

Barso Energy Conversion Industrial Group



گروه صنعتی برسو انرژی
BARSO ENERGY



Barso Energy Conversion Industrial Group

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Branch of The Store: a 45 square meter
showroom located in Khayam Mall.

Warehouse: a 2000 square meter
warehouse located in shourabad.



Mission Of Barso Energy Industrial Group Company

Barso Energy Industrial Group Company, as a leading Supplier and importer for the oil, gas and petrochemical industries, is committed to providing Products and services of the highest quality.

Our Mission Includes:

- **Increasing Efficiency and productivity:**

Offering Innovative and advances solutions to improve the performance and efficiency of the oil, gas, and petrochemical industries.

- **Supplying Quality Equipment:** Providing and delivering equipment and products with international standards and high quality to meet diverse customer needs.

- **Specialized Consultation:** Providing Technical and specialized consultations to customer for selecting the best and most suitable equipment and solutions.

- **Customer Satisfaction:** Enhancing Customer Satisfaction through continues after-sales service and technical support.

- **Human Resource Development:** Investing In the training and development of specialized human resource to enhance the knowledge and capabilities of employees.

- **International Collaboration:** Developing International relations and collaborations with reputable companies and organizations worldwide.

With its extensive experience and specialized knowledge, Barso Energy Industrial Group Company strives to be recognized as a reliable trustworthy partner for its customers and to contribute to the sustainable development of the oil, gas and petrochemical industries.

TARGET INDUSTRIES

Barso Energy Industrial Group Company

engages in supplying and importing goods for various industries, here are the industries we can assist:

- **Oil, Gas, and petrochemical industries:**

Providing piping materials, fittings and valves for refineries and petrochemical units. Technical consultation and supply of specialized equipment for oil and gas projects.

- **Upstream and Downstream Industries:**

Supplying necessary equipment for oil and gas extraction and production. Offering Services and products to processing and refining units.

- **Power Plants:** Providing electrical and mechanical equipment for gas, steam and combined cycle power plants. Offering innovative solutions to improve the performance And efficiency of power plants.

- **Contracting Companies (EPC & PC):**

Supplying equipment and technical consultation for engineering, procurement and construction projects. Collaborating with contracting companies at all stage of project.

- **Desalination and Water Treatment Industries:**

Supplying equipment and systems for desalination plants. Providing optimal solutions to improve the quality and efficiency of water treatment processes.

- **Pharmaceutical and food industries:** providing piping materials, fittings and valves for pharmaceutical and food production units. Offering technical consultation to improve production and packaging processes.

- **Copper Industry:** supplying equipment for the copper industry. Ensuring high-quality material to support efficient production

- **Cement Factories:** Providing equipment for cement factories. Enhancing production capabilities with reliable and durable equipment.

- **Shipbuilding Companies:** Supplying equipment for shipbuilding companies. Ensuring compliance with maritime standards and safety regulations.

- **Construction and Real Estate Development:**

Collaborating with construction companies and large-scale projects developers. Providing materials and expertise to support successful project completion.



SERVICES

BARSO ENERGY INDUSTRIAL GROUP COMPANY OFFERS A COMPREHENSIVE RANGE OF SERVICES TO MEET THE DIVERSE NEEDS OF OUR CLIENTS.

- 1.Pre-sales Consultation:** Providing expert advice on piping materials and instrumentation to ensure the optimal selection for your requirements.
- 2.Receiving Client Request and Technical Proposal:** at the first sales team receiving clients request and after that we offer technical proposal based on their requirements.
- 3.Competitive Pricing:** Offering Competitive Pricing for both domestic and imported materials based on client's request.
- 4.Material Supply and Preparation:** Supplying the required materials and preparing them in our warehouse for inspection meetings, with the presence of Barso Company inspectors.
- 5.Testing and Verification:** Sending materials to reputable laboratories for testing and verification to ensure compliance with the required standards.
- 6.Certification of Products:** Providing certificates of compliance for all supplied materials.
- 7.Logistics and Transportation:** Coordinating the transportation of materials using our established connections within the transportation industry.
- 8. Documentation and Final Book Preparation:** Delivering comprehensive documentation and preparing the final book for completed projects.

Product



- ▼ VALVES
- ▼ PIPES AND TUBES
- ▼ FITTINGS
- ▼ FLANGES
- ▼ GASKETS AND SEALS
- ▼ BOLTS AND NUTS
- ▼ INSTRUMENTATION
EQUIPMENT
- ▼ EXPLOSION-PROOF
EQUIPMENT
- ▼ FIREFIGHTING EQUIPMENT
- ▼ POLYMER, POLYETHYLENE,
AND PVC EQUIPMENT

Valve



Different Kind of Valves:

Ball Valve, Gate Valve, Globe Valve, Check Valve, Butterfly Valve, Plug Valve, Safety Valve, Strainer Knife Valve, Needle Valve

Special Types: Pig Ball Valve, Basket Strainer Parallel Gate Valve Wafer Check Valve, Pressure Balanced Plug Valve, Mud Gate Valve, Floating and Trunnion ball valve, three-way ball valve, Top Entry

Ball Valve (General Specification for Ball Valve)

- **Design Standards:** API6D, API608, BS 5351
- **Design to ANSI B16.34, Size:** From 1/4 inch to 56 inch
- **Mounting Types:** Floating, Trunnion-mounted
- **Fire Safety:** Compliant with API607, Compliant with API 6FA
- **Bore Types:** Full Bore, Reducer Bore
- **Construction:** 1,2 or 3 piece, welded, Top Entry
- **Operation:** Hand Wheel, Gearbox, Actuation
- **End Connection:** Flanged, Butt Weld, Hub Ends, Socket Weld, Threaded
- **Materials:** Forged or Cast (Carbon Steel, Stainless Steel, Alloy Steel)

Gate Valve, Globe Valve



General Specification for Gate Valves

Gate Valves are an essential component in various piping systems, especially where a straightforward and reliable flow control is required. Here is a comprehensive overview:

Design Standards: API 600, API 603, ANSI B16.34, BS 1414, BS EN 1984

Sizes: Typically range from 2 inch to 60 inches,

Construction: Rising Stem or Non-Rising Stem, Flexible or Solid Wedge, Parallel or Wedge

Operation: Hand Wheel, Gearbox, Electric Actuation

End Connection: Flanged, Butt Weld, Socket Weld, Threaded, Hub Ends

Pressure Ratings: From 150 to 2500
Materials: Carbon Steel, Stainless steel, Alloy Steel Ductile Iron, Cast iron, Bronze

Globe Valves General Specification for Globe Valves

Design Standards: API 623, BS 1873, ASME B16.34, BS EN 13709

Size: Typically range from 1/2 inch to 24 inch

Construction:

Body Types: Straight, Angle and Y-pattern

Bonnet Types: Bolted bonnet, Welded bonnet, pressure-seal bonnet

Operation: Hand Wheel, Electric Actuation, pneumatic Actuation, Hydraulic Actuation

End Connection: Flanged, Butt Weld, Socket Weld, Threaded

Pressure Ratings: from 150 to 2500

Materials: Carbon Steel, Stainless steel, Alloy Steel, Ductile iron, Cast iron, Bronze





Check Valve

General Specification for Check Valves **Design Standards:** API 594, API 6D, ASME B16.34, BS 1868

Types: Swing Check Valve, Lift Check Valve, Dual Plate Check Valve

Sizes: Typically range from 1/4 inch to 36 inches

Material: Carbon Steel, Stainless Steel, Alloy Steel Ductile Iron Cast Iron, Bronze

End Connection: Flanged, Butt Weld, Socket Weld Threaded

Plug Valve

General Specifications for Plug Valve

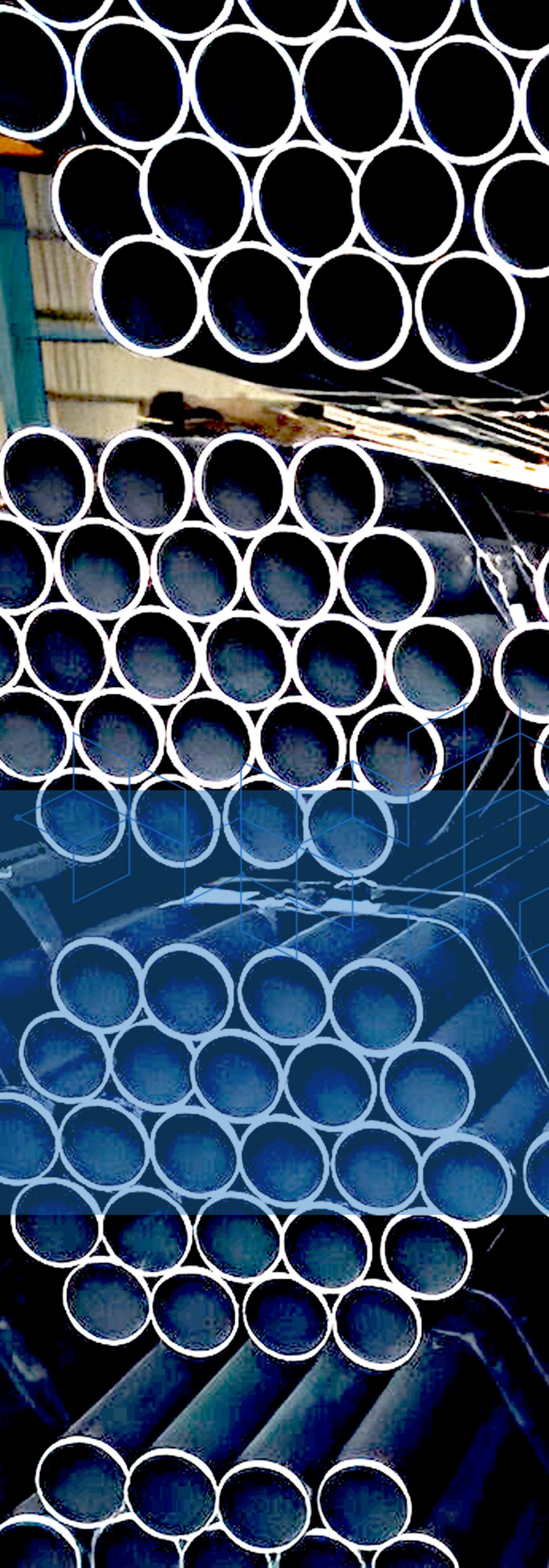
Design Standard: API 599, API 6D, ANSI B16.34 **Sizes:** Typically range from 1/2 inch to 36 inches

Type: Lubricated Plug Valve, Non-Lubricated Multiport Plug Valves

Body Material: Carbon Steel, Stainless Steel Alloy Steel, Ductile iron, Cast Iron, Bronze

Operation: Hand Lever, Gearbox, Electric Actuation, Pneumatic Actuation

End Connections: Flanged, Butt Weld, Socket Weld, Threaded



CS Seamless Pipe

- Size: OD 1/2 inch to 24 inch
- Wall thickness: Up to Sch XXS/Sch 160
- Specifications: API 5L Gr.B, X Grades, ASTM A53/A106/A333

Alloy Seamless Pipes

- Size: OD 2 inch to 26 inch
- Specifications: A335 GR 1P5/P9/P11/P22/P91/P92
- Ends: Plain End, Beveled End, Thread End

HSAW (Helically Submerged Arc Welded)

- Size: OD 16 Inch to 120 Inch
- Max WT: Up to 25.4 mm
- Specifications: API 5L, PSL 1&2, GR B to X42 Up to X80
- End: Square Ends/Plain Ends, Beveled, Threaded Ends
- Surface Treatment: Black Painting, Oil Painting
- Anti-Rust Oil, Anti-Corrosive Coating

CS HF-ERW Pipes (High Frequency Resistance Welded)

- Size: OD 2 Inch to 26 Inch
- Wall Thickness: Up to 18 mm
- Specifications: API 5L, ASTM A53, ASTM A178, ASTM A500/501, ASTM A691, ASTM A252
- ASTM A672
- Ends: Plain End, Beveled End, Threaded Tubing
- Size: OD 25.4 mm to 141.3 mm
- Max WT: up to 4.6 mm
- Specifications: ASTM A213/A269/A179

Seamless Stainless Pipes

- Size: OD 1/4 inch to 24 inch, Sch up to xxs
- Specifications: ASTM A312, ASTM A358, ASTM A790, ASTM 928, ASTM 775/904L

LSAW (Longitudinal Submerged Arc Welded)

- Size: OD 16 inch to 275 inch
- Wall Thickness: Up to 130 mm
- Specifications: API 5L, PSL 1 & PSL 2, GR. B, X42 Up to X80, ASTM A671, A672
- Ends: Black Ends, Beveled Ends, Plain Ends



Different Type of Flanges

- ▼ Forged Flanges
- ▼ Weld Neck Flanges (WNRF)
- ▼ Long Weld Neck Flanges
- ▼ Slip On Flanges (SORF)
- ▼ Blind Flanges (BLRF)
- ▼ Socket Weld Flanges (SWRF)
- ▼ Threaded / Screwed Flanges
- ▼ Lap Joint Flanges
- ▼ Plate Flanges
- ▼ Reducing Flanges
- ▼ DIN Flanges
- ▼ BS 10 Flanges
- ▼ ANSI B16.47 Flanges
- ▼ ASME B16.5 Flanges
- ▼ Male & Female Flanges
- ▼ Tongue & Groove Flanges
- ▼ Raised Face Flanges
- ▼ Ring Type Joint Flanges (RTJ)

Size: 1/2" to 60" NB

Thickness: All Standards Schedules Intermediate

Specials: Anchor, Compact, Orifice, Bulkhead, Swivel Ring, Spectacle, Blinds, Spades Spacers

Rating: 150# to 2500#, 2000 to 20,000 Psi

Dimensional Standard: ASME B16.5, ASME B16.36, ASME B16.47 Series A&B API 6A (API Flanges)

Carbon and Low Alloy: ASTM A105, ASTM A350 LF2/LF3, A516 Gr.70, A36, A694, F42, F46, F52, F60, F65

High Yield: ASTM A694 F52-65

Duplex & Super Duplex: ASTM A182 F44, F45, F51, F53, F55, F60

Stainless Steel: A 182, A240 F304, 304L, 304H, 316, 316L, 316Ti, 310, 310S, 321, 321H, 317, 347, 347H, 904L



Butted Weld Fittings

- ▼ Welded Fittings
- ▼ Seamless Fittings
- ▼ 45D Elbow
- ▼ 90 Deg Elbow
- ▼ 180 Deg Elbow
- ▼ SRElbow(Short Radius)
- ▼ LR Elbow(Long Radius)
- ▼ End Cap
- ▼ Equal Tee
- ▼ Reducing / Unequal Tee
- ▼ Eccentric Reducer
- ▼ Concentric Reducer
- ▼ Equal Cross
- ▼ Short Stub End
- ▼ Long Stub End
- ▼ Lap Joint Stub End

Standard Specification For Butt-weld Seamless Fittings

Dimensions: ASME/ANSI B16.9, ASME B16.28, MSS-SP-43

Type: Seamless, ERW, Welded, Fabricated

Thickness: 5S, 10S, 40S, 80S, S10, S20, S30, STD, S40, S60, S80, S100, S120, S140, S160, XXS,

Material & Grades of Butt-weld Seamless Fittings:

ASTM A403 WP316/316L, ASTM A403 SA/A 774 WP-S

WP-WX 304/304L, ASTM A182 F316L, 304L DIN

Duplex & Super Duplex: ASTM A815, UNS NO S31803

Carbon Steel Butt-weld Fittings: ASTM A234, ASME SA 234 WPB, WPBW, WPHY 42, WPHY 46, WPHY 52, WPHY 60, WPHY 65, WPHY 70

Low-Temperature Carbon Steel: ASTM A420 WPL3, A420 WPL6

Alloy Steel: ASTM A234 Gr.WP1, WP5, WP9, WP11, WP 12, WP22, WP 91



Forged Fittings: Sizes, Standards, and Materials

1. Latrolet: 1/8 inch to 24 inches
2. Elbow Outlets: 1/2 inch to 24 inches
3. Socket Weld Outlets: 1/8 inch to 24 inches
4. Threaded Outlet: 1/8 inch to 24 inches
5. Welding Outlets: 1/8 inch to 24 inches
6. Socket Weld 90 Deg Elbow: 1/8 inch to 4 inches
7. Socket Weld 45 Deg Elbow: 1/8 inch to 4 inches
8. Socket Weld Tee: 1/8 inch to 4 inches
9. Socket Weld Unequal Tee: 1/8 inch to 4 inches
10. Socket Weld Cross: 1/8 inch to 4 inch
11. Socket Weld Unequal Cross: 1/8 inch to 4 inch
12. Socket Weld Half Coupling: 1/8 inch to 4 inch
13. Socket Weld Full Coupling: 1/8 inch to 4 inch
14. Socket Weld Pipe Cap: 1/8 inch to 4 inch
15. Socket Weld Union: 1/8 inch to 4 inch
16. Threaded 90 Deg Elbow: 1/8 inch to 4 inch
17. Threaded 45 Deg Elbow: 1/8 inch to 4 inch
18. Threaded Tee: 1/8 inch to 4 inch
19. Threaded Cross: 1/8 inch to 4 inch
20. Threaded Pipe Nipple: 1/8 inch to 4 inch
21. Threaded Bushing: 1/8 inch to 4 inch
22. Threaded Hex Nipple: 1/8 inch to 4 inch
23. Threaded Street Elbow: 1/8 inch to 4 inch
24. Threaded Union: 1/8 inch to 4 inch
25. Threaded Hex Plug: 1/8 inch to 4 inch

Forged Fitting Specifications:

Standards: ASME B16.11 (Forged Fitting-Socket-Welding Threaded)

MSS-SP-97: Integrally Reinforced forged branch outlet fittings-socket welding threaded and butt welding ends.

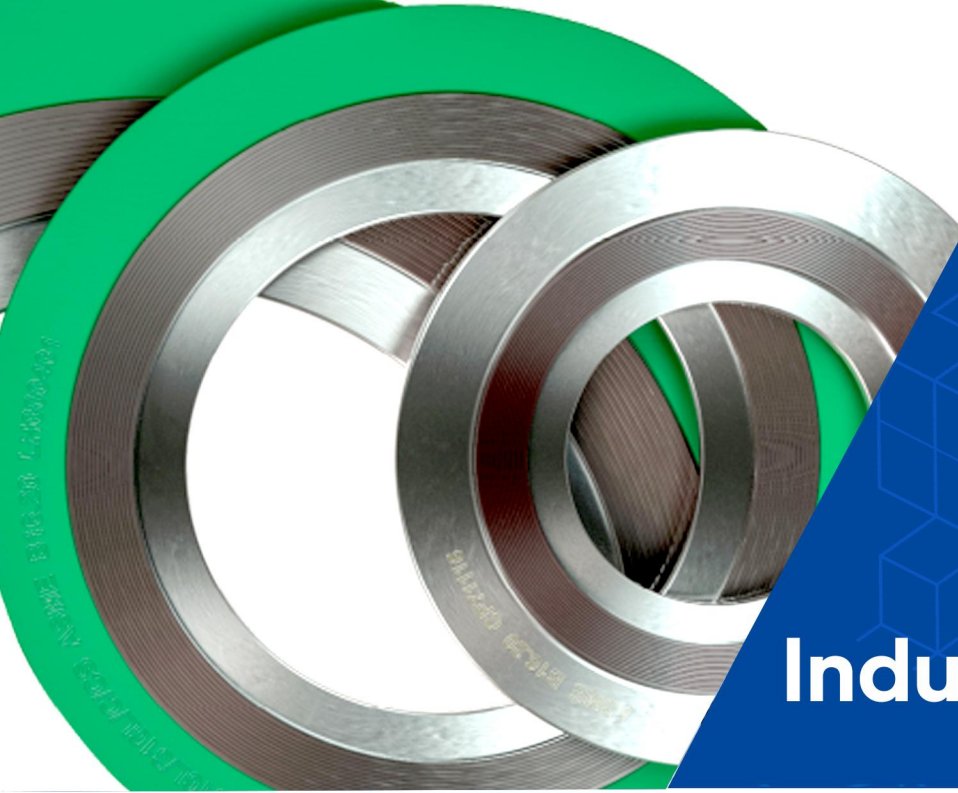
Materials:

Carbon Steel: ASTM A105, ASTM A350 LF2 (Low)

Stainless Steel: ASTM A182 F304/304L, F316/316L

Alloy Steel: ASTM A182 F1, F5, F9, F11, F22, F91

Duplex and Super Duplex: ASTM, A182, F51, F53, F55



Industrial Gaskets

Industrial gaskets are crucial components used in petrochemical refineries and other industrial settings to ensure leak-free connections between flanges and valves. Here's an overview:

Types of Gaskets:

1.Non-Metallic Gaskets: Made from materials like compressed non-asbestos fiber (CNAF), PTFE (Teflon), rubber, graphite, and elastomers. These are typically used for low-pressure and low-temperature applications.

Sizes: Typically available from 1/2 inch (12.7 mm) to 48 inches (1219 mm).

2.Metallic Gaskets: Used in high-pressure applications, such as oil and gas production. Common types include ring-type joint (RTJ) gaskets, which seal by wedging action under compressive forces.

Sizes: Commonly range from 1/2 inch (12.7 mm) to 36 inches (914 mm).

3.Composite Gaskets: A combination of metal and non-metal materials, such as spiral wound, metal jacketed, and Kammprofile gaskets. These are versatile and used in a wide range of pressure and temperature services.

Sizes: Generally from 1/2 inch (12.7 mm) to 48 inches (1219mm), depending on the specific type and application.

Gasket Configurations:

1.Full Face Gaskets: Cover the entire flange face and include bolt holes. Suitable for full face flanges.

2. Inner Bolt Circle (IBC) Gaskets: Commonly used on raised face flanges. Concentrate more pressure on a smaller gasket area, increasing pressure

3.Ring Type Joint (RTJ) Gaskets: Metal gaskets used for high-pressure applications. They seal by an initial line contact or wedging action.

Materials:

- **PTFE (Teflon):** Highly chemical resistant, suitable for temperatures up to 500°F (260°C). Used in food & beverage, pharmaceutical, and chemical industries.

- **Graphite:** Can withstand high temperatures (up to 460°C) and is used in various industrial applications.

- **Rubber and Elastomers:** Used for low-pressure and low-temperature applications.

Standards:

- **ASME B16.5:** Widely accepted standard for flanges and gaskets in various applications.

- **API 6A:** Standard for ring type joint gaskets in high-pressure applications.



INDUSTRIAL BOLTS AND NUTS: STANDARDS, SIZES, AND MATERIALS

Materials:

- Carbon Steel: Commonly used for general industrial applications.
- Stainless Steel: Corrosion-resistant, suitable for harsh environments.

Sizes:

- Common Sizes: From M1 (1 mm diameter) to M100 (100 mm diameter) for bolts and nuts.
- Lengths: Bolt lengths can range from 6 mm to over 500 mm.

Types of Bolts:

- Hex Bolts: Hexagonal head for use with a wrench.
- Self-Tapping Screws: Can create their own thread in softer materials.
- Flange Bolts: Have a flange for better load distribution.
- Flat Head Screws: Have a flat head for flush

Types of Nuts:

- Hex Nuts: The most common type.
- Lock Nuts: Designed to prevent loosening.
- Flange Nuts: Have a flange for better load distribution.
- Wing Nuts: Designed for hand tightening.
- Castle Nuts: Used with a cotter pin to prevent loosening.

Specifications:

Standards:

- ASTM A193: Standard specification for alloy steel and stainless steel bolting for high temperature or high-pressure service.
- ASTM A194: Standard specification for carbon and alloy steel nuts and bolts for high pressure or high temperature service.



ELECTRICAL AND INSTRUMENTATION EQUIPMENT

1. Temperature Measurement Equipment: Devices used to measure and monitor temperature, such as thermocouples, resistance temperature detectors (RTDs), and infrared sensors.

2. Level Measurement Equipment: Tools for determining the level of liquids or solids within a container, including float switches, ultrasonic level sensors, and radar level transmitters.

3. Pressure Measurement Equipment: Instruments designed to measure pressure within a system, such as pressure gauges, pressure transducers, and differential pressure transmitters.

4. Flow Measurement Equipment: Devices that measure the flow rate of liquids and gases, including flow meters like turbine meters, magnetic flow meters, and ultrasonic flow meters.

5. Electrical and Electronic Parameter Measurement Equipment: Tools for measuring various electrical parameters, including voltmeters, ammeters, multimeters, and oscilloscopes.

6. Calibration Equipment: Instruments used for calibrating other equipment to ensure accuracy, such as calibration pumps, calibrators, and standard reference materials.

7. Analyzers: Devices that analyze the composition of substances, including gas analyzers, liquid analyzers, and chromatographs.

8. Control Valves: Valves used to control the flow of fluids by varying the size of the flow passage, including globe valves, butterfly valves, and ball valves.

9. Positioners: Devices that adjust the position of control valves to ensure accurate control of flow rates.

10. Detectors: Instruments used for detecting the presence of specific substances or conditions, such as gas detectors, smoke detectors, and flame detectors.

11. Recorders: Devices that record data over time, including strip chart recorders, data loggers, and paperless recorders.

12. Display Units: Screens and indicators that show measurement values and system status, such as digital displays, LED indicators, and LCD screens.

13. Switches: Devices that open or close electrical circuits, including limit switches, pressure switches, and float switches.



INSPECTION

One of the outstanding capabilities of **Barso Energy Industrial Group** is the precise and professional inspection of industrial equipment and tools. With the support of an experienced engineering team and advanced equipment, we ensure the quality and compliance of products with national and international standards. This section includes inspection images of some supplied items, reflecting our commitment to quality and customer satisfaction.



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