

Airlines See the Light

Galleys made of aluminum for passenger aircraft are one of the specialties of Bucher Leichtbau AG. A major feature of the innovative concept is the lighting system with glass fiber.

► In general, aircraft passengers have simple demands: they want to be seated quickly, take off smoothly and enjoy themselves. Further priorities include good service and light, tasty meals. This is where the kitchen on board, known as the galley, can play a central role. When purchasing galleys for their aircraft, airlines attach great importance to whether a galley offers a long service life, is maintenance friendly and functional. After all, flight attendants should have a workplace that allows them to focus their attention on the passengers.

"Galleys produced by Bucher Leichtbau help airlines realize their service concept," as Chief Executive Officer Daniel Mettler summarizes the philosophy of his company, located in Fällanden near Zurich. And the company's success proves his point. The Swiss specialists have been given the status of preferred supplier by Airbus Industries, and the U.S. aerospace company Boeing is also a longtime customer. The modular design offered by Bucher's galleys allows the airlines a great deal of scope to realize individual installation needs and different service concepts. In its peak year 2000 Bucher manufactured and delivered more than 400 galley units.

Flying without unnecessary weight

Company founder Heinrich Bucher began constructing galleys for aircraft some 25 years ago. But it was only after the company's specialization in aluminum as the preferred engineering material that Bucher could develop its unique construction principle. Flying without any unnecessary weight, but with more quality and better ergonomics is the goal of production. With its "Starlight" galley, Bucher offers an alternative to sandwich panels whose honeycomb-like elements create the impression of being lightweight, but they have often proved insufficiently capable of withstanding daily use. Bucher only makes use of sandwich

panels in areas where the danger of damage is virtually excluded.

The basic elements of a "Starlight" unit are a very stable sectional aluminum frame and 1.1 millimeter thin, corrosion-resistant aluminum sheet, which weighs 2.7 kilograms per square meter. Every unnecessary gram is thus eliminated. CNC-controlled milling machines ensure the exact fit of the individual units. This is demonstrated by the fact that doors, shutters and extension tables can be moved almost without a sound. Containers and serving trolleys slide on plastic tracks. The especially durable frame and front doors also made of aluminum guarantee a long service life and user friendliness. Based on international safety regulations, the entire galley must be able to withstand a load of 12 g, which means 12 times the gravity at the earth's surface.

Fiber optics offers more flexibility

Bucher Leichtbau has succeeded in improving the functionality and the aesthetics of the galleys. Bucher has recently begun to use fiber optic components from Schott for its lighting systems. Schott Fibre Optics in Doncaster in the U.K. is the manufacturer of these systems, while the sales office of Schott Schweiz AG in Feldbach near Zurich serves the needs of Bucher Leichtbau.



Daniel Mettler, the Chief Executive Officer of Bucher Leichtbau AG, relies on fiber optic lighting from Schott for his aircraft galleys.

The advantages compared with conventional fluorescent lamps first convinced the Swiss galley makers and subsequently many airlines. Just one glass fiber cable and an attachment optic at the end allow a relatively shallow fitting depth. The extremely flexible glass fiber cable transports light to places that until now could not be illuminated. All the light outlets are supplied by a single source. This light source device is easily accessible in case it has to be changed. And conducting light instead of electricity – particularly in aerospace applications – is for safety reasons another positive factor of this technology. Another advantage of glass is that it is not flammable. Nor are there any problems refitting glass fiber lighting systems in the case of the conversion or extension of the galley units.

Galleys and catering trolleys for civil aviation are the main contributors to Bucher's sales. Among the products for this target industry are also in-seat video deployment units and stretcher systems for the transport of the sick or injured. The company has also earned a good reputation in equipping emergency helicopters or small aircraft with support fixtures, stowages, stretchers, guiding tracks, etc., all of which are made of aluminum. For example, the famous "Australian Royal Flying Doctor Service" relies on Bucher for its difficult missions. The company is particularly proud of its recent contacts with DaimlerChrysler. The German-American automobile manufacturer has asked Bucher to develop and manufacture foldout tables for the rear seat of the new "Maybach" luxury limousine, complete with the complicated paneling system, but excluding the wood and leather finishings. "Professionalism, innovation, craftsmanship and the Swiss love of detail are the basis for all our products," recapitulates Daniel Mettler – values that makes life on the ground and in the air more comfortable and safer. ◀



The extremely flexible glass fiber cable is easy to install and transports light to places that could not be illuminated in the past.



"Starlight" aircraft galleys produced by Bucher are calling cards for airlines.



A single, easily accessible light source supplies all the light outlets.



Functionality in detail offers flight attendants a more comfortable workplace.