

Experience  
Structural steel

# HANGZHOU BAIANGU

STRUCTURING YOUR OWN SUCCESS

Baiangu was founded by Mr. Tao Fang in 2007 in Hangzhou, city famous for the West Lake, depicted on the one-renminbi notes, once an idyllic place where poets and writers of the Tang and Song dynasties found inspiration. Today the lake is still there, but a lot of the poetic atmosphere around it has been lost to huge concrete flows and an endless series of factories: Today Hangzhou is one of the most developed industrial centers of the Chinese coast.

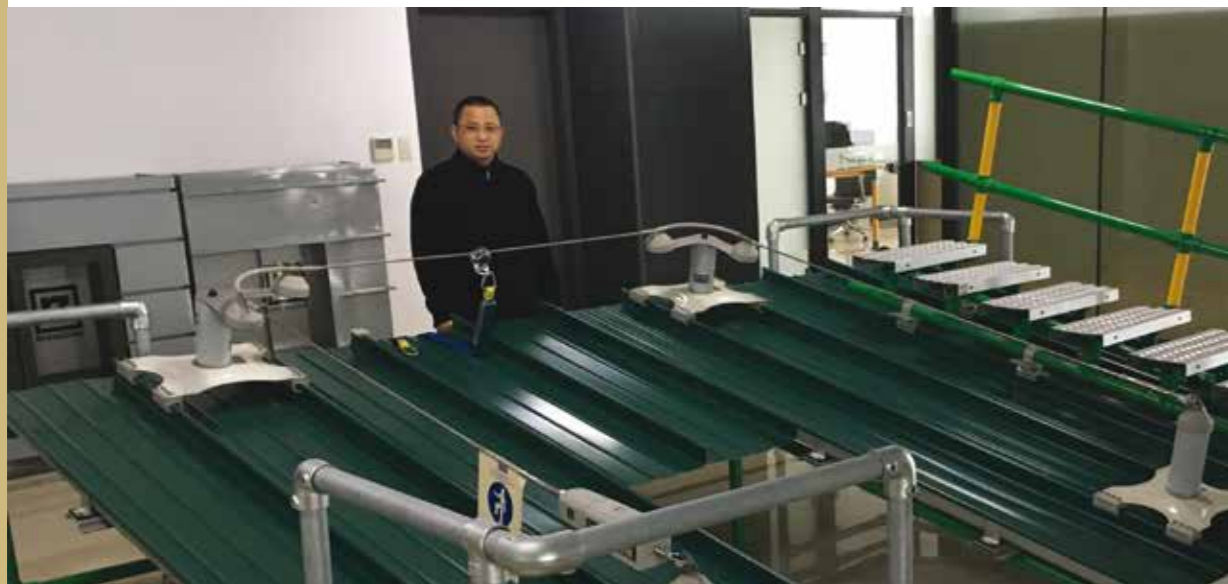


In this scenery of industrial giants, a young, dynamic, innovative company stands out with a precise strategic vision and for the long term: Hangzhou Baiangu. Established only in 2007, it is determined to gain the role of innovator and leader in a niche sector that is bound, with high probability, to become a mainstream: the sector of non-residential metal structures with customized design.

Baiangu started as an Original Equipment Manufacturer, designing and producing metal roofing and roofing panels under its brand, mainly for non-residential public buildings. In the midst of the Chinese construction boom, this represented a very profitable business, with high margins. The first production site of Baiangu consisted of a small workshop with about forty workers using machines to unroll, cut, bend and model aluminum sheet metal, and some semi-automatic sawing machine to cut metal tubes. Construction sites are managed by project managers who study the projects, give direction to production about how to customize the product and, at the end, check the installation on-site.

Over time, competition in this sector has grown at an exponential rate, thus levelling down profits, therefore Mr. Fang started to investigate new sectors where he could diversify his business. The years spent in the non-residential construction field brought a deep knowledge of this sector to Mr. Fang and partners, a wide network of contacts among state-owned companies (big construction companies), multinational corporations (foreign producer opening plants in China) and their sub-suppliers, a deep understanding of the dynamics governing public tenders, years of experience in design and production, besides a considerable capacity of investment resulting from the very profitable years in the construction sector.

In 2016, Mr. Fang established his second company, specialized in design and production of complex metal structures for non-residential modern buildings. Projects range from high speed train stations (for example, the detail in the image of the Hangzhou East station), sport complexes such as stadiums and swimming pools, workshops, leisure parks (for example Disneyland Shanghai), exhibition centers for conventions and conferences.



Mr. Fang affirms *“in this specific sector, there is already a wide number of suppliers, but Baiangu wants to stand out from the crowd as one of the few able to design and realize particularly complex structures, that others either are not able to make due to technological and know-how limits or can obtain only with extremely long timeframes that do not meet the customer requests at the hectic pace of the Chinese market”*.

Mr. Fang’s vision is not simply that, very widespread in China, of becoming rich rapidly on the short term with little attention to dynamics over the long term: *“Future for China is uncertain and in continuous development, competition grows rapidly, and a market may saturate in a few years: if you want to be successful for a long time, it is important to gain a position in the market well in advance and to obtain an advantage in terms of expertise, reputation and visibility, trying to be one step forward with respect to competitors right away”*.

The steps forward for Baiangu are twofold: the first is the decision to rely on laser technology in a sector where plasma cutting is still prevailing, and the second is the decision to invest in the most advanced and complete laser tube cutting system available on the market.

Currently, most producers use plasma to cut tubes and create complex three-dimensional tubular structures (with corrugated or bent walls, not vertical or horizontal), but this involves various problems, in particular:

- *accuracy problems*: often the final result does not match the initial design;
- *problems with times and costs*: taking into consideration the inadequate precision of the final result, it is necessary to measure the tube for the whole metal structure to understand the actual dimension of the glass that will be installed in the frames. Glass shall then be prepared for measurement, causing considerable waste of time, work and money.

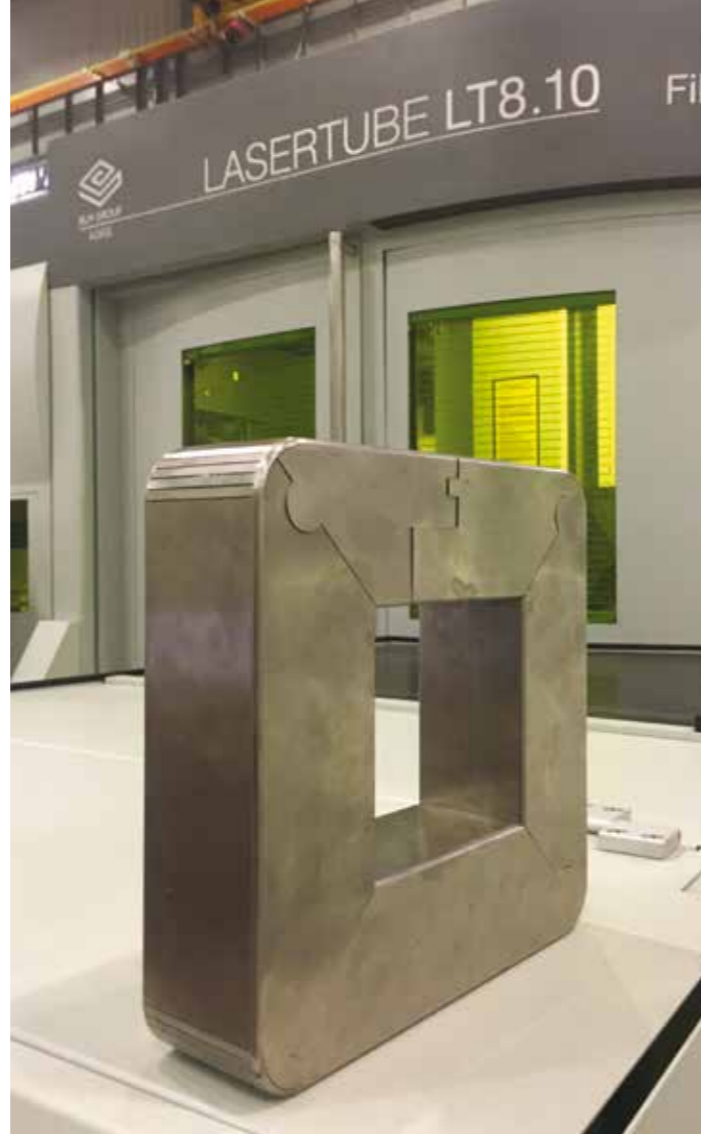


These problems are partially solved using laser technology which guarantees greater cut quality and precision compared to plasma. “Once it is understood that production in this sector will progressively change towards laser technology”, Mr. Fang continues, “there was another key aspect concerning the laser tube machine model that could tackle this new challenge because not all the machines available on the market are the same”.

Mr. Fang spent many months before making the final decision, and during this period he carried out a deep analysis of the models available on the market, visiting many suppliers and some of their customers, both in Asia and in Europe.

“I chose Adige for many reasons, the most important of which is the software. Our customers present projects of very articulated structures, with up to 8 tubes intersecting each other in single joints, however the task to make these structures “feasible” in reality is up to our designers. With Artube, we can design joints and connection in a simple and immediate way. Furthermore, the software recommends sets of possible solutions from which we draw on to get to the most suitable choice for the specific project. It is an enormous design advantage that enables us to save time and work”.

Additionally, “the software allows us to make exact assessments in terms of times and costs necessary to complete the project. With the old technologies or with less advanced software, you run the risk of making planning errors with unpredictable financial consequences. With Artube, we are able to calculate, with accuracy, our



costs in advance and submit to our customers reliable quotations”.

“Even if laser is a big step forward in terms of precision when compared to traditional technologies such as plasma, the lasertube systems by Adige ensure the highest certainty of the final result thanks to compensation systems that reduce tube shape and torsion defects to a minimum. Also this makes work much easier and allows us not to waste material”.



“Taking into consideration the tube size we use most, the LT8.10 seemed the most appropriate choice. Initially, I opted for the CO2 version, but as soon as I saw in Adige the Fiber version, I had no doubts: lower maintenance costs and possibility to cut aluminum, copper and zinc structures”.

Baiangu has been the first to install a lasertube system for medium-large dimensions (up to 200x200 mm for square tube and up to 240 mm diameter on round tube) in Far East Asia. This demonstrates the strong spirit of enterprise of Mr. Fang and the innovative spirit that he brings to his company.

Mr. Fang continues “Machine productivity is such that currently we are able to handle jobs efficiently and with a certain advance with respect to deadlines. Therefore, we can expand further. In this moment we are exploring new potential markets, in particular that of lifts. Also in this case, we will aim at specializing in modern structures that others are not able to make, such as complex joints (not perpendicular), where we are more efficient and where we can also aim at higher margins”.

