



Industrial Engineering

New aircrafts maintenance facilities for the **Royal Jordanian Airlines** Queen Alia International Airport (Jordan)

Royal Jordanian Airlines / Detailed design and works management
Project value: € 20M **Infrastructures (2011-ongoing)**



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The hangar has been designed for the current and future Royal Jordanian's fleet. In the hangar it will be performed maintenance operations from A check to C check. The number of workers in the hangar is 100 persons working in one shift. The list of aircrafts considered includes:

Current fleet:

- A340-200
- A330-200
- A310-200
- A321-200
- A320-200
- A319-200
- E195
- E175

*Future aircrafts
to be considered
(as indicated
in meeting and
communications):*

- B747-300
- B787-9
- A340-300
- A330-300
- A318





Industrial Engineering

Work phases

- ↪ Aeronautical study
- ↪ Conceptual design
- ↪ Detailed design
- ↪ Providing assistance to works tendering
- ↪ Overseeing construction works
- ↪ Geotechnical study
- ↪ Models
- ↪ Walk/fly-through animation
- ↪ LEED requirements

Scope of work

Phase I / Hangar building

- ↪ Hangar measuring 84x94m²
Free height of 25.5m
- ↪ Workshops & storerooms (0 & 1st floors).
Foundations and structures prepared for a future expansion by adding an additional floor (2nd floor)
- ↪ Hangar administrative offices (0 floor) and mezzanine for seat shop above offices (1st floor)
- ↪ Foundations and structures prepared for a future expansion by 2 additional floors (2nd & 3rd floors)
- ↪ Engine shop (0 level) for 4 gantries

Developed land

- ↪ Apron
- ↪ Roads to communicate buildings and facilities
- ↪ Connection road to airport service road

Complementary buildings

- ↪ GSE building
- ↪ Touch up & Paint shop building
- ↪ Technical houses: Static converters, Power Substation, Power Generator, Compressed Air, Fire Pumps
- ↪ Fire protection water tank

Phase II / Engineering offices

- ↪ Two stories, hangar mezzanine (2nd & 3rd floors)
- ↪ Materials warehouse building (0 and 1st floor)
- ↪ Foundations and structures prepared for future expansion by an additional floor (2nd floor)
- ↪ Oxygen storehouse & Commercial & DGR store

Phase III / Air conditioning of previously built spaces in phase I and II



CONFIGURATION	AIRCRAFT	STANDS				
		1	2	3	4	5
1/aircraft	B747 - 300	-	-	X	-	-
3/aircraft	B787 - 8/9	(+)	-	X	-	(+)
	A340 - 300/200	(+)	-	X	-	(+)
2/aircraft	A330 - 300/200	(+)	-	X	-	(+)
3/aircraft	A310 - 300	-	X	-	X	-
	A321 - 200	X	-	X	-	X
	A320 - 200	X	-	X	-	X
	A319 - 100	X	-	X	-	X
	A318 - 100	X	-	X	-	X
	E195	X	-	X	-	X
	E175	X	-	X	-	X

x The aircraft the stand can hold > (+) When the aircraft is on stand x, the stand marked with (+) can hold narrow-bodied aircraft

