

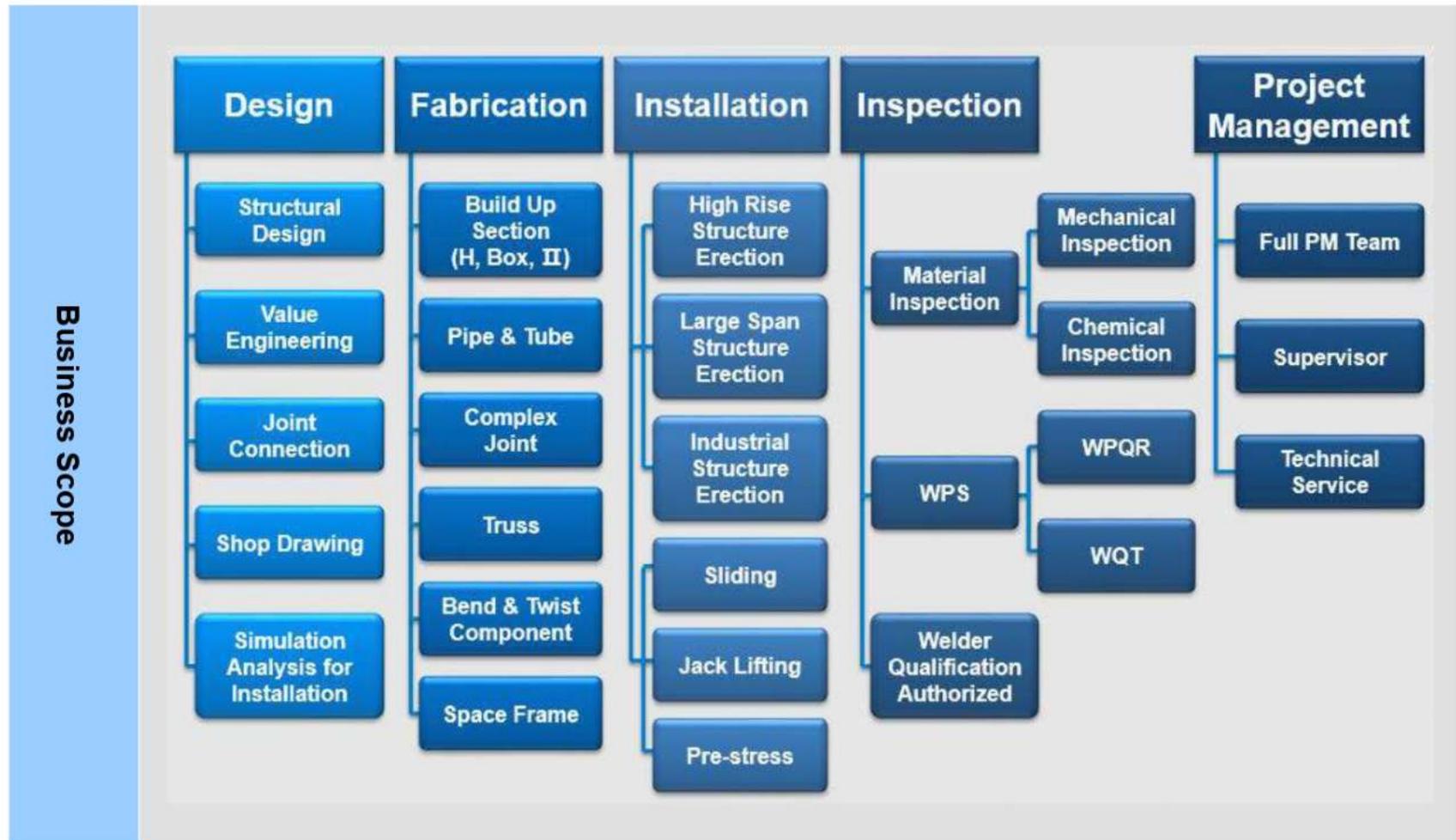


Steel Structure performance (Buildings)



More info: rkpro.eu

Business Scope



1. Fabrication Capacity

Fabrication Capacity



2. WORKSHOP

2.1 Workshop Introduction

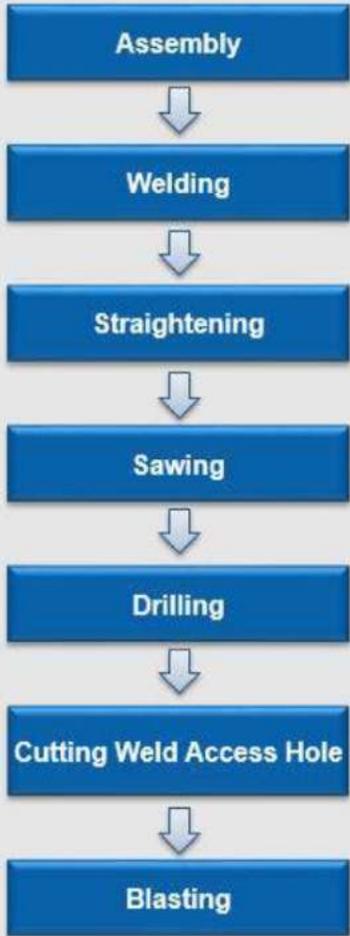


2.2 Typical Equipment

2.2.1. Production Line



Built up H - Section Steel Product Line



Built up Box - Section Steel Product Line

Assembly



Backing Weld



Welding



Overturn



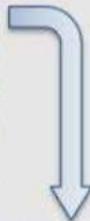
Electro Slag Welding



End Milling



Blasting



Pipe Steel Product Line

Rolling



Intersection Line Cutting



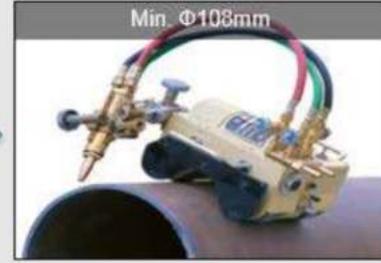
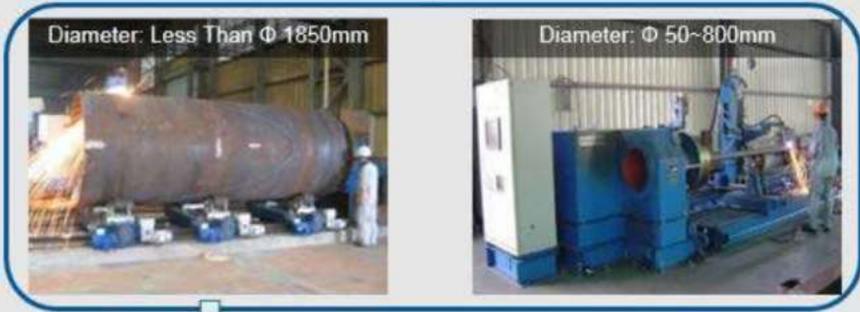
Bending Pipe



Bevel Cutting



For Pipe: Min Diameter 1200mm; Max. length 4m



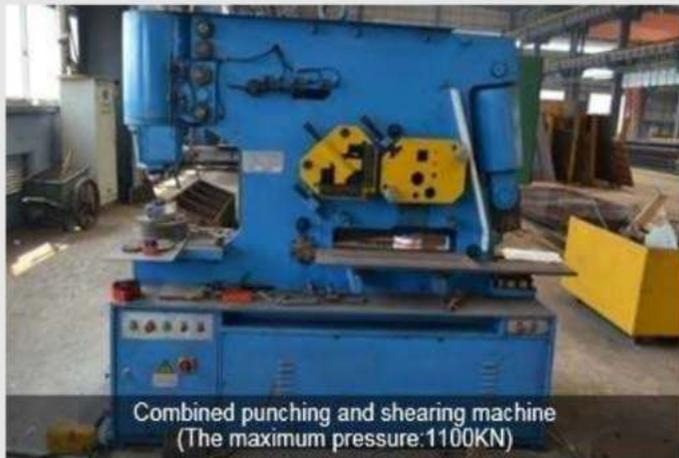
Production Facility



Plasma cutting machine
(The maximum cutting factor: 25m*4.2m*50mm)



Hot bending machines
(The maximum bending diameter: 630mm)



Combined punching and shearing machine
(The maximum pressure:1100KN)



Total station
(0.9 second range, non prism measurement range 500m)

Production Facility



The technology is a combination of mechanical and computer science, which is used for bending and twisting steel plates. The machine has 81 adjustable points displayed in order to 3-D steel plate forming. Dimension of the finished product: 1350mm x 13000mm ; Thickness : 8mm-60mm.

Digital controlled hydraulic bending machine. It is used to bending the plate. The max dimension of the processed plate: width 12200mm; bending depth 1500mm;



75 t indoor crane
(The maximum lifting height:18.5m)



100t bridge crane for pre-assembly in the
100m*30m site, the maximum lifting height:20m
100m*30m



Packing site:100m*27m

2.2.2. Inspection Center

Parts of Inspection and Testing Facility

Mechanical Testing Machine

01



Tensile Testing Machine



Impact Testing Machine



Bolt Axial Torque
Inspection Machine

Chemistry Analysis

02



Spectrometer



Mn, P, Si Element
Computer Digital
Automatic Analyzer
Mn, P, Si

Metallographic and Hardness Test

03



Metallographic
Analyzer



Hardness Tester

Coating Testing Facility

04



Coating Adhesion Test
Instrument

NDT Facility NDT检测设备

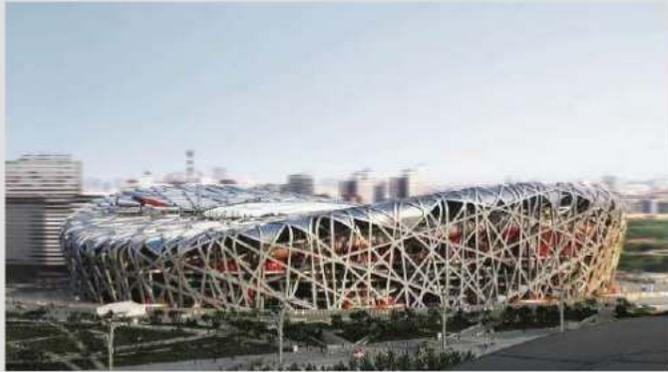
05



RT Facility

3. PROJECTS COLLECTION

Projects Collection



Large-span Steel Structure Projects



Industry Projects



High-rise Building Projects

3.1. Projects in Europ

Project Name	Sines Power Plant, Portugal	
Description	This project located in Portugal, constructed by ALSTOM. The main type of structure is H-beam frame and the steel weight is 2,800t.	AISC
Picture	 A photograph of the Sines Power Plant under construction. The image shows a large, complex steel structure with multiple levels and a prominent chimney stack with red and white horizontal stripes. Several cranes are visible, some positioned on the structure and others on the ground. The ALSTOM logo is overlaid in the top left corner of the image. The foreground shows a dirt area with some construction equipment and a blue fence.	

Project Name	German Porsche Manufacturing Workshop
Description	The main structure of this project is welded h-beam, space lattice column, floor and truss, the second gate of double ridge two slope structure, made up by angle steel truss girder beam. Construction area is 42,812 m ² , plane size is: length 278 m × 154 m wide, the roof level is about 24 m.
Picture	 A photograph showing the steel framework of a large industrial building under construction. The structure features a complex truss system for the roof and multiple levels of columns and beams. The building is situated on a construction site with some vegetation and a fence in the foreground. The sky is overcast.

Project Name

German STEINBIS Packaging Co., Ltd. Plant

Description

This project located in Germany, with total construction area of 6,000 m².

Picture



3.2. Long-span Steel Structure Projects

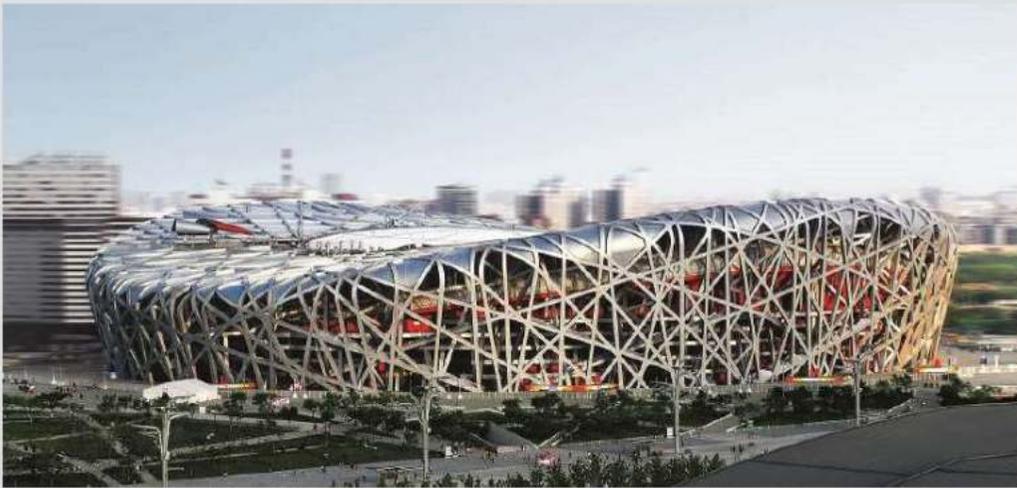
Project Name

National Stadium – “Bird’s Nest”, Beijing, China

Description

Steel weight: 51,500t. Bending and Twisting Member Structure. Maximum structure span is 323m×296m. All the structures are welding connect on site, welding weight is 2.5% of total steel weight.

Picture



Project Name	Lusail Stadium, Qatar	
Description	Main Stadium for Qatar 2022 FIFA World Cup Total steel weight: 20,200t; 92,044 spectators. Shop drawing, fabrication and erection.	BS EN, AESS
Picture	 An aerial architectural rendering of the Lusail Stadium in Qatar. The stadium is a large, circular structure with a prominent, multi-layered white roof that has a textured, scale-like appearance. The exterior of the stadium is finished with a golden, metallic-looking facade. The stadium is surrounded by landscaped grounds with greenery, walkways, and parking areas. The overall scene is presented in a bright, clear light, typical of a digital rendering.	

Picture



Project Name	Al Rayyan Stadium, Qatar	
Description	<p>The stadium of Qatar 2022 FIFA World Cup will host the quarter finals.</p> <p>Pre-stressed truss structure; Total steel weight: 9,000t; 1250t crawler crane.</p> <p>Shop drawing, fabrication and erection.</p>	BS EN, AESS
Picture	  	

Picture



Project Name	Baraki Stadium, Algiers, Algeria
Description	Total steel weight: 7,000t. EN,CCTP Shop drawing, fabrication and erection.
Picture	 An architectural rendering of the Baraki Stadium in Algiers, Algeria. The stadium features a prominent, white, curved, lattice-like roof structure that resembles a stylized 'B' or a modern architectural form. The stadium is surrounded by a large, paved plaza with a central fountain and a small pool. The background shows a cityscape and a green landscape under a clear sky.

Picture



Project Name

Te Kaha Stadium, Christchurch, New Zealand

Description

Total steel weight: 10,510t; 30,000 spectators.
Maximum structure span is 232m×195m.
Shop drawing, fabrication and erection.

AS/NZS

Picture



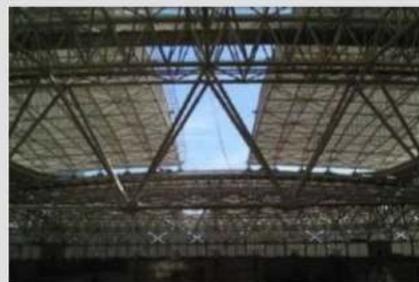
Project Name

Shaoxing Stadium, Zhejiang , China

Description

Retractable roof stadium, 45,000 spectators. Total building area is 77,540 m². Span 267m×206m.

Picture



Project Name

Nantong Stadium, Jiangsu, China

Description

Building Area: 68,565 m²; Total Steel Weight: 11800t. Retractable Roof Area: 17,000 m²; Max. span of arch truss is 262.5m. Value engineering, fabrication, erection, commission of machine, control system and steel structure.

Picture



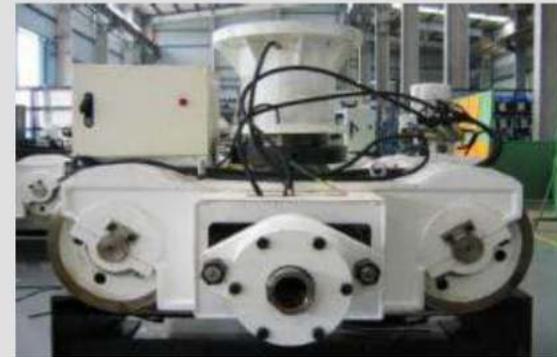
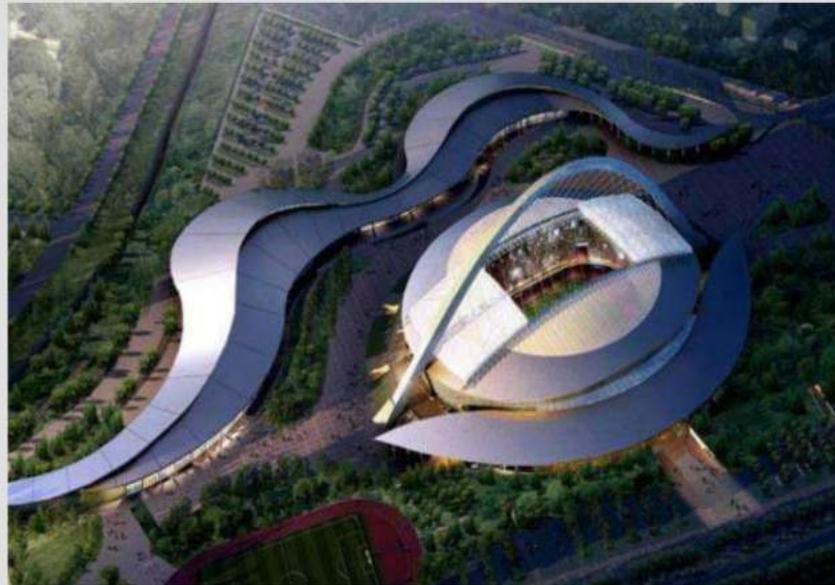
Project Name

Ordos Stadium, Inner Mongolla, China

Description

Retractable Roof Area: 10,800 m²; Total Steel Weight: 11,000t; 35,107 Spectators; Max. Span of Arch: 335m. Value engineering, fabrication, erection, commission of machine, control system and steel structure.

Picture



Project Name	Shenzhen Bay Sports Center, Guangdong, China
Description	Building Area: 250,000 m ² ; Total Steel weight: 13,500t; Thin-wall BTM section. Shop drawing, fabrication and erection
Picture	    

Project Name

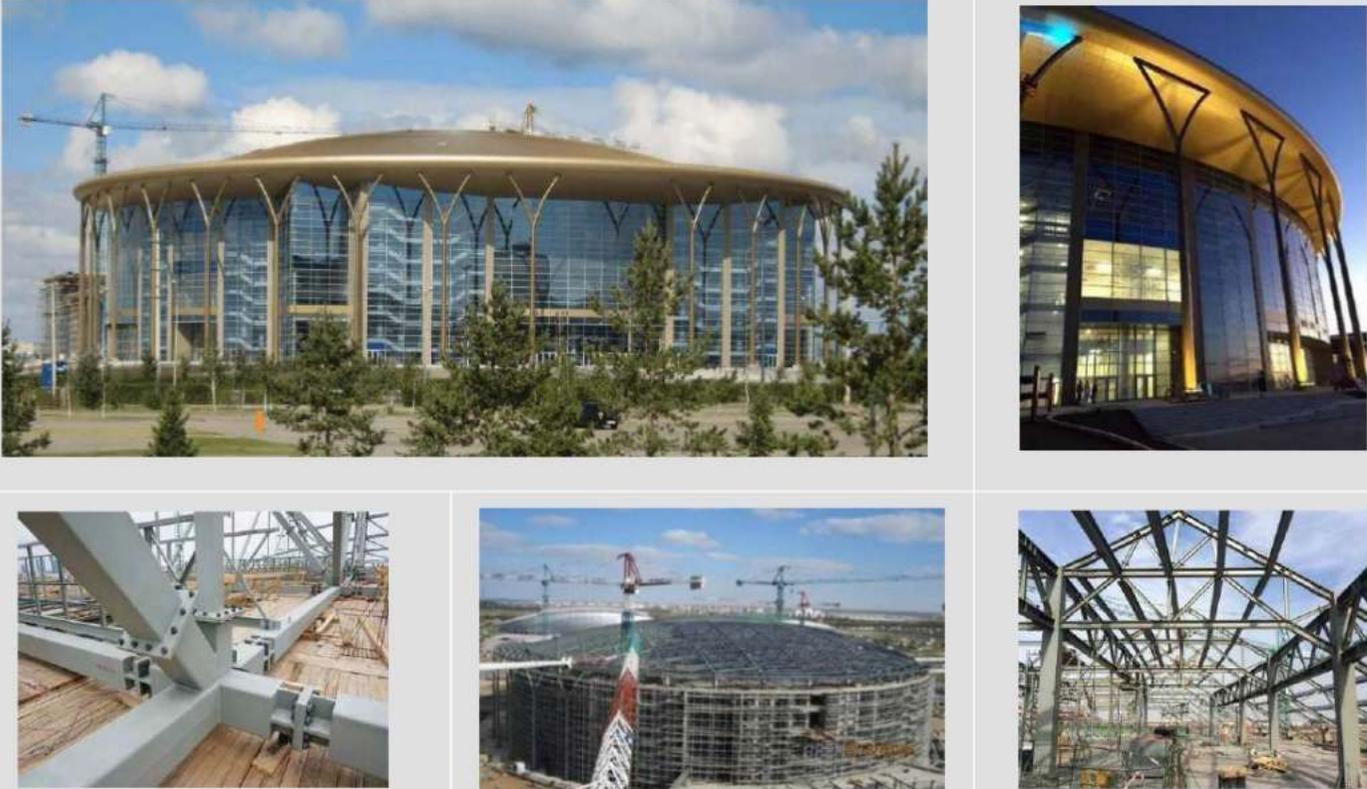
National Gymnasium, Beijing, China

Description

Two-dimension beam-string truss. Max. span 144m. Building area: 81,000 m².
VE, shop drawing, fabrication and erection.

Picture



Project Name	Ice Hockey Hall, Astana, Kazakhstan	
Description	Total steel weight is 4,350t. . EN Structure design, Connection design, Shop drawing, Fabrication and erection.	
Picture		

Project Name	Ice Hockey Hall, Astana, Kazakhstan	
Description	Sliding & Jack Lifting. . EN Structure design, Connection design, Shop drawing, Fabrication and erection.	
Picture	   	

Project Name	Pavilion C3&C4, Astana Expo 2017, Kazakhstan		
Description	Total steel weight is about 15,000t. EN Structure design, Connection design, Shop drawing, fabrication and erection.		
Picture	     		

Project Name	Makkah Railway Station, Saudi Arabia	
Description	Consist of 60 large tree-shaped structures and 360 small. Steel weight: 15,300t. The web plate is bending and twisting member structure. All of the nodes are connected with End-Plate Bolts on site. Each unit of 27m *27m is trail-assembled as a whole in the workshop.	EN
Picture	 An architectural rendering of the Makkah Railway Station in Saudi Arabia, captured at dusk. The image showcases a series of large, tree-shaped steel structures that form the station's roof. Each structure has a central vertical column and a wide, arched canopy with a complex, web-like internal structure. The canopies are illuminated from within, casting a warm glow. The station is surrounded by palm trees and a parking area with several cars. In the background, a large, modern building with a grid-like facade is visible. The sky is a mix of blue and orange, indicating the time is either dawn or dusk.	

Picture



Project Name

31-33 Metro Station of Tuas West Extension, Singapore

Description

Total steel weight is about 2,350t.

EN

Single layer shell by casting steel node connection. Shop drawing, fabrication and erection.

Picture



Picture



Project Name

Hong Kong Passenger Clearance Building, HK-Zhuhai-Macao Bridge

Description

Total steel weight: 16,000t. The largest modular for sea transportation 60mx25mx17m, 880t shift to port by SPMT

Picture



Picture



Project Name

Guangdong New Museum, China

Description

Total steel weight is about 20,100t. The building area is 66,280 m². Heavy truss, max plate thickness is 100mm, box section. Over 8800t structural steel sliding from beginning position 1 to finish position 2 in 35m high.

Picture



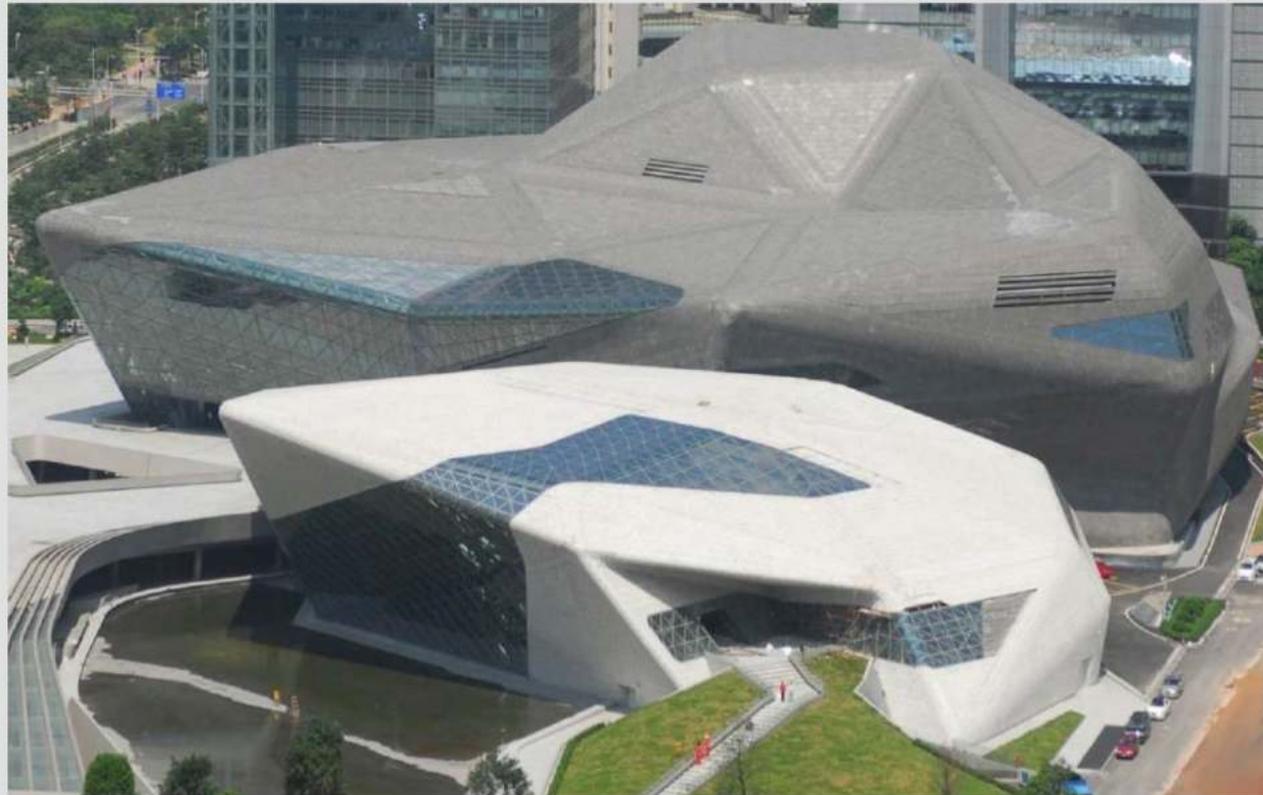
Project Name

Guangzhou Opera, Guangdong, China

Description

Total steel weight is about 12,000t. The building area is 70,000 m².
Casting steel 3,000t, max weight per piece 50t.

Picture



Picture



Project Name

National Digital Library, Beijing, China

Description

Jack lifting weight of structural steel over 10,000t. Total steel weight is about 14,000t.
The building area is 79,899 m². Heavy truss, max plate thickness is 80mm, box section.

Picture



Picture



Project Name

Chengdu Oceanarium, Sichuan, China

Description

Total steel weight is about 12,510t. The building area is 1,070,539 m².
Value engineering, shop drawing, fabrication and erection.

Picture



Project Name

King Abdulaziz International Airport, Jeddah, Saudi Arabia

Description

The largest international airport in Saudi Arabia.

AISC, ASTM, AESS

Building area: 670,000 m². Total steel weight: 27,000t.

Complex casting steel used in bottom of the column

Picture



Picture



Project Name

Dhaka Hazrat Shahjalal International Airport, Bangladesh

Description

Building area: 300,000 m². Total steel weight: 32,000t.

AISC, ASTM, AWS

Life-cycle BIM management

Work scope: shop drawing, fabrication and erection.

Picture



Project Name	Noibai New International Airport, Hanoi, Vietnam	
Description	The largest international airport in Vietnam. Hybrid structure and pre-stress-rod in trusses. Cable strength inspected with EM method. Shop drawing, fabrication and erection.	
Picture		

Picture



Project Name	Astana New International Airport, Kazakhstan	
Description	Steel weight is 9,700t, under construction.	EN
Picture		
		
		

Project Name

Capital International Airport Terminal 3, Beijing, China

Description

One of the second biggest space frame building with area of 300,000 m² in China. The building area is about 240,000 m². Length of the steel structure reaches 2km. The total weight of steel is 8,500t.

Picture



Picture



Project Name

Beijing Daxing International Airport, China

Description

One of the biggest space frame building with area of 313,000 m² in China. The building area is about 1,300,000 m². Length of the steel structure reaches 2km. The total weight of steel is 52,000t.

Picture



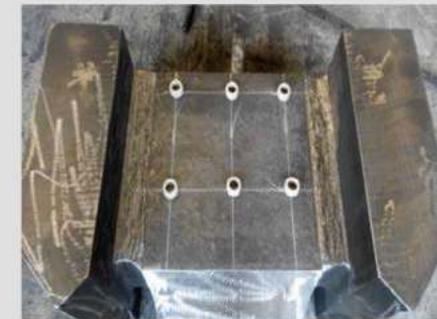
Picture



3.3. High-rise Building Projects

Project Name	Kingdom Tower, Jeddah, Saudi Arabia		
Description	It is 1,007m high with 251 storeys. The highest tower in the world - under construction Maximum plate thickness is 180mm with full penetration weld. AISC, AWS		
Picture	 A tall, slender tower under construction against a cloudy sky. The tower is a light blue color and has a very thin profile. It is surrounded by other buildings and a body of water in the foreground.	 A close-up view of the tower's upper section, showing the construction cranes and the yellow and black striped facade. The tower is surrounded by other buildings and a body of water in the foreground.	 A close-up view of the tower's upper section, showing the construction cranes and the yellow and black striped facade. The tower is surrounded by other buildings and a body of water in the foreground.

Picture



Project Name Seascope Tower, Auckland , New Zealand

Description The highest building in Auckland, it is 208m high with 53storeys. **AS/NZS, AESS, C5M**
Total steel weight is 10,800t. Shop drawing, fabrication and erection.

Picture



Picture

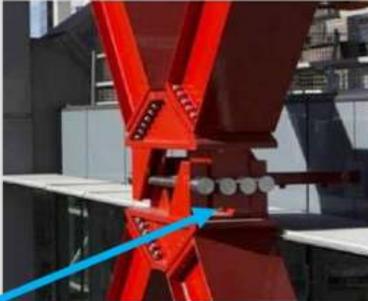


Project Name	Guangzhou New TV Tower, Guangdong, China		
Description	It is 610m high; the steel weight is about 40,000t. The peripheral is oblique grid. Max CHS: 1850×60mm. Monthly delivery: 3,050t.		
Picture			  

Project Name	Seascape Tower, Auckland , New Zealand	
Description	The highest building in Auckland, it is 208m high with 53storeys. Total steel weight is 10,800t. Shop drawing, fabrication and erection.	AS/NZS, AESS, C5M
Picture		

Picture



Project Name	8 Chifley Square, Sydney, Australia		
Description	6 Star -"Green Star" Building, total steel weight is about 1,272t. AS, AESS Diagonal bracing joint at side, bearing shear at one direction and no compression		
Picture	 <p>02/11/2012</p>		
			

Project Name	200 George Building, Sydney, Australia				
Description	The same client of 8 Chifley Square Building. Architectural exposed X shape columns. Hollow and twisting section; 3.8m high oversized for inland transportation.				
Picture					

Project Name	Technology Park, Sydney, Australia	
Description	Total steel weight: 8,700t. Shop drawing, material purchase, fabrication and CIF to Sydney.	AS/NZS, AESS
Picture		

Picture



Project Name	Guangzhou Chow Tai Fook Center (East Tower), Guangdong, China	
Description	It is 530m high with 111storeys. Total steel weight is about 96,000t. 8 huge columns, section ups to 3.5m*5.6m	
Picture		 

Project Name	Shanghai World Finance Center, China		
Description	It is 492m high with 101storeys. Total steel weight is about 65,000t. Monthly delivery: 4,000t.		
Picture			
			

Project Name	Tokyo Cocoon Tower, Japan		
Description	One of the 2008 world top ten architectures. Designed by KENZO TANGE firm and constructed by SHIMIZU Corporation. The steel structure is complex with the steel weight of 3,500t. JIS		
Picture	 <p>A photograph of the completed Tokyo Cocoon Tower, a tall skyscraper with a distinctive, curved, lattice-like facade that resembles a cocoon. The building is set against a clear blue sky.</p>	 <p>A photograph showing the construction site of the Tokyo Cocoon Tower. The building is heavily encased in blue safety netting and scaffolding. Several red cranes are visible at the top of the structure.</p>	 <p>Three smaller photographs showing the fabrication process of the tower's steel components. The top image shows a worker in a white protective suit handling a large, dark, X-shaped steel plate. The middle and bottom images show workers in a factory setting handling large, flat steel plates, with a green sign visible in the background.</p>

Project Name	Huzhou Sheraton Hotel, Zhejiang, China	
Description	It is 100m high, ring structural with 22storeys, width 116m. Building area is about 65,000 m ² .	
Picture	   	

Project Name	Storage Research Building, Guangzhou Xingye International, Guangdong, China
Description	This project looks like a jade. The outer diameter is 146.6m; inner diameter is 47m. It is 138m high with 30storeys. Building area is 106,491 m ² . Total steel weight is about 10,000t.
Picture	 The image block contains four photographs. The largest is an architectural rendering of the Storage Research Building, a massive circular structure with a complex, lattice-like facade, situated on a green hillside overlooking a river. To the right of the rendering are three smaller photographs showing the building's steel framework under construction. The top photo shows a close-up of the steel grid, the middle photo shows a wider view of the circular structure's steel skeleton, and the bottom photo shows the building from a distance, highlighting its circular form and central opening.

Project Name	Hangzhou International Conference Center, Zhejiang, China		
Description	The largest spherical structural steel in China. It is 85m high with 19storeys. Total steel weight is about 13,000t. Building area is 130,096 m ² .		
Picture			
			
			

Project Name	Chengdu Icon Cloud Tower, Sichuan, China
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Description	It is 190m high with 46storeys on ground and 2storeys underground. Total steel weight is about 15,000t.
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Project Name

Shenzhen Stock Exchange Operation Center, Guangdong, China

Description

It is 245m high with 74storeys. Total steel weight is about 28,000t. Shop drawing, fabrication and erection

Picture



Project Name Hangzhou Raffles Plaza, Zhejiang, China

Description Building area is 400,000 m². The height of Raffles City is around 250m with 60storeys above ground. Twist buildings with curved shape structure.

Picture



Project Name Greenland Center Tower A, Xi'an city, China

Description It is 276m high with 57storeys above ground and 3storeys underground.
Total steel weight is 22,740t. Building area is about 170,000 m².

Picture



3.4. Industry Projects

Project Name	Urea Fertilizer Nitrogen Plant III, Mato Grosso do Sul, Brazil
Description	It will be the biggest nitrogen fertilizer plant in the world. AISC, ASTM Total steel weight is about 25,000t. All bolted connection and part of trial assembly in workshop. Connection design, fabrication and technical service on site.
Picture	 A photograph showing the construction of a large industrial facility, likely a nitrogen fertilizer plant. The scene features several tall, cylindrical chimneys or towers under construction, supported by a complex steel framework. A yellow crane is visible on the right side of the site. The ground is reddish-brown, and the sky is blue with scattered white clouds. In the foreground, there are some construction materials and a fence.

Picture



Project Name Vik Winery Plant, Chile

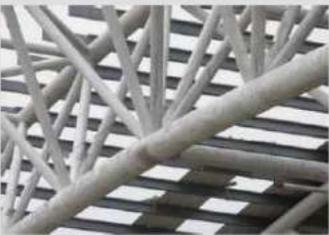
Description One of the Top 10 Chile winery and the structure of roofing is made up space truss and membrane structure.

Picture



Project Name	Chery Automotive Plant, Sao Paulo, Brazil	
Description	The building area is 56,000 m ² . Total steel weight is about 3,200t. Shop drawing, and fabrication.	
Picture	 A wide-angle photograph of a long, single-story industrial building under construction. The building has a light-colored facade and a dark horizontal band of windows. The foreground is a dirt construction site with some construction materials and utility poles. The sky is blue with scattered white clouds.	  An aerial photograph showing the entire Chery Automotive Plant complex, including several large industrial buildings with blue roofs, parking lots, and landscaped areas. The surrounding landscape is green and flat. A photograph showing the interior steel framework of the building under construction. The structure consists of numerous vertical steel columns and horizontal beams, forming a large open space. The ground is dirt and construction materials.

Project Name	Thailand Simlais OCTG Manufacture Company, Thailand	
Description	The building area is 61,460 m ² . New products HV-310 longitudinal profiled wave board is adopted in the facade system. The eaves turn out to be circular arc, which differs from the traditional practice.	
Picture		 <p data-bbox="1496 751 1832 784">Cold-drawing Workshop</p>  <p data-bbox="1520 1136 1807 1169">Hot-rolled Workshop</p>

Project Name	Taipa New Passenger Ferry Port, Macao, China		
Description	The building area is 58,000 m ² , and the steel weight is 4,800t. The structure is reinforced concrete frame structure, and roofing system is plane truss structure.		
Picture	     		

Project Name

Cotton Spinning Mill, Thailand

Description

The building area is 45,000 m².
Enclosure system: Roofing: HV-470, Walling: HV-248.
Shop drawing and fabrication.

Picture



Project Name	Redeemed Christian Church of God, Lagos, Nigeria		
Description	The structure is made up of spatial truss structure and gantry light steel structure. It covers area of 480,000 m ² , and the steel weight is 14,261t.		
Picture			
			

Project Name	West Africa Benin Lokossa Cotton Mill (C.B.T), Benin
Description	International support project by China department of textile. The construction area is 21,768 m ² , the structure is single ridged double slope with four multi-span light steel structure.
Picture	 An aerial photograph of the completed West Africa Benin Lokossa Cotton Mill (C.B.T). The building is a long, single-story industrial structure with a white facade and a grey, double-sloped roof. Red horizontal stripes run along the top of the walls. The entrance area features large blue letters spelling 'C.B.T'. The surrounding area includes paved roads, some greenery, and a few people walking.
	 An aerial photograph of the West Africa Benin Lokossa Cotton Mill (C.B.T) during its construction phase. The image shows the extensive steel framework of the building, including the roof structure and support columns. The ground is mostly dirt, and there are some construction materials and equipment visible around the site.