

# UNIVERSAL DOOR SYSTEMS

# NORCO



## WORLDWIDE APPLICATIONS

- Airline •
- Commercial •
- Military •
- Corporate •
- Architectural •
- Special Applications •
- Industrial •

# UNIVERSAL DOOR SYSTEMS

AIRLINE



## United Airlines - Logan International - Boston, MA

### Products, Processes & Performance

Six major steps are involved in setting parameters for design and construction.

1. Preliminary conference
2. Schematic design
3. Design development
4. Contract documents
5. Bidding
6. Building construction.

During the preliminary conference, architectural renderings are prepared, project decisions are made and initial drawings with specifications are submitted. The concept of a Universal Door System® allows Norco's technology to be modified and customized for any application.



240' W x 55' H, 10-leaf, bi-parting Door System with tail door

**N**orco Manufacturing Corporation, a world renowned company, is committed to exceed the expectations of its customers. For over 40 years, Norco Universal Door Systems have set the highest standard of quality in the industry for bottom rolling doors. Norco's product line has produced many unique door systems, integrating both leading-edge technology and innovative design. Always welcoming new challenges, Norco continues its advancement with creative engineering and ingenuity to manufacture the highest quality door system for its customers.

Decades of working with a full range of architects, engineers and building manufacturers has given Norco's engineers in-depth knowledge and extensive experience. Norco's computer generated designs ensure precise planning and structural integrity. Norco has the capability to provide door systems that not only exceed all operational requirements, but achieve aesthetic specifications as well.

Each door system order is spearheaded by one engineer who manages that single project from start to finish.



# UNIVERSAL DOOR SYSTEMS COMMERCIAL



## Global Express Completion Center - Windsor Locks, CT



113' W x 29'H, 6-single panel Floating Door Systems



**The Global Express Completion Center at Bradley International Airport in Windsor Locks, Connecticut required a hangar capable of accommodating multiple aircraft of various types and sizes. Norco designed and manufactured six full floating door systems, each panel measuring 113' wide by 29' high. Four door systems are located on the front of the building and two door systems on the back.**

**Each door panel is individually controlled and operated, accommodating either small or large aircraft as required. The flexibility of this door system enables this facility to operate more efficiently as well as save energy.**

**The versatility of the Universal Door System makes Norco the leader in the hangar door manufacturing industry.**

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**NORCO Universal Door Systems® contribute to energy savings as well as cost-effective operation of the facility.**



# UNIVERSAL DOOR SYSTEMS

## MILITARY



### 128th Air Refueling Group - ANG Hangar

#### Products, Processes & Performance

During the design development phase of the construction process, basic design elements are finalized, products and materials are examined, and specifications are refined. Norco engineers provide individualized consultation concerning everything from product characteristics to type and size of material applications. Following a successful development phase, contract documents are confirmed and approved.

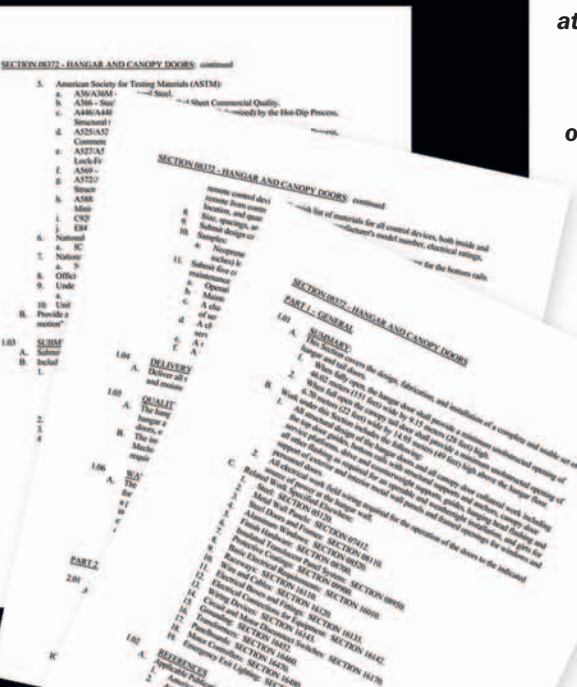


195' W x 43' H, 8-leaf, bi-parting Door System with tail door

**A**ware of construction and operating costs and a minimized building area, Norco engineers employed efficient form and function to design this door system for the 128th Air Refueling Group ANG, located at Milwaukee, Wisconsin's Mitchell International Airport.

A 195' wide by 43' high Norco Universal Door System, comprised of eight leaves, bi-parting, is utilized in the facility. In addition, a tail door, 20' wide by 20' high, will accommodate any future replacement planes.

The floor plan, a virtual DC-10 footprint, met the military's parameters, and the end result is a distinctive prototype for future military hangars.



# UNIVERSAL DOOR SYSTEMS CORPORATE



## Corporate Flight Alternatives - Dayton International - Ohio



198' W x 28' H, 8-leaf, bi-parting Door System



**C**orporate facilities commonly require door systems that not only accomplish operational needs, but also enhance the aesthetic appeal of the building. A Norco designed bi-parting, northern stack door system complements the beautiful architectural features of this facility.

With Norco's door system, function also plays an important role. By definition, the rails of a northern stack door system run along the inside of the facility, greatly increasing the life of the door and preparing it for inclement Ohio weather. With energy efficiency always in mind, interior insulated panels were also installed to prevent energy loss.

**NORCO Universal Door Systems®** are designed with careful consideration given to each aspect of the project. Norco uses the highest engineering standards while maintaining the aesthetic appeal of the building.

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# UNIVERSAL DOOR SYSTEMS

## ARCHITECTURAL



### Connecticut Centre for the Performing Arts

#### Products, Processes & Performance

*In order to expedite the transfer of drawings and specifications, Norco utilizes AutoCAD engineering. Coordination of everyone from architects to building designers is necessary for successful organization, bidding, and approval. Construction's ending phase consists of contract finalization, the receipt of proper permits, and the eventual completion of the construction itself.*

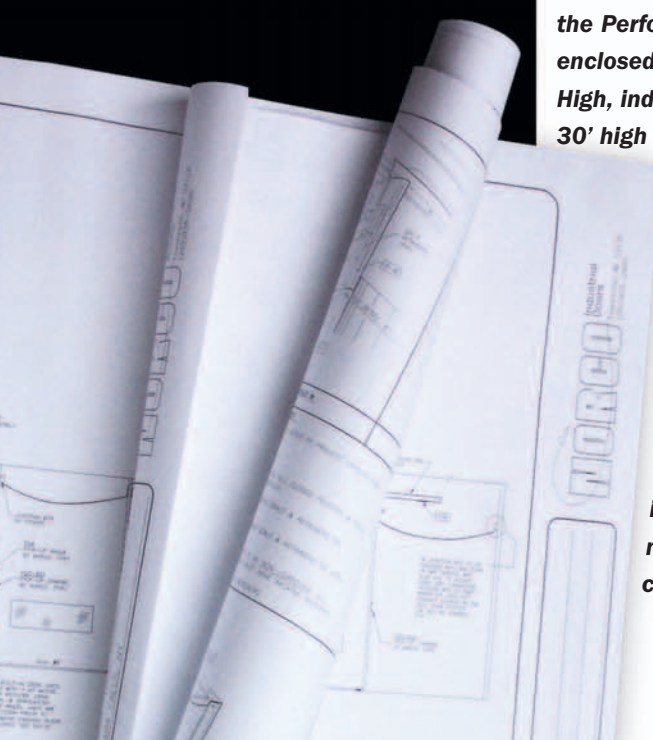


525' W x 30' H, 15-leaf, bi-parting, curved Door System

**F**unctional versatility and flexibility are two of Norco's strengths. This Norco Door System is designed to allow the Connecticut Centre for the Performing Arts to operate as either an open-air amphitheatre or an enclosed theatre depending on the season. Fifteen, 35' Wide by 30' High, individually retractable panels dramatically create a 525' wide by 30' high opening.

*This facility's storage problem was solved with the use of eight curved rails guiding eight door panels to the right and seven to the left. Both halves retract into a mezzanine holding area which can be closed off using 30 foot high swing doors also designed by Norco.*

*Because proper auditory resonance was an important design factor, textured acoustical panel was applied to the interior surfaces of the door, along with a sound absorbing metal sandwich panel. Innovative engineering and design created this distinctive and original Universal Door System.*



# UNIVERSAL DOOR SYSTEMS

SPECIAL APPLICATION



# NORCO

COX - Honolulu, Hawaii



104' W x 28' H, 6-leaf, around-the-corner Door System



**L**imited land availability predicated design of a bi-parting around-the-corner Norco Universal Door System, enabling six panels to ride along three inside rails. After negotiating a corner, the panels arrive stacked on each side of the building, maximizing the available space for aircraft and minimizing the door storage area.

Furthermore, this Norco Door System is custom engineered to withstand hurricane force winds common to the islands.

Norco's proficient and conscientious engineers continue to welcome new design challenges. Their expertise and innovation guarantees that every expectation will be exceeded. Norco meets both common and uncommon design challenges head-on and their Universal Door System surpasses expectations as a result of experience and inventive engineering.

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**NORCO** engineers continue to accept new design challenges and solve problems through engineering expertise and innovation.



# UNIVERSAL DOOR SYSTEMS

## INDUSTRIAL



### Gladding-Hearn Shipbuilding facility - Somerset, MA



160' W x 39' H, 3-leaf, floating Door System

**NORCO** offers a variety of **Universal Door Systems<sup>®</sup>**, all of which are customizable for unique conditions.

*The Gladding-Hearn Shipbuilding Facility in Somerset, Massachusetts houses a full floating door system exhibiting Norco's versatility. The building's 24,000 square foot area has three separate bays of multi-purpose space. Each bay provides accommodation for one hydro-foil serviced by a five ton overhead crane.*

*With an opening of 160' wide by 39' high, three panels (each 53'4" wide by 39' high), are installed onto two rails. In order to maximize usable space, door storage pockets are not necessary because the door panels never leave the framed opening.*

*With each Universal Door System, Norco Manufacturing has proven to be a leader and innovator in the door industry, and is committed to delivering the highest quality product to its customers.*



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