A380 FINAL ASSEMBLY AND PREPARATION FOR FLIGHT

The Jean-Luc Lagardère site

Built between 2002 and 2004, the Jean-Luc Lagardère complex (former President of the Lagardère group, an EADS - former Airbus Group - shareholder and a decisive player in the launch of the A380 programme) is located in Blagnac near Toulouse.

This site, with a total surface area of 50 hectares (2.5 times bigger than the Clément Ader plant in Toulouse, where the A330s are assembled), is entirely dedicated to the final assembly of the A380 and its preparation for flight. The dimensions of the central hangar are impressive: 490 metres long, 250 metres wide and 46 metres high. Slightly less than 1,000 people work on the site.

The A380 assembly process

The total assembly process for an A380 lasts about eight months, half of the process being carried out in Toulouse (assembly and testing) and half in Hamburg (cabin fitting and paint).

At the final assembly line in Toulouse, the industrial process is organised along a North-South axis. The various subassemblies arrive by road at the north of the Jean-Luc Lagardère site. Each aircraft arrives in the form of six subassemblies - the nose, central and aft fuselage sections, the tailplane and the two wings - on six articulated lorries via the Oversize Transport Itinerary (IGG). The subassemblies are unloaded using self-propelled vehicles before being taken to the final assembly line.

General assembly is carried out at a single combined workstation, where all the assembly operations are performed, except engine installation. Here the three fuselage sections are mated, the wings are attached, the horizontal and vertical stabilisers are assembled, the engine pylons, landing gear and wheels are mounted, and the electronic racks are installed. The aircraft is then towed to the next station, where the general tests are performed. This phase takes around ten working days.

The general tests are carried out at three modular stations. Here will be tested the electrical and hydraulic systems, the programmes of the on-board computers, the moving parts and landing gear. This is also where the engines are installed. This phase takes around twenty working days.
The final tests are performed outside (check of fuel gauge calibration, cabin pressurisation, radios, radar, navigation systems, fuel tank sealing) and the aircraft is then prepared for flight. This phase takes around ten working days. Five more days are needed for the preparation for flight.

The engine tests are then performed in the engine run-up area, before the aircraft makes its first test flight, flying to Hamburg where the cabin is fitted out and the aircraft is painted in the customer airline's livery, operations which take just over three months (six weeks for the cabin furnishing, ten to fourteen working days for the paint and around fourteen days for flightline test activities).

The A380 is then delivered from one of the two Airbus delivery centres, either in Toulouse or in Hamburg, according to the customer.