

GEPC

SHANDONG XINHAI MINING TECHNOLOGY & EQUIPMENT INC. (836079)



YANTAI CHINA

MINERAL PROCESSING

TURN-KEY SOLUTION FOR MINERAL PROCESSING PLANT
OPTIMIZED SOLUTIONS FOR YOUR MINE

MINERAL PROCESSING EPC







XINHAI OPTIMIZED SOLUTIONS FOR YOUR MINE

With advanced practical technology, high-efficiency energysaving equipment and high-quality intimate service, Xinhai is dedicated to building a highly profitable mining enterprise for you with turn-key service.

MINERAL PROCESSING EPC

TURN-KEY SOLUTION FOR MINERAL PROCESSING PLANT

Xinhai devotes to providing "Turn-key Solution for Mineral Processing Plant", namely "design and research- complete equipment manufacturing and procurement-commissioning and delivery". Up to now, with 200 mine EPC projects, mining technologies and experience of 70 kinds of ores and 20 patents, Xinhai has established overseas offices in Sudan, Zimbabwe, Tanzania, Peru and Indonesia with products exported to more than 20 countries.

Service of Design and Research—Engineering consultant service, mineral processing test, mineral processingtechnological process, equipment selection, mineral processing plant design, construction drawing design, etc.

Service of Complete Equipment Manufacturing and Procurement—Manufacturing and procurement of mineral processing equipment, mine supporting materials, tools for installation and maintenance, devices for test and chemical test.

Service of Commissioning and Delivery—Guidance of plant construction and equipment installation, achievement of equipment commissioning, training of plant staff, providing of spare parts, plant consumables, equipment repair and maintenance, etc.





























EPC ENGINEERING

MINERAL PROCESSING EPI

06/ Processing Test

10/ Mine Design

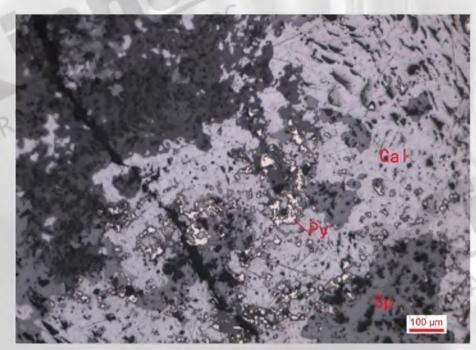
PROCESSING TEST

Provide processing test for more than 70 kinds of ores

Xinhai Mineral Processing Research Institute is solely responsible for the mineral processing experiment. The technicians can carry out mineral processing experiment for more than 70 kinds of minerals, and offer reliable mineral processing solutions.

Mineral Processing & Research Institute is composed of Mineral Analysis Laboratory and Mineral Processing & Research Office. The Mineral Analysis Laboratory is responsible for the chemical analysis on the ore samples, products (intermediate products and final products) and other samples; the Research Office consists of crushing workshop, mineral identification room and test rooms for different processing technology like grinding fineness test, gravity separation, magnetic separation, flotation, cyanidation and wet mineral processing, bacterial oxidation and special mineral processing, heap leaching, etc. The Research Office is responsible for the mineral processing test, preparing the test reports and putting forward reasonable mineral processing process.

At present, the company has set up offices at abroad including Tanzania, Sudan, Indonesia, Peru etc., providing comprehensive and reliable mineral processing services for local clients.



The gelenite replaced by the sphalerite and the pyrite in remnant texture

CHEMICAL LABORATORY





Ore Sample Assaying



A Corner Of Testing Lab



Flotation Test

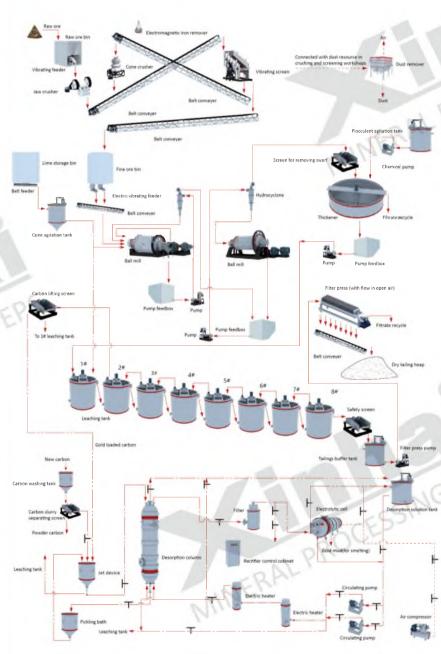


orade A design qualification

More than 200 mineral processing turn-key projects

Xinhai Mining Design & Research Institute is responsible for making the mineral processing technology into an executable program, and providing professional and reliable mining design program for clients.

The design institute has grade A design qualification for metallurgical industry, and can undertake all kinds of design business of mineral processing plant without capacity limitation. At present, the institute has 14 departments covering the fields of geology, mining, mineral processing, civil engineering, electric power, etc. It also has 100 professionals and can provide all kinds of mineral designs of mines including nonferrous metals mine, ferrous metals mine, gold and other precious metals mine, nonmetal mine, coal mine, building materials mine, chemical mine, and rare earth mine, etc. Benefiting from technical support of the design institute, Xinhai has completed more than 200 mineral processing turn-key projects in the past 20 years.



▶ Gold All Sliming Cyanidation CIL Plant







Magnetic Separation

Gravity Separation





▶ All-Sliming CIL Plant







PROCUREMENT

MINERAL PROCESSING EPC

14/ Equipment

Manufacturing

19/ Packing & Shipping

EQUIPMENT MANUFACTURING AND PURCHASING

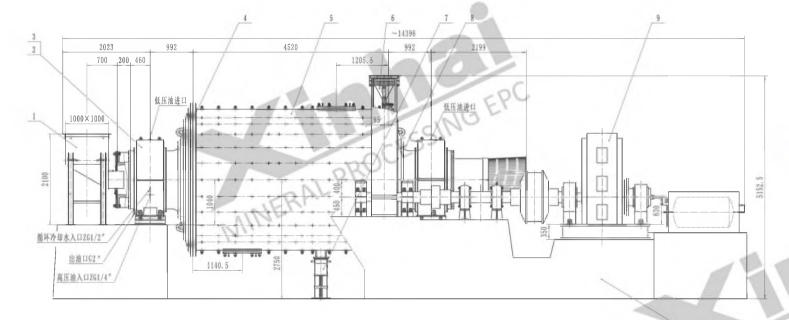
Provide a complete set of mineral processing equipment for you

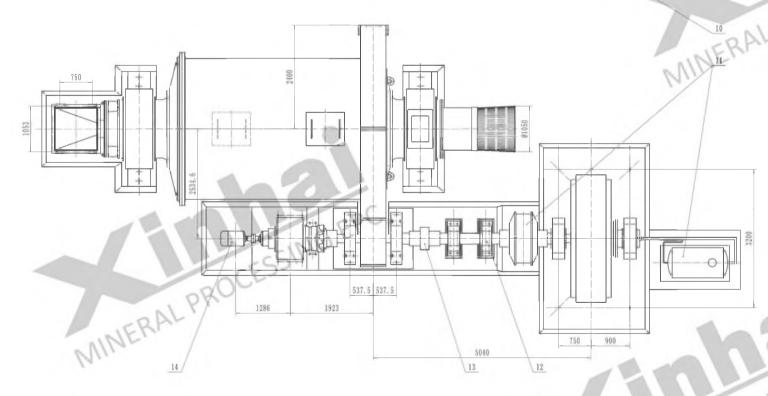
MECHANICAL DESIGN

Mechanical Design Institute undertakes tasks in Xinhai including equipment research and development, design, improvement, etc. The technicians provide required equipment according to the equipment requirement put forward by Mineral Processing Research Institute and Mining Design & Research Institute, which makes the clients enjoy the seamless connection turn-key service including "mineral processing experiment, mineral processing technology, equipment selection, mine design and equipment manufacturing".

Mechanical Design Institute has rich experience in equipment design, and has developed a large number of technicians who well know the mine equipment characteristics, equipment theories and practices, and grasp professional skills in mechanical and mineral processing.

More than 80% of mining equipment is upgraded by Xinhai Mechanical Design Institute. In the past few years, Xinhai has won 20 national patents. Mechanical equipment is a very important link in mining operation. Based on equipment research and development of excellence, combination with perfect process, and improvement of the quality of equipment and running efficiency, Xinhai assures the clients obtain the optimal output with the most efficient input.





Host Machine	Inner Diameter of Cylinder	Cylinder Length	Speed of		Ball Capacity		
	3200 mm 4500 mm		18.5 r/min	32.8 m ³	65t		
Motor	Mo	del	Power	Voltage Grade	Rotating Speed		
	TDMK6	30-2600	630 kw	10 kv	167 r/min		
Capacity	- P						
Air Clutch	QL875-300×1						
High-Low Voltage Lubrication Station	D.		GXYZ-63	3			
Jacking Device	- Lift: o cap	acity 400 7	Lifting Height 200 мм				
Excitation Device	Microcomputer Control						

Technical Requirements

- This diagram is dextral ball mill, and the transmission of sinistral ball mill is arranged symmetrically along the shaft.
- Adopt high-low pressure oil centralization lubrication for the base bearing.
- Oil mist jet lubrication is adopted for gear and pinion, which is not marked in figure;
- The oil stations the diagram showed are schematic diagram, and the location of oil station during installing should base on the actual situation of field. The total slope of oil return is 1:40:
- Pneumatic clutch is with the air source of 0.6±0.05MPa, and the high pressure air tubes are prepared by users.

- No	41	V			Properties Material		Benghi	99/M		могологія	
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					Yanta	i Xinh	ai MI	ning Mac	hiner	y Co., Ltd.	
						Weight					
200	Code		Name		QIV.	Material	Unit	fotal			
1	MQY3245-01		Feed shale		1.			1230			
2	KH247-00		Bearing		2	Dares	5252	5446			
3.	3032232.00.30		Ringsonl		4	Parts	37.5	350			
4	KH2216.00		Feeding		1	Parts		18392			
5.	MQG3245-04		Cylinder		1			39590			
0	KH21/12.008		Transmission		1	Parts		16775			
7	10177222.00		Lifting device		1	Parts		668			
5	MQY3245-02		Dischurging.		1.			3.8946			
9	TDMK630-36/2600 10KV		Motor		1			15350			
10	MQY3245-03		Base data diagram		1			9780			
1).	QLR75-300+1		Pneumatic clutch		1			3060			
12		92212	7.00		Bearing		1	Parts		1.864	
1		99212	5.00		Coupling		1	Parti		47).	
14		W212	00,1	Low-speed transmission			1	Parts		1201	

EQUIPMENT MANUFACTURING







▶ Engineers Reviewing the Drawing

Assembly Workshop

Vertical Lathe (7.5m)

Numerical Control Cutting



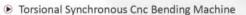




Upper Roller Universal Plate Bendingmachine

Yq31400gear Hobbing Machine







MINERAL PROCESSING Separate-Installed Machine

Xinhai can provide equipment and spare parts for different types of mineral processing plants.

Xinhai has 20 patents in total and strong technical force, and has passed quality management system certifications including ISO9001: 2008, CE, etc. Xinhai Mining Machinery Manufacture Plant has more than 100 sets of general mechanical processing equipment including lathe, milling, planning, grinding, boring, drilling, stamping, welding, plate bending, plate shearing and so on, and also has more than ten sets of self-developed mining machinery processing and special equipment. The maximum diameter of machine tool can reach 6 meters, and the maximum height of vertical lathe can reach 7.5 meters.

Sand blasting on the surface should be taken for metal materials purchased by Xinhai Mining Machinery in order to remove the rust, and then after painting, these metal materials can be processed. The company has more than 20 sets of automatic cutting equipment including laser, plasma, and flame, and more than 10 sets of automatic welding equipment, with all sorts of self-developed assembly tooling platform.

The marine paint is used for the equipment produced by Xinhai Mining Machinery, so as to adapt to the maritime transport of exports sold abroad for a long time. The company has a package & delivery department, which is responsible for design and implementation of packing equipment, planning and implementation of encasement, transportation, collection of product specification, customs clearance and so on.

3D is used for machine design in Xinhai Mining Machinery, and is also used for specifications and relevant drawings for clients, which makes the clients and workers who cannot understand the conventional mechanical drawings easy to understand and grasp equipment structure and assembly relations.

EQUIPMENT PROCUREMENT

After 20 years of efforts, Shandong Xinhai Mining Technology & Equipment Inc. formed mature and perfect procurement and supply management system, and established long-term cooperative relationship with excellent suppliers who are influential in the industry. Xinhai could purchase the equipment and supplies required by mine construction and mineral processing operation for the customer, which includes mining equipment, mineral processing equipment, mine supporting materials, installation & maintenance tools, test & chemical laboratory equipment, spare parts, plant consumables, etc.

To improve procurement efficiency, reduce procurement cost and guarantee procurement quality, Xinhai applies two levels of procurement mode which is "centralized procurement by headquarters first, minor procurement by project management department supplemented", and constructs perfectprocurement and supply management institution system, which mainly includes Purchase Management Regulations of Equipment and Materials, Management Method of Circulating Materials and Low-Valued Consumables and Management Regulations of Warehouse for Equipment Spare Parts. Besides, Xinhaiestablishesinformation platform of procurement business for communication, and operations of procurement plan reporting and approval, warehouse entry inspection, general ledger management and supplier management can be can be carried out in a unified and coordinated way at the platform, which is convenient for the real time monitoring to the procurement work.



PACKING & SHIPPING

Perfect packing and shipping management system

In order to ensure the equipment was intactly delivered to the mineral processing plant, Xinhai established perfect package and delivery management system: utilizing waterproof coils, stretch films, trays, boxes and other forms to avoid the contingent damages during the delivery process, such as collision, wear and corrosion. Through the reasonable space design and goods unloaded design to reduce the costs of transportation and unloading; utilizing the numbering and specification management system to guarantee the equipment and spare parts are all in readiness and reduce the difficulty of equipment installation.



AL PROCESS!













CONSTRUCTION

MINERAL PROCESSING

- 22/ Project Management
 - 25/ Installation and Commissioning
 - 26/ Worker Training
 - 28/ Accomplishment of Designed Capacities

PROJECT MANAGEMENT

Project construction and management of mining, mineral processing, civil engineering and tailing pond

Mining Engineering Construction and Production Management

Since the risk factor of each step in mining operation is high, the requirement for safe construction process and perfection degree of management mechanism is high. Only consistently enhance management and regulate construction behavior during the process of construction, improve mine MINERAL PROCESS construction safety techniques and optimize the relations between safety and benefits, can we maximally ensure the economic and social benefit. Xinhai can provide you with:

- > Mining engineering design;
- > Technical guidance servicesprovided by professional geological engineer, mine engineer, measurement engineer, rock drilling and blasting engineer;
- > Construction EPC and management services during mining engineering construction;
- > EPC and management services for mining engineeringduring mining engineering production.





Stope

Civil Engineering Construction and Management

Compared with urban civilian construction project, the mine civil engineering project is a comprehensive construction project with complicated construction conditions, more connections and restraints between each system, and closely relations between construction and production. At present, many countries are weak in their corresponding civil construction. Xinhai can provide the clients who have civil engineering construction and management needs with the services as follows:

- > Technical guidance services. We can assign professional mine civil engineering project manager, reinforcing steel bar engineer, carpenter engineer, and paying offand measurement engineer;
- > Steel structuralization construction services. Since cement prices in many countries of Africa are relatively high, generally, civil engineering adopting reinforced concrete materials, such as freshwater pool, backwater pool, raw ore bin and fine ore bin, will not be appropriate to adopt cement materials. Xinhai can provide the clients with steel structuralization construction services as required;
- > Rapid assembly colorful steel structure housing services. Xinhai can provide the clients with rapid assembly colorful steel structure housing construction and installation for facilities such as mine office, staff dormitory, warehouse, chemical laboratory, maintenance workshop and guard;
- Mine civil engineering project construction EPC service.



Vietnam Graphite 800tpd Plant



Mineral Processing Plant Technical Support and Operation Management

- > Provide continuing technical support services after the mineral processing plant EPC is put into production. We can provide professional mineral processing engineer, mechanical engineer, electrical engineer and chemical engineer;
- > Provide operation management services after the mineral processing plant is put into production. The specific service form mainly includes:
- EPC services of production yield, mineral processing technical index and cost;
- Dividing management mode based on production yield, mineral processing technical index and cost index management;
- Management method which buys in shares with techniquesand managementat a discount.



South Africa Chromite Plant

Tailing Pond Construction and Management

- > Provide tailing treatment and tailing pond project design services;
- > Provide materials and equipment such as tailing pond seepage prevention materials, materials used for monitoring and water drainage system materials;
- Provide tailing treatment and tailing pond construction EPC.





Tailings Pond

INSTALLATION AND COMMISSIONING

Quick installing and commissioning, reaching design capacity

Installation and commissioning is one of the most important factors of EPC service, which affects the achievement of designed capacity of the mine. Xinhai installation and commissioning team is composed of technicians who are from the forefront of production and have accumulated rich experience from the past more than 200 mine EPC services.



● Iron Cap 700t/d Gold Mine Project, Zimbabwe



▶ Phosphorite mine with capacity of 1000t/d in Guizhou, China



WORKER TRAINING

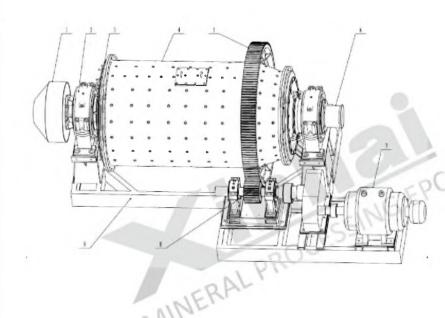
Treate a professional test Create a professional technical team and keep plant in good operation

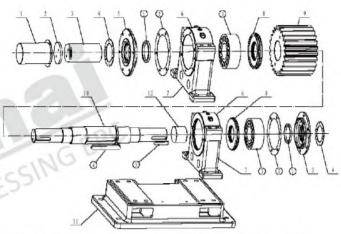
We provide worker training for you to help you build your own technical team, avoid losses resulting from long-time shutdown in the operation, and guarantee the normal operation of the plant. All technicians responsible for staff training are the backbones in the installation and commissioning team with extremely rich practical experience and good management of operation details.

There are three aspects in the training: Operation training, maintenance training and FAQ training.

Xinhai offers you practical user manuals including "Manual for Common Machine Running Problems", "Manual for Processing Plant Operation and Maintenance", "Machine Operation, Maintenance, Repairing Manual". All those user manuals consist the rich experience Xinhai gathered over the years from the 200 EPC or EPCM projects.

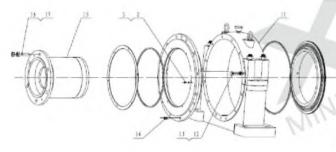


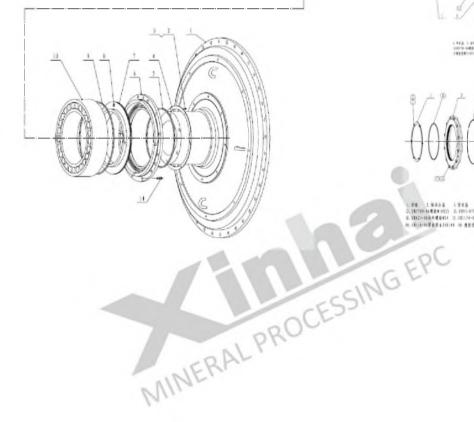


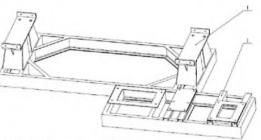


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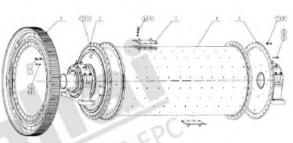
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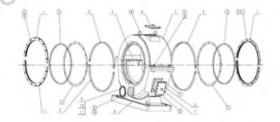


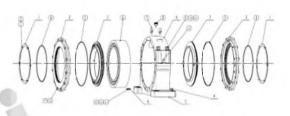




1. 67M2136-4-91安司机集 7. 67M2136-4-02度非机能







ACCOMPLISHMENT OF DESIGNED CAPACITIES

More than 200 Mineral Processing EPC Projects

Our EPC services guarantee you expected recovery rate and production capacities, the demanded product quality and quantity, the required consuming material indices and operational costs, both process and machines are running smoothly as designed.

We will also try our best in both consultation and solution to the construction, management, operation and maintenance of the plant, so that it can be put into a profitable operation as soon as possible.





▶ Kush 500t/d Gold Mine Project, Sudan

Ore type: Rock gold Capacity: 500t/d

Technical process: 2-stage 1-closed circuit crushing + 2-stage grinding + gravity separation + all-slimed cyanidation



Shenchuan 5500t/d Copper Project, China

Ore type: Copper-iron ore

Capacity: 5500t/d

Technical process: 3-stage 1-closed circuit crushing+1-stage closed circuit grinding+ 1-roughing, 3-scavenging and MINERAL PROCESSING EPI 3-cleaning for flotation

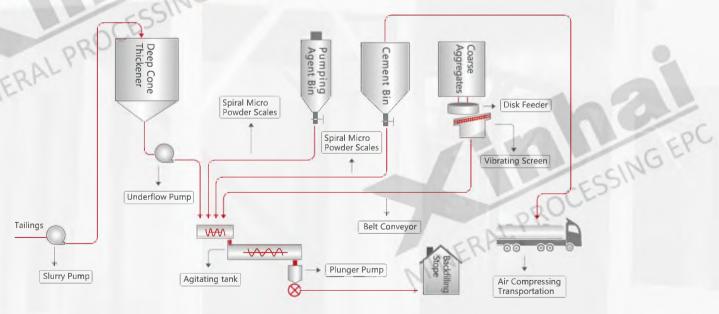
TAILINGS DISPOSAL TECHNOLOGY

CEMENTED FULL TAILINGS BACKFILLING

Xinhai has a professional tailings division mainly engaged in the design, research and development of technology and equipment related to tailings backfilling, tailings dry stacking, comprehensive utilization of useful minerals in tailings and comprehensive utilization of tailings to make building materials. We have tailings laboratory and test production line, and established long-term cooperative relationships with University of Science and Technology Beijing and Qingdao Technological University.

Cemented full tailings backfilling is a complicated systematic engineering, involves filling materials' concentration, cementitious materials' selection, cement-sand ratio's optimization, fillings slurry's preparation and transportation, stope filling process, and so on. With rich reserve of talents, advanced technology support, qualified equipment supply and perfect service system, Xinhai can design customized tailings processing scheme for our customers.





Cemented Full Tailing Backfilling Flowsheet

DRY STACKING OF TAILINGS

Xinhai is the first company to apply the tailings dry stacking technology to the actual production in China. Over the past years, we have been helping many clients and accumulated a lot of practical experience. We can calculate the optimal ratio of tailings moisture according to the actual situation, and make the proposal for tailings disposal and tailings pond management with the lowest cost, energy consumption and pollution.

Xinhai is also the first company to set up experimental base of tailings dry stacking in China. Our technicians will make repeated and detailed tests for your tailings, and select the best solutions for you.





Tailings Dry Stacking Flowsheet



MOBILE MINERAL PROCESSING PLANT

Flexible and high-efficiency middle and small scale portable mineral processing system

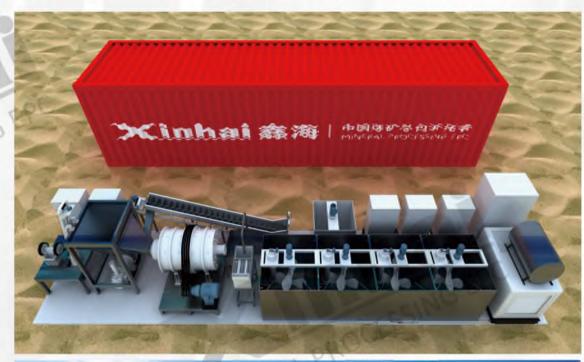
At present, it is difficult for many small-scale mines, with narrow vein and high ore grade, to form largescale and integrated development in a short time due to less geological resource prospecting work, imperfection of the infrastructure and insufficient economic volume. Most of them are mined on a small-scale, adopting original mineral processing method such as manual mode to conduct marketable component recycling, which results in unstable mineral processing products quality, low recovery rate, poor economic profit andsevere waste of resources.

MINERAL PROCESSING According to the situation, Xinhai has developed mobile mineral processing plant to assist resource developers to develop and utilizemineral resources with higher level, higher efficiency and higher benefit. The mobile mineral process system adopts the design concept of modularization &integration, integrating a complete set of small-scale mineral processing plant into several modules. All modules and equipment are in conformity with international transport dimensionand weight requirements, and easy for actual operation with full consideration of factors such as size defining and connection. We can provide with:

- > The mobile mineral processing plant with scale of 5t/d, 15t/d, 25t/d and 50t/d;
- > Mobile mineral processing plant with move modes of tire type, belt type and frame type;
- > Mineral processing flow for mobile mineral processing plant, such as mobile crushing and screening station, single gravity concentration process, single flotation process, single all-slime cyanidation process, gravity concentration + flotation process and gravity concentration +all-slime cyanidation process.



Mobile Crushing and Screening Plant





Mobile Mineral Processing Plant

>>>> COMPANY PROFILE



■ Strong Technical Strength

to more than 20 countries.

Our Company is always paying great attention to technological self-innovation, and has owned 58 R&D people and 20 patents for invention and utility models; we have conducted the strategic cooperation with many domestic upstream and downstream enterprises; we have strengthened the technological exchanges and cooperation with colleges and universities. Based on technology import and cooperative development, we have not only expanded the technology hard power of "integrated service of mineral processing plant" and improved the production efficiency and economic benefit, but also promoted the technology soft power of safety management, energy conservation and emission reduction, green environmental protection, etc.

■ Professional Customized Service

Based on 20-year experience in mineral processing equipment manufacturing and integrated service of mineral processing plant, our company can provide customized services according to clients' practical requirements. On one hand, we have promoted technical engineers' level and formed strong technical support power depending on refining labor division, global supporting, and optimizing data on technology; on the other hand, the technical engineers have the ability to conduct plant design and equipment selection, so as to propose the optimum design scheme depending on site exploration and sampling, mineral processing test and research, clients' practical requirements, etc. Meanwhile, based on site simulation, we have the ability to provide the overview of future plant by using interactive software such as CAD and 3D.

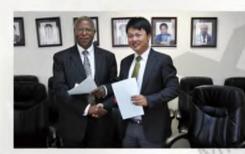
CORE COMPETITIVENESS

To provide the clients with high-quality "integrated service of mineral processing plant" conveniently, our company has exported advanced technologies as a giverse of the converse of the con overseas. At present, we have established overseas offices in many countries, and conducted multi-aspect, multi-level, and multi-form cooperation with local governments and banks. Additionally, we have taken the lead in using internet thinking mode, built our own e-commerce platform, erected a bridge for overseas users, achieved the sound development of business, and created great value for clients! Depending on our outstanding innovation ability, management and control ability, and delivery ability, we have won the trust and cooperation of clients worldwide!

INTERNATIONAL COOPERATION



Mr.Zhang Yunlong,The President of Xinhai Group, Meeting Sudan Ambassador to China



Company, Signing Strategic Cooperation Contract with Tanzania National Investment Bank



Signing with customer from Zimbabwe

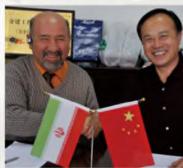
MINERAL PROCESSING EPC



Chairman of Xinhai Group



Signing with customer from Sudan



Signing with Customer from Iran



HONOR

Shandong Xinhai Mining Technology & Equipment Inc. is a stockholding high and new technology enterprise to provide "Turn-key Solution for Mineral Processing Plant" including design and research, machine manufacturing, equipment procurement, management service, mine operation, mine materials procurement & management as well as industry resources integration. With over two decades of development, Xinhai has accumulated numerous scientific and technological achievements, won the trust and recognition of both the government and clients.

In February 2016, Dr. Medard, the Deputy Minister of Ministry of Energy and Minerals of Tanzania, made a visit to the largest gold mine of Busolwa and spoke highly on it. The project is undertaken by Shandong Xinhai Mining Technology & Equipment Inc.

The Deputy Minister fully affirmed Xinhai Company's ability for production process management and congratulated the owner of the mine, Mr. Barak Ezekiel, who made great contributions to providing jobs and increasing government revenue through paying royalties and various taxes.

The core competitiveness of Xinhai lies in the excellent independence R&D capacities and technical advantages. Up to now, we have 23 patents in total.

In July 2016, the Chairman of Xinhai Mr. 76-11.

Institute of Mining and Metallurgy (AusIMM). As the 183rd fellow in China, he has the authority to sign the Mining Technology Public Report.





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