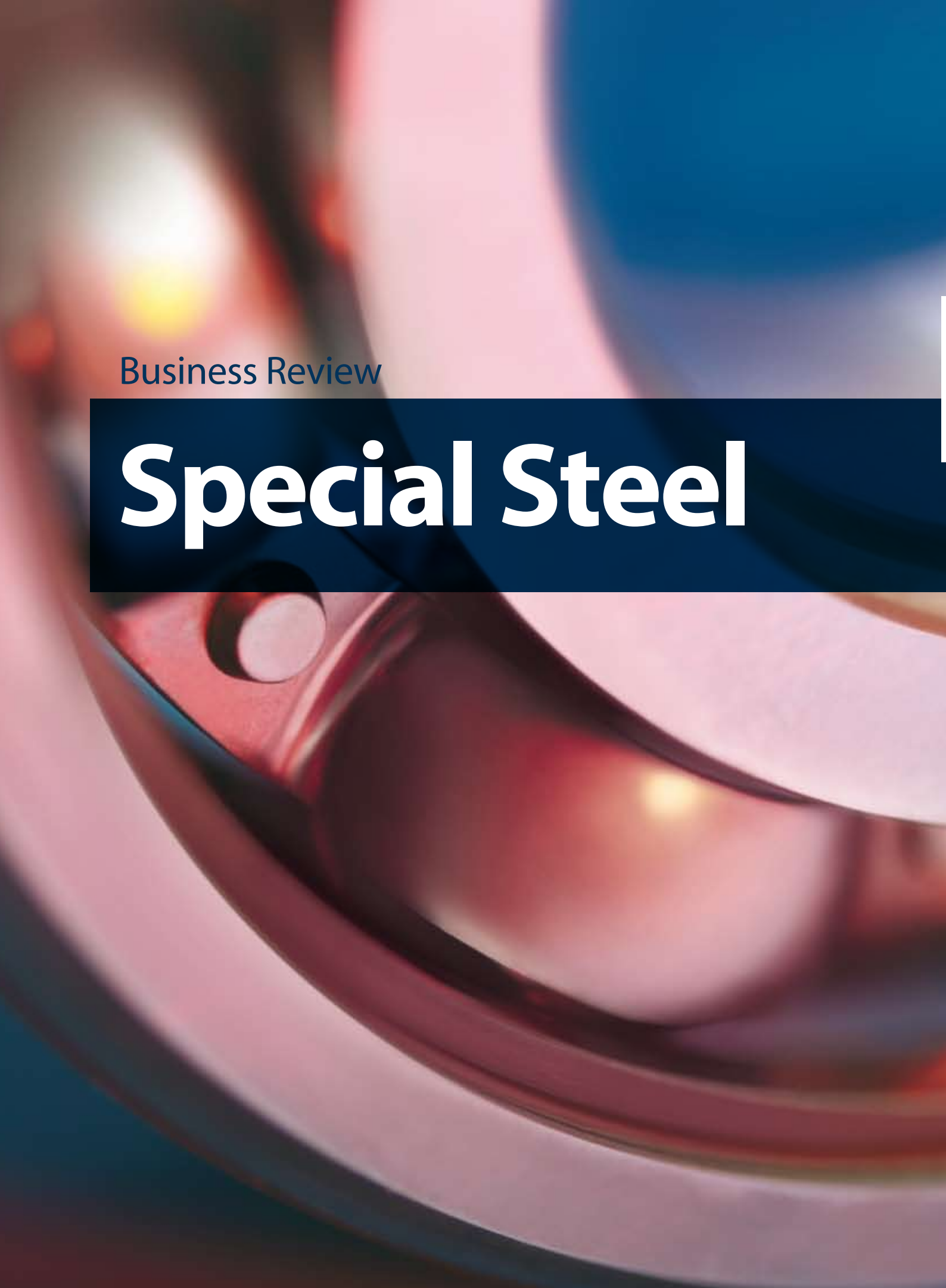


Business Review

Special Steel

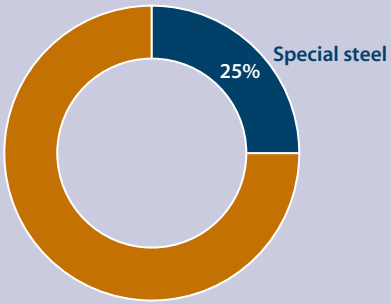



Key operational highlights

- 6.4 million tonnes of special steel produced in 2009
- Achieved profitability in a very challenging market environment
- Organic growth through expansion of existing facilities
- Continued focus on rationalising product mix to meet the challenges of a changing market

HK$ million	**2009**	2008	Change
Turnover	**19,079**	22,758	(16)%
Profit contribution	**1,415**	1,617	(12)%
Assets	**38,710**	32,500	19%
Liabilities	**18,146**	14,572	25%
Cash inflow from operations	**1,370**	3,847	(64)%
Capital expenditure	**7,611**	8,381	(9)%

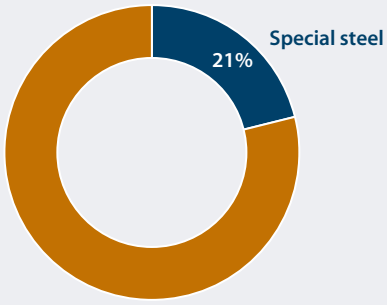
Assets

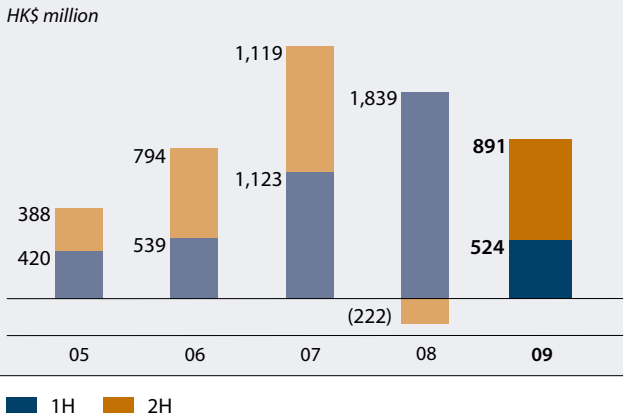


Review of 2009

2009 was a very challenging year for all steel producers in China, particularly in the first half when demand for steel products was especially weak. The second half saw recovery in the sector, as a result of the government's policies of increasing domestic demand. Taking the year as a whole, overall demand for steel was better than originally anticipated. However, overseas markets remained very weak for most of the year, with some pickup beginning in July. Exports from our three steel

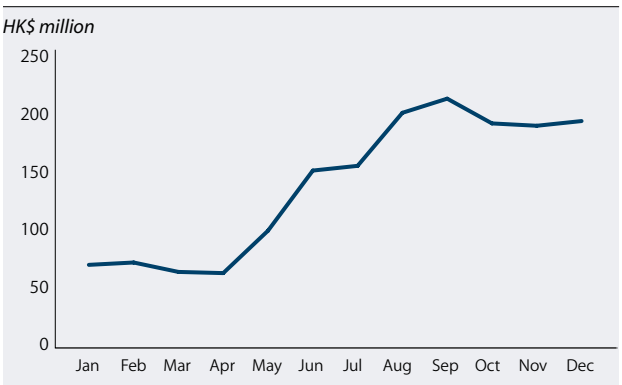
Profit contribution





mills for the year were 6% of total sales compared with 16% in 2008. Demand for higher quality special steel declined as well. Although prices of special steel products rose in the second half of 2009, they were still well below the average of 2008.

2009 monthly profit



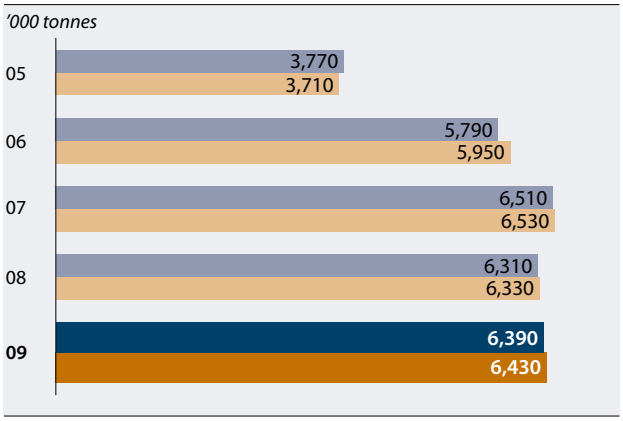
CITIC Pacific Special Steel's profit contribution in 2009 was HK$1,415 million, a decrease of 12% compared with 2008. However, all three of our steel plants generated operating profits, and total profit contribution in the second half of 2009 increased 70% compared with the first half.

Production and Sales

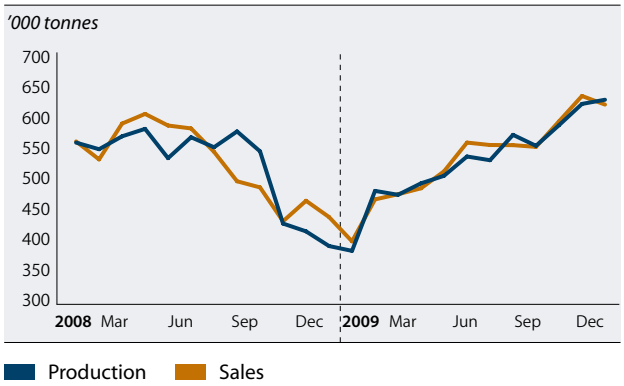
In 2009, total production of special steel was 6.4 million tonnes. The amount sold was about the same, and both production and sales were approximately 2% higher compared with 2008. Demand for special steel products picked up quarter by quarter during the year. This was reflected in the utilisation rates of our steel mills, which were around 75% in the early part of 2009 and close to full capacity at year-end.

Our steel mills operate on the principle of production based on orders and therefore achieved a sales-to-production ratio of 100% for 2009. Inventory of finished products awaiting delivery to customers was 220,000 tonnes at the end of 2009, 20% lower than at the beginning of the year.

Annual production and sales volume



Monthly production and sales volume



Products

Key products of CITIC Pacific Special Steel

Product	2009 Market share	Sales ('000 tonnes) 2009	2008	Change
Gear steel	45%	**893**	863	3%
Bearing steel	42%	**948**	769	23%
Alloy spring steel	36%	**487**	447	9%
Alloy structural steel	23%	**1,589**	1,741	(9)%
Carbon structural steel	22%	**1,221**	1,265	(3)%
Seamless steel tubes	6%	**315**	380	(17)%

Statistics are from the China Special Steel Enterprises Association, and include only registered enterprises

Of the total production in 2009, high value-added products with higher technology content – which can command better prices than similar products – were 26% of the total steel produced.

Customers

CITIC Pacific's special steel products are sold to approximately 3,500 customers in China, which is our primary market accounting for 94% of total sales in 2009.

In 2009, about 73% of sales were to customers with whom we have long-term relationships. Annual sales volume contracts are generally negotiated at the end of the previous year and are for volume only. Pricing is determined either when firm orders are placed or before products are delivered, thus they reflect changes in the market and our costs.

Products are manufactured and delivered according to customers' requirements. Typically, delivery periods range from one to three months after the order is placed with the majority being less than two months.

Our products are sold to these industries

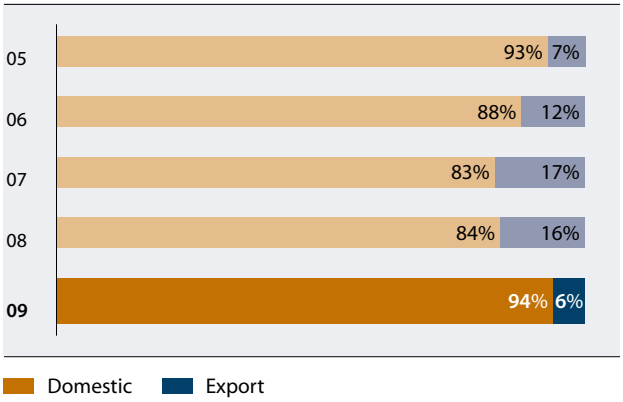
Industry	2009 Sales ('000 tonne)	Percentage of total sales	Percentage change from 2008
Auto components	2,799	44%	5%
Machinery manufacturing	1,401	22%	0%
Metal works	721	11%	(13)%
Power generation	464	7%	12%
Oil and petrochemical	343	5%	(10)%
Railway	177	3%	13%
Shipbuilding	138	2%	38%
Others	389	6%	0%
Total	**6,432**	**100%**	**2%**

Auto component manufacturers remain an important customer segment for our special steel products. Benefiting from the Chinese government's stimulus plan, auto sales increased significantly in 2009, which in turn pushed up demand for special steel. This was reflected in our 5% sales increase in the auto component sector. However, the majority of the increased vehicles sold were small capacity passenger vehicles, which do not use a lot of special steel. Other large capacity vehicles, such as buses and commercial vehicles, use much more special steel but sales increases for these were relatively small.

44% of our products were sold directly to component manufacturers. Many buyers of our products are producers affiliated with or contracted to manufacturers in the auto, machinery manufacturing, oil and petrochemical industries. Our end users include Toyota, General Motors, Honda, Volkswagen, Volvo, Caterpillar and SKF.

Demand for special steel products from overseas customers was very weak in 2009 and, as a result, exports of our special steel products were 6% of total sales compared with 16% in 2008.

Domestic vs. export sales



Monthly export volume

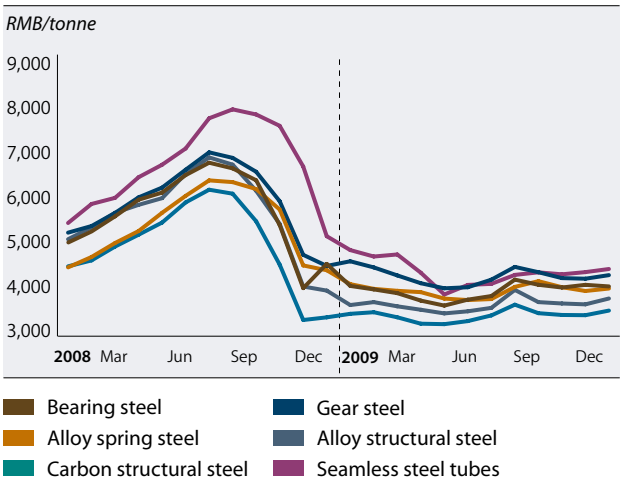
Our products are exported to these regions

Region/ country	Amount ('000 tonne)	Percentage of total export	Percentage change from 2008
Asia	290	72%	(46)%
Korea	*116*	*29%*	*(47)%*
Thailand	*44*	*11%*	*(38)%*
Indonesia	*38*	*9%*	*(38)%*
Others	*92*	*23%*	*(56)%*
Middle East & others	64	16%	(41)%
Americas	31	8%	(83)%
Europe	17	4%	(89)%
Total	**402**	**100%**	**(59)%**

Pricing

Pricing of special steel products is mainly driven by two factors: demand and the cost of raw materials. Product prices remained low in the first half of 2009 mainly due to lower demand, partially as a result of excess inventory held by end users. From the end of April to December, prices rose gradually supported by the general pickup in demand for products as well as the rise in the cost of raw materials.

Price of major products

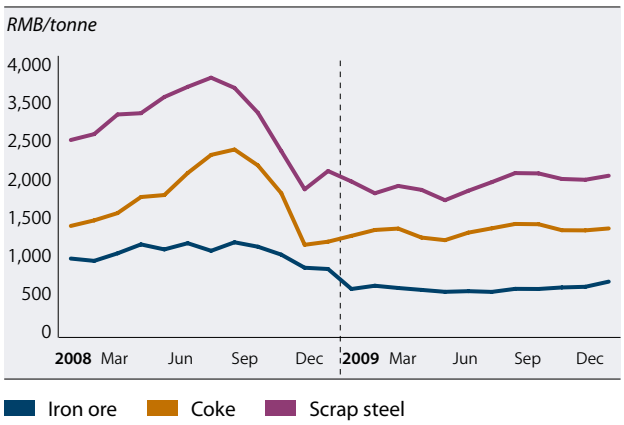


Raw Materials

Major raw materials used

Type	2009 ('000 tonnes)	Percentage of total raw material cost	Percentage of production cost
Iron ore	9,200	29%	26%
Coke	2,640	20%	18%
Scrap steel	1,680	19%	17%
Alloy	240	13%	11%
Coal	2,200	10%	8%
Total	**15,960**	**91%**	**80%**

Price of major raw materials



Iron Ore

Country	Percentage of total	Main supplier
Australia	35%	BHP, Hamersley, Fortescue
China	19%	Small mines in Northeast China and Hebei province
Brazil	18%	Vale
India	12%	Noble, Mineral Enterprises
Others	16%	Asia Energy

Of the total 9.2 million tonnes of iron ore purchased in 2009, approximately 35% was sourced through supply contracts. The rest was purchased on the spot market.

With increased steel production beginning in May, the market spot price of iron ore rebounded from the trough in April.

When CITIC Pacific's iron ore mine in Australia is in full production, it will be able to supply sufficient concentrate to meet the steel mills' requirement for pellet making.

Coking Coal

Currently, we have three coking coal plants with a total capacity approaching three million tonnes per annum. They include the coking plant in Tongling with 900,000 tonnes of annual production capability, which was completed and began operation in September 2009. For 2009, 57% of the coke our steel mills used came from our own coking coal plants and the balance was sourced from other suppliers in China.

Scrap Steel

In 2009, 82% of the scrap steel used was sourced domestically with only 18% from overseas.

Alloy

The main alloys used in special steel production are silicon, manganese and high carbon content chromium, molybdenum and vanadium.

The Environment

Over the years, we have increased our efforts to reduce emissions and save energy, which are not only important for the long-term development of our businesses but are also part of our commitment to social responsibility. Our initiatives in this area have included the following:

- Focusing on the consistent usage of high quality raw materials to control the emission of pollutants at the source. An example of this is the use of low sulphur coal.
- Making the best use of resources and ensuring overall cleanness through a highly efficient, continuous and compact production process.
- Treating pollutants discharged from the production process, such as fumes and dust, and recycling and treatment of waste water, gas and other waste residuals.

Major pollutant	Measures
Industrial fumes and dust	Cloth filter de-dusting and electric de-dusting
Sewage water	Cooling water recycling; small quantity treated in sewage treatment station before discharging
Waste residual	Recovered and recycled
Noise	Sound-proof coverage used for all large noise generating equipment; factories not close to residential areas
Sulfur dioxide (SO_2)	Treated with wet desulphurising device

Health and Safety

One of the top priorities for the management of our steel mills is to create a safe and healthy environment for our workers. We pay a great deal of attention to technology innovation and the employment of modern manufacturing equipment and production lines. Equally important, we strictly observe and follow sound management principles and operating systems.

Each plant enforces systems with clearly defined responsibilities at each level of the management and on the production lines. Operating instructions and manuals regarding health and safety are provided to all staff. They must be studied, and rules and procedures are strictly enforced. Training programmes are provided to all staff to ensure they have a clear understanding of the rules and regulations regarding health and safety at the plants. Management also promotes a culture in which employees are actively involved in safety awareness.
In addition, the company frequently reviews its comprehensive emergency response system. The effectiveness of senior managers in promoting health and safety is one of the most important measures of their performance.

Looking to the Future

With the gradual recovery of the world's major economies, we remain optimistic about the special steel industry in 2010. Continued growth of the Chinese economy, particularly in sectors such as auto and industrial manufacturing, will drive demand for our products.

Overseas markets are expected to recover gradually, and exports from our special steel mills are projected to increase significantly.

Over-supply in certain categories of special steel at the lower end of the product spectrum means that improving product quality and moving the product mix upwards are essential for us to remain competitive.

Looking at 2010, we will continue to develop markets for products where we expect increasing demand. For example, we are co-operating with Bekaert, a world leading company in drawn steel wire products and applications, to develop further the market for steel cord thread, which is mainly used in the auto and machinery industries. 2009 saw sales of this product reaching 100,000 tonnes. Another example is round bloom steel used in wind power generation. We are the only producer in China capable of producing large diameter (800mm) casting round tube billet. With China's increasing need for wind power, sales of this product reached 230,000 tonnes in 2009, a rise of over 56% from 2008.

As the largest special steel producer in China, CITIC Pacific benefits from economies of scale combined with our leadership position in the types of steel produced.

Our Jiangyin Xingcheng Special Steel currently has an annual production capacity of three million tonnes. Another three million tonnes will be added allowing the plant to increase its steel producing capacity to six million tonnes by the end of 2011. The two special steel plate production lines being constructed will be completed in the first half of 2010 and 2011 respectively. As a result, our product range will be further expanded. Products will include shipbuilding plate steel, engineering mechanism steel, petroleum pipeline steel and pressure vessel steel. The products from these lines will also be used in industries that require special steel with characteristics such as resistance to high temperature, corrosion, high strength and hardness.

The market for medium plates has been growing rapidly in China in recent years, with strong demand for high quality, high value-added plates. This market currently relies on imports, in particular pipeline steel, ship plate and those used in marine engineering and machinery manufacturing. Products from the new lines will be able to meet future demand for similar products in China.

In Xin Yegang, two new lines with a total annual production capacity of 630,000 tonnes of medium wall seamless steel tubes were completed in the second half of 2009. Products from the two lines are widely used in the machinery manufacturing, energy, petrochemical, coal and military industries. In the past year, the European Union and the United States imposed anti-dumping duties on all Chinese steel tube manufacturers. As a result, sales of our seamless steel tubes were affected to some extent.

Facts and Statistics

CITIC Pacific Special Steel

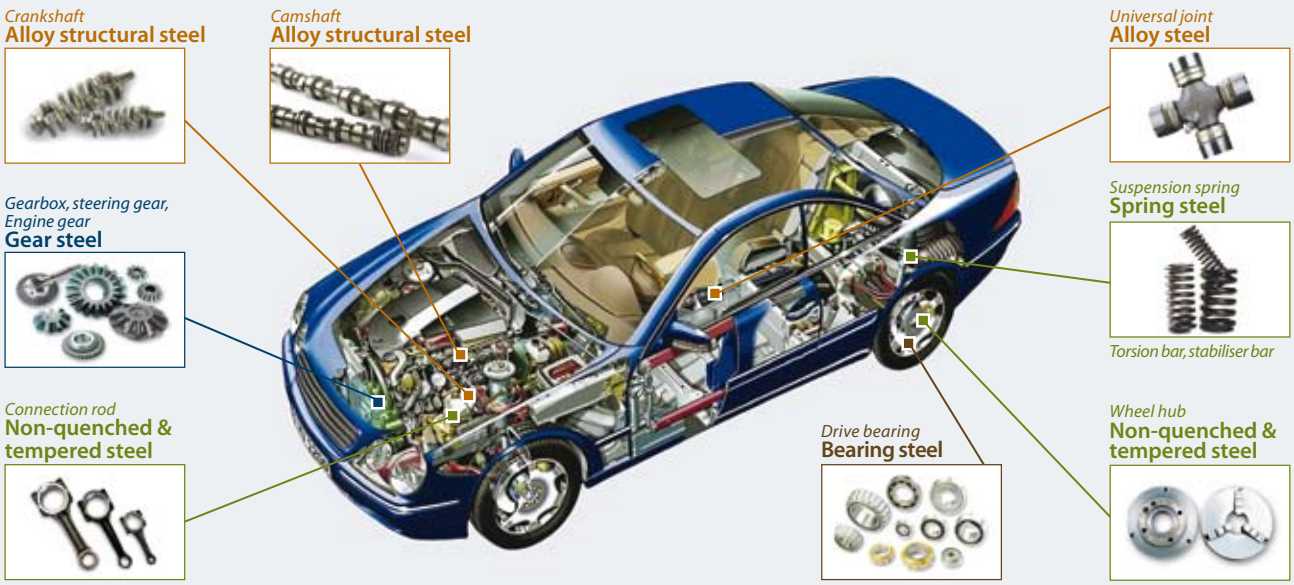
CITIC Pacific Special Steel is the largest special steel manufacturer in China with an annual production capacity of seven million tonnes at the end of 2009. By the end of 2011, total capacity will increase to nine million tonnes per annum.

Our three operating plants, Jiangyin Xingcheng Special Steel, Xin Yegang Steel and Shijiazhuang Steel, are ideally located to cover the main markets for special steel in eastern, central and northern China. The major products manufactured are bearing steel, gear steel, spring steel, seamless steel tubes and special wide and heavy plates. These are widely used in various industries, including auto components, machinery manufacturing, oil, petrochemicals, transportation, energy, railways and shipping.

What is Special Steel?

Special steel refers to steel that has added or extra benefits, such as heat resistance and anti-corrosion and anti-fatigue properties. Categorised by shape, special steel includes bar steel, plate, strip steel, tube steel and wire steel. In 2009, approximately 85% of CITIC Pacific Special Steel's products were bar steel; 5% were seamless steel tubes and spring flat steel; 3% were wire steel; and another 2% were forgings and bright bars. These bars are sold to manufacturers to make products such as gears, bearings and springs. With the completion of two new special steel plate production lines, our product range will be further expanded. An additional 630,000 tonnes capacity was added in 2009 to produce big section medium and thick wall seamless steel tubes.

Products used in a passenger vehicle

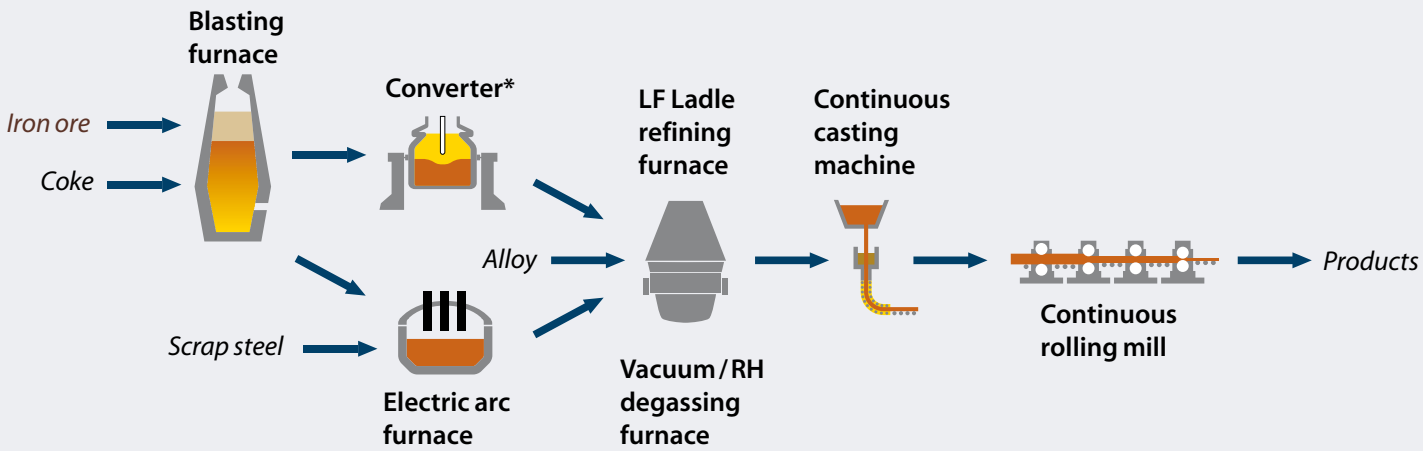


Industries and major products used

Industry	Product	Practical example
Auto components	Gear steel, bearing steel, carbon structural steel	Transmission gears, bearings, crankshaft, connection rod
Machinery manufacturing	Alloy structural steel, carbon structural steel	Oil cylinder pipes for engineering mechanisms, hydraulic props support for coal mining machinery
Power generation	Alloy steel	High pressure boiler tubes
Oil and petrochemical	Seamless steel tubes	Drill collars, casing couplings
Railway	Spring steel, carbon structural steel	Locomotive springs, wheel, axle
Shipbuilding	Anchor chain steel	Anchor chains

Special Steel Production Process

Our three special steel plants employ two different technological approaches: long and short processes. The long process uses iron ore and coke as raw materials, while the short process uses scrap steel, pig iron or molten iron. During the next phase of both the long and short processes, alloys are added to the molten steel produced. Through a ladle-refining furnace, an 'RH' or vacuum degassing furnace, and a continuous casting and rolling process, steel billets are produced and shaped to various specifications according to customers' specific requirements. The management teams at the plants are focused on cost efficiency and product quality, and will therefore choose whichever one of the processes that has the lowest raw material input costs.



** Xin Yegang does not use a converter*

Jiangyin Xingcheng Special Steel

www.jyxc.com

Owned by CITIC Pacific since November 1993, Jiangyin Xingcheng Special Steel is located in Jiangsu Province in the eastern part of China and is a leader in special steel manufacturing in the country. With an annual production capacity of three million tonnes at the end of 2009, this plant has a production line that was built in partnership with Sumitomo Metals Kokura of Japan. Completed in 2007, this line produces special steel for high-end auto components sold to customers such as Toyota, Honda, General Motors, Volkswagen and Citroën.

Jiangyin Xingcheng Special Steel is also the first and only plant in China capable of producing casting round tube billet with a diameter of 800mm for use in machinery manufacturing. The plant's other high-grade products are used in the making of bearings, gears, springs and high-pressurised tubes.

In 2009, Jiangyin Xingcheng Special Steel completed the construction of the iron and steel making part of two special plate lines, which have a total annual steel production capacity of three million tonnes. The rolling part of the two lines is now being constructed, with the 3,500mm wide line scheduled for completion in the first half of 2010 and the 4,300mm wide line scheduled for completion in the first half of 2011. Main products from these two lines will include shipbuilding steel plate, engineering mechanism steel, petroleum pipeline steel and pressure vessel steel. The products will also be used in industries that require special steel with characteristics such as resistance to high temperature, corrosion, high strength and hardness. In the next one to two years, total annual steel production capacity of Jiangyin Xingcheng Special Steel will reach six million tonnes.

Jiangyin Xingcheng Special Steel is strategically situated next to the Yangtze River and has a 50,000 tonne wharf, providing efficient transport of its raw materials and finished products. The wharf has been expanded to accommodate the 115,000DWT ships ordered by CITIC Pacific.

Many of Jiangyin Xingcheng's products are certified by users.

Type of product	Certification
Bearing steel	SKF, FAG, DELPHI, SNR Bearings, KOYO and NSK
Gear steel, non-quenched & tempered steel steel for vehicles	Toyota, Honda, Hyundai, Volkswagen, ZF, Eaton, ArvinMeritor, Peugeot, Volvo
Spring steel	GM, Russini, NHK, FAW, Dongfeng Auto, China Heavy Duty Truck Group, SAIC Group, China Ministry of Railways
Alloy tube steel	American Petroleum Institute
Wire (steel cord thread)	Bekaert

Xin Yegang Steel (Xin Yegang)

www.xinyegang.com

Xin Yegang became a member of CITIC Pacific in September 2004. At the end of 2009, it had an annual production capacity of two million tonnes, including the capacity of Daye Special Steel, an A-share listed company in which CITIC Pacific indirectly holds a 58% interest. Xin Yegang's products include bearing steel, gear steel, spring steel, carbon structural steel and seamless steel tubes that are used in the auto, petrochemical, power and machinery manufacturing sectors. A technological transformation programme is currently under planning, which will increase Xin Yegang's annual production to three million tonnes by the end of 2011.

Two new steel tube production lines totalling 630,000 tonnes have been constructed, raising Xin Yegang's annual seamless steel tubes capacity to one million tonnes. Products from the new lines are of big section medium and thick wall seamless steel tubes, which are

primarily used in the machinery manufacturing, energy, petrochemical, coal and military industries.

Xin Yegang is located in the city of Huangshi next to the Yangtze River, with three 5,000 tonne wharfs. In the future, CITIC Pacific's mini-cape sized ships will transport iron ore from various sources to ports on the Yangtze River, where it will be transshipped to Xin Yegang and unloaded at its wharves. As a result, trans-shipment costs should be reduced.

Type of product	Certification
Bearing steel	SKF, FAG
Forgings	FOMAS Group
Seamless steel tubes (gas cylinder & pressure vessel), structural steel tube	EU
Gear steel	Caterpillar worldwide supplier and bronze supplier certificate

Shijiazhuang Steel Mill (Shigang)

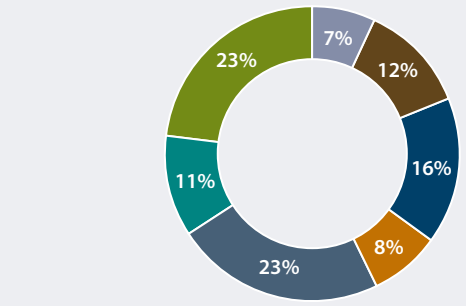
www.csggs.com

Located in the city of Shijiazhuang in Hebei Province, Shigang (www.csggs.com) benefits not only from the efficient transportation networks around Beijing and Tianjin, but also from abundant coal resources in neighbouring Shanxi Province. Established in 1957, Shigang is a manufacturer of special steel with an annual production capacity of over two million tonnes.

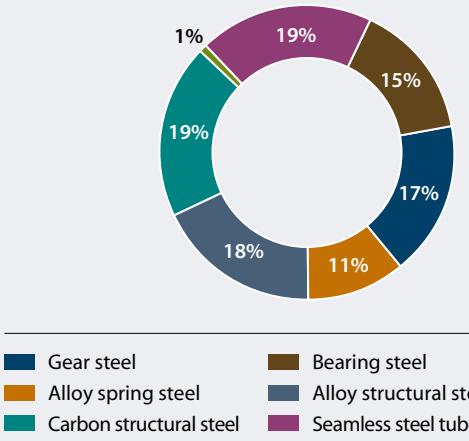
Its main products include bearing steel, gear steel and alloy structural steel, which are supplied mainly to the auto components and machinery manufacturing sectors.

Type of product	Certification
Alloy structural steel	Sinotruck, Dongfeng Auto, Shandong Wendeng Hengrun, YTO Group
Carbon structure steel, gear steel non-quenched & tempered steel,	First Automobile Works, Shanxi Fast Gear
Bearing steel	Wafangdian Bearing

Jiangyin Xingcheng's products



Xin Yegang's products



Shigang's products