Job shop

FOSHAN DA SHENGCHANG

QUALITY TO DIFFERENTIATE

Mr. Chen Wu's choice to move to Foshan to start a sheet metal trading business together with two partners was no accident. Foshan is one of the most important cities in the rich Guandong province in southern China. Together with Guangzou, better known in the West as Canton, it is part of the so-called mega-city of the Pearl River Delta, the most densely populated region in the world. In its more than 2000 years of history, Foshan has been an important economic and commercial center, famous in the past for the production of ceramics and silks, and today for having the largest steel market in China.

The company, Foshan Dashengchan was quite successful, but then a state-owned company established itself in the area creating challenges for all the smaller traders, including the company of Mr. Chen Wu and his two partners. Even so, they did not lose heart and in 2010 they decided to change direction, switching from metal trading to metal processing. The primary sector remained the same and therefore they could count on their network of contacts and knowledge they had previously developed.

They moved into the stainless steel market, which is a district completely dedicated to the processing and trade of this specific metal in all its variants. The market is in fact a miniature city occupied seamlessly by small steel workshops and steel traders, one next to the other. We must consider that in Chinese culture competing companies work next to each other, each company conducts its business with its own customers, and competition is seen as an engine of development and differentiation. Much more importance is given to the advantage of having the whole audience of customers, who find it convenient to have all suppliers in the same place, rather than the risk of losing them to competitors. This aspect is very important because competition is precisely the engine that has enabled Dashengchang to evolve its development and growth model.

Outperforming the competition
In such a competitive environment, Dashengchang chose to focus on high quality projects with strict tolerance requirements, even if they required parts of different sections in small quantities in order to fully exploit the flexibility and precision features of their machines, to differentiate themselves from their competitors.
Generally, in the stainless steel market, most shops prefer to focus on high-volume, same-section, low-tolerance projects. Mr. Chen has instead targeted high-end imported machinery that allows him to operate where others cannot, and in this way he has been able to secure a quality customer base with strong long-term prospects.
Dashengchang does not compete on price like most competitors, but rather competes on providing higher quality parts with stringent requirements that others are unable or unwilling to meet. For this reason, Chen Wu's research has focused on the latest generation of automated machines characterized by extremely high productivity even when processing small batches of different sections. These machines are therefore automatic and sophisticated in their functions but above all in their software to reduce the incidences of human error.
Finally, a distinctive point of Dashengchang is its extended service, providing the whole process from raw material to final frame including logistic services. Dashengchang has its own fleet of trucks that collect the raw material from the customer (or from the tube/plate suppliers) and deliver the final product back to the customer. This end to end service is highly appreciated by their customers as they can remain focused on their core business.

Which systems for this production?
Dashengchang's choice of what kind of customers to target naturally requires state-of-the-art machinery that can guarantee quality and flexibility. In fact, they have invested heavily in several foreign machines for the different processes in their production. The demand for tube processing began to grow in 2015, "*We had a laser sheet metal machine that could also cut manually loaded tubes one at a time. Not many companies were able to process tubes, and that system kept up with market growth, but soon the system proved insufficient to meet the demand for tube processing services that*

was growing beyond the productivity and precision standards of this equipment." Mr. Chen Wu explains that he then searched for a laser system that could support production with very clear requirements: the system had to have a fiber laser source and be automatic.
The investigation took more than a year. During this time, he compared several options and visited several suppliers around the world. In the end, he chose the LT FIBER which was installed in 2017.

Selected customers
The acquired precision in tube processing has paved the way for new innovations and the company has also expanded the range of processing by investing in welding equipment to become a complete workshop able to offer customers a complete process including: laser cutting and sheet metal bending, laser tube cutting, assembly, welding and logistics services.
Dashengchang works with many important customers, mainly OEM, in different application fields from aluminum extrusion machine frames supplied to COMETAL Engineering's Chinese subsidiary, to facial recognition systems, highway toll booths, subway access turnstiles, food machinery, and beverage dispensing machinery.
Haidilao is one of the largest "Hot Pot" restaurant chains in China, with hundreds of restaurants spread across the country. Hot Pot is a very popular dish in China: originating in Sichuan-Chongqing province, it consists of a large pot of different types of broth (usually very spicy) in which people can cook a variety of raw foods. Haidilao chose Dashengchang to produce the frames for its kitchens and restaurants, including a smart restaurant in which service is fully automated and robotic from receiving the raw materials to serving the customer. It will be hard for kitchen traditionalists to swallow, but we are probably in the not-too-distant future of catering.

The collaboration with BLM GROUP
As mentioned, the selection of the laser tube machine was a time consuming endeavor because Mr. Chen had clear goals in mind and wanted to ensure the selected machine fit the business model he wanted to achieve and the company's future plans.
In selecting the LT FIBER, Mr. Chen Wu, positively evaluated BLM GROUP's superior experience and reputation in the tube processing industry, confirmed by the fact that in 2017 (when Dashengchang purchased the machine), BLM GROUP was the only international manufacturer to offer a fiber laser source on a tube laser machine.
In addition, it was assessed that the LT FIBER was a mature machine, very reliable, already available on the market for several years, was equipped with very powerful software and above all was easy to use. *"Qualified programmers and operators are very hard to find in China and difficult to retain as human resource turnover is high," reports Chen Wu. For this reason, he wanted software that could minimize the possibility of human error and at the same time be able to minimize the time from 3D drawing to machine programming. "The ArTube software truly incorporates BLM GROUP's more than 30 years of experience in the laser tube cutting industry and transfers programmer and operator knowledge to the software and machine."*
The fact that the programming software is produced in-house means that the level of integration with the machine is extremely advanced, something that cannot be said of other vendors.
Mr. Chen Wu particularly appreciates ArTube's nesting function, which is very advanced and comprehensive: "*It helps us enormously to plan production efficiently, estimate processing time and costs, especially considering the high variety of different sections and drawings we have to process every day.*" In addition, Mr. Chen Wu appreciates the fluidity of importing the 3D drawing, the ability to edit geometries directly within the software and create the part program. He has not found the same level of completeness and ease of operation on any other dedicated tube software available on the market.
For all these reasons, the LT FIBER was very much suited to Dashengchang's requirements and business model: a machine that can minimize programming time, production changeover from one section to another and provide the maximum ratio of productivity to accuracy. The scrap reduction cycle is also particularly useful, especially when machining long geometries.