





Star Steel - Shaping Your Future

Established in 2006, Star Steel International L.L.C. (SSI) is a UAE based leading steel company engaged in bringing steel solutions for the growing construction market in the GCC region. With dual concentration on Local Manufacturing and Imports from well known international suppliers, SSI has become an integral part of the region's Construction Steel industry in a short span of time. The company is an associate of ETA ASCON STAR Group, a Dubai based USD 6 billion conglomerate.

In the pursuit of further consolidating its position in the regional steel market, SSI has invested substantially in steel manufacturing facilities for construction steel - Rebars and Structural Sections. The company is poised to be the largest private sector steel processing unit in UAE with most advanced state-of-the-art rolling mills, which is

currently producing 360,000 MTPA of Steel Rebars and 240,000 MTPA of Steel Structural Sections.

The company is positioned to meet the region's steel requirements conforming to international standards through its own manufacturing-rolling mills and processing facilities at Hamriyah Free Zone, Sharjah. This is further supported by its "Stock & Trade" operations with its well equipped stockyards in Dubai and Sharjah. The company has also formulated strategic partnerships with various mills and suppliers around the world to offer unparalleled level of services and world class quality with focus on reliability and competitiveness.



*ETA Ascon Star Group is a multinational and diversified group established in 1973 and is a part of Al Ghurair Group of Companies. Headquartered in Dubai, ETA Ascon Star Group has built an enviable reputation for quality, excellent service and cost-effective technological capability. The group's network encompasses 140 entities and associate offices in 22 countries and employs more than 72,000 people with consolidated sales in the region of USD 6 billion.

The ETA Ascon Star Group comprises 16 major verticals in the fields of Contracting & Engineering, Trading, Shipping, Manufacturing & Assembly, Facility Management, Automobile, Real Estate, Retail, Services, Travel & Leisure, Health Care, Aviation, Learning & Education, Insurance, Hospitality and Oil & Natural Gas.



Manufacturing Facilities

SSI is leveraging its extensive experience in the steel sector by introducing the most modern manufacturing facilities at Hamriyah Free Zone, Sharjah. SSI's products conform to international standards such as BS, ASTM & others as required in the region. These are also certified by CARES (UK), DCL (Dubai Central Laboratory) and other international certifications.

Rebar Mill: This facility is currently producing re-bars with a rated capacity of 360,000 MTPA in BS4449 Gr 460B grade and equivalent - with a size range of 8mm to 40mm in straight lengths. The equipment has been supplied by leading Italian suppliers - a 60 ton pusher type furnace, 20 rolling stands with a 60 meter length cooling bed and other auxiliary equipments.

Section Mill: This facility is located adjacent to the Rebar Rolling mill and produces beams, channels and other section products with a rated capacity of 240,000 MTPA. The products are made as per various international specifications including BSEN, DIN, JIS and others. The salient features are a 55 ton pusher type furnace, 1 reversing and 9 continuous finishing stands with a 60 meter length cooling bed and other auxiliary equipments supplied by NCO, Italy. This mill can undertake manufacturing of beams upto 300mm and is the only mill in the GCC covering this size range.

In-house manufacture of billets/blooms is a project currently under implementation. Till that time the billets/blooms for the Rolling mills will be imported from suitable sources.

Rebar Cut & Bend facility: A modern Rebar Cut and Bend Facility with a rated capacity of 120,000 MTPA has also been set up across the Rolling Mill site. This facility is functioning to cater to 'ready-to-fix' rebar requirements of the customers. STEMA PEDAX, one of the global market leaders in reinforced steel processing has provided the following equipment for the facility.

- Robotic Double Bender
- Shear Line
- Pile Cage Machine
- Twin Master 16x with reef roll



Products

Manufacturing

- ◆ **RE-BARS:** High Yield deformed steel bars for concrete reinforcement produced by TEMPCORE quenching process for superior mechanical properties, bendability, and weldability & corrosion resistance.

Grade : BS 4449 (1997) GR 460B & BS 4449 (2005) GR 500B
 Sizes : 8, 10, 12, 16, 20, 25, 32 & 40 mm diameter
 Length : Straight length in 12 meters

- Manufactured in the rolling mill with latest process & equipments.
- DCL (Dubai Central Laboratory) and CARES (U.K.) approved.
- RE-BAR PROFILES from our Cut & Bend Facility to manufacture ready to assemble 'at site' shapes like rings, spirals, piles, cages and shapes as per BS4466 and BS8666 standards.

- ◆ **BEAMS & CHANNELS:** State-of-the art flexi-mill which is one of its kind in the UAE, can produce multiple specifications as per various international standards & grades.

i) Beams : UB/UC (BSEN), IPEA/AA, HEA/HEB (DIN) & H BEAM (JIS)
 ii) Channels : UPN /UPE (DIN) & JIS CHANNEL

Size : 80 – 300 mm
 Length : 12 meters
 Grade : 235JR, 275JR, 355JR and other equivalent international grades.

With a growing number of developments taking place in the construction and infrastructure sectors, the need for availability of complete range of construction steel has risen tremendously. To address this market, SSI is adopting stringent quality measures at its manufacturing facilities, dedicated sourcing and inventory management to provide the entire gamut of steel solutions including rebars and structural sections.

SSI offers a complete solution of specialized & customized products to customers in the region with sizes, shapes and grades satisfying specific applications and end use. The entire range of value added international quality products & services are supplied to the construction industry with full focus on delivery commitments and customer satisfaction.



RE-BARS - Quality & Specifications

1. BS 4449 (1997) Gr 460B

COMPOSITION CHEMICAL %							
As Specified By BS 4449 (1997)	C	Si	Mn	P	S	N	C.Ev
	Max 0.25	-	-	Max 0.050	Max 0.050	Max 0.012	Max 0.51

MECHANICAL PROPERTIES			
As Specified By BS 4449 (1997)	Yield Stress (N/mm ²)	Tensile Strength (N/mm ²)	Elongation (%)
	Min. 460	Min. 1.08 x Act. Y.S.	Min. 14

RE- BAR DIMENSIONS		
Nominal Diameter (mm)	Nominal Weight (Kg/m)	No.12m. Long Bars / 2ton Bundle
8	0.395	420
10	0.616	270
12	0.888	184
16	1.579	104
20	2.466	66
25	3.854	42
32	6.313	26
40	9.864	17

BAR TOLERANCE
Bar length and with tolerance as per BS 4449 (1997)

2. BS 4449 (2005) Gr 500B

COMPOSITION CHEMICAL %							
As Specified By BS 4449 (2005)	C	Si	Mn	P	S	N	C.Ev
	Max 0.22	-	-	Max 0.050	Max 0.050	-	-

MECHANICAL PROPERTIES			
As Specified By BS 4449 (2005)	Yield Stress (N/mm ²)	Tensile Strength (N/mm ²)	Elongation (%)
	Min. 500	Min. 1.20 x Act Y. S	Min. 12

RE- BAR DIMENSIONS		
Nominal Diameter (mm)	Nominal Weight (Kg/m)	No.12m. Long Bars / 2ton Bundle
8	0.395	420
10	0.616	270
12	0.888	184
16	1.579	104
20	2.466	66
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BAR TOLERANCE
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STRUCTURAL SECTIONS- Quality & Specifications

1. Dimensions (sizes are in mm & weight in kg/m)

a. DIN Standard

BEAMS				CHANNELS	
IPE 100	IPEAA 100	HEA 100	HEB 100	UPE 100	UPN 100
IPE 120	IPEAA 120	HEA 120	HEB 120	UPE 120	UPN 120
IPE 140	IPEAA 140	HEA 140	HEB 140	UPE 140	UPN 140
IPE 160	IPEAA 160	HEA 160	HEB 160	UPE 160	UPN 160
IPE 180	IPEAA 180	HEA 180	HEB 180	UPE 180	UPN 180
IPE 200	IPEAA 200	HEA 200	HEB 200	UPE 200	UPN 200
IPE 220	IPEAA 220				UPN 220
IPE 240	IPEAA 240				UPN 240
IPE 270					UPN 260
IPE 300					UPN 280
					UPN 300

b. BSEN Standard

BEAMS		CHANNELS	
UB 127 x 76 x 23		UC 152 x 152 x 23	PFC 100x50x10
UB 152 x 89 x 18		UC 152 x 152 x 30	PFC 125x65x15
UB 178 x 102 x 19		UC 152 x 152 x 37	PFC 150x75x18
UB 203 x 102 x 23		UC 203 x 203 x 46	PFC 150x90x24
UB 203 x 133 x 25		UC 203 x 203 x 52	PFC 180x75x20
UB 203 x 133 x 30		UC 203 x 203 x 60	PFC 180x90x26
UB 254 x 102 x 22		UC 203 x 203 x 71	PFC 200x75x23
UB 254 x 102 x 25		UC 203 x 203 x 86	PFC 200x90x30
UB 254 x 102 x 28			PFC 230x75x26
UB 254 x 146 x 31			PFC 230x90x32
UB 254 x 146 x 37			PFC 260x75x28
UB 254 x 146 x 43			PFC 260x90x35

2. Grade: Chemical & Mechanical Properties

STANDARD/GRADE	CHEMICAL COMPOSITION (%)					MECHANICAL PROPERTIES		
	C	Mn	Si	P	S	Yield Strength (YS)	Tensile Strength (UTS)	% EL
	Max.	Max.	Max.	Max.	Max.	N/mm ²	N/mm ²	
DIN 17100 ST 37-2	0.17	-	-	0.05	0.05	235 min	340-470	26 min
DIN 17100 ST 44-2	0.21	-	-	0.05	0.05	275 min	410-540	22 min
DIN 17100 ST 52-3	0.2	-	0.4	0.04	0.04	355 min	490-630	22 min
EN 10025 S235JR	0.17	1.4	-	0.045	0.045	235 min	340-470	26 min
EN 10025 S275JR	0.21	1.5	-	0.045	0.045	275 min	410-560	22 min
EN 10025 S355JR	0.24	1.6	0.55	0.045	0.045	355 min	490-630	22 min
ASTM A36	0.26	-	0.4	0.04	0.05	250 min	400-550	20 min
ASTM A572 GR 50	0.23	1.35	0.4	0.04	0.05	345 min	450 min	18 min
JIS G3101 SS400	-	-	-	0.05	0.05	245 min	402-510	23 min
JIS G3101 SS490	-	-	-	0.05	0.05	284 min	490-608	15 min
JIS G3101 SS540	0.3	1.6	-	0.04	0.04	400 min	540 min	17 min

3. Length : 6 or 12 metres standard length.

4. Tolerance : As per standards agreed in the sales contract.

NOTE: 1. AVAILABILITY OF ABOVE SIZES & GRADES IS CONDITIONAL TO ROLLING PLAN OF THE MILL. EX STOCK AVAILABILITY IS LIMITED
2. HIGHER GRADES AND CUSTOMIZED LENGTH ARE AVAILABLE BASED ON MINIMUM ORDER QUANTITY AND PRICE EXTRAS.
3. SPECIAL SECTIONS INCLUDING BEAMS & CHANNELS AS PER OTHER STANDARDS (JIS & ASTM) FLAT BARS & ANGLES WOULD BE OFFERED.



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