

Broadwell Industrial Use Air Dome

for Logistic, Warehouse & Other Uses





兴海大厦 博展中心
地铁口 步行 10 分钟

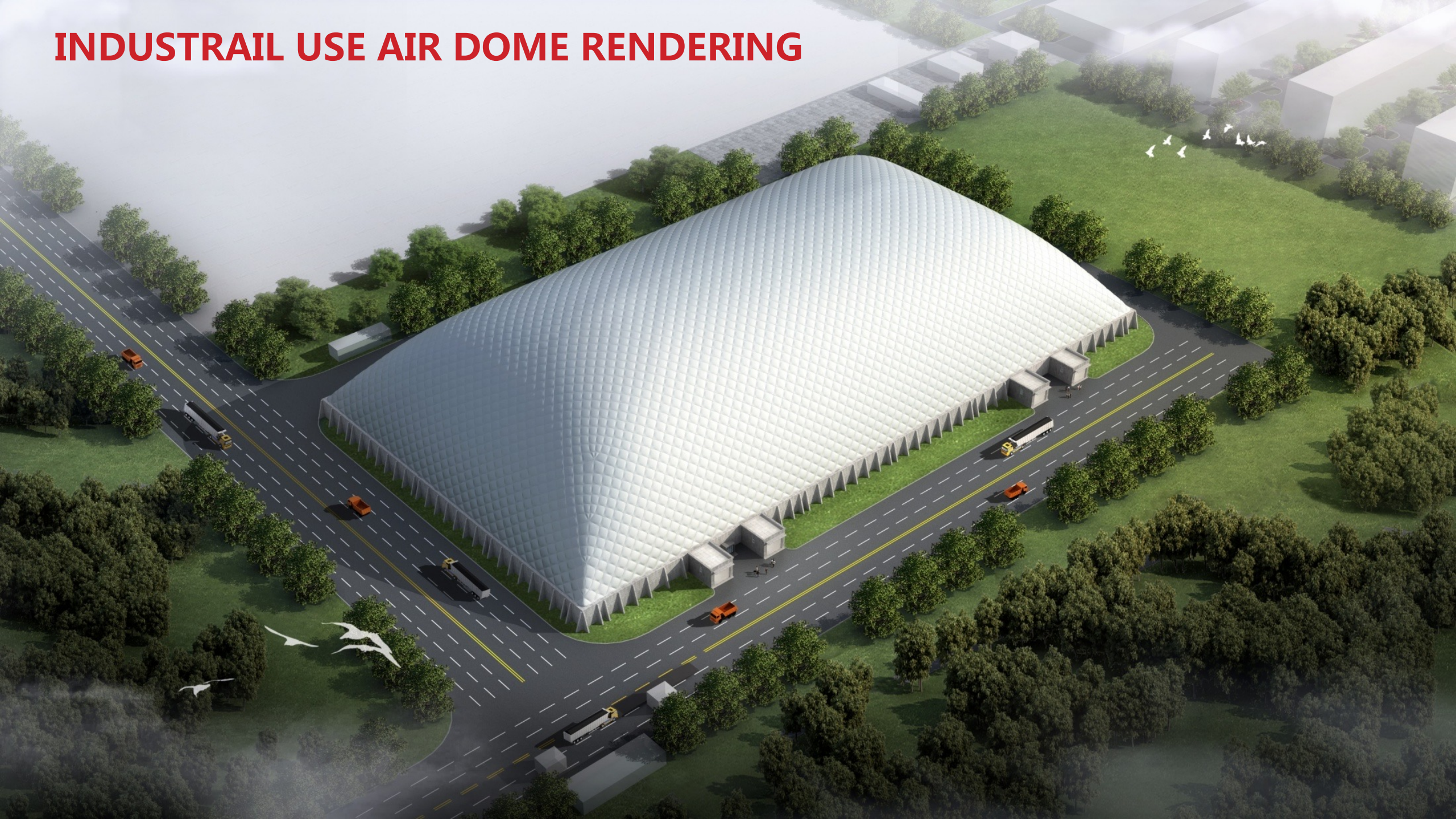
BROADWELL
4006-111-237



PART ONE

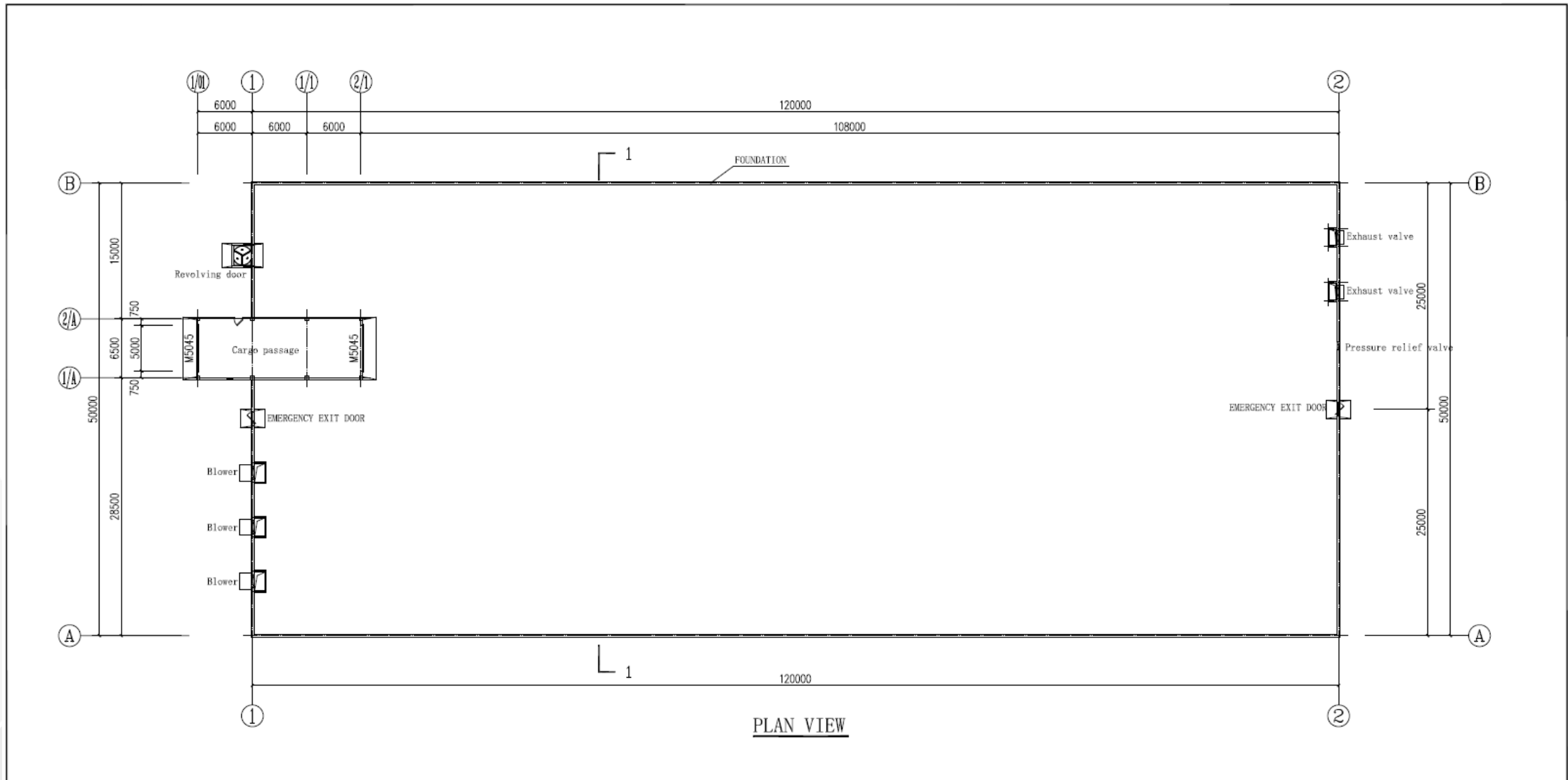
ABOUT BROADWELL INDUSTRIAL USE AIR DOME

INDUSTRIAL USE AIR DOME RENDERING



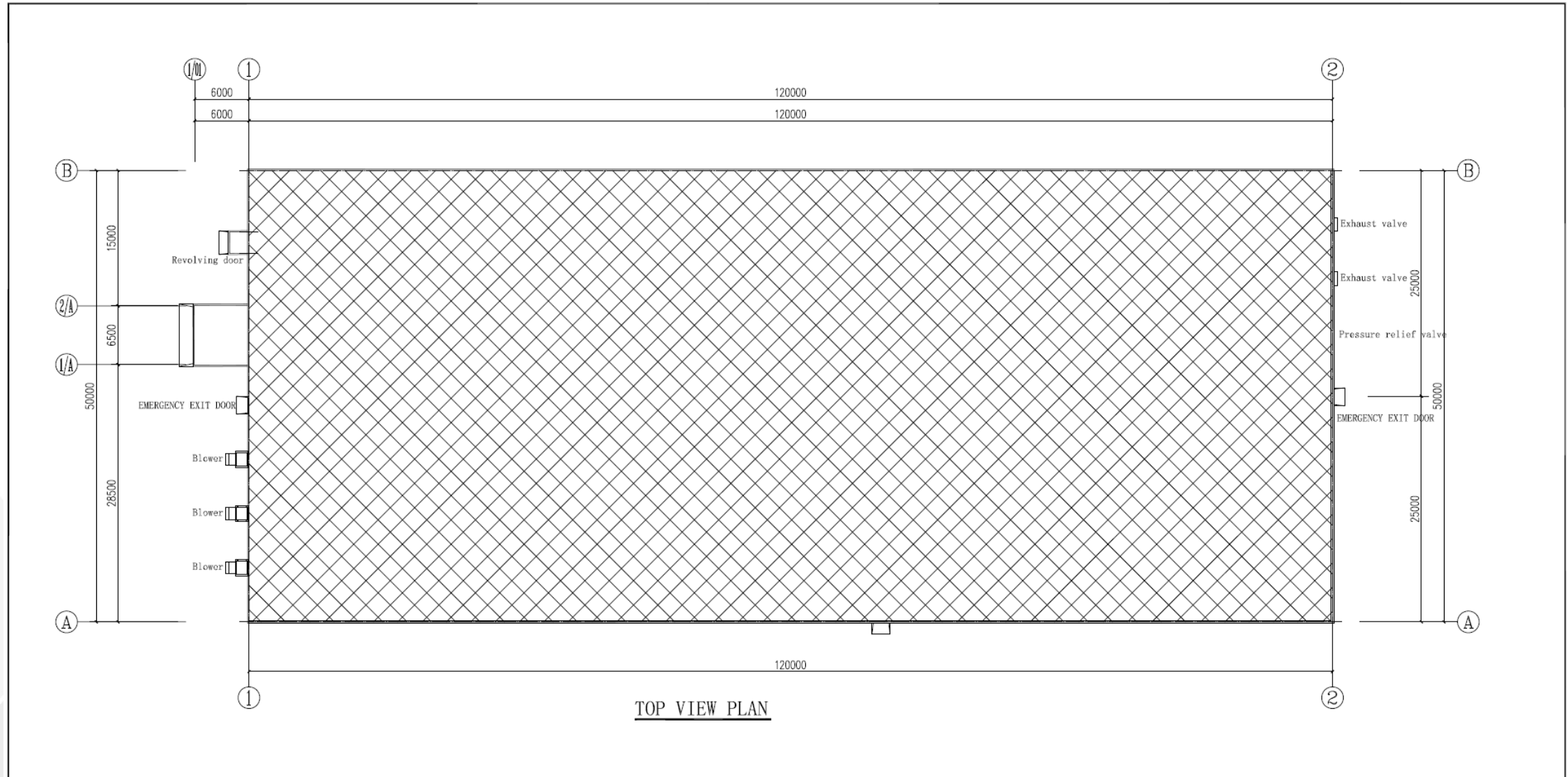
ABOUT AIR DOME FOR INDUSTRIAL AND OTHER USE

➤ Layout Plan Drawing (Sample)



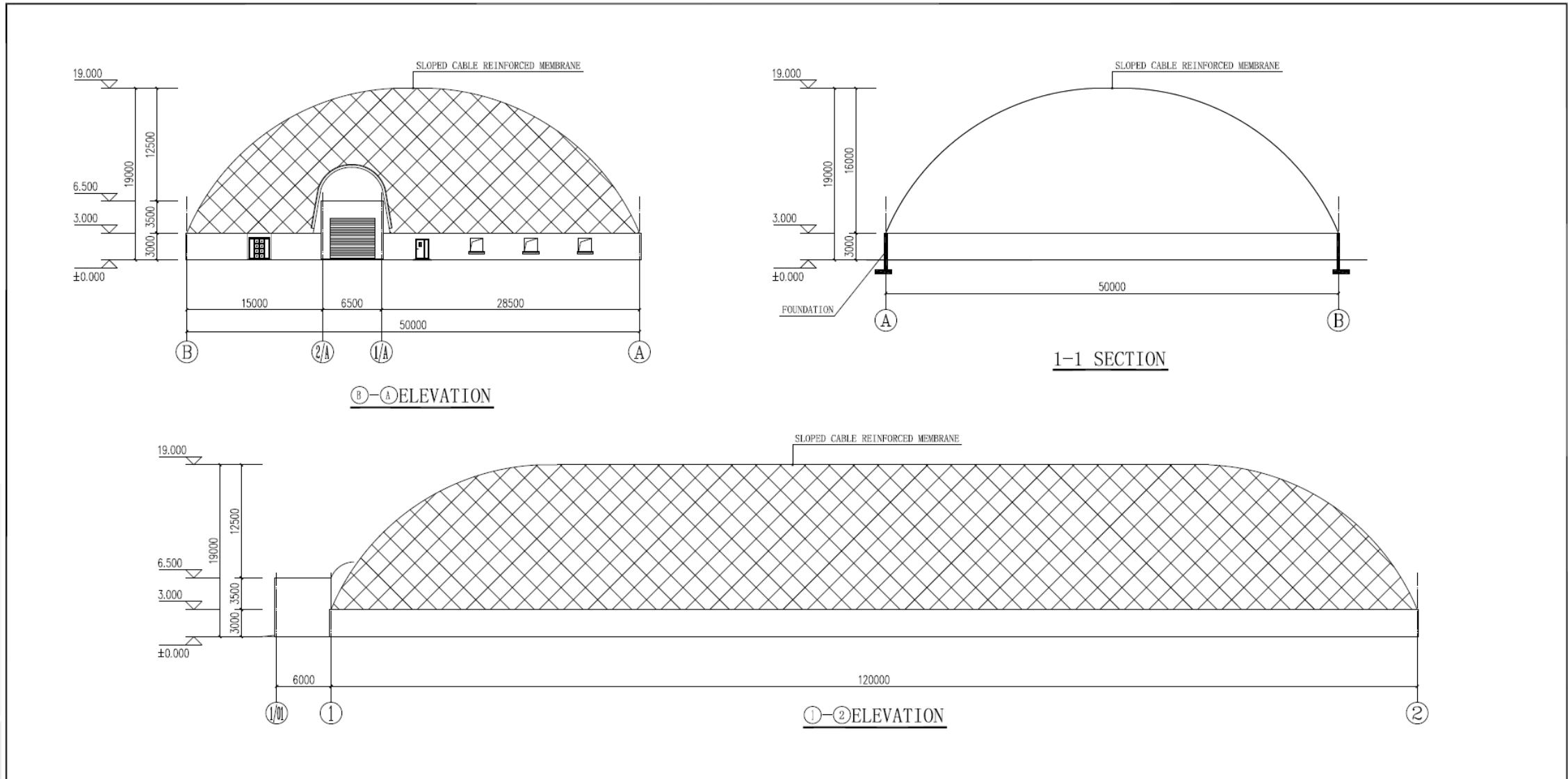
ABOUT AIR DOME FOR INDUSTRIAL AND OTHER USE

➤ Layout Plan Drawing (Sample)



ABOUT AIR DOME FOR INDUSTRIAL AND OTHER USE

➤ Layout Plan Drawing (Sample)

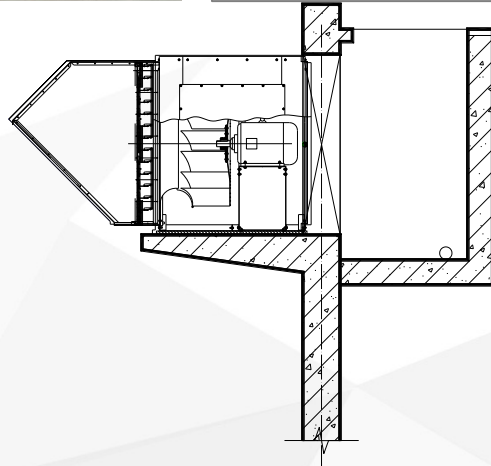


AIR DOME FOR INDUSTRIAL AND OTHER USE

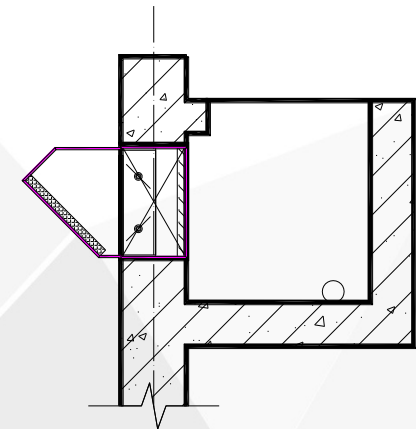
➤ Air Distribution System



Direct-drive centrifugal
blower



Exhaust valve (with anti-dust
bag, dust removal plate)



AIR DOME FOR INDUSTRIAL AND OTHER USE

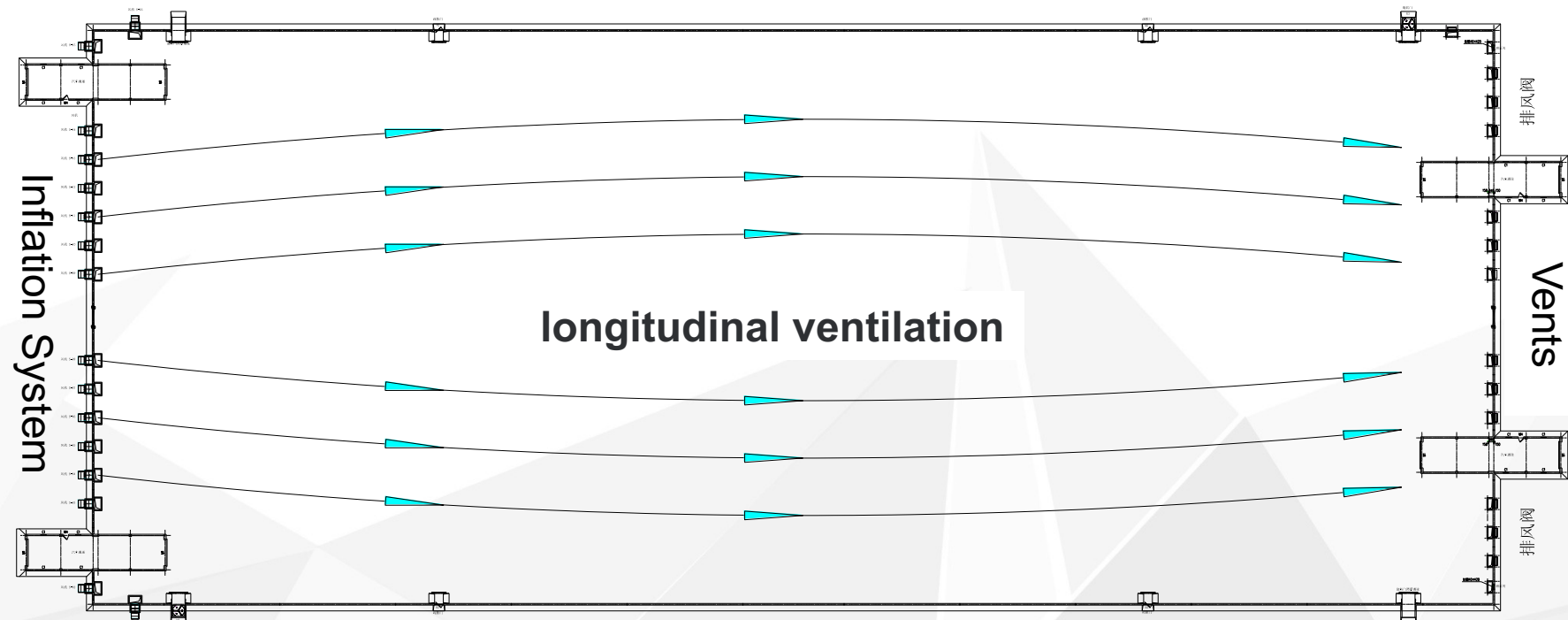
➤ Air Distribution

Air dome storage facility adopts the mechanical air supply and overpressure to exhaust air. Some explosion-proof centrifugal blowers are set, 2 of which are operated with frequency conversion. The normal production guarantees 0.25~0.5 times/h ventilation rate; non-production condition, ensure gas concentration under 0.5%. In accident, all fans will turn on to ensure 0.5 ~ 1 times/h ventilation rate. Outside exhaust valve, anti-dust bag, dust removal plate filter and water bath dust removal measure, can effectively remove dust and prevent secondary pollution.

Gas control: air outlets are set at the top, and the accumulated gas will be discharged to outside by the indoor positive pressure.

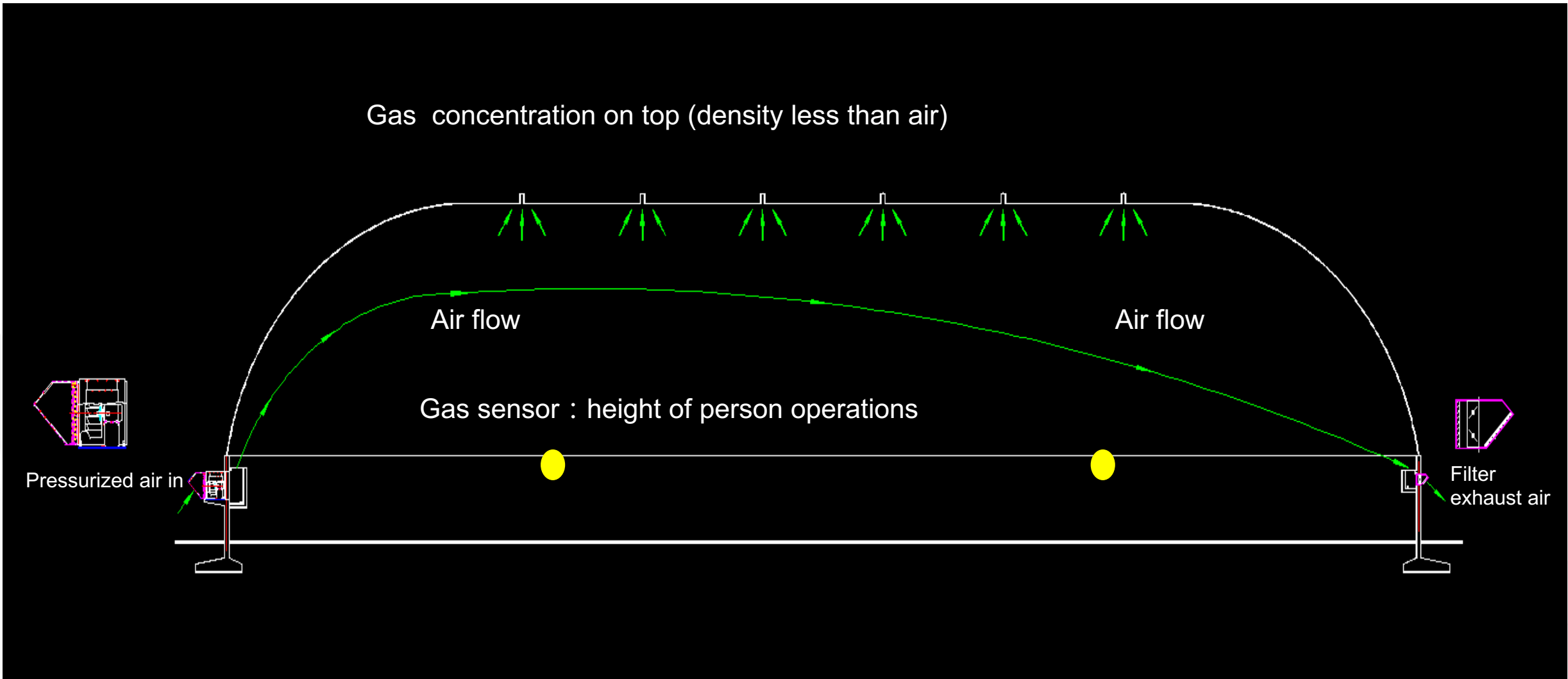
Dust control: Sprinkling dust system and coal dust sensor are set. When detect excessive coal dust, turn on sprinkling dust system, also exhaust blower and exhaust valve will automatically open.

Air Distribution Mode 1



AIR DOME FOR INDUSTRIAL AND OTHER USE

➤ Air Distribution



AIR DOME FOR INDUSTRIAL AND OTHER USE

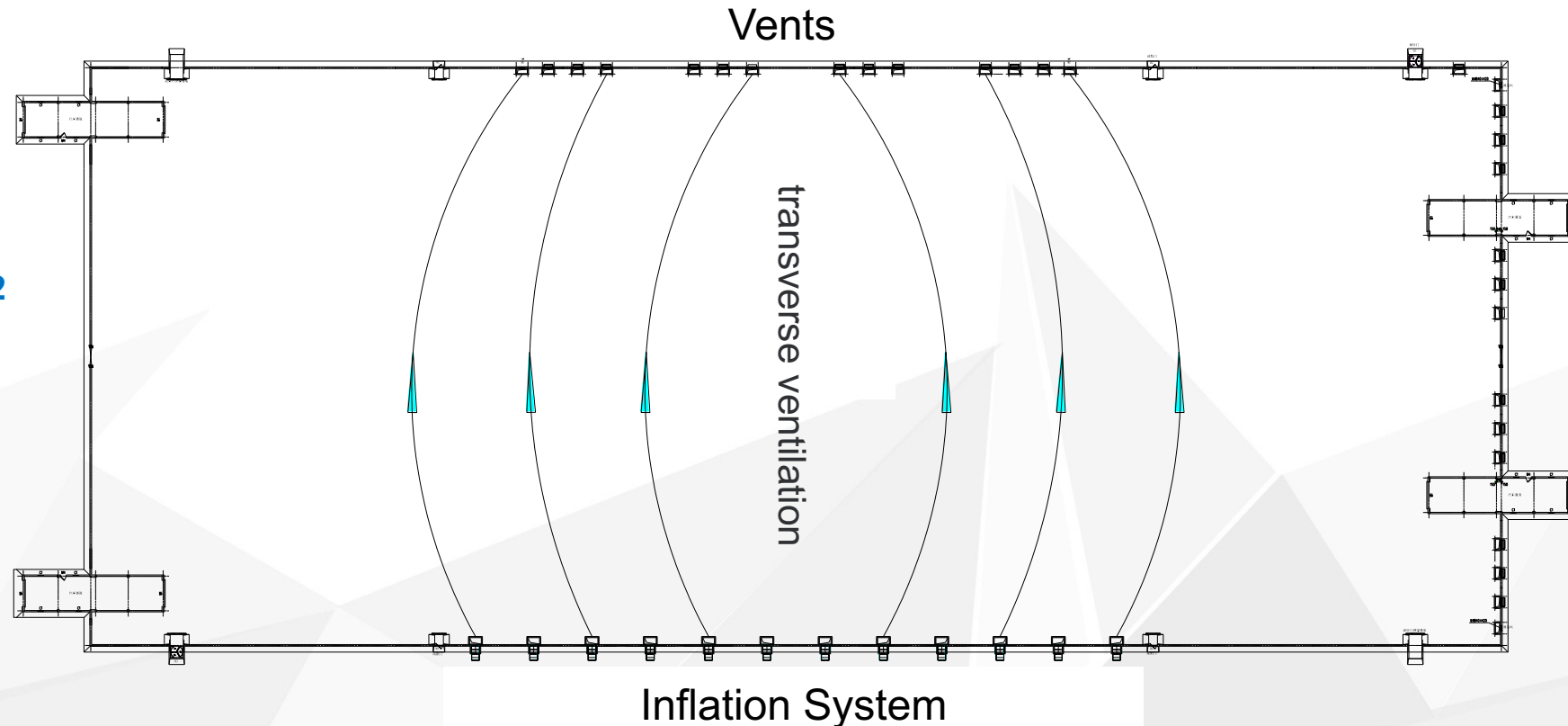
➤ Air Distribution

Air dome storage facility adopts the mechanical air supply and overpressure to exhaust air. Some explosion-proof centrifugal blowers are set, 2 of which are operated with frequency conversion. The normal production guarantees 0.25 ~ 0.5 times/h ventilation rate; non-production condition, ensure gas concentration under 0.5%. In accident, all fans will turn on to ensure 0.5 ~ 1 times/h ventilation rate. Outside exhaust valve, anti-dust bag, dust removal plate filter and water bath dust removal measure, can effectively remove dust and prevent secondary pollution.

Gas control: air outlets are set at the top, and the accumulated gas will be discharged to outside by the indoor positive pressure.

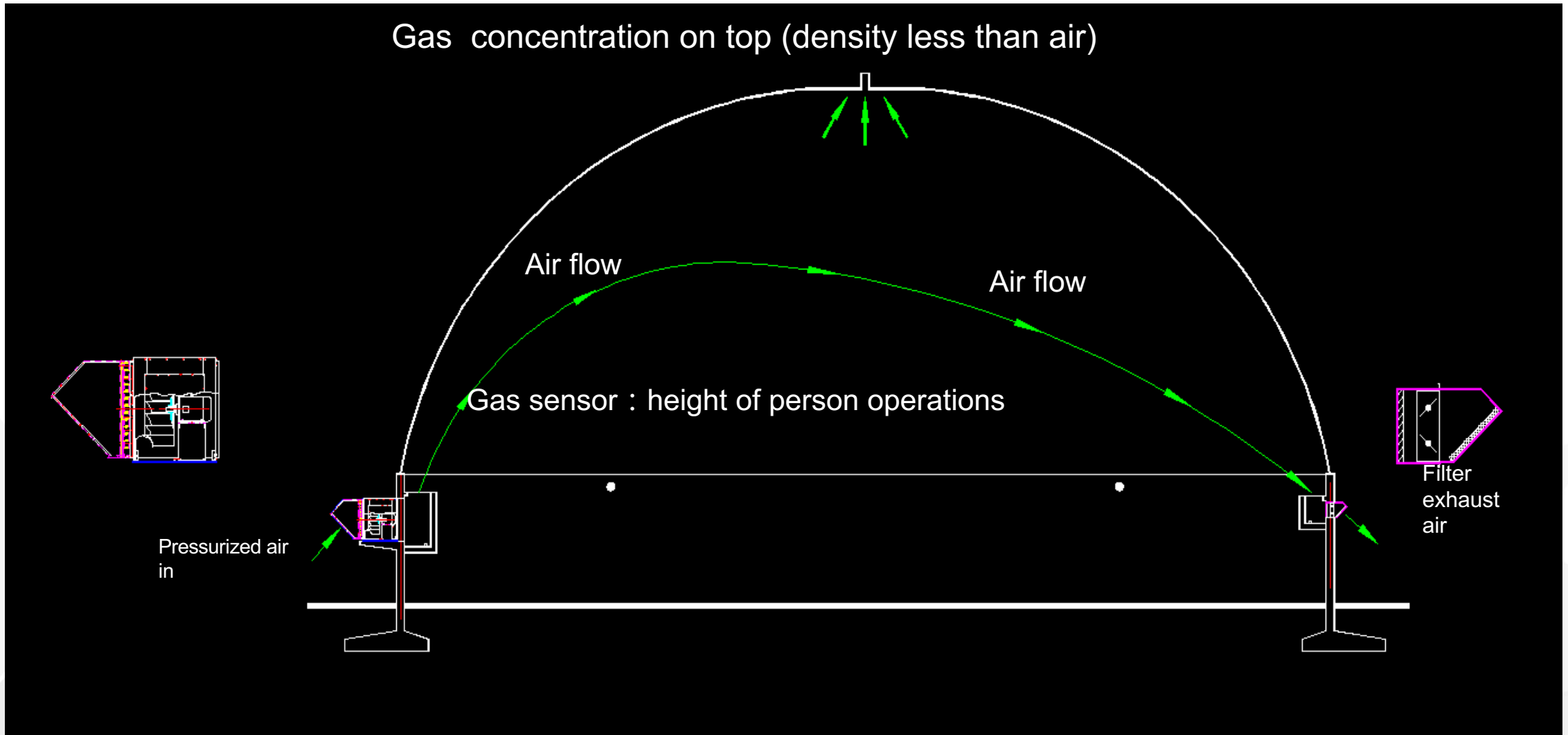
Dust control: Sprinkling dust system and coal dust sensor are set. When detect excessive coal dust, turn on sprinkling dust system, also exhaust blower and exhaust valve will automatically open.

Air Distribution Mode 2



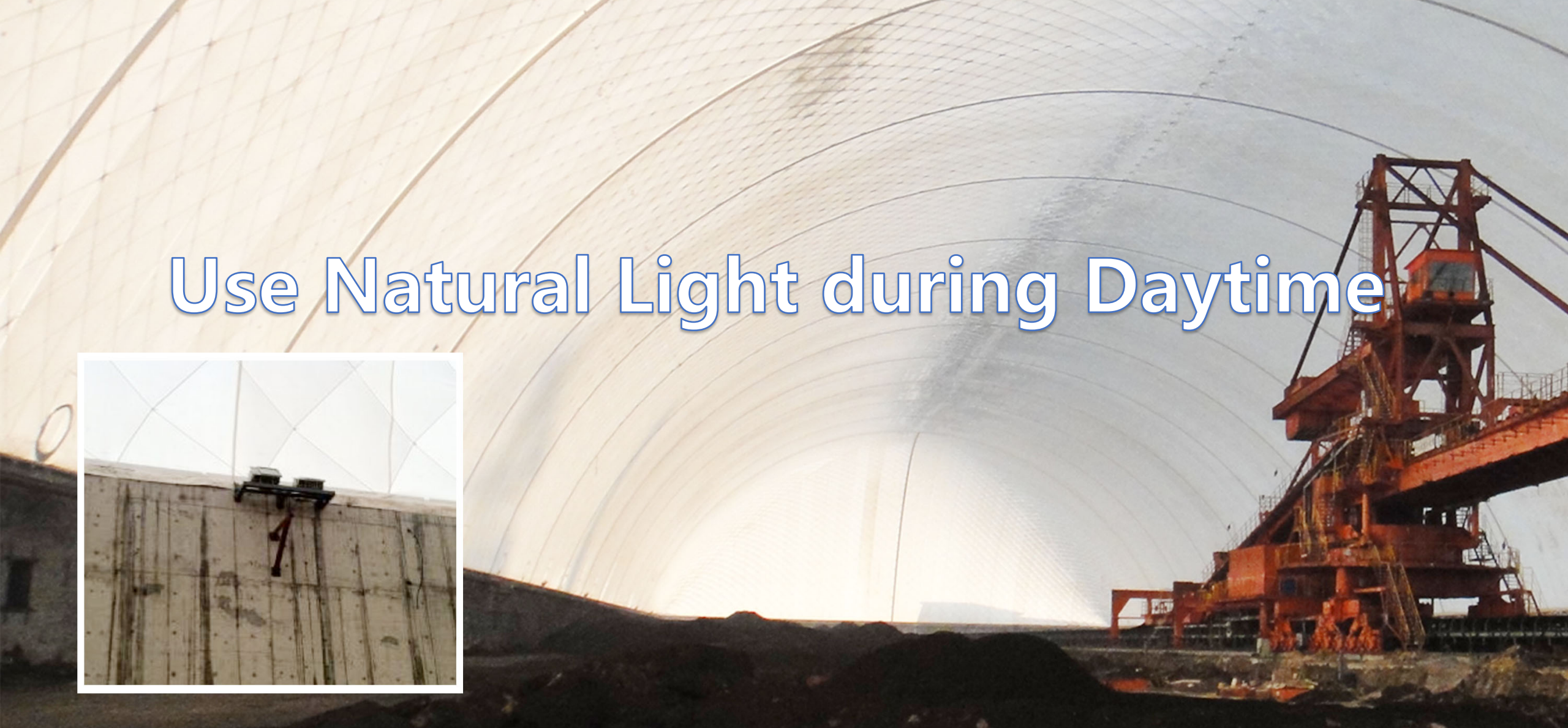
AIR DOME FOR INDUSTRIAL AND OTHER USE

➤ Air Distribution



➤ Lighting System Design

Use Natural Light during Daytime



ABOUT AIR DOME FOR INDUSTRIAL AND OTHER USE



➤ Door System

With vehicle door, trucks can go in and out easily.

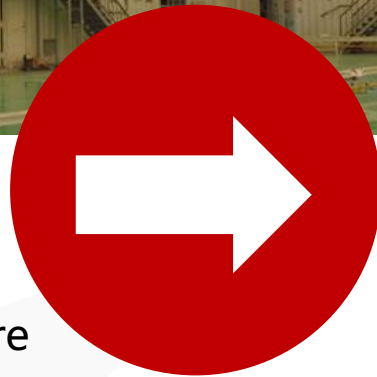


ABOUT AIR DOME FOR INDUSTRIAL AND OTHER USE

➤ Applications



Application scope
of air dome structure



Temporary shelter
Air dome structure
storage facility
Totally enclosed
treatment center
... ..



- Multi-layer filtering system makes the workshop with high cleanliness
- Short construction period, easy to move
- Erection in all kinds of environment, ensuring safety and stability of structures

ABOUT AIR DOME FOR INDUSTRIAL AND OTHER USE



➤ Applications

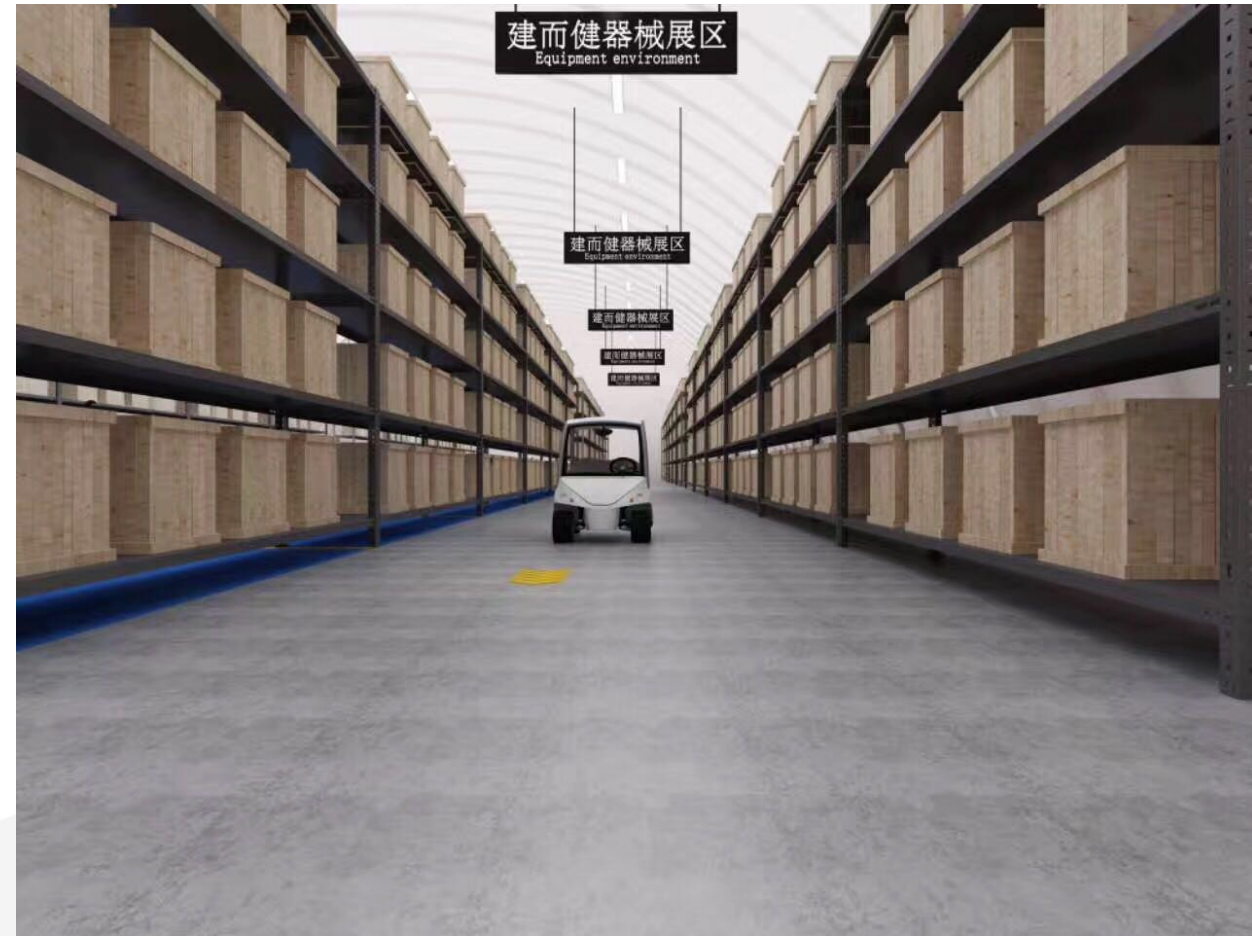
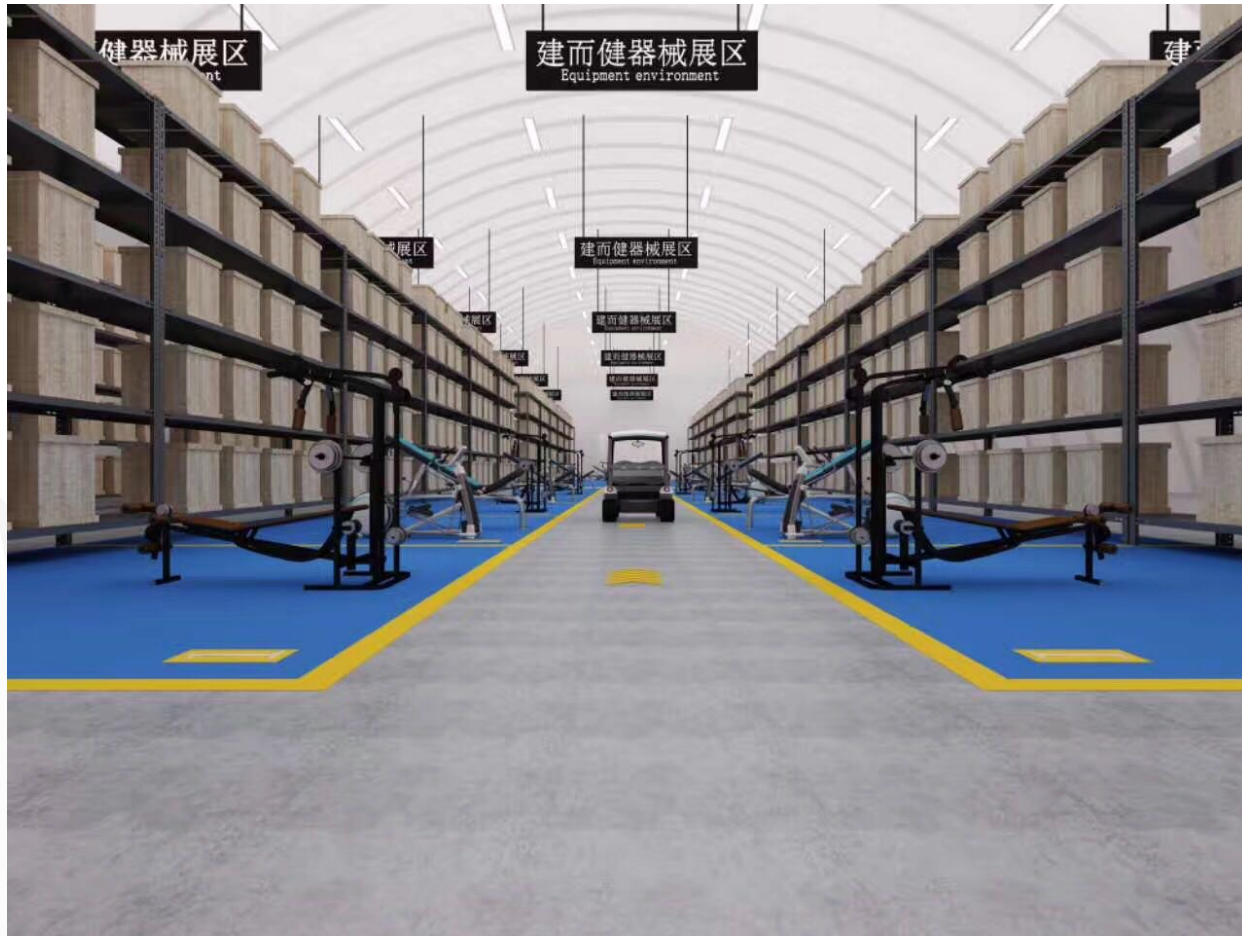


- Coal bunker
- Granary
- Logistics warehouse
- High temperature cold storage
- Storage for chemical hazardous goods

... ..

- As storage for coal and chemical hazardous goods, air structure can effectively seal assorted contamination inside structure, reduce pollution of harmful substance and dust, well protect the environment.
- As barn or logistics warehouse, air structure takes full advantage of inside super large space, maximize to increase the utilization and storage capacity.
- Fresh air supplies from main inlet which located on the ground and bottom of grain, thereby to achieve air flow inside grain and structure. Inside the whole structure, the airflow is smoothly due to existing positive pressure, thereby to ensure the dryness and freshness of grain or food.

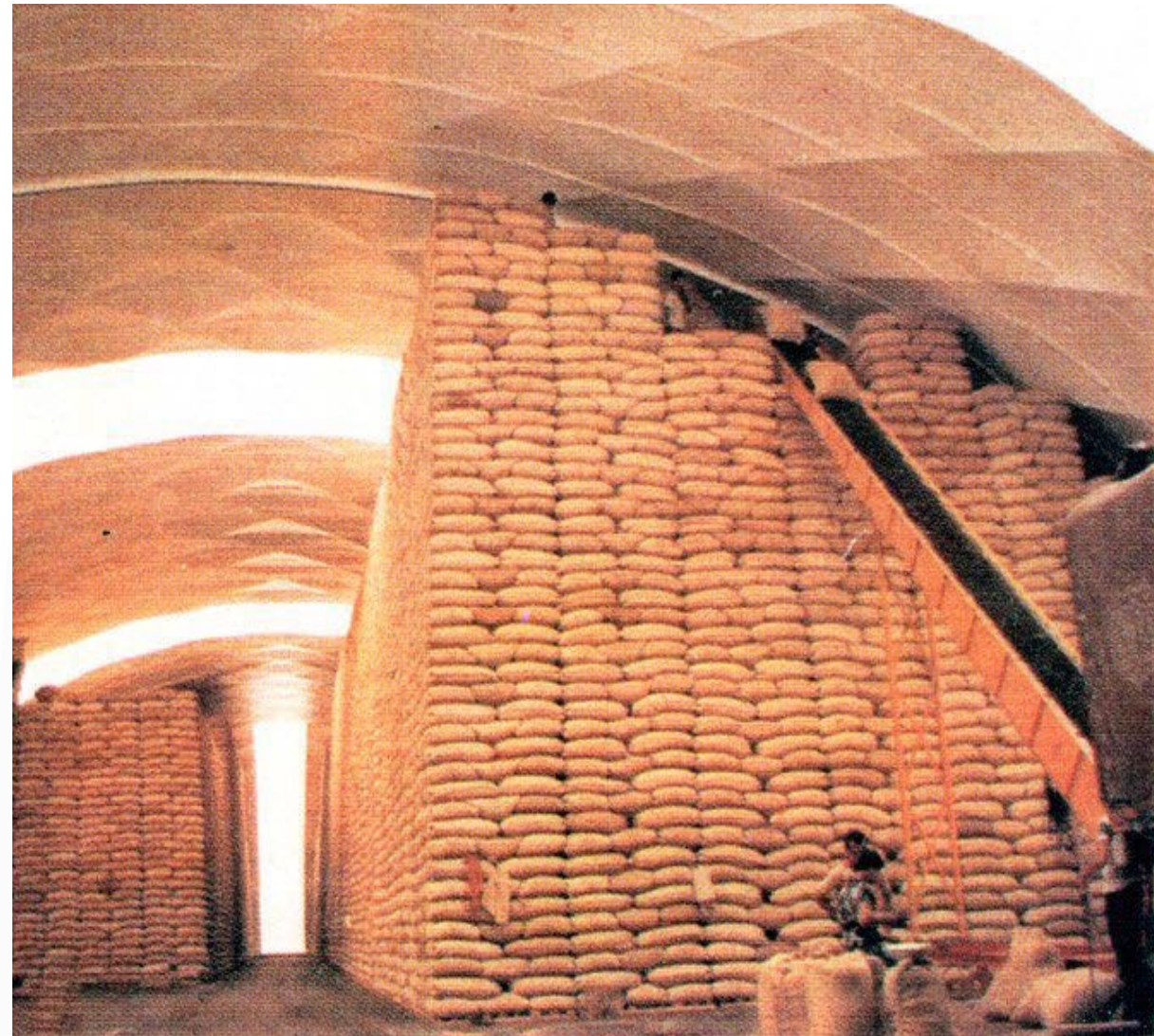
APPLICATION OF LOGISTIC AND WAREHOUSE AIR DOME



APPLICATION OF LOGISTIC AND WAREHOUSE AIR DOME



APPLICATION OF LOGISTIC AND WAREHOUSE AIR DOME



APPLICATION OF LOGISTIC AND WAREHOUSE AIR DOME



APPLICATION OF LOGISTIC AND WAREHOUSE AIR DOME





PART TWO

APPLICATION OF BROADWELL AIR DOME IN INDUSTRY USE

➤ Applications

- ✓ Totally enclosed air structure seal assorted hazardous and harmful gas inside the fabric, then instruct gas through specific tunnel into equipped treatment facility, to attain the clean standard.
- ✓ After treatment by a full set of environmental protection techniques, the contamination can be treated and discharged in an organized way.
- ✓ The advantage of enclosure is to avoid potential leakage of sewage, and to be able to systematically collect and dispose sewage.



Environmental
protection



- ✓ Unique patented bias harness cable system can ensure the safety of air structure.
- ✓ The air structure can withstand 67m/s high wind and 250kg/m² snow.



ABOUT AIR DOME FOR INDUSTRIAL AND OTHER USE



➤ Applications

- Disaster relief mobile center



- Radar cover
- Mobile camp
- Logistics center



- Erection in all kinds of environment, ensuring safety and stability of structures
- Short erection period, safe construction, less site pollution, little noisy, easy dismantlement, easy relocation, and multi-time reuse

Shenhua Group Bayannur Coal Bunker, 2012

➤ L232m×W100m×H36m, 23200 m², L400m×W110m×H42m, 44000m²

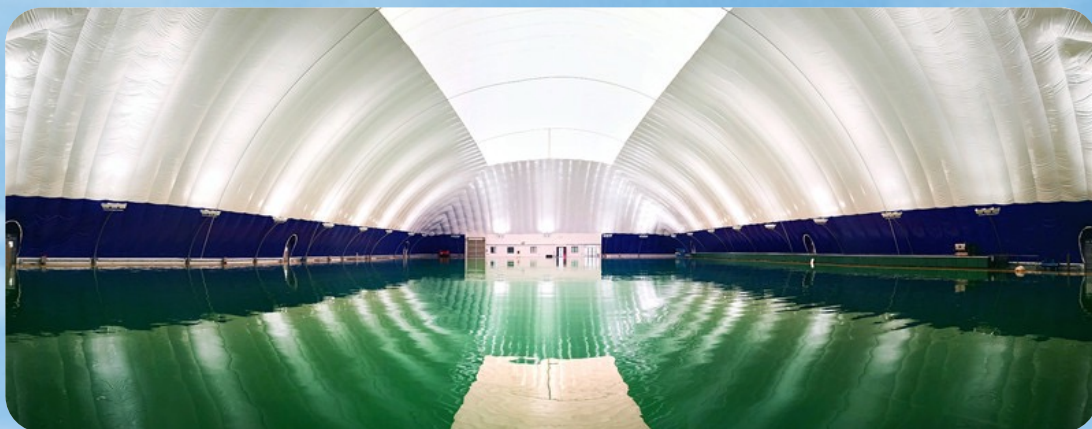
Shenhua Group Bayannur Coal Domes is the first coal bunker dome in China. The bigger one is the biggest air dome in the world until now. The huge inside space allow big coal handling equipment work inside the air dome. We finished this dome within one years which the traditional structure will need at least two or three years. Also, we have developed the advanced monitor and control system to make the user control the inside environment in real time.



Merchants Port (Shenzhen) Granary, 2014

➤ L160m×W50m×H20m, 8000m²

The granary dome is not only leak-proof, moisture-proof, heat-insulated, closed and ventilated, but also has the advantages that traditional steel structure granaries can't match: good sealing performance, strong anti-corrosion ability, seawater erosion resistance; light weight, suitable for construction in soft coastal areas.



Broadwell Ari Dome Industrial Park, 2015

➤ 9000m² (#1), 6317.9 (#2)

The biggest and most advanced air dome industrial park in the world. It is a high cleanliness air dome manufacture center, which can produce 5 million square meter of fabric envelope with top quality.



Foxconn Moveable Clean Plants, 2011

➤ L61m×W42m×H17m, 2562m²*4

It uses transparent membrane on top to utilize natural lights during the daytime, which can save more than 60% of the energy consumption for the Foxconn plant.

The indoor environment keeps well dry all the time to eliminate humidity. The plant could relocate at any time with little cost lost. The dome's life can reach 30 years with well maintenance.

The production of precision accessories provided by Foxconn for Apple mobile phones is completed here.



Chifeng City Museum, Inner Mongolia, 2016

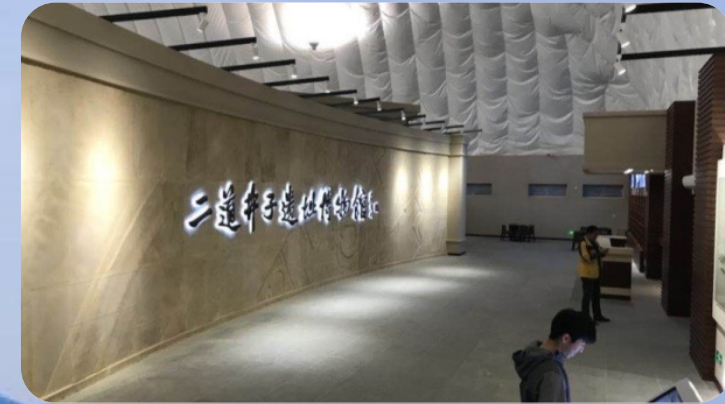
➤ L137m×W70m×H25m, 9590m²

The archeology site is about 4000 years ago, and it is the most important archaeological discovery in Northeast Asia since 2000.

It is one of the “2009 Top Ten New Archaeological Discoveries in China” by the State Administration of Cultural Heritage.

Consider there is a railway tunnel under the site, the air dome is the perfect solution to protect the archeology site with the least impact to the tunnel.

The air dome has good sealing performance, which can completely separate the cultural relics from the outside world. And the temperature and humidity in the air dome can be adjusted through the smart monitoring system, which can easily meet the indoor environment needs of protecting cultural relics.



Yancheng City Sewage Treatment Plant, 2015

➤ 5900m²

The sewage treatment air dome pool has superior sealing performance and can easily form a closed working space. It is a very good ring-closed structure.

Coverage can achieve excellent results in avoiding secondary pollution when It is used for sewage pools, sewage floors and landfills.

The sewage treatment air dome pool can be quick installation, relocate and reuse.

PVC membrane has excellent airtightness, can effectively block toxic and harmful gases, and has good corrosion resistance & UV resistance.





Thank You!