

Head Office

Plot No. 166, Road B-7, Hayatabad Industrial Estate, Peshawar.

Steel Plants

Unit 1: Lahore | Unit 2: Peshawai

Corporate Sales Offices

Karachi 98 B, Block 2, PECHS, Near Shahra-E-Quaideen,

Karachi.

Peshawar Plot No. 166, Road B-7, Hayatabad

industrial Estate, Pesnawar.

Sector I-9/2, Islamabad.



The Only Manufacturer to Exclusively

Produce **GRADE 60 STEEL BARS**

Pakistan Pakistan



Message from

Senator Nauman Wazir Khattak (Chairman)

"I had a dream; most of which I have successfully achieved. Professionalism at its peak in every department of our company; where every individual looks forward to their work the next day. A dream company led by a dream CEO who has the potential to lead the company to its yenith not only in Pakistan but globally.

Humility, fair play, integrity, and respect for all irrespective of their gender cast, creed or stature, is the hallmark of the company.

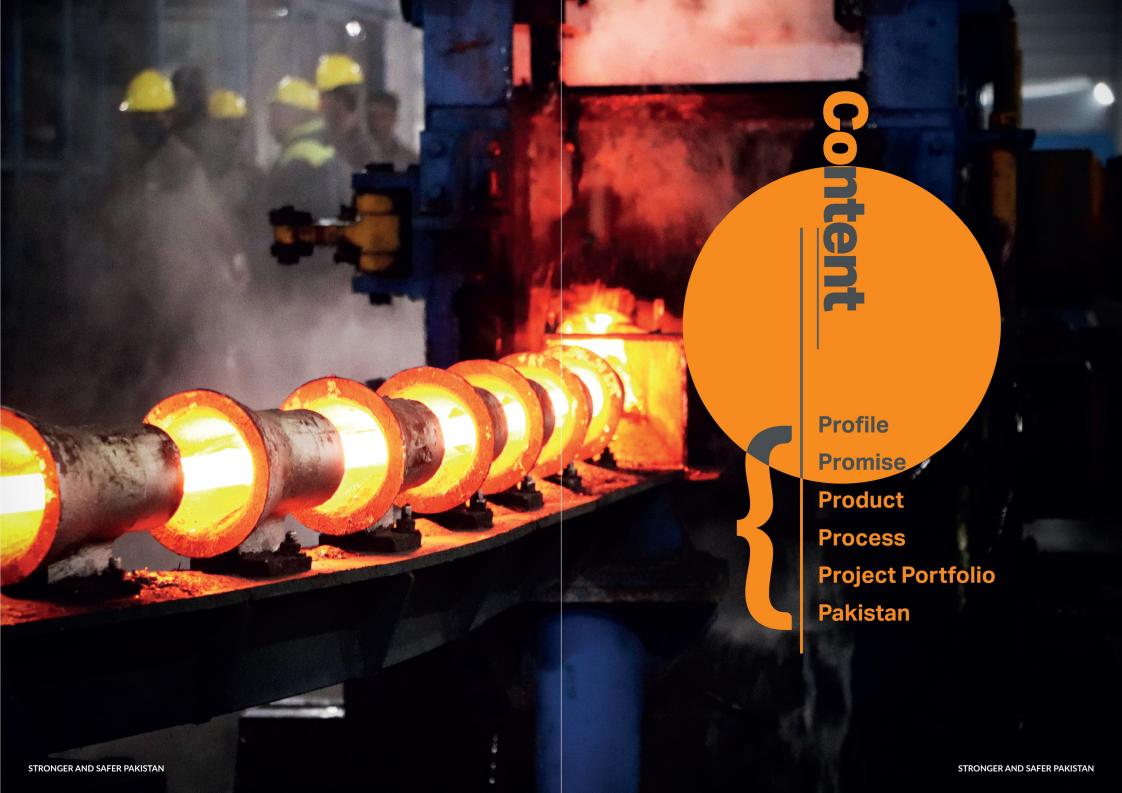
Acquisition of the latest technology spun at places with labour intensive processes, mingled with appropriate technology has resulted in the highest productivity in the steel sector of the world.

Simultaneously resulting in lower, sustainable, production cost and subsequent excellent profitability to the company's shareholders.

The II team as part of its CSR takes pride in providing extreme high value to its clients, vendors, investors, and the community.

Our patriotism is second to none in Pakistan".

Chairman FF STEEL



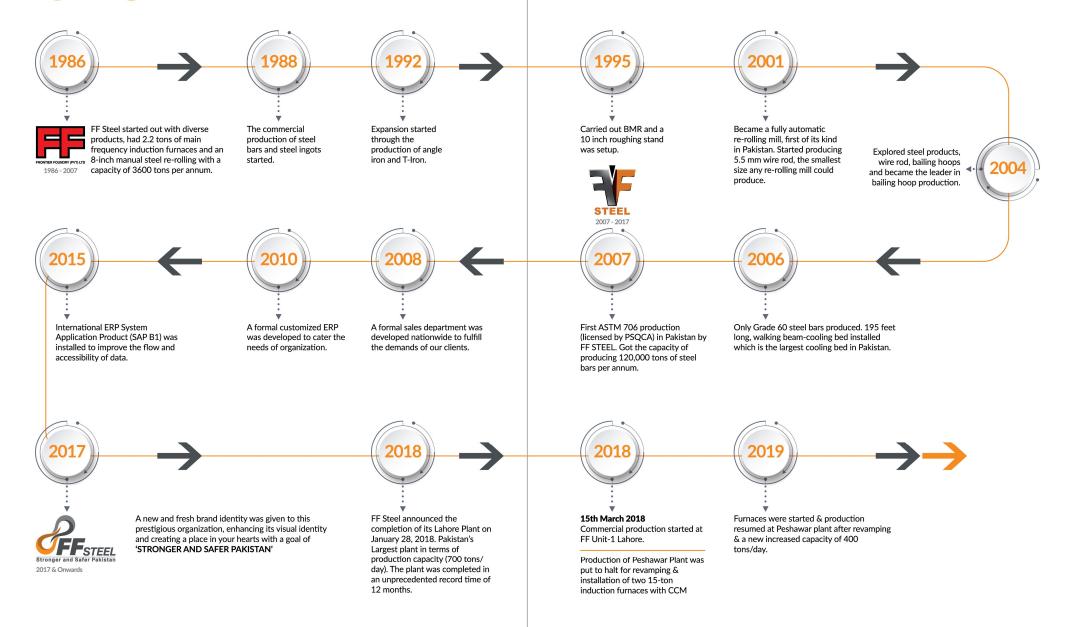
Promise Promise



Our Core Values

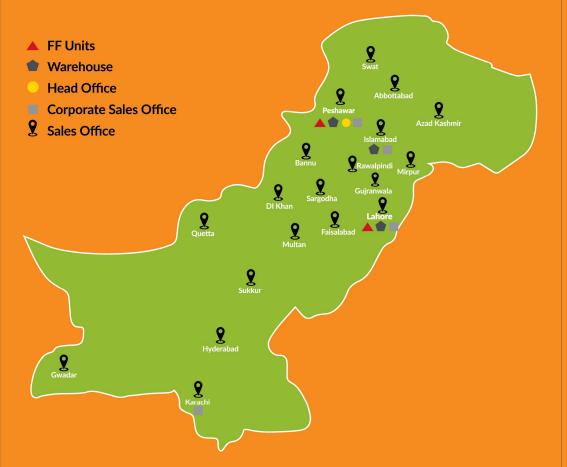
Our core values start from building safer and a high-quality product that contributes to a better Pakistan. We at FF STEEL, direct our efforts to handle high varying demands of our customers, maintaining the premium quality of our product. Our main focus is to provide outstanding steel with premium value to our customers. With our Grade 60 steel bars, we don't just make clients, we develop relationships that positively impact our customer's life. By constantly adapting new technological advances to maintain international standards, we promise to keep exceeding your expectations in better quality, cost effectiveness and nationwide availability.

Profile



Network **Network**

Our Network



Lahore FF Unit 1



Ground Breaking: Production Capacity:

Commercial Production: March. 2018

Cooling Bed: Fully automated 66m (217 ft.) long cooling with double

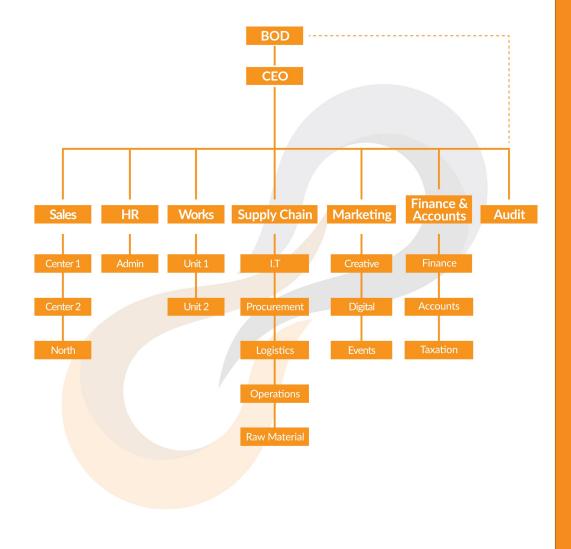
Peshawar FF Unit 2



Ground Breaking: Production Capacity:

Cooling Bed: 43 meters (141ft.) long rack type cooling bed for natural

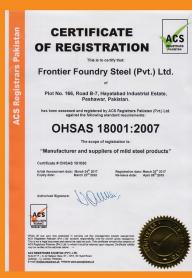
Our Structure

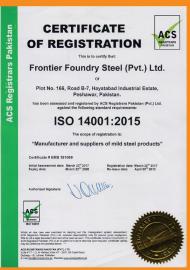


Awards ISO Certification











Products Products



Table 1: Deformed Bars Designation Numbers, Nominal Weights [Masses], Nominal Dimensions, and Deformation Requirements

A 07	- 4	04	

	Nominal weight,	Nominal Dimensions ⁸			Nominal Dimensions ⁸ Deformation Requirements, in. [mm]		
Bar Designation No. ^A	Nominal kg/m)	Diameter in. [mm]	Cross Sectional ₂ Area in. [mm ²)	Perimeter, in. [mm]	Maximum Average Spacing	Minimum Average Height	Maximum Gap (Chord of 12.5 % of Nominal Perimeter)
3 [10]	0.376 [0.560]	0.375 [9.5]	0.11[71]	1.178 [299]	0.262 [6.7]	0.015 [0.38]	0.143 [3.6]
4 [13]	0.668 [0.994]	0.500 [12.7]	0.20 [129]	1.571 [39.9]	0.350 18.91	0.020 [0.51]	0.191 [4.9]
5 1161	1.043 [1.522]	0.625 [15.9]	0.31 [199]	1.963 [49.9]	0.437 [1 1.1]1	0.028 [0.11]	0.239 [6.1]
6 [19]	1.502 [2.235]	0.750 [19.1]	0.44 [284]	2.356 [59.8)	0.525 [13.3]	0.038 [0.97]	0.286 [7.3]
7 [22]	2.044 [3.042]	0.875 [22.2]	0.60 [387]	2.749 [69.8]	0.612 [15.5]	0.044 [1.12]	0.334 [8.5]
8 [25]	2.670 [3.973]	1.000 [25.4]	0.79 [510]	3.142 [79.8]	0.700[17.8]	0.050 [1.27]	0.383 [9.7]
9 1291	3.400 [5.060]	1.128 [28.7]	1 .00 [645]	3.544 [90]	0.790 [20.11]	0.056 [1.42]	0.431 [10.9]
10[32]	4.303 [6.404]	1.270 [32.3]	1.27 [819]	3.99 [101.3]	0.889 [22.6]	0.064 11.63]	0.487 [2.4]
11 [36]	5.313 [7.970]	1.410 [35.8]	1.56 [1006]	4.43 [112.5]	0.987 [25.1]	0.071 [1.8]	0.540 [13.7]
14 [43]	7.65 [11.380]	1.693 [43.0]	2.25 [1452]	5.32 [135.1]	1.185 [30.1]	0.085 [2.16]	0.648 [6.51]
18 [57]	13.6 [20.240]	2.257 [57.3]	4.00 [2581]	7.09 [180.1]	1.580 [40.1]	0.102 [2.59]	0.864 [21.9]

[^]Bar numbers are based on the number of eights of an inch included in the nominal diameter of the bars [bar numbers approximate the number of millimeters of the nominal diameter of the bar]

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Permissible weight variation / Tolerence

Deformed reinforcing bars shall be evaluated on the basis of nominal weight [mass]. The weight [mass] determined using the measured weight [mass] of the test specimen and rounding in accordance with Practice E 29, shall be at least 94 % of the applicable weight [mass] per unit length prescribed in Table 1. In no case shall overweight [excess mass] of any deformed bar be the cause for rejection.

Table 2: Tensile Requirements

	Grade 60 [420]
Tensile Strength, min, psi [Mpa]	90 000 [620]
Yield Strength, min, psi [Mpa]	60 000 [420]
Elongation in 8 in 1203.2 mm], min. %:	
Bar Designation 1 umber	
3[10]	9
4, 5 [13, 16]	9
6[19]	9
7,8[22,25]	8
9, 10, 11 [29, 32, 36]	7
14, 18 [43, 57]	7

Bar Designation	Pin Diameter for Bend Tests 3
Dai Designaturi Number	Grade 60 [420]
3,4,5 [10,13,16]	3 ½ d ^B
6 [19]	5 <i>d</i>
7,8[22,25]	5 <i>d</i>
9,10,11[29,32,36]	7d
14,18 [43,57] (90)	9d



Table 1: Cross Sectional Area and Mass

	Nominal Weight, lb/ ft	Nominal Dimensions ⁸			Deformation Requirements, in. [Mm)		
Bar Designation No. ^A	Nominal Mass, kg/m)	Diameter in. [mm]	Cross Sectional Area in. ² [mm]	Perimeter, in [mm]	Maximum Average Spacing	Minimum Average Height	Maximum Gap (Chord of 12.5% of Nominal Perimeter)
3 [10)	0.376 [0.560]	0.375 [9.5]	0.11 [71]	1.178[29.9]	0.262 [6.7]	0.015 [0.38]	0.143 (3.6]
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Permissible weight variation / Tolerence

Deformed reinforcing bars shall be evaluated on the basis of nominal weight [mass]. The weight [mass] determined using the measured weight [mass] of the test specimen and rounding in accordance with Practice E 29, shall be at least 94 % of the applicable weight [mass] per unit length prescribed in Table 1. In no case shall overweight [excess mass] of any deformed bar be the cause for rejection.

Table 2: Tensile Requirements

	Grade 60 [420]
Tensile Strength, min, psi [Mpa]	80000[550]
Yield Strength, min, psi [Mpa]	60000[420]
Elongation in 8 in [203.2 mm], min. %:	
Bar Designation Number	
3, 4, 5, 6 [10, 13, 16, 19]	14
7, 8, 9, 10, 11 [22, 25, 29, 32, 36]	12
14, 18 [43, 57]	10

Tensile strength shall not be less than 1.25 times the actual yield strength.

Table 3 Bend Test Requirements

Bar Designation Number	Pin Diameter for Bend Tests Grade 60 (420)
3,4,5 [10,13,16]	3d
6[19]	4d
7,8[22,25]	4d
9, IO, 11 [29,32,36]	6d
14,18[43,57](90)	8d



Nominal Size	Cross Sectional Area	Mass per Meter Run	Mass per Foot Run	
	area mm²	kg/m	gram/ft	
6 ¹	28.3	0.222	67.67	
8	50.3	0.395	120.40	
10	78.5	0.617	187.76	
12	113	0.888	270.66	
16	201	1.58	481.28	
20	314	2.47	751.64	
25	491	3.854	1174.70	
32	804	6.31	1924.20	
40	1257	9.864	3006.55	
50 ¹	1963	15.413	4697.88	

Permissible weight variation / Tolerence

Nominal Size mm	Tolerance on Mass per Meter Run %
≤8mm	±6
>8mm	± 4.5

Tensile Properties

	Yield Strength MPa	Tensile/Yield Strength Ratio, Rm/Re	Total elongation at max force Agt	
B500A	500	1.05	2.5	
B500D	500	1.08	5	
B500C	500	7,1.15,<1.35	7.5	

Chemical Composition (Max% by mass)

	Carbon	Sulphuric	Phosphorus	Nitrogen	Copper	Carbon
Cost analysis	0.22	0.05	0.05	0.012	0.80	0.50
Product analysis	0.24	0.055	0.055	0.014	0.85	0.52

- a) Rm/Re characteristic is 1.02 for sizes below 8mm
- b) Agt characteristic is 1.0% for size below 8mm Values of Re specified are characteristic wit p=0.95

Value of Rm/Re and Agt specified are characteristic with p=0.90 $\,$

Calculate the values of Rm & Re using nominal cross sectional area.

The absolute maximum permissible value of yield strength is 650 MPa

- a) It is permitted to exceed max value of carbon by 0.03% by mass, provided that carbon equivalent value is decreased by 0.02% by mass.
- b) High nitrogen contents are permisible if sufficient quantities of nitrogen binding elements are present.

$$Ceq = \frac{C+Mn}{6} + \frac{Cr+Mo+V}{5} + \frac{Ni+Cn}{15}$$



^B The nominal dimensions of a deformed bars are equivalent to those of a plain round bar having the same weight [mass] per foot [meter] as the deformed bar.

Our Process



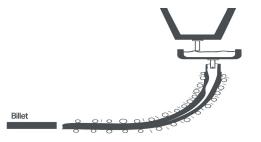






Scrap Import

Factory Transport

















Reheating Furnace (RHF)



Scrap Segregation







Vibro Feeder











Melting Furnace

(Automatic Mill & Furnace)



Finishing Mill







Cooling bed







Dispatch



Finished Goods

SCADA

Supervisory Control And Data Acquisition

FF Steel is proud to have the largest team of engineers in the steel industry. This team controls the manufacturing process through the world's latest available technology i.e. Supervisory Control And Data Acquisition (SCADA).

This automation resulted in higher productivity, better quality & optimal production. The key attribute of SCADA system is its ability to perform a supervisory operation over a variety of other proprietary devices. The SCADA concept was developed as a universal means of remote access to a variety of local control modules, which could be from different manufacturers along with access through standard automation protocols. In practice, large SCADA systems have grown to become very similar to distributed control systems in function, but using multiple means of interfacing with a plant. They can control large-scale processes that can include multiple sites and work over a large distance as well as small distance.





In this era of technological advancement, FF Steel strongly believes in adoption of latest techniques, equipment's and processes for its business. In line with this endeavor, FF Steel is using SAP Business One, a promising ERP tool, for its end-to-end business operations.

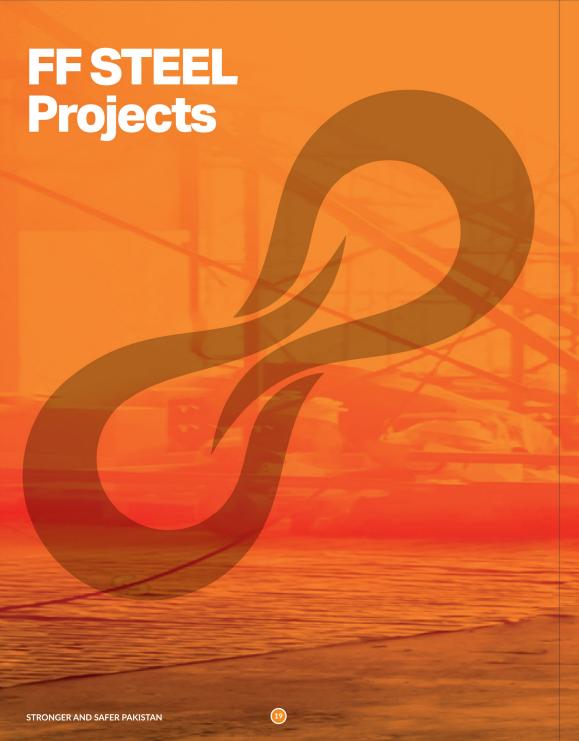
SAP Business One is an affordable and well integrated enterprise resource planning solution designed to enable growing / medium (SME's) and large enterprises with subsidiary operations to better manage their entire company / group portfolios. SAP B1 provides one simple solution that streamlines business processes, provides real time information, and helps boost overall business performance.

We are in a drive to make our company's environment paperless in sales, procurement, production, inventory & finance and SAP is the right tool for it.

Custom Build CRM & Sales Application

Our sales force is equipped with "Android" through which they can view by just a click of a button; all pertinent information related to their business i.e. rates, customer history, order status and can generate new leads of customers while performing their job at remote areas.







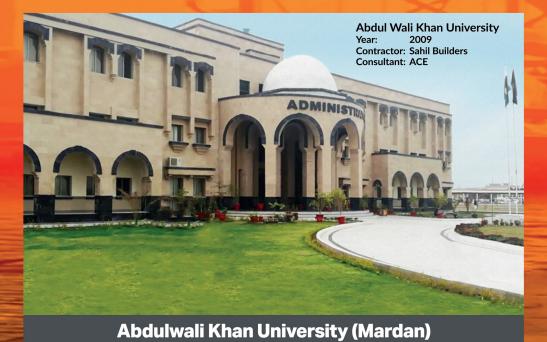
Shaukat Khanum Cancer Hospital (Peshawar)



NESPAK House (Peshawar)

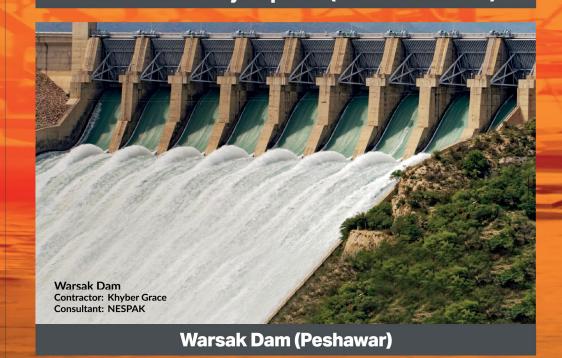


Kalma Chowk Underpass (Lahore)



Neelum Jhelum Hydropower
Year: 2018
Contractor: CGGC
Consultant: CGGC

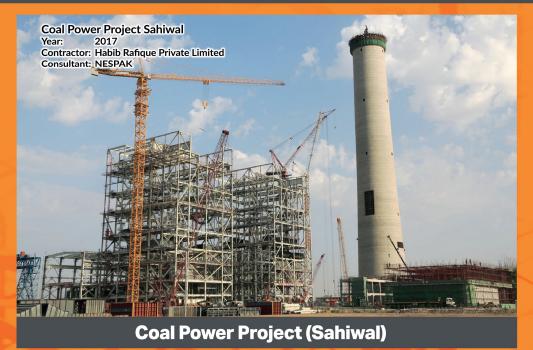
Neelum Jhelum Hydropower (Muzaffarabad AK)



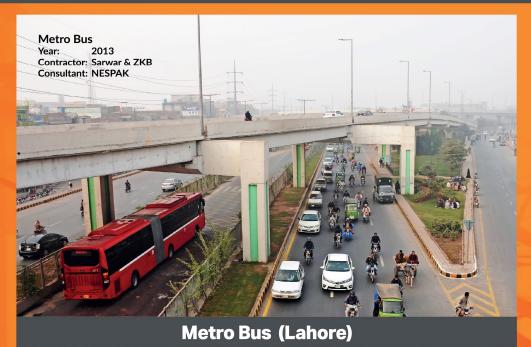


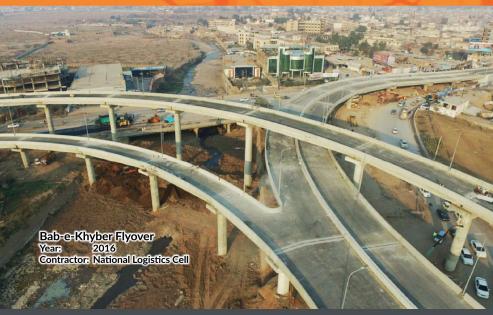
DHA Phase VIII (Lahore)











Bab-e-Khyber Flyover (Peshawar)

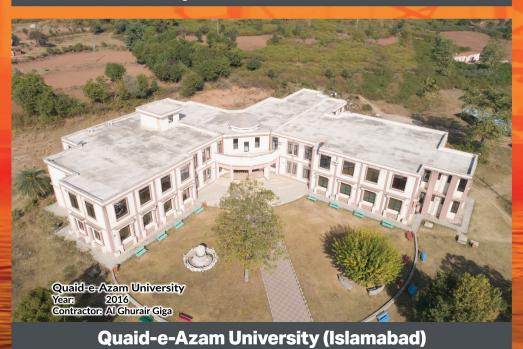


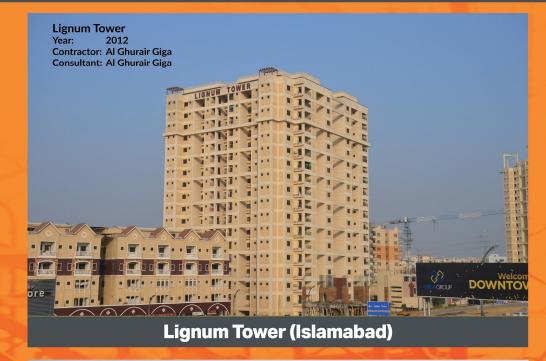
NUST (Islamabad)



World Trade Centre (Islamabad)









Clients

Armed Forces

Such as

- AFOHS
- C\\/C
- DGDP
- DGP ARMY
- DOHA
- DOP AIF
- DOP NAV/\u00e9
- DHA
- FWO
- NLC
- U.S Army COE
 Afghanistan Enginee
 District

Government of Pakistan

Such as

- C&W
- CDA
- NESPAR
- Pak PWI
- PDA
- Punjab Building Department
- Puniab Workers Welfare Board

Multinational Organizations

Such as:

- Al Ghurair Giga
- China State Construction
- EMAAR Pakistar
- Engineering Services Company
- **National Organizations**

Include

- Allied Consulting
- Commander Builders
- Crescent Construction
- Descor
- D. Baluch-Skyways
- Elite Engineers
- Echo West Internationa
- EA Consulting
- Gondal Construction
- Global Consultanc\
- Habib Rafig
- Izhar Constructior
- Ismail Construction
- Karcon
- Kingcrete Builde

- Midjad
- M A Aleem Khan & Son:
- Mishal Sani
- Professional Engineering Consultants
- Principle Engineers
 Constructors
- Premium Engineering
- Real Estate & builder
- Red Sun Associates
- Sacha
- SKB Engineering 8
 Construction
- Sarwar & Company
- Samsons Group of Companies
- Shaz Construction
- Vector Consultants
- Wings Consultants
- Zahir Khan & Brothers
- 3W Systems





































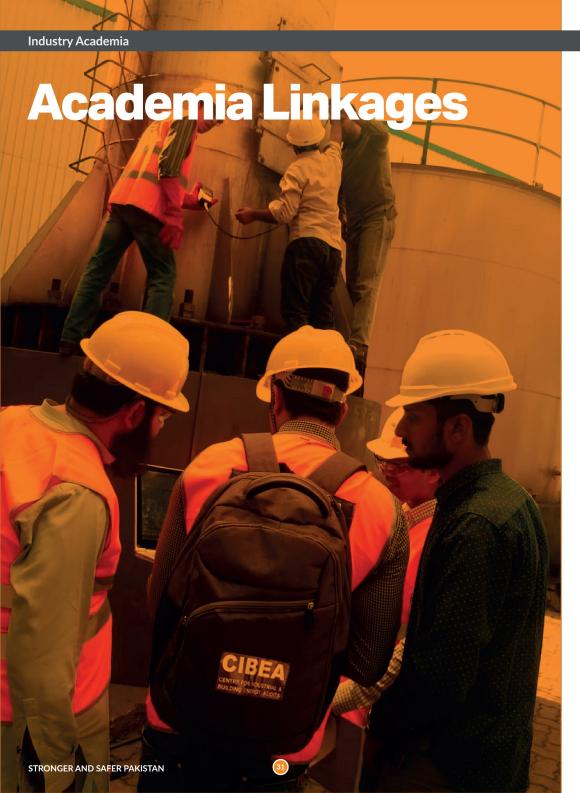












R&D/Industry Academia Linkages

University of Engineering & Technology:

Our relationship with UET is something we are proud of, The development of ASTM 706 was a challenge for FF Steel as no technical support was available for the development of this product in Pakistan. It was at this point when industry academia proved its worth for FF Steel and Dr. Irfan Mufti, Dean Mechanical Engineering Department UET, Peshawar joined hands and led a research team to conduct a series of production tests. After ten weeks of experimentation, finally ASTM 706, a steel bar with strength above 550 MPA (Grade-75) and elongation of more than 18% was achieved. A paper on the same subject was published and presented in the 3rd Annual Industry Meets Academia Conference, where the authors were Dr. M.A. Irfan Mufti (lead author) and Engr. Zarak K. Khattak, CEO FF Steel (co-author).

With the help of Dr. Irfan Mufti, FF Steel is exploring new opportunities in terms of operational efficiencies. FF Steel & UET Teams are working together on enhancing the efficiency of Blowers, Cooling Towers, Motors, Compressors & Furnaces. The result of this study will be applied to the instruments & machinery at FF Steel & a paper will be published for the same to help others in achieving similar goals.









Institute of Management Sciences:

FF Steel is constantly helping the students of IMSciences in their final year projects. At the end of each semester, the final year students submit their proposal that is of mutual interest to FF Steel and the student's academic requirements. This helps the students to perform real time analysis and research on production & processes. This activity is not only linked to production side but also to the management of FF Steel.

City University:

In an effort to facilitate academic institutes, FF Steel & City University joined hands for the following consortium; the students of City University are deployed on internship projects at FF Steel. Both FF Steel & City University are jointly writing a case study on "An entrepreneurial SME's journey to a corporate LSM". FF Steel is developing its human resource jointly with the help of City University's corporate training program and the engineering students of City University (as well as other Universities) are taken on board for a comprehensive program designed for students to understand the details of steel rebar making process and its quality attributes. This program is run by FF Steel as part of a credit course at various universities.







National University of Science & Technology (NUST):

FF Steel believes in developing the upcoming generation and takes initiatives to ensure that this goal is achieved at any cost. Keeping in mind this ideology, FF Steel provides training to the faculty of NUST in areas such as SCADA, Administration and maintenance of PLC, SAP & Quality Control in order to ensure that the faculty can transfer this latest information to students.

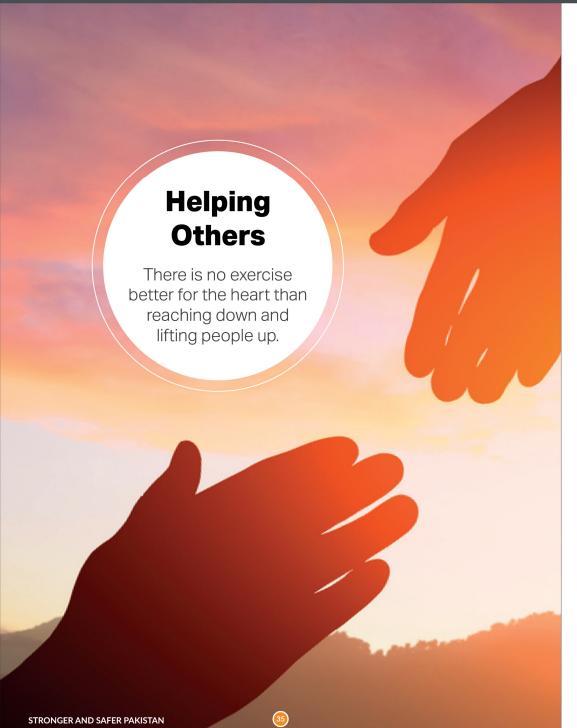
University Visits:

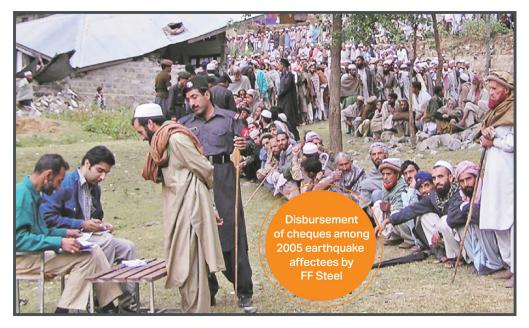
Under the umbrella of industry visits, students from different universities such as Bahria University, CECOS University, UET & FAST University visit FF Steel to understand the process of steel making and the backhand working that takes place to complete the process. Such visits comprise of comprehensive sessions on the ERP i.e. SAP, CRM our custom built customer relationship management software and many other aspects including the production and supply chain.





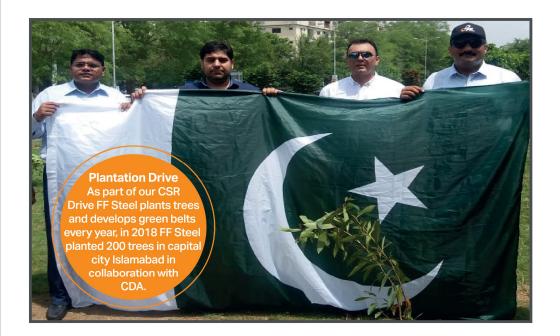
CSR CSR







CSR CSR











Stronger & Safer Pakistan

Stronger & Safer Pakistan, FF Steel's flagship program destined to deliver the promised commitment for building safer infrastructures, reinforced interaction among key stakeholders, improved building health & safety measures, legislated policies for better infrastructure development & endorsing a behavioral change among communities for using quality products in daily life.

Our devotion towards building a Stronger & Safer Pakistan starts from our very own house, FF Grade 60 steel bars. We are not just making this product because of its unparallel strength but at the core of our heart we believe and we deliver something that we are sure of to be the best in Pakistan.

CSR CSR









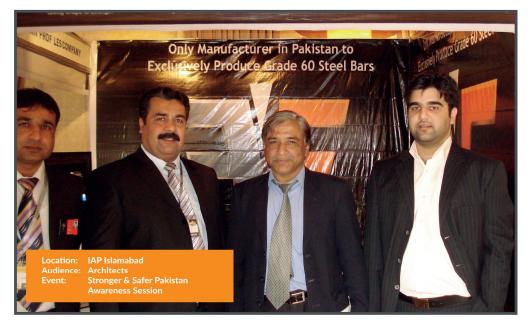
CSR CSR





STRONGER AND SAFER PAKISTAN





STRONGER AND SAFER PAKISTAN

Meet The Makers













