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质量铸就品牌



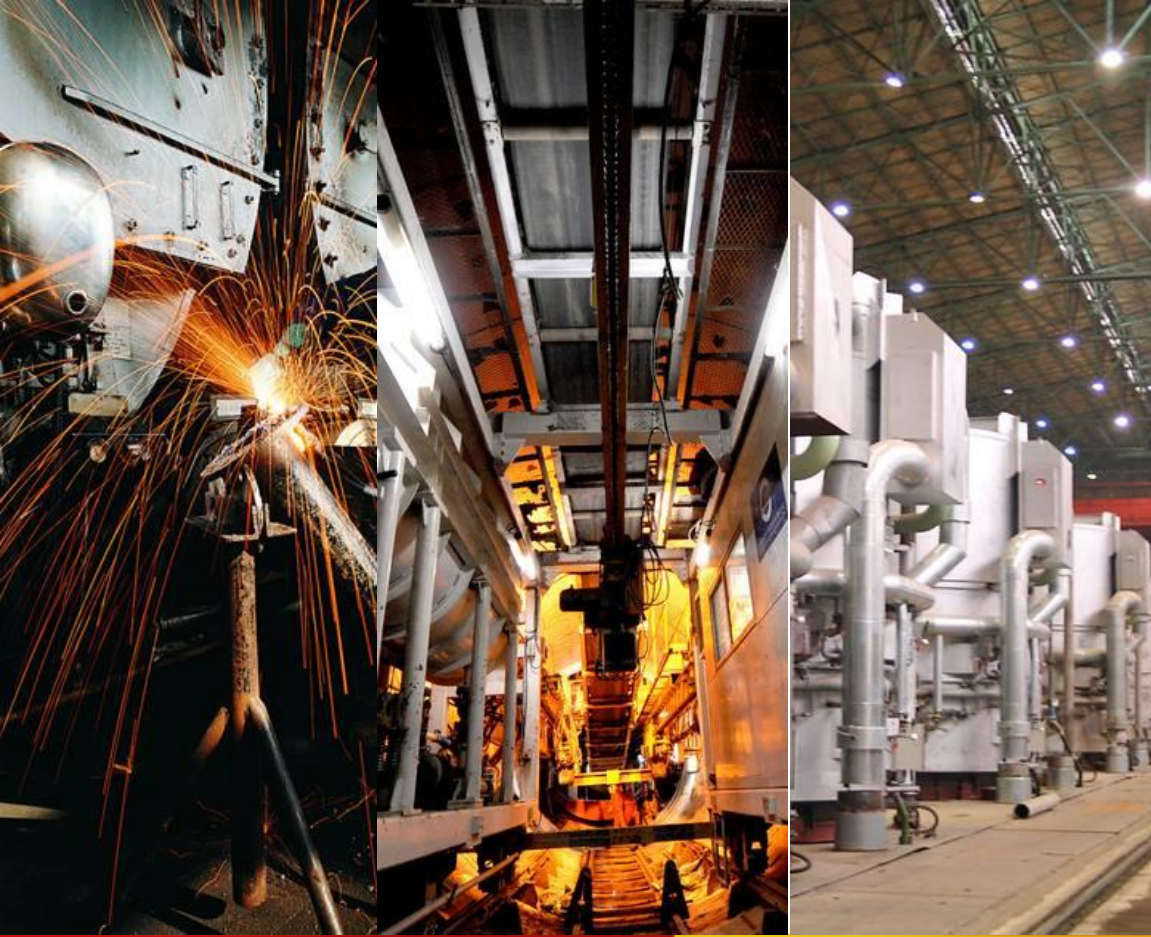
BRIEF INTRODUCTION OF CHANGSHA CARRIE HEAVY INDUSTRY MACHINERY CO.,LTD.



Process logistic , Technological process , working

environment  **CARRIE** 





Working process, Technological
process, plant environment

About CARRIE

Typical machinery manufacturing enterprise for
extreme working condition

The leader enterprise of high temperature
transporation in metallurgical industry

Dedicate to be the top international metallurgical
service enterprise

ABOUT US

Top quality ,Top enterprise

The leading metallurgical process logistic solution supplier in China

•Founded in 2000, Changsha Carrie Heavy Industry Machinery co.,ltd is a nationally authorized high tech enterprise which located in the Changsha Lugu High&New technology park, and has a metallurgical industry park in Ningxiang state level high technology development zone covering 67,000m² land, plant area 10,000m²,staff member 114.

⑩ CARRIE is a high tech enterprise develop and manufacture articulated vehicles,hydraulic pallet transporters, low speed tractors, and special purpose vehicles. As well as the provider of high temp logistic, continuous logistic and clean production solutions.

⑩ The headquarter is located in Changsha Lugu high & new technology park. We have technology center which has three research labs, which has professional R&D team and property rights.

⑩ Be included in the cooperated creative platform, among the 15 creative experimental units in Changsha High & New technology park, applying the engineering researching center in Hunan province.

⑩ Complete domestic sales network and overseas agent system, products are all around the world.

For more information please visit our website:

⑩ Provide equipment sales + running service package

www.carr.com.cn

Certificate

Self property rights

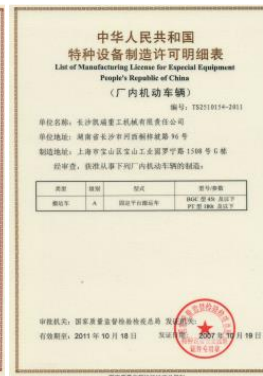
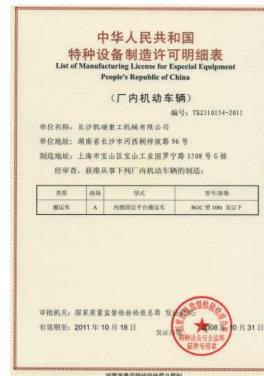
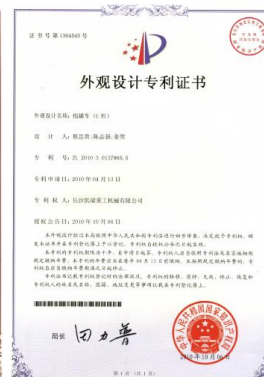
- Tractor type slag pot carrier patent only in China
- U-frame slag pot carrier patent only in China
- Ladle carrier self frequency adjustment, which is a core control tech for transportation safety
- Other 11 related practical new patents
- 20 articles on domestic and international publication

Researching cooperation

Cooperate with CSU, Hunan university and Changsha technology institution

Special purpose equipments license

The only one enterprise qualified in China



Marketing Performance

4-3-2 products structure

In the world, approx.700 sets of transportation vehicles are using in the high temp, dusty and pollution condition. The main vehicles are slag pot carrier and ladle carrier.

-BGC100 slag pot carrier and PT260 ladle carrier is the biggest payload in Asia.

- The continuous transportation of semi-finished and finished products is becoming the trend.



Main customers



BAOSTEEL

Bao steel



武汉钢铁(集团)公司
WUHAN IRON AND STEEL (GROUP) CO. LTD.

Wu steel



天津钢铁
TIANJIN IRON AND STEEL

Tianjin



兴澄特钢
XINGCHENG SPECIAL STEEL

Xingcheng



Tianjin Pipe



Wuyang



Lianzhong



联众钢铁有限公司
LIANZHONG IRON AND STEEL CO. LTD.



鞍山钢铁集团公司
ANSHAN IRON AND STEEL (GROUP) CO. LTD.

Anshan



TONGMING

Tongling



JISCO



TISCO



Yanggu cooper



华菱集团
HUALING GROUP



中国中钢集团公司
CHINA ZHONGTONG IRON AND STEEL GROUP CO. LTD.

Sino steel



GISE



ZENITH
中天钢铁

Zhongtian



沙钢集团
SHAGANG GROUP

Sha steel

Domestic



DaehanSteel

Overseas



BHUSHAN



Marketing Performance

Non-ferrous industry has been becoming CARRIE's direction

- **electrolytic aluminium**

CARRIE is dedicated to develop the transporter like: charging car, tapping car, ladle car etc, which has stable and automatic features, can improve the working process and human relief.

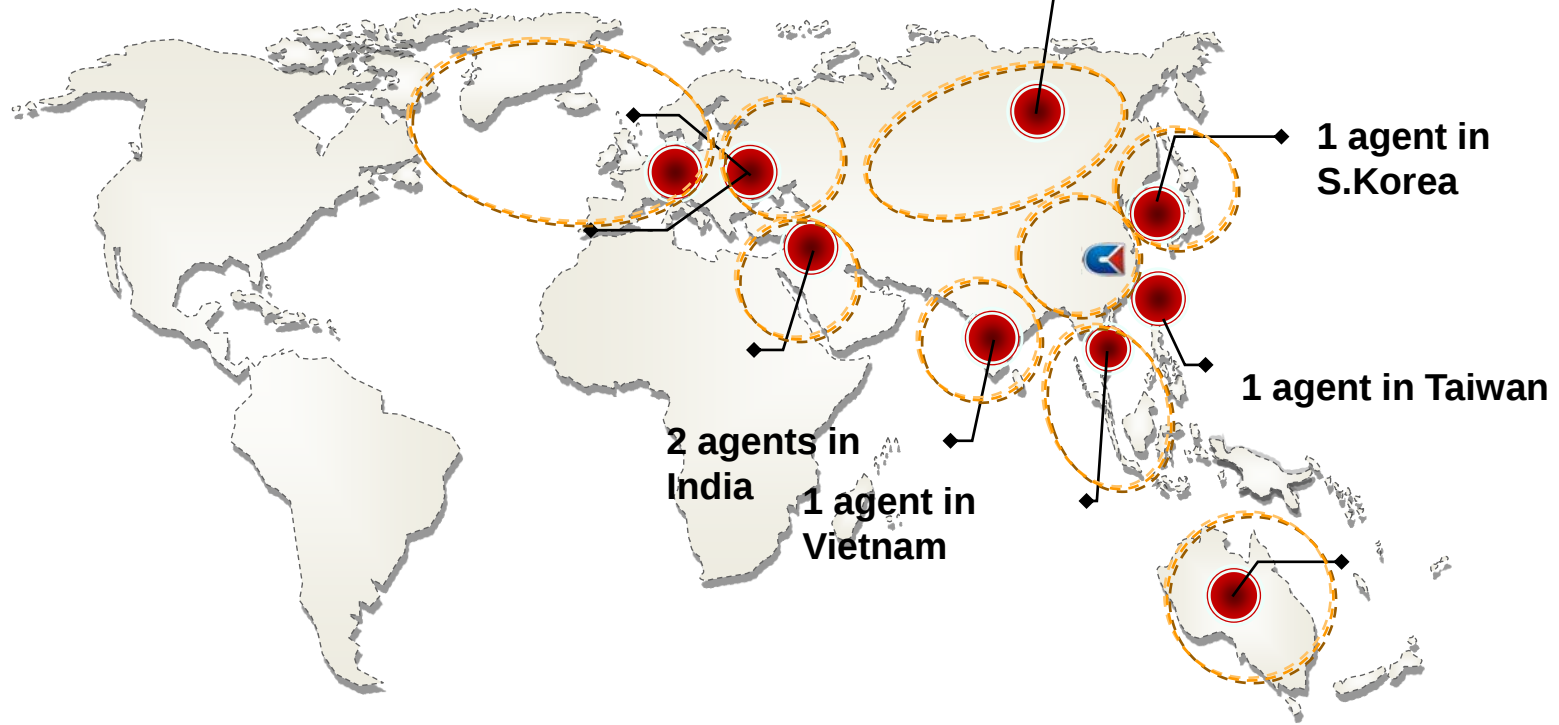
- **Electrolytic cooper**

Market occupation No.1 in China, customers like Tongling, Yanggu, Daye, Jinchuang cooper plants.

The new non-ferrous high temp transportation has the same application with ferrous industry, the technology is matured and stable. The logistic safety, intelligent tech, integrate management and service can transplant to non-ferrous industry



Marketing Services Network



International Cooperations

■ Cooperated creative platform



CSU



Hunan university



CUST



■ Market

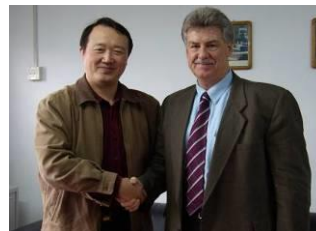


Baosteel



Xingcheng steel

■ Cooperated suppliers



Development Planning

Process Technology Factory

Technology process

Less cost, more profit solution

I slag pot, ladle, raw material, products

The high temp transportation successfully solved the slag pot and ladle transfer during the process of melting, as well as the raw materials, semi and finished products.

II Run special carrier service

The high temp and continuous transportation are the harsh material transportation.

Carrie have 8 projects in China local market for special carrier.

New Technology

Carrie promote driverless and electronic power slag pot carrier in 2020.

Slag treatment: waste heat recovery, can be applied to power generator and other energy transform.

Industrial dust, sludge recycle also can be applied to the city life.



High temp & continuous transportation

Process logistics

High temp transportation include slag treatment, ladle, liquid aluminum.
The continuous logistics include finish, semi-finished products, forging parts and huge structures.



Slag pot carrier

Articulated, tractor, and U-frame types. Ranging from 35t to 120t. Market occupancy is up to 80% in China



Hydraulic pallet transporter

90-260t(400-500t concept), covering the all logistics in steel plant



Ladle carrier

Market occupancy is up to 90%



Special purpose vehicles

Skip handler:

realize loading, unloading, dumping and transferring functions. max.20t

Vacuum suction and discharge vehicle:

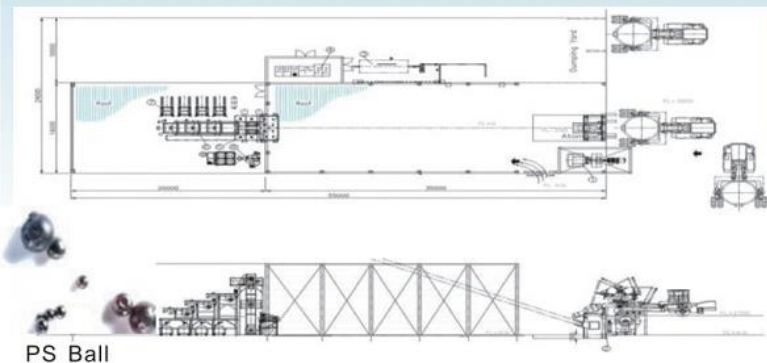
Advanced vehicle with vacuum tech, dust removing and air transfer.

High temp solution



35t-120t

- 1.通过采用专业设备抱罐车, 改进现有的渣处理方式, 将会有效降低用户的运营成本, 并使整个过程更加环保。
- 2.新型的渣处理方式, 可将以往废弃的废渣循环利用。



Tech, equipments

Slag pot car Slag pot carrier,
Slag treatment

Slag recovery

Waste heat reWaste heat recovery
SAP



Marketing

Equipment+tech+service
Selling equipments

工艺流程图 productive process flow chart



Liquid
iron&steel



50t-450t



Typical case

Xingcheng steel



Vehicles, tech

Use pallet transporter to
transfer ladle



Marketing

Equipment+tech+service
Selling equipments

Solution Development

With the new coming aluminum tapping car, charging car and ladle carrier, CARRIE's high temp business has been extending to non-ferrous industries.

Auto slag remover, furnace stoking machine are transferring the company business to relative production line



**Semi-finished and
finished products
logistics.**



Typical case
Baosteel, Jiu steel



Tech and equipments
Pallet transporter, frame
work, scrap grabbing
machine, weighting system



Marketing
Equipment+tech+service
Selling equipments

Continuous transportation extention

120t dumping transorter



- 1、Mainly transport scrap, raw material, wastes, the continuous carrying capacity can be up to 6 trucks.
- 2、Fast dumping, can be equipped with weighting system.
- 3、Following the nuclear and wind power fast development, huge forging part and structure can become the working scope



Technology process Innovation



The future metallurgical process will focusing on transfer from material flow to information and energy flow.

- 《Metallurgical engineering》
Former minister of metallurgical bureau,
Academician: Mr.Yin ruiyu

Aluminum Industry Development



During the twelfth five year plan, China economy is developing fast, the aluminum requirement will stably increase.

- 1 .Strictly Control the product capacity
- 2 .Speed up technology update
- 3 .Energy saving and reduce pollution.
4. Well arrangement

Product preview

Safety :

-High electromagnetic pollution in aluminum melting shop will need auto equipment to reduce the man power.

Productivity :

Tank capacity enlargement to meet the increasing productivity, It will need higher equipments. To put more investment to shop is not better than to update the equipments.

Professional :

For the large land occupancy and safety, more and more plants canceled the crane, and head for vehicles.



Reduce cost/ton

Reduce energy cost and power

Multi-functional furnace stoking machine

- **Concept**

It is a alloy melting plant equipment which is used to stoke the furnace.

- **Function**

Charge, stock and stoke to make the EAF material in balance, to increase reaction area, reduce the untreated material, break slag to reduce skulling. It also can be used to similar open or semiclosed EAF.



Remote controlled slag collector

- Slag collector is the traditional wheel or crawler loader after modification with remote controller system. Can be applied to converter, EAF under furnace.
- To continuously clean the slag under converter.
- To ensure the people's safety reduce work stress
- Customer: Baosteel, Meisteel, Sha steel

