

# Case Study



## Contour doors for increased productivity

### SUMMARY

#### Overview

**Industry:** MRO, aviation, cargo handling, machinery

**Solution:** bespoke contour doors

#### Benefits

- One door to suit the two aircraft types - Airbus Beluga ST and XL aircraft
- Achieves an environmental seal around the fuselage
- Allows rapid and safe deployment of cargo within the controlled environment of the hangar
- Multiple safety features.



Jewers Doors has for many years supplied contour doors which are specially shaped to encompass the fuselage of an aircraft in order to provide an environmental seal. These doors allow part of an aircraft (e.g. the nose or tail) to be within the controlled environment of a hangar for maintenance, repair and overhaul (MRO) operations. With part (often the major part) of an aircraft remaining outside the hangar, space within the hangar is available for other aircraft to be worked upon – thus increasing productivity. Such an arrangement also means that MRO operations can be undertaken on larger Code E and F aircraft in hangars that would otherwise be too small.



## Beluga contour doors

Jewers was contracted directly by Airbus to design four sets of special contour doors to suit its Airbus Beluga ST and XL aircraft. The new doors comprise one pair of main contour doors for the XL and a secondary pair of internal mask doors to suit the ST aircraft. The soft contours of each pair of doors are finished with natural rubber seals to reduce the ingress of air, dust and water. The Airbus Beluga Transporter aircraft was developed using the Airbus A300-600. Its cargo is carried in the bulbous freight compartment accessed via the massive hinged nose door (hence the similarity in shape to a Beluga whale). It is only the nose section of the aircraft that enters the hangar, with the rest of the aircraft remaining outside. Its cargo is often very special and has included sections of the international Space Station, large and delicate artwork, industrial machinery and even complete helicopters.



## Safety and efficiency

All Jewers Doors hangar doors have multiple safety features available, however, the Beluga doors were enhanced to ensure rapid and fail-safe operation. 'Time of flight' E-Stop sensors, infra-red distance measuring lasers, safety PLC accessed by HMI touch screens and coded magnetic safety interlocks are used to ensure this is possible. Equally importantly, there is a quick and simple means of emergency operation in case of electrical power outage or failure.

## Worldwide

With contour doors already installed for A320, B737, C17, A400M and Beluga ST/XL aircraft in the UK, France, Germany and Bulgaria, we anticipate further orders from around the world.

**Jewers Doors has ISO 9001 Quality Management and ISO 14001 Environmental Management accreditation. It is member of the British Aviation Group and the British Airport Services and Equipment Association.**

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### About Jewers Doors Ltd

Jewers Doors is a world-leader in the design, manufacture, installation and repair of aircraft hangar doors of all sizes.

Our range of Esavian and Phoenix doors have been installed in the UK, and throughout the world including Europe, the Middle East, the Far East, North and South America for more than 100 years.

