

## **Case Study of Clean Stove Production, Promotion and Marketing**

### **——Hebei Sunhouse Stove and Boiler Manufacturing Co., Ltd**

#### **1. Company profile**

Hebei Sunhouse Stove and Boiler Manufacturing Co., Ltd is one of the top stove manufacturers in China. Sunhouse Company is located in Gaobeidian City and covers an area of 300 Mu with fixed assets of 210 million RMB. The products are sold all over China and also exported to Netherlands, Denmark, Korea, Mongolia and Southeast Asia. After 20 years of stable development, Sunhouse has developed as a large-scale manufacturing enterprise specializing in the industrial boilers, civil heating stoves and modern commercial boilers.

Sunhouse Company owns the level B license of manufacturing boilers, level I and II license of manufacturing and designing pressure container. In 2001, Sunhouse pass through the international ISO9001 certificate and Environmental Certification of Hebei Province. As a member of China Association of Rural Energy Industry, Sunhouse also get the AAA Grade Credit Enterprise for 4 sequent years awarded by Hebei Branch of Agricultural Bank of China and get the title of Credit Enterprise awarded by Hebei Province Industrial and Commercial Administration Bureau. Since 1998, the brand Huaxin has been awarded as Hebei Famous Brand. In 2000, Sunhouse won the title of Hebei Top Ten Environmental Enterprises. Since 2005, Sunhouse industrial boiler has been awarded as Hebei Famous Brand Product. In 2007, Sunhouse became the strategic partner of the first China Energy Conservation and Emission Reduction Forum. In 2011, Baoding City set Sunhouse as the industrial stove technique research center. In 2012, Sunhouse got awarded as Well-known Trademark of Hebei Province.

Sincere service for benefiting people is the core value of Sunhouse. Since 2005, Sunhouse set Chinese traditional culture Ti Tzu Kui as the core of enterprise culture. Through the study of Chinese traditional culture, Sunhouse formed the new enterprise culture of kindheartedness, integrity and harmony.

#### **2. Technological characteristics and innovation of cooking and water heating**

## **stove**

1. There are three flame paths in the combustion chamber, top flame path, up flame path and bottom flame path. The up flame path and bottom flame path solved two disadvantages of other competing products, 1) normal burning is inadequate and smoky; 2) top lighting is too slow.
2. Easy operation and multi-functional. The flue gas circle can be changed by adjusting the board at top. Then the stove can be bank up, start, cook or heat.
3. High Thermal Efficiency. There is a secondary combustion chamber inside the stove, which makes the combustion cleaner and more sufficient and expands the contact area of heat exchange.
4. High efficiency and energy-saving. Sufficient burning, big area of heating exchange, open-type ash cleaning and overall insulation make the thermal efficiency raise by 30% higher than traditional stove.
5. Clean and environmental protection. Top lit plus air distribution is good to burn up all the fuels and avoid the visible black smoke.
6. Easy operation. One batch of fuel load can burn for several hours.
7. Sensitive and good looking. Vertical water box can prevent the dust and is easily to clean, which makes the stove is always sensitive for heating exchange. The product follows the principle of modern design, fashionable and excellent quality.

### **3. Production and quality control**

Since established, Sunhouse keeps increasing the quality of product in the 20 years, which is the basic principle. There are some special rules of controlling the quality.

In recent years, Sunhouse is trying to blend part of traditional Chinese culture in the production and quality management, in short as “be thankful and correct”, which results in good outcomes.

The production quality control of Sunhouse follows the rule of “people oriented”. Through the study of Chinese traditional culture, every employee of Sunhouse is thankful to each other, which plays a dynamic role in the work. In recent years,

Sunhouse has developed over a hundred innovative products, not only saving the cost of production, but also increasing the production quality.

“Correction” is the most efficient way of working in Sunhouse. Sunhouse respects all the problems suggested by customers and workers. The methods of analysis and problem-solving techniques from Total Quality Management (TQM) are also used in Sunhouse. For example, the welding and hydrostatic test is one of the most important processes. Welding quality of each welder and results of water pressure testing need be tracked and assessed regularly. The methods of information statistics and data analysis is adopted to take timely preventive measures. Sunhouse always encourages everyone to study independently with modesty attitude and help each other. For some difficult issues, the example of ‘QC’ group is referred to and small groups for solving the difficult issues are formed to focus on the quality analyze and keep improvement. Every year, Sunhouse sell more than 100000 civil stoves and only 0.6 percent is returned to the manufactory to repair.

In conclusion, Sunhouse fuse modern scientific managing system into enterprise culture and combined with production and quality management methods, proposes the Total Ethical Management (TEM)

#### **4. Market distribution and sales model**

According to the characteristics, products are divided into three types: industrial boiler, commercial digital control boiler and civil heating stove.

4.1. Industrial boiler. Industrial boiler have been sold in 17 Provinces such as Hebei, Beijing, Tianjin, Inner Mongolia, Shanxi, Shannxi, Shandong, Henan, Hubei, Anhui, Gansu, Ningxia, etc. Some of the industrial stoves were export to Korea, Southeast Asia, Mongolia and West Asia with the sales model of combining distributor and direct selling, of which direct selling dominated 70% of the market.

4.2. Commercial digital control boiler. The market of commercial digital control boilers is similar to the industrial boilers, but more widespread in Hebei, Beijing, Tianjin, Inner Mongolia, Shanxi, Shannxi, Shandong, Henan, Gansu, Ningxia, Xinjiang, Anhui, Hubei, Hunan, Zhejiang, Chongqing, Yunnan, etc in a total of 21 provinces. The sell style is based on distributors in different regions. The other blank

region uses the method of direct selling, which accounts for 10% of the total market.

4.3. Civil heating stove. Civil heating stoves are sold mainly in Hebe, Beijing, Tianjin, Shandong, Shanxi, etc, in which the sales account for 85% of the market. As for the outside area like Shannxi, Henan, Gansu, Ningxia, Xinjiang, Anhui, the sales model is based on the distributors in different regions and network development. The network contributes 99.9% to the whole sales and direct sale 0.1%.

## **5. Construction of after-service system**

As one of the most important missions of Sunhouse, after-service is included in the indicators of performance appraisal of employees and distributors. Every year, Sunhouse organizes a thanks-giving hiking of 10000km lasting two months. Sunhouse blend the traditional culture “thankful and politeness” in the after-service.

1. The core concept of Sunhouse after-service is “thankful service”, not only solve the problems for customers, but also exhibit and transmit Chinese traditional culture to all the people.

2. Superior service will lead a positive cycle of sales. The target of Sunhouse is to provide timely, effective and wholehearted service for the customers. Every employee will conscientiously maintain brand image and company prestige and protect the interests of customers.

3. Sunhouse After-service System is the basis of rating after-service, by which all the after-service should abide.

4. Six upgrading service includes better attitude, more patience, faster action, proper words, more compensation, and higher level.

5. Six steps of thankful service include 1) bow when meeting; 2) refinement checking; 3) solve problem; 4) send materials of traditional culture; 5) users’ signature; 6) record all the information and problems to solve afterwards )

## **6. Major achievements and experiences**

With the correct leadership of the company management group, the remuneration of employees is increasing stably these years. The investment in the fixed asset has

obvious effect for several years. The product quality and production efficiency as well as the welding furnace production capacity are increasing significantly. Keeping up with the government environmental protection and development policy, the new painting production line has passed environmental protection examination. And the production capacity is also increasing significantly. The company's performance testing center has been constructed and testing equipments have reached the international advanced level.

The strategy of boiler development has been changed from burning coal to burning gas and oil since the late 2013. The improvement of appearance, manufacturing process and quality has been gradually completed.

Sunhouse will keep improving and insist the strategy of combining business and culture together. The Culture Training Center was just established to study on the enterprise culture, which benefits the employees and society. Other social person could come to Sunhouse and learn the traditional culture. We will also strengthen the learning efforts of employees.

The performance appraisal system linked with business indicators strengthens the team cooperation consciousness and makes everyone has a responsibility to operation target. Over the years, Sunhouse adhering to the concept that quality is the first vitality. The General Manager leads the random inspection of production quality to increase the social responsibilities and mission sense of employees.

Sunhouse also works on the adjustment of product structure focusing on technology innovation and additional value to produce environmental friendly and new energy products. Increase the R&D of the gas boilers, digital control stoves and environmental stoves and multi-pass boilers to maintain the sustainable development.

In 2014, Sunhouse will apply for the A-class manufacturing qualification for a better development and meet the market demand. More senior engineers will be introduced. A new workshop covering over 7000m<sup>2</sup> is being constructed. New production line will be purchased and current equipments be upgraded.

## **7. Obstacles and problems**

1. The biggest problem is that coal burning boiler is being restricted. In the early stage of Sunhouse, coal boiler is the primary product. The market and users mainly concentrated in Beijing-Tianjin-Hebei Region. Currently when the government is taking great efforts to control and fog and haze, the coal boilers get significantly affected.

2. As a labor intensive enterprise, the high intensity restricts the production efficiency and capacity. The increasing labor cost leads to the higher production cost, low profit and less competitive power.

3. As for the resource management, the lack of technically advanced professionals is a problem. The workers at the production line should learn more about professionalization. It's important to strengthen the construction of team, enhance the human resource management, and improve the whole professional ability and the production quality.

4. The sales model, policy, sales group lack innovativeness and cohesive force, which restricts the development of market. The assessment of channel network process management is incomplete.

5. The incomplete construction of information collection system of the sales market affects the market analysis and positioning.

6. Inaccurate cost accounting and incomplete pricing system affects the guidance of determining the price.

7. There are some other problems during the business process management, 1) the management system and business process lack standardization, 2) the work of employees is not fixed and lacks standard, 3) the work efficiency is not high, 4) some information system is lagged and inaccurate.

## **8. Development direction and objective**

1. Cooperate with excellent domestic consulting firm; make clear development strategy, grasp the macro orientation, focus and strength. Deepen the reform of the governance mechanism and guarantee management in a scientific track.

2. Popularize efficient and environmental-friendly coal boilers and stoves, promote

the gas and other clean energy products, and phase out backward technology and product. Widely collect environmental policy, accurately grasp and analyze information. Continue focusing on high quality coal-burning products as well as gas products.

3. Strengthen the R&D of new equipments, upgrading equipments, and process improvement to improve the product quality and work environment, raise efficiency and reduce labor intensity.

4. Continue consolidating and improving the running of quality system. Refining the quality standard, strengthen the special process control, carry out and perfect the statistical analysis of quality information data to make customer satisfied and ensure the high level operation of quality system.

5. Broaden the sales vision, make the sales strategy that is adaptable to the market, and stimulate the enthusiasm of the sales staff and broaden the market development maximally. Strengthen the professional skills training for sales staff, make sales staff transform and upgrade into technical sales team.

6. Establish the operation command system and improve standardization, process, and information. Further explore and implement the management in the field of R&D, quality, technology, equipment, logistic and production. Introduce advanced information management system ERP to realize effective deployment, rational use of resources and accurate supply. Enhance the level of budget management to raise the overall work efficiency.

7. Learn and act on traditional culture as the basis, help employees to create a happy life, care employees, and build “family type, school type” enterprise. Attentively find and solve the difficulties and requirements of the employees based on the education of filial duty, ethic and morality. Dedicate into carrying forward the traditional culture and help more people build happy life.