

Rubb USA Aircraft Hangar Rockford International Airport

Rockford, Illinois



When airplane maintenance leader AAR Corp was looking to build two maintenance hangars that would provide space for the largest commercial and military cargo planes, they chose the Rockford International Airport. Just outside of Chicago, Illinois, it's one of the country's most densely populated areas of experienced aerospace personnel.

The Greater Rockford Airport Authority selected Rubb Building Systems from a number of options to design, manufacture and construct their new 200,000ft² maintenance and repair facility. Airport structures in the area have traditionally been limited to design-build steel buildings or pre-engineered steel buildings. The Rockford Airport management team looked to Rubb Building Systems for the creation of two new structures that would dramatically change the landscape of the airport. Each of the Rubb structures is fitted with a five-panel mega-door with pivoting mullions that allow access up to an Airbus A380 jet.

The 1,100 tons of columns, beams, and peripheral steel is hot-dip galvanized. Working closely with the fabricator, the \$40 million project is comprised of two, 10-story tall side-by-side identical hangars. However, this project did not come without its challenges, specifically creating a structure able to support the large clear span needed to house a jumbo jet. In this case, the facility is comprised of two mega hangars that have interior dimensions of 300.7 feet by 300.7 feet each. The height of the hangars exceeds 100 feet, and the side walls reach heights of just under 40 feet. The core of the dynamic arch structure is a skeleton comprised of hot-dip galvanized steel, clad with 51-mm thick Thermohall insulated fabric.

With the majority of airport maintenance facilities being relegated to a traditional building design, Rubb offered the Rockford Airport something unique. Structures supplied by Rubb offer design flexibility and adaptation coupled with a cost effective means of long-term corrosion protection. The buildings integrate ventilation windows and conventional doors while providing massive clear spans with no center columns. The translucent roofing is continuous, preventing water and air infiltration with no connection joints. The hot-dip galvanized steel truss structure provides longevity, cost effectiveness and superior corrosion protection as well as a consistent zinc finish on both interior and exterior steel surfaces reinforcing the Rubb difference—rugged and reliable.

Rubb is revered as the premier provider of fabric-coated structures, and the Rockford Hangar is the largest structural project in Rubb USA's history. Rubb

sets themselves apart by designing their structures with steel, which is more durable than aluminum, and when paired with hot-dip galvanizing provide longevity and superior corrosion protection. The new facility was opened in December of 2016. Today, the Rockford Airport maintenance facility presents a unique appearance from the ground, as well as from the air. ■



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