AFI

Automated Fenestration Inc

Project Gallery Volume 2

DESIGNED
ENGINEERED
ASSEMBLED
IN THE USA

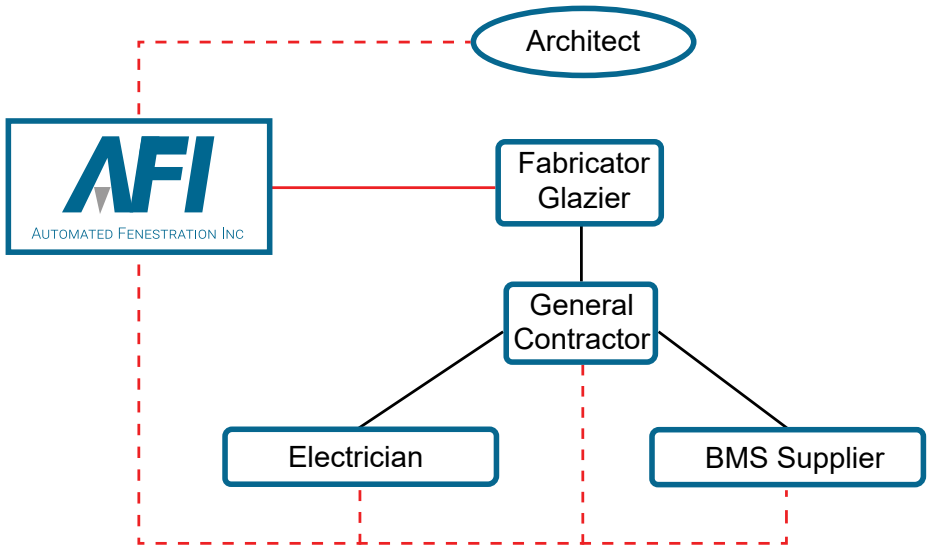
About AFI

Automated Fenestration Inc (AFI) is North America's leader in actuators & controls for windows and skylights for natural ventilation and smoke evacuation. Automated Fenestration Inc is a fully independent UL Listed Powerhouse with a long standing reputation in the industry since 1987.

Our Mission

We take automation to the next level. We offer true flagship solutions to commercial, institutional and residential markets. Innovating the fenestration industry for more than 30 years, Automated Fenestration Inc offers control over natural ventilation to any who need control. Whether basic environmental control or smoke & heat extraction, we offer fully integrated solutions including Building Automation Systems (BAS), Building Management Systems (BMS), Home Automation Systems, Heating/Ventilation/Air Conditioning Systems (HVAC).

Our Role



Online Catalog

Online Project Portfolio

c UL us
LISTED

AFI offers UL listed actuators and control panels for natural ventilation projects for windows and skylights.

Half Moon Bay Library. Half Moon Bay, CA
Architect: Noll & Tam
Glazier: AHC Glass

Half Moon Bay Library

Natural Ventilation, Integration via BacNet/IP

Naturally weathering materials—wood, concrete, Cor-Ten steel, copper, zinc, and stone—along with the judicious use of glazing, contributes to a design that is sophisticated yet fits well in its neighborhood. The library features daylit interior spaces, outdoor reading plazas, acoustically separated areas for teen activities, and a flexible maker space. Vega DC actuators on awning windows along with CoreControl panels were specified for automated natural ventilation.

AFI CoreControl

With BacNet protocol
4 Channel
12 Actuators per Panel

Vega DC Actuators

Actuators mounted on awning windows for natural ventilation. The system conducts night flush and maintains air exchange rates for a healthy environment.
24VDC
300mm Stroke - 300N Force

Kaiser Claremont Mesa. San Diego, CA
Architect: Hanna Gabriel Wells
Glazier: Arcadia Inc & Sunset Glazing

Kaiser Claremont Mesa

Natural Ventilation, Stand Alone

One of only a few LEED Platinum for Healthcare certified facilities in the world, the hospital incorporates reduced energy demand systems, rainwater utilization, prefabrication of elements to minimize waste, and consideration of local materials for both landscape and construction. Automated natural ventilation is used on awning as well as casement style windows.

AFI Relay Station

Integration to Fire/Smoke System
4 Channel & 2 Channel
Up to 12 Actuators per Panel

Vega DC Actuators

Actuators mounted on awning windows for natural ventilation. The system conducts night flush and maintains air exchange rates for a healthy environment.
24VDC
300mm Stroke - 300N Force

Synchro Vega Actuators

Actuators mounted on awning windows for natural ventilation. The system conducts night flush and maintains air exchange rates for a healthy environment.
24VDC
300mm Stroke - 300N Force

Oregon Episcopal School. Portland, OR
Architect: Hacker Architects
Glazier: Cascadia Windows

Oregon Episcopal School

Natural Ventilation

This project consists of a gymnasium renovation into a vibrant new athletics facility to support varsity team sports and physical education classes. Provide an inspiring, comfortable space to accommodate all-school assemblies, events, and gatherings. Quasar chain actuators are used on awning windows throughout the building for natural ventilation.

AFI RS-4 Control Panel

4 Channel
12 Actuators per Panel

Quasar & E-Lock Actuators

Actuators mounted on awning windows for natural ventilation. The system conducts night flush and maintains air exchange rates for a healthy environment.
24VDC
500mm Stroke - 300N Force


OREGON EPISCOPAL SCHOOL
AARDVARKS
GUEST

University of Santa Barbara, Henley Hall - Santa Barbara, CA
Architect: Kieran Timberlake
Glazier: Tower Glass

UC Santa Barbara - Henley Hall

Natural Ventilation/Smoke & Heat Exhaust Ventilation

Situated directly on the Pacific Ocean, the university has climate on its side. Henley Hall, a new 49,900-square-foot academic laboratory to house the school's Institute for Energy Efficiency. A combination research and teaching lab, the LEED Platinum structure sits on the north edge of campus, along with a series of other science and engineering facilities.

The concrete-finished atrium is naturally ventilated with a series of automated windows in a clerestory along the top to provide an exhaust path. The individual offices include operable windows to bring fresh air in from the exterior, with smaller apertures in the doors on the interior wall. "This allows flow-through ventilation without having the privacy concerns of having to open the doors," says Jason Smith, Kieran Timberlake's deign lead for the project.

The team credits a relentless focus on energy efficiency with helping them reach an ambitious target—an energy use intensity (EUI) of only 100 kBtu/sf-year compared with the university's average for existing labs of nearly 300. That achievement is one of the reasons it's a rare lab building to achieve a LEED Platinum rating, even rarer to include natural ventilation. Smith says the engineers who work in the building call it "fresh and clean," which has struck a particular chord as designers everywhere have started paying more attention to indoor air quality during the pandemic. EM2 Series and Quasar Series chain actuators are used throughout the building and are controlled by RS RelayStation controllers.

AFI RS-4 Control Panel

Integration to Building Automation & Emergency System
2 Channel
8 Actuators per Panel

Quasar & EM2 Actuators

Actuators mounted on awning windows for natural ventilation for occupancy comfort.
Quasar: 500mm Stroke - 300N Force
EM2: 603mm Stroke - 300N Force

Cal State Fullerton - Pollak Library - Fullerton, CA
Architect: A.C. Martin Architects
Glazier: Summit Glass

Cal State Fullerton - Pollak Library

Smoke/Heat Exhaust Ventilation

This project provides major tenant improvements to Fullerton's original Pollak library building which is a 1966 Modernist six-story concrete building with a basement. Improvements include: adding new windows to the existing pre-cast concrete panels on floors 2-6, overhaul of mechanical systems, miscellaneous accessibility improvements, LED lighting, and new interior finishes throughout. EM2 Series chain actuators (with Status Signal) were used for smoke/heat exhaust ventilation, and controlled by Relay Station controllers.

AFI RS-4 Control Panel

Integration to Smoke/Fire System
4 Channel
8 Actuators per Panel

EM2 Series Actuators

Actuators mounted on awning windows
24VDC
603mm Stroke - 300N Force

Portland State University, Karl Miller Center - Portland, OR
Architect: Behnisch Architekten, Boston with SRG Partnership, Inc.
Glazier: Culver Glass

PSU - Karl Miller Center

Natural Ventilation/Smoke & Heat Exhaust Ventilation

Centered around a five-story glass atrium that is animated with activities, the School of Business benefits from a diverse program. Taking advantage of Portland's temperate climate, all new construction is designed without any mechanical cooling equipment. Utilizing passive sustainable strategies to minimize the environmental impact while simultaneously prioritizing human comfort and wellbeing, this new social hub is expected to achieve LEED Platinum status; continuing Portland State University's reputation as an institution dedicated to social, economic, and environmental sustainability. LM2, LM2 Tandem and Synchro Vega Series actuators are used on awning windows.

Synchro Vega Actuators

Actuators mounted on awning windows for Smoke & Heat Exhaust Ventilation.
24VDC
300mm Stroke - 300N Force

LM2 Tandem Actuators

Actuators mounted on awning windows for natural ventilation. The system conducts night flush and maintains air exchange rates for a healthy environment.
24VDC
400mm Stroke - 200N Force

Burke Museum of Natural History - Seattle, WA
Architect: Olson Kundig Architects
Glazier: Eastside Glass

Burke Museum

Natural Ventilation/Smoke & Heat Exhaust Ventilation

The Burke Museum serves as a coherent, effective container that would allow for flexibility over time. The building's rational scheme holds the complexity of the Burke's activities and collections, both now and into the future. A key design goal for the building was to create maximum transparency, making every part of the Burke exposed and part of the visitor experience. Dual entrances help link the museum to its context, connecting to both the University of Washington campus and the surrounding community. A 24-foot-by-20-foot pivoting window wall continues the emphasis on transparency to literally open the Burke to the nature of a new outdoor courtyard. Automated awning windows provide natural ventilation and are controls with the CoreControl Series panels. The project certified LEED® Gold.

AFI CoreControl

With BacNet protocol.
4 Channel
12 Actuators per Panel

EM2 Actuators

Actuators mounted on awning windows.
24VDC
603mm Stroke - 300N Force

Piedmont USD- Piedmont, CA
Architect: HKIT Architects
Glazier: Lincoln Glass & Mirror

Piedmont USD

Natural Ventilation with Night Flush, BACnet over IP

This prominent new classroom building on the Piedmont High School campus includes 20 classrooms supporting a Science, Technology, Engineering, Arts, and Mathematics (STEAM) curriculum. Art rooms and engineering labs include adjacent outdoor teaching spaces. The building was designed to fit on a small campus with limited available space for expansion with a vernacular that reflects the existing 1920s buildings. While the architecture is contextual, the building includes design features that are highly sustainable and energy efficient with the ultimate goal of achieving Zero Net Energy (ZNE). Vega Series actuators are used on awning windows.

AFI CoreControl

With BacNet protocol.
4 Channel
12 Actuators per Panel

Vega DC Actuators

Actuators mounted on awning windows for natural ventilation. The system conducts night flush and maintains air exchange rates for a healthy environment.
24VDC
300mm Stroke - 300N Force

Multnomah County Courthouse - Portland, OR
Architect: SRG Partnership in collaboration with CGL Architects
Glazier: Washington Glass & Glazing

Multnomah County Courthouse

Natural Ventilation

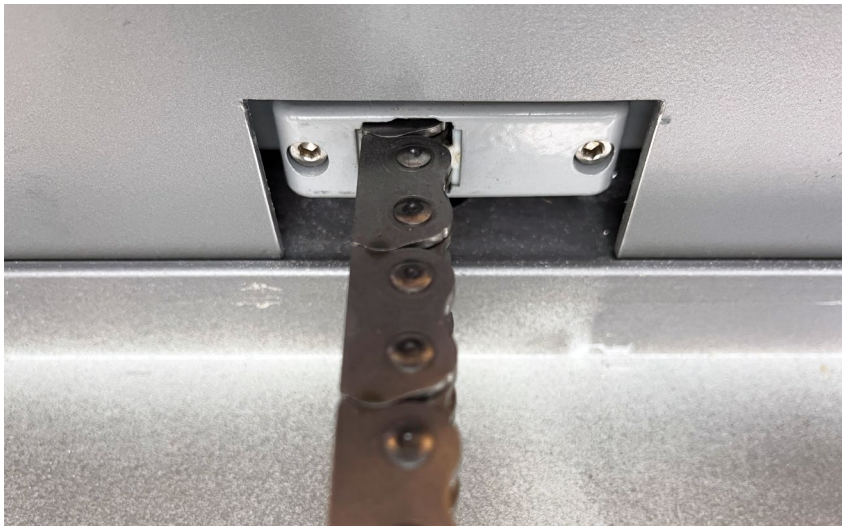
Designed in collaboration with CGL Architects, a justice facility expert, and through an Integrated Project Delivery (IPD) process with Hoffman Construction, the new 17-story tower located on Portland's downtown waterfront accommodates the essential functions of a modern courthouse. Quasar Series window actuators and CoreControl units were specified for awning windows.

AFI CoreControl

With BacNet protocol.
4 Channel
12 Actuators per Panel

Quasar Actuators

Actuators with open/closed status signal mounted on awning windows.
24VDC
750mm Stroke - 300N Force



PAE Living Building - Portland, OR
Architect: ZGF Architects
Glazier: Cascadia Windows and Doors

PAE Living Building - Portland Oregon

Natural Ventilation

The building embodies PAE's vision to help solve the planet's energy and water challenges. Set to be the world's first developer-driven Living Building, the five-story, mixed-use building will demonstrate replicable and cost-effective solutions for sustainable design removing barriers to entry for highly sustainable projects while revitalizing the community. The building has zero recirculated air, instead relying on manually operable and automatic windows along with 100% outside air heat recovery ventilators. The upper windows open automatically when the correct conditions are met, while the lower windows can be manually operated for fresh air on demand. Vega Series chain actuators are paired with Relay Station Control Panels.

Architecturally speaking, the windows took inspiration from the historical neighborhood. Many of the surrounding buildings were designed before electricity, and thus the windows needed to be tall to let in as much natural light as possible.

AFI Relay Station

Integration to building automation system.
4 Channel & 2 Channel
Up to 12 Actuators per Panel

Quasar Actuators

Actuators with open/closed status signal mounted on awning windows.
24VDC
380mm Stroke - 300N Force

Fortinet Headquarters - Sunnyvale, CA
Architect: Heller Manus Architects
Glazier: Contract Glaziers - Ennova

Fortinet Headquarters

Natural Ventilation and Smoke & Heat Exhaust Ventilation

Fortinet's new facility, located in Sunnyvale, California is an approximately 172,000 square foot state-of-the-art building with a LEED Gold Energy Efficiency Rating. The new building features advanced technologies, like a precast concrete structural system with a highly efficient passive cooling system. The building features a "night purge" that flushes the warm air from the building providing direct energy savings and significantly reduces the building's overall carbon footprint. Vega and Synchro Vega Series (F-Signal) chain actuators are used throughout the building.

AFI Relay Station

Integration to Building Automation System and Fire System.
4 Channel & 2 Channel
Up to 12 Actuators per Panel

Vega DC Actuators

Actuators mounted on awning windows for natural ventilation. The system conducts night flush and maintains air exchange rates for a healthy environment.
24VDC
300mm Stroke - 300N Force

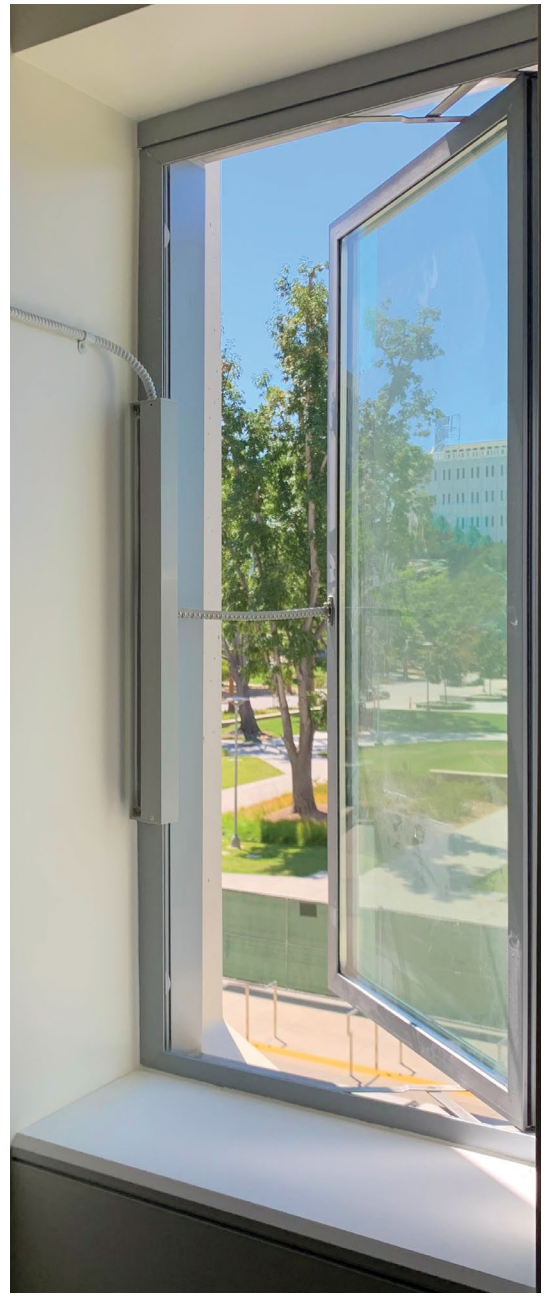
Synchro Vega Actuators

Actuators mounted on awning windows for Smoke & Heat Exhaust Ventilation.
24VDC
300mm Stroke - 300N Force

Opening Types

Awning Windows (Top Hinged)

Parallel-Projecting Windows



Casement Windows (Side Hinged)

Hopper Windows (Bottom Hinged)

Operable Skylights

Some of Our Partners in the field

AUTOMATED FENESTRATION INC

Automated Fenestration Inc.
Hawthorne, California
323 756-9090
Sales@AutomatedFenestration.com
www.AutomatedFenestration.com