Building Toward the Sky Overhead Cranes for Aerospace





We live in an age of advanced technology: from compact, powerful cellular phones to the fastest travel known to man, modern life is ever evolving. One of the industries rapidly propelling our society onward — not to mention upward — is aerospace.

Technically determined as the industry responsible for the various aspects of designing, testing, building, selling, and maintaining aircraft and aircraft parts, rockets, missiles, and spacecraft, aerospace is the very definition of high technology.

Such technology demands reliable, error-proof heavy lifting: manufacturing an airplane, testing a new jet engine, or building a missile all require top of the line equipment, and cranes get the job done.

Cranes for Aerospace

Aerospace critical lifts join clean room cranes, nuclear cranes, and even wastewater treatment cranes as highly specialized solutions for custom load management. Available in a full range of classifications to suit any manufacturing setup, the most common cranes for aerospace applications include:

- 1. *Clean Room Cranes,* ideal for products with the most sensitive components. Clean room cranes are essential when production processes require the use of facility hygienic rooms during manufacturing.
- 2. Single Failure Proof Cranes, which can be outfitted with unique capabilities to handle critical loads.



Performance and safety features for single failure proof cranes include:

- EMI Filtration to minimize EMI emissions into the power system
- Weigh Scale System to provide .5% accuracy of the lifted load
- Flux Vector AFD Controls to allow an operator to hold the load aloft at zero speed
- Three Separate Control Means, including a remote master and two portable stations
- Sophisticated Positioning Systems to assure a positional accuracy of +/- .0625"

- Redundant Hoist Reeving System to prevent a load drop in the event of rope failure
- Overspeed Protection connected directly to the drum shaft
- Misreeving Protection designed to detect slack wire rope conditions
- Emergency Hoist Brake, a caliper type brake acting directly with the hoist drum
- Hook Isolation rated at 25,000 volts



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Practical Applications for Cranes in Aerospace

At American Crane, our team has extensive experience working with highly specialized material handling equipment. Our past work in aerospace applications ranges from aircraft manufacturing facilities to rocket and satellite construction, and we routinely design equipment to meet a facility's specific needs.

Whether your project involves building flight components, performing critical maintenance, or providing essential service, American Crane stands ready to get the job done.



The Kennedy Space Center

Features a custom 25-ton, top-running, double girder, class 100K clean room crane from the American Crane team. This crane features precision controls for assembly of the Orion space capsule.

The Boeing Dreamliner Manufacturing Facility

Operates with an extensive custom material handling system, all designed, manufactured, and installed by American Crane. The 80 ton custom underhung crane system utilizes multiple bridges for 100% crane system accessibility to an area having a clear span of 500' x 1000'.



Aerospace Specialty Work with American Crane

For over 45 years, the team at American Crane has supported the most innovative industries in the world with lifts, hoists, cranes, and specialized load management solutions. As the aerospace industry quickly grows, engineers will need tools and machinery to support, build, and test the technology of tomorrow.

Whether working on rockets, missiles, or spacecraft support pieces, overhead cranes will be ready to support the most sensitive heavy lifting ahead. With the American Crane team's extensive knowledge in material handling equipment and specialty applications, we're ready to help equip aerospace efforts with the best lifting support the industry can offer.





"In an increasingly complicated marketplace, it is nice to know about a company whose capabilities you can rely on. At American Crane & Equipment Corporation, we are uniquely positioned to provide our customers with a single source to satisfy material handling requirements. This integrated approach includes project managers, engineers, complete manufacturing facilities and service technicians to help you with your material handling needs. Our company has a long standing reputation as a leading supplier of quality equipment and engineering services to customers throughout the world. American Crane & Equipment Corporation is here to make your job easier."

Oddvar Norheim, President and CEO

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Contact Us

Resource Library

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