



82 % of High-End Air Domes Are Crafted by Broadwell

Air-Inflated Architecture That Breathes  
Innovating Health and Art with Air Dome Technology

# A Guide to Revitalizing Space for Culture, Tourism, and Sports



Broadwell (Shenzhen) Technology Co., Ltd.

## Introduction

Broadwell Air Dome established in 2003, formerly known as Broadwell Canada, Broadwell is a leading air-dome technology service provider in terms of innovative technology and service capabilities, which has been the first to introduce the concept of Air Dome to domestic market.

We dedicate to transform man-made space through advanced technology, resolving the issue such as project cost, shortening construction period, energy consumption, building an environmental friendly structure.

Broadwell provides air dome space product which is compatible with health value, artistic value, high value proposal in the fields of Sports, Cultural Tourism, Industrial Storage, Environmental Engineering, Logistic Cold Chain, Agriculture, and Military Multiple Fields, continuously to promote the development of man-made space to higher efficiency, intelligent, and eco-friendly.

Unique BlueSky solid alkali filtering system allows you to feel the breath of the natural environment.

Broadwell is the pioneer of Air Dome Tech Service provider worldwide.

Broadwell continues to promote the development of human production and living space in the direction of high efficiency, intelligent and Eco-System friendly field.

### 1 Goal of Broadwell

To create the most valuable space for our customers

### 2 Value of Broadwell

To create valuable products beyond customers' expectation

### 3 Vision of Broadwell

To be the leading Enterprise in Air Dome industry

### 4 Double Dome

First Double-Dome initiated & built by Broadwell within the industry



# Broadwell Milestones

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## » 2003

Established in Shenzhen in 2003



## » 2006

Built the first Air Dome on top of the building roof in 2006



## » 2012

Built the first Air Dome stadium with BlueSky (Ex.Beijing Shunyi International School Stadiums) 2012

Built the Air Dome with largest volume Project in the world (Shenhua Group Bayannur Coal Bunker Air Domes)



## » 2010

Built the first Air Dome with Bias Pro System in 2010 (Bias Pro Cable Harness System)



## » 2015

Built the first ice hockey Air Dome in China-Tiger Cub Children Ice Hockey Dome stadium



## » 2020

Built the first comprehensive exhibition Air Dome structure groups worldwide (ZIBO Pearl Exhibition Center) in 2020



## » 2023

Built World's Largest Single Unit Air Dome Exhibition Project-Low Carbon Emission Exhibition Center in 2023

Built the first Fairy Tale theme Air Dome Stadium overseas in 2023 (Miami Little Prince Projection Air Dome Stadium)

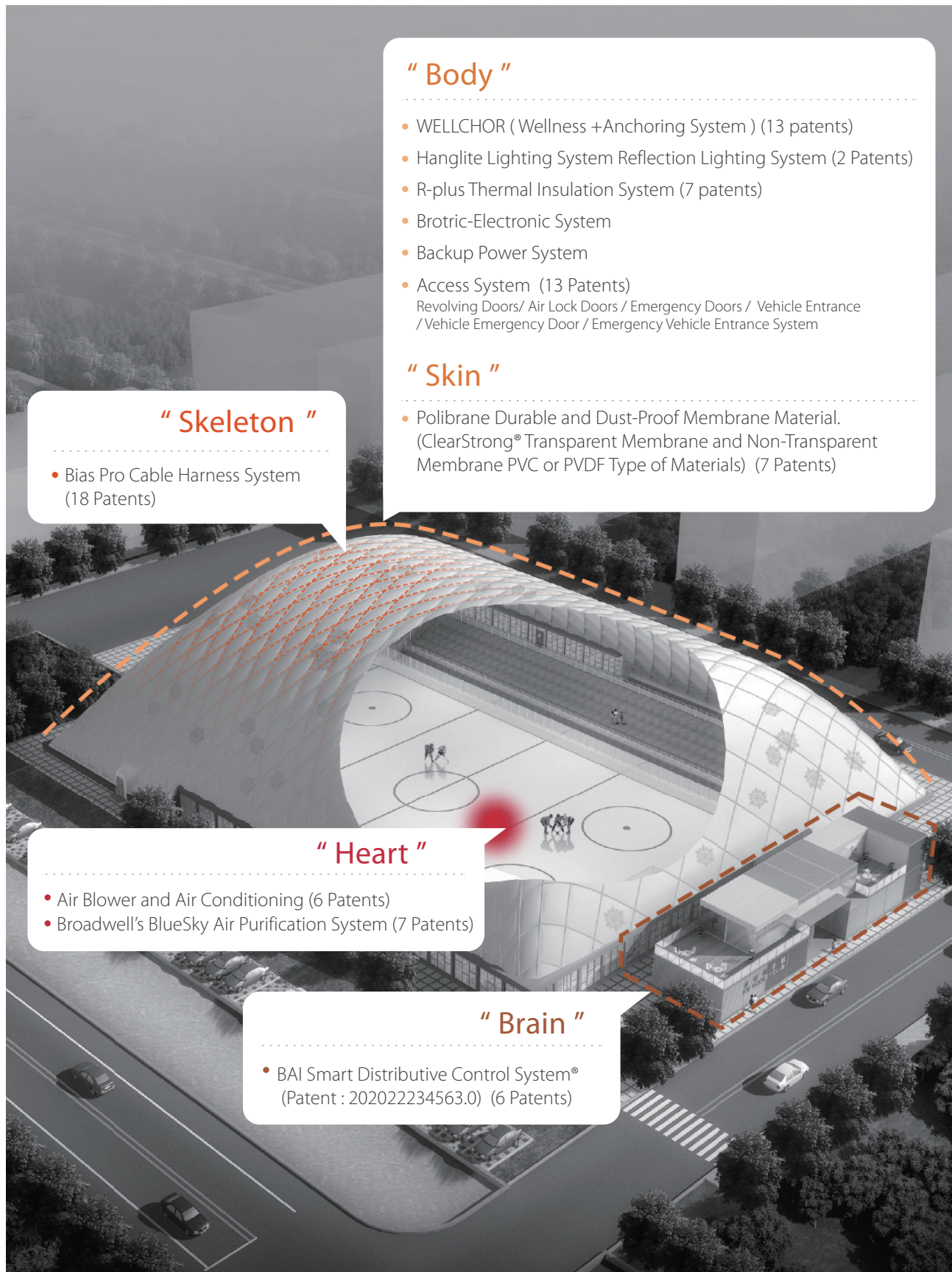


## » 2024

Built the First Airfit x™- Micro Pressure Dome in the world; Released Immersive Air Dome Restaurants & Broadimax Dome Screen



## A Living Air Membrane Building



### " Body "

- WELLCHOR ( Wellness +Anchoring System ) (13 patents)
- Hanglite Lighting System Reflection Lighting System (2 Patents)
- R-plus Thermal Insulation System (7 patents)
- Brotric-Electronic System
- Backup Power System
- Access System (13 Patents)  
Revolving Doors / Air Lock Doors / Emergency Doors / Vehicle Entrance / Vehicle Emergency Door / Emergency Vehicle Entrance System

### " Skin "

- Polibrane Durable and Dust-Proof Membrane Material.  
(ClearStrong® Transparent Membrane and Non-Transparent Membrane PVC or PVDF Type of Materials) (7 Patents)

### " Skeleton "

- Bias Pro Cable Harness System  
(18 Patents)

### " Heart "

- Air Blower and Air Conditioning (6 Patents)
- Broadwell's BlueSky Air Purification System (7 Patents)

### " Brain "

- BAI Smart Distributive Control System®  
(Patent : 202022234563.0) (6 Patents)



## What Makes Broadwell Unique :

### 01 Bias Pro Patent Bias-Pro System The Third Generation Air Dome Core Technology

- Wind load: 67m/s (extreme typhoon level)
- Snow load: 250kg/m<sup>2</sup> (equivalent to a 50-year blizzard)
- Oscillation displacement 0 ~ 10cm, complying with the permanent building code

### 03 Easy Series Anchoring System (Standard Stadium) Guarantee the Security of Air Dome

- For Seasonal sports stadium, Broadwell has developed an easy anchoring system to save working time (1 day only), lowering the costs. Air dome will be securely tightened with the anchoring system to avoid unexpected displacement

### 05 Equipped with R-Plus Patented Thermal Insulation System

- Lower the energy consumption of Air Conditioning System
- Improve overall energy efficiency and cozy level of the environment

### 06 Year-Round Constant Temperature Energy- Saving Comfort System

- Optimal ventilation circulation route designed through precise calculations
- Ventilation reaches 6-16 times per hour

### 08 BAI Smart Distributive Control System® ( Patent : 20202234563.0 )

- Dual Control System (EC Blower independently controlled)
- Lowers the system risks for air blowers, saving energy by 50%

### 09 Patent Combination Duct Technology (Patent: 201510764818.5)

- Regulates air supply temperature
- Prevents fogging and frosting
- Reduces energy consumption during non-operational periods by over 90%

### 12 Unique Cold-Bridge Proof Technology

- Innovative triple welding process
- Prevents cold bridge phenomenon
- Eliminates condensation issues
- Enhances insulation by 20%

### 02 AirFitx™ Exercise Space Under Micro Pressure: Micro Pressure Air Dome + NEW & Immersive Restaurant

#### What are the differences?

- Utilize the principle of medical hyperbaric oxygen chamber
- Increase oxygen intake in the human body (blood oxygen levels)
- Enhance fat burning efficiency
- Improve athletic performance
- Improve appetite
- *Journal of Science*  
Increasing the physical dissolved oxygen content in the human body slows down aging and extends lifespan

### 04 Broadouble Dual Layer Membrane Design ( Double-Dome Concept )

- Parallel composite double membrane structure (Large dome covering a small dome)
- Air insulation layer reduces heat conduction
- Inner membrane flatness improved by 50%
- Extra space can be used as equipment room

### 07 Unique Broadcool System (Broadcool)

- Incorporating High Technology + Cloud Computing Technology
- Phone/Computer Dual Platform Operation
- 24 Unattended Guard (Monitored by Broadwell Smart System, Auto Alerting Systems)
- Smart Alerting System
- Save Overall Costs

### 10 Quick Installation Vehicle Tunnel

- It is pre-made in the factory, installed on-site, shortening construction period, easy to be relocated

### 11 BlueSky® Air Purification Technology

- Isolates 99.5% of PM2.5 particles
- Meets the Grade 1 Excellent Standard of the Air Quality Index (AQI)

### 13 ClearStrong® Anti-Bacteria Membrane Material

- **Silver Ion Antibacterial, Efficient Purification:**  
Addition of silver ions effectively kills bacteria
- **Mold Resistance and Moisture Protection, Durable:**  
Special processing effectively prevents membrane material from mold growth in high-temperature and humid environments, extending its service life

## Air Dome + New Application & Technology

### 01 BroadiMax™ LED Dome Conformal Screen

BroadiMax-Soft LED Conformal Display Technology × Laser Projection Technology creates a vibrant and captivating immersive visual experience environment for both the interior and exterior of stadiums. It transcends traditional single functionality, endowing air-supported structures with greater artistic and commercial value.

- Construction cost savings of 70% (compared to steel structures)
- Advertising value increase of 200%
- Service premium of 50%



### 02 Echo Guard - All Dimension Acoustic Optimization Technology

Effectively solve the acoustic focusing and multiple echo loop problems generated by the air dome structure, such as long reverberation time and mixed sound, thus providing comprehensive sound optimization solutions for performing arts and conference scenes.

- All-dimensional full-band sound absorption
- Shorter reverberation time
- Lower background noise level
- Better speech cleanness



### 03 AI Intelligent Service System - Safe and Convenient, Keeping You Safe at All Time.

- **AI Smart Access System:** Safe and secure with a password to access
- **AI Face Recognition Analysis System:** Accurate recognition, quick access, improving security level
- **Body Health Indicators by AI:** Facial scan for 10 seconds to test blood fat, blood sugar, and blood pressure indicators; Can test the effect of Micro-Pressure Stadium directly from these indicators
- **Motion Capture by AI:** Tells if the actions are right or not; optimizes the Movement



### 04 Snow Heat Technology on Air Dome Improve the security level of Air Dome during the winter by 50% (Avoid collapsing under heavy storm)

For areas on the top of air-supported structures prone to snow accumulation in winter, integrating IoT intelligent monitoring technology with the + Hot Air snow-melting system enables 24-hour automated, safe, and efficient snow removal, even in poor visibility at night. This is the best choice for stadium construction in cold regions.

It addresses the issues brought by traditional snow removal methods:

- Risk of membrane material damage
- Risk of personnel working at height
- Risk of air-supported structure collapse
- Low efficiency



### 05 AI Air Dome Intelligent Display Screen

Providing all-weather precise monitoring and real-time presentation of core indicators such as internal air pressure, temperature, humidity, and air quality in the stadium, thus creating a smart and user-friendly environmental experience.





# Company Strength

## Air Dome + New Application & Technology



**10%**

of the funds are allocated to research and development



More than **350** patents related to air-supported membrane structures



With over **50** industry experts



All project designs of Broadwell are independently issued and sealed by Broadwell Design Institute, with legal effect

## After-Sales Service

The only Air Dome Enterprise with After-Sale services within the industry

### 01 Online Services Available

Available 24/7  
Serving customers worldwide

### 02 Follow-Up Services All year long

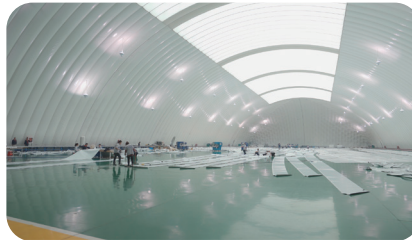
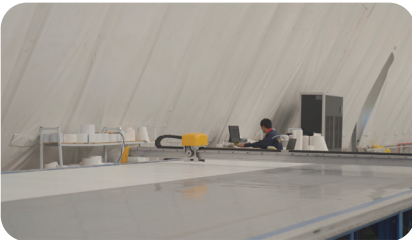
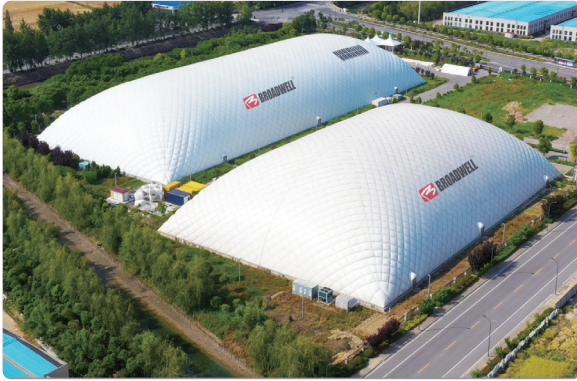
Once every year  
Free Inspection

### 03 Maintenance Team

Professional and regular Maintenance services and Technical experts are available

## Production Base

Broadwell has world-class air dome production and processing capacity, relying on the two production bases in Yancheng, Jiangsu Province, and Chifeng, Inner Mongolia, with an annual production capacity of 10 million square meters.



Broadwell's business cover all around the globe, in 2025, Broadwell is heading towards more places, there will be no doubt that Broadwell will be recognized by more people in the future.





# Cases Study (Overseas)

The key to innovation and creativity comes from the exchange and integration of ideas between nations and industries.  
—William Duggan, the director of Columbia Business School

## ● North Carolina Wesleyan College (NCWC) Tennis Dome

The Wesleyan College Tennis Dome in North Carolina was built during the pandemic in 2020. It is located in Wesleyan College. The inside length is 104.24 meters, the width is 43.28 meters, and the height is 15.8 meters. Size is 4,511 square meters. There are four tennis courts, a golf area and a squash area, with a extra locker room, shower room and other perfect supporting facilities. This dome is designed to withstand 67 meters / second hurricane (equivalent to heavy strong typhoon) and more than 250 kilograms / square meters of snow-load.

The service life of this building is up to 35 years. It also carries a number of Broadwell's patented technologies such as 'BlueSky' air purification system, remote control system, and air-tight access control system etc.

Completed within 45 days

High standard tennis venues with professional mobile stands

● 4,511 m<sup>2</sup>





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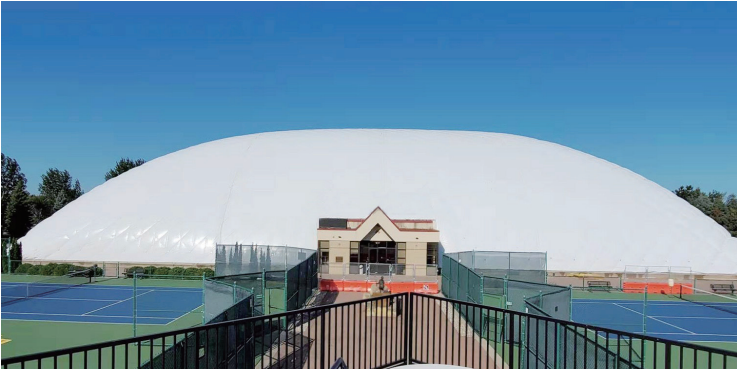
## ● Gustavus Adolphus College (GAC) Tennis Dome

This air dome stadium was completed in the summer of 2019. The size of this tennis stadium is close to 5,000 square meters, which took 45 days from design to completion. There are total of 6 tennis courts, equipped with movable audience platform.

Movable audience seats, design for professional tennis game

It is located in the extremely cold region of at 44° north latitude and has gone through extreme weather tests.

● 4,571 m<sup>2</sup>



## ● Expo Dome Dead Sea

Dome Expo Dead Sea Air Dome is located in tourist attraction-Ein Bokek Beach. The total area reaches 4,998 square meters, designed and built by Broadwell Air Dome in 2023, Unique Broadouble-Double Dome technology. The external layer is a double-layered + insulated + steel cable designed, while the interior is a single-layer projection Air Dome.

Laser shows can be performed inside the Air Dome structure, creating an immersive activity space for passengers to host various cultural events, conferences and music festival performances. The membrane material is lighter, weighing only 2KG per square meter, easy foundation set-up, which will cause minimal damage to the ground and provide maximum protection to the ecological environment of the Dead Sea. Air Insulation Layer in between the outer membrane layer and the inner membrane layer will lower heat conduction, lowering the operation consumption.

The air insulation layer between can reduce the heat conduction, further lowering the operation consumption.

It is also equipped with Bias Pro, which complies with North American permanent building standards, extending the building's service life.

Applied Double-Dome Technology

Applied world advanced BroadiMax Projection Technology

● 4,998 m<sup>2</sup>





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## 2018 Super Bowl Laser Show Activity Dome

On February 2nd, 2022, a multi-functional air-supported structure built by Broadwell made its debut at the 2020 Super Bowl in the United States. Serving as an entertainment center during the event, it hosted concerts, jazz nights, and other special activities. This was the first time for a overseas' air-supported structure company provided venue support for the American's "Spring Festival 'Gala'". The high-tech laser show and the ultimate audio-visual experience gave American audiences a taste of "Made in China". Its size is 2,915 square meters. The project eventually won the "Best Multi-functional Venue of 2020" award selected by the American Mondo\*dr magazine.

Successfully held 35th Super Bowl Game

Applied World's advanced BroadiMax-Internal Projection Latest Technology

• 2,915.95 m<sup>2</sup>



## Little Prince World Miami

First Pink Dome

Broadimax-Laser advanced projection technology applied

• 1,385 m<sup>2</sup>

Laser Show Dome designed and built by Broadwell Air Dome - A 'collaboration' between fantasy world and technology, and an immersive virtual reality experience was presented. The world-renowned fairy tale Little Prince met with global book fans with the help of virtual reality technology.

The full pink Air Dome museum renders the romantic atmosphere of fairy tales to the extreme. The entire venue is 42 meters in diameter, with a total area of 1,385 square meters, a hemispherical shape. The main body is all pink single-layer PVDF membrane material, directly used as a projection screen, creating a gorgeous light and shadow effect and atmosphere. At night, the Pink Air Pavilion glows and illuminates the beaches of Miami.

The membrane of Air Dome can effectively prevent ultraviolet rays, which is able to withstand heavy strong weather effects, anti-corrosion, lowering energy consumption, smaller volume, and smaller environmental noise to create a top-level audition entertainment experience.

The membrane material is kind of a natural projection screen, and has good dust-proof, anti-ultraviolet and fire resistance feature. It can be turned into a an immersive dome, and the entire air-dome museum covers 70 % visual area.



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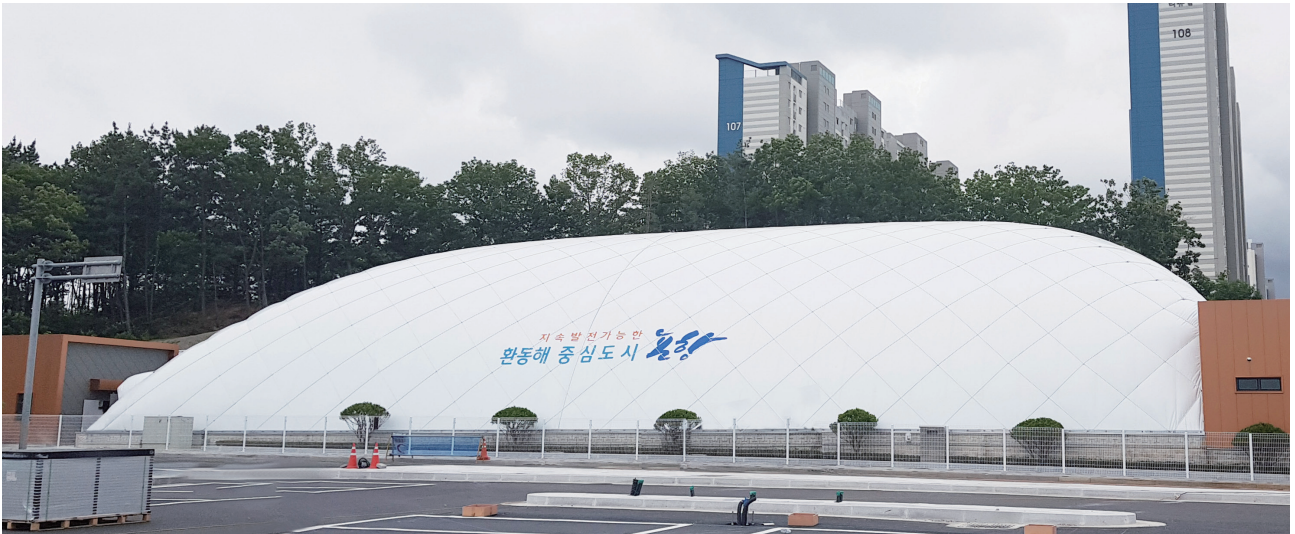
## Pohang City Comprehensive Dome stadium in South Korea

This air-dome building is a multi-functional emergency facility built by Broadwell for Pohang City, South Korea. It has an area of nearly 2,000 square meters and can accommodate more than 500 people. It is shaped like a circular dome, similar to a bomb shelter. It is shock-proof. The project is praised by the local government.

Equipped with Multi Functional Emergency Evacuation Facilities

Great for Anti-seismic

● 2,000 m<sup>2</sup>



## Turkey Children's Park

This project was built by the local government, which was considered as a public welfare project, an air dome theme park which has provided a comprehensive playground for children and teenagers. After the completion of the air-supported membrane children's amusement park, the local government had broadcasted the projects for several days.

The First Air Dome Stadium made in China

Considered as public welfare projects

● 4,522.33 m<sup>2</sup> / 5,597.97 m<sup>2</sup>





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## Swimming Pool Air Dome Stadium in Ohio, USA

Unique design that stop water vapor corrosion process

• 1,290 m<sup>2</sup> x2

The project is located in Ohio, the United States. The project size is 1,290 square meters. The project is a swimming pool, which was completed in 2020. The top of the air-dome swimming pool has a curve shape, which resolves the issue of condensed water (water slips down the membrane material to avoid condensed water issue). The membrane material also has great waterproof and weather proof feature. There will be no problem of water vapor corrosion within stadium. At the same time, it also resolves the issue of mildew.



## ENS MBZ BOYS School Dome

The sports Air Dome hall is 5,451 square meters and a comprehensive indoor sports venue that integrates basketball, padel tennis, volleyball and football courts. The project was invested by the United Arab Emirates National School ENS MBZ BOYS School, designed and constructed by Broadwell Technology Co., Ltd. This project is the first air-supported sports hall structure project in the UAE to cooperate with a Chinese enterprise. It has a bench marking and exemplary role in promoting and applying new environmentally friendly air-supported membrane buildings in the UAE. It is also a specific practice of China's Air Dome technology export driven by China-Arab cooperation under the Belt and Road Initiative.

Belt and Road Initiative Project

Benchmark demonstration effect on the promotion and application of new environmentally friendly air inflated structure in the United Arab Emirates.

• 5,451 m<sup>2</sup>



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## More Overseas' Cases

Goseong Tennis Dome

2,475.12 m<sup>2</sup>



Taif Sports Dome

1,000 m<sup>2</sup>



Abu Dhabi Football Air Dome Stadium, Middle East

5,421 m<sup>2</sup>



Wasatch Hills Community Tennis Center's in Salt Lake city, Utah

2,680 m<sup>2</sup> x2



SMYA Athletic Court

1,400 m<sup>2</sup>



Kingston Pickball Dome

2,443 m<sup>2</sup>





# More Cases Related with Exhibition Hall in Cultural Tourism

## ● Zibo "Road Map" Exhibition Center

Zibo Pearl Zibo Convention and Exhibition Center was awarded the "Outstanding Construction Contribution Award" by Zibo City Government. The size of Zibo Pearl exhibition center is 20,000 m<sup>2</sup>, which is composed by one conference center and two exhibition centers. Among all these structures, the three circular conference Air Dome structures are built by Broadwell, with a total area of about 7,000 m<sup>2</sup>.

It is the largest exhibition single Air Dome structure in China at the time. The Zibo Pearl has become a new icon within Zibo City with its unique appearance look and powerful exhibition function.

The main Air Dome conference center covers an area of 7,000 square meters. The size is 20,000 square meters. It is located on the central axis of the core area of the new urban area of Zibo City, Shandong.

This project is great for Meeting, Exhibition, Activity, Road Show, Games, and Entertainment Show. Air Dome stadium can be deployed quickly, which is also cost-effective.

Unique Pearl Shape

Iconic Project within ZIBO City

● 20,000 m<sup>2</sup>





## Shenzhen Low Carbon Air Dome Exhibition Center

The diameter of this Air Dome exhibition center is 143 meters, 38 meters high (Include a wall that is 3 meters high). It is considered as the largest single unit Air Dome exhibition center in the world. If you look above the sky, it has round shape. Spotlights are distributed around the perimeter. During the night, it is a self-luminous sphere. Round-shaped dome is an innovation in the field of exhibition & tourism.

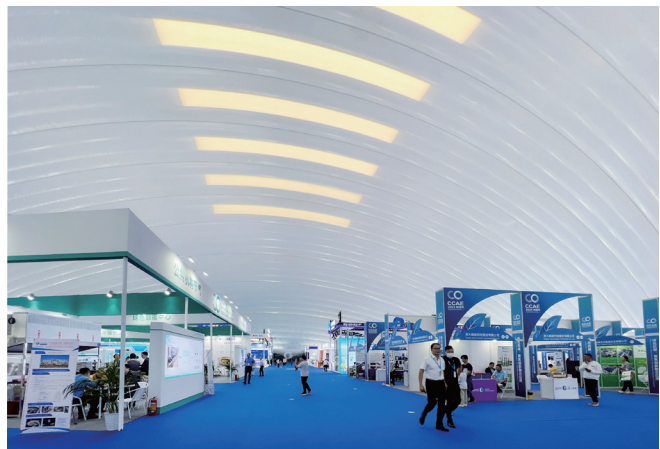
If we compare it with other types of square Air Dome, round shaped dome is harder to build. The Air Dome structure has higher requirements for positioning and setting out and form-work support of concrete wall. The arc of framework of concrete wall cannot meet the requirements, and the Air Dome cannot be accurately installed and constructed. Broadwell has sophisticated experiences in the installation of spherical Air Dome.

World's Largest single unit Air Dome Exhibition Project

Tedlar PVF Membrane Material

It was awarded the Top 1 in 2023 Shenzhen Green Building Innovation Project

• 16,015.9 m<sup>2</sup> / 706.8 m<sup>2</sup>





## Exhibition Air Dome in Yangzhou for Tourism Convention

This project is the first air dome exhibition center which meets acoustic standard, with unique EchoGuard acoustic optimization system through sound absorption panel, effectively resolve sound focusing, echo sound, long reverberation time, sound mixing and other problems caused by the dome structure, which will guarantee clear sounding for all types of events.

Unique shape and high tech system such as smart restroom, music, smart remote control system, you are able to monitor your stadium through our independent developed app.

The first domestic air-supported structure which meets acoustic standards

Airship design, a classical combination with wooden structure

• 2,529 m<sup>2</sup>





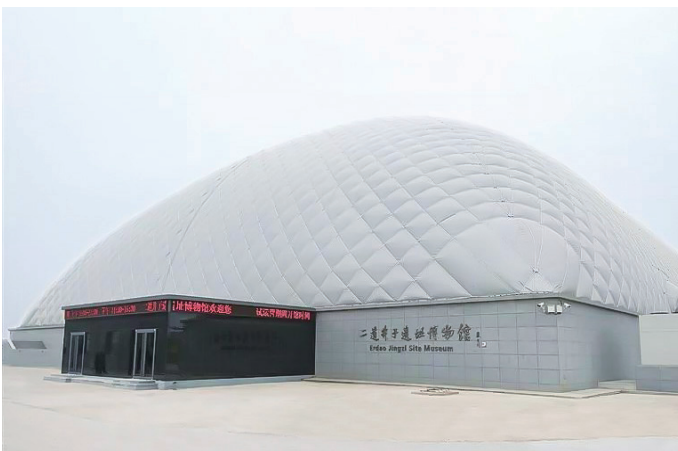
## ● Erdaojingzi Historical Protection Site

ErDao Jingzi Site Air Dome Museum built in 2015, inside floor area is approximately to 10,000 square meters inside of Air Dome. This is the first Air Dome Historical Site type of Museum within the country. At the First Historical Site Museum covered by Air Dome structure. Broadwell is so honored to participate in National Key cultural relics protection. Broadwell technical team has been doing a lot researches on this project design before it actually started building this structure, we have been focusing on the safety and internal environmental design issues. During installation period, our engineering team has overcome bad weathers and built Air Dome structure over complex terrain to protect historical site.

The First Domestic Air Dome Museum

It has provided great conditions for historical research of Xiajiadian within the region

● L137m×W70m; 9,590 m<sup>2</sup>





## Xinjiang Shenmu Water Park

Broadwell took the lead in applying Air Dome technology to water parks. It was the largest Air Dome water park at the time, which can help owners (Party of operation) to reduce costs and shorten the installation process. It becomes a pioneer in the industry. Xinjiang Yanjing Shenmu Park Air Dome Water Park is located in the national 5A scenic area, which attracts great volume of visitors.

Broadwell is the first Air Dome corporation to apply Air Dome technology in water parks, which is able to help owners to lower the costs and shorten the installation process,

At present, it is considered to be the world 's largest Air Dome water park, Xinjiang Yanjing Shenmu Park Air Dome water park is located in the national 5A scenic spot. It saves energy and easy to maintain. Due to the particularity of the sphere structure, it meets the standard of the highest strength of the membrane structure and can resist up 250 kg / m<sup>2</sup> load weight.

Largest Air Dome Water Park (at the time)

Save up to 70% construction costs

• 9,500 m<sup>2</sup>





## Zhangzhou Air Dome Restaurants

The air dome adopts ClearStrong transparent membrane material. The transparency rate reaches 93%, which not only effectively isolate 80% of infrared ray, but also stop 99% of UV Ray.

Providing views for all direction, an immersive dining experiences similar to natural environment. At the same time, we have equipped advanced air conditioning system, integrating with heat isolation and UV Ray proof functions.

With unique Micro-Pressure environment-stimulate tastes bud, internal pressure is relatively higher than external pressure, which will improve the taste for food.

The first fully transparent air dome restaurant domestically

The first air dome restaurant at micro pressure domestically

• 3,000 m<sup>2</sup>





## More Cases Related with Exhibition Hall in Cultural Tourism

Volkswagen Air Dome Exhibition Center 1,000 m<sup>2</sup>



Shanghai Benz Exhibition Air Dome 1,300 m<sup>2</sup>



Activity Dome in NanJing Tourism Attraction 1,557.62 m<sup>2</sup>





# Sports Case Analysis

## Dragon Lake National Fitness Gymnasium

Deng Yaping Sports Fund signed a strategic cooperation agreement with Zhengzhou Zhengdong New Area Construction and Development Investment Corporation, a wholly-owned subsidiary of Zhengdong New Area Management Committee and Henan New Development Sports Culture Industry Co., Ltd. build several small and beautiful convenience Air Dome sports stadiums, mainly in the Zhengdong New Area.

A stadium incorporates three comprehensive stadiums, including ball game stadium, swimming dome stadium, children's park stadium, with total area over 12,000 square meters, which is the largest Air Dome stadium community within the country.

The initiative of this project: Though is a big sport stadium in each city Henan, there is not a stadium suitable for all Citizens within the region. Therefore, the creation of Dragon Lake has perfectly meet the demands of exercising.

Collaborate with Olympic Champion Deng Yaping

Reduce Pollution

The Largest Air Dome stadium community within the country

6,231m<sup>2</sup> / 9,960m<sup>2</sup> / 9,960m<sup>2</sup>





## High Tech Sports Center in Chengdu

This Air Dome stadium is designed for athlete training during various game. In Oct 2022, Pingpong Air Dome Stadium had been finally revealed in 56th World Pingpong Competition in Chengdu, the 1,500 square meter Air Dome training dome only took 15 days to complete installation. The stadium was converted from a basketball court, which solved the difficulty in finding land for the reconstruction of the stadium. Membrane material applied PVDF membrane material which has higher intensity, air exchange rate is 15 times/hour.

Hosted 31st world college athletes sports meeting

Hosted 2022 World Pingpong Tournament

• 1,500 m<sup>2</sup>





## OCT Shahe Golf Club Comprehensive Domes

It is located in Shenzhen Nanshan District OCT Golf Club, covers an area of 8,776 square meters. Broadwell's three Air Domes in green clothes are located here. It is the largest comprehensive Air Dome gymnasium community in Shenzhen at present. Two big and one small gymnasiums, which are two badminton gymnasiums with a length of 64 meters, a width of 50 meters, which has a total of 48 pieces of badminton venues, total of 6,400 square meters, a VIP comprehensive gymnasium with a length of 66 meters, a width of 36 meters, and a total area of 2,376 square meters. A tennis court, a basketball court and six badminton courts are set up to provide exclusive services for golf VIPs.

The venue is equipped with Broadwell's patented Bias Pro system, which enhances the overall rigidity of the building, wind resistance and good seismic performance. All three domes operate intelligently and conduct daily supervision. In case of emergencies, the system will start the real-time alarm function, quickly conveying to the customer's mobile phone, offering safe and reliable operation.

The largest comprehensive Air Dome stadiums within the region

Using land area effectively with the region

• 6,400 m<sup>2</sup> / 2,376 m<sup>2</sup>





## Tibet Universal Fitness Center (Broadwell High Altitude Project)

**AirFit<sup>TM</sup>**  
Exercise Spaces with Micro  
Pressure improves the efficiency

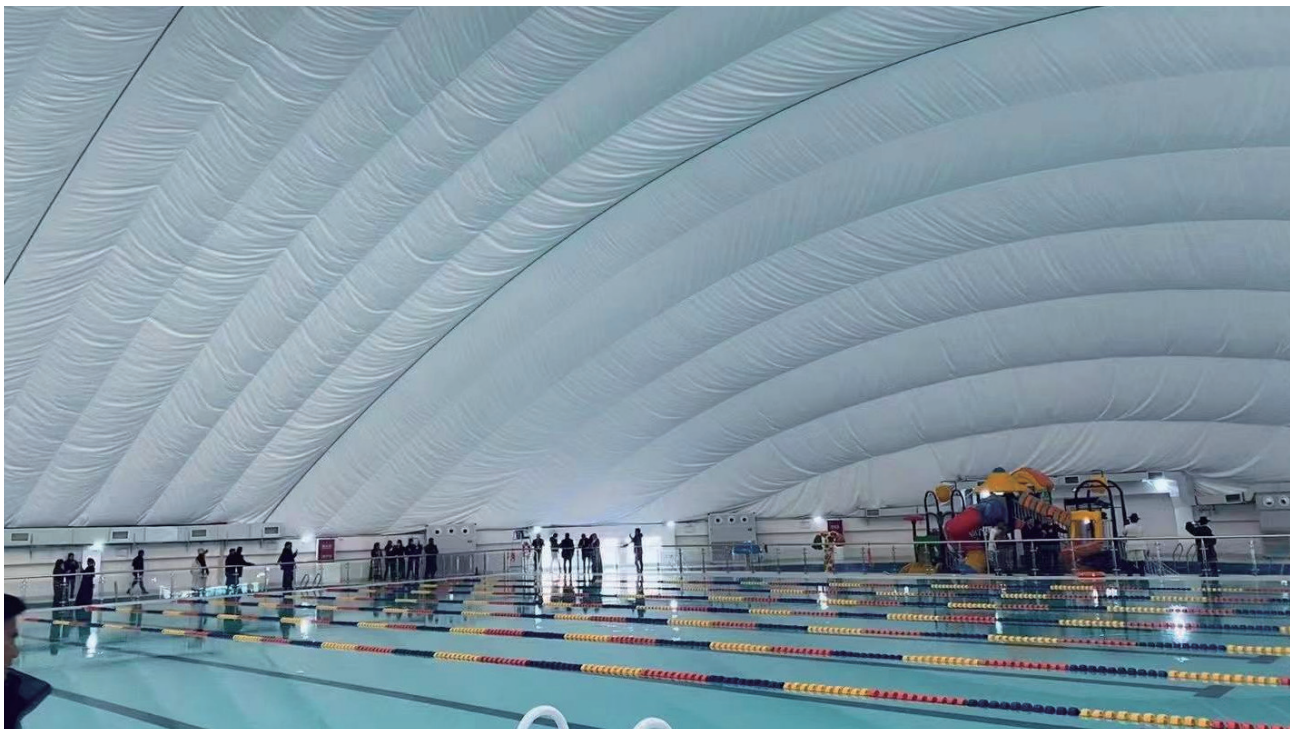
Tibet Shigatse National Fitness Center multi-functional Air Dome is located in the Shigatse. Mout Everest Cultural and Creative Industry Park Area, which is the first sports stadium with Air Dome structure in Shigatse City.

The national fitness center is a multi-functional comprehensive sports venue, with a length of 88.7 meters and a width of 58.7 meters, with a total area of 5,206.69 square meters. The venue is divided into dry and wet functional areas, with badminton, basketball and table tennis courts and a performing area in the dry area, and a swimming pool and water park in the wet area.

Air Dome at altitude of 4,000 meter high

Natural Oxygen Chamber

• 5,206.69 m<sup>2</sup>







## More Cases in Business Operation Investment

**AirFit™**

Exercise Spaces with Micro Pressure improves the efficiency

Shenzhen Yinhu Badminton Air Dome Stadium

Badminton

 2,232 m<sup>2</sup> / 1,000 m<sup>2</sup>


Dongxiao Air Dome Sports Center Shenzhen Badminton Stadium

Badminton

 5,134.5 m<sup>2</sup>


Rooftop Air Dome Stadium in Zhiheng Industrial Park Nanshan

Badminton

 1,941.42 m<sup>2</sup>


Air Dome Stadium in Huanghuagou Park

Tennis

 4,025.5 m<sup>2</sup>


Henan Nanyang Dongneng Demon King Fitness Park 2,673 m<sup>2</sup> / 3,512 m<sup>2</sup>

Swimming Stadium/ Children's Park



Wenzhou Taohua Island Football Park Air Dome Stadium

Football &amp; Basketball

 2,925 m<sup>2</sup>


Shenzhen PW Basketball & Badminton Park

Basketball &amp; Badminton

 4,640 m<sup>2</sup>


Junmei Air Dome Stadium in Dengfeng Henan

Martial Arts &amp; Multi Function

 4,970 m<sup>2</sup>


Xiangluowan Sports Center Tianjin

Tennis &amp; Badmintonon

 1,600 m<sup>2</sup> / 2,625 m<sup>2</sup>


Jinan Olympic Sports

Tennis &amp; Swimming

 1,256 m<sup>2</sup> / 2,577 m<sup>2</sup>


PaoPao Sports Center in Zhaoqing Xinghu Bay

Badminton &amp; Swimming

 1,575 m<sup>2</sup> / 2,284 m<sup>2</sup>


Taizhou Air Dome Sports Center in Zhejiang

Tennis &amp; Comprehensive

 3,365 m<sup>2</sup>




# Sports Case Analysis

## Beijing ISB International School

This school was founded in the 1970s. It is an international school built to provide full-time teaching services for the children of foreign workers who are working and living in Beijing. The first Air Dome stadium that can filter PM2.5 particles in the world.

Indoor environment of this stadium satisfies AQI (Highest Air Quality Index) Green Index. ISB school has spent more than a year to do researches. Experts visited a large number of project sites. After 15 meetings, among hundreds of program selections, Broadwell has been selected to build the high standard stadium for ISB.

The first smog-proof clean Air Dome stadium

Broadcasted by CNN with exclusive interview

• 8,452.8 m<sup>2</sup>





## Taiyuan Normal University Air Dome Gymnasium

*AirWell*  
Smart and Energetic Growth  
Center for Next Generation

This stadium is responsible to host different types of activities which are held by the government. Incorporating a comprehensive dome and a swimming dome, this stadium does not have glare Lighting System, no shadow. With no Blind angle, broader vision with the dome, the average temperature is keeps around 26 °C, which will make sure sports activity can be perfectly played inside of Air Dome. Each Air Dome can be effectively block PM 2.5 particles, which protects student from pollution, making it an ideal sports facility for school.

Patented Technology Moisture Proof and Water Proof

Held the 2nd Youth Games of the People's Republic of China

4,355 m<sup>2</sup> / 3,840 m<sup>2</sup>





## More Cases Related with School Stadium

*AirWell*  
Smart and Energetic Growth  
Center for Next Generation

### WIEE ' Smart Cloudtop' Air Dome Stadium

Conference / Comprehensive 4,880 m<sup>2</sup>



### Air Dome Stadium in Beijing University of Civil Engineering and Architecture

Basketball / Tennis 3,159 m<sup>2</sup>



### Air Dome Stadium in Henan Medical Technician Institute Comprehensive Dome

Athletics / Comprehensive 6,764 m<sup>2</sup>



### Shanghai Jiao Tong University Air Dome Stadium

Basketball Fitness 5,396 m<sup>2</sup>



### Air Dome Stadium in NO.1 Middle School Affiliated to Central China Normal University Air Dome Stadium

Comprehensive 1,707.53 m<sup>2</sup>



### Air Dome Stadium in Chengdu Technological University

Badminton & Pingpong 3,200 m<sup>2</sup>



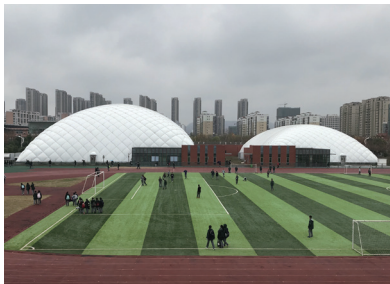
### Volleyball Air Dome Stadium in Shanxi University of Chinese Medicine

Volleyball 1,900 m<sup>2</sup>



### Air Dome Stadium in High School Affiliated to Nanjing Normal University

Basketball & Badminton 4,050 m<sup>2</sup> / 2,095 m<sup>2</sup>



### Air Dome Stadium in Nan'Ao Middle School

Basketball 910 m<sup>2</sup>



### Air Dome Stadium in Western Academy of Beijing

Tennis Ball & Comprehensive 3,179 m<sup>2</sup>



### Air Dome Stadium in Binzhou Sports School

Tennis & Handball 3,157 m<sup>2</sup> / 2,002 m<sup>2</sup>



### Hebei Women's Vocational College Comprehensive Dome

Comprehensive 3,666 m<sup>2</sup>





# Icehouse Case Analysis

## ● Chen Lu International Ice Skating Sports Center

Chen Lu International Ice Center was created and operated by Ms. Chen Lu (CEO), the first Chinese figure skating world champion, and her husband Denis Petrov (Silver medalist of the Winter Olympics in Figure Skating). Located in Xidawang Road, Chaoyang District, Beijing, as a professional ice sports teaching venue, the total area of the central ice rink is 2,200 square meters, with standard ice surface satisfy international level, with all kinds of ice sports daily training and become the demand of the rink. The central ice rink has a spectator stand, dressing room, a seating area and a coffee bar.

Compared with the traditional venues, the cost of the ice and snow air dome stadium has reduced by 70%. It is equipped with patented technologies of Broadwell, with open space indoor, comfortable environment, constant temperature for all season, short construction period, and guaranteed cost.

The excellent heating performance effectively solves the problem of high energy consumption of traditional ice rink. In recent years, the widespread popularity of the air dome ice and snow halls across the country has provided a powerful impetus for the rapid development of ice and snow sports in China.

A collaborative project with Olympic Champion Chen Lu

CCTV 'Ice and Snow Carnival' program shooting scene

● L72m×W28m; 2,080.5 m<sup>2</sup>





## Sanya Tus ICE and Snow Park

Moving ice from the north to south, a milestone Air Dome project that creates an ice & snow center in a tropical regions. Broadwell's team has overcome the issues such as heat retention, moisture elimination, and energy consumption. This model can be copied and pasted to other places and it is of great significance for the promotion and development of ice and snow sports in hot regions.

Moving ice in the north to south-A Milestone Project

Successfully held Winter Olympics in Beijing in 2022

• 3,079.5 m<sup>2</sup> / 2,598.3 m<sup>2</sup> / 1,366.5 m<sup>2</sup>





## Kunlun Hongxing Ice Sports Center

16th Ice Hockey Competition in Guangdong Province started on Aug 8th, 2022, Kunlun Hongxing Ice Sports Center, with a total area is around 8,344 square meters. There is an standard ice hockey arena that is 60 long and 26 meters wide. It is the main stadium of ice hockey clubhouse. It is also used as national ice hockey training center, which is perfect for various games. Many international ice hockey competitions are held here.

Training center for national women ice hockey team

16th Ice Hockey Game in Guangdong Province

• 3,358 m<sup>2</sup>





## Shuangyashan Mountain Multifunctional Fitness Center

This stadium located in the northernmost part of China. It is the first Air Dome stadium in the county area, which is able to play basketball, volleyball, tennis, badminton, pingpong ball, running, taekwondo, and martial arts. This project is used as an important ice and snow training center. Due to the extreme cold environment, the benefits of Broadwell's patented technology "Bias Pro" is greatly highlighted and capability to withstand heavy snow is  $250\text{kg/m}^2$ , which allows it to be safe and stable operation of Air Dome even in the north of 46 degrees north latitude.

Air Dome under extreme weather

First Large-Scale Comprehensive Air Dome in a County-Level City

• 4,138 m<sup>2</sup>



## More Cases Related with Ice Rink Stadium

Ice Rink Sports Center in Cloud Scene Spot

2,616.5 m<sup>2</sup>



Ice Rink of Cangzhou Sports Management Center

3,041 m<sup>2</sup>



No.1 Tiger Cub Club Ice Hockey Club Stadium

2,257 m<sup>2</sup>







# THINK BIG

Broadwell (Shenzhen) Technology Co., Ltd.

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**Email:** [info@broadwelldome.com](mailto:info@broadwelldome.com)

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