



FABRIMETAL

YOUR PARTNER IN

SITE







People Power

The opportunity to help communities, a region and a country is a privilege. By building a sustainable livelihood for the people of Ghana, we are supporting the economy and a population of 27 million nationals. By providing the latest sophisticated technology, used in the U.S. and Europe, specialized training and knowledge and empowering the workforce of nationals, we are building a solid foundation for a strong nation.

- Chairman, Fabrimetal Board of Directors



G H A N A

Techiman

Kumasi

Sekondi-Takoradi

Hohoe

ACCRA



A thriving harbor and seaport gives rise to an industrial centre bustling at the heart of the country's development. Colonial, modern and traditional African buildings grace the landscape. A hub of daily activity is produced by its passionate people. This is the West African country of Ghana. And the city of Tema is located just 25km from one of the newest and busiest production facilities in sub-Saharan Africa.

Established in May 2016, Fabrimetal Ghana is the leading manufacturer of high tensile **FAB 500™ TMT**® (thermo mechanically-treated) steel reinforcement bars used to construct residential, commercial, industrial, and civil structures. FM Ghana is a fully-automated manufacturing facility and a subsidiary of MMD, the privately-owned parent company with global players like Melwire group from Sri Lanka and Steefo Industries of India as partners.

Formed in 2006, MMD met a growing demand for steel rebars after a decade of experience setting up a network of steel manufacturing operations across sub-Saharan Africa in Democratic Republic of Congo, Angola, Rwanda, Mali, Gabon, Burkina Faso and Senegal. Melwire group is the largest manufacturer of high tensile TMT rebars in Sri Lanka and Steefo Industries has an imposing manufacturing facility in India and both together produce over 350,000 MTS of TMT rebars annually.

A deep understanding of the business, increased presence in major markets and a systematic integration into local markets, primed the company for commercial production of high tensile **FAB 500™ TMT**® rebars. MMD subsequently expanded into sub-Saharan West Africa, with a fully-operational manufacturing facility just outside Tema, Ghana. Strengthening the foundation for further success, FM Ghana takes pride in its high tensile exclusive **FAB 500™** brand of **TMT™** rebars.



ABOUT FABRIMETAL GHANA

The growth of many Ghanaian industries, including oil, natural gas, cocoa, gold and diamonds and the housing sector boom has generated and injected billions of dollars annually into the Ghanaian economy, making it one of the fastest growing economies in sub-Saharan West Africa. Ghana's tropical location, political stability and increasing population is attractive to foreign investors and over 600++ nationals have the opportunity to be an integral part of the production of high tensile **FAB 500™ TMT®** rebars. FM Ghana recruits and trains nationals to work in the fields of management, administration, chemistry and logistics, helping to increase the financial stability of many local families. The facility fosters a great sense of pride in domestic production, while developing plans for the expansion of the company and its workforce.

FM Ghana has an operating culture founded on the philosophy to: "Be ethical, be transparent, exceed standards and expectations of our customers, and maintain consistent workplace health and safety practices that foster cohesive teamwork, leadership opportunities and work ethics."

FACT:

By employing over 600++ nationals at its manufacturing facility, FM Ghana contributes to the welfare of more than 2,000 individuals.



Steel Strength

FAB 500™ TMT® rebars



Fabrimetal takes pride in offering a high-quality import substitute at a competitive price-locally produced for local consumption!

- Managing Director, Fabrimetal Ghana



DIAMETER		CROSS SECTIONAL AREA	MASS PER LENGTH (KG/M)				ONE BAR MASS	NUMBER OF PIECES/TON			
BAR SIZE	TOL.		NOMINAL	STANDARD PERMISSIBLE DEVIATIONS							
				%	min.	max.					
mm	mm	mm ²	kg/m								
8	±0.3	50.29	0.395	±5	0.375	0.414	4.73	211			
10	±0.3	78.57	0.617	±5	0.586	0.648	7.40	135			
12	±0.3	113.14	0.888	±5	0.844	0.933	10.66	94			
16	±0.3	201.14	1.580	±5	1.500	1.660	18.96	53			
20	±0.4	314.29	2.470	±5	2.350	2.590	29.64	34			
25	±0.5	491.07	3.854	±4	3.700	4.010	46.25	22			
32	±0.5	804.57	6.313	±4	6.060	6.570	75.76	13			

MECHANICAL PROPERTIES				
FN TMT REBARS	YIELD STRESS (YS) N/MM ²	ULTIMATE TENSILE STRENGTH (UTS) N/MM ²	STRESS RATIO UTS/YS	ELONGATION MINIMUM (%)
Fe420	420	485	1.15	14
Fe500	500	550	1.10	14

L = length of the bar (m), M = Mass of the bar

Effective cross sectional area in mm² = M/0.00785L (kg)

Length of bar = 12m (-0mm/+50mm)

FM Ghana consistently strives to achieve excellence, maintaining focus on producing international standard quality high tensile **FAB 500™ TMT®** rebars at its manufacturing facility near Tema, Ghana. Economical and designed to increase the bonding strength between bars and surrounding concrete, high tensile **FAB 500™ TMT®** rebars meet construction demands without compromising the environment. With an installed capacity of 100,000 metric tons per annum at its local facility, FM Ghana offers an extensive inventory of competitively-priced steel rebars aimed to service the growing needs of construction companies, distributors, vendors, and individuals.

PRODUCT SIZES:

- » Diameters Produced: 8, 10, 12, 16, 20, 25, 32
- » Lengths Produced: customized (3m, 6m, 9m) & common lengths (12m)

PRODUCT PACKAGING:

- » Packaged in unfolded/straight bundles weighing up to 2 metric tonnes in 12m lengths. U-shaped folded bundles are available upon request.
- » Bundles containing a standard number of bars per size and length are securely tied with wire ties at every 2.4 meter intervals (5 ties).
- » Each bundle is identified with a rebar tag indicating the international standard used, size, number of pieces, and production date.

PRODUCT FEATURES:

- » Quality tested in-house, using SPECTROMAXx and UTM, to meet international standards
- » All high tensile **FAB 500™ TMT®** rebars are made from recycled metal scrap sourced in Ghana- and prime hot rolled billets and:
 - a. require less energy than the production of steel from iron ore
 - b. reduce the demands of landfill disposal facilities
 - c. prevent the accumulation of abandoned steel products
- » Overall higher yield & tensile strength & enhanced percentage elongation
- » Easy bendability, weldability, & ductility
- » Corrosion-resistance properties & increased seismic resistance
- » Increased thermal stability (ideal for elevated temperatures)
- » The **FAB 500™ TMT®** registered trademark is visible on all rebars produced in Ghana

FACT:

MMD is an emerging steel industry leader by manufacturing international standard quality high tensile **FAB 500™ TMT®** rebars in Ghana, one of the fastest growing economies in Africa.

Product Excellence

Thermo Mechanically-Treated technology is used to manufacture high tensile strength rebars through heating and cooling stages that create a combination of micro-structural features in the cross section of the rebars. All rebars are 'hot rolled' before entering these 3 stages:

① QUENCHING:

Rebars pass through a specially-designed, fully-automatic, and computerized quenching box. Water is sprayed on the rebar surface to maintain a colder exterior temperature while maintaining a hot interior temperature.



FACT:

FM Ghana guarantees the safety, sustainability, and security of its product based on the awareness of potential demands placed on high tensile **FAB 500™ TMT®** rebars in the construction industry.

② SELF-TEMPERING:

Rebars are removed from the quenching box and left until the surface hardens, creating an outer layer of tempered martensite.



Tempered Martensite

③ COOLING:

Rebars enter the cooling beds. In this final stage, the austenitic core turns into ferrite-pearlite or ductile. The combination of a tempered martensite surface and ferrite-pearlite core provides a considerably higher strength and ductility to the finished material, making it ideal for building strong structures.



Ferrite Perlite



We use strategic processes, systems, tools, and an eager workforce dedicated to making a positive economic, environmental, and social impact on the sustainable future of Ghana.

- **Quality Assurance Team, Fabrimetal**



FM Ghana's team of Quality Assurance professionals conduct checks at each stage of the manufacturing process. Using the newest generation of the SPECTROMAXx spectrometer, the chemical composition of all rebars are analyzed while an automatic 60-tonne universal testing machine (UTM) provides an analysis of tensile properties (ie. yield & tensile strength & elongation).

Given the intensity of the production process of high tensile **FAB 500™ TMT®** rebars, and the potential for workplace injuries, FM Ghana ensures the health and safety of its workforce are by providing a 24-hour, onsite health clinic, and maintaining a partnership with neighboring clinics, to assist with risk and injury management.



Our passion is to contribute to the development of Ghana. Our commitment is to provide a sustainable product that will enhance the livelihood and future of a country awakened by its potential.

- Human Resources Manager, FM Ghana

Quality Assurance

A decade of KNOWLEDGE of ever-changing market demands, extensive industry experience, and a deep understanding of customer needs drives FM Ghana to make quality the hallmark of high tensile **FAB 500™** TMT® rebars.

Quality EXCELLENCE is achieved when the product we provide consistently meets international standard requirements and exceeds the expectations of our customers, from the manufacturing stage to packaging, storage, and local shipping.

We take PRIDE in providing a high quality, well-priced product, our customer service and timely deliveries, our strong distribution network, and our cohesive efforts to maintain our leadership in the market and gain a competitive advantage over importers. It is our collective objective to meet and exceed expectations in all our efforts today and in the future as expansion becomes inevitable.



FACT:

MMD has an industry reputation for reliability and high quality. The experienced leadership team's solid track record for consistently meeting international standards and providing strong cost management through an existing supply chain, enables local competitive pricing.

Get enhanced strength of advanced TMT technology



Technology Advantage



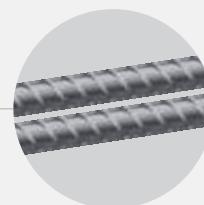
Higher Strength vs Ductility Ratio

The technology forms Hardened outer layer and Soft Inner core making the bars Tough and yet Flexible to withstand critical loads.



More Strength in less Weight

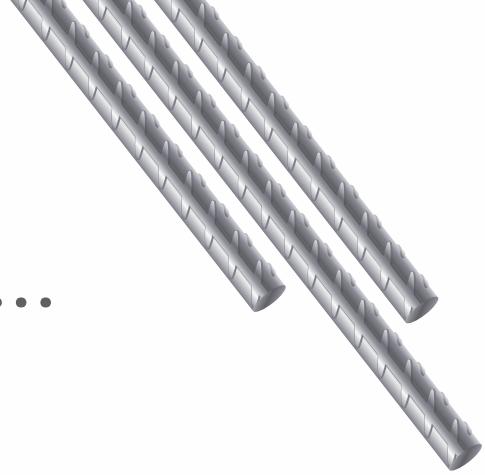
As it delivers higher values of strength & ductility it reduces quantity of required steel which further reduces the own weight load of structure. And eventually less steel means more economical.



Parallel & Precise Rib Pattern

It leads to excellent bonding with Concrete making RCC structure stronger. It also eliminates the torsion residual stress resulting Corrosion Resistance and thus increasing life of structure.

Features that make **FAB 500™** Superior... and your first choice



Excellent Bonding With Cement

Fabrimetal have precise, uniform and parallel rib pattern engraved through computer controlled notch making machines, which results in excellent gripping with concrete.



Excellent Bendability

Fabrimetal have microstructure with a soft core which gives excellent bendability without compromising high strength.



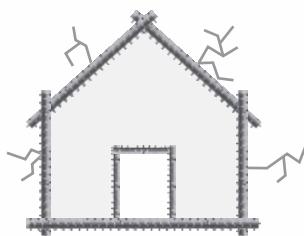
Superior Weldability

Fabrimetal have Low Carbon content that ensure easier and faster welding without preheating. Thus leading to stronger and safer weld joints.



Corrosion Resistant

Parallel rib pattern and low carbon content gives superior corrosion resistance property to Kamal Rebars.



Earthquake Resistant

Fabrimetal have higher ductility to withstand cyclic loading and are thus suitable in earthquake prone areas.

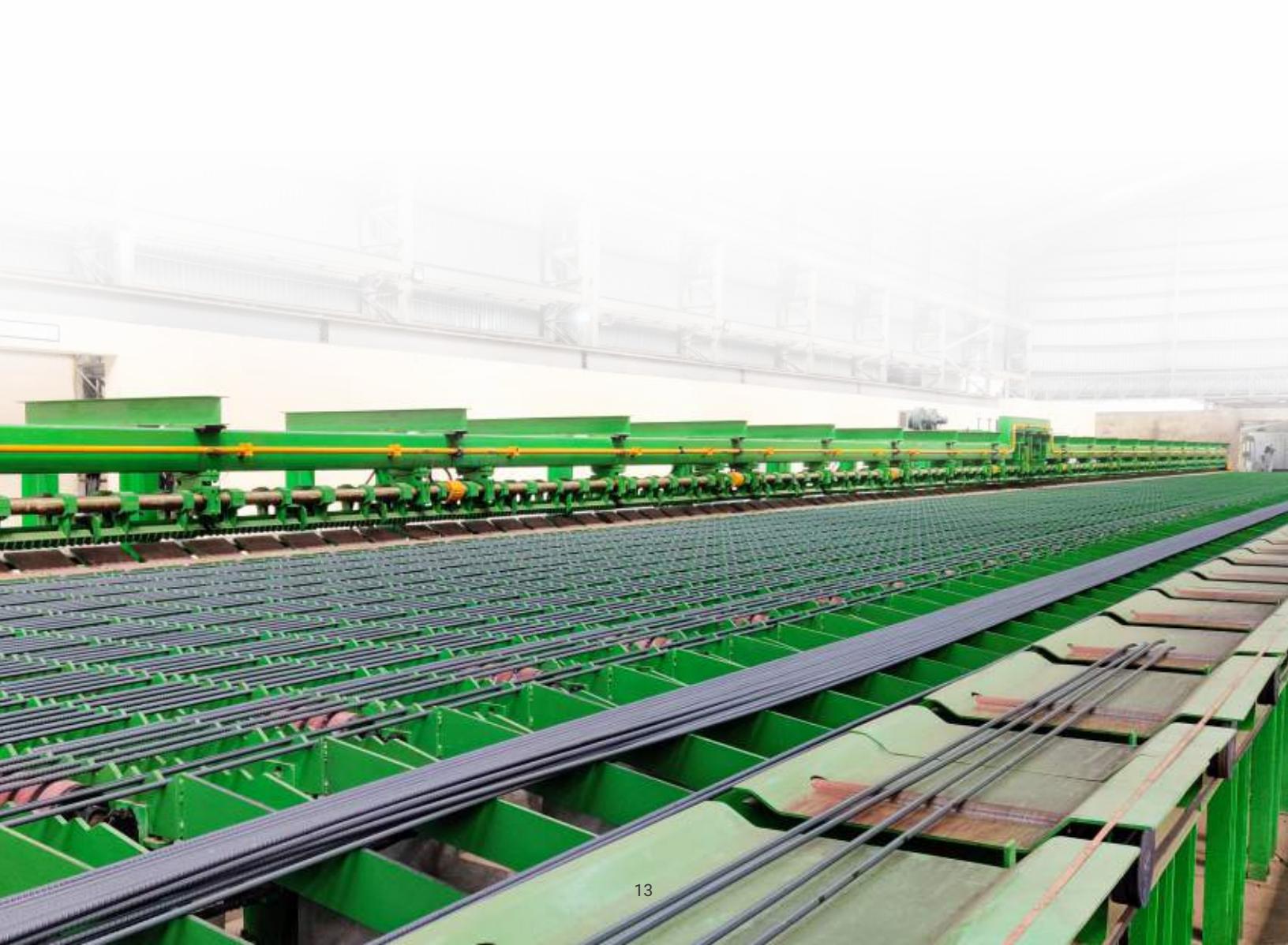


Fire Resistant

The Consistent and Thick layer of tempered martensitic rim on the outer surface of Fabrimetal gives higher capacity to retain strength at increased temperatures.

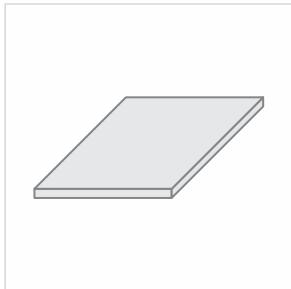
Automatic Cooling Bed

A rolling mill cooling bed is an important component when you are manufacturing steel bars. It is used to uniformly cool the rolled materials. The cooling bed ensures that the bars are transported in a uniformed manner from the entry end of the cooling bed to the discharge end of the table. An efficient cooling bed is necessary to transfer the bars to the roller table – one by one. As an important equipment, its efficiency is determined by how carefully it can move, and cool hot steel rolled bars after they have passed the hot rolling process.

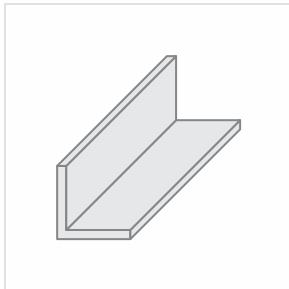


We also manufacture

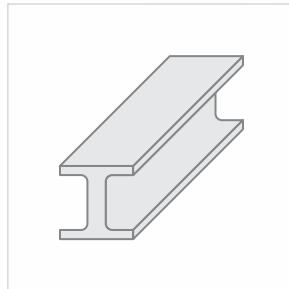
Structural Profiles



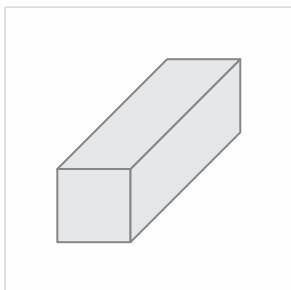
MS Flat Bars



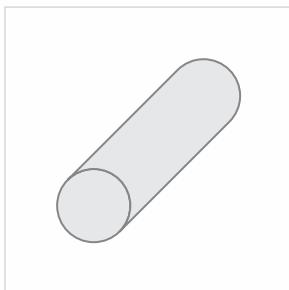
MS Angles



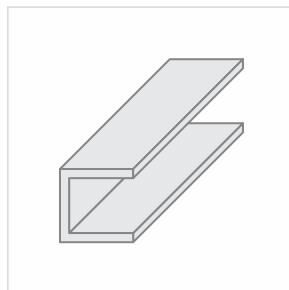
MS I-Beams



MS Square Bars



MS Round Bars

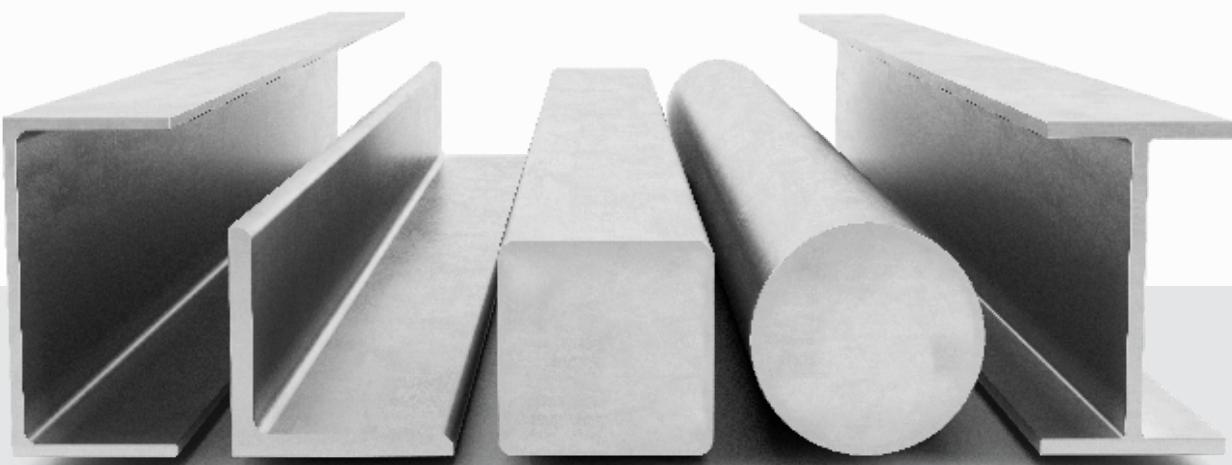


C-Channels

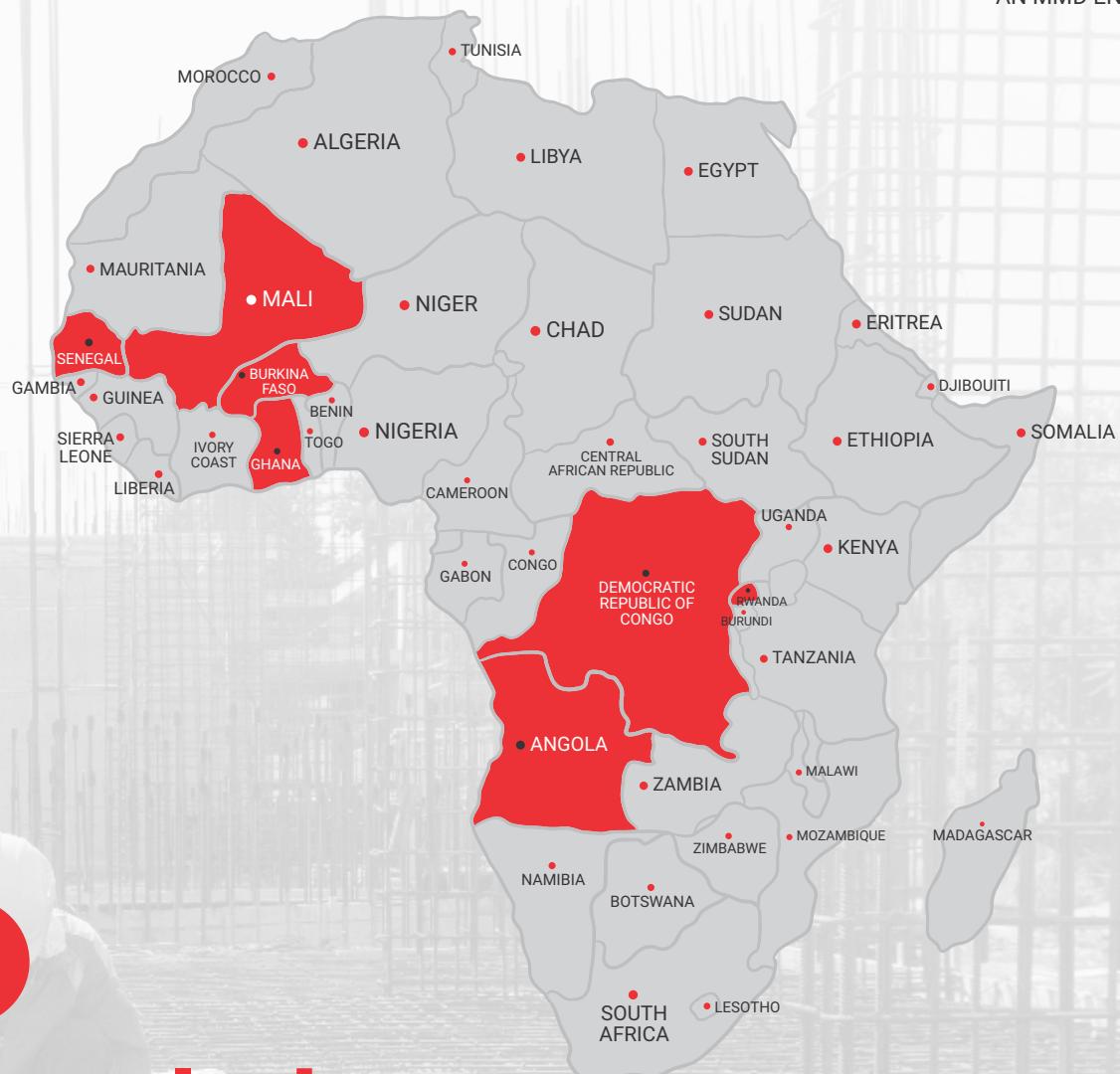


We manufacture these products in different Grades & Sizes.

We also make customized steel products as per clients' unique requirements.



MMD Presence



Knowledge Excellence, Pride



Brand Development Award 2017



Fastest Growing Steel Company of the year 2019



Emerging Brand of the Year 2020



Best Growing Manufacturing Company of the Year 2020



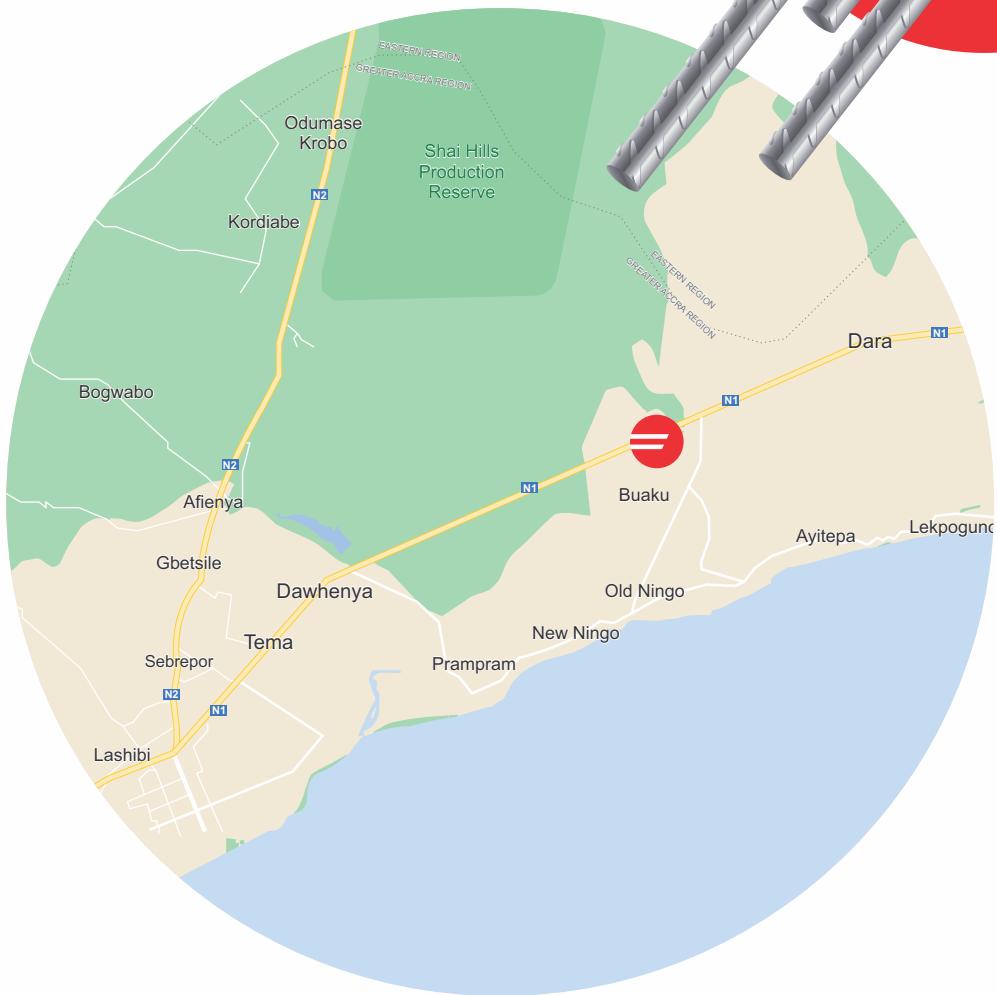
Excellence Corporate Social Responsibility 2021



Best Growing Manufacturing Company of the Year



Best Company in Metals Sector 2021



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