شركة شطاف لصناعة الحديد ذ.م.م
SHATTAF STEEL IND. CO. LLC.

ABOUT US

Mr. Mohammed Shattaf founded Shattaf Group of Companies in 1974. Since its inception, the group has evolved and emerged into a leading business house in UAE spreading out into the industries of Gold, Manufacturing, Real Estate, Money Exchange, Retail Businesses and Steel.

Shattaf Steel was established in 1980 as part of the Shattaf Group. Chaired by Mr. Humaid Shattaf, who took over the management of the Group after his father, Shattaf Steel is a flourishing organization of over 280 employees enabling the 7/24 functioning of the 'state of the art' steel plant.

VISION

Transparency and Honesty will guide all our actions and dealings while nurturing our Human Resources

MISSION

Offering quality products and services by leveraging on technology

OBJECTIVE

- To be the most trusted provider of steel, meeting the ever-growing customer and market requirements, backed by quality.
- To use safe and sustainable processes in creating steel, thereby, conserving our environment and serving the society.

STRENGTHS

- 7/24 Operational Plant backed by a workforce of over 280 Employees.
- Capacity to produce 100000MTPA
- Quality exceeding Certifications as well as International Standards.
- Cost Effective
- Timeliness
- Customizable Specifications
- Sustainable and Environment Friendly Processes to Manufacture Steel

BILLET

The Billet plant installed in 2010 is a 'State of The Art' industrial unit. It is complete with Induction furnaces, continuous casting - hot direct Rolling (CC- HDR) equipment, auxiliary units.

The plant produces high quality 100000MTPA of Billets meeting international standards and provides the same in the widest range of chemical compositions and sizes customized to customer requirements.

MANUFACTURING PROCESS OF STEEL MAKING

STEP	PROCESS	DESCRIPTION
1	Charging steel scrap	Shattaf Steel is determined for the stable supply and management of steel scrap and carrying out strict inspections throughout the entire process from sourcing to charging into the furnace in order to generate high-quality steel products.
2	Melting Steel	An Induction furnace uses electricity to heat steel scrap, convert steel scrap in to molten metal and removes impurities to generate steel during this process. The induction furnace maintains the temperature and adjusts the composition of five chemical properties of steel including C, Mn, Si, P and S in accordance with the related specifications.
3	Continues Casting	This is a process of making the refined steel into billets. Throughout the continuous casting, the steel that has so far remained liquid is solidified into a shape. We improve the stability and productivity of the subsequent continuous casting process by maintaining the molten steel temperature at between 1,550 and 1,600 °C.
4	Transfer / Storage	Billets made in the continuous casting process are fed into the Rolling mill stand through conveyer table called hot direct rolling or stored in Billet storage area.

REINFORCING BAR

Rebars or reinforcing bars at Shattaf Steel are made from the Steel Billets created at our manufacturing unit. The quality and customizations with which our billets are created ensures that the resulting Rebars are reliable and sustainable.

Since its inception in 2014, our produce stands at a capacity of 100000MTPA with varied and wide selections of customizations.

We have been able to contribute into the creations of huge projects throughout UAE and the MENA region.

MANUFACTURING PROCESS OF REINFORCING BAR

STEP	PROCESS	DESCRIPTION
1	Loading	The billets are loaded on the reheat furnace charging table and charged inside the reheat furnace to achieve rolling temperature.
2	Re heating Furnace / Continuous casting- hot direct rolling (CC-HDR)	In the reheat furnace, the Billets are reheated up to 1,050 to 1,150 °C so that they become soft enough to be lengthened to the desired thickness and length. Shattaf Steel established a continuous casting-hot charging line to reduce costs, adopted a conveyer table in which the Billets can be fed to roughing stands to increasing efficiency.
3	Rolling	The Billets extracted from the reheat furnace or Continuous casting – hot charging line is passed through about 13 stands comprising of roughing stands, intermediate stands and finishing stands to form shapes of steel bars.
4	Quenching	The Rebar passes through Tempcore quenching Process, a patented quenching system. Quenching is mechanical process in order to achieve mechanical properties (Tensile strength, yield strength and elongation) as per the standard.
5	Cooling	On the cooling bed, the Billets passed through the rolling mill are cooled down. The walking beam cooling bed system allows them to cool down by air flow created on all sides and move to the cold share machine.
6	Finishing	The rebar transported from the cooling bed are cut to the lengths desired by customers.
7	Packing	The commercial rebars are counted precisely to form uniform bundle. The packing of rebar bundle strapped by steel wire with a product tag attached.

Reinforcing Bar Specification

Size Range	8mm To 32mm
Lengths	6, 9, 12 Or 18 Meters (As per Customer requirement)
Packaging	Bundles
	Weight of Bundle - 1 or 2 Mt
	Diameter of Bundle - 150 - 300mm (Varies according to the bar diameter)
	Straps per Bundle - Minimum 3

Mechanical Properties

Standard / Grade	Mechanical Properties					Bending Test		Re- Bending Test	
	Yield Strength N/mm²(min)	Tensile Strength N/mm²(min)	Elongation % (min)	Total Elongation at Max Force (Agt) % (min)	Gauge Length (mm)	Angle(°Degree)	Bending Mandrel Dia.(mm)	Angle(°Degree)	Rebending Mandrel Dia.(mm)
BS 4449:1997 Gr 460B	460	1.08 YS	14	5	5d	-	-	45°-23°	≤ 16mm - 5d > 16mm - 7d
BS 4449:2005 Gr 500B	500	1.08 YS	-	5	-	-	-	90°-20°	≤ 16mm - 4d > 16mm - 7d
KWS GSO ISO 6935-2/2012 Gr B500BWR	500	1.08 YS	14	5	5d	180°	≤ 16mm - 3d > 16 to 32mm - 6d	90°-20°	≤ 16mm - 5d > 16 to 25mm - 8d > 25mm - 10d

Chemical Composition

Standard / Grade	Chemical Composition % Max							
	C	Mn	S	P	Si	Cu	N	Ceq
BS 4449:1997 Gr 460B	0.25	-	0.05	0.05	-	-	0.012	0.51
BS 4449:2005 Gr 500B	0.22	-	0.05	0.05	-	0.80	0.012	0.50
KWS GSO ISO 6935-2/2012 Gr B500BWR	0.22	1.60	0.05	0.05	0.60	-	0.012	0.50

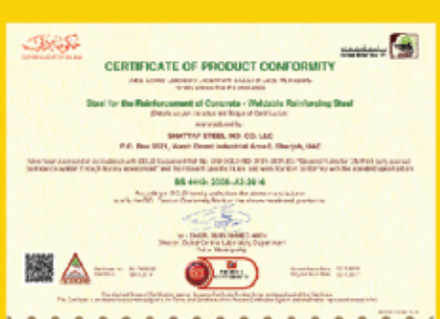
Permissible Deviation From Mass & Length

Standard / Grade	Mass		Length	
	Dia. (mm)	Dev. (%)	in (m)	Dev. (mm)
BS 4449:1997 Gr 460B	8 - 10 >8	± 6.50 ± 4.50	6	+ 40 / - 0
BS 4449:2005 Gr 500B	≤8 >8	± 6.50 ± 4.50	9, 12, 18	+ 40 / - 0
KWS GSO ISO 6935-2/2012 Gr B500BWR	≤8 10 & 12 14 to 22 25 to 32	± 8.00 ± 6.00 ± 5.00 ± 4.00		

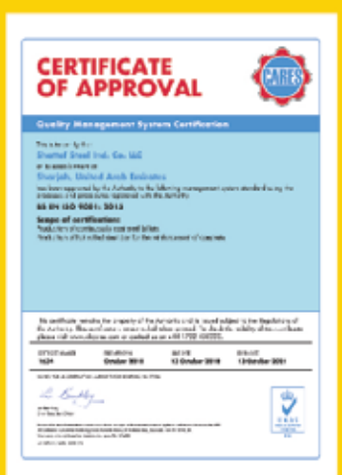
Standard Bar Count (12m Length)

Nominal Diameter in mm	Unit Mass kg/m	Nominal Mass kg/pc	Pieces/ Bundle
8	0.395	4.74	422
10	0.617	7.40	270
12	0.888	10.66	188
14	1.210	14.52	138
16	1.580	18.96	106
18	2.000	24.00	84
20	2.470	29.64	68
22	2.980	35.76	56
25	3.850	46.20	44
28	4.830	57.96	34
32	6.310	75.72	26

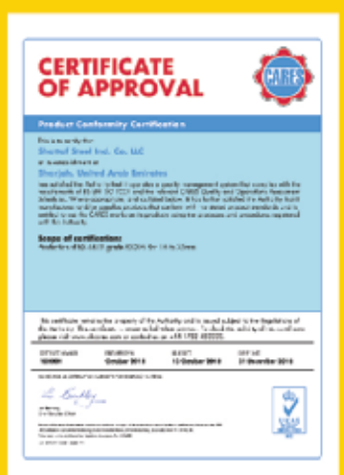
CERTIFICATIONS



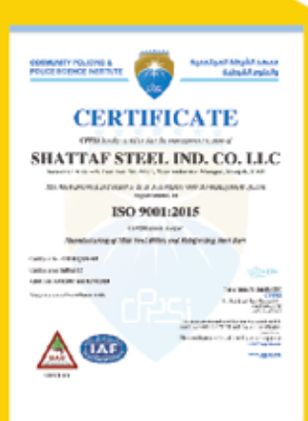
DCL – Certificate of Product Conformity



Cares Quality Management System Certificate



Cares Product Conformity Certificate



ISO 2015 : 9001 Management System

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