



GULF STEEL

L.L.C

A part of Al Nasser Industrial Entp.L.L.C.

www.gulfsteeluae.com

MADE IN UAE



**MANUFACTURING
QUALITY STEEL
SINCE 1992**



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AL NASSER HOLDINGS

www.anholdings.com

Al Nasser Holdings, incorporated in Abu Dhabi in 1977 is a leading private sector conglomerate in UAE with interests in diverse sectors of economy through companies such as Al Nasser Properties, Al Nasser Industrial Enterprises and others.



RETAIL



INVESTMENTS



INDUSTRY
(ANIE)



OIL & GAS
STORAGE



REAL ESTATE



Al Nasser Industrial Enterprises L.L.C.

Al Nasser Industrial Enterprises (ANIE), a wholly owned subsidiary of Al Nasser Holdings, was established in 1992 to spearhead the group's foray into industrial ventures.

ANIE has an employee strength of 500 and has many operating ventures in diverse fields such as Steel Billets, Reinforcement Steel Bars, Structural Fabrication, PE Rotomolding, Blow Molding and Industrial Intermediates in the MENA region.

ANIE is one of the leading private sector player in the UAE steel industry.



ABOUT US

AGENCY /
SPONSORING

CONSTRUCTION

CATHODIC
PROTECTION

HOSPITALITY

FOOD &
BEVERAGES



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Since its inception in 1992, **Gulf Steel Industries Co. Ltd (GSIC)** has consistently strived to enhance its products and services through continuous development of advanced technologies in-house. In our quest to achieve sustainable development, we have focused on placing environmental, health and safety issues at the forefront at all times.

A pivotal part of the Al Nasser Industrial Enterprises L.L.C Group, Gulf Steel has, over the years, ensured it is always a top quality steel producer. In line with our aspirations, Gulf Steel has expanded its customer base beyond the boundaries of the UAE and caters to customers in other rapidly growing markets across the GCC region.

Gulf Steel is 9001:2008 certified. We manufacture hot rolled low carbon steel (Deformed Steel Bars) through Thermo

Mechanical Treatment process (TMT) in sizes ranging from 8 mm to 32 mm and in lengths varying from 6 meters to 12 meters. We also produce Plain Bars, Square Bars and Welded Mesh. Gulf Steel is currently capable of rolling out 120,000 TPA of Deformed Steel Bars, 36,000 TPA of Cold Ribbed Bars in coils and cut to length, as well as 15,000 TPA of Welded Mesh.

The exponential growth witnessed by Gulf Steel in such a short span of time has presented us with a unique opportunity to expand our capacities, diversify the scope of operations and expand the range of our product offering.

Gulf Steel has associated with local suppliers for the application of Epoxy Coating conforming to ASTM A775M-07b and is able to supply to projects as per their requirement.

FACILITIES

Here is a quick look at our facilities to help you get to know us a little better.

- Two Rolling Mills with TMT Process, Automatic Cooling Bed and material handling equipment
- Two Cold Ribbing Lines
- Two advanced straightening and cutting lines
- An Automatic Weld Mesh Plant
- A fully equipped testing lab comprising a Universal Testing Machine to check Yield Strength, Tensile Strength and Elongation
- Re-bending machine for bend and re-bend testing
- Spectrometer for checking the chemical composition of raw material and the finished product
- Nitrogen Analyzer for Nitrogen Testing



PRODUCTS

Re-Bars

- High Yield Deformed Steel Bars for concrete reinforcement
- TMT-quenching production process for superior mechanical properties, flexibility and welding, and resistance to corrosion
- Grade: BS 4449:1997 Grade 460B, BS 4449:2005 Grade B 500B, ASTM A615 Grade 60/40, SASO 2/1992 and ISO 6935-2/2007 - Gr.500BWR Standards
- Sizes: 8 mm to 32 mm, Length: Straight Length of 12 meters or in special lengths ranging from 6 meters to 15 meters
- Range: 8mm to 32mm as per BS standard has been certified by Dubai Central Laboratory and CARES, U.K.

Square Bars & Plain Bars

- Square Bars : Range: 9 mm to 20 mm
- Hot Rolled Plain Steel Bars : Range: 12 mm to 25 mm diameter and in accordance to International Standards.

Welded Mesh

- Conforming to BS 4483, Fabric Ref: A 98, A-142, A-193, A-252, A-393



MANUFACTURING PROCESS

Gulf Steel Industries produces Deformed Steel Bars from prime quality billets manufactured by our group company – Emirates Steel Establishment. After receiving the billets and inspecting them, they are stacked according to the cast numbers. Pre-sized billets are charged to a pusher type, temperature-controlled Re-heating Furnace.





The heated billets are passed through various stands to arrive at the desired size. From the finishing stand, the bars are passed through a Thermo Mechanical Treatment (TMT) process whereby the hot bar is rapidly cooled by water to achieve high strength with high ductility. Due to rapid controlled cooling, the surface temperature of the bar reduces drastically and forms a martensite structure. The core of the bar remains fine grain ferrite perlite. This provides enhanced strength and ductility to the finished material.

Bars are cut by a Flying Shear to the required length and passed through twin channels to a walking beam type cooling bed. The cooled bars are scored using a finishing shear to the standard length (12 meters), bundled (2 tons) and sent for storage in the finished goods storage area.

PRODUCT SPECIFICATIONS

REINFORCEMENT/DEFORMED STEEL BARS

Type	Min Yield Strength (N/mm ²)	Min Tensile Strength (N/mm ²)	Standards Complying to	Sizes (Dia)
High Yield Bars (Deformed)	500	550	BS 4449 Grade B500 B	8 mm to 32 mm
	460	506	BS 4449 Grade 460 B	
	420	620	ASTM A 615, Grade 60	
	500	550	ISO 6935 - GR.500BWR	
Medium Yield Bars (Deformed)	280	420	ASTM A 615, Grade 40	8 mm to 32 mm
	250	275	SSA 2:1992	
Cold Ribbed Steel Bars	460	510	BS 4482:2005	8 mm to 12 mm
			SAS 2/1992	

Chemical Composition

Size Range (mm)	Product Specification	Process Route	Chemical Analysis					
			C%	Si%	Mn%	P% Max	S% Max	N% Max
8-20 Rebars	ASTM A615 Gr 40	Hot Rolled	0.25 Max	0.15-0.30	0.60-1.3	0.045	0.045	0.012
8-32 Rebars	ASTM A615 Gr 60	Quenching	0.25 Max	0.15-0.30	0.55-1.1	0.045	0.045	0.012
8-32 Rebars	BS 4449 Gr B500B	Quenching	0.22 Max	0.15-0.30	0.55-1.1	0.045	0.045	0.012
8-32 Rebars	BS 4449 Gr 460B	Quenching	0.25 Max	0.15-0.30	0.55-1.1	0.045	0.045	0.012
8-32 Rebars	SSA 2/1992	Quenching	0.25 Max	0.15-0.30	0.55-1.1	0.045	0.045	0.012
8-32 Rebars	ISO 6935-2/2007	Quenching	0.22 Max	0.15-0.30	0.55-1.1	0.045	0.045	0.012

Dimensions

Nominal Diameter (mm)	No. of Bars per Bundle of (2 MT)	Nominal Weight (kg/m)	Nominal Cross Sectional Area (sq.mm)	Max. Average Rib Spacing (mm)	Transverse Rib Height (mm)		Longitudinal Rib Height (mm) Max
					Min	Max	
8	422	0.395	50.30	5.60	0.52	0.96	0.80
10	270	0.616	78.54	7.00	0.65	1.20	1.00
12	188	0.888	113.00	8.40	0.78	1.44	1.20
14	138	1.208	154.00	9.80	0.91	1.68	1.40
16	106	1.579	201.00	11.20	1.04	1.92	1.60
20	68	2.466	314.00	14.00	1.30	2.40	2.00
22	56	2.984	380.00	15.40	1.43	2.64	2.20
25	44	3.854	491.00	17.50	1.63	3.00	2.50
32	26	6.313	804.00	22.40	2.08	3.84	3.20



PRODUCT SPECIFICATIONS

PLAIN STEEL BARS & SQUARE STEEL BARS

Type	Min Yield Strength (N/mm ²)	Min Tensile Strength (N/mm ²)	Standards Complying to	Sizes (Dia)
Plain Steel Bars	250	375	ASTM A 36	12-25 mm
	250	275	SAS 2/1992	10-25 mm
	250	275	AISI 1006 to AISI 1012	5.5 to 10
Square Bars	250	375	ASTM A 36	8 to 20

Chemical Composition

Type	Size Range (mm)	Product Specification	Process Route	Chemical Analysis				
				C%	Si%	Mn%	P% Max	S% Max
Plain Bars	12-25 mm	ASTM A 36	Hot Rolled	0.26 Max	0.15-0.40	0.60-0.90	0.040	0.050
Plain Bars	5.5-8 mm	SAS 2/1992	Cold Drawn	0.14 Max	0.10-0.20	0.45-0.60	0.040	0.040
Plain Bars	12-25 mm	SAS 2/1992	Hot Rolled	0.25 Max	0.15-0.30	0.60-0.90	0.040	0.050
Plain Bars	5.5-8 mm	AISI-1006 to AISI 1012	Cold Drawn	0.14 Max	0.10-0.30	0.45-0.60	0.040	0.040
Square Bars	9-20 mm	ASTM A 36	Hot Rolled	0.27 Max	0.15-0.30	0.60-0.90	0.040	0.050

WELD MESH

Fabric Reference	Longitudinal Wires			Transverse Wires			Mass kg/m ²
	Nominal Wire Size (mm)	Pitch (mm)	Area (mm ² /m)	Nominal Wire Size (mm)	Pitch (mm)	Area (mm ² /m)	
Square Mesh							
A393	10	200	393	10	200	393	6.16
A252	8	200	252	8	200	252	3.95
A193	7	200	193	7	200	193	3.02
A142	6	200	142	6	200	142	2.22
A98	5	200	98	5	200	98	1.54
Stock Sheet Size		Length 4.80 m		Width 2.4 m		Sheet Area 11.52 m²	





QUALITY ASSURANCE PLAN

The latest technologies and industry best practices are in place to aid and hone our manufacturing expertise. The quality control department is equipped with the most advanced computerized monitoring and testing systems. Our Engineering and R&D division continuously strive towards betterment of product quality. And, of course, we are ISO 9001:2008 certified, which we are very proud of.

Gulf Steel maintains Total Quality Management (TQM) systems at all stages of production. We follow international quality control standards for every process, from testing basic raw material to certifying the final product. We follow the steps below to ensure **Total Quality** is a way of life at Gulf Steel.

- Careful selection of basic raw material
- Chemical analysis of steel scrap used for re-melting in the Induction Furnace
- Chemical analysis of hot material samples
- Analysis of the physical and chemical properties of the Billets
- Re-heating furnace temperature check
- Checking size and gauge at the final stage
- Checking of the final mechanical, chemical and physical properties of finished product



PHYSICAL AND CHEMICAL TESTING LABORATORY


Gulf Steel is fully equipped with the best-in-class equipment required for quick testing and reporting.

- Optical Emission Spectrometer
- Nitrogen Analyzer
- Two Universal Tensile Testing Machines (100 ton and 60 ton) capacities
- Extensometer
- Bending Machine for bend/Re-bend Test
- Rib Measuring Instrument

SUPERIOR QUALITY

Gulf Steel produces high-grade TMT construction rods. The mill is technologically advanced and uses semi-automatic rolling to ensure the quality. Due to the low carbon content and strict quality control, the TMT process bars do not lose strength at the weld joints, are highly flexible and provide top-grade elongation. The special design of the bars allow for excellent bonding properties and longer life.

CERTIFICATES & ACCREDITATIONS


Gulf Steel Industries Co. Ltd.  الشركة الخليجية للصناعات الفولاذية المحدودة
 Limited Liability Company
 Capital : Dhs. 4,500,000
 شركة ذات مسؤولية محدودة
 رأس المال ٤,٥٠٠,٠٠٠ درهم

TEST CERTIFICATE

CONSIGNEE: Sample Certificate

TEST REPORT NO.: 193/28-10-16
 CERTIFICATE NO.: GSI/ 0679 /16
 DATE: 28-10-2016

SPECIFICATION / CODE: BS4449-2005 / GR B500B
 DESCRIPTION: 20 MM Diameter Deformed Steel Bar. Bar Marking:

CAST NO: E 1041  //GS UAE//

Mark #	Nominal Size (mm)	Mass (Kg)	Length (mtr.)	Mass / mtr (kg / mtr.)	Effective Cross Sectional Area (mm ²)	Length of Finish Product	No of Pieces/ Bundle
16 0679	20	1.447	0.602	2.404	306.20	12 Meter (+0,+50 mm)	68

Mark #	Size (mm)	Sl. No.	Mass/ mtr (kg/mtr)	Nominal Area (mm ²)	Yield Strength (Mpa)	Tensile Strength (Mpa)	Ratio (R _m /R _e)	Elong ⁰ (A _g) %
16 0679	20	1	2.402	314.00	560.20	696.64	1.19	7.50
		2	2.390	314.00	563.30	684.69	1.18	7.90
		3	2.430	314.00	561.80	682.68	1.18	7.90

Mark #	Size (mm)	C (%)	Si (%)	Mn (%)	P (%)	S (%)	Cr (%)	Mo (%)	Ni (%)	Cu (%)	V (%)	N (%)	C _{eq} (%)
16 0679	20	0.20	0.24	0.58	0.031	0.020	0.100	0.020	0.041	0.091	0.003	0.0091	0.36

Mark #	Size (mm)	Results
16 0679	20	Pass

CERTIFICATE COMMENTS:
 The above test results meet the requirements of steel bars as per BS4449 GR B 500 B
 Materials are free from harmful Radio-active elements.

QC Engineer / QC Inspector
 DATE OF TEST: 28-10-2016

Process Route: QST
 GSI/0679-TC-02
 Issued / Revision: B5

PLANT MANAGER

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BAR MARKINGS

BS 4449:1997 GR 460B



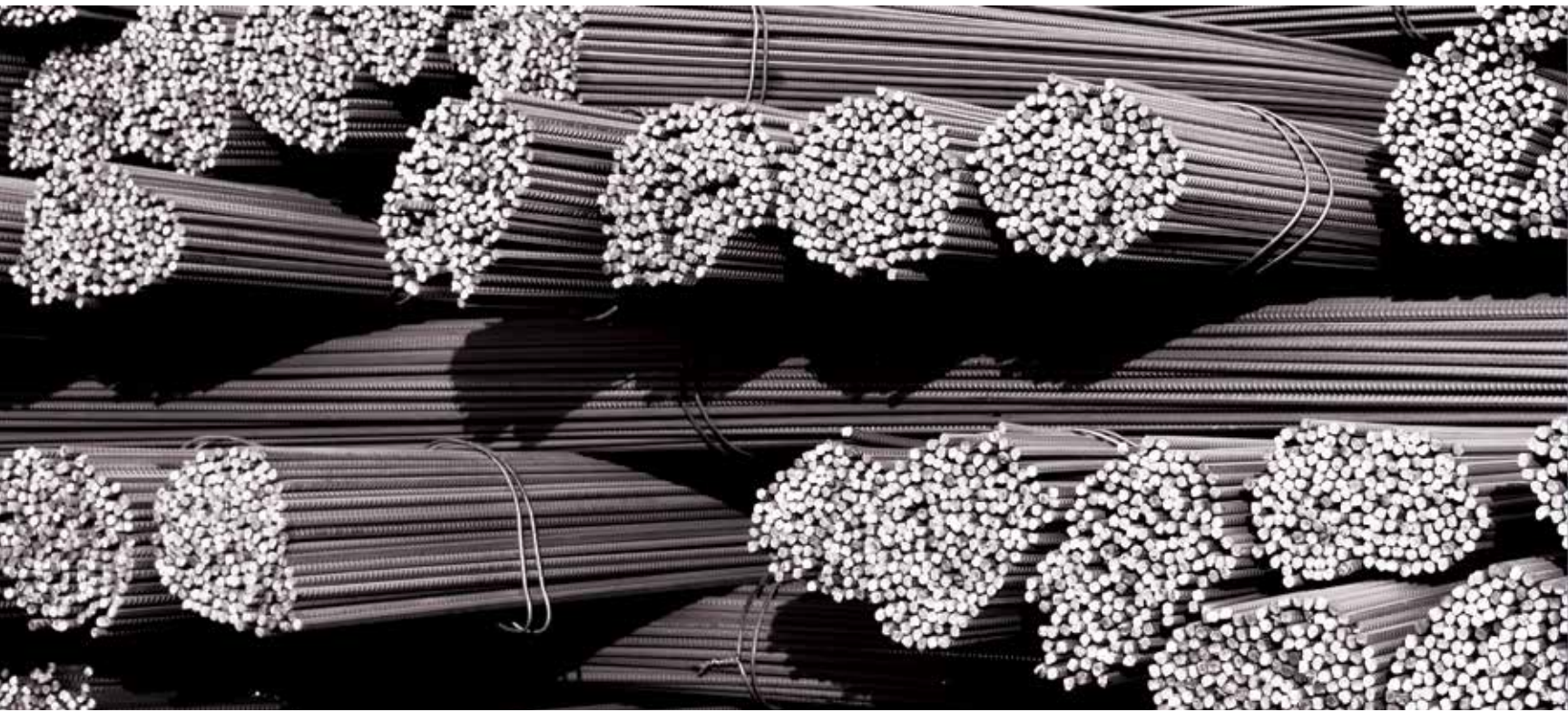
BS 4449:2005 GR B500B



FEW OF OUR PRESTIGIOUS PROJECTS

Project Title	Country
Al Barakah Nuclear Power Plant	UAE
Satah Al Razboot Project - Owner- ADMA OPCO	UAE
Mirfa IWPP / UAE Mirfa Project	UAE
Ethylene Plant EU3 Project	UAE
Ruwais Refinery Expansion	UAE
Liwa Tower near ADNEC, Abu Dhabi – Head Office for Al Nasser Holdings	UAE
Residential Building (G+8) at Dubai Silicon Oasis, Dubai	UAE
Jeddah South Thermal Power Plant- Owner- Saudi Electricity Company	KSA
Shuqaiq Steam Power Plant. Owner - Saudi Electricity Company	KSA
King Khalid University in Abha	KSA
Small Boat Harbours Project - Owner - Kuwait Oil Company	Kuwait
Rapo Project, Raslaffan Industrial Area	Qatar
Housing Project in Maldives	Maldives





PRODUCT RANGE



Square Bars



Round Bars



PRODUCT RANGE



Re-Bars



Welded Mesh



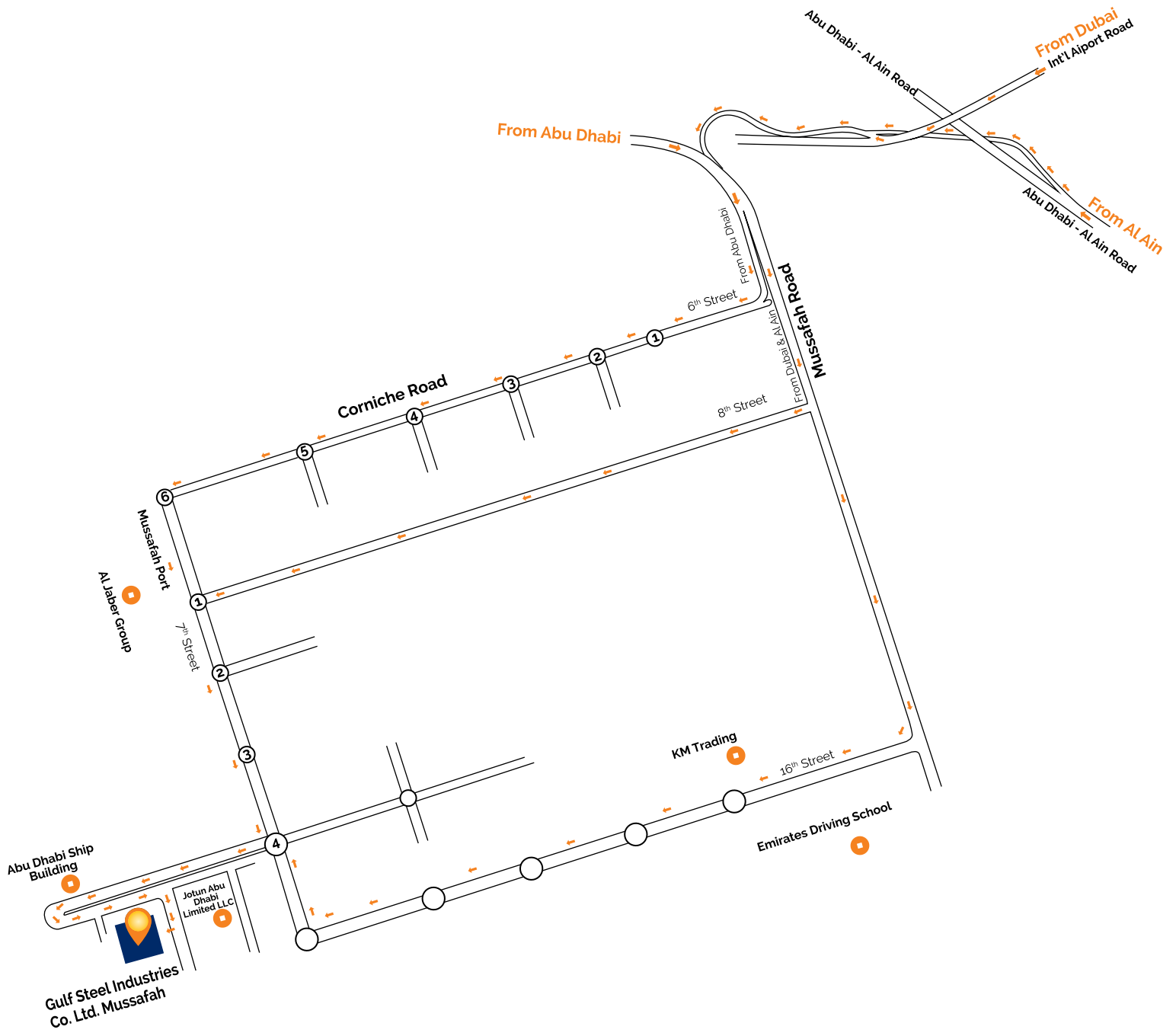
ENVIRONMENTALLY CONSCIOUS, COMMITTED TO HEALTH & SAFETY

Gulf Steel EHSMS system is certified by the Industrial Sector – EHS Regulatory Authority and a third party inspection is done every year to check the effectiveness of the system.

Gulf Steel is committed to sustainability and preserving the environment. We adopt every possible measure to ensure the safety of our planet and the people who work for us. In keeping with this philosophy, we support:

- Total compliance with all applicable statutory requirements and a few more of our own determination
- Extensive programs to prevent pollution, improve health, safety, conservation and waste reduction
- Continuous improvement of environmental and occupational health and safety standards through the application of efficient systems and procedures
- Educating and training our staff members to behave in an environmentally responsible manner

We believe that care for environment is essential and a must, both in terms of our social responsibilities and for the future of our business.





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