

**CS Market Research**  
**The Dental Equipment Market Overview in China**  
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**Summary**

There has always been a shortage of manpower, materials and financial resources for dental care in China. As many Chinese are paying increasing attention to their appearance and health in the wake of their increased living standards, the demand for up-to-date dental services is growing. Of China's 1.3 billion plus people, 50 percent of the adults and 70 percent of the children have decayed tooth problems, and over 90 percent of the people have periodontal disease. According to the Ministry of Health, there are approximately 38,000 registered dentists and 34 dental schools; the proportion of dentists to the population is only 1:33,000, compared with 1:4,000 in developed countries (1:1,600 in America; 1:800 in Sweden). As a result, in the next 10-20 years, China needs to construct 10 times the number of current dental hospitals to keep its figures internationally competitive and also, more importantly, to provide the Chinese people with dental treatment and protection. Although there is no solid data about the current market size of dental equipment, according to a source from the State Food and Drug Administration (SFDA), China has witnessed a steady growth in this market sub-sector over the past 20 years and the current market size is estimated around US\$150 million.

**Market Overview**

The economic growth achieved over the last 20 years since China's reform and open door policy has substantially enhanced people's living standards, particularly in metropolitan areas and coastal regions. With the increase of people's income coupled with efforts by the government, healthcare institutions, and businesses, the demand has been growing for oral healthcare services and products. As a result, the demand for new and high-tech dental equipment is also growing.

Apart from the enhancement of people's awareness of oral health care and increased income, the increase of special dental hospitals or clinics has also contributed the growing demand for dental equipment. According to the China Stomatological Association, China's special oral hospitals or clinics have reached over 10,000, and in Beijing alone there are about 1,200. All the new hospitals and clinics need to be equipped with basic or high-end dental equipment in order to provide quality service and treatment. The older ones will also need their equipment updated in order to remain competitive. As the standards of the Chinese dental industry rise so does the demand for dental equipment.

With the opening of Chinese markets, virtually all kinds of dental equipment and devices, from low to high-end models, can be found in the country. The expansion of trade shows also serves as evidence of the growth of China's dental market. The 10<sup>th</sup> annual Sino-Dental 2005, generally believed to be the largest international dental show in Asia, drew more than 500 international exhibitors from 20 different countries including Austria, Finland, France, Germany, Italy, Japan, Korea, Singapore, Switzerland, and the U.S. For the past 10 years this show has played an active role in introducing foreign advanced technologies, reinforcing the academic

exchange and cooperation in Chinese dental health services, and encouraging the technical progress and service level. It has witnessed the prosperity of Chinese dental health services, and made great contributions to the development in the dental technicians qualities, service levels and scientific management levels.

China's domestic dental equipment industry is still in its infancy and, for the most part, has only been able to provide low-end equipment and products. In the past, the China dental market has offered low and medium-priced products. With the change of the market and the fast technical development, many Chinese firms are starting to focus on higher-end models. One good example that illustrates this market shift is dental chairs. China did not start manufacturing dental chairs until the early 1980s, but now there are already more than 20 local brands, with more and more domestic companies entering the high-end market of fully computerized dental units. However, as independents or as joint ventures, foreign companies have essentially created and dominated the high-end sub-market within the China dental market. Domestic competition is not yet an immediate threat in this high-end market, but domestic companies remain competitive on a Less for Less platform, drawing dental clinics with limited resources to them. Localization also seems to be the general trend for companies with a long-term strategy in this market.

U.S. companies interested in selling dental equipment in China are required to do testing and then apply the registration certificate from China's State Food and Drug Administration (SFDA). Companies already active in the market note that because of the attraction of future profits and general economic boom of the last few years, competition in the dental products arena has substantially intensified. In fact, ever intensifying competition and slower paced market expansion have made it unrealistic to expect quick returns on investment according to some long time industry insiders. Companies new to the market need to adopt long-term strategies in the gradually evolving marketplace.

Currently, the biggest problems facing the Chinese government in terms of any healthcare service delivery is the over concentration of resources, and the dental sector is no exception. In general, healthcare resources are concentrated in metropolitan areas and coastal regions. In the large cities quality services are concentrated in a small number of prominent large hospitals. Services are lacking in the vast rural areas, remote areas, suburbs of the big cities, and local communities in big cities. Consequently, the big hospitals in big cities have always been overcrowded, and fall far short of capacity to serve a drastically increasing patient flow.

Compounding the problem is the fact that good hospitals do not have much authority to expand their services because, as government hospitals, the major decision-making power to expand lies somewhere higher. The difficulty in gaining access to even the most basic dental service is a major factor inhibiting demand for oral health service. As a result, most people do not take the pains to see a doctor until their problems are very serious. Understandably then, periodic cleaning and checkups are rare. As the aforementioned national survey results show, the major reasons for seeing a dentist are to fill caries, pull out decayed teeth and put in artificial teeth. Only 35.7% of the 140,000 people surveyed in 11 provinces and cities had seen dentists within the last two years, despite the serious problems that exist within every age group.

The government has now realized the problem with the allocation of healthcare resources and is attempting to reform the situation. In the cities, community healthcare network construction is being emphasized, and in the rural areas, efforts are also being made to enhance

peasant access to basic healthcare services. These are all positive factors for the future expansion of the dental products market.

In conjunction with Chinese government efforts to reallocate healthcare resources, possible government actions to allow more private practice for dentists will be a huge boosting factor for dental healthcare products. Although, the number is still very small and quality vastly uneven, some private dentist clinics have offered considerable advantages over government hospital dental departments and specialized hospitals with flexible time and better equipment and services. The drawbacks include the clinics not being incorporated into the government healthcare programs and not being covered by insurance in the near future. This, together with existing problems in some private clinics, like quality of service and over-charging, inhibits the growth of private dental clinics. Right now, private practicing dentists are more often found in the south than in Beijing, where this development is still tightly controlled. Given the large need to improve access to oral health care, any government move to loosen control over private practice and any significant enhancement of service quality in private practice clinics will cause a surge of demand for oral health care.

As a result of the deregulation of dental services, some dental laboratories specializing in processing artificial teeth have started to emerge especially in the Guangzhou, Shenzhen and Shanghai. This positive trend is expected to continue as the government effort to develop community healthcare networks spreads to other areas. This development is generally believed to bode well for the dental products suppliers.

#### List of Dental Equipments Covered in this Report

| <u>H.S. Code</u> | <u>Name of Commodity</u>   |
|------------------|--|
| 9018.4100        | Dental drill engines & parts   |
| 9018.4910        | Dentists' chairs incorporating dental equipment  |
| 9018.4990        | Other, including dental hand instruments, appliances, parts and accessories                          |
| 9022.1300        | Apparatus based on the use of X-rays for dental uses   |
| 9022.2100        | Apparatus based on the use of alpha, beta or gamma radiation medical, dental uses or veterinary uses |

#### **Competitive Situation**

##### Domestic Production

The growth of the domestic dental industry has been substantial in the past several years. There are currently over 100 domestic dental product manufacturers in China, mainly concentrating on the low and medium-tier markets. Domestic production is believed to account for 40% to 50% of the total \$150 million market volume. Annual domestic output amounts to

over 3,000 comprehensive dental treatment units. Comparing with import products, domestic products have price advantage.

With the fast development of technology and the growth of private dental clinics, many Chinese firms are starting to manufacture high-end models, such as integrated comprehensive treatment equipment. The price for a domestic fully computerized dental unit varies from \$3,000 to \$10,000, while an import product could be as high as \$50,000. Therefore, for private-owned dental clinics, the cheap domestic products are more attractive.

Major domestic corporations include the Beijing Wan Dong Medical Device Corporation, the Northwestern Medical Instrument Corporation, and the Shanghai Medical Device Corporation. In recent years, production at the Shanghai Medical Devices Corporation has been growing at a 20% annual rate and has exported its products to the Middle East and other regions.

### Joint Ventures and Wholly Foreign Owned (WFO) Companies

Quite a number of joint ventures and WFO companies have emerged in the China dental market. Products from these joint ventures and WFO companies provide the most competition to imported products because of reduced costs, high quality and better suitability to the specific needs of the end users. The most prominent companies include:

- Heraeus-Kulzer Dental Co, Ltd., developed from two joint ventures in Year 2000, Heraeus Shanghai Dental Co., Ltd and Beijing Kulzer Biomaterials Co., Ltd. It belongs to German Heraeus-Kulzer Group, manufacturing light curing unit, casting units, and ultrasonic scalers etc.
- Shanghai Victor Medical Instrument Co., Ltd., a joint venture between Shanghai Dental Device Corp. and a Taiwan company, manufacturing dental chairs and unit.
- Shanghai-Fimet Co., a joint venture between Shanghai Dental Devices Co. and the Finnish Fimet Co., manufacturing dental chairs and unit.

### Third-Country Imports and the U.S. Market Position

Note: All of the following data on the Chinese dental industry import market is found using World Trade Atlas and is summarized in Appendix A.

The total imports of the five aforementioned dental equipments totaled approximately US\$ 25 million in 2004. This figure represents about a 22.95% increase over the 2004 period. The projections for 2005 also indicate the total imports to be approximately US\$ 25 million. Despite the import market's stagnancy, in 2004 U.S. products accounted for about 14.39 percent of the total import segment but increased to 21.73 percent in the projected import market in 2005. The actual size for import and joint venture products is believed to be 50% - 60% of the total US\$150 million dental equipment market, according to China's official customs statistics.

Figure 6 of Appendix A indicates that the dental equipment with the fastest import growth over the 2005/2004 period is the alpha/beta/gamma radiation apparatus for medical/s, with a 68.71 percent increase over 2004; this increase is good news for U.S. companies, because the U.S. is currently the leader in the imports of these devices to China. The dental equipment with the second fastest import growth is dental drill engines, with a 3.89 percent increase over

2004. The import of dentists' chairs with dental equipment experienced the biggest drop-off in import amount in 2004, falling 49.38 percent; however, dentists' chairs with dental equipment, especially the fully computerized dental unit, had the second fastest import growth over the 2003/2002 period, with 44.81 percent growth.

The leading dental equipment export countries include Japan, Germany, U.S., Italy, Finland, Switzerland and France. Among the five dental equipment categories, the U.S. ranked first as an exporter to China in alpha/beta/gamma radiation apparatus for medical and dental uses. The U.S. also ranked in the top four export countries in Dentists' chairs with dental equipment, but has fallen out of the top four, since 2003, as an exporter of X-ray apparatuses for dental use and dental instruments & appliances. The U.S. has also ranked low in its exporting of dental drill engines for several years and is currently 7<sup>th</sup> in the market.

The Germany-based Sirona Dental Systems GMBH and Heraeus Kulzer Group are the strongest competitors to U.S. companies. Other strong competitors include the Finland-based Planmeca Oy and Soredex Orion Corp., the Japan-based J. Morita Corporation, and Nakanishi Inc (NSK). It is generally believed that products from Japan and Taiwan offer the best cost-effectiveness to end users, because they are comparatively low in cost, adequate in quality and better suited to the end user's preference in terms of style and configuration.

### Competitive Situation

With the dental market gradually evolving, including an influx of international companies and joint ventures, the growth of long-time domestic manufacturers and the emergence of start-ups, the China dental market is already extremely competitive according to industry insiders. New international companies keep entering as local companies are catching up, leaving earlier-established international companies with constant feelings of ever intensifying competition.

Important factors affecting medical equipment product competitiveness include technology, price, end user recognition, and after-sale service.

Domestic products are more welcomed by low and middle-tier end users because of their lower prices. The prices of domestically produced products are usually one third to half the prices of imported products. In dental chairs and units, the price for domestic products can be as low as 10% only of the imported products' price. Imported products are often unable to beat the low prices of domestically produced products. For the majority of end-users, affordable price is important in decision making, especially to those private dental clinics. The general purchasing pattern of Chinese users is that they mix high-end products with practical and ordinary products in terms of dental chairs. However, for the middle and high-tier market, foreign companies competing on a More for More platform have the competitive advantage, as they have advanced technology that domestic companies lack. Therefore, technology is the most important factor in making imported products competitive in the China market.

In addition to price and technology, another important factor is the habit and taste of local dentists, particularly with regard to the design of dental chairs. Factors such as the environment of Chinese hospitals and the physical size of the local people should be considered. For example, although U.S. products are perceived to be of high quality, some distributors have indicated that U.S. dental chairs and units are not well accepted by Chinese hospitals, because the larger sizes and certain configurations are not suited to the actual Chinese hospital setup. Dedicated suppliers will need to do their best to cater to the tastes of the users in this market and customize their designs as much as possible. Also falling into this category is brand recognition,

so foreign companies that are new to the market have to leverage the international popularity of their brand against the local brands to penetrate the market. With markets becoming more and more competitive, end-users are enjoying more choices. As such, after-sales service has become an increasingly important factor in end-user decision-making. Availability of spare parts and speedy response to service calls have come to be required by more and more customers.

## **End User Analysis**

Latest official statistics show that China has 70 specialized dental hospitals with 1,821 beds. 14,000 county-level and above comprehensive hospitals have dental departments of varying sizes.

Government hospitals, particularly the major specialized dental hospitals, are major clients. Due to the over-concentration of dental service resources in government hospitals, competition becomes even more intensified because suppliers are all competing for the same small pool of clients.

Other clients are private clinics. Due to less government control in their service prices and the formation of their client base, private clinics sometimes have stronger purchasing power for imported products. Their overall strength and numbers, however, are relatively small.

In the big cities like Beijing, Shanghai and Guangzhou, there are an increasing number of western-style dental clinics to serve mainly the expatriate communities and occasionally local patients. These clinics mainly use imported equipment and materials.

## **Market Access**

### Import Climate

All imported medical products need to be registered with the State Food and Drug Administration (SFDA). Although FDA or EU certifications help, SFDA still requires foreign product manufacturers to present other necessary documentations of product and business licenses from their country of origin. Testing the safety and effectiveness of the product is also required by SFDA.

As a result of China's accession into the WTO, tariffs have been cut to an average of 9.4 percent overall and 7.1 percent on USA priority products. The tariff on the imported medical products will be reduced to 5.5-6% and foreign investment is permitted into China for constructing new hospitals. As a part of the Closer Economic Partnership Arrangement (CEPA) signed between mainland China and Hong Kong in June 2003 and the implementation details in September 2003, the mainland began to apply zero tariff to 374 import items, of Hong Kong origin, in various sectors including medical and dental.

### Distribution/Business Practices

The biggest challenge for foreign suppliers is to find dedicated, reliable, professional and credit-worthy distributors to work with. A long-term, focused and consistent strategy is needed to access and profit in the market.

Companies either have to establish their own distribution networks or work with several regional distributors. Large international companies tend to localize part of their product lines through joint ventures or WHFOE enterprises, establishing domestic distribution networks. Imported products are then sold through the same network.

In the dental field, there is virtually no distributor who can truly claim to have adequate coverage of the whole country, due to the variety of products and different demand among the many regions. At least one distributor is needed in each of the following regions: Guangzhou in the south, Shanghai in the east, Beijing in the north and Chengdu in the Southwest. Some big scale distributors have established branches in major cities all over China. Most distributors are expected to provide a complete line of variety of products to meet the varying needs of each user, clinic or hospital department.

It is typical for suppliers to work with one or two renowned stomatological hospitals or experts to introduce their products. For instance, the Beijing Medical University Stomatological Hospital is deemed number one in this field, and its influence reaches throughout the country due to the fact that the hospital hosts a large number of doctor trainees from across the country each year. Through work with such an authoritative hospital, suppliers have the advantage of influencing dentists across the country.

With the government improving the internal management of the hospitals, the transparency of the decision-making process in the hospitals is expected to increase. Measures to open tendering for device purchasing, as has just been introduced in some hospitals, should encourage healthy competition.

### Regional Opportunities

Because of the different economic levels in different regions, the dental equipment market appears tiered in China: the first tier is capitals and the seaside large cities; the second tier is medium-sized cities; the third tier is remote cities in the Northwest and the Southwest. The position of the dental equipment manufacturers in different regions varies a lot due to the specific customer demands. Therefore, dental equipment enterprises should develop different strategies in accordance with market segmentation.

## Upcoming Trade Shows and Events

### 1. Dental South China Expo and Conference

*Date:* March 10-13

*Venue:* Guangzhou Chinese Export Commodities Fair Hall (Liu Hua Road)

*Organizer:* Ministry of Science & Technology Guangdong Province

*Co-organizer:* National Committee for Oral Health

*Operators:* Guangdong Science & Technology Exchange Center with Foreign Countries, Guangdong Committee of Oral Health, Guangdong Stomatological Association, Guangdong International Science & Technology Exhibition Company (STE)

*Event Summary:* The Dental South China Expo and Conference has been well recognized as one of the top two shows of its kind in China since it was first inaugurated in 1995. Over the past ten years, the show has expanded tremendously with the number of visitors increasing from 4,800 in 1995 to 37,000 this year. One of the noticeable show features is an increasing number of foreign exhibitors. In 2005, there were 59 overseas exhibitors participating in the show.

The Dental South China Expo will include a U.S. Pavilion, showcasing American products and services in this sector. The U.S. Pavilion will offer prospective U.S. exhibitors the following services: streamlined booth arrangements, market entry counseling and logistics liaison with Chinese organizers. Assistance with setting up one-to-one meetings with prospective Chinese buyers is available for a separate fee.

*Status:* seeking interested U.S. company participants

*Contacts:* For general information about this trade show, please contact [shuquan.li@mail.doc.gov](mailto:shuquan.li@mail.doc.gov) or feel free to reserve your space to day by completing the attached [form](#).

### 2. Sino-Dental 2006 (The 11<sup>th</sup> China International Dental Equipment & Affiliated Facilities Exhibition)

*Date:* June 7-10, 2006

*Venue:* Beijing Exhibition Center

*Organizers:* International Health Exchange and Cooperation Center of the Ministry of Health, and Chinese Stomatological Association

*Contact:* Ms. Yin Haiyan, Ms. Zhou Yunbo

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*Website:* [www.sinodental.cn](http://www.sinodental.cn)

### 3. Dentech China 2006

*Date:* October 2006

*Venue:* Shanghai Everbright Convention & Exhibition Center

*Add:* No. 88, Caobao Rd., Shanghai 200235, China



*Organizer:* China International Conference Center for Science & Technology, The 9<sup>th</sup> People's Hospital, Shanghai Second Medical University

*Sponsors:* Chinese Stomatological Association, China National Committee for Oral Health

4. The 10<sup>th</sup> China International Dental Equipment Exhibition

*Date:* Nov. 1-4, 2006

*Venue:* Shanghai Everbright Convention & Exhibition Center

*Add:* No. 88, Caobao Rd., Shanghai 200235, China

*Tel:* 86-21-62946966

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