for flows involving food materials, waste, water, gas, and industrial substances, particularly in applications where complete sealing is required. They provide a reliable shut-off in systems that need tight sealing to prevent leaks and maintain efficient flow control.

4-3- Slurry Knife Gate Valve

A "Slurry Knife Gate Valve" is a key tool used in environments where precise control of the flow of viscous materials is required. It effectively addresses the challenges associated with handling such liquid materials. These valves are typically used in various industries, including mining, refineries, chemical and food processing industries, as well as in water and wastewater systems for handling slurry and thick suspensions.

4-4- **Penetration Knife Gate Valve**

The Penetration Knife Gate Valve is a specialized type of gate valve designed to control the flow of specific materials such as soil, sediment, sand, sludge, and other solids in liquids and suspensions. These valves are often made from wear-resistant materials like stainless steel or carbon steel and are used in various industries, including mining, refineries, water and wastewater treatment, and more. They are designed to handle challenging materials while providing reliable control and efficient operation in demanding environments.

5-food valves

5-1-sanitary valves

Sanitary valves play a crucial role in industries where high standards of hygiene and cleanliness are essential to ensure product quality and safety. These valves are designed and built to prevent contamination, facilitate easy cleaning and sterilization, and meet stringent regulatory requirements specific to each industry. There are various types of sanitary valves, including ball valves, butterfly valves, diaphragm valves, and control valves, each suited for different purposes in hygienic environments. These valves are used in critical processes where maintaining product purity, preventing contamination, and ensuring hygiene are the top priorities. Examples include food processing, beverage production, pharmaceutical manufacturing, biotechnology processes, dairy production, and cosmetics manufacturing.

6-Strainer

A strainer is a device used to filter and remove solid particles from liquids such as crude oil or various refined products. Strainers are essential in maintaining the quality and purity of liquids in oil production and refining processes. They help protect equipment, improve efficiency, and ensure that the final product meets the required standards by preventing contamination from solid particles.

Y TYPE FILTER

7-check valve

A check valve is a mechanical device that allows fluid (liquid or gas) to flow in only one direction. The primary function of a check valve is to prevent reverse flow or backflow of liquid. Check valves are used in various industries and applications where preventing backflow is critical. They are commonly employed in pipelines, pumps, compressors, and different liquid systems to protect equipment and ensure proper flow direction control.

SWING CHECK VALVE

8-Accessories

8-1- Solenoid Valve

An electromechanical valve used to control the flow of liquids or gases in a system is known as a solenoid valve. They are widely used in fluid control systems such as industrial automation, HVAC systems, water treatment plants, and irrigation systems. Solenoid valves are essential for regulating fluid flow in automated processes, providing precise control and efficient operation.

8-2-Positioner

A positioner is a device or component used to precisely control the position of a valve actuator based on the input signal it receives. There are various types of positioners:

1. Pneumatic positioners
2. Electro-pneumatic positioners
3. Digital positioners

8-3- Limited switch

This refers to a type of switch used in industrial and mechanical systems to detect the presence or absence of an indicator and activate actions for moving components. These switches are commonly used in automated systems, robotics, and industrial machinery where precise control of movement or position is essential for safety, efficiency, or critical operational requirements.

8-4- filter pressure reducing valve

A pressure-reducing valve with a filter is a specialized valve that combines the ability to regulate pressure with filtration capabilities. It plays a key role in maintaining a consistent water pressure and preserving the health of piping systems and equipment. Pressure-reducing valves with filters are typically used in residential, commercial, and industrial environments where maintaining stable water pressure is crucial. They are often installed in water supply lines, irrigation systems, and various process systems to protect equipment and provide a stable, reliable system performance.

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8-5- Electric Actuator

An electric actuator is a device that converts electrical energy into mechanical ع motion or force. This device is used to control mechanisms, valves, and other components in systems that require precise positioning and automation. Electric actuators are widely used in industries such as automotive, aerospace, and process automation. Some specific applications include controlling valves in industrial processes, positioning equipment in manufacturing, opening and closing equipment, and precise movement in robotics.

8-6- pneumatic actuator

A pneumatic actuator is a device that converts compressed air energy into mechanical motion and is typically used for automation or controlling valves and other mechanisms. This device is widely used in various industries and systems where precise and reliable control of valves or other mechanical components is essential. Pneumatic actuators have broad applications in industries and systems requiring accurate control and automation of mechanical processes. Their applications include automotive systems for pneumatic brakes and throttle control, medical equipment for fluid control, and hydraulic systems for construction machinery.

Dosing Pump

Manufacturer's factory information

Brand name: Prominent

Main office location: Germany

Factory location: China

ProMinent®

1- Solenoid-Driven Metering Pumps

This type of pump is used in water and wastewater treatment, chemical processing, food and beverage industries, pharmaceuticals, agriculture, industrial processes, oil and gas, laboratories and research, textile industry, and electronics manufacturing.

2- Motor-Driven Metering Pumps

Metering pumps with durable, reliable motors are capable of operating without the need for constant supervision. Mechanical diaphragm metering

pumps can be used in almost all low-pressure ranges. These types of pumps are used in water and wastewater treatment, chemical processing, food and beverage industries, pharmaceuticals, agriculture, industrial processes, oil and gas, laboratories and research, textile industry, and electronics manufacturing.

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3- peristaltic metering pumps

Peristaltic metering pumps effectively combine the features of both peristaltic pumps and metering pumps. They have the ability to self-drain and can handle environments where external gases are present. These types of pumps are used in water and wastewater treatment, drinking water purification, food industry, paper industry, cooling circuits, and plastic production.

4- **Diaphragm Metering Pumps**

Diaphragm metering pumps are fully sealed with durable diaphragms and capable of pumping in environments with impurities. These metering pumps are used in various industries, including water treatment (for adding disinfectants and chemicals), chemical processing (for adding reactants), pharmaceuticals, food and beverage production, agriculture (for fertilizers and pesticides), and other industries.

5- Hydraulic Diaphragm Metering Pumps

Hydraulic diaphragm metering pumps use hydraulic fluid to operate the diaphragm. These types of pumps are used in applications that require precise and reliable measurement of

chemicals or liquids. Common industries include water treatment, chemical processing, oil and gas, pharmaceutical manufacturing, and agriculture.

5- Plunger metering pumps

Plunger needle metering pumps use a plunger needle in an alternating motion to displace an exact volume of liquid. These pumps are critical in industries due to their ability to provide precise and reliable dosing. They are used in water treatment, chemical processing, oil and gas industries, food and beverage production, and pharmaceuticals.

Membrane

Manufacturer's factory information

Brand name: BFMEM

Main office location: China

Factory location: China

碧菲膜®
BFMEM

1- External pressure ultrafiltration membrane

External pressure ultrafiltration membranes are one of the water purification and separation technologies that use semi-permeable

membranes to remove suspended particles, organic materials, microorganisms, and other contaminants in water. In this process, pressure is applied externally to the membrane, causing the solution to pass naturally through the membrane while particles and impurities are retained behind it.

2- Internal pressure porous membrane

Internal pressure porous membranes are a type of separation technology used for purifying and filtering various materials. In this system, pressure is applied from the inside of the membrane,

and the pressurized material is directed outward. These membranes are commonly used in various applications, including water treatment, biological processes, and chemical processes.

3-Immersed Membrane Module

An immersed membrane module is a membrane-based filtration system where the membrane modules are directly submerged in the liquid solution. These systems are widely used in water and wastewater treatment, drinking water production, and some industrial applications.

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3- Reverse Osmosis Membrane

Reverse Osmosis (RO) membrane is an advanced water purification technology used to remove dissolved substances and various contaminants from water. This technology is particularly applied in desalination of seawater, drinking water production, and industrial water treatment.

Brand name: Siemens

Main office location: Germany

Factory location: China and...

Siemens offers a wide range of products and services related to electrical engineering and electronics. Its products can generally be divided into the

following categories: building-related products, drives, automation and industrial factory-related products; energy-related products; lighting; medical products; and transportation and logistics-related products.

Siemens' building-related products include: building automation systems and equipment; building operations systems and equipment; fire safety equipment and systems; building security systems; and low-voltage switchgear including protection and circuit distribution products.

Siemens' drives, automation, and industrial factory-related products include: motors and drives for conveyor belts; pumps and compressors; heavy-duty motors and drives for steel rolling mills; compressors for oil and gas pipeline systems; mechanical components such as gears for wind turbines and cement factories; automation equipment and control systems for manufacturing machinery and tools; and industrial factories for water treatment and raw material processing.

Siemens' energy-related products include: gas and steam turbines; generators; compressors; onshore and offshore wind turbines; high-voltage power transmission products; electrical transformers; high-voltage switching products and systems; alternating and direct current power transmission systems; medium-voltage components and systems; and electrical automation products.

In the renewable energy sector, the company provides a range of products and services to assist in the construction and operation of small-scale power grids of all sizes. This sector includes the production and distribution of electrical energy as well as monitoring and controlling microgrids.

We have experience in providing Air compressors which are related to petrochemical industry and they are in large scales.

Powerplant equipment

Gas turbine

A gas turbine is a type of internal combustion engine of rotating equipment machines that operates on the basis of the energy of favorable gases produced from the combustion of different fuels. Its main use is in fossil fuel power plants, but versions of gas turbines are also used in helicopter engines, some passenger aircraft engines, fighter aircraft engines, and turbine engines of some types of ships.

Each gas turbine has a compressor to compress the air, a combustion chamber to mix the fuel with the air and burn it, and a turbine to convert the internal energy of the hot, high-pressure gases into mechanical energy. Part of the mechanical energy produced in the turbine is used to rotate the compressor of the gas turbine, and the rest of the energy produced, depending on the intended use of the gas turbine, may cause the rotation of an electric generator (turbogenerator), play a role in accelerating the air (turbofan and turbojet), or be consumed directly as produced (turbofan, turboprop and turboshaft). One of the most important applications of gas turbines is use in gas turbine power plants.

Compressors

Compressed air is also known as the fourth utility and finds application in various processes in power plants, such as in coal handling and operating pneumatic instruments. Air compressors help run several components in a power plant, such as boilers, turbines, generators, precipitators, and ash handling systems. There are different types of power plants based on power generation, such as nuclear power plants, solar thermal power plants, geothermal power plants, and wind power plants. Air compressors in power plants are commonly used to supply compressed air for various purposes. In a fossil fuel power plant, compressed air may be used to operate pneumatic valves and actuators, to start and stop diesel engines, and to power tools and equipment. In a nuclear power plant, compressed air may be used for emergency shutdown systems, to operate control rod drive mechanisms, and to power tools and equipment. Compressed air may also be used for ventilation and air conditioning in power plants. A power plant requires a compressed air system for generating instrument air that is high-quality and contaminant-free. Service air is the other kind of compressed air used in power plants, used for cleaning, purging filters, and ash transportation.