
Oven-ready solutions: The modern galley focus

By **Mary Jane Pittilla** on | Trolleys & Galleys



This is a special feature from *PAX Tech's* April Aircraft Interiors Expo Hamburg 2020 [edition](#).



Barista quality espresso beverages can be prepared easily inflight using the Essence

espresso/cappuccino machine from Collins Aerospace

The gleaming galleys, with softened lines and modern looks that catch the eye of boarding passengers on modern aircraft take cues from the home kitchen in appearance, but much of the comparison stops there.

Manufacturing products to the exacting standards of an aircraft is not an easy task, especially when airlines are still keeping a sharp eye on price, and turning their attention to the weight and environmental factors that are also shaping the selection processes.

In the run-up to this year's Aircraft Interiors Expo, *PAX Tech* caught up with two of the biggest players in this sector of the industry to learn about the latest in design trends and customer demands.

[Collins Aerospace](#) is getting set to showcase a new galley insert concept at this year's Aircraft Interiors Expo in Hamburg.

While the details have not yet been released, the new solution will build on the idea of enabling more efficiency in passenger service, going even further beyond the Essence Premier ovens with adaptive intelligent cooking that Collins Aerospace introduced at AIX in 2019 – and also enabling improved efficiency for equipment servicing and maintenance. The Essence Premier ovens offer a triple-benefit of reduced weight, reduced flight attendant workload and the highest quality meal preparation available. “We will be unveiling a revolutionary new solution at this year's AIX,” says Brian Schmalz, Vice President of Sales and Marketing for Galley Inserts at Collins Aerospace.

The Essence collection is one of three major families of galley inserts offered by Collins Aerospace. It was designed for longer-haul international services or premium service on shorter-haul flights. The company has delivered more than 20,000 Essence units on a wide variety of aircraft and Essence accounts for more than 95 percent of the galley inserts flying on the A350.

Collins has delivered more than 140,000 Endura units since the Endura family was introduced in the mid-2000s. It continues to be in high demand by airline customers as the versatile solution for reliable, high-quality inflight food and beverage service on both short- and long-haul aircraft.

The company recently introduced the Modus product family, which is focused on simplicity and efficiency. It is described as ideal for supporting efficient shorter-haul domestic service or for providing basic and consistent service on long-haul flights.

Social spaces

Collins offers a wide range of galley inserts. Beverage maker products include: coffeemakers to brew filter, using patented brew head and brew cup technology; and water heaters, offering variable flow faucets. The Essence espresso/cappuccino machine and the Nespresso machine enable barista-quality espresso beverages to be easily prepared inflight.

Oven products include convection ovens with customizable menu settings that can be used to provide many profiles to ensure quality preparation of a wide variety of inflight meals; and steam ovens which ensure that meals do not get dried out.



Collins Aerospace's Essence range accounts for more than 95 percent of the galley inserts flying on

the A350

Microwave ovens are developed for on-demand food preparation. The new Essence microwave oven went into service in 2018 and has had a very successful introduction. The Essence microwave oven offers advantages of more cooking volume, and variable power settings (up to 1,800 watts) with customizable menu settings.

Regarding trends in the galley sector, Ray Hough, Director of Business Development for Interior Structures at Collins Aerospace, tells *PAX* that for the past 50 years, price has been the main factor when airlines have selected galleys. He says he believes that will continue to be a decisive factor. Recently, however, other considerations have risen in prominence, driven by increasing airline competition in the market and rising fuel prices. The advent of stronger and lighter composite materials has brought galley weight into the decision matrix.

A second consideration is image. Since the galleys generally have to be placed at the main door areas, airlines are thinking about how to improve the first impressions of passengers as they board. "Airlines have increasingly invested more attention in this area over the years with some very impressive and exciting developments," notes Hough.

Airlines are integrating social zones, bars and passenger self-service features with galleys, recognizing the ability to transform galleys from a working area to a social area. Increasingly, the OEMs and cabin manufacturers are working together to find ways to integrate other features into the galley space, including wardrobes and seating.

A third consideration when selecting a galley is service, as airlines seek to differentiate themselves by their service offerings, with many focusing on delivering high-end dining experiences. These include the ability to dine on demand, or improving the food delivery to restaurant quality. This can be as simple as transitioning from convection ovens to steam ovens, or by the use of new-generation microwave ovens that then drive the need for the galley configuration to accommodate them, explains Hough.

A fourth consideration is the procurement model. Several OEMs have moved to an SFE (supplier-furnished equipment) business model for galleys, where the galleys are purchased by the airframer, leaving the selection of galley type and configuration to the airline customer. "This has driven catalog developments where the challenge, and reality, has been to develop rich and customizable catalog offerings to meet all airline expectations," says Hough.

Control and convenience

Leading supplier [Safran Cabin](#)'s latest line of NUVO galley inserts feature a combination of touchscreen and rotary controls, similar to the modern appliances used in restaurants and homes.

The NUVO series inserts incorporate the latest technologically advanced features, such as full-color displays with easy-to-read icons, ergonomic handles and kinematics, and advanced technologies such as NFC (near-field communication). In addition, the inserts have been redesigned and upgraded to provide more control, safety and convenience to the cabin crew so that they can work efficiently in their highly demanding environment.



NUVO series inserts from Safran Cabin incorporate the latest technologically advanced features, such as full-color displays with easy-to-read icons

The ARINC-standard size oven can perform both steam and convection cooking cycles in single or combination modes. The intuitive oven not only provides the user full control over the cooking method, but it also allows users to modify oven settings and preferences. It is the most technologically advanced oven in the market, according to Nathan Kwok, Vice President of Marketing at Safran Cabin.

The ARINC-standard size coffee maker can brew two different flavors – standard and premium. This brewer has been designed to offer passengers different strengths and quality of coffee.

The espresso maker is described as the first and only ARINC-standard size espresso maker that can brew two separate beverages simultaneously. It can brew up to five different types of coffee beverages.

The ARINC-standard size water heater features fast-acting heating elements with a redesigned faucet to easily dispense water by pushing a paddle with a pot or pulling a lever with your hand for comfort and safety.

The ARINC-standard size bun warmer has a compartment to warm bread and premium-class essentials as well, such as dishes, espresso cups and towels.

These products are being progressively certified on multiple [Airbus](#) and [Boeing](#) platforms with several new platforms becoming available in 2020.

The ARINC-standard size multi-mode chiller unit aims to offer superior refrigeration, freezing and beverage chilling. A new see-through door allows users to control the color of the inner cavity light to complement the galley environment. It will be available in the near future on all Boeing and Airbus platforms.



Safran Cabin's MaxFlex galley is now available as a G4C, with more work deck, trash and meal cart capacity compared to the G4B

On the subject of trends in the galley sector, Kwok says that greater varieties of service and choice continue to be a major driver, even on regional routes and with low-cost airlines. "We see no-frills, ultra-low fares with à la carte service on one end of the spectrum, and for those customers we are designing very efficient, durable and low-cost cabins. On the other hand, we also have customers who want to give their First and Business Class travelers a very premium experience, even when they make a connection on a regional jet to their final destination."

He continues: "Our long-haul offerings are also being enhanced, with new single-aisle long-range specific products, as well as a widening array of wide-body products. We have seen more demand for creative social spaces such as hybrid galley/self-serve bar units and lounge areas. We will be exhibiting one such concept that brings the feel of a modern kitchen into the cabin at the upcoming Aircraft Interiors International Expo in Hamburg."

Safran Cabin sees many opportunities in the galley sector. The company offers a full range of galleys for Airbus and Boeing aircraft, including its popular MaxFlex galleys for the 737, and a full range of 777X galleys. It also offers monuments that can integrate galley functionality on the 787, enabling an additional degree of flexibility to the catalog. On Airbus aircraft, Safran Cabin partners with Airbus to offer a complete catalog of galleys and monuments on the A320, and also has a wide range of pre-certified BFE galleys for the A330.

Kwok says that technological advancement is one of the challenges for galley manufacturers today. "We live in a new world of smart, connected devices, and the galley of the future will need to be much more capable in this regard," he says. "This requires developing new sensing and networking capabilities, but also refining the application of this capability into something very useful and practical. We are working to understand really deeply with our customers how technology can streamline their work, so they can focus on their customers."

Kwok sees a bright future for the galley sector. "People everywhere are becoming more conscious about what they consume, and are always looking for fresh, healthful options on and off the aircraft. That is what makes being in the business of meal preparation so interesting. In addition to the food itself, we are also investing in ways to reduce our carbon footprint, whether that is reducing food waste, reducing trash generation or reducing energy usage. In many ways, the trends of healthy bodies and a healthy planet converge in the preparation of and consumption of food, and we are excited to be a part of innovating in this space."