

DESIGN
ENGINEERING
AND
INNOVATION

The Design, Engineering and Innovation team at Etihad Airways Engineering provides finest Innovations, Engineering and Production solutions to Etihad and customers from all over the world.

Etihad Airways Engineering, a wholly-owned subsidiary of Etihad Aviation Group, is the largest commercial aircraft Maintenance, Repair and Overhaul (MRO) service provider in the Middle East. Etihad Airways Engineering enjoys a rich legacy of MRO experience and expertise, having served more than 100 airlines and aviation operators from around the world over the last 25 years.

Our state-of-the-art facility at Abu Dhabi International Airport offers an extensive maintenance capability for Airbus and Boeing aircraft. We offer around-the-clock line maintenance facilities including advanced composite repair, cabin refurbishment, component overhaul and design, engineering and innovation services.

Situated at the very heart of one of the world's most prolific aviation growth markets, Etihad Airways Engineering plays a key role in supporting Abu Dhabi's vision of being a global aerospace hub that provides a significant contribution to the economic growth and diversification in the United Arab Emirates.



1.6 M
Manhours
per year



More than
200,000 m²
of apron & hangars



9 Heavy wide-body
bays incl **3** A380 bays
with paint facilities



Only MRO in the
MEA with **PART 21J&G**
EASA approvals



DESIGN

Etihad Airways Engineering is an EASA Part 21J and GCAA Part 21J Design Organisation Approval (DOA) holder and is a one-stop-shop for all aircraft cabin modification requirements. The Minor and Major (STC) scope of approval facilitates complete cabin conversions for all types of large aircraft, both commercial and VIP.

The Design team provides innovative, cost effective and customised solutions, providing tailored designs to our own in-house production facility. This enables the manufacture of a wide range of cabin parts which we can offer our customers with short lead times and competitive pricing.

DOA Capabilities:

- ▷ Full Cabin Reconfiguration (STC)
- ▷ Program Management
- ▷ Interior Trim & Finish
- ▷ Livery Design & Solutions
- ▷ Interior & Exterior Decal Design
- ▷ Cabin Parts Design
- ▷ 3D Printing, EASA Design Approval
- ▷ Emergency Equipment Changes
- ▷ IFE & Avionics Modifications
- ▷ Cabin Monument Installations & Modifications
- ▷ Crew Rest Compartment, Rails & Curtains
- ▷ Cabin & Emergency Floor Lights.
- ▷ In-house Flammability Lab (full capability)
- ▷ Galley Modifications including new Galley Inserts
- ▷ 3D Modeling/CATIA V5 and Rendering
- ▷ Curtains, Carpets and non-textile Flooring Changes
- ▷ Finite Element Analysis using Nastran/Patran

ENGINEERING

Our engineers are available 24/7 for AOG support, offering repair and troubleshooting for line maintenance, base maintenance and workshops. We have strong hands-on experience in efficient airline and MRO operations for the following aircraft: A300/A320/A330/A340/A380/B737/B757/B767/B777/B787.

Technical Services Capabilities:

- ▷ Major Repairs & Modifications including: Structures, Systems, Avionics and Engine/APU
- ▷ Replacement of Major Structure Elements
- ▷ Composite Structural Repairs: including A380/B787
- ▷ Design Deviation (EASA & GCAA Minor Approval)
- ▷ Repair Solutions under Part 21J Approval
- ▷ AOG Desk & AOG Consulting
- ▷ Aircraft Records and Maintenance Data
- ▷ Maintenance Control Center Services
- ▷ Drawings & Tools design
- ▷ Lease-in & Lease-out Consulting





PRODUCTION

Etihad Airways Engineering holds the only EASA Part 21G Production Organisation Approval (POA) in the Middle East and offers competitive solutions for cabin interior parts, modification kits and trim and finish refurbishments. Our Production Organisation manufactures metallic, plastic, composite and soft furnishing parts for aircraft cabin and cargo modifications.

POA Capabilities:

- ▷ External and Internal Decals
- ▷ Seat Covers
- ▷ Floor & Sidewall Panels
- ▷ Folding Trolley Rack
- ▷ Ownership Data Plates
- ▷ Cargo Liners
- ▷ Flight Spare Box
- ▷ Thermoforming
- ▷ Additive Manufacturing
- ▷ Document Boxes
- ▷ Curtains, Carpets, Mirrors & Pouches
- ▷ Metallic Tubes



INNOVATION

The Design, Engineering and Innovation team develops highly innovative solutions in collaboration with suppliers, universities, researchers and OEMs, offering advisory, project management and development services to Etihad and customers from around the world.

With our vast industry network we can support your company to test and implement the most advanced ideas for tomorrow's aircraft and maintenance operations.

Innovation products:

- ▷ **MRO Efficiency:** paperless MRO, fuel tank Drain-Doctor, RFID
- ▷ **Big Data & Predictive Maintenance:** for aircraft systems and cabin
- ▷ **Flying TestBed:** 2016 business aviation innovation of the year winner
- ▷ **Intelligent Cabin Technologies:** smart galley, intelligent seat and lavatory
- ▷ **Next Gen Inflight Connectivity:** development, certification & installation
- ▷ **Additive Manufacturing:** for cabin interiors, only airline MRO with EASA approval
- ▷ **Airline Operation Efficiency:** fuel efficiency and weight reduction
- ▷ **Consulting Services:** for partners to develop new technologies & innovations.





الإتجاه
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AIRWAYS
ENGINEERING

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