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SJS ENERSOL ENGINEERING WORKS



company profile

www.sjsengineering.com



ABOUT US

SJS ENERSOL ENGINEERING WORKS is an industrial fasteners manufacturing company based in UAE Located in new industrial area of Umm Al Quwain, having the capacity to serve the engineering, construction and oil industries market for a complete range of fasteners solution like Stud Bolts / Foundation Bolts / Fixing Anchors / Hex Bolts-Connection Bolts / Gaskets & Special Fasteners components in all kinds of grades like carbon steel, low carbon steel, Alloy steel & stainless steel.

We follow the manufacturing standards for fasteners such as ASTM/AISI/BS/EN /ISO/DIN/JIS and custom made projects requirements of Anchor Bolts, Stud Bolts, Structural Bolts, Nuts & Washers and others miscellaneous hardware. We hope you enjoy your experience with SJS and look forward to your continued business.

Our Cliental Base:





FOUNDATION BOLTS



A Foundation bolt is used to attach objects or structures to concrete. There are many types of foundation bolts, consisting of designs that are mostly proprietary to the manufacturing companies. All consist of a thread end, to which a nut & washer can be attached for the external load. Foundation bolts are extensively used on all types of projects, from standard buildings to bridges & industrial plants. They can also be used to firmly affix embed plates to a concrete foundation when used with a structural steel element.

Types Of Bolts



L Type



J Type



Split End Type



Engg. Anchor



Engg. Anchor



Eye type



Barrier pins

Standard: ASTM • AISI • DIN • BS

Grades : F1554 • SS400 • S45C • GR 55 • ASTM A36 • A307 A-C • GR. 4.8 • 8.8 • 10.9
• A193-B7 • 304 L • 316 L





FIXING ANCHORS



Fixing anchors are designed for light to heavy-duty anchoring into solid concrete. The fixing anchors are available in yellow / zinc plated steel, stainless steel and hot-dipped galvanized. Fixing anchors come in 6mm to 24mm, diameters and many different lengths to accommodate varying thicknesses of material to be attached to the concrete. Fixing Anchor diameter is equal to hole diameter.

Types Of Fixing Anchors



Through Bolt



Unifix



Fix Bolt



Chemical Stud



Shield

Standard: • DIN • BS

Grades : 4.6 • 8.8 • 304 • 316





HEX / CONNECTION BOLTS



Hex bolts, also called connection bolt, hexagon screw head bolts, hex cap bolts, hex-cap screws, or machine bolts, are a very common choice when it comes to construction and repair. Hexagon screw head bolts come in a large variety of sizes and diameters. The best way to choose the right hex bolt is to find the bolt material that best suits your needs.

Each different hex bolt material has particular properties to fit specific applications. Hexagon screw head bolts are made from a variety of materials to accommodate the wide range of applications in which hex cap bolts are used. Below are just a few of the more common types of hexagon screw head bolts.

Stainless steel bolts: Common choice of hex screws since they don't need any coating and are corrosion resistant.

- **Carbon steel bolts:** The most common hexagon screw head bolts are zinc plated & HDG for added corrosion resistance.
- **Alloy steel bolts:** These types of hex bolts are made to withstand an enormous amount of pounds per square inch. They are coated with either cadmium or zinc plating to protect them against corrosion.

Hex bolts are available with standard threading or full threading, depending on the length of the bolt. Applications for hexagon screw head bolts can vary from exterior and automotive to marine, coastal, and high temperature environments.

Types Of Bolts



Hex Bolt



Structural Hex Bolt



HDG Bolt



SS Bolt

Standard: • DIN 933 • DIN 931 • BS 3692 • ASTM

Grades: 4.6 • 8.8 • 10.9 • A325 • A490 • 304 • 316 • 316L • A193 – B7 • B8 • B8M
• DUPLEX • SUPER DUPLEX • MONEL • INCONEL





NUTS



A nut is a type of fastener with a threaded hole. Nuts are almost always used in conjunction with a mating bolt to fasten two or more parts together. The two partners are kept together by a combination of their threads' friction, a slight stretching of the bolt, and compression of the parts to be held together.

Types Of Nuts



Wing Nut



Jam Nut



SS Hex Nut



Dome Nut



Castle Nut



Flange Nut



Black Nut



HDG Nut



Lock Nut



GI Nut



Square Nut



Teeth Nut



Long Nut



Heavy Hex Nut

Standard: ASTM • A194 • DIN934 • 935 • 985 • B915 • BS3692

Grades: CL.4.6 • CL.8 • CL.10 • Gr.2H • 2HM • Gr.4 • 7 • A563 • SS304 • 316 • HV
• 8 • 8M • DUPLEX • SUPER DUPLEX • MONEL • INCONEL





WASHERS



A washer is a thin plate (typically disk-shaped) with a hole (typically in the middle) that is normally used to distribute the load of a threaded fastener, such as a screw or nut. Other uses are as a spacer, spring (belleville washer, wave washer), wear pad, preload indicating device, locking device, and to reduce vibration (rubber washer). Washers usually have an outer diameter (OD) about twice larger than their inner diameter (ID).

Washers are usually metal or plastic. High-quality bolted joints require hardened steel washers to prevent the loss of pre-load due to Brinelling after the torque is applied.

Types Of Washers



Flat

A flat washer, used to distribute load. Available in SAE, USS and other patterns.



Flender

An oversize flat washer used to further distribute load especially on soft materials.



Finishing

A washer used to obtain a 'finished' look. Usually used with oval head screws.



Split Lock

The most common style of washer used to prevent nuts and bolts from backing out.



External Tooth Lock

A washer with external 'teeth'. Used to prevent nuts and bolts from backing out.



Internal Tooth Lock

A Washer with internal 'teeth'. Used to prevent nuts and bolts from backing out.



Square

A Square shaped washer.



Dock

Dock washers have a larger outside diameter and are thicker than standard.



Ogee

Thick, large diameter, cast iron washers with a curved or sculpted appearance. Typically used in dock and wood construction

Standard: DIN125A • 9021 • 434 • 127 • BS4320

Grades: 4.6 • F436 • Din 6916 • SS 3D4 • 316 • DUPLEX • SUPER DUPLEX • MONEL • INCONEL





STUD BOLTS / THREADED BARS



Stud Bolts are generally used in the Petrochemical and Oil & Gas Industry for flange connections. The Stud Bolt is a threaded rod with 2 heavy hexagon nuts, while the hex bolt has a head with one nut. Both the nuts and the head are six sided.

The material qualities for studs are defined in the different ASTM standards, and are indicated by Grade. Frequently used grades are A193 for thread rods and A194 for the nuts. ASTM A193 covers alloy and stainless steel bolting material for pressure vessels, valves, flanges, and fittings for high temperature or high pressure service, or other special purpose applications. ASTM A194 covers a variety of carbon, alloy, and martensitic and austenitic stainless steel nuts. These nuts are intended for high-pressure or high-temperature service, or both. This specification includes fasteners intended for use in pressure vessels, valves, flanges, and fittings. Although this material is often available in national coarse (UNC) thread pitches, if being used in traditional applications, threads are specified 8 threads per inch (TPI) for diameters above one inch.

Types Of Stud Bolts



Black



Stainless Steel



Hot Dip Galvanised



PTFE

Standard: • ASTM A193 • BS • ASME • B16.5

Grades: ASTM A193 B7/2H • B7M/2HM • B8/GR8 • B8M/GR 8M • B16/GR4 • A320L7/GR4 – GR7M
• DUPLEX • SUPER DUPLEX • MONEL • INCONEL





SOCKET HEAD BOLTS



A screw having a recess or socket to fit a wrench for turning rather than a slot or external hexagonal or square shape. Socket cap screws are commonly used in machine parts, die fixturing and clamping. The socket head enables driving where there is not sufficient space for wrenches or sockets. Socket caps have a small cylindrical head with tall vertical sides. Allen (hex socket) drive is a six-sided recess for use with an allen wrench (hex key).

Types Of Socket Head Bolts



Allen Bolt



Button Head



CSK Allen Screw



Grub Screw

Standard: • DIN 912 • 7991 • 913 • 7380

Grades : 8.8 • 10.9 • 12.9 • SS 304 • SS316 • Din 912 • 7991



GASKETS

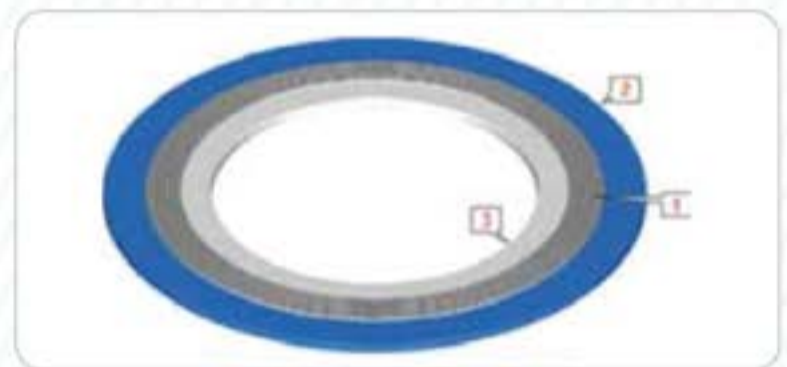


Flange gaskets are used to create a static seal between two flange faces, at various operating conditions, with varied pressure & temperature ratings. A gasket fills the microscopic spaces and irregularities of the flange face, and then it forms a seal that is designed to keep liquids and gases. Correct installation of damage-free gaskets and demerger-free flange faces is a requirement for a leak-free flange connection. If it would be technically possible, in order to manufacture flanges perfectly flat and smooth & perfectly compatible with one another under all operating conditions, a gasket would be necessary. But in normal practice it is not possible, because flange connections under any circumstances should be made. Small impurities & a small bit of dirt, is in practice not to be avoided and therefore it is necessary to use a gasket.

Types Of Gasket



Non-Metallic types



Semi-Metallic types
1. Sealing Element, 2. Outer Ring, 3. Inner Ring



R-Oval

R-Octagonal





GALVANIZING / PTFE

Galvanizing: Galvanization (or galvanisation) is the process of applying a protective zinc coating to steel or iron, in order to prevent rusting. In few services care should be taken to avoid rusting of the fasteners as it might be hazardous to personnel, cause damage, malfunction of equipment, instrument, etc. So for that reason the fasteners are galvanized.

The most commonly used methods for galvanization is hot dip galvanizing and electro-galvanizing.

Polytetrafluoroethylene (PTFE): PTFE is a synthetic fluoropolymer of tetrafluoroethylene that has numerous applications. The best known brand name of PTFE-based formulas is Teflon by Chemours. Chemours is a spin-off of Du Pont Co. which discovered the compound in 1938.

PTFE is a fluorocarbon solid, as it is a high-molecular-weight compound consisting wholly of carbon and fluorine. PTFE is hydrophobic: neither water nor water-containing substances wet PTFE, as fluorocarbons demonstrate mitigated London dispersion forces due to the high electro negativity of fluorine. PTFE has one of the lowest coefficients of friction of any solid.

PACKING



CERTIFICATES



APPROVALS & ISO CERTIFICATE





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