



ARUSH MECHANICAL WORKS



Manufacturer of:

Various types of Fasteners for Mid Stream & Downstream Application
Such as Stud, Bolt-Nut, Anchor Bolt, U Bolt etc.
in C.S, S.S, & High Tensile A.S and Special grades.



BRIEF COMPANY DETAIL

Company Name	Arush Mechanical Works
Address	Plot No. 254, Por Industrial Park, Behind Sahyog Hotel, N.H-8, Dist.: Vadodara – 391243, Gujarat.
Status	Proprietorship Firm
E-Mail ID	info@arushmechanical.com
Website	www.arushequipments.com
PAN No.	BMHPD8428B
Connectivity	Nearest Air Port : Vadodara Airport 40KM (Domestic) Ahmedabad Airport 120KM (International) Nearest Sea Port: Dahej 100KM, Hazira 130KM, Mundra 400KM, Nhava Seva 400KM

2. About Us:

- ▶ Arush Mechanical Works is Engineering oriented unit established in 2020 located on Delhi - Mumbai Industrial Corridor, N.H-48, are manufacturer of wide range of Manufacturer of: Various types of Fasteners for Mid Stream & Downstream Application Such as Stud, Bolt-Nut, Anchor Bolt, U Bolt etc. in C.S, S.S, & High Tensile A.S and Special grades. which are used in the field of OIL & GAS Sector, Petrochemical Refinery, Pharmaceutical Industry, Food Processing Plant as well Water Treatment / Processing Plant.
- ▶ Arush Mechanical Works is located at , Plot No. 254, Por Industrial Park, Behind Sahyog Hotel, N.H- 8, Dist.: Vadodara – 391243.Gujarat.
- ▶ We design, fabricate & Manufacture job according to customer's requirement / specification / Drawing, parallel to maintaining Quality.
- ▶ We have a team of Engineer with well qualified, experienced & resourceful who are worked with this field with last 5 to 7 years.

3. Vision

- ▶ To provide an ultimate fastening solution as per customer's choice & requirement in the global market.

4. Mission

- ▶ To manufacture products that meet and exceed customer requirements and expectations at the most competitive price using efficient business processes there by offering value for money for our customers.

5. Our Philosophy

- ▶ We are committed to enhance customer satisfaction and continually improve as per the context of the organization and support its strategic direction through our Quality Management Systems and performance. We intend to achieve this through the following:
- ▶ Developing products and capabilities competent with the global standards
- ▶ Continuous endeavor for process, system improvement and value additions
- ▶ Provision of adequate resources to meet the set standards.
- ▶ Delivering quality products and service
- ▶ Developing and maintaining motivated staff.
- ▶ Promoting team based work environment
- ▶ Commit to comply all applicable Statutory & Regulatory requirements.

6. Technical Highlights

- ▶ **Technical:** Our concentration to achieve optimum level of quality product with continuous watch by our team of technical expert on Destructive/ Non Destructive testing of our entire products.
- ▶ **Process:** During Process: Non Destructive Testing (NDT)+ Dimensional + Visual with surface test.
- ▶ **Product:** Final Non Destructive Testing(NDT)/Destructive witness by our Q.A./T.P.I./Client. Various testing is performed to maintain superior quality like Magnetic Particle Examination for CS & SS, Liquide Penetration Examination on Bevel end as well as all weld Joint, Radiography examination on Weld Joint specially at T-Joint. All Testing is carryout as per relevant ASME standard.
- ▶ **Extra Care:** Our products are carefully killed/Heat-treated with cycle heating as per the relevant MOC code with induction heating (Electric furnace).

- ▶ **Calibration:** Machineries / Scales / Measuring Instruments / Electro Mechanical Instruments are calibrated periodically.
- ▶ **Traceability:** Traceability is an essence of the product supplied even after significant tenure. Having given a reference of Unique ID No., history of the material/product supplied can be identified

7. Technical Datasheet

Size	Material Specification	Dimension Standard
M6 to M48	MS / AS / SS	IS 1364,
5/8 to 2"	Grade 4.6, 5.8, 8.8, 10.9, 12.9	ISO4014/4017,
Length 25 to 1000mm	A193 (B7, B16, B8), A194 (2H, 4 & 7) A2, A4 (SS304 / Ss316)	DIN931, DIN 933, BS 1083 BSF/BSW, 1768UNC/UNF , ASME B18.2.1

8. Products

- ▶ **THREADED STUD**
- ▶ **ANCHOR (FOUNDATION) BOLT**
- ▶ **U BOLT / U CLAMP**
- ▶ **HEX BOLT**
- ▶ **NUT**
- ▶ **WASHER**

Certificate of Registration


ROHS

This is to Certify That The Quality Management System of
ARUSH MECHANICAL WORKS
PLOT NO.254, POR INDUSTRIAL PARK, BEHIND SAHYOG HOTEL, N.H-08,
DIST. VADODARA –391243, GUJARAT, INDIA.

has been assessed and found to conform to the requirements of
ISO 9001:2015
for the following scope :

VARIOUS TYPES OF FASTENERS MATERIAL LIKE
STUD, BOLT-NUT, ANCHOR BOLT, U BOLT, WASHER ETC.
IN MILD STEEL, ALLOY STEEL & STAINLESS STEEL

CertificateNo	20DQH083/R1	Issuance Date	: 13/10/2022
Initial Registration Date	: 05/01/2021	Date of Expiry**	: 04/01/2024
1st Surve. Due	: 05/12/2021	2nd Surve. Due	: 05/12/2022

QUALITY MANAGEMENT SYSTEM

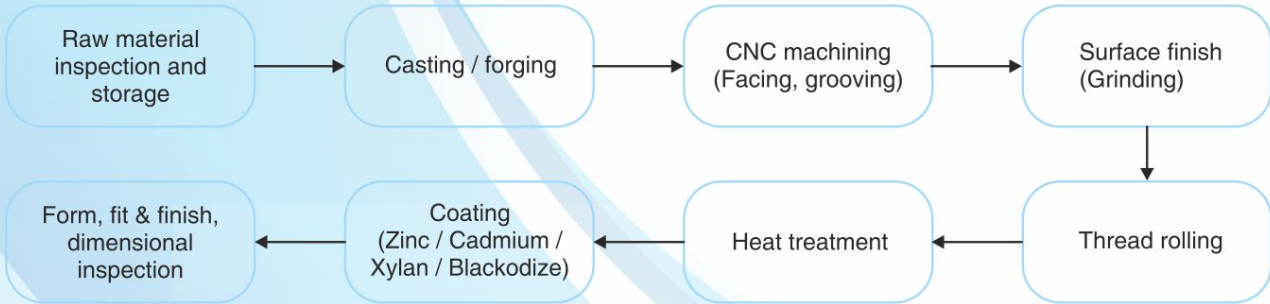


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IAF
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CB-QMS-035



MANUFACTURING FLOW PROCESS OF FASTENERS



BOLT SELECTION TABLE

DESIGN TEMP.	FLANGES	GRADE THREAD RODS	GRADE NUTS
195° to 102°C	ASTM A182 Gr. F304, F304L, F316, F316L, F321, F347	A320 Gr.B8 Class2	A194 Gr.8A
101° to -47°C	ASTM A350 Gr.LF3	A320 Gr.L7	A194 Gr.7
46° to -30°C	ASTM A350 Gr.LF2	A320 Gr.L7	A194 Gr.7
29° to 427°C	ASTM A105	A193 Gr.B7	A194 Gr.2H
428° to 537°C	ASTM A182 Gr.F11, F22	A193 Gr.B16	A194 Gr.2H
538° to 648°C	ASTM A182 Gr.F11, F22	A193 Gr.B8 Class1	A194 Gr.8A
649° to 815°C	ASTM A182 Gr. F304H, F316H	A193 Gr.B8 Class1	A194 Gr.8A

HEAT TREATMENT

ANNEALING	A thermal cycle involving heating to, and holding at a suitable temperature and then cooling at a suitable rate, for such purposes as reducing hardness, improving machinability, facilitating cold working, producing a desired micro structure, or obtaining desired mechanical or other properties.
STRESS RELIEVING	A thermal cycle involving heating to a suitable temperature, usually 1000/1200°F, holding long enough to reduce residual stresses from either cold deformation or thermal treatment, and then cooling slowly enough to minimize the development of new residual stresses.
CASE HARDENING	A term descriptive of one or more processes of hardening steel in which the outer portion, or case, is made substantially harder than the inner portion, or core. Most of the processes involve either enriching the surface layer with carbon and/or nitrogen, usually followed by quenching and tempering, or the selective hardening of the surface layer by means of flame or induction hardening.
QUENCHING AND TEMPERING	A thermal process used to increase the hardness and strength of steel. It consists of austenitizing, then cooling at a rate sufficient to achieve partial or complete transformation to martensite. Tempering should follow immediately, and involves reheating to a temperature below the transformation range and then cooling at any rate desired. Tempering improves ductility and toughness, but reduces the quenched hardness by an amount determined by the tempering temperature used.

WE SERVING THIS PRODUCT TO FOLLOWING SECTORS

Oil and Gas industry	Non-conventional energy sector (Solar, Wind)
Petroleum Refineries	Steel plants, Aluminium plants
Petrochemical plants	Fertilizer plants
Chemical Plants	Ports and Infrastructure sector
Power plants – Thermal, Nuclear, Hydro	Water Processing Plant
Pharmaceutical Industries	Food Processing Plant
Marine & Shipbuilding Industry	Sugar & Rubber Industries
Paper & Pulp Industries	Automobile Industries
Cement Plant & Textile Industry	Various Engineering Unit



ANCHOR – FOUNDATION BOLT



	Matric	Inches	Material in MS	Material in SS	Dimension Standard
Size	M12 to M60	½" to 2.5"	ASTM F1554 Is1367 Gr. 4.6,8.8,10.9,12.9, A193 Gr.B7, B16 etc.	A193 Gr. B8, B8M, SS304, 316, 201, 317,310,410, Duplex steel 2205	IS5624 & as per client requirement
Lenth	Up to 3000 mm	Up to 120 Inch			

IMPERIAL

METRIC

lbf/in
(PSI)

Mpa (N/mm)

SAE Grade 8 (AS 2465) (High Tensile).....150 000

SAE Grade 5 (AS 2465) (High Tensile).....120 000

STAINLESS PROPERTY CLASS 80
e.g. 316-80, 2343 & A4-80

STAINLESS PROPERTY CLASS 70
e.g. 314-70, 316-70

STAINLESS PROPERTY CLASS 50
e.g. No. Marking

BSW Mild Steel (AS 2451) 62 000

65 000

58 015

1 200..... Class 12.9 (AS 1110) (High Tensile)

1 100

1 034..... Class 10.9 (AS 1110) (High Tensile)

1 000

900

827..... Class 8.8 (AS 1110) (High Tensile)
OR High Strength Steel (Structural) (AS 1252)

800 STAINLESS PROPERTY CLASS 80
e.g. A4-80 & 2343

700 STAINLESS PROPERTY CLASS 70
e.g. Typical A2-70 (304), A4-70 (316)

600

550

520..... Class 5.8 (AS 1110)

500 STAINLESS PROPERTY CLASS 50
e.g. No. Marking

450

427

400..... Class 4.8 (AS 1110)
Mild Steel (AS 1390)



THREADED STUD



	Matric	Inches	Material in MS	Material in SS	Dimension Standard
Size	M12 to M64	½" to 2.5"	IS1367 Gr. 4.6,8.8,10.9,12.9,	A193 Gr. B8, B8M, SS304, 316, 201, 317,310,410,	ASME B19.2.1 IS 1364 DIN931 / 933
Length	Up to 3000 mm	Up to 120 Inch	A193 Gr.B7, B16 etc.	Duplex steel 2205	ISO 4014 / 4017 BSF / BSW BS1083 / 1768

THREADED BOLT & NUT



	Matric	Inches	Material in MS	Material in SS	Dimension Standard
Size	M12 to M48	½" to 2."	IS1367 Gr. 4.6,8.8,10.9,12.9,	A193 Gr. B8, B8M, SS304, 316, 201, 317,310,410,	ASME B19.2.1 IS 1364 DIN931 / 933
Length	Up to 300 mm	Up to 12 Inch	A193 Gr.B7, B16 etc.	Duplex steel 2205	ISO 4014 / 4017 BSF / BSW BS1083 / 1768

	Matric	Inches	Material in MS	Material in SS	Dimension Standard
Size	M12 to M48	½" to 2."	IS1367 Gr. 4,8,10,12,	A194 Gr. B8, B8M, SS304, 316, SS410,	ASME B19.2.1 IS 1364 DIN931 / 933
			A193 Gr.2H, 4, 7,etc.	Duplex 2205	ISO 4014 / 4017 BSF / BSW BS1083 / 1768

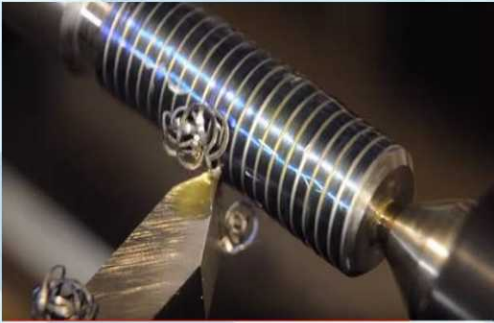
U BOLT / U CLAMP



	Matric	Inches	Material in MS	Material in SS	Dimension Standard
Size	M6 to M24	½" to 1."	IS1367 Gr. 4.6.,8.8	A193 Gr. B8, B8M, SS304, 316, 201, 317,310,410,	DIN3570, IS4293, DIN3567 &
Pipe Size	21mm to 1220mm	½" to 48"	A193 Gr.B7 etc.	Duplex steel 2205	as per client requirement



MANUFACTURING



FASTENERS SIZE, MATERIAL AND EQUIVALENT STANDARD

Product	Size Range				Property Class		Equivalent Standards				
	Diameter		Length		Metric	Inch	IS	ISO	DIN	BS	ANSI/ASME
	Metric	Inch	Metric	Inch							
High Tensile Hex Head Screws/Bolts	M16 to M64	5/8" to 2.1/2"	25 mm to 750mm	1" to 30"	8.8, 10.9 Also in 9.8 & 12.9, 14.9, B7, B16 etc.	Grade R,S,V,X and Gr R, Gr 5	1364	4014 4017	931 933	BS 1768	B18.2 1/ B18.2. 1M ASTM 193 / 307
High Tensile Hex Nuts	M16 to M64	5/8" to 2.1/2"			Gr 8, Gr 10, Gr 12, Gr 2H, Gr4 etc.	Gr 8, Gr R, Gr 5	1364	4032	934	BS 1768	B18.2 4. 1M/ B18.2 ASTM 194
Stainless Steel SS-304 Hex Head Screws/ Bolts	M16 to M64	5/8" to 2.1/2"	25 mm to 750mm	1" to 30"	A2 - 50, 70, 80, B8	Equivalent to A2 - 50, 70, 80	1364	4014 4017	931 933	BS 1768	B18.2 1. / B18.2 1M ASTM 193 / 307
Stainless Steel SS-316 Hex Head Screws/ Bolts	M16 to M64	5/8" to 2.1/2"	25 mm to 750mm	1" to 30"	A4 - 50, 70, 80, B8M C/1 / C/2	Equivalent to A4 - 50, 70, 80	1364	4014 4017	931 933	BS 1768	B18.2 1. / B18.2 1M ASTM 193 / 307
Stainless Steel Hex Head Nuts in SS-304 and SS-316	M16 to M64	5/8" to 2.1/2"			A4 - 50, 70, 80, B8 A4 - 50, 70, 80, B8M	Equivalent Property Class	1364	4032	934	BS 1768	B18.2 1.4 1M B18.2.2 ASTM 194
High Tensile and Stainless Steel Socket Head Cap Screws	M16 to M36	5/8" to 1.1/2"	25 mm to 600 mm	1" to 24"	8.8, 10.9 12.9 A4 - 50, 70, 80, A4 - 50, 70, 80,	Equivalent Property Class	2269	4762	912	BS 4168 (Metric), BS 2470 (Inch)	B18.3 1M / B18.3
High Tensile and Stainless Steel Fully Threaded Studs	M16 to M64	5/8" to 3"	1 Meter, 2 Meter, 3 Meter	3 Feet, 6 Feet, 9 Feet	8.8, 10.9, A2 -70 A4 - 70	Equivalent Property Class			975 / 976		B16.5.1
High Tensile and Stainless Steel Double Ended Studs	M16 to M64	5/8" to 2.1/2"	25 mm to 750mm	1" to 30"	8.8, 10.9, A2 -70 A4 - 70	Equivalent Property Class	1862		939 / 835 940		
High Strength Structural Bolts, Nuts and Washers	M16 to M36	5/8" to 2.1/2"	40 mm to 300mm	1.1/2" to 12"	8.8 S10.9 S or Equivalent	Equivalent Property Class	3775, 6623, 6649	7412, 4775, 7415	6913, 6914, 6915	BS 4395	ASTM 325, A563, F436 / ASTM A 450, ASTM 307
Stud Bolts with 2 Heavy Hex Nuts	M16 to M64	5/8" to 3"	25 mm to 3000mm	1" to 120"	As per Stu eg. B7/B8M C/1/C/2 /B16 etc..						A 193 /A 320 / A 194 / A 307



CLIENT



An ISO 9001:2015

Arush Mechanical Works

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