

INNOVATION FOR THE FUTURE





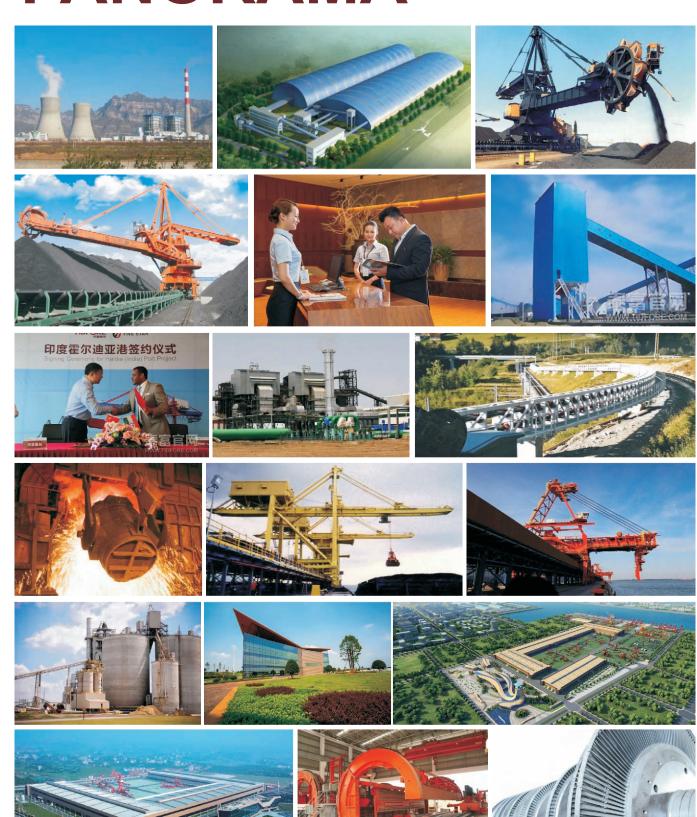
TIDFORE FIVE STAR ENGINEERING PROJECTS PVT. LTD.

INNOVATION FOR THE FUTURE

INNOVATION SPEED COOPERATION PASSION



IMAGE PANORAMA







Introduction

Tidfore Five Star Engineering Projects Pvt. Ltd. is a Joint Venture Company between China's Equipment Manufacturing Giant, Tidfore Heavy Equipment Group and India's leading & established project execution enterprise, Five Star Group.

We have a vision of executing various upcoming projects in India and South-East Asia for their leading Power, Steel, Cement, Sugar, Port and other utility companies.

The company is characterized by providing project engineering integrated services from design, engineering, research and development, manufacture, sales, installation, commissioning, after-sale service to financing of complete engineering projects including bulk material handling system and port handling. Tidfore Heavy Equipment Group is mainly involved in advanced equipment manufacture, system general contracting, and supporting services for supply of bulk material handling system, port and offshore engineering equipment.

Milestones of Success



1995

Xingfeng Investment Co. Ltd.



2003

Foretide Machinery Manufacturing Co. Ltd.



2010

Tidfore International Engineering Co. Ltd.



2011

Tidfore Heavey Industry Co. Ltd.



2012

Tidfore Heavey Group



2016

Tidfore Five Star Engineering Projects Pvt. Ltd.



Partner Companies

Tidfore Heavy Equipment Group

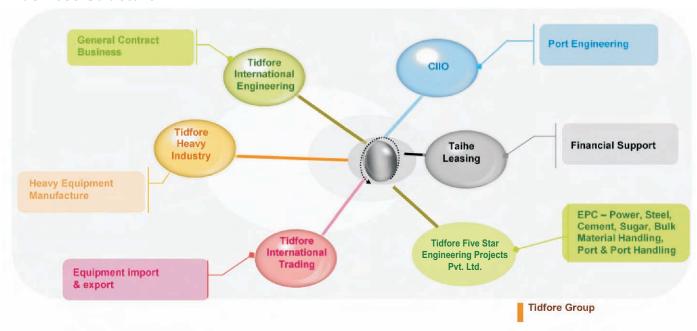
Tidfore is an innovation-oriented enterprise group whose business scope mainly covers equipment manufacturing, general contracting and supporting services. They are a leading supplier of material handling equipment, port equipment and offshore engineering equipment with everything from design, research, development, fabrication, sales, erection, commissioning and after-markets to financial leasing.

Tidfore owns more than 20 subsidiaries including Tidfore Heavy Industry, Tidfore Engineering, Tidfore Offshore Engineering, Tidfore Construction, Tidfore Leasing, Tidfore Investment, Tidfore China Integrity International Oceaneering and Tidfore Elephant King. They have branch offices in Milan, Rio de Janeiro, Kolkata, Sidney as well as Pohang.

Five Star Group

Five Star Group is a well-known enterprise with operations in the east coast of India. They are engaged in port cargo operation, handling various bagged and bulk cargo including Iron-Ore fines, all types of coal, various minerals and stocking the same and transporting in and out of Haldia and Haldia Port. It has vast knowledge of Dock, transportation, equipment's and labours dealings

Business Structure





EPC Contracts

Complete Power Plant Projects. Main System includes Boiler Island, TG Island, Coal Handling Plant, Ash Handling Plant and Other Balance of Plants with associated Electrical and Control System

Complete Cement Plant Projects. Main System Includes Material Handling & Grinding System, Proportioning System, Mills, Storage Silo & Kiln with associated Electrical and Control System

Complete Steel Plant Projects. Main System includes all types of furnace, Kiln, Rolling Plant, Benefication Plants, Waste Heat Recovery System and Raw Material Handling Plant with associated Electrical and Control System

Complete Sugar Plant Projects. Main System includes Mills, Heaters, Evaporators & Dryers, Steam Generators and Material Handling System with all associated Electrical and Control System

Bulk Material Handling System

Bulk Material Unloading, Loading & Processing System in Mining, Steel, Power & Cement Plants. Main equipment includes wagon tippler, screw unloader, chain bucket unloader, crusher, screen, feeder, paddle feeders, bucket elevators, etc.

Environment Friendly Stockyard System which includes Stacking, Reclaiming, Feeding, handling, storage, separating and blending of Raw Materials & Fuels.

Bulk Material Conveying System in Mining, Steel, Power & Cement Plants which includes Belt Conveyors, Down hill Conveyors, Cross-country Pipe Conveyors and steep angle conveyors

Port Handling which includes Loading, Unloading & Stacking at Ports

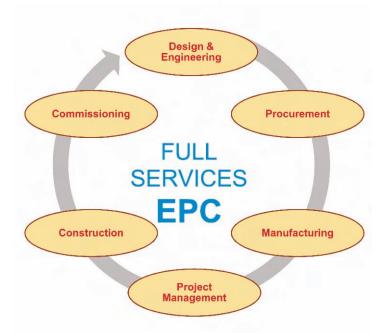
Port and Port Handling Projects

Port Equipment supplying & Port Project Design & Construction

Marine Equipment Engineering & Supply



EPC Services



We provide complete engineering, procurement & construction services to Coal based, Gas based and Combined Cycle Thermal Power Plants, Cement Plants, Steel Plants and Sugar Plants.

In addition, we provide services for Renovation & Modernization (R&M) projects, Annual Maintenance Contract to various reputed utilities and plants. We also provide equipment& individual system/ island in various plants.

The company is characterized by providing project engineering integrated services from design, engineering, research and development, manufacture, sales, installation, commissioning, after-sale service to financing of complete engineering projects.

















We provide complete project solutions for Power Plant Projects and execute Main Plant and Balance of Plant Package on Turnkey basis. In main plant, we supply & install complete Steam Generator Island and Steam Turbine & Electric Generator Sets with associated Electrical & Control System and other accessories. We have vast experience of executing Balance of Plants in Thermal Power Stations particularly for Material Handling Plants such as Coal Handling, Ash Handling and Lime stone handling system.

We have capability of complete system integration in Thermal Power Stations and follow wide range of design standards.





We provide complete project solutions for Steel Plants & other Metallurgy plants. We supply & install complete Furnace, Kiln, Rolling Mills, Ore beneficiation plants such as Pellet Plant & Sinter Plant, Waste Heat Recovery System and Complete Raw Material Handling System with associated Electrical & Control System and other accessories.

We have capability of complete system integration in Steel Plants.











Bulk Material Conveying System:

We provide complete range of conveyor system including belt conveyors and cross-country pipe conveyors with all accessories.

We design the most advanced and efficient conveying system in the world to suit at site conditions. We also meet the stringent environmental norms and industry standard.

Bulk Material Unloading & Loading System:

We provide systems for unloading & loading of bulk materials such as coal, iron ore and other minerals required in Power Plants, Steel Plants and various process industries.

Based on the customer requirement, we provide wide range of loading and unloading system such as Wagon tippler, Track hopper, Feeders, Bucket cargo Unloader, Hydraulic Flap for Truck Unloading, Quick Ration Loading System, etc.









Material Stacking & Reclaiming System:

We provide full range of Material stacking & reclaiming system for storage and utilization of raw materials in various process industries and power plants. The system range includes Boom type stacker and reclaimer, Bridge & Wheel Type Stacker & Reclaimer, Rotating type stacker and reclaimer, etc.

Environment Friendly Stockyards:

Keeping in mind the environmental concern and through extensive research, we have developed technologically advanced and intelligent stockyard system.

We provide the most efficient stockyard system which has greater economic advantage and increases the overall operational efficiency of the plant.









We provide complete project solutions for Port & Port Handling system for specialized bulk cargo terminal, container terminal, general cargo terminal, etc. Port projects includes ship loading and unloading system and port handling equipment.

We provide services like general contracting, design, R&D, manufacture, construction, project management, final acceptance, and operation management of port construction engineering, Project design and consultation.









Comprehensive System Project Solutions from Concept to Completion:

We are the world's leading project engineering integrated service provider with whole-package engineering solutions on EPC. We emphasize on comprehensive service for various engineering project. We have our separate team for hi-end equipment manufacture, engineering project contracting and financial support service.

In the scope of Metallurgy, Power Plants, Ports, Cement plants, Sugar plants and even wider areas, we provide complete solution from concept to completion.

Home Country Advantage for Projects in India:

We are well versed with working conditions in India & South-east Asia. We have our dedicated team of project engineers in Kolkata to execute various projects as per specified codes & standards.

Outstanding Design Strength with In-house Design Institute:

Technology evolves constantly and we keep ourselves updated with independent research and cross-border cooperation. We have developed hierd & fully-intelligent environment-friendly systems along with the national-level laboratory. We have built-up a modern technology R&D system and a comprehensive design institute for metallurgy, power plants, ports and sea works.

World-class Intelligent Manufacturing Strength:

We have two intelligent manufacturing parks in China, namely Hunan Jiuhua and Tianjin Harbor Industrial Park.

In these two digital-controlled green parks, each process of manufacture meets the strict requirement for intelligence, digitization and environment protection.

Focus on Environment & Research:

With extensive research and our quest for innovation, we have capability to design and develop hi-end & fully-intelligent environment-friendly systems.

Financial Supports:

With the usage of capital leverage, we have established a comprehensive financing platform to serve better industrial development. By the end of 2014, we established Huayun Financial Leasing Co. Ltd., a strategic step forward in combination of production and finance.



Xiangtan (Hunan Jiuhua) Industrial Park

Hunan Jiuhua Industrial Park is the world's largest industrial park for manufacturing modern bulk material handling equipment and port maritime hi-end equipment and also one of the world's – largest demo bases for intelligent manufacturing with the largest open-air assembly and commissioning ground in the industry. All the equipment here are assembled and commissioned ex-factory.





Tianjin Harbor Industrial Park

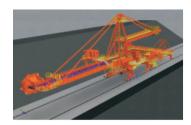
 $Tianjin\ Harbor\ Industrial\ Park\ is\ one\ of\ the\ world's-largest\ base\ for\ fabrication\ and\ re-fabrication\ of\ equipment\ and\ machinery.$





State-of-the-Art Design Technique

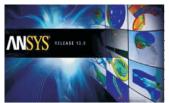
3-D Design





Finite Element Analysis (FEA)



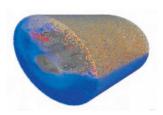


Dynamic Analysis





Digital Elevation Method Analysis (DEM)





Our Design Standards

We follow design standard as per the customer requirements











Financial & Technical Advantage



Financial leasing services on equipment supplied

Close relationship with banks & financial intitution

Invest directly on certain projects, participate in BT, BOT and PPP projects.

Financial Support Service

Technical Manpower Strength across the world:

	Changsha	Dalian	Qingdao	Shanghai	Kolkata
Senior Engineer	11	2	85	5	2
Intermediate Engineer	54	7	126	10	4
Assistant Engineer	47	8	217	15	6
Project Execution Team	30	3	2	2	3
Total	142	20	430	37	15

Comprehensive Coverage

As industries grow to maturity today, the value of a corporation should not lie merely in the provision of advanced machinery. What we emphasize is comprehensive service for engineering projects. Our team for hi-end equipment & system design, manufacture, engineering project contracting and financial support service work continuously day and night to serve each of our customers in the world.





We have built-up a modern technology R&D system and a comprehensive design institute for metallurgy, power plants, ports and sea works.

We have established our global resources integrated achieving a global network world wide. With integrated information, technology and capital, we provide our customers across the world, one-stop full coverage service in the industry.

With the usage of capital leverage, we have established a comprehensive financing platform to serve better industrial development.





Client: Vale Group

Type: **Bucket Wheel Reclaimer**

Capacity: 10,400 TPH

50m Boom: Iron ore Material: Year: 2010



Client: POSCO E&C

Bucket Wheel Stacker/ Reclaimer Bridge Type Scraper Reclaimer Type:

1,000/6,000TPH Capacity:

Ni Material: Year: 2008



Project: EPC for Sand gravel conveyor system

Project Cost: 23 million USD

Caijia Islet Project in Xiangjiang River



Expansion Project of Queen Elizabeth II Quay,

Freetown Port

Project Cost: 708 million USD

Reference List of EPC Projects by Tidfore:

CN	Client	Carreton	Vaan	Duoiset	Time	Main Equipment						
<u>SN</u>	Client	Country	<u>Year</u>	<u>Project</u>	<u>Type</u>	<u>Item</u>	<u>Capacity</u>	Q'ty	Industry	<u>Remark</u>		
1	Tianjing Tiangan United Special Steel Co., Ltd	China	2012	800,000 ton raw	EPC	Wagon Tippler	Single	1	Metallurgy	Completed		
						Stacker/reclaimer	2500 TPH	4				
				mateiral stockyard		Belt Conveyor	2500 TPH 2,450 m	22				
2	Tianjin Xinke Metal	China	2013	600,000 ton raw	EPC	Wagon Tippler	Single	1	Metallurgy	Completed		
	Materials Co., Ltd	01	20.0	mateiral stockyard		Stacker/reclaimer	3000 TPH	2	wictandrgy	Completed		
3	Linfen Xin Jieyuan Coal Co. Ltd.	China	2013	2,400,000 t/y coal washing and preparation system	EPC+F	Coal Washing Equipment	/	/	Coal	Under construction		
				Port extension and coal washing system			25T	2		Completed		
						Port Crane	40T	3				
4	Rugao Port Group	China	2013		EPC+F		10	4	Port			
-	Co.,Ltd				Eron	Ship Loader	1800 TPH	2				
						Belt Conveyor	1000 TPH 4,470 m	14				
5	Guizhou Yong Fu Gui Cement Plant	China	2013	6000 t/d dry process cement clinker production line	EPC+F	Material Handling System	/	/	Cement	Under design		
6	Jiangsu Rong Xin Wei Ye New Materials Co., Ltd	China	2014		EP	Rotary kiln, Belt Conveyor	/	/	Metallurgy	Under construction		
7	Beichen metallurgical chemical company	China	2014	Company Owned 2 x 135MW thermal power plant	EPC+F	Generating System, Boiler System, Stockyard System	/	/	Power	Under design		
		Jiang China 2014				800 TPH 4,114 m	76					
8			2014	Belt/Pipe Conveyor	EPC	EDC	EDC	Belt Conveyor	1,200 TPH 2,789 m	30	Port	Under
			System	EPC		2,400 TPH 550 m	2	Foit	construction			
						Pipe Conveyor	2,400 TPH 5,934 m	4				
9	GALAXIA		Brazil 2014	Supporting Vessel for Petrobras	EP+F	Supporting Vessel	OSRV 750	4	- Marine	Under design		
3							PSV 4500	4				
10	Hunan Electric Power Design Institute	China	2014	D120m circular yard for Tianji Bei Jiang Power Plant	EPC	Circular Yard Stacker/Reclaimer	3000/1500 TPH		Power	Under construction		

Reference List of Equipment supplied by Tidfore:

No	<u>Client</u>	<u>Place</u>	<u>Description</u>	<u>Q'ty</u>	<u>Material</u>
1	POSCO Engineering & Construction Co., Ltd	Korea	DB6000-28 Stacker, Stacking capacity: 6000t/h	1	ore
2	POSCO Engineering & Construction Co., Ltd	Korea	DB1200-30 Stacker, Stacking capacity: 1200t/h		ore
3	POSCO Engineering & Construction Co., Ltd	Korea	QBL600·30 Boom Bucket Wheel Reclaimer, Reclaiming capacity: 600t/h	2	ore
4	Hyundai Steel Coke plant	Korea	DQL300/300·40 bucket wheel stacker/reclaimer, Stacking 300t/h & Reclaiming 300t/h	1	coke
5	POSCO Engineering & Construction Co., Ltd	Korea	QHB400-32 Bridge Scraper Reclaimer Reclaiming capacity: 400t/h, Span: 32m	1	ore
6	POSCO Engineering & Construction Co., Ltd	Korea	BC2000.6000TPH.670m Belt conveyor	3	ore
7	POSCO Engineering & Construction Co., Ltd	Korea	BC1200.600TPH.1290m Belt conveyor	6	ore
8	Indonesia PLTU power plant	Indonesia	DQL200/800.25 Bucket wheel Stacker & Reclaimer	1	coal
9	Indonesia SUMATERA Plant	Indonesia	DQL600/1600.30 Bucket wheel Stacker & Reclaimer	1	coal
10	Turkey BEKIRLI POWER ST	Turkey	DQL650/1500.45 Bucket wheel Stacker & Reclaimer		coal
11	Indian Energo Co., (LANCO Power)	Indian	DQL1600/1600.41 Bucket Wheel Stacker & Reclaimer, Capacity: Stacking 1600t/h & Reclaiming 1600t/h		coal
12	Indonesia Mianlan Power Plant	Indonesia	DQL450/1500.35 Bucket Wheel Stacker & Reclaimer, Capacity: Stacking 1500t/h & Reclaiming 450t/h		coal
13	USA COLECO Company	USA	D=Ö500mm, Length:2430m, Capacity:2000tph Pipe conveyor		coal
14	USA HOLCIM Company	USA	D=Ö400mm, Length:445m, Capacity:1500tph D=Ö500mm, Length:456m Pipe Conveyor		coal
15	Vale S/A Company	Brazil	DQL10400.50 Bucket Wheel Reclaimer, Capacity: Reclaiming 10400t/h		ore
16	Vale S/A Company	Brazil	DBH2150.27 Stacker,DBH4900.28 Stacker		ore
17	Vale S/A Company	Guinea	DBH4900.28 Stacker Capacity:4900t/h		ore
18	Altlas Power plant	Turkey	DQL1000/1500.45 Bucket Wheel Stacker Reclaimer Capacity: Stacking 1000t/h;Recailming 1500t/h		coal
19	Philippines power plant	Philippines	DQY1500/1500.120m Circular Stacker & Reclaimer	2	coal



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Tidfore Heavy Equipment Group

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