



Yefong Aluminium

**The Designated Aerospace Material Supplier
Rooting in Taiwan and Eyeing to the World**

by Michael Wu, Fastener World

Ye Fong is a leading maker of aluminum alloy materials and a supplier to the high-end aerospace market. 85% of its aluminum alloy output is exported worldwide and its products are extensively used in aerospace, national defense and marine shipbuilding. Ye Fong is unique in aerospace and aircraft fasteners for its mature technology and understanding of what this market needs.

Exclusive Technology to Manufacture Hot-Rolled Wire for Aerospace Fasteners

Ye Fong now specifically supplies aluminum alloy materials for aerospace screws, nuts, small rivets and other fasteners in various diameters. This type of material is in short supply due to the scarcity of its makers. Rivets are made of hot rolled wires and currently only 2 companies in the world can manufacture those wires made of high-strength aluminum alloy. One of them can only provide 200kg per coil. The other, which is Ye Fong, has come up with an exclusive technology to be the world's first supplier to provide 300kg per coil.

Materials for aircraft interior components, such as aircraft seating system or hydraulic tube, are the current top seller of Ye Fong. For many years the company has produced a

large amount of aluminum components for aircrafts and mainly supplies to Northern America and Europe.

Expert of Aerospace Fastener Materials

“Aerospace fasteners are made of hot-rolled aluminum alloy wire rods. A Boeing 747 aircraft uses more than 2 million fasteners and therefore needs a large amount of material. The wires YE FONG produces for fasteners ranging from 2mm up to 32mm can cover all the usage demand for fasteners. These wires per coil weigh 300kg without welding, which is an exclusive advantage to Ye Fong as said above. It indeed saves a lot of cost for customers on time-changing and labor cost” said the president. Ye Fong services some of the large corporations such as Arconic, PCC and Titanium through which its products are supplied to the U.S. and Europe.

He added, “Aerospace fasteners are mostly made of wire rods and sometimes straight bars. Wire rods are mostly made by continuous high speed forging and therefore reduce cost. On the other hand, straight bars are made by CNC processing and therefore its production is slower. To be accepted into the aerospace market, wire rods must be in a flawless state by shaving the surface





of the aluminum wires as an additional process. It is very easy to peel titanium, steel and copper wires, but shaving aluminum alloy is extremely difficult.” After a year of research and improvement he was finally able to develop the technology to shave aluminum alloy.

Great Quality Drives the Move into Aerospace

“Initially we didn’t specifically target aerospace applications but only stressed on our quality,” he said. Then, a European client used Ye Fong’s products on aerospace components and discovered the components were actually qualified to aerospace standards. At that time Ye Fong already had an aerospace certificate, so it was a natural course for the company to tap into the aerospace market.

Develop International Business

Ye Fong has various products including aluminum plate, aluminum extrusion material, hot-rolled aluminum wire rod, etc. It can provide various aluminum alloy materials required by the aerospace industry.

Its primary targets are the U.S. and European markets. The president explained the difference between these two aerospace markets, “The Americans have greater demand and they need much diverse types of material. In selecting materials, they choose whatever is certificate-approved. On the contrary, the Europeans develop products as per project and keep in touch with manufacturers until specifications are finalized. For instance, the floating anchor of the latest American KC-46 fuel pipe is manufactured by European makers. The connector of the anchor raw material is supplied by Ye Fong. The European makers would continuously discuss product details with Ye Fong and make adjustments until completion.

Ye Fong is working on other markets besides the American

and European markets. The president said, “In the past, Japan was about 20% of our market segment. Since Ye Fong was certified by NADCAP quality system two years ago, Japan markets has been increasing sharply, especially for aerospace application.”

Personnel Training and Collaboration with Universities

Ye Fong pursues quality and it pays great attention to personnel training. Its staff has a strong basis of material knowledge and are capable of providing professional technical support in timely manner when customers encounter any issue to create a win-win. The company attaches great importance to employees’ execution and is dedicated to training its core leaders to improve employee level, technique and service.

Ye Fong works closely with NCU Institute of Material Science and Engineering as well as Department of Mechanical Engineering. This research partnership provides Ye Fong technical equipment and the drive to keep growing. Mutual support between the industry and university helps to create innovative ideas.

Prospect & Future Development

“In the coming 3 years we will continue to develop fastener materials to expand applications. We will also develop new products for the automotive industry. Our ultimate goal is to seek and develop lightweight but strong aluminum alloy materials for various industries.”

Ye Fong has invested in manufacturing equipment to produce fine aluminum wire rods with precision and quality. “In 3 years we will tap into the global aerospace fastener market with our excellent quality but reasonable price.” Ye Fong is confident it will become the most competitive company in this market. ■

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