WDS Components Help Desk

Aerospace Industry

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WDS Meets the Standards of the UK Aerospace Industry

The aerospace industry is renowned for its focus on excellence. As such its suppliers must meet exacting quality standards and strict cost targets, while also ensuring adherence to strict delivery schedules. Darren Gilligan, an aerospace product specialist at engineering component manufacturer and supplier WDS Component Parts Ltd. looks at some of the special requirements of the industry.

The aerospace industry is instrumental to the UK's economy and its global reputation as a leader in engineering. It has an annual turnover of over £30bn, employs about 120,000 in 600-800 companies and generates about 1% of the country's total economic activity.

The aerospace sector is very collaborative in the way it operates. The big companies at the heart of the industry generally do not aim to do everything in house, but work closely with suppliers; for instance, by tapping into their design expertise. This means, among other things, that more people are involved so projects can advance more quickly, while expertise is nurtured over all companies involved.

WDS supplies the aerospace industry through a number of channels. On the aircraft manufacturing side, for instance, it tends to have a focus on material handling operations. As such it supplies hoist rings, T-bolts, spring bolts, quick release pins, handwheels, clamps, and other standard parts for incorporation into the fixtures used on the plant and machinery on the production floor.

While great use is made of standard parts, WDS also often lends its expertise by designing customised holding rigs, tombstones and other equipment for particular duties.

Component quality is a key concern because the parts being made tend to be of extremely high value, so manufacturers want to minimise the risk of their being dropped, scratched or damaged in other ways. Thus many of the parts are to high strength designs or made in stainless steel or engineering polymer.

Market forces are driving many manufacturers to look at automating their processes to increase productivity. To this end there is an industry wide trend for improving workflow and materials handling and for ways to improve the actual manufacturing procedures. WDS is able to help with this by capitalising on it many years' of experience developing solutions in aerospace and other sectors.

WDS also supplies parts that are used in aircraft, such as spring plungers that are used to locate and lock airliner seats into position yet allow quick and easy reconfiguration between flights. It also supplies latches for luggage lockers, hinges and bolts for doors, anti-vibration mounts, gas struts and many other parts, each one essential for safe and comfortable aircraft operations. Each of these parts is expected to provide long reliable service, often with only minimal maintenance, and to be supplied at a competitive price.

Furthermore the weight of each part is a consideration – saving a gram or two on say each latch will add up and make a small but welcome contribution to fuel economy.

WDS also supplies parts to the makers of ancillary equipment like the trolleys the cabin crew use to distribute food, duty free gifts and other items. These include drawer slides, castors, handles, locks and latches. The design requirements here include being compact and having safe rounded corners and edges; they also need to be lightweight yet strong enough for a long hard life of knocks and bumps.

The vast range of standard parts available from WDS can be viewed on our website. This is carefully designed to be clear and intuitively easy to navigate. It also has a host of features to assist selection, including technical information, installation guides, 2D and 3D CAD downloads, slideshows and video tutorials.

WDS’ manufacturing and distribution operations are fully integrated, helping to minimise lead times, while products are produced to international standards, all features that help meet aerospace’s need for total excellence.