JS

Nuts & Bolts

FORGED WITH INTEGRITY

L.C. FASTENERS PVT LTD

COMPANY PROFILE

www.jsnutbolt.com

About Us

Our tagline, **"Forged from Integrity"** sums up the "JS" business philosophy i.e. working with honesty, reliability, accountability, sincerely and flexibly. If you have integrity, nothing else matters.

JS Group was established in the year 1975 with a vision for the future and a commitment to excellence under the guidance of its founder Shri Jai Narayan Singhal, followed by Mr. Nand Kishore Singhal. Since then the group has achieved new heights in the manufacturing of Fasteners in India and abroad with the constant efforts of their sons and current partners of L.C FASTENERS PVT LTD - Mr. Nishant Singhal and Mr. Vineet Singhal.

At L.C. Fasteners (P) Ltd, integrating automation, and LEAN initiatives into our processes is a way of life. Our focus is to use the best available technology to manufacture high-quality fasteners efficiently.

Whether it is our forming operation, our forging operation or our hot-dip galvanizing, our CQi-9 Hardening & Tempering technology or our state-of-the-art quality inspection facilities, technology is the benchmark that these processes are built upon.

Commitment to Quality with JS Nuts & Bolts, Security is provided through high-quality products, delivered on time, manufactured to procurement specifications by a LEAN-focused company. L.C Fasteners has been producing fasteners for more than 45 years, servicing multiple industries such as Indian Railways, Automotive, Solar energy, Wind energy, Oil & Gas, heavy equipment, cranes, as well as the distribution market. Because of our dedication to detail and our commitment to quality, our customers have made "JS" Fasteners their supplier of choice for high tensile bolts, shear studs, and rods.

Why JS Nuts and Bolts?

- **Quality:** The quality of our products and services is our number one priority. Designed to achieve total customer satisfaction.
- **Timely Delivery:** We are quite transparent when it comes to delivery time. If we can't make it, we are honest enough to tell our customers no. Since project requirements are always crucial, we take enough orders to allow us to make timely deliveries.
- **Competitive Price:** We do thorough marketing research before distributing our products to our consumers. This ensures that our prices are reasonable.
- **Customer Support:** Once we've delivered the product, our after-sales services include full support. The motto of JS Group is customer delight.

Infrastructure

We have developed a sound and sophisticated manufacturing unit, which is spread across around 12500 square yard and equipped with advanced machines. These machines are regularly upgraded and operated by a team of experienced engineers. Our manufacturing personnel make use of quality raw materials for manufacturing our range and also helps us in providing customized solution.

Located at Samalkha in Panipat, this unit sprawls across a vast geographical area and is outfitted with all the advanced machinery and amenities for an excellent productivity. This unit has been segregated into various units, so as to facilitate smooth and uninterrupted functioning. The unit that this infrastructure comprises are:

- Manufacturing Unit
- Warehouse Unit
- R&D Division
- Quality Control/Testing Unit
- Packaging Department
- Sales and Marketing Department

Testing Facilities :

1. Mpi Testing
   (Magnetic Particle Inspection)
2. UT Testing (Ultrasonic Flow Detector)
3. Salt Spray Testing
4. Metallurgical Testing
5. Tensile Strength Test
6. Digital Hardness Test (Hrc/Hrb)
7. Impact Testing (Charpy impact & izod impact)
8. Proof Load
9. Wedge Load
10. Bend and Rebend Testing
11. Twist test for spring washer
12. Profile Projector (to check thread profile, v-notch & u-notch angle)
13. Mass of Coating Test
14. Adhesion uniformity of coating

Machinery

Bolt Maker Machine

Hot Forging Machine

Wire Drawing Machine

Bolt Header Machine

Black Oxidizing Machine

Electric Furnance Machine

Auto Electroplating Machine

CQi-9 Hardening And Tempering Plant

Stud Flux Riveting Machine

OUR PRODUCTS

SHEAR STUDS CONNECTOR

JS HSFG BOLT NUT & DTI WASHER

HEX BOLT & HEX NUT

CARRIAGE BOLT

CRASH BARRIER BOLT

THREADED RODS

ANCHOR BOLT/ FOUNDATION BOLT

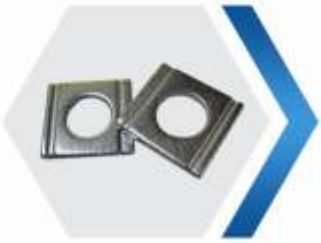
U BOLT, L BOLT, J BOLT

RIVETS

ANCHOR FASTENERS

SQUARE BOLT/ FISH BOLT

FALLA/PLOGH BOLT



TAPPER WASHER

PLAIN WASHER/ FLAT WASHER

SPRING WASHER

ARC WELDING STUD (Shear Studs)

(ISO 13918-SD TYPE)

JS Arc Welding Stud (also known as shear connector or shear stud) is designed to tie concrete to the steel in a composite piece and, acting as an anchor in the concrete against tensile stress, transfers stress to the concrete, by adhesion or by pressure, depending on the structural typology.

JS shear connector is made in **Low Carbon Steel (MS)** as per **AWS D1.1/ISO 13918**. Strict adherence to our quality control procedures ensures our customers receive quality products. Through its mill tests reports, JS guarantees complete traceability of all our products and provides its clients with Certificate 3.1, according to the **standard UNE EN 10204**, of each heat number purchase delivered.

The drawn-arc process, done with the specialist gun, is used for stud welding. Studs are loaded into the gun and on making electrical contact with the work, the tipped end arcs and melts. The duration of the arch is timed to establish a molten state between the end of the stud and the parent material and then the stud is plunged into the weld pool.

Ceramic shields are essential parts of the stud welding process. They are designed to encircle the fastener welding, to protect the arc, to limit the weld to a specified zone of the base metal and to contain the molten metal, acting as a mould to shape this metal and to form the weld fillet, also named 'weld-flash'. It is chipped off when the weld solidifies.

Why JS Shear Studs ?

- High Quality Finished Shear Studs
- Aluminium Flux Ball Riveting by Automatic Machine
- Raw Material Purchase from JSW Steel, VSP Steel Plant, SAIL
- Large Stock of Each Size Shear Connectors and Ferrule for instant Delivery.
- Tested in Nabl Certified Lab
- Solid Packaging with Proper Labelling
- Traceability of each JS Shear Studs

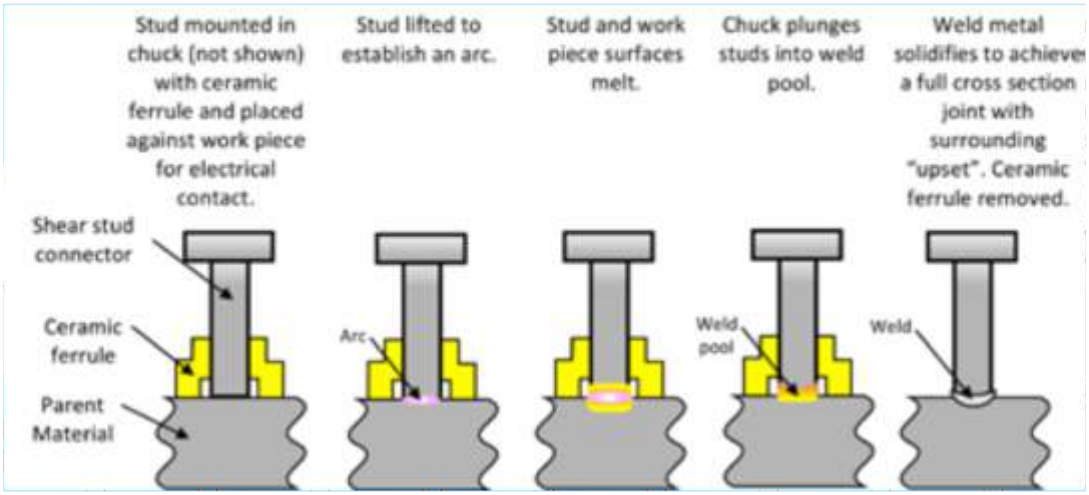
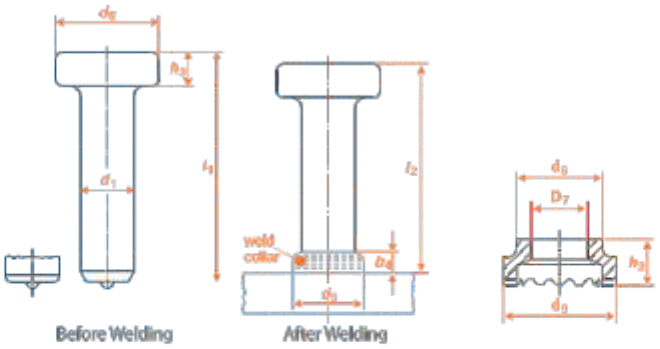


Figure 1: The drawn arc stud welding process.
Image courtesy of the British Constructional Steelwork Association.



Mechanical Properties

As per ISO 13918 & ISO/TR 15608

	SD1	SD2
Min. Tensile Strength	450 N/mm²	400-550 N/mm²
Min. Yield Strength	350 N/mm²	235 N/mm²
Min. Elongation	15%	20%

Tests are conducted in accordance with the test conditions of *ISO 898 - Part 1*

Dimensions of Welding Stud

d_1	d_5	d_3	h_3	h_4	l_1
10	19	13	7	2.5	l2+ 3
13	25	17	8	3	l2+ 3
16	32*	21	8	4.5	l2+ 4
19	32	23	10	6	l2+ 4.5
22	35	29	10	6	l2+ 5
25	40	31	12	7	l2+ 5.5
25.4	41	31	12	7	l2+5.5

Dimensions of Ceramic Ferrule

Form	D_7	d_8	d_9	h_2
UF 6	6,2	9,5	11,5	8,7
UF 8	8,2	11	15	8,7
UF 10	10,2	15	17,8	10
UF 12	12,2	16,5	20	10,7
UF 13	13,1	20	22,2/26*	11
UF 16	16,3	26	30	13
UF 19	19,4	26	30,8	16,7
UF 22	22,8	30,7	38,5	18,5
UF 25	26,0	35,5	41	21

Ceramic ferrule for unthreaded stud and shear connector

Standard Sizes of Shear Studs

Stud Dia. (MM)	Length (MM) BWL	Length (MM) AWL	Weight (Approx.) Kg/1000
10	55	50	42
H = 19	80	75	57
A = 7	105	100	78
	130	125	86
	155	150	99
13	55	50	78
H = 25	80	75	106
A = 8	105	100	127
	130	125	159
	155	150	177
	180	175	210
	205	200	235
16	80	75	161
H = 32	105	100	203
A = 9	130	125	254
	155	150	284
	180	175	322
	205	200	359
	255	250	438

Stud Dia. (MM)	Length (MM) BWL	Length (MM) AWL	Weight (Approx.) Kg/1000
19	55	50	156
H = 32	80	75	216
A = 10	105	100	274
	130	125	334
	155	150	393
	180	175	451
	205	200	487
	230	225	570
	255	250	620
	305	300	717
22	105	100	381
H = 35	130	125	462
A = 11	155	150	542
	180	175	622
	205	200	675
	230	225	753
	255	250	838
	280	275	906
	305	300	967
	355	350	1138
25	105	100	495
H = 41	130	125	600
A = 12.5	155	150	704
	180	175	798
	205	200	902
	255	250	1079

HSFG BOLT NUT & DTI WASHER

High Strength Friction Grip Bolts (HSFG) bolts are high strength structural bolts which have been tightened such as to induce tension in the bolt shank. Due to the tension in the bolt, the interface between the plies (steel members in a joint) cannot move relative to each other.

High friction grip bolts are commonly used in structural steelwork. They normally consist of high tensile strength bolts and nuts with washers. The bolts are tightened to a shank tension so that the transverse load across the joint is resisted by the friction between the plated rather than the bolt shank's shear strength.

STANDARDS	PROPERTY CLASS	RANGE METRIC	FINISH
DIN 931,933,934 IS 13644000,3757 BS 1083,1786 ISO 4014,4017	8.8S/10.9S	M6-M48	BLACKODIZE HOT DIP GALVANIZED ELECTRO ZINC PLATING CADMIUM

Advantages:

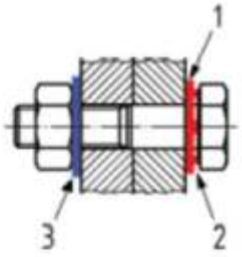
HSFG bolts have the following advantages when compared with normal bolts:

(i) The performance of preloaded HSFG bolts under fatigue loading is good because the prestressed bolts are subjected to reduced stress range during each loading cycle when compared with unloaded bolts.

(ii) For structures adjacent to machinery which generate substantial vibration, preloading bolts can help to avoid the loosening of bolts.

(iii) HSFG bolts are used in connections where any slight slip movement would render the integrity of the whole structures break down.

(iv) Owing to its high tensile strength, it is commonly used in connections which require the taking up of high flexure and the tensile stress generated could be readily resisted by it high tensile strength.



1) Place DTI between material and bolt head (protrusions to bolt head) and the plain washer between material and nut.

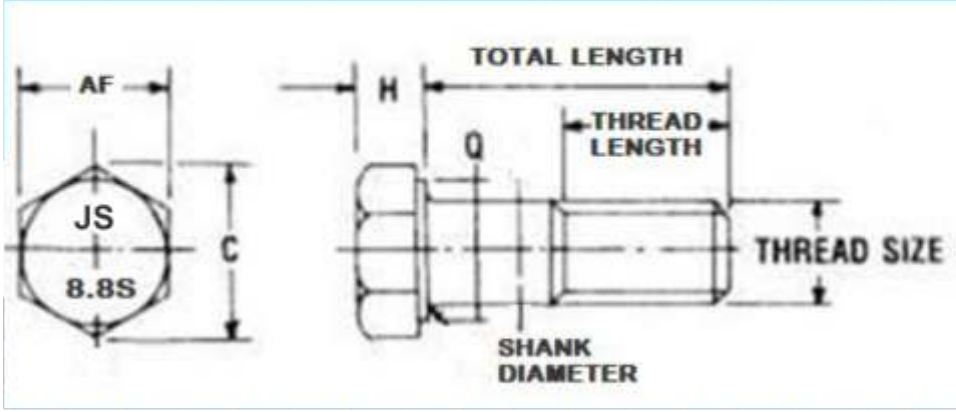
1 - DTI
2 - gap
3 - plain washer

2.) Start tightening by rotating the nut until "snug-tight" (that is when initial deformation of the DTI protrusions begins). Start from the middle of connection to the edges and make sure each bolt is pre-tightened.

3.) Start tightening again. The protrusions are being compressed. Continue until the gap is less than 0,40mm.

Each bolt needs to be tightened to the same level.

Once tightened, the bolt cannot be used again.



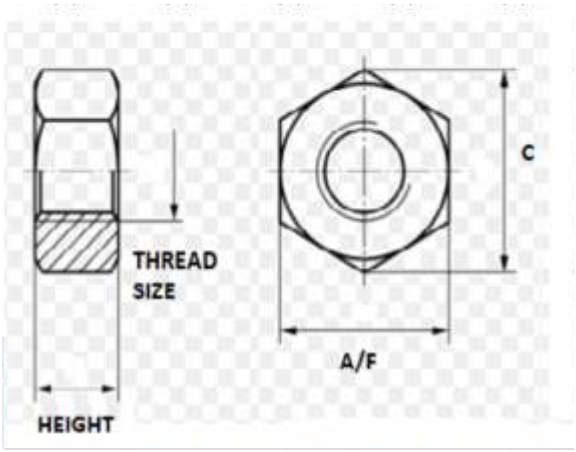
H.S.F.G Bolts, Confirming to IS 3757

DIA & PITCH		M16 x 2	M20 x 2.5	M22 x 2.5	M24 x 3	M27 x 3	M30 x 3.5	M36 x4
SHANK DIA		15.3016.70	19.1620.84	21.1622.84	23.1624.84	26.1627.84	29.1630.84	35.0037.00
A/F		26.1627.00	33.0034.00	35.0036.00	40.0041.00	45.0046.00	49.0050.00	58.0060.00
HEAD HEIGHT		9.2510.75	11.6013.40	13.1014.90	14.1016.90	16.1017.90	17.6519.75	21.4523.55
THREAD LENGTH < 100		31	36	38	41	44	49	56
LENGTH > 100		38	43	45	48	51	58	63
PROOF LOAD N	8.8S	91066	147000	181800	211800	275400	336800	490200
	10.9S	130310	203350	251490	292990	380970	465630	678110

Physical Properties of JS HSFG Bolts:

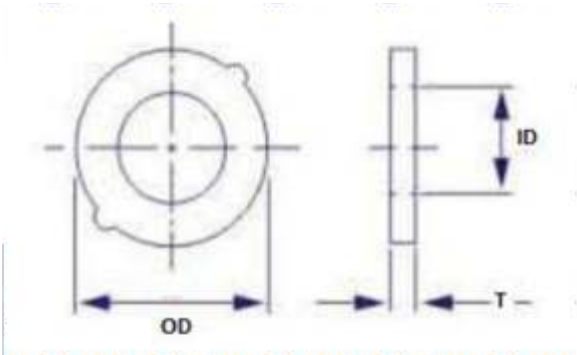
Property Class			8.8S				10.9S	
Diameter			<16		>16		All Diameter	
Unit			N/mm²	Kgf/mm²	N/mm²	Kgf/mm²	N/mm²	Kgf/mm²
Tensile Strength min.			800	81.5	830	84.6	1040	106.0
Yield Strength, 0.2% offset Min.			640	65.2	660	67.2	940	95.8
Proof Lead Stress			580	59.1	600	61.2	830	84.6
Shear Strength, Min.			480	48.9	498	50.8	624	63.6
HARDNESS	BRINELL	HB	219-285		242-319		295-362	
	ROCKWELL	HRC	20-30		23-34		31-39	
Elongation % on GL = $\sqrt{5.65A}$. A= Cross Sectional Area.			12% Min.				9% Min.	

HSFG NUTS Conforming to IS : 6623 : ISO 4775



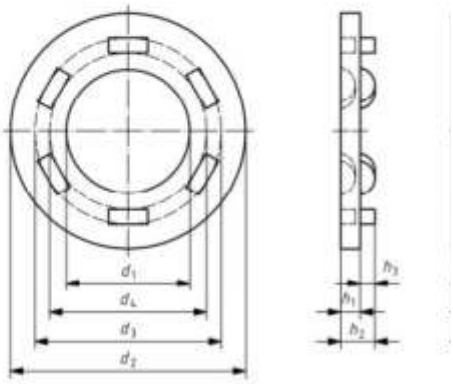
DIA & PITCH		M16 x 2.0	M20 x 2.5	M22 x2.5	M24x3.0	M27x3.0	M30x3.0	M36x3.0	Mech Property	Threads
A/F		26.1627.00	33.0034.00	35.0036.00	40.0041.00	45.0046.00	49.0050.00	58.860.00	Class 8 or 10 as per IS 1367	IS 4218
Height		16.4017.10	19.4020.7	22.3023.60	22.9024.20	26.3027.60	29.1030.70	35.0036.60		
Proof Load N	8.8S	168960	263400	325700	379500	403400	603100	878300		
	1.09S	195500	305000	377200	439500	571500	698400	1017200		
Wt. Kg/1000Pcs		60.4	115.3	142.8	197.7	282.3	365.0	600.0		

H.S.S WASHERS Conforming to IS 6649



SIZE	M 16	M 20	M 22	M 24	M 27	M 30	M 36	HARDNESS
I.D	18.0018.43	22.0022.52	24.0024.52	56.0026.52	30.0030.52	33.0033.52	39.0039.62	35 HRC To 45 HRC
O.D	32.4034.00	40.4042.00	42.4044.00	48.4050.00	54.1056.00	58.1060.00	70.1072.00	
Thickness	3.1-4.6	3.1-4.6	3.4-4.6	3.4-4.6	3.4-4.6	3.4-4.6	3.4-4.6	
Weight Kg/1000 Pcs	20.3	31.3	33.2	44.7	54.8	61.4	89.7	

DIMENSION OF COMPRESSIBLE WASHER- TYPE DIRECT TENSILE INDICATOR



Key

d_1 Internal diameter
d_2 External diameter
d_3 Protrusion tangential diameter
d_4 Protrusion internal diameter
h_1 Material thickness
h_2 Height over protrusions
h_3 Height of protrusions

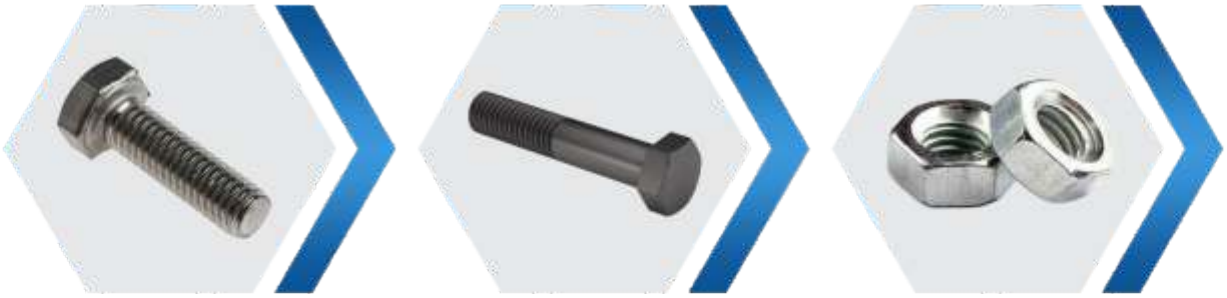
FOR USE WITH BOLT OF DESIGNATION	INTERNAL DIAMETER d_1		EXTERNAL DIAMETER d_2		MATERIAL THICKNESS	HEIGHT OVER PROTRUSION	HEIGHT OF PROTRUSION	PROTRUSION TANGENTIAL DIAMETER	PROTRUSION INTERNAL DIAMETER
	Min	Max	Min	Max	H_{1min}	H_{2max}	H_{3max}	D_{3max}	D_{4min}
M12	12.75	12.85	26.0	32.5	2.50	5.50	0.80	20	13.85
M16	16.75	16.85	35.0	36.8	3.00	6.00	0.80	25	17.85
M20	20.95	21.05	41.0	46.0	3.50	6.50	0.80	29	22.05
M22	23.05	23.15	46.5	50.6	4.00	7.00	0.80	33	24.15
M24	25.15	25.25	50.0	55.6	4.00	7.00	0.80	38	26.25
M27	28.30	28.40	54.0	62.1	4.00	7.00	0.80	43	29.40
M30	31.45	31.55	59.0	69.0	4.00	7.00	0.80	46.5	32.55
M36	37.75	37.85	78.0	83.0	4.00	7.50	0.80	56	38.85

HEX BOLTS & NUTS

Hex Bolts are bolts with external threading and a hex head designed to be driven by a wrench. Hex bolts may be partially threaded or fully threaded, and are available in hex cap (partially threaded after a certain length) and hex tap (always fully threaded). Hex caps and hex taps are both considered "hex bolts". Hex bolts are designed to be inserted into holes with machined, tapped threads, they are available in coarse thread (UNC) and fine thread (UNF). Hex Nuts are a six-sided nut and is the most commonly shaped nut today. They are used with anchor shackles, bolts, screws, and other externally threaded components. Hex nuts in conjunction with these other fasteners are used to connect both metal and wood components to prevent tension and movement.

We manufacture full range of Hex Bolt in Half Thread and Full thread with both Hot Forged And Cold Forged technology.

- FORMING: HOT AND COLD FORGED
- METRIC SIZE RANGE: M6-M56
- IMERIAL SIZE RANGE: ¼ to 2"
- THREADS: UNC, UNF, ISO, BSW, BSF
- Grade: 4.6, 5.6 , 5.8, 6.8, 8.8, 10.9,12.9
- STANDARD: IS 1363 , ISO 898, ASTM A193,BS 1768, BS1083, ASTM A193

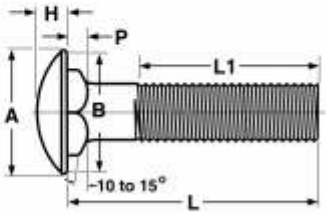


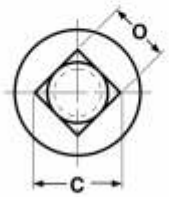
CARRIAGE BOLT

A carriage bolt (also called coach bolt and round-head square-neck bolt) is a form of bolt used to fasten metal to metal or, more commonly, wood to metal. Carriage bolts have a round head with a square neck under the head and a coarse thread pitch. The square neck is designed to keep the bolt from rotating as the nut is tightened.

Our carriage bolts are highly demanded in the market for their features such as corrosion resistant, high strength, light weight, scratch proof, durability, costs effective and greater productivity. With lots of specifications and properties, our carriage bolts make variety of choices for the customers. We are carriage bolts suppliers in India an extensive range to many industries such as farming industry, metal industry, mining industry, automotive, steel, water treatment, aerospace and many other. Hence, we are widely accepted as the best carriage bolt manufacturers in India.

GRADE: 4.6, 5.8, 8.8.
STANDARDS: DIN 603, ISO 8678





METRIC - CARRIAGE BOLTS, SHORT NECK — ISO 8678; DIN 603; JIS B 1171

Nominal Diameter	Pitch (mm)	O		C	P		A	B	H		L1	
		Square Width Across Flats		Square Width Across Corners	Square Depth		Head Diameter	Bearing Surface Diameter under Head	Head Height		Thread Length <=125	Thread Length >125 & <=200
mm		Max	Min	Min	Max	Min	Max	Min	Max	Min	Ref	Ref
M6	1	6.48	5.88	7.64	3	2.4	14.2	12.2	3.6	3	18	-
M8	1.25	8.58	7.85	10.2	3	2.4	18	15.8	4.8	4	22	28
M10	1.5	10.58	9.85	12.8	4	3.2	22.3	19.6	5.8	5	26	32
M12	1.75	12.7	11.82	15.37	4	3.2	26.6	23.8	6.8	6	30	36
M16	2	16.7	15.82	20.57	5	4.2	35	31.9	8.9	8	38	44
M20	2.5	20.84	19.79	25.73	5	4.2	43	39.9	10.9	10	46	52

Tolerance on Length	12-16mm: -0.9	20-30mm: -1.05	35-50mm: -1.25
	55-80mm: -1.5	90-120mm: -1.75	130-160mm: -2.0

CRASH BARRIER BOLT

We manufactures Button Head Bolts which provides strong connection to the Crash BarriersTo safeguard the accidents, Road Crash Barriers or Guard Rails are installed at the road sides, especially on turning-points. We manufacture special grade Bolts and Nuts for these road crash barriers.

Features:
- Long life span
- Perfect Strength
- Dimensionally accurate
- Competitive price

Specifications:
- Range: M16
- Grade: 4.6 & 8.8
- Finish: Self/Black Phosphate, Hot Dip Galvanized

THREADED RODS & STUDS

Threaded rod (also referred to as threaded bar, or all thread) is typically used in building, plumbing and general maintenance applications, to stabilise objects made from wood, metal or other materials. Threaded rods can be used for example to join metal and wood, in wall construction and also in furniture. The threading enables nuts, bolts etc to screw on to the rod quickly and easily. Threaded bar is supplied in a range of thread configurations and diameters. All Thread Threaded Rod (Din 976-1) also known as threaded studs or threaded bar, are effectively long pieces of bar that have been threaded. Generally stocked in 1 metre, 2 metre or 3 metre lengths and fully threaded from one side to the other.

Standard lengths / diameters available from stock and we also supply all thread in cut lengths to order, with short lead times.

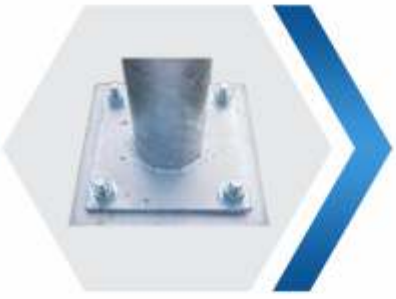
Threaded Rod (all thread) is available in various materials, including mild steel 4.8, high tensile steel 8.8, high tensile steel 10.9, B7, with other materials also available to order.

ANCHOR BOLT / FOUNDATION BOLT

Foundation bolts are mainly used in pre-engineered buildings manufacturing, fastening heavy machines to foundations and construction. They are also used in process-based businesses like petrochemical, sugar, and FMCG manufacturing. It is mostly used for industrial purposes and therefore made with heavy duty stainless steel or carbon steel. However, at LC Fasteners, we can manufacture customised foundation bolts with any material of your request.

Various types of Foundation Bolt we manufacture are:
- Bent-bar anchor bolts (J-bolts or L-Bolts)
- Eye Foundation Bolt(Gulli Type)
- Sleeve Anchor Bolts
- Plate Bolts
- Swedge Bolts

Size Range: M10-M75
Grade:4.8, 6.8, 8.8, 10.9, 12.9, ASTM,A193 GR. B7. Standard, ASTM,IS STANDARD.



ANCHOR FASTENERS

JS PIN/ZEBRA FASTENERS

ADVANTAGES

- Installing heavy equipment and machinery.
- Fixing balustrade, barriers, roller shutter doors, fire doors and switchgear.
- Securing structural fixtures.
- Optimum taper nut angle for maxmimum expansion in all substrates.
- Shield available seperately.

APPLICATIONS

- For use in concrete and most types masonry.
- Ideal for overhead and ceiling work or heavy items.
- Securing cable trays. Ducting and trunking.
- Installing partitions and structural fixtures.
- For use in Roller shutter doors.
- For use in Fire doors.
- For use in Steelwork.

JS DROP IN ANCHOR

ADVANTAGES

- Available in Carbon steel & Stainless steel.
- Maximum expansion against the wall of the hole.
- Shell is forced outward in four directions compressing against the walls of the hole.
- Developed compression force is usually very high when com-pared to torque controlled anchors, hence low displacement.
- Larger bearing area.
- Fixes equipments that may require to be removed and replaced.
- Flush fitting - no protrusions when not in use.

APPLICATIONS

- For fixing light weight equipment to ceilings and walls using threaded rods.
- Attaching pipe works to ceilings and walls.
- Fixing wire-mesh for debris control.
- Racking.
- Suspended services in stadium seating.

JS RAWL BOLT

ADVANTAGES

- Easy installation into the base material through the fixture and series installation.
- Used when marking out, hole spotting is difficult
- Ensures large time saving as a result of smaller drill hole.
- Can be used in tension zone.

APPLICATIONS

- Installing heavy machinery & other fixtures when it is difficult to mark out the hole.
- Fixing of protective railings.
- Fixing console, traverses and ducts.
- Fixing cable lines & safety equipments.
- Steel to concrete: Columns, racking, safety barriers, hand rails and stair ways.

JS THRU BOLT

ADVANTAGES

- Deformation controlled anchor with less displacement (Load – dis placement curve similar to adhesive type anchors).
- Easy installations.
- Through fixing and series installation.
- Yellow passivated or sheradised to ensure optimum protection against corrosion.
- Also available in stainless-steel.

APPLICATIONS

- Timber to concrete: From work, battens and bottom plates.
- Services: Duct work, Pipes brackets, cable trays.
- Metal work: Signs, hand rails and gates.

JS EYE HOOK FASTNER

ADVANTAGES

- Suitable for permanent anchorage.
- Securing guy ropes, stays and cables.
- Supply complete with shield washer & hex nut.
- Optimum geometry taper angle for maximum expansion in all substrates.
- Hook and forged eye designed & manufactured for maxi-mum preformance.

APPLICATIONS

- Suitable for use as a secure anchor for hanging.
- Supporting non-safety realated cables.
- Supporting lighting fixtures and equipment
- Providing secure anchorage for chain barriers.
- Supporting ladder restints

U BOLT, L BOOK & J HOOK

A U-bolt is an industrial fastener in the shape of the letter U with two threaded arms (or legs) extending from a curved base. U bolts are typically used to support pipe work or to attach a part to a pole, beam or wall, where the "u" shape keeps it firmly in place, adding stability to the support. U-Bolts are often used for the attaching of pipes or steel round bars to round wood or steel posts, and may even be used to hang wrought iron pipe in mechanical installations or be embedded in concrete as anchor bolts. These are essentially a single piece of mild or stainless steel bar that is threaded at the end of either side and then shaped as the letter U.

Size Range: 15NB to 500NB

J-bolts are J-shaped fasteners, threaded on the flat side. They are often used in structural applications like securing walls to concrete foundations. The bent end hooks around rebar for support, and may be cast in concrete for use as an anchor bolt. **Size Range: 6mm to 25mm**

L Bolts are most commonly used when attaching a plate member to masonry foundations and providing an anchor for lightweight post bases. Commonly referred to as an L-shaped anchor bolt, they are also known as a 90-degree anchor bolt. **Size Range: 6mm to 25mm**

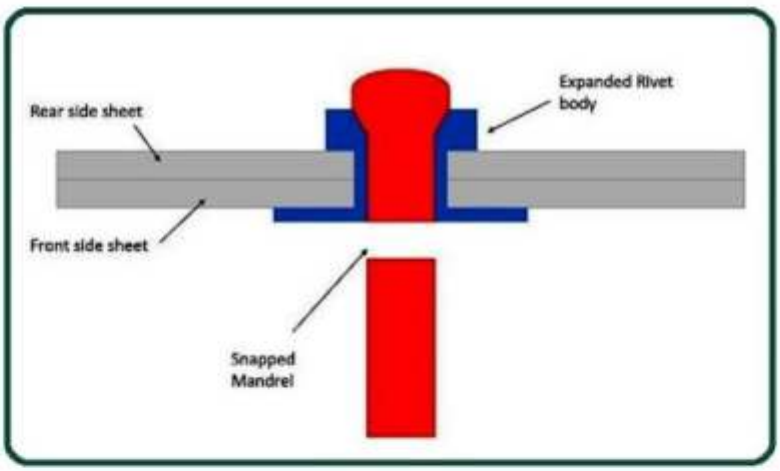
RIVETS

A rivet is a mechanical fastener consisting of a smooth, cylindrical shaft with a head. Snap head rivets are widely used in various industries like manufacturing and construction. Snap head rivets have applications where you need a permanent joint. It is a two piece rivet that can be used to join two or more materials of different thicknesses. JS Rivet has gained expertise in manufacturing snap head rivets apart from other types of rivets, and these rivets are greatly preferred because it is easy to use, fine quality, corrosion resistance and light weight.

- **Hot Forged Rivet**
- **Cold Forged Rivet**

Flat head rivet is in the form of a solid cylindrical rod, provided at one of its ends with a "head" which is round. RIVETS are manufactured in a wide variety of material LOW CARBON STEEL 4.6,4.8,5.6,6.8, 8.8

Rivets are manufactured in metric sizes ranging from diameter 6mm to 25mm and lengths of between 6 mm up to 100 mm as standard. Non-standard dimensions are also available on request



SQUARE BOLT/ FISH BOLT

Fish bolt is used for connecting the rail ends with the help of rail joints. Each rail joint needs at least two fish bolts according to the rail standard, and the bolt should be in proper size and suitable place. Rail bolt is usually used with spring washer and nut to fasten the rail tightly. The size of rail bolts varies as the variation of the rails or fish plate. At JS, we provide various types of rail bolt suited for different standard rails such as BS, ASTM and Din, etc.

Standards: GB, DIN, ISO, ANSI/ASTM, B7, BS, JIS etc
Grade: 4.8, 6.8, 8.8, 10.9, 12.9
Size: M12-M24 or upon customer request

FALLA BOLT/ PLOUGH BOLT

A bolt that has a conical head with a flat top and a smaller square shank below the head to keep the bolt from turning as its nut is tightened. Such bolts are used to hold parts of the plow together that have scouring surfaces.

We are involved in manufacturing, exporting and supplying excellent quality Falla Bolt to our most valued clients. Our offered Falla Bolt is widely appreciated by our clients which are situated all round the nation. We offer Falla Bolt at most affordable prices.

Size Range:3/8, 7/16, 10MM
Finish : Autoblack , Zinc Electroplated , Self Finish

TAPPER WASHER

Taper Washer are square or half round, Taper washers are designed to be used on channel sections, underneath nuts with tapered flanges to enable the bolt assembly to fit square when tightened. We are only manufacturer of best quality tapper washer in India. We have in stock of full range of tapper washer as per ISI Standard.

DIMENSIONAL STANDARDS: IS 5372, IS 5374, DIN 434
SIZE RANGE: M6 TO M36

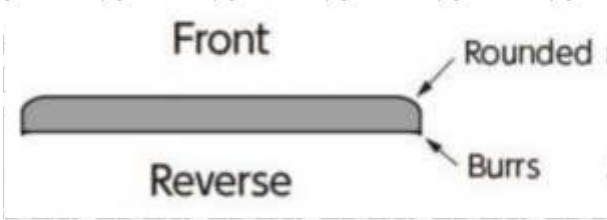
PLAIN WASHER/ FLAT WASHER

A plain washer is a thin plate, which is most commonly has a disk-shape with a hole in middle. It is widely used to distribute the load of a threaded fastener. Plain washers are used to provide a larger bearing surface where screws, bolts and nuts come in contact with the bearing surfaces.

The main role of flat washers is to increase the size of a screw's bearing surface area, and reduce the surface pressure applied on the fastened object.

Looseness can result when the bearing surface sinks under the surface pressure, so using a flat washer to reduce the surface pressure is very effective.

Incidentally, since flat washers are basically manufactured by pressing, one side has rounded corners and one side has burrs, as shown in the figure.



There is no fixed rule about which side goes up and which goes down, but given the issue of bearing surface pressure mentioned above, it's more effective to put the burred side facing down

DIMENSIONAL STANDARDS:
DIN 125,ISO 7089, DIN 6916, ISO7092, IS 2016 Type A, IS 2016 Type B,DIN 433, ASTM F436-023

SIZE RANGE:
Metric: M5 to M64
Inches: 3/16 to 2 ½"

SPRING WASHER

Vibration, differential thermal expansion, bolt creep and yield, and relaxation can all cause a loss of bolt preload, which leads to loosened joint and bolt failure. Springs Washers are compressible and highly configurable fasteners designed for use with bolts, studs, nuts, gaskets, and other industrial components to prevent loosening that leads to bolt failure and fugitive emissions.

Industrial spring washers achieve optimally tight connections in gasket and packing applications and are self-damping with long service life. Features and benefits of spring washers include:

- Maintenance of tight bolted connections
- Use washers individually or stack in series, parallel, or combination configurations
- Available in inches and metric sizes
- Industry standard and exotic material options
- Maintain bolt preload to reduce bolted joint failures

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