



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 600 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



Gusto 101
Toronto, Ontario

Gusto 101, located in Toronto's trendy Fashion District, was transformed from an abandoned, industrial auto body shop into a fashionable Trattoria. OpenAire was approached to build a retractable roof for the stylish patio on top of the old building. The owners wanted to create a patio with a retractable enclosure that opens up completely in a warm weather and fully closes in winter. OpenAire designed a double slope, telescoping skylight measuring 33' x 51' (10 m x 16 m). It features an offset ridge with two upper gable ends. The roof has three divided sections, where two sections retract under one fixed section.



Aqua Sfera Waterpark
Donetsk, Ukraine

Combined with its sheer magnitude and scale, the design, construction and installation of the world's largest free-standing dome at Aqua Sfera Waterpark resulted in a stunning landmark. At 278' (85 m) in diameter, covering 61,000 square feet (5 667 m²) and standing 86' (26 m) high, the dome features four retractable, triangular shaped roof panels measuring 80' (24 m) at the base and 80' (24 m) along the arch. The panels are powered by 16 motors that move 432 wheels over 1,926' (587 m) of track. The massive enclosure retracts in less than 10 minutes.



Toronto Cricket, Skating and Curling Club
Toronto, Ontario

The 75' x 97' (23 m x 30 m) enclosure houses an 82' (25 m) lap pool, and has a retractable polycarbonate roof and 1" (25 mm) insulated glass in all the sidewalls. The roof features rain sensors that close up the panels at the first sign of rain. A touch screen interface makes operation simple, and offers at-a-glance controls for automation, HVAC, and more. The long roof panels retract from the eaves up, allowing the roof to open up over 50%. Sidewalls are made up of 10' (3 m) multiple stacking doors, which all move aside into a small stacking bay, leaving two walls completely open to the air. OpenAire also created an 8' (2 m) high, 70' (21 m) long glass-enclosed viewing mezzanine that overlooks the pool area.



Pump House Indoor Water Park
Jay Peak, Vermont

The Jay Peak water park enclosure is the tallest that OpenAire has built in North America. Measuring 140' (43 m) wide and 280' (85 m) long and 43' (13 m) high at the sidewalls, it adds up to over 40,000 square feet (3716 m²). The design also includes a curved cupola at the apex that allows for a 55' (17 m) high slide tower. Plus, the structure can handle 80 lbs. per square foot (390 kgf / m²) of snow load, which is a vital design feature for Jay Peak, located in a region Rocky Mountain ski resorts.



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', and soars over 50' 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' and is supported with 12' high columns.