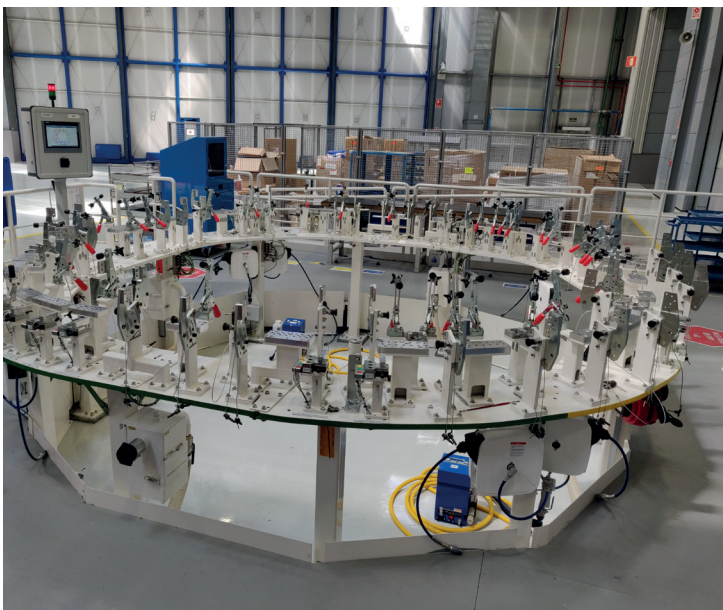
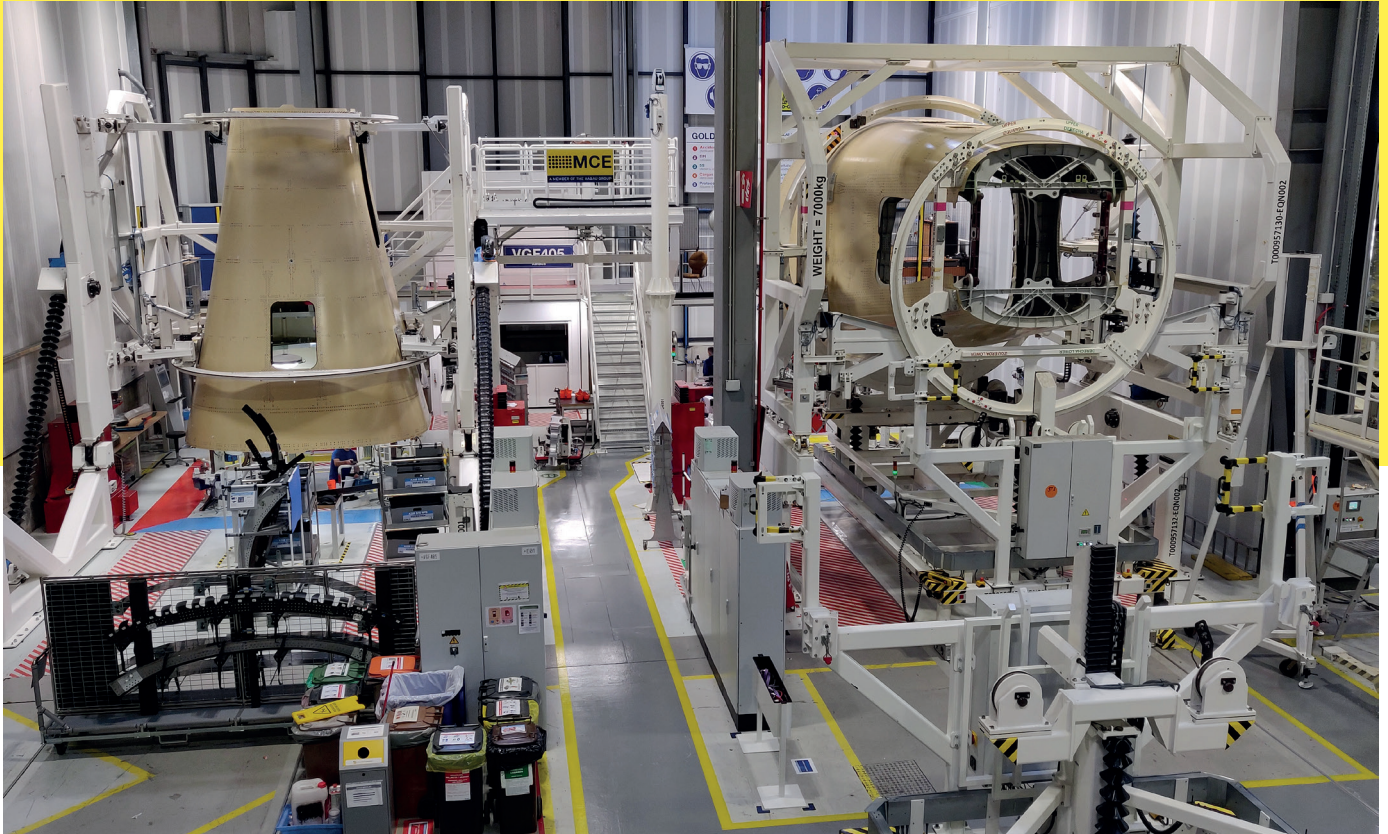
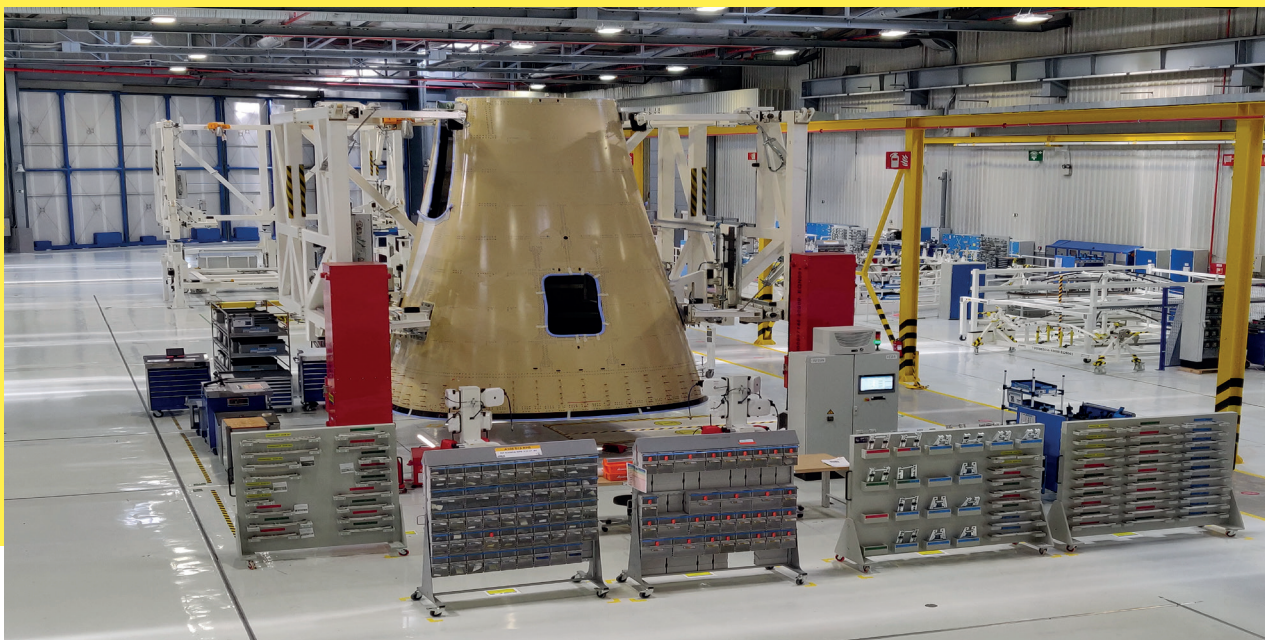


A350 Rear Pressure Bulkhead (RPB) Shift Station



Madrid, Getafe – June 2018, Airbus placed an order at MCE GmbH to deliver 10 assembly stations for the pressure bulkhead, which is installed in the rear cone of an aircraft, the so-called S19.

MCE received the contract as a turnkey general contractor for all the stations, the work scope including concepts, engineering, manufacturing, set up, and commissioning. The project was delivered by MCE GmbH to the complete contentment of our customer Airbus. To fulfilling the customer's assembly requirements, the following assembly modules were supplied, preparation stations, frame installation stations, bulkhead installation stations, measurement station, drilling templates, and transport trolleys.



The two preparation stations are used to preassemble and predrill the frames for the later installation steps.

In two frame installation stations, the frames of the S19 are positioned by a jig. A measurement-assisted assembly system is used to position the S19. The system consists of two laser trackers and measurement adapters. The installation takes place with high accuracy of +/- 0,20 mm.

Additional three bulkhead installation stations are used to position and install the RPB. It is moved by a jig (RPB trolley) and positioned by pin holes in the correct position for drilling and riveting.

After finishing the assembly process, section S19 is moved to the measurement station. It is measured by two laser trackers respecting 280 measurement points, each of them with a special adapter to secure the required accuracy before shipment to Hamburg.

In total, 759 drillings templates (395 different types specially designed for each purpose) were delivered for the drilling work in all stations. All of them were measured on a high-performance measurement machine respecting a tolerance of +/- 0,2 mm for all

holes, with up to 30 holes for each template. A colour code and letters help the worker to place them in the correct position.

Seven self-autonomous transport trolleys (six with their own PLC control) were delivered to move the sections between the stations. The section is loaded on the trolley in a station and moved by a material flow control to the next desired station.

Despite the corona situation today, we as MCE can look back on the three-year successful planning, installation, and commissioning phase.

MCE GmbH delivered all jigs to the complete satisfaction of our customer Airbus and met all demands in the tight schedule.

Facts & Figures:

Customer:	Airbus Operation GmbH
Project Period:	06/2018 – 06/2021
Total n° of stations:	10
Total n° of drilling templates:	759
Total n° of measurement adapters:	151