

Introduction to Furukawa AVC Electronics (Suzhou)

1. INTRODUCTION

Furukawa AVC Electronics (Suzhou), hereinafter called FAZ, that constitutes a core business base for the overseas expansion of the Electronics Components Division (hereinafter called ELC) of Furukawa Electric, will be introduced in this report.

FAZ started operation three years ago in Suzhou in China, a beautiful city often called a Venice of the Orient. Suzhou is also enjoying the world's top-ranked position in terms of receiving foreign investments including, e.g., a number of personal computer manufacturers that rush into the Center China and East China on an OEM or ODM basis.

2. FAZ AND ITS PRODUCTS

FAZ is currently producing two mainstay products of ELC: reflow furnaces for high-density surface mounting and cooling heatsinks for CPUs that are used in computers, personal computers, game machines and digital home appliances. The reflow furnaces of FAZ are provided with state-of-the-art functions such as high-density mounting and environment-friendly Pb-free soldering, thus receiving a high reputation from our customers all over the world. On the other hand, the heatsinks of FAZ feature the use of heatpipes which are 80 times more efficient than copper in terms of thermal conductivity. With its product development abilities as well as its strict quality control based on the integrated production system from raw material to finished product, the capabilities of FAZ have been appreciated by all the customers in the world.

Both the high-density mounting and heatpipe technologies, which constitute the core technologies of reflow furnaces and heatsinks, respectively, have been fostered in the Yokohama Laboratory, the R&D center of Furukawa Electric, and have been developed into the new businesses. Today, supported by the strength of the material technologies, they are expected to grow up into the mainstay businesses of the company.

FAZ was founded three years ago through joint capital investment between ELC and Taiwan AVC, a world-famous manufacturer of CPU coolers. ELC and Taiwan AVC have been in a cooperative relationship for some time considering each other as a strategic business partner, and FAZ is a successful result of this alliance.



3. BUSINESS POLICY OF FAZ

To be consistent with the business policy of ELC, FAZ has been promoting, since its foundation, local procurement and building up of local business infrastructure such as evaluation technology and management technology. Although embarrassed by the different social and business cultures, we tenaciously established cooperative relationships with local vendors, thus succeeding in delivering the first reflow furnace made in China in only one year after the business start. With respect to the heatsink, the time from the planning to the first delivery was shortened to three months.

The deployment to the new factory (the current 1st Factory of FAZ), which was prepared in consideration of future development, was a good example of our business

policy of “speedy judgment, speedy decision and speedy action.” There is an interesting story that the people in the neighborhood were surprised to see the new factory began to deliver the products on the next day of the move.

During the production line expansion at the new factory, innovations were introduced avoiding simple imitation. Manufacturing machines made in Japan were evaded for their expensiveness in addition to time-consuming delivery and maintenance. Thus efforts were made either to purchase locally made machines through careful studies or to assemble in-house the machines themselves using local components and local component manufacturers. In this way we were able to furnish the line with the new machines at a low cost which is one third to one tenth in expense and about one half in time compared to Japanese machines. We can not deny that these locally made machines are somewhat inferior to Japanese machines in terms of user-friendliness, inducing us to improve the dies and jigs together with the method of maintenance such as checking spot and frequency. But this led us to train ourselves to constantly review and improve the production lines including the dies structures, line configuration, maintenance routines, personnel allocation, etc.

Basically our production lines do not use belt conveyers which may require intensive studies on the process quality control, cycle time balance, reduction of in-process inventory, line speed and bringing-up of multi-skilled workers. Since the production process in the new factory is comprised of many unit processes, the layout of the production line can be easily changed. Through such efforts to construct a flexible as well as compact production line, we have achieved a productivity ratio per unit area as high as three times that of the averaged local companies of the same industry. Some of the visiting customers that we receive practically every week say, in particular when they are from Western countries and they are used to visit huge OEM factories in Taiwan, that they feel uneasy to see our compact production lines reduced to about one third the extent of ordinary factories and that they are anxious to know our true capacity deploying in such a limited space. Although they always reach a comprehensive understanding of what “Japanese compactness” is, it is true that we are urgently required to secure a sufficient production capacity. To meet such a requirement, in June 2004 we completed the construction of the 2nd Factory for exclusive use of heatsinks in the neighborhood of the 1st Factory, in order to cope with



Salamander

the production volume that continues to double every half year.

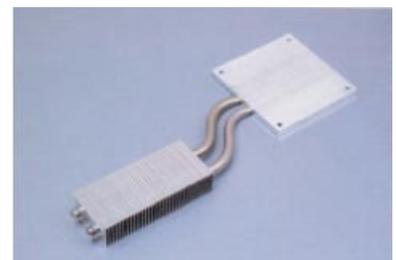
With respect to quality control and production management, we made efforts to achieve their true objectives rather than importing the Japanese management technology as it now stands, whereby we rigorously educated the employees about the basics while we tried to be flexible and impromptu about actual application. In these activities, the dispatched staff members strived to achieve direct communications with the local members using the local tongue that they learned intensively. We are proud to say that it is their behavior that improved the speed and quality of these activities. Traditionally ELC has a fables business section, in which they have much experience, on regular basis, in building up production of new products employing an entirely new consignment manufacturer. This may be the reason why they have acquired the habit of putting the business resources at hand to practical use in a way that is TPO adapted, situation dependent and timely.

Currently the education programs of design and evaluation have been actively expanded, resulting in the delivery of developed products that were designed and manufactured in China. Hereafter, we plan to accelerate the development thus expanding the targeted area.

With regard to local purchasing, the suppliers' plants are gathered around FAZ's premises so that we are ready for attaining higher level of production and quality control, thus implementing the SCM (supply-chain management) system steadily. When it comes to heatsink, key components are being manufactured in the same premises consistently enabling efficient production through mutual exchange of information on production and quality. Moreover, the improvement of logistics began to exert its effect. Accordingly, it can be said that we are near to completion of a business foothold that is provided with all the necessary functions including developmental design, component purchasing, production, logistics and customer service. Targeting at “FAZ as No. 1,” we are making efforts in Suzhou to win the race with any competitors in the same business in the world.



μHP



μHP-HS

4. CONCLUSIONS

With its business core based on ELC and AVC, FAZ intends to grow up into a business foothold in China for Furukawa Electric and other Divisions. We appreciate your continuing support for our activities.

[Outline of the Company]

Company name: Furukawa AVC Electronics
(Suzhou) Co., Ltd.
Date of foundation: May, 2002
Capital: 5 million US\$
Number of employees: 599
Business line: 1) High-performance surface
mounting reflow oven
"Salamander"
2) Micro heatpipe "μHP"
3) Heatsink with micro heatpipe
"μHP-HS"
Location: 1st Factory: Fuxing Street, Suzhou
Industrial Park, Suzhou 215121
China
2nd Factory: C1, C2 Putian
Industrial Park, Weiting Town,
Suzhou 215121 China
President: Takamitsu Kozuka
Point of Contact: +86-512-6271-3191, ext: 1110
Manager: Li Qiang Quo