



# AL RASHED FASTENERS COMPANY PROFILE



"Quality & Commitment Since 1978"





موقف زوار  
VISITORS PARKING  
→



A-AL RASHEED  
INS GROUP



مجموعة رشيد  
للخدمات الهندسية







## Company Profile

Al Rashed Fasteners (RF) is a company of Rashed Al Rashed & Sons Group, a pioneering business conglomerate of the kingdom of Saudi Arabia. The company was founded in 1978 to manufacture low carbon, medium carbon, high carbon and alloy fasteners. It was established to serve the requirements of oil, gas & Middle Eastern markets.

Our sustained contracts with SAUDI ARAMCO, SABIC (Saudi Arabian Basic Industries Corporation) and other major companies of the Kingdom reflect the quality of our products & services. With annual production capacity of 18000 MT, Al Rashed fasteners (RF) is the largest producer of fasteners in the Middle East & MENA region.



Quality & Commitment Since 1978



## Products

Our Products include hex bolts, nuts, washers, stud bolts, stainless steel stud bolts nuts, automotive fasteners & specials.

The fasteners are produced as per various international standards such as ASME, ASTM, ANSI, BS, DIN, ISO, SAE, JIS and as per customers' specifications.







## Project References

Habshan 5 Process Plant Project

**UAE**

Asab FFD Project

**UAE**

Shah Gas Development Project

**Abu Dhabi**

Takreer Ruwais Refinery Project

**UAE**

GNL 32 Project

**Algeria**

PMP Project

**Qatar**

Bapco STG Project

**Bahrain**

Nuberia Power Plant Project

**Egypt**

Abuqir Power Plant Project

**Egypt**

Jubail export refinery project,

**Saudi Arabia**

Manifa oil field development project

**Saudi Arabia**

Karan utilities and co-generation project

**Saudi Arabia**

Tanjib water treatment plant expansion project

**Saudi Arabia**

Yanbu Export Refinery Project

**Saudi Arabia**

Hail Jof transmission line tower project

**Saudi Arabia**

Juaymah Gas plant

**Saudi Arabia**



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## Quality Management System

Al-Rashed Fasteners (RF) is a fully integrated plant having facilities to handle complete manufacturing process required for fasteners starting from wire processing to surface finishing which ensures total control. The company employs qualified, trained, experienced and competent multi-national workforce to exceed the quality expectations of our valued customers. The company operates on quality management system based on the requirements of ISO: 9001:2008, & API spec Q1.







## We have in house testing facilities which include:

Non Destructive Testing like:

- PMI (Positive Material Identification) by Alloy Analyzer
- Magnetic Particle Testing (MPI)
- Liquid Penetrant Testing (LPT)
- Ultrasonic Testing (UT)
- Destructive Testing such as Tensile, Yield, Shear, Impact & Proof Load Testing
- Elongation & Reduction, Compression, Bend & Torque Testing
- Hardness Testing (Rockwell, Brinell, Vickers)
- Chemical analysis by Spectromax, fully equipped chemical laboratory for Process control & Inspection.
- Metallurgical Analysis of Micro Structure.
- Macro Test
- Profile Projector for analysis and inspection of various critical profiles.
- Thread inspection by Master Calibrated Screw Thread Ring and Plug Gauges.

We have all the necessary precision - measuring instruments like Digital Vernier Callipers, Dials and Micrometers. All destructive & non-destructive testing is carried out in house by well qualified and trained inspectors according to the applicable international standards.



Quality & Commitment Since 1978

# Our Markets



Morocco

# Our Quality Certification







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[www.alrashed-fasteners.com](http://www.alrashed-fasteners.com)  
**UAN: 9200 14009**

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AL RASHED FASTENERS  
"QUALITY & COMMITMENT SINCE 1978"

# TECHNICAL CATALOGUE



AL RASHED FASTENERS  
[www.alrashed-fastners.com](http://www.alrashed-fastners.com)





AL RASHED GROUP

Founded in 1950. Al-Rashed Group has helped the national economy grow to its present strength. Operating through a network of Commercial & industrial divisions, the group has evolved a special role for itself in virtually every sector of the Saudi Economy. Besides the wholly owned subsidiaries, Al-Rashed has partnerships with both the Saudi & foreign entrepreneurs, & Over the years, the conglomerate has assumed vital stakes in the fastest growing private Sector.



AL RASHED FASTENERS

Manufacturing & Marketing a whole range of quality Fasteners to international standards and hold Kingdom's giant industrial & structural infrastructure in place. By reaching for the Gulf & Middle Eastern markets, it is helping diversify the Economy - an explicit national goal. Major local clients of the concern include Saudi Aramco, Scecو, Sabic and the private sector.







## AL-RASHED FASTENERS DIVISION

Our products include forged bolts (both hot & cold), nuts, and automotive fasteners besides the stud & anchor bolts. Quality standards are ensured through Hi-Tech facilities like heat treatment, Hot-dip galvanizing and electro galvanizing. These techniques satisfy specialized demands for high-tensile usages.

State of the art latest machinery are being used for the manufacturing like cold blot formers, flat and circular thread rollers equipped with process monitoring devices, all intended to improve product quality and aim at zero defect. In process areas like heat treatment, electroplating and hot dip galvanizing computerized controls are used to maintain process parameters and thereby ensure consistent quality of the products.

Processes are compatible to handle high tensile fasteners to maintain product characteristics as mentioned in various international standards. Proper handling and packing methods are adopted to ensure product quality.



# WHY PREFER AL RASHED FASTENERS?

## HIGHER VALUE FOR YOUR MONEY

Equipped with dimensional accuracy and higher strength levels, **AL-Rashed Fasteners** offer's you substantial const-saving in the joint preparation & assembly stages thereby raising the value of your money.

## THE FOLLOWING RULES ESTABLISH THIS VALUE APPRECIATION.

1. Cost of fasteners is disproportionate with their utility. Consequently, the reliability of 95% cost of the project rests on 5% cost of the fasteners giving them high value responsibility in industry.
2. Fasteners cost is a minor percentage (5%) of that of the whole fastening system i.e In Place Cost of the System (IPC), itself.
3. The IPC cost, for a given joint, can be reduced by using lesser bolts or smaller diameter bolts. This can only done through smaller fasteners with highest tensile strength. Obvious advantage would be a lighter and smaller assembly.
4. In which event costs would be cut under all the heads of IPC making the assembly economical.



To reduce the in-place cost, it is, therefore, obvious that in a given joint, either the number of bolts used should be reduced, or diameters of the bolts used should be reduced. This is possible by selecting smaller size fasteners with higher tensil strengths. The added advantage will be a lighter and smaller assembly.

Equipped with dimensional accuracy and higher strength levels, AL-RASHED FASTENERS offer you substantial cost-saving in the joint preparation & assembly. Value of your money is raised after heeding to the following rules.





## WHY INSIST ON RF HIGH TENSILE HEXAGON HEAD BOLTS, SCREWS AND NUTS

High Tensile Hex Bolts and Nuts by AL-RASHED are used in a wide range of applications including automotive, structures, machine building and electrical industries. Their special design and properties offers several benefits.



Rolled Threads



Bolt

### ROLLED THREADS

Threads are rolled, not cut or ground. Rolled threads are more uniform and have closer tolerances. Countour follwing flow lines eliminate planes of weakness and improve fatigue strength.

### DIMENSIONAL TOLERANCE

They are held to precision grade to give maximum cross-section area and ensure smooth assembly.

### HEAT TREATMENT

Heat treated in a controlled atmosphere to achieve maximum strength and toughness.

### FORGED HEADS

In contrast to conventionally machined bolts, which cut metal fibers, break fiber flow lines and create planes of weakness at stress points, controlled forging gives uniform grain flow with unbroken fiber lines; makes heads stronger ; besides preventing fatigue failure in the vital area.

### SPECIAL UNDER-HEAD FILLET DESIGN

Provides smooth transition in the area from head to shank; reduces stress concentrations; improves fatigue life.

# WHY INSIST ON RF HIGH TENSILE HEXAGON HEAD BOLTS, SCREWS AND NUTS

## ADVANTAGES OF HIGH TENSILE FASTENERS: MAXIMUM STRENGTH WITH MINIMUM OF FASTERERS.

High Tensile Hex Nuts are forged to precision grade dimensions to ensure smooth assembly. In addition, heat treatment is done to suit the chemistry of every part of steel. This imparts optimum mechanical properties to ensure that correct tightening torques can be applied to fullfill design requirements.

### ADVANTAGES

1. Reduced Number of Bolts
2. Reduced Bolt Size
3. Less Numbers of Holes
4. Reduced size of holes
5. Reduced assembly cost
6. Reduced Maintenance Cost



## TABLE BELOW COMPARE STRENGTHS OF HIGH TENSILE AND ORDINARY MILD STEEL BOLTS

STRENGTH GRADE	TENSILE GRADE	YIELD GRADE	YIELD INDEX (4.6 = 100)
4.6	400 MPa	240 MPa	100
5.8	500 MPa	400 MPa	166
6.8	600 MPa	480 MPa	200
8.8*	800 MPa	640 MPa	266
10.9*	1000 MPa	900 MPa	375
12.9*	1200 MPa	1080 MPa	450

It is obvious from the above table that High tensile Bolt of Property Class 8.8 is approximately four times stronger than ordinary Mild Steel Bolt of Property Class 4.6. This extra strength of High Tensile Bolt can be used to upgrade an assembled joint from a low tensile one to a high tensile one to gain all the advantages described above.



# QUALITY SYSTEM ISO 9001

## AL-RASHED'S MANUFACTURING THEME

### “DO IT RIGHT THE FIRST TIME AND EVERY TIME”

Ensures constant awareness from vendor selection to manufacturing, and from warehousing to shipping. Quality importance is felt and applied at all stages. All raw materials and products are thoroughly inspected for their conformity to the standard requirements with a computer database for future reference. Any non-conformity is immediately reported to the supplier and remedial action taken. Our Quality System is based on ISO 9001 Modern techniques of Quality Assurance are applied and supported by written procedures including statistical Quality Control, Failure Mode and Effect analysis, Chemical, Metallurgical and Mechanical Laboratory facilities are provided at plant site and all tests are carried out systematically on a day-to-day basis. All the gauges, measuring instruments and testing equipments are calibrated as per the periodicity set forth by the company for their effective utilization and documented for future verification.

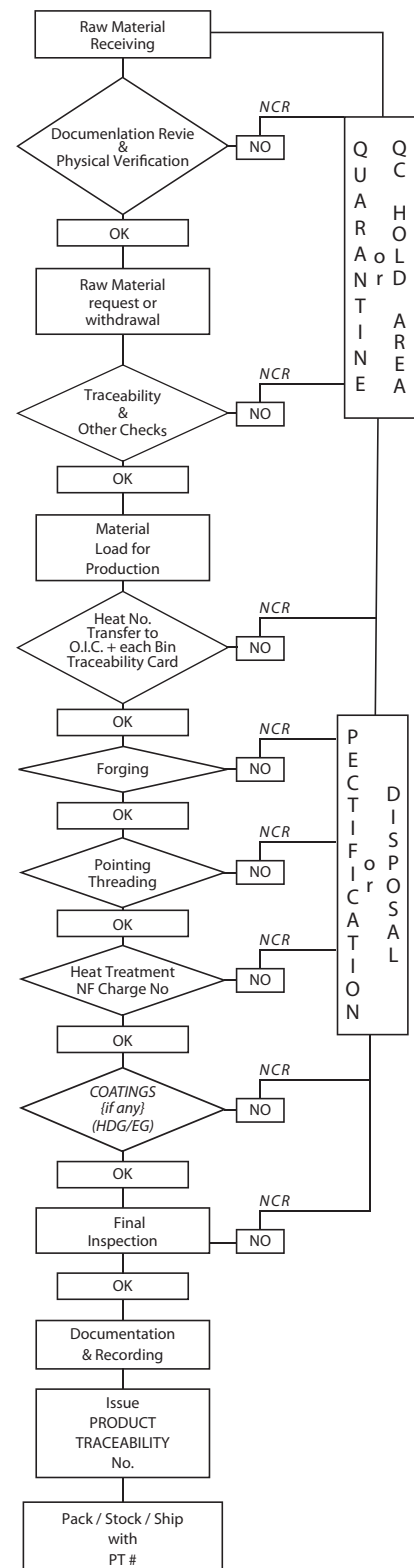
### PRODUCT TRACEABILITY SYSTEM:

Each production batch is thoroughly inspected and tested for its conformity to the standard's requirements. Upon satisfactory report, a Product Traceability Number (PT#) is issued and recorded in computer detailing Mill Heat #, Heat Treatment Charge#, Chemical Composition and Mechanical Properties of the raw material used for production. This PT# is recorded in all documents and also on each carton, thus enabling QC to issue Test Certificates and to trace back the history of any product, for future verification, if required.

### TEST CERTIFICATE THROUGH DATA BANK:

All data relating to any product is fed into computers data base, as explained above and, therefore, the preparation for Test Certificates has become more reliable and accurate with an added advantage of better customer service, thus enabling us to improve successfully quality measures like increased customer confidence, improved productivity, greater efficiency and a more committed work force.

# PRODUCT TRACEABILITY SYSTEM



## QUALITY ASSURANCE AND CONTROL

Our Quality Management System is based on ISO - 9001 - Modern techniques are employed and supported by written procedures including Statistical Control Failure Mode and Effect Analysis. Chemical Laboratory Tests are also done as required to ensure the different stages of work-in-process. All mechanical tests are carried out systematically on regular basis and a Product Traceability Number is allocated for each product, after satisfying the requirements of the relevant standards.



Alloy Analyzer (USA)  
(Positive material identification)



Gauges Calibration  
(Floating Carriage  
Micrometer)



(Portable Hardness  
Testing Machine - USA)



Universal Tensile Testing Machine (UTS)  
(1000 KN Computerised)

### Destructive Testing

Mechanical properties Like  
(Hardness Compression test,  
Proof Load, Tensile, Yield,  
% elongation, Reduction of  
area, Bend Test, Shear Test,  
Micro structure, Torque, &  
Impact testing.

### Non-Destructive Testing

Eddy Current (Method), MPI  
Crack Detector  
Positive Metal Identification  
(ALLOY ANALYZER)

### Surface Treatment

(Electro-galvanizing /  
Hot dip galvanizing)  
Heat Treatment.