



## **STRUCTURAL ASSEMBLY LINE FOR A320 FAMILY**



## STRUCTURAL ASSEMBLY LINE FOR A320 FAMILY SINGLE AISLE

Hamburg - at the end of 2006 AIRBUS Germany placed an order with MCE to assign an assembly line for the section and structural assembly of A320 family - Single Aisle fuselage center section 15/21 - which demands highest requirements of quality and precision.

For the first time in the aircraft industry the principle of the flow production for structural assembly was realized. The fuselage section 15/21 is lying on a fuselage-carrier, which gives the geometry within a range of 0.2 mm tolerance and moves rail guided in a daily rhythm from one station to the next on a customized rail system with 50 m length.

Several assembling works are done to get the geometry with highest request to the accuracy. There is a clear benefit to this new way of assembly: reduction of cycle time, no need for consecutive positioning works to reach geometry in the following stations and no risk of damage by manipulating the A/C part. For this purpose all geometry-giving devices of the respective stations will be docked at the fuselage-carriers.

In total the Flow line 15/21 consists of six fuselage-carriers with a dimension of each of approx. 9 x 5 m and approx. 16 to of weight (without Aircraft-parts). Most modern laser tracker technology in highest precisions applied to measure each fuselage-carrier in each station.

The very high demands regarding quality and technical standards which had to be implemented in this short period have placed highest requirements at engineering, manufacturing, assembly, measuring and project management.

The best trained team fulfilled the high requirements so the user tests in April 2008 could start in time.

### Facts & Figures:

Working area:	1,900 m <sup>2</sup>	Customer:	AIRBUS Deutschland GmbH
Steel construction:	130 t	Project period:	2007 - 2008
Dimension fuselage-carrier:	9 x 5 m	Length of conveying system:	approx. 50 m
Self weight fuselage-carrier:	6 x 16 t	Tolerance requirements for parts:	± 0.2 mm

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