Ancra Experience

Engineering Expertise
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New Heights in Quality
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Repair Stations
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Our Operations
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Secure for Takeoff

Our heritage of innovation began in 1969 with a mission to improve safety, security and service for cargo handling and restraint in the airline industry. With innovative design, quality materials and attention to customer requirements, Ancra International began building components and assemblies that set new standards in engineering, efficiency, and performance. Now, four decades later, the name Ancra is known for world-class design and manufacturing of quality, competitively-priced aircraft cargo loading and restraint systems.

Design Leaders
The company’s tradition as a product innovator is reflected in the 75 domestic and foreign patents, 51 product trademarks, more than 75 FAA Supplemental Type Certificates (STCs), and Ancra’s proprietary Load Analysis software. This unique software generates simulated applied loads for multiple configurations and multiple cases, rapidly identifying critical components and marginal support structures that require layout modifications by the aircraft structural engineers. Once the program confirms the part’s viability, validation tests are conducted and designs are finalized to receive airworthiness certification (STC). This software is a clear advantage over our competitors.

Today, as part of the $2.5 billion, global family of The Heico Companies LLC, Hawthorne, California-based Ancra holds a 98 percent market share of the loading systems in narrow body aircraft market and a significant and growing segment of wide body aircraft. We also are a leading maker of aircraft seat and restraint fittings and enjoy a notable 100 percent on-time delivery for all cargo loading systems for the past 10+ years.

Cargo Loading Systems
In its 40-plus years, Ancra has evolved into a global leader in the design, development and manufacture of on-board cargo loading systems (CLS). Its primary products, airborne cargo loading systems, are in service in more than twenty (20) different aircraft types. Ancra specializes in both integrated and fully mechanical cargo loading systems for narrow and wide body aircraft. We also have powered systems for selected wide body aircraft.

Cargo loading system designs include full-freighter, combi, convertible, quick-change and lower lobe configurations supplied as original, retrofit and conversion equipment on the B747 freighter, combi and passenger; MD11F; DC-10F; A300-600RF/5F; A320-200F/5F; A330-200F and B767-200F/300SF; B757-200F; B737-300/400/CQC; MD80-series; C-40A; Tu-204 and B727F to the Bae 146QT as well as QC and the CASA CN 235.

Ancra has been helping move people and cargo safely and securely all over the world. Combining superior engineering, top-quality materials, and an experienced and dedicated assembly team, we build the finest aircraft products right here in the United States. From design and sourcing of raw materials through production to final inspection, each step is carefully monitored to bring you the best in quality, performance and reliability.
To assure that product quality is controlled at the source, all of our systems are assembled — and approximately 85% of machining operations are performed — in the Ancra headquarters facility in Hawthorne, CA or nearby in our 15,000 square-foot Ensenada, Mexico machining center. All outsourced parts carry full traceability and documentation (Certificates of Conformance) to show compliance with the approved type design. Our 85,000 square-foot facility in Hawthorne, CA can accommodate parallel production and assembly of a number of narrow and wide body aircraft cargo loading systems simultaneously, as well as on-going production, repair service and spare parts support.

Since loading and unloading operations are time critical, our products are designed to be maintenance friendly. Products such as our latches, tray rollers and more can be replaced on-board the aircraft in under a minute.

**Power Drive Units**

Ancra 3-inch Power Drive Units (PDU’s) are designed as drop-in replacements for original equipment and aftermarket PDU’s on B767, B777 and B747Fs, without modification to the aircraft structure or electrical connections. Ancra has also developed a 2-inch PDU for lower deck applications.

These lightweight units weigh less than 9 pounds, and are low profile, lower-cost alternatives to other in-service PDU’s. They feature high-traction force and controlled vertical force for maximum grip in wet or dry conditions. For continuous control, the single-drive roller does not retract during direction reversal. To aid in maintenance, the electrical cable is field replaceable in minutes, and the electronics, motors and gearing are environmentally sealed. The self lifting power drive unit features dual brushless DC motor operated by solid state power switching modules with redundant optical sensors and scrub sensors to minimize wear and tear on the roller rubber. The PDU features a sophisticated control system to detect soft and hard pallet characteristics for optimized traction and reliability.

When you work with Ancra, years of aircraft know-how goes into every product.
Ancra Lock Tool-Less Fitting

To comply with the growing need for rapid reconfiguration of aircraft, the new Ancra-Lock Tool-Less Fitting system can save significant hours in the installation and/or reconfiguration process. The system meets Boeing’s (16G) tool-less seat fitting requirements.

To install, the fitting is simply placed into the seat track, slid forward about half an inch, and with the press of the foot pedal, locked in place.

To remove, a simple push tool releases the detent pin and the fitting is moved aft to disengage the track.

Ancra fittings and cargo tracks are field-proven to be the finest aircraft restraint systems and components available worldwide. There isn’t a major commercial aircraft model that either is not currently or hasn’t historically used Ancra’s fitting products. With millions of miles logged in various applications and configurations, the right solution for virtually any task you need to accomplish is available either off-the-shelf or can be custom designed to meet your specific application.

Ancra Seat Track is available in light, medium and heavy-duty with load capacity ratings from 4,000 to 6,000 pounds for a single stud fitting and to 10,000 pounds for double and triple stud fittings. Single, double and triple stud seat fittings are available along with panel, stanchion, galley and tiedown fittings. Added to this family of durable fittings, is our newest innovation, the time-saving Ancra Lock, a Tool-Less and Quick Install-Release Fitting, used by Boeing.
In life-critical situations, equipment dependability is non-negotiable. Ancra’s dedicated engineering and quality teams make certain our products meet all of the stringent challenges of today’s military environment.

Military Solutions

Current rapid deployment missions mean even greater cargo payloads that must be loaded and unloaded efficiently and as quickly as possible. Ancra Cargo Loading Systems (CLS) are designed to be durable, easily maintained, cost effective and adaptable to any military aircraft. Engineering feats like these help the military achieve greater fuel economy, increased payload capacity and reduced maintenance costs. With the armed forces engaged in multiple fields of operation, Ancra is helping design assets that are more versatile, more cost-effective and more reliable.

Humvee Applications

The Humvee is a notable example. Ancra’s engineering contributed to an adjustable-height platform that gives stable footing for the turret gunner as well as a locking mechanism that positions and locks the turret from rotating during weapons firing. For storage of emergency tools such as picks and shovels, a tool tray was developed that fits under the vehicle, out of the way of normal operations. The Maxi/Mini Ambulance also uses Ancra straps and brackets to secure litters, oxygen bottles and storage nets to prevent shifting of equipment during all-terrain operations. Through our flexible design approach from-the-ground-up, Ancra dramatically reduced the overall number of required restraints and helped innovate new products for new applications.

Loading and Restraining

Ancra’s on-going contribution to military transport covers a wide range of applications. On the C130, the Ancra Litter Bracket Assembly is used for in-flight litter restraint. For armament, Ancra developed a bayonet-type latch that secures a protective cover to a metal base, creating a fully reusable projectile pallet. The design is approved for Army and Navy 155 mm munitions. On supply trucks, the Ancra Retract-A-Roll roller floor system allows easy loading and unloading of pallets and containerized cargo. The system’s pneumatically actuated ball bearings rise slightly above the floor level to move freight on and off, and retract below the floor during transport.

Another area of military transport benefiting from the efficiency of Ancra CLS systems is the adaptation of an all-cargo transport aircraft to carry military personnel and/or medical evacuations. Converted in minutes rather than hours or days, these aircraft can have multiple mission capabilities with huge benefits to our armed forces.

Ancra products have proven themselves on land, air and sea, always ensuring the highest level of safety for every military application.
Specialty Products: Built to Soar

Using proven design and manufacturing capabilities, Ancra has developed specialty products such as seat pallets, engine pallets, crew rest pallets, and cargo handling decks for the aircraft industry.

Manufacturing Services
We also offer manufacturing services to OEMs on a build-to-print basis. This service lets the OEM concentrate on new products and new business opportunities while Ancra delivers the individual component or completed end unit per the OEM drawings and customer’s desired delivery schedule.

Licensing
The above manufacturing concept can also be expanded into OEM product licensing whereby Ancra would assume complete product support and responsibility for all customer requirements including maintaining product drawings on a sustaining engineering basis, as well as existing supply chain, where practical. Parts and/or end units would be produced, customer inquiries handled and royalties provided back to the OEM. Instead of a competitor being created, as would happen if the product were sold, the OEM creates a partnership with Ancra and retains ownership of the product.
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