Certain of the information and statistics set out in this Industry overview have been extracted from various government official sources. No independent verification has been carried out on such information and statistics. The Company, the Sponsor, the underwriters, their respective directors and advisers or any other party involved in the Global Offering make no representation as to the accuracy of such information and statistics, which may not be consistent with each other or with other information.

OVERVIEW OF SPECIAL STEEL

Special steel is a sub-category of steel and is generally defined as steel that contains less than 0.04% sulphur, including high alloy content steel such as high speed steel, bearing steel, spring steel and stainless steel. It is different from regular carbon steel in the following aspects:

a) Different mixture of metals — generic steel is a hard tough metal composed of iron alloyed with carbon. However, special steel requires strict control of specific mixture of metals including tungsten, molybdenum, chromium and vanadium.

b) Different chemical properties — generic steel has a low pressure and low wear resistance whereas special steel has high temperature and pressure resistance and high wear endurance.

c) Different production technique — Precise control of metal composition is required for the manufacture of all types of special steel today and therefore sophisticated techniques and equipment are critical to produce high quality special steel.

d) Different product value — Because expensive raw materials are required and because these products are customised, special steel commands a higher market price than does generic steel.

Generic steel is an important basic raw material widely used in infrastructure development and construction projects. Due to the diversified and more specialised properties of special steel, it is used widely in different industrial applications such as machinery and equipment manufacturing, automobile manufacturing, railways and petrochemical production.

THE GLOBAL SPECIAL STEEL INDUSTRY

Globally, special steel is produced primarily in China, Japan, Korea, Belgium, Germany, USA, Austria, and France. High speed steel is produced primarily in China, Austria, France, Japan and Germany.

Based on the estimates of both the Organisation for Economic Co-operation and Development and 中國特鋼企業協會 (Special Steel Enterprise Association of China), a non-government and non-profit organisation for special steel manufacturers in China, the total worldwide output of high speed steel in 2006 was approximately 251,000 tons. In 2006, manufacturers in China produced a volume in tons equal to approximately 35.5% of this amount.

THE CHINA SPECIAL STEEL INDUSTRY

The most common types of special steel manufactured in China in 2006 include spring steel, bearing steel, stainless steel and alloy structured steel. High speed steel and mould/die steel are currently manufactured in China for smaller, niche markets. The production of high speed steel requires technical know-how together with large amounts of capital. The market prices for the major types of special steel as of June 2007 are as follows:

Type of special steel	*Approximate Market Price Range (RMB/tonne)*
High Speed Steel	15,000-200,000
Stainless Steel	9,000-85,000
Die Steel	5,500-35,000
Spring Steel	4,500-6,000
Bearing Steel	4,000-7,000

(Source: www.mysteel.com, an independent privately-owned company established in May 2000)

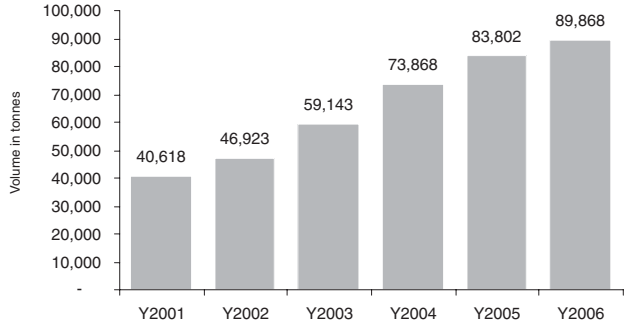
Each type of special steel has unique applications for particular industries. For instance, mould/die steel is often used to produce moulds that are themselves used to manufacture home electrical appliances and automobiles, while high speed steel is used to manufacture cutting tools.

Domestic high speed steel market

High speed steel is commonly used to manufacture cutting tools that are used to produce components and parts for the automobile, machinery and aviation industries. High speed steel has higher bend strength than any other cutting materials, which gives cutting tools manufactured with it better resistance to edge chipping and extended cutting depths (i.e. fewer cuts). Tools made from high speed steel are able to machine, cut or shape titanium alloys more easily, have better surface quality and tolerance of machined parts and longer tool life.

The following chart shows the annual production of high speed steel in China in each year from 2001 to 2006, which has grown at a CAGR of approximately 17.2% in between those years.

China High Speed Steel Production



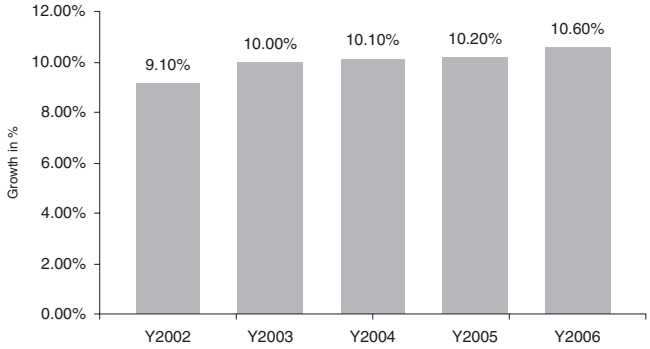
(Source: 中國特鋼企業協會 (Special Steel Enterprise Association of China))

Since high speed steel is used to produce cutting tools, and since cutting tools themselves are used in a variety of industries (including automobiles, machinery equipment, aviation, chemical processing and electronics), the demand for high speed steel is not dependent on one specific downstream industry. Demand for high speed steel has gradually increased over the last six years as China's industrial output and GDP have grown.

The Chinese economy has grown strongly over the past 5 years. According to the National Bureau of Statistics, China's GDP grew at a CAGR of approximately 3.9% between 2002 and 2006 and its economy was one of the fastest growing in the world during that period.

The following chart shows real GDP growth in China in each year from 2002 to 2006:

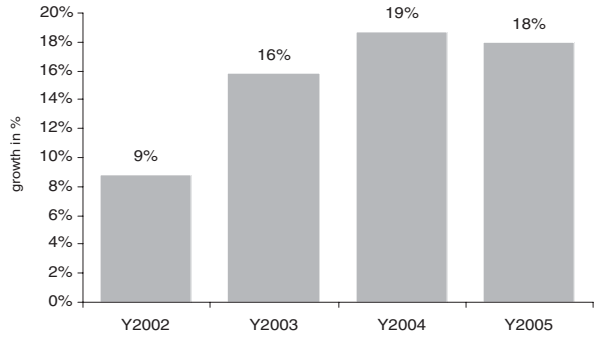
China Real GDP Growth



(Source: National Bureau of Statistics, PRC, OECD)

The following chart shows the growth in China's industrial output in each year from 2002 to 2005, which grew at a CAGR of approximately 26.0% between 2002 and 2005:

China Industrial Output Growth

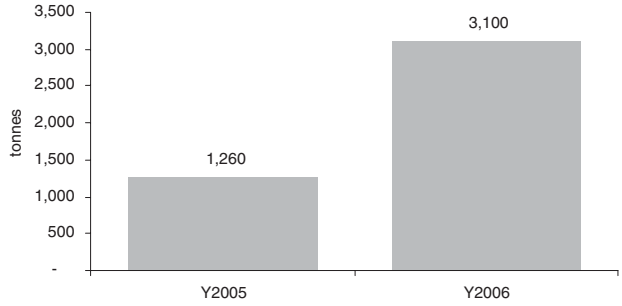


(Source: National Bureau of Statistics, PRC)

According to 中國特鋼企業協會 (Special Steel Enterprise Association of China), the top 3 largest suppliers of high speed steel in China together accounted for 77.1% of the market share by volume in China in 2006. According to the 中國特鋼企業協會 (Special Steel Enterprise Association of China), TG Tools ranked as the largest high speed steel manufacturer in China (by annual production volume) in each year from 2001 to 2006. In addition, TG Tools was the largest Chinese manufacturer of high speed steel for export in 2005 and 2006 according to 中國特鋼企業協會 (Special Steel Enterprise Association of China).

According to 中國特鋼企業協會 (Special Steel Enterprise Association of China), China exported an increasing volume of high speed steel in 2005 and 2006. The following chart shows the export volume in tonnes from 2005 to 2006:

Export of High Speed Steel in PRC



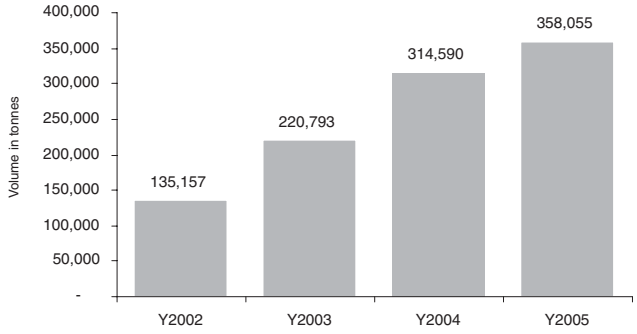
(Source: 中國特鋼企業協會 (Special Steel Enterprise Association of China))

Domestic die / mould steel market

Die / mould steel is a type of special steel that is used to make hot or cold forming dies used in many industries, including the automobile, machinery manufacture and aviation industries.

The following chart shows the production by volume of die / mould steel in China in each year from 2002 to 2005:

Die Steel Production in China



(Source: 中國特鋼企業協會 (Special Steel Enterprise Association of China))

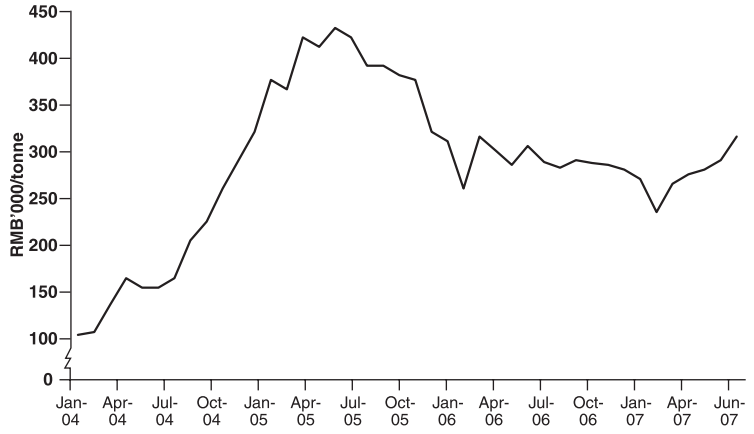
Production by volume of die / mould steel grew at an estimated CAGR of approximately 38.3% during the period from 2002 to 2005. This increase was primarily due to the rapid expansion of China's economy and in particular the automobile industry in China during this period.

Raw materials for high speed steel and die steel

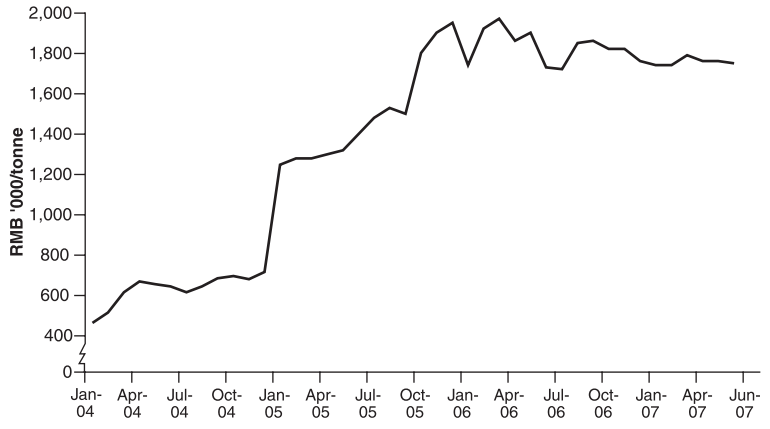
The major raw materials used to produce high speed steel and die steel include the metals tungsten, molybdenum, chromium and vanadium. The amount of these metals contained in any individual high speed steel or die steel product varies depending on the specifications of the specific product. The amount of each of these metals in any high speed steel product usually ranges from 1% to 20% by weight.

The local market prices of these metals fluctuate based on local demand as well as a result of Chinese government policies. The following chart shows the market prices of these metals* in China from January 2004 to June 2007:

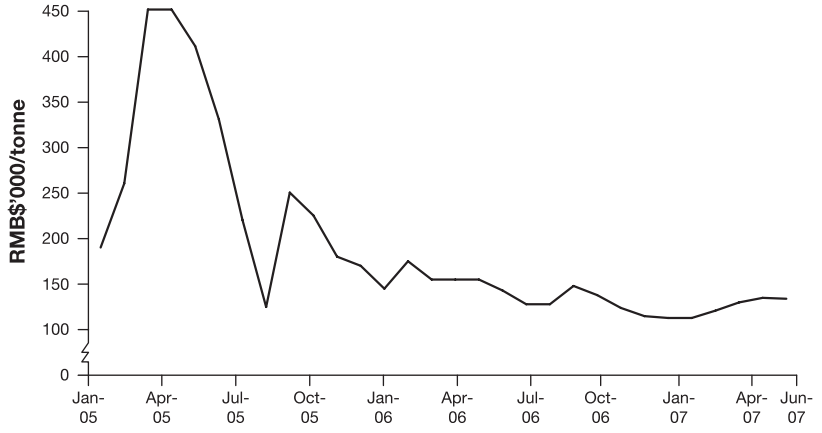
Molybdenum



Tungsten



Vanadium**



*Note: data for January 2004 to June 2007 for chromium is not available.
**Note: 2004 data for vanadium is not available.
Readers are reminded that the above three charts are drawn in different scales

(Source: www.chinaccm.com, an independent privately-owned company which provides pricing information in China)

The following chart shows the approximate percentage of known worldwide reserves of some of the key metals that are in China:

Type of Metal	*% of total world reserves that are in China*	*China's ranking in terms of amount of reserves possessed*
Tungsten	62%	1
Molybdenum	38%	1
Vanadium	38%	1

(Source: Mineral Commodity Summary 2007, United States Geological Survey)

The PRC government has imposed restrictions on the export of tungsten products and molybdenum products (which are core raw materials for producing HSS and die steel), and has been imposing increasingly stringent policies in recent years.

The PRC government imposes export quotas and an export licensing system on tungsten and molybdenum related products. According to 對鎢實行出口配額許可證管理的公告 (Notices on Export Quotas for Certain Commodities) issued in various years, tighter export quotas were imposed on tungsten and related products during the past five years, with export quotas decreasing from 18.1kt contained tungsten in 2002 to 15.4kt contained tungsten in 2007. In addition, MOFCOM and the General Ministry of Customs issued 出口許可證管理貨物目錄 (Category of Goods Administered under Export Licenses) which imposes an export licensing system on molybdenum-related products in January 2007. MOFCOM and the General Ministry of Customs subsequently issued 對鉬實行出口配額許可證管理的公告 (Notice on Molybdenum Export Quotas) in June 2007 and imposed export quotas on molybdenum related products. The Group's has been advised by its PRC legal adviser that its HSS, die steel and HSS cutting tools products should not be considered as tungsten and molybdenum related products for the above-mentioned export restriction purposes.

In addition to the export quotas and export licensing system, the PRC government also imposes export duty tax on tungsten, molybdenum, chromium and vanadium related products. According to <<海關總署公告>>(2006年第75號) (Notices of the General Administration of Customs (No. 75 of 2006)) issued by the Tariff Regulations Committee of the State Council in October 2006, a higher export duty tax has been imposed on tungsten and related products at a rate ranging from 5% to 15%, molybdenum and related products at a rate ranging from 10% to 15%, and selected chromium and vanadium products at a rate of 10%.

OVERVIEW OF THE CUTTING TOOLS MARKET

Generally, the term "cutting tools" refers to the replaceable cutting surfaces (like drill bits and saw blades) used in industrial fabrication machines such as lathes, drilling machines, milling machines and gear cutting machines. Cutting tools are one of the main consumable components of these machines. These machines are, in turn, used to manufacture products in many industries such as the automotive, machinery manufacture, aviation, chemical processing and electronics industries. Cutting tools can be sub-divided into the following types:

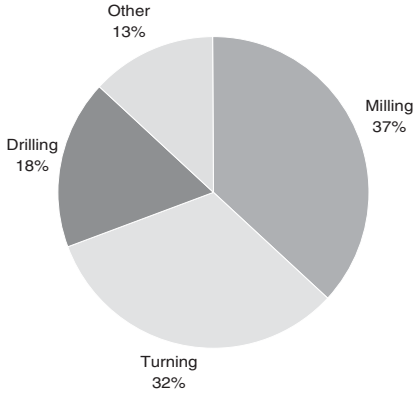
a) Turning — tools used to remove material (roughing or finishing) from a product or component that is simultaneously being rotated by another machine

b) Milling — rotary cutting tools used to make slots, pockets and peripheral surfaces

c) Drilling — drilling tools are used to make new holes in a subject product or component. Drilling is either done on a drilling machine (industrial applications) or on a power driven hand tool (professional / DIY applications, commonly referred to as electric drills)

The following graph shows the approximate breakdown of global demand for cutting tools by application in 2005:

Global Cutting Tools Demand Breakdown by Application: 2005



(Source: 2005 report, Dedalus Consulting Inc., a privately-owned and independently operated market research publishing firm and consultancy)

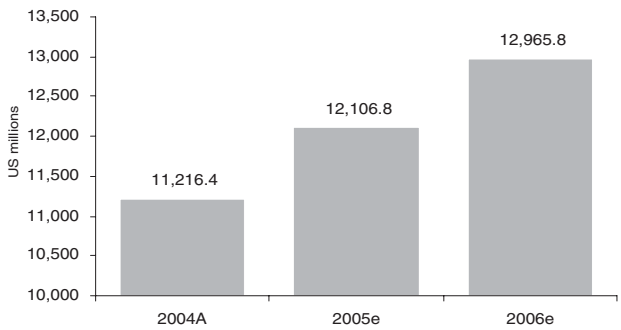
Cutting tools users can be broadly divided into: i) industrial users (such as automobile manufacturers), and ii) non-industrial users, such as individual professional builders and do-it-yourself-ers.

Cutting tools can be manufactured using high speed steel, cemented carbide, ceramic or diamonds, depending on their intended applications.

GLOBAL CUTTING TOOLS INDUSTRY

The global cutting tools industry is estimated by Dedalus Consulting Inc. at approximately US$13 billion in 2006, and with a CAGR of approximately 7.5% from 2004 to 2006.

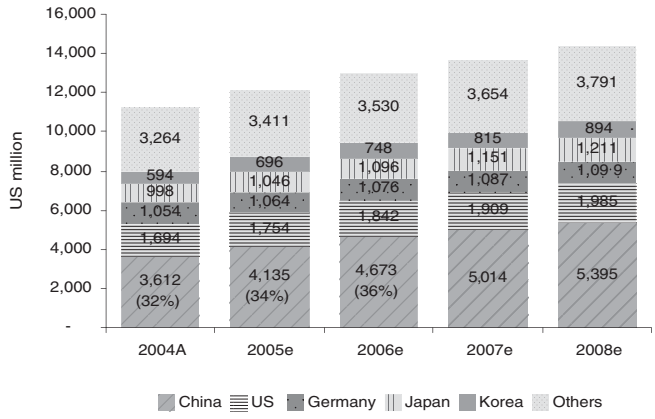
World Cutting Tools Demand



(Source: 2005 report, Dedalus Consulting Inc.)

In the year 2000, Europe and North America were the two biggest markets for cutting tools. However, in subsequent years growth in worldwide demand for cutting tools has been driven by developing nations in Asia Pacific, especially from high growth regions such as China and India. The following graph shows that China is becoming an increasingly important source of demand for cutting tools. The demand for cutting tools in China is estimated to grow at a CAGR of approximately 10.6% during the period from 2004-2008, while the CAGR growth for the world is approximately 6.4%. China's market share was estimated to increase from approximately 32.2% in 2004 to approximately 36.0% in 2006 and approximately 37.5% in 2008. As of 2004, China was already the largest market for cutting tools:

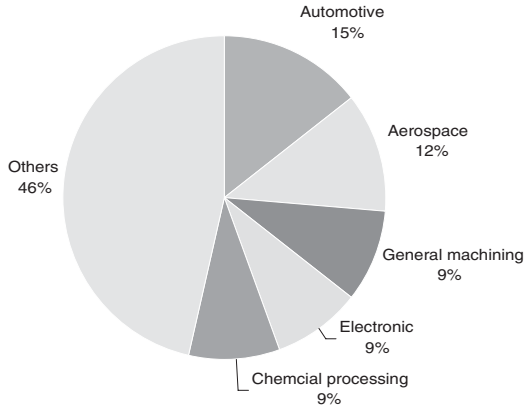
World Demand for Cutting Tools Breakdown by Region



(Source: 2005 report, Dedalus Consulting Inc.)

The following graph shows the demand for cutting tools worldwide by end user industry type in 2005:

World Cutting Tools Demand by End User Industry Type: 2005



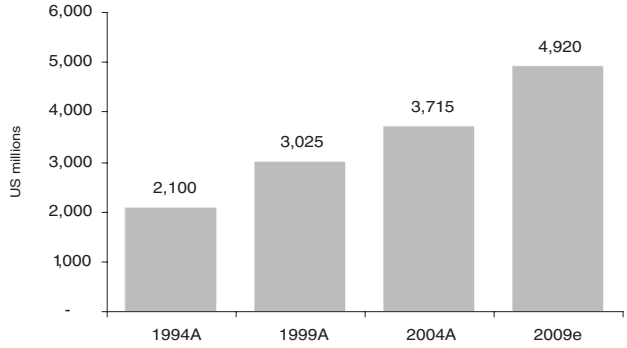
(Source: 2005 report, Dedalus Consulting Inc.)

The increasing global demand for cutting tools is mainly due to the need for faster speed cutting tools to be used in faster (and more efficient) machines in order to achieve higher manufacturing productivity.

The Electric Drills Industry

Electric drills are a type of power tool which has various general uses such as sanding, grinding, driving screws and drilling holes. Drill bits used in electric drills are one type of cutting tool. Generally, the demand for drill bits is highly correlated with the demand for electric drills. World demand for electric drills grew at a CAGR 5.9% from 1994 to 2004, and is estimated to grow at a CAGR of 5.8% from 2004 to 2009.

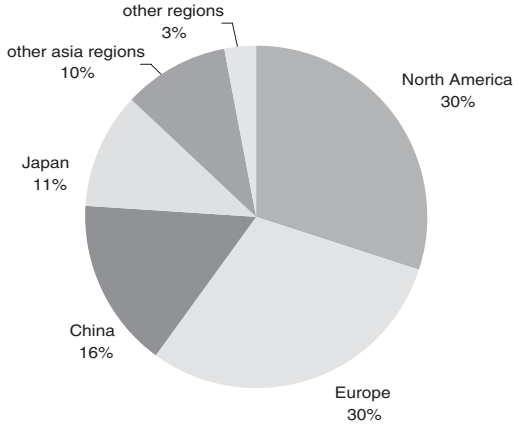
Global Demand for Electric Drills



(Source: 2005 report, Freedonia Group, Inc., a leading independent industry study company)

Electric drills have become increasingly popular as they have become more powerful. North America and Europe are the two largest markets for electric drills. North America and Europe collectively accounted for approximately 60% of global demand for power tools in 2004, including electric drills. The following graph depicts the breakdown of demand for power tools by region in 2004, according to Freedonia Group Inc.:

World Demand for Power Tools Breakdown by Region: 2004



(Source: 2005 Report, Freedonia Group Inc.)

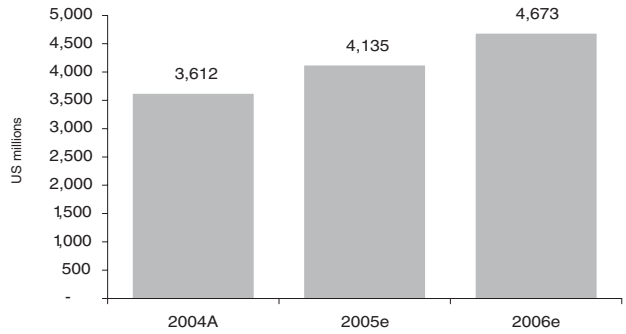
The rising level of construction expenditures, new product introductions, increasing individual consumer interest in do-it-yourself projects, and strong consumer demand for high-end power tools are expected to drive future growth of demand for power tools and electric drills.

THE CUTTING TOOLS INDUSTRY IN CHINA

General Cutting Tools Industry

China is estimated to have consumed about 34% of the world's cutting tools in 2005, making China the largest national consumer of cutting tools in the world that year. The demand for cutting tools in China in 2004, 2005 and 2006, which was estimated to have grown at a CAGR of approximately 13.7% from 2004 to 2006, was as follows:

Demand for Cutting Tools in China



(Source: 2005 report, Dedalus Consulting Inc.)

The large increase in demand for cutting tools in China during the period from 2004 to 2006 was mainly due to the following factors:

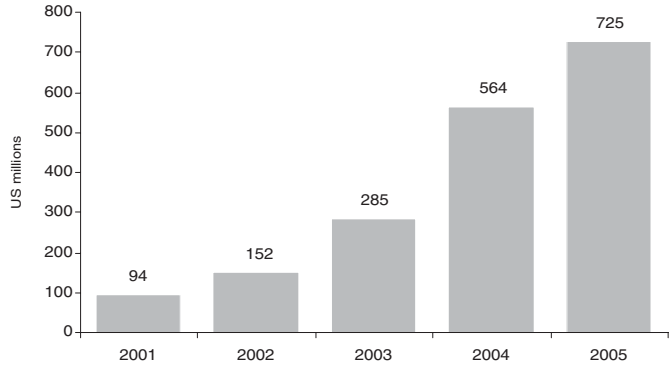
a) increasing industrialization — China's industrial output grew at a CAGR of approximately 26.0% from 2002 to 2005. This growth reflected the increasing demand in China for consumer goods, which spurred demand for industrial machinery and related consumables such as cutting tools

b) the demand for faster and more efficient machines — faster and more efficient machines can cut and shape metal more precisely and efficiently. This can reduce wastage and increase productivity, and is important for efficient manufacturing. The increasing use in China of faster machines spurred the demand for higher quality cutting tools that could cope with the faster cutting speeds

c) global trend to move manufacturing to China — automotive, aerospace and electronics manufacturers shifted more of their operations to China during those years to take advantage of the lower labor costs, increasing demand for related consumables, such as cutting tools

The demand in China for imported cutting tools (which are mainly high end cutting tools) rose sharply (at a CAGR of approximately 66.6%) during the period from 2001 to 2005. The following graph shows the value of cutting tools imported into China from 2001 to 2005:

Imported Value of Cutting Tools for China

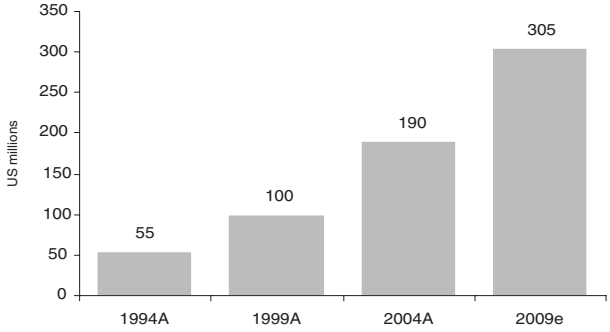


(Source: 鎮江海關駐丹陽辦事處 (Danyang Customs Office of the Zhenjiang Customs District), 中國機床工具工業協會 China Machine Tool & Tool Builders' Association), a non-governmental and non-profit making organisation for the machine tool and tool companies in China

China Electric Drills Industry

Due in significant part to strong growth in industrial output in China, especially in the automobile sector and the construction sector, the demand for electric drills grew at a CAGR of approximately 13.2% during the period from 1994 to 2004, and is estimated to grow at a CAGR of approximately 9.9% from 2004 to 2009:

Demand for Electric Drills in PRC



(Source: 2005 report, Freedonia Group Inc.)

The demand for electric drills in China represented approximately 5.1% of the total global demand in 2004. Although demand in China is smaller than in other regions of the world, it grew rapidly from 1994 to 2004, at a rate that is approximately twice faster than the CAGR of worldwide demand for electric drills. This increase was mainly due to large increases in capital investment and the boom of the general economy in China during these years.

According to the data of 鎮江海關駐丹陽辦事處 (Danyang Customs Office of the Zhenjiang Customs District), the Group's revenue from export of its twist drill bits in 2006 represented over 15% of the total annual revenues from all export sales of twist drill bits produced in China.

COMPETITION

The HSS market in the PRC is dominated by a few large players. According to Special Steel Enterprise Association of China, there are two other significant HSS producers in the PRC. One of the producers has a HSS production volume of approximately 19,000 tonnes in 2006, and the other producer has a HSS production volume of approximately 9,700 tonnes in 2006. Together, these two HSS producers account for about 32.5% of the HSS market in the PRC in 2006. As the Group alone has a market share of approximately 44.7%, the Group is, by far, the largest HSS producer in the PRC in terms of production volume.

The cutting tools market in the PRC is largely fragmented. However, the export market for cutting tools manufactured in the PRC is dominated by a few players. According to 中國機床工具工業協會 (China Machine Tool and Tool Builders' Association) and 鎮江海關駐丹陽辦事處 (Danyang Customs Office of the Zhenjiang Customs District), the Group is the largest manufacturer of HSS cutting tools by value in China in 2006, and has accounted for more than 15% of the export market of twist drill bits by value.