

GLOBAL FASTENER SOLUTIONS

Global Suppliers of Stud Bolts and Special Fasteners in Petrochemical Grades, Nickel Alloys, Duplex & Super Duplex.



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INTRODUCTION

Supplier of Stud Bolts, Standard and Special Fasteners.

Special fasteners manufactured to customer requirements:

- ASTM Stud Bolts, Nuts & Fasteners
- To drawings
- To customer and end user specifications
- In unusual materials
- With unusual threads
- With special dimensions
- Tight tolerances
- With additional testing

Key Strengths:

- Quality
- On time Deliveries
- Fully integrated ERP System
- Breakdown Service available 24/7
- Flexibility
- International Experience
- Competitiveness
- Responsive
- Customer Service

We strive to add value to our clients' most challenging Projects by offering high quality, competitive fastener solutions.



FASTENERS

Thread Forms

UNC	BSP
UNF	BSW
UNJ	NPT
UNS	BSF
8UN	Metric Coarse
ACME	Metric Fine

HEADED PRODUCTS

Countersunk Screws
 Flange Bolts
 Hexagon Head Setscrews
 Hexagon Plugs
 Round Head Bolts
 Socket Head Capscrews
 Square Head Bolts
 T Head Bolts
 12 Point Bolts

STUDBOLT / STUDS

API 6A Stud
 Double End Stud
 Fullythreaded Studbolt
 Tap End Stud

NUTS

Barrel Nuts
 Cap Nuts
 Connector Nuts
 Cylinder Cover Nuts
 Flange Nuts
 Heavy Hexagon Nuts
 Lock Nuts
 Normal Series Nuts
 Nyloc Nuts
 Ring Nuts
 Spherical Nuts
 Tommy Bar Nuts
 12 Point Nuts

WASHERS

Flat Washers
 Shakeproof Washers
 Spherical Washers
 Tab Washers
 Belleville Washers

Product Type

Dimensional Standards

Product Type	Dimensional Standards				
HEADED BOLTS & SCREWS	ANSI	B18.2.1	4017		
	ISO	4014			
	IFI	115	933		
	DIN	931			
STUDBOLTS & STUDS	ANSI	B16.5			
	DIN	976			
	ASME	B18.31.2	938	939	2510
	API	6A			
	AWHEM	TAP END			
SOCKET PRODUCTS	ANSI	B18.3			
	ISO	4762	913	916	6912
	DIN	912			
WASHERS	ASME	B18.21.1			
	DIN	125	126	127	
	ASTM	F436			

ASTM FASTENER MATERIALS

Product Type

Material Grades

BOLT GRADES

(ASTM A193 / A320)

B5	L43
B6	B8 Class 1 & 2
B7	B8M Class 1 & 2
B7M	B8T Class 1 & 2
L7	B8C
L7M	B8R
B16	B8S

NUT GRADES

(ASTM A194)

2H	8
2HM	8A
4	8M
6	8MA
7	8C
7L	8T
7M	8TA

BOLT & NUT GRADES

(ASTM A453, A286, A182, A276)

660 Class A	31803
660 Class B	32760 SA
660 Class C	32760 FG
660 Class D	32760 FLT

SPECIAL FASTENER MATERIALS

Product Type	Material Grades		Product Type	Material Grades	
ALLOY AND CARBON STEEL	4140	1018	DUPLEX / SUPER DUPLEX	2205	F60
	4142	1020		2507	32760
	4330	1045		F51	32750
	4340	1117		F53	31803
	300M	1144		F55	ZERON 100
	ETD150	12L14			
	A36	817M40			
AUSTENITIC STAINLESS	302	316	MONEL	400	K500
	303	316L	HASTELLOY	B2	C276
	304	321		C22	
	304L	347			
MARTENSITIC STAINLESS	410	431	NITRONIC	50	60
	416	440			
	422				
INCOLOY	800	825			
	800HT	925			
INCONEL	600	725			
	625	X-750			
	718				

PLATING

- ✔ Nickel Plating - ASTM B689
- ✔ Zinc Electroplating - ASTM B633
- ✔ Zinc Phosphate - ASTM F1137
- ✔ Yellow Zinc Plating - ASTM B633
- ✔ Hot dip galvanized (HDG) - ASTM A153
- ISO 1461 - UNI 3740 - BS 729
- ✔ PTFE / Xylan / Teflon - Xylan 1070 - Xylan 1424
- ✔ Ceramic Coating (Xylar 1 & 2)
- ✔ Molykote
- ✔ Cadmium
- ✔ Sermagard
- ✔ Silver Plating - ASTM B254 - B700
- ✔ Pickling & Passivation - ASTM A380
- ✔ GEOMET 321 or 500 - ASTM F1136

API Specification 20E

Products	Level
Cold Forms Bolts, Screws and Nuts	BSL ₁
Fully Machined Bolts, Screws and Nuts	BSL ₁ , BSL ₂ , BSL ₃
Hot Formed Bolts and Screws	BSL ₁ , BSL ₂ , BSL ₃
Hot Formed Nuts	BSL ₁ , BSL ₂ , BSL ₃

API Specification 20F

Products	Level
Machined Studs	BSL ₂ , BSL ₃
Machined Studs, Screws and Nuts	BSL ₂ , BSL ₃
Cold Formed Bolts and Screws	BSL ₂ , BSL ₃
Hot Formed Bolts and Screws	BSL ₂ , BSL ₃
Roll Threaded Studs, Bolts, and Screws	BSL ₂ , BSL ₃
Hot Formed Nuts	BSL ₂ , BSL ₃

NORSOK M-650

D59/D59L & D60/D60L

Products
Headed Bolts by hot forming in solution annealed condition
Stud bolts, Nuts and Headed bolts by machining from solution annealed bar
Stud bolts and Headed bolts by machining from strain hardened bar
All products are manufactured according to Norsok M-630 data sheets

CLIENTS & PROJECTS



Projects we have supplied: -

- ✓ Scarborough Project
- ✓ Darwin LNG Refinery
- ✓ Orica Plant
- ✓ Waitsia Gas Plant
- ✓ Balikpapan
- ✓ Bacalhau
- ✓ Shell Crux
- ✓ Griffin Field
- ✓ Barossa
- ✓ JansZ-Lo

QUALITY AND APPROVALS

All activities complying to the necessary standards and regulations

Testing:

Raw material and products tested by ISO17025 approved UKAS laboratories:

- ✓ Mechanical tests
- ✓ Impacts and charpys
- ✓ Hardness
- ✓ Proof load
- ✓ Chemical analysis
- ✓ Elevated temperature testing
- ✓ Micro structure analysis and non-destructive testing:-
 - » Ultrasonic Inspection/Testing (UT)
 - » Positive Material Inspection (PMI)
 - » Magnetic Particle Inspection (MPI)
 - » Dye Penetrant Inspection (DPI)

Documentation:

- ✓ Certification & inspection packs
- ✓ Vendor data books
- ✓ Final release documentation

Levels of Certification:

- ✓ Certificate of conformity (CoC)
- ✓ BS EN 10204 3.1
- ✓ BS EN 10204 3.2 with third party inspection bodies
 - » LRQA
 - » ABS
 - » DNV
 - » Bureau Veritas
 - » TUV
- ✓ Mill certs

EXPERIENCE **AND MARKETS**



Oil & Gas:

- ✓ Upstream
- ✓ Midstream
- ✓ Downstream



Power Generation:

- ✓ Renewables
- ✓ Non-renewables



Renewables:

- ✓ Onshore/Offshore wind farm
- ✓ Hydro
- ✓ Geothermal



Defence:

- ✓ Submarines
- ✓ Frigates



Other Industries:

- ✓ Construction
- ✓ Heavy Engineering
- ✓ Mining & Minerals
- ✓ Fabrication

PROJECT MANAGEMENT



Product and Technical Knowledge:

We offer critical products in specialty materials, capable of performing in the harshest conditions and most challenging environments.



Our Approach:

We support the most challenging applications with a wide range of premium grades from the Worlds most reputable mills, manufacturers, and stock holders.



Quality and Project Management:

We provide full Project management services to ensure that clients requirements are met with quality, on time delivery and under budget.



Logistics:

Energy Materials Groups' network of global suppliers offers our customers access to materials in strategic locations meaning we have ready access to rail, road, inland water and sea shipping routes. We ensure fast and efficient deliveries.

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