

**Integrated cabin
solutions.**





Integrated cabin solutions. **The aircraft cabins of the future.**

Diehl Aviation develops, manufactures, and markets integrated solutions for the aircraft cabins of the future. One service provider for all, with advanced optimization potential integrated into proven concepts. Completely new ideas to create products that nobody wants to miss. These integrated solutions are modular and can always be adapted to suit the requirements of the manufacturer and operator.

Customization & Airline Branding:

- Customized cabin, cabin areas & monuments (e.g. entrance area)
- Integrated solutions regarding lining and lighting
- Individual decors (direct print) on lining parts & monuments
- Specially refined parts, design elements (decoration, or different materials & surfaces)
- Customized design elements & lining parts
- Individually used lighting elements
- accent lighting/backlit decor panels
Projections & Light Scenarios
- Different color and material options (surfaces, lacquer and materials)

General: Industrial Design Capabilities

- Individual cabin concepts with Industrial Design (Architecture, Form, Materials, Color and Surfaces)
- Consistent cabin lining design with integrated cabin lighting solutions
- Creation and conception of decors
- Consulting, development and implementation of color and material concepts
- Surfacing & Shape Design
- Design consulting on airline branding and customization options within the cabin



Entrance - Welcome Area.

The entrance area is the passengers' first impression of the aircraft cabin – this is where the experience begins. It is about being personally welcomed on board, enjoying the pleasant environment, being guided to allocated seating, just feeling safe. It is not without reason that manufacturers and operators dedicate such effort to the entrance area.

Diehl Aviation transforms the entrance area into a Welcome Area, which precisely reflects these ideas. What ensures a unique atmosphere is the newly developed, integrated ceiling lining that is combined with state-of-the-art projection technology. On the display in the right-hand partition, each passenger is greeted personally. Displays in the overhead stowage compartments guide them to their seat and potentially even

to their pre-reserved luggage storage. Aircraft manufacturers benefit from reduced installation time for the linings thanks to the integrated component parts and pre-assembly. The lower weight pays for itself, generating an attractive cost of ownership. The streamlining of the boarding process is beneficial to the operator as well.

The packet comprises:

- Entrance area and door frame lining
- Entrance ceiling lining with welcome affect projection
- Accent lighting ceiling
- Transition panel with ambiance lighting
- 3D-printed curtain header with transition panel
- Direct digital printing
- Display with welcome information

The advantages at a glance:

- Integrated electronics and equipment, integration of various ATA chapters on the parts
- FAL-optimized
- Customizable
- Weight-saving as main lighting no longer required
- Customizable components and content
- Increased headroom



**WELCOME
ON BOARD**



4EF

EF

Highly-integrated floor-to-floor lining with spacious overhead stowage compartments and upper lens.

A generous sense of space with more headroom, more space for hand luggage, more easily-accessible storage compartments, understandable announcements, and safe guidance to seating – Diehl Aviation offers all those innovative solutions. The newly developed 4-frame overhead stowage compartments provide space for up to eight trolleys, 21,7" x 15,7" x 7,9" (55 x 40 x 25 cm) big. The lower loading edge offers passengers easier access to the overhead bins.

But not only passengers benefit from the lining, operators have advantages too. For example PSU loudspeakers are relocated to and integrated in ceiling panels, which reduces their amount and finally weight. In new or in-use aircraft, the installation of the integrated, pre-installed lining and the overhead stowage compartment is easier and quicker now. The recessed, translucent strips in the luggage compartments

create a significantly lighter cabin when the compartment doors are open and with 100 Lux on the floor when they are closed. Displays replace the usual seat numbers and can be used for a variety of other functions. Hidden latches and panel speakers are innovative cabin elements: both in terms of high user comfort and with their impressive sound reproduction.

The packet comprises:

- Indirect lighting with new upper light lens
- 4-frame overhead stowage compartment with 2 doors
- Simplified and function-optimized ceiling
- Integrated side wall
- Panel speaker in overhead stowage compartments
- Virtual window
- Digital printing
- Hidden latch

The advantages at a glance:

- More space for up to 8 trolleys
- Lower loading edge
- Weight reduction
- Cost-saving
- Reduced installation time
- Seating by windowless frames
- More headroom
- More light in the cabin (100 Lux on the floor)
- Optional customization

Aft area: Compact & efficient - even in the back of the cabin.

Competition among airlines is relentless. So success demands excellence and efficiency. Diehl Aviation took this demanding market environment as an opportunity to fundamentally re-think existing solutions.

The result was SKYPAX™, a new cabin densification concept developed in cooperation with Lufthansa Technik with its highly-integrated monument for the aft area. It is made up of a Galley and two Lavatories, which can be converted for people with reduced mobility to use. This integration also gives rise to further weight reduction as well as creating space for up to two additional rows of seating – dependent upon seating position and configuration – which is equivalent to 12 additional revenue seats. And then the Stowalley provides the necessary storage space for the corresponding catering service. If this isn't needed as a dry galley for standard

units or trolleys (one full size or two half size) then it can, with just a few touches, be converted into a wardrobe, for example.

The Plug & Stow modules further increase the flexibility of the galleys. They can be quickly and easily exchanged with inserts for the galley to offer additional storage space for the crew's hand luggage or for emergency equipment. As a result there is more storage space for the passengers hand luggage. Using the Virtual Outside View in this area, passengers seated here can look out of the window – even if there isn't really one there.

The packet comprises:

- SKYPAX™ module with Innolite lavatory
- Direct view via SKYPAX™
- 16G partition with double cabin attendant seat
- Ceiling with integrated surface light
- Direct digital printing
- Plug & Stow modules
- Stowalley with MAGIC trolley
- Virtual Outside View
- Integrated curtain header – ceiling panel

The advantages at a glance:

- Reduced weight
- Lower costs
- Additional seating



EXIT





1 A B



Cabin Area Network and Services.

The Cabin Area Network System and Services (CANSAS) is a high-speed cabin network with an open platform. It runs a vast variety of applications and functions including third party applications on an open Linux ecosystem. In addition to non-essential functions, it covers all the traditional cabin management system functions.

Characterized by high computing performance and storage capacity CANSAS is fully configurable and adaptable to customer needs.

CANSAS features a variable number of elementary, identical, and versatile devices – the "Input/Output Distribution Nodes" (IODN). The Graphical User Interface (GUI) for the crew is displayed on a Flight Attendant Panel (FAP) which also comprises the same functionality as the IODN.

Supported control and monitoring functions:

- Smart Boarding with welcome displays, projection, sound/audio, Passenger Service Unit
- Cabin lighting with extensive lighting and projection scenarios
- Predictive Health Management with integrated sensors
- Integrated video monitoring function
- High quality audio management from handset to speaker
- Use of mobile devices (Personal Electronic Devices) for crew and passengers

The packet comprises:

- Flight Attendant Panels
- Input/Output Distribution Nodes
- Passenger Service Unit electronics
- Control and networking of all cabin systems
- Smart Boarding displays on the overhead stowage compartments
- Wireless seat monitoring
- Cabin video surveillance
- Crew devices
- Hatch/overhead stowage compartment status
- Audio & intercom processing

The advantages at a glance:

- Distributed system with a flexible, scalable architecture
- Reduced weight and power consumption, fewer parts
- Quick and easy configuration
- Adaptable towards airline specific needs
- Safe and Secure platform for third party applications
- Integrated (optional) cabin video monitoring function
- Supports new cabin functions such as Predictive Health Management

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