



MANUFACTURERS OF FINEST QUALITY IRON RODS



FFL REBARS



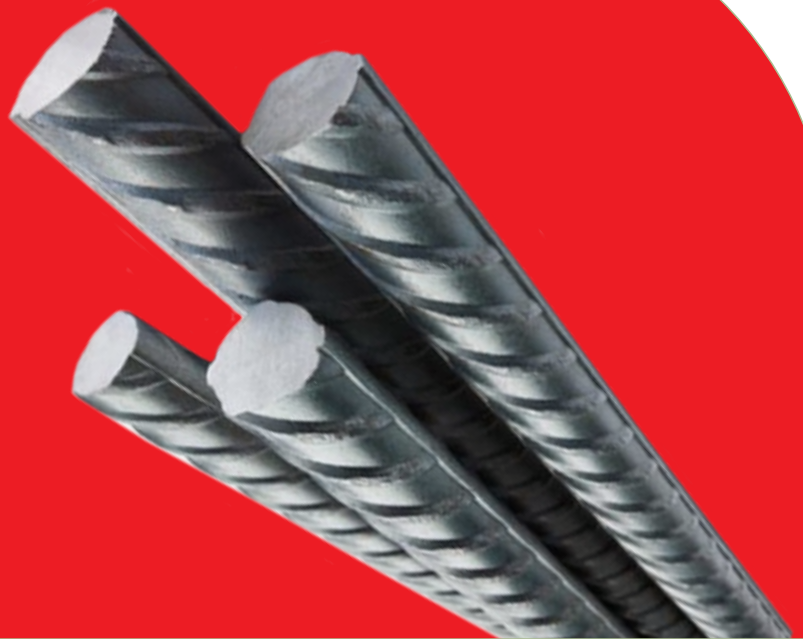
Because Your House Is Also Family

Efirí s3 wo fie nso y3 abusua

Parce Que Votre Maison Est Aussi La Famille

Space For Pro Forma Invoice

 **FFL** FERRO
FABRIK LTD.

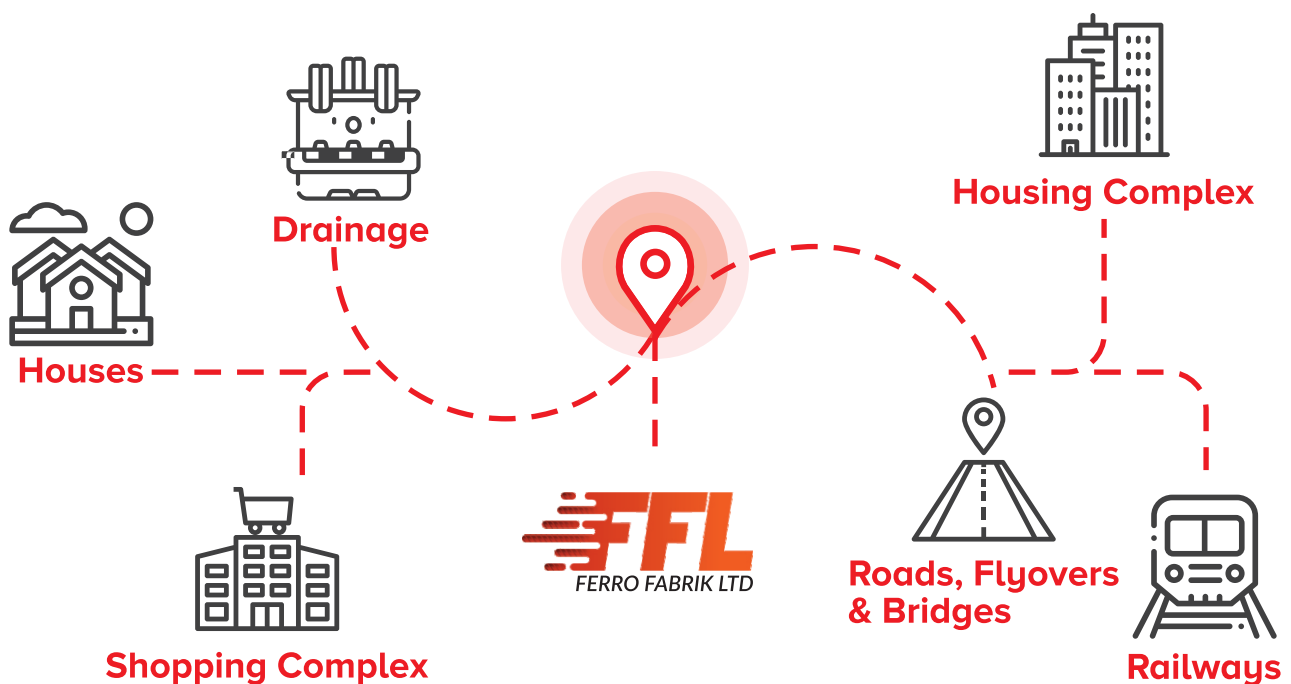


Ferro Fabrik Limited (FFL) is the Leading Manufacturing Company of Ghana. It was established to support the accelerating growth in Ghana by making country self-reliant for Iron Rebars and eliminating its dependence on imported Rebars. The FFL's core purpose is to maintain the highest standards of manufacturing **Finest Quality Iron Rods In Ghana**. FFL has installed capacity to produce 150,000 MT of High Strength Rebars per year.

The FFL name has been respected since 1968 for its adherence to strong values & always believed in returning wealth to the society it serves. The Company has achieved success on the backdrop of strong Administration, Technology, Manufacturing, Supply Chain & Marketing.

FFL is fully committed to ensure the international quality standards and continues to meet & exceed the customer expectations. Based on the performance over the years, the FFL Brand has come to stand for Quality, Trust, Business Leadership & the Highest Ethical Standards.

The company has provided jobs to more than 500 people & works tirelessly to raise the skill levels of its employees to meet all the quality expectations. The company has also proved that it is not only a big producer but is also responsible towards the society. It has performed various activities which benefited the spheres of society.



GLOBAL PRESENCE

Liberia

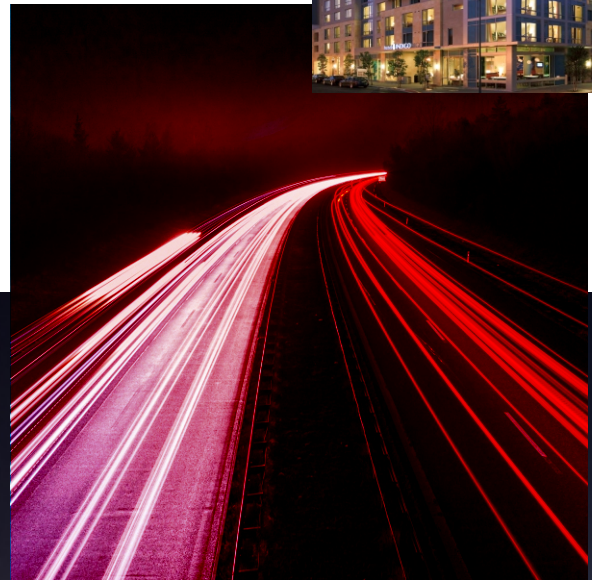
Dubai

India

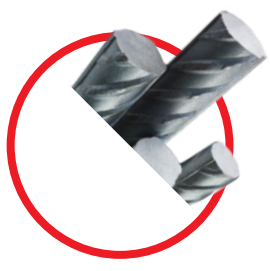
Ghana

- Heavy Industrial Area, Tema
- Ghana Freezones Enclave, Tema
- Kaase Industrial Area, Kumasi

Democratic Republic of Congo



DISTINCTIVE FEATURES



Best Rib Patterns That Increase The Bond With Cement.

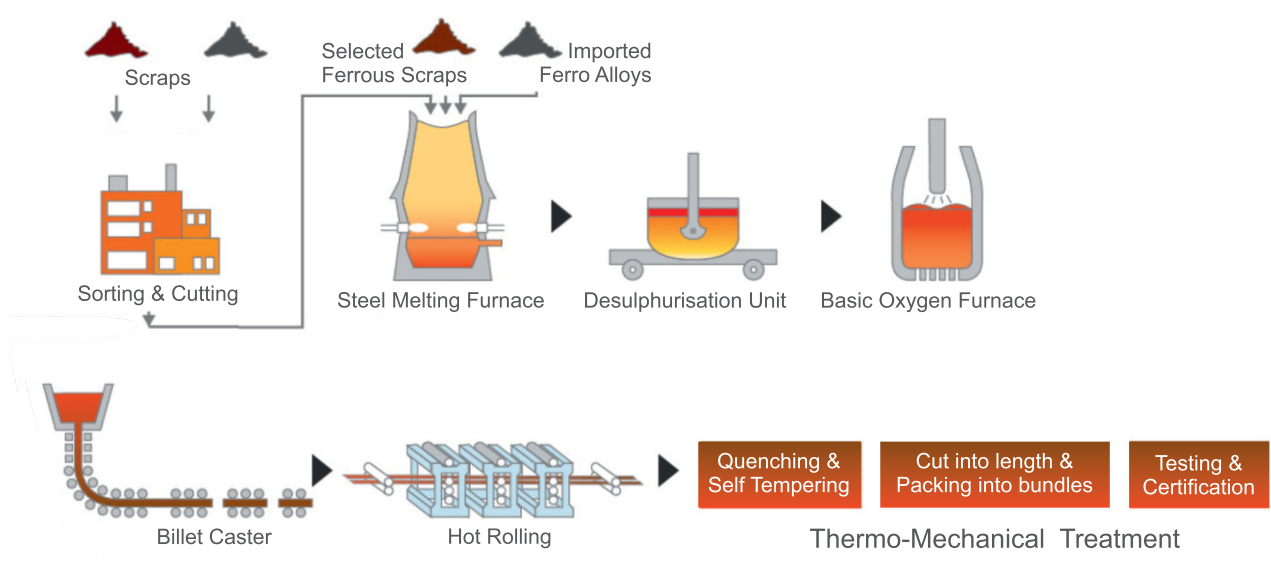


Consistent Quality Across the Bar.



Highly Systematic Manufacturing Process That Ensures Consistency In The Finest Quality Rebars.

PROCESS ROUTE



KEY FEATURES



Low Carbon That Enhances Weldability.



Less Impurities Like Sulphur & Phosphorous That Enhances Strength & Durability.



Higher Corrosion Resistance.



Higher Earthquake Resistant.



Best Rib Patterns That Increase The Bond With Cement.



Ultimate High Tensile Strength.



Higher Bendability.

AVAILABLE IN 3 TYPES



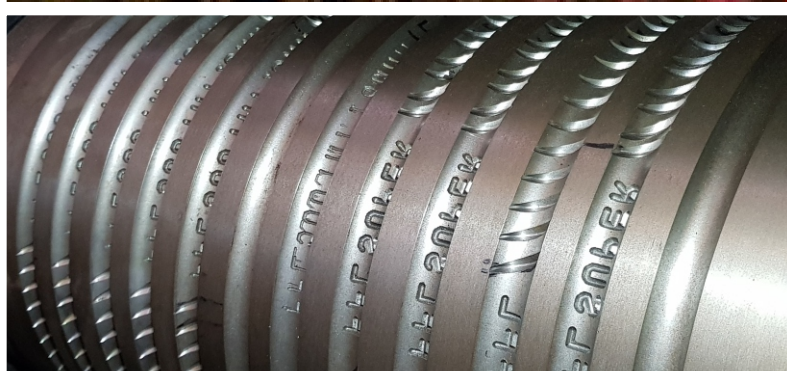
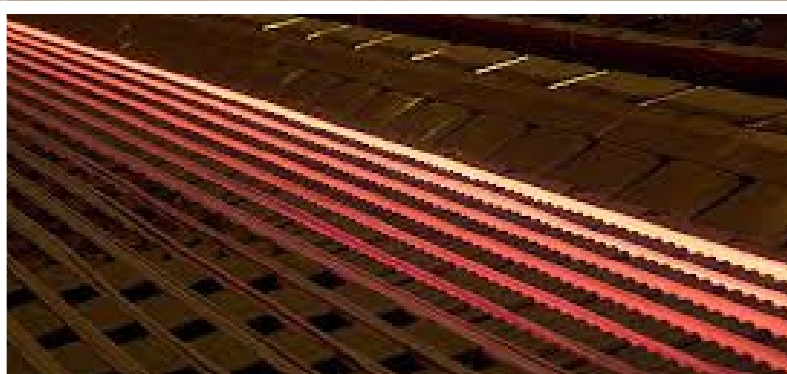
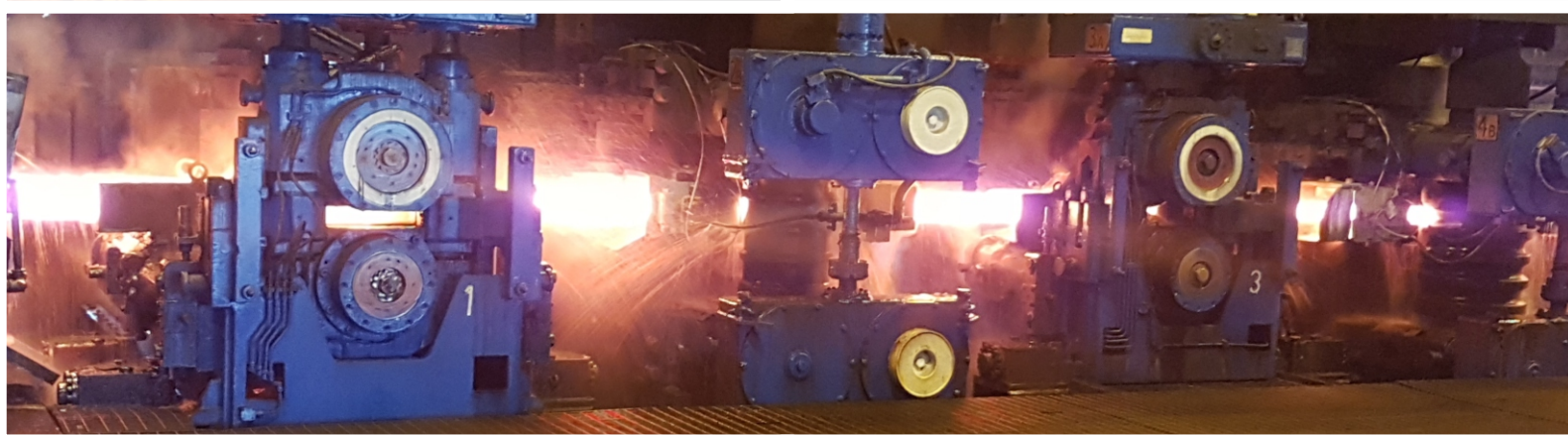
MILD STEEL



FERRO SUPER



HIGH TENSILE



Dimensions & Sizes		Chemical Composition	
	High Tensile Rebar	% Carbon	0.24 max
Length	12 Meters	% Silicon	0.30 max
Diameter	10 mm	% Manganese	0.65 min
	12 mm	% Sulphur	0.05 max
		% Phosphorous	0.05 max
	16 mm	Carbon Eqv.	0.42 max
	20 mm	Mechanical Properties	
	25 mm	Yield Stress (N/mm ²)	500 Min
		Tensile/Yield Strength Ratio	1.08 Min
32 mm	Elongation (at max force-Agt)	16% Min	

Technical Specifications

NOMINAL DIMENSIONS, WEIGHT & TOLERANCES

Designation	NominalDia. (mm)	Nominal Cross Section Area (mm ²)	Unit Mass (kg/m)	Tolerance On Mass (%)	Nominal Mass kg/bar			Relative Rib Area (RRA)	Longitudinal Rib Height (mm)
					6mm	9mm	12mm	Min	Max
FFL 10	10	78.5	0.617	± 2.5	3.7	5.55	7.4	0.040	1.00
FFL 12	12	113	0.888	± 2.5	5.33	7.99	10.6	0.040	1.20
FFL 16	16	201	1.58	± 2.5	9.48	14.22	18.96	0.056	1.60
FFL 20	20	314	2.47	± 2.5	14.82	22.23	29.64	0.056	2.00
FFL 25	25	491	3.85	± 2.5	23.1	34.65	46.2	0.056	2.50
FFL 32	32	804	6.31	± 2.5	37.86	56.79	75.72	0.056	3.20

FFL 500 TMT Features

Features	Description
Variability with respect to parameters like Ys, Stress Ratio, Agt & Chemical Composition.	Controlled variability is ensured (a very low standard deviation and low band of results)
Process Control - Standardized Processes to ensure in-coming, in-process and final quality.	Ensures a strict process control couples with monitoring and analysis.
Traceability-Quick trace back up to raw material and process parameter	Complete information of product on Tag & Test Certificate
Radiation free steel	Ensured through automatic Radiation detection system on raw material and Rebars.
Complaint handling	Structured and transparent process, quick response and customer friendliness (dealing as a partner)
Work Force	Well trained, motivated and inspired.

CERTIFICATIONS

ASEL GEOTECHNICAL LABORATORY

TENSILE STRENGTH OF STEEL BARS

PROJECT : ROUTINE TESTING
 LOCATION : WELIA - ACCRA
 CLIENT : FERRO FABRIK
 CONTRACTOR :
 DATE: 25/01/2019
 ASEL OFFICIAL: EFA

Serial No	Size of Bar/mm	Measured Size (mm)	Cross Section Area (mm ²)	Mark Ref No	Elongation %	Yield Point Load (KN)	Ultimate Load (KN)	Tensile Strength (N/mm ²)	
								Yield Point	Ultimate
1	10.00	9.83	75.892		26.5	43.9	98.7	578.45	786.84
2	10.00	9.83	75.892		27.0	43.9	98.7	578.45	786.84
3	10.00	9.83	75.892		26.0	43.9	98.7	578.45	786.84
4	12.00	11.95	113.157		26.5	65.8	91.9	579.55	811.85
5	12.00	11.95	113.157		25.0	65.8	91.9	579.55	793.53
6	12.00	11.95	113.157		26.0	64.8	91.9	579.55	794.62
7	16.00	15.95	199.807		24.0	184.7	186.9	524.80	735.21
8	16.00	15.95	199.807		24.0	186.4	189.4	536.51	747.72
9	16.00	15.95	199.807		25.0	186.4	189.4	536.51	747.72
10	20.00	19.85	309.465		26.0	184.3	224.7	595.54	736.99
11	20.00	19.85	309.465		27.0	182.3	226.9	588.76	733.20
12	20.00	19.85	309.465		27.0	183.4	226.9	592.64	733.20

Notes: The tests were conducted as per BS 4449 : 2005 specification for carbon steel for the reinforcement of concrete.
 The characteristics: Yield Point strength as per the above specification for MILD STEEL & HIGH YIELD STEEL are 250 N/mm² and 460 N/mm² respectively.

HEAD OF GEOTECHNICAL DEPT
E. S. LIMITED
 POST OFFICE BOX GP 3989
 ACCRA

ASEL GEOTECHNICAL LABORATORY

TENSILE STRENGTH OF STEEL BARS

PROJECT : ROUTINE TESTING
 LOCATION : WELIA - ACCRA
 CLIENT : FERRO FABRIK
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 DATE: 25/01/2019
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Serial No	Size of Bar/mm	Measured Size (mm)	Cross Section Area (mm ²)	Mark Ref No	Elongation %	Yield Point Load (KN)	Ultimate Load (KN)	Tensile Strength (N/mm ²)	
								Yield Point	Ultimate
13	25.00	24.82	483.831		24.0	288.0	347.9	596.15	717.19
14	25.00	24.82	483.831		24.0	285.0	350.9	589.85	723.39
15	25.00	24.82	483.831		24.0	286.0	349.9	591.12	721.33

Notes: The tests were conducted as per BS 4449 : 2005 specification for carbon steel for the reinforcement of concrete.
 The characteristics: Yield Point strength as per the above specification for MILD STEEL & HIGH YIELD STEEL are 250 N/mm² and 460 N/mm² respectively.

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DEPARTMENT OF CIVIL ENGINEERING DEPARTMENT
 STRUCTURAL ENGINEERING LABORATORY REPORT

PROJECT: KUMASI ROAD AND DRAINAGE EXTENSION PROJECT (KROEP)
 CONTRACTOR: CHINART COOP (CHICO)
 DATE: 18th April, 2019

TENSILE TEST ON STEEL RODS

SPECIMEN No.	GRADE BRAND	GEORGE AREA (mm ²)	INITIAL GEORGE LENGTH (mm)	FINAL GEORGE LENGTH (mm)	YIELD LOAD (kN)	TENSILE LOAD (kN)	MAX. LOAD (kN)	YIELD STRESS (N/mm ²)	TENSILE STRESS (N/mm ²)	MAX. STRESS (N/mm ²)	ELONGATION (%)
1	25.00	490.63	100	138.00	244.00	244.00	296.00	497.32	497.32	603.31	38.00
2	25.00	490.63	100	138.00	244.00	244.00	296.00	497.32	509.55	607.39	38.00
3	25.00	490.63	100	139.00	244.00	240.00	278.00	497.32	489.17	566.62	39.00
4	19.60	301.57	100	142.00	158.00	142.00	190.00	523.93	470.88	630.05	42.00
5	19.60	301.57	100	138.00	160.00	146.00	192.00	530.56	484.14	636.68	38.00
6	19.60	301.57	100	143.00	160.00	148.00	190.00	530.56	490.77	630.05	43.00
7	15.50	188.60	100	139.00	94.00	86.00	111.00	498.42	456.00	588.56	39.00
8	15.50	188.60	100	137.00	98.00	86.00	117.00	519.63	456.00	620.37	37.00
9	15.50	188.60	100	128.00	128.00	148.00	151.00	636.28	784.73	800.65	28.00

DEPARTMENT OF CIVIL ENGINEERING DEPARTMENT
E. S. LIMITED
 POST OFFICE BOX GP 3989
 ACCRA

REPUBLIC OF GHANA

Public Procurement Authority

SUPPLIER NO: 477185

DATE ISSUED: 24 APR 2020

EXPIRY DATE: 23 APR 2020

SUPPLIER, CONTRACTOR, CONSULTANT REGISTRATION CERTIFICATE

This is to certify that

FERRO FABRIK LIMITED

is duly registered with the Public Procurement Authority to engage in Government tenders as mandated by Section 1(j) of the Public Procurement Act, 2003 (Act 663) as amended.

PPA NO. 0005587

Chief Executive

GHANA STANDARDS AUTHORITY

LICENCE

To use the Certification Mark of the Authority

Cert. No. GSA-PCME-L-775-001

THE AUTHORITY HEREBY GRANTS TO

FERRO FABRIK LIMITED

of

TEMA, GREATER-ACCRA REGION

the right and license to use the registered Certification Mark of the Authority set out in the second column of the Schedule hereto and in respect of the goods set out in the third column of the said Schedule which are produced by the Licensee in accordance with the appropriate Ghana Standards referred to in the fourth column of the said Schedule as from time to time amended.

The license is granted subject to the Ghana Standards (Certification Mark) Rules, 1970 (L. 642) as amended in respect of the Mark and to any undertakings into which the Licensee has been required to enter with the Authority prior to the grant of the license and it shall be binding upon the Licensee to observe and perform all the said Rules and Undertakings.

Signed for and on behalf of the Authority

Date of issue: 2019-02-28

Date of expiry: 2020-02-27

DIRECTOR GENERAL

SCHEDULE

Mark of Conformity	Goods in respect of which the use of the Mark is granted	Ghana Standards according to which the goods are to be manufactured
	STEEL FOR THE REINFORCEMENT OF CONCRETE (10MM, 12 MM, 14 MM, 16 MM, 18 MM, 20 MM)	GS 780-2: 2016
LIC. NO.: GSA-PCME-L-775-001		
STD. NO.: GS 780-2		

P. O. Box 180 121, Accra, Ghana, telephone: +233 (0) 30 266 2666
 Fax: +233 (0) 30 266 2666. Website: www.gsa.gov.gh

Member Of

SMTAG

STEEL MANUFACTURING ASSOCIATION OF GHANA

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Manufacturers Of Finest Quality
Iron Rods

 [+233] 266855863

 info@ferrofabrik ltd.com  www.ferrofabrik ltd.com

 18/5 Heavy Industrial Area, Tema, Ghana (West Africa)