



MANUFACTURERS OF FINEST QUALITY IRON RODS



Because Your House Is Also Family

Efirí s3 wo fie nso y3 abusua

Parce Que Votre Maison Est Aussi La Famille

GLOBAL PRESENCE

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Liberia

India

Ghana

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

Democratic
Republic of Congo

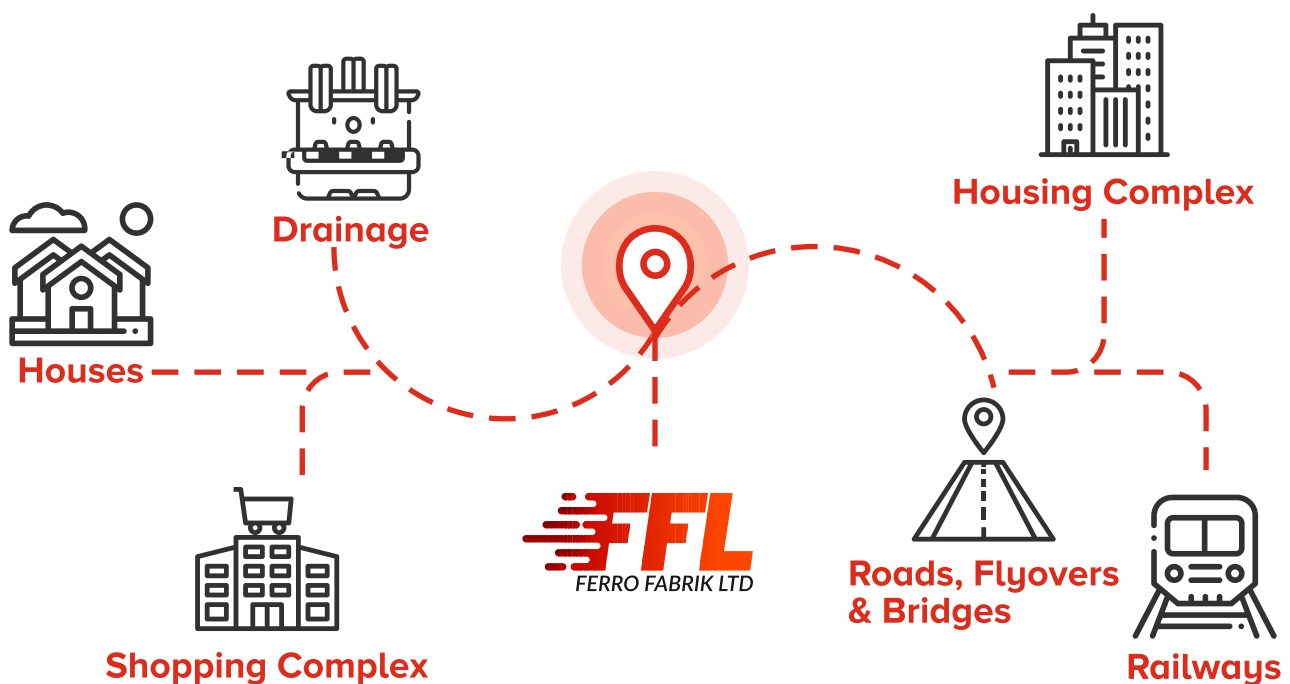


Ferro Fabrik Limited (FFL) is the Leading Manufacturing Company of Ghana. It was established to support the accelerating growth in Ghana by making country self-reliant for Iron Rebars and eliminating its dependence on imported Rebars. The FFL's core purpose is to maintain the highest standards of manufacturing **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.



KEY FEATURES

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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

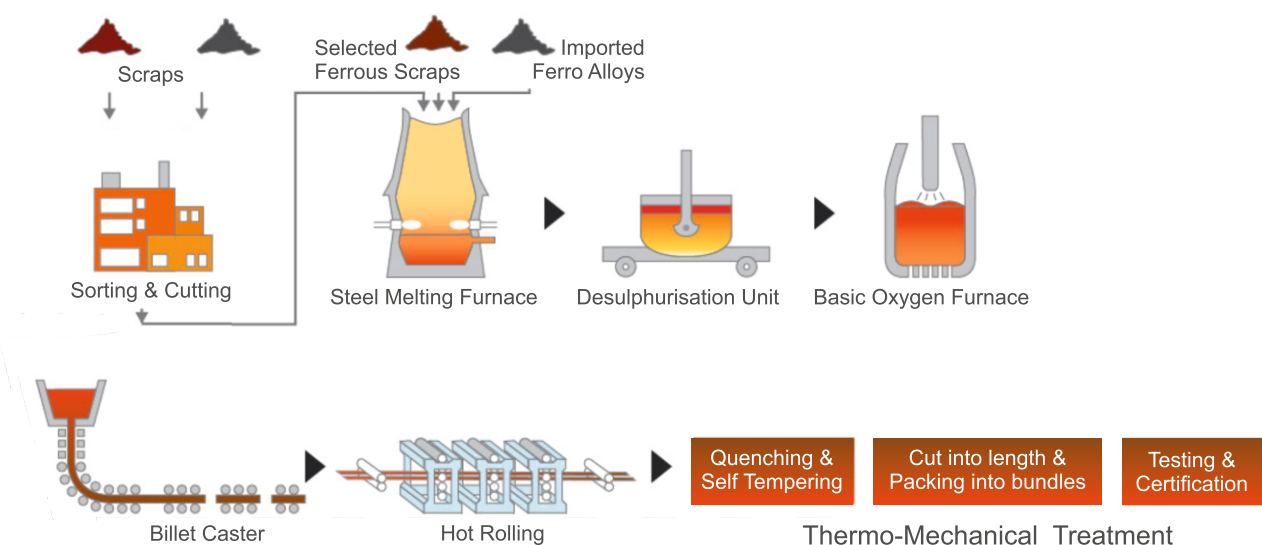


FERRO SUPER



HIGH TENSILE

PROCESS ROUTE





SPECIFICATIONS

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Dimensions & Sizes		Chemical Composition	
Length	High Tensile Rebar	% Carbon	0.24 max
	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/mm2)	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

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TENSILE STRENGTH OF STEEL BARS

PROJECT : ROUTINE TESTING
LOCATION : WELIA - ACCRA
CLIENT : FERRO FABRIK
CONTRACTOR :

DATE: 25/01/2019
AESL OFFICIAL: EFA

Serial No.	Size of Bar (mm)	Measured Size (mm)	Gross Section Area (mm ²)	Mark Ref No.	Elongation %	Yield Point Load (kN)	Ultimate Load (kN)	Yield Point Stress (N/mm ²)	Ultimate Stress (N/mm ²)
1	10.00	9.83	75.892		26.5	43.9	98.7	448.45	786.44
2	10.00	9.83	75.892		27.0	43.9	99.7	448.45	786.44
3	10.00	9.83	75.892		26.0	43.9	98.7	448.45	786.44
4	12.00	11.95	112.157		26.5	65.0	91.0	578.55	811.35
5	12.00	11.95	112.157		25.0	65.0	89.0	578.55	811.35
6	12.00	11.95	112.157		26.0	64.0	88.0	578.55	811.35
7	16.00	15.95	199.807		26.0	186.7	146.9	534.00	732.21
8	16.00	15.95	199.807		24.0	186.4	149.4	530.51	747.72
9	16.00	15.95	199.807		25.0	186.4	149.4	530.51	747.72
10	20.00	19.85	309.465		26.0	284.2	224.7	598.54	736.09
11	20.00	19.85	309.465		27.0	282.2	224.9	588.76	733.20
12	20.00	19.85	309.465		27.0	283.4	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 characteristic Yield Point strength as per the above specification for MILD STEEL & HIGH YIELD STEEL are:
235 N/mm² and 460 N/mm² respectively.

HEAD OF GEOTECHNICAL DEPT.
E. S. S. LIMITED
POST OFFICE BOX 999
ACCRA

TENSILE STRENGTH OF STEEL BARS

PROJECT : ROUTINE TESTING
LOCATION : WELIA - ACCRA
CLIENT : FERRO FABRIK
CONTRACTOR :

DATE: 25/01/2019
AESL OFFICIAL: EFA

Serial No.	Size of Bar (mm)	Measured Size (mm)	Gross Section Area (mm ²)	Mark Ref No.	Elongation %	Yield Point Load (kN)	Ultimate Load (kN)	Yield Point Stress (N/mm ²)	Ultimate Stress (N/mm ²)
13	25.00	24.82	483.331		26.0	288.0	347.9	594.35	717.19
14	25.00	24.82	483.331		26.0	285.0	350.0	589.05	723.39
15	25.00	24.82	483.331		26.0	286.0	349.0	591.12	721.33

Notes: The tests were conducted as per BS 4449: 2005 specification for carbon steel for the reinforcement of concrete.
The characteristic Yield Point strength as per the above specification for MILD STEEL & HIGH YIELD STEEL are:
235 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 (KIDEP)
CONTRACTOR: CHINANT, COOP (CHCO)

DATE: 18th April, 2019

SPECIFIC N°	GRADE (mm)	GRADE AREA (mm ²)	INITIAL GAUGE LENGTH (mm)	FINAL GAUGE LENGTH (mm)	YIELD LOAD (kN)	FAIRBANK LOAD (kN)	MAX. LOAD (kN)	YIELD STRESS (N/mm ²)	FAIRBANK 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	497.32	603.31	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	19.00	301.57	100	142.00	158.00	142.00	190.00	323.93	470.88	630.05	42.00
5	19.00	301.57	100	138.00	160.00	146.00	192.00	530.56	484.14	636.68	38.00
6	19.00	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	120.00	148.00	151.00	636.28	784.73	800.65	28.00

HEAD OF CIVIL ENGINEERING DEPT.
E. S. S. LIMITED
POST OFFICE BOX 999
ACCRA

REPUBLIC OF GHANA

Public Procurement Authority

SUPPLIER NO: 477185

DATE ISSUED: 24 APR 2019

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(p) of the Public Procurement Act, 2003 (Act 663) as amended.

PPA NO. 0005587

AB Aditi
Chief Executive

GHANA STANDARDS AUTHORITY

LICENCE

To use the Certification Mark of the Authority

Cert. No. GSA-PCML-A-775-001

THE AUTHORITY HEREBY GRANTS TO

FERRO FABRIK LIMITED

TEMA, GREATER-ACCRA REGION

Hereafter called the Licensee 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 duly 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 Ghana Standard is to be permitted	Ghana Standard according to which the goods are to be produced
	STEEL FOR THE REINFORCEMENT OF CONCRETE (10MM, 12 MM, 14 MM, 16 MM, 18 MM, 20 MM)	GS 780-2: 2010

LIC. NO.: GSA-PCML-A-775-001
STD. NO.: GS 780-2

P. O. Box 180 181, Accra, Ghana, telephone: 030 200 00 00, 030 200 00 01, 030 200 00 02, 030 200 00 03, 030 200 00 04, 030 200 00 05, 030 200 00 06, 030 200 00 07, 030 200 00 08, 030 200 00 09, 030 200 00 10, 030 200 00 11, 030 200 00 12, 030 200 00 13, 030 200 00 14, 030 200 00 15, 030 200 00 16, 030 200 00 17, 030 200 00 18, 030 200 00 19, 030 200 00 20, 030 200 00 21, 030 200 00 22, 030 200 00 23, 030 200 00 24, 030 200 00 25, 030 200 00 26, 030 200 00 27, 030 200 00 28, 030 200 00 29, 030 200 00 30, 030 200 00 31, 030 200 00 32, 030 200 00 33, 030 200 00 34, 030 200 00 35, 030 200 00 36, 030 200 00 37, 030 200 00 38, 030 200 00 39, 030 200 00 40, 030 200 00 41, 030 200 00 42, 030 200 00 43, 030 200 00 44, 030 200 00 45, 030 200 00 46, 030 200 00 47, 030 200 00 48, 030 200 00 49, 030 200 00 50, 030 200 00 51, 030 200 00 52, 030 200 00 53, 030 200 00 54, 030 200 00 55, 030 200 00 56, 030 200 00 57, 030 200 00 58, 030 200 00 59, 030 200 00 60, 030 200 00 61, 030 200 00 62, 030 200 00 63, 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