




OpenAire
Add sky to your design

About OpenAire

OpenAire designs, manufactures and installs the world's most reliable and elegant retractable roof enclosures and skylights. Our exclusive, maintenance-free aluminum truss systems are capable of spanning buildings more than 165' (50m) wide.

Our customized designs transform restaurants, malls and banquet facilities into sunlit spaces that customers love. Our energy-efficient, LEED-certified enclosures transform water parks and aquatic centers from summertime treats to year-round local and tourist destinations.



Creative. High quality. Strong. Global.

OpenAire's fixed and operable custom retractable roof enclosures are customized to suit any space and any shape, from the simple to the sublime. We collaborate with developers, owners, architects and engineers to bring unique visions to life throughout each stage of the design and construction process: from design inception, to structural engineering and construction documentation, to manufacturing and installation, to project completion, through opening day and beyond. And it doesn't end when your project is complete: we continue to provide technical support if and when you need it through our industry-leading warranty program.

OpenAire can custom design a solution to suit any project. Our portfolio of projects features over 1,000 structures of all sizes and shapes, in terrains and climates all over the world.

A global company, we have worked throughout North American, Europe and the Middle East.



Why OpenAire?

- Over 25 years of experience
- In-house design and engineering experts bring your unique vision to life
- Innovative features include snow load handling, automatic rain sensors and more
- A dedicated senior project manager for every client
- Unparalleled customer support
- Installation and supervision worldwide by OpenAire's professional crew

Engineering Quality

- Minimum L/200 deflection criteria in every design
- Proven performance in all climates, and engineered to withstand extreme environmental conditions such as sub-zero temperatures, snow loads, high winds, seismic disturbance, precipitation, humidity and more
- Capable of free span enclosures of over 165' (50m) using an all-aluminum frame; capable of span dome configurations more than 300' (91m)
- Customized designs can open up to 100% of the roof area
- Minimum 1" (25 mm) roof glazing using insulated panels, glass, polycarbonate or ETFE
- Thermal breaks and vapor barriers

Maintenance-Free

- Exclusive, thermally broken aluminum truss system
- Withstands chlorine and other chemical/environmental conditions
- Structures do not corrode or rust

Lower Lifecycle Costs

- Reduces the need for air conditioning, long-running dehumidification systems and provides energy savings of up to 27% over traditional construction, creating tremendous long-term value
- Contributes to LEED Certifications

Best Warranty in the Industry

- Five year parts and labor warranty
- 100% worry-free



Featured Projects



LOCAL Public Eatery
Toronto, Ontario

The Leaside pub/restaurant is renowned for its menu made with fresh local ingredients; cocktails made with hand-pressed juice; and rotating, on-tap beers. The pub has completed a brand-new, open-concept addition with the installation of a spectacular 800 ft² (74.32 m²) retractable glass enclosure over LOCAL's second-floor patio bar area. The customized, automated retractable roof and sliding walls/windows allow guests to enjoy an outdoor dining experience all year, letting in the sun and breezes of summer and keeping out the cold of winter. This innovative roof design is virtually maintenance-free and will allow LOCAL Public Eatery to take full advantage of its floor space all year round.



Zehnder's Splash Village
Frankenmuth, Michigan

Situated in the Bavarian Village of Frankenmuth, this resort features a new 29,000 ft² (2694.19 m²) water park with retractable roof; an outdoor pool; two six-story thrill rides; family cabanas and more to accommodate guests all year round. The retractable roof structure features a double slope roof measuring 126' x 207' (38.40 m x 63.09 m) with sidewalls 34' (10.36 m) high, making it a landmark visible for miles around. It also encloses a stair tower measuring 34' x 78' (10.36 m x 23.77 m) with an eave height of 70' (21.34 m) to accommodate the park's highest water slide.



Ontario Racquet Club (ORC)
Mississauga, Ontario

Ontario Racquet Club, Canada's largest private health, wellness and sports club, has expanded its athletic facilities to incorporate a stunning and vibrant glass retractable roof. The new enclosure measures 62' (18.98 m) wide, 114' (43.75 m) long and 23' (7 m) high and houses ORC's new aquatic centre. This unobtrusively designed structure offers a completely open view of the sky, giving club members the impression of being outdoors at a resort. The curved roof design and walls contain a 25-metre-long Junior Olympic pool and open onto a new patio with a small children's splash pad, BBQ pit, lounge area, and waterfall feature. OpenAire's automated retractable roof system allows members to enjoy ORC's aquatic programs 12 months a year.



Anthem of the Seas
Royal Caribbean Cruise Ship

The ship's upper-deck displays a breathtaking twin glass enclosure over the pool, patio, and bar area. These modern lean-to enclosures feature a roof that retracts into a central core and wall panels that slide down to railing height; creating a truly outdoor atmosphere for passengers. In colder or inclement conditions, the two 3,706 ft² (344.30 m²) aluminum and glass structures on either side of the upper-deck close automatically and silently, letting guests continue enjoying all of the ship's amenities uninterrupted. The design will also create significant future operational savings for Royal Caribbean; the thermally-broken aluminum framing is maintenance-free and resistant to corrosion caused by the atmosphere of salt air outside and the chemical aquatic environment inside.



Refinery Hotel
Manhattan, New York

The owners of Refinery Hotel in New York City wanted to fashion a unique, year-round hangout that drew upon the best of "inside-out" design. For the Rooftop Bar and Lounge, they sought a distinctive touch of luxury to complement the industrial aesthetic of their building. OpenAire built a custom-designed, retractable roof featuring a lean-to enclosure with bi-parting roof, measuring 24' x 40' (7 m x 12 m), with a 40' x 12' (12 m x 4 m) high front wall. The roof has four dividing roof sections, each measuring 10' (3 m). Two sections bi-part up to 50% from the center, moving outward and "parking" over the fixed end bays. The result is a unique, breathtaking space that visitors to the boutique hotel love.



Ballpark Village,
St. Louis, Missouri

Working in partnership with the Cardinals organization and The Cordish Companies, OpenAire designed, manufactured and installed a double-sloped retractable roof with 12 operable sliding panels, which open at the touch of a button. The panels are constructed with polycarbonate in the roof section and glass panels in the gable ends. The structure measures 96' x 96' (29.26 m x 29.26 m), and soars over 50' (15.24 m) high. Another anchor to the Village, the Budweiser Brew House, also features an OpenAire roof covering its outdoor beer garden. This structure, designed with architectural features that complement the aesthetics of the new facility, measures 32' x 44' (9.75 m x 13.41 m) and is supported with 12' (3.66 m) high columns.