YEADON®

PLAY MORE™

AIR-SUPPORTED DOMES 2022 CATALOG

index

Sourcewell
Awarded Contract
Contract # 091319-YEA

Sourcewell National Purchasing Contract

We are proud to be a Sourcewell contracted vendor. Sourcewell provides competitively bid and sourced solutions for schools, municipalities, and non-proifts and is a great solution for a purchase process that is faster, easier and more economical.

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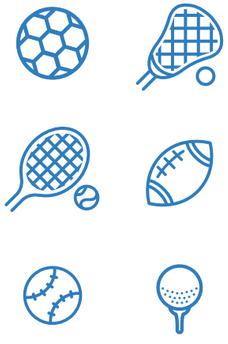
OVERVIEW OF A DOME

At Yeadon, we stay focused the most important thing a dome brings to schools, communities, and athletes – More Play Space!

AN OVERVIEW

From turf fields, to tennis courts air-supported domes ensure that practice, play-schedules, and revenues are weather proof. Across the country and in all climates the demand is high for quality indoor facilities.



A Yeadon dome makes sense because they are a fraction of the cost traditional construction and they can go up in a fraction of the time. And unlike any other indoor solution an air dome can be taken down part of the year providing a seasonal solution.

When you partner with Yeadon you are turning to the one company that combines the highest-quality materials with over 40 years of experience. We have learned there's simply too much at stake to cut-corners – so we never do.

After all, it is about more play space more play time, more peace-of mind. And its why at Yeadon we like to say – Play Moore!

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CUSTOM DESIGN

Real partnership. Our designs are specifically engineered to fit your location and vision, and no two domes are exactly alike. We coordinate with construction from start-to-finish and stay connected to ensure expectations are exceeded.

REAL EXPERTISE

When you choose Yeadon, you're choosing the industry's established leader. With thousands of domes under our belt, we've seen it all, and no challenge is too big or too small. Plus, we're with you every step of the way for your project — from early consultation all the way to installation and beyond.




ANY DOME. ANY SITE. ANY ENVIRONMENT.

Every project is custom-designed to address unique site considerations, weather conditions and usage requirements. Whether to mitigate the piercing cold of winter, or the scorching heat of the desert. As a year-round facility, or as seasonal practice space. Attached to a building or completely stand-alone. Retrofitted into an existing stadium/track, or built as part of a brand new athletic complex. We can engineer a solution for any set of circumstances.

PROJECT CONSULTING

Feasibility studies. Assistance with specs and permitting. We're with you every step of the way.

SPECIFICATION + DESIGN

Our engineers custom-design each structure to meet your unique project requirements.

MANUFACTURING

From the largest air dome facility in North America, we deliver unmatched performance with the industry's best architectural fabrics and source only the best lights, doors and mechanicals.

INSTALL + SERVICE

Experienced, in-house project managers and technicians oversee installation and your service needs, from seasonal take-down and put-up to upgrades and additions.

MAINTENANCE + SUPPORT

We've got your back with annual service plans for maintenance and inspections and a 24-hour hotline. Our expertise is at your fingertips.

HOW IT WORKS

Components of a Dome.

Fabric Membrane and insulation
Support Cables
Anchoring System
Lighting
Entrances and exits
Automated custom mechanical systems

THE BASICS

The engineering and design that makes a Yeadon Dome work is impressive yet the basic components and how it works can be easily simplified.

Membrane

US-made architectural fabric panels are welded together making the outer and inner layers of the dome. Insulation can be installed between the inner and outer layers to improve energy efficiency.

Cables and Anchoring

The dome is anchored to a cement foundation called the grade-beam. Yeadon's unique rope-edge design secures into a channel and cables run over the top of the dome and anchor to the grade beam. Yeadon works with your team to assist in the design of the grade-beam and concrete work.

Lights and Doors

All LED lights are not the same and Yeadon solutions deliver the trouble-free longevity you expect. With a round light hung from a single cable, our lights do not require time-consuming leveling.

Custom-designed revolving doors and air-locks provide entry points that don't compromise the air-pressure. Even the emergency exit doors are designed to allow for controlled opening and closing under pressure.

Inflation and Mechanicals

By partnering with a few, select providers of mechanicals systems, Yeadon is not limited by one system and one way of doing things. We evaluate each dome to design right-sized systems our focus is to deliver:

Safety
Energy efficiency
Ease of use and Automation
Dependability

SAMPLE LAYOUTS

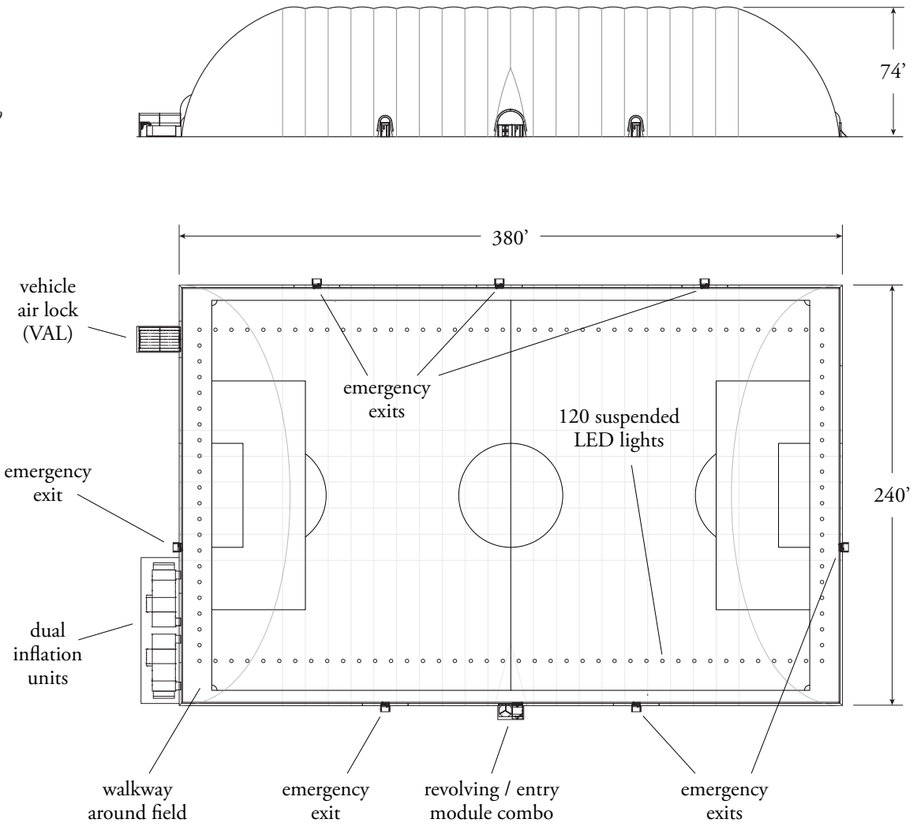
Every Dome is unique.

Some domes are designed to accommodate just one sport While others are designed to accommodate many sports. Some domes might be stand-alone While others might connect to a building. Yeadon will work with your team to design the best solution for your site.

MULTISPORT DOMES

Maximize play space

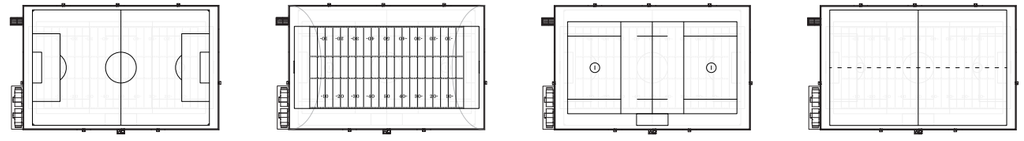
When planning a dome, we help determine an optimum size for the available space to accommodate multiple sports in one facility.



Multiple fields in one

Applying multiple sets of lines to the turf affords the most flexibility. (fig a).

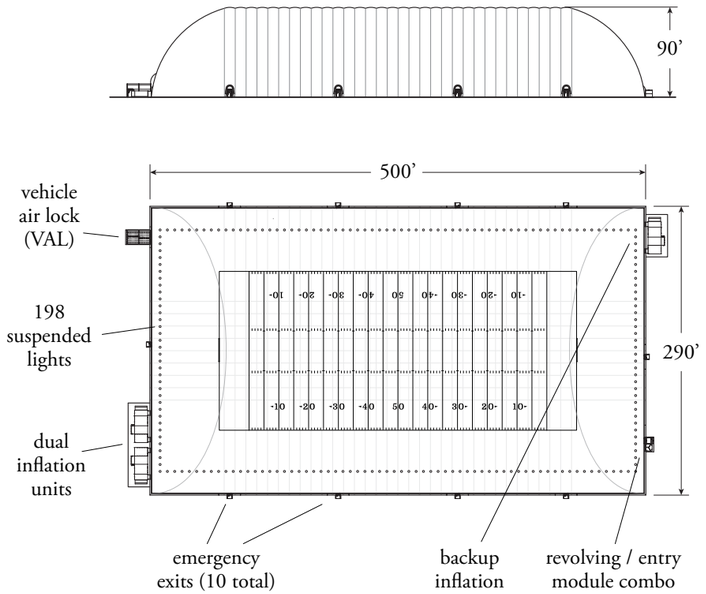
a.



regulation soccer field | football practice field | regulation men’s lacrosse | sectioned for multiple practice fields

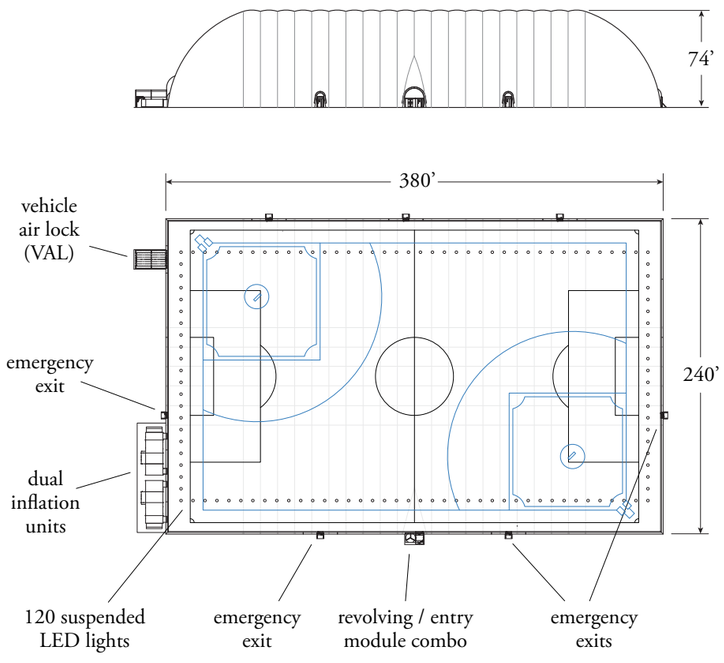
FOOTBALL DOMES

In a single sport Dome like a football facility there are no overlapping field lines. The result is a weatherproof schedule in a focused environment. A place where premiere programs stay ahead of the competition.



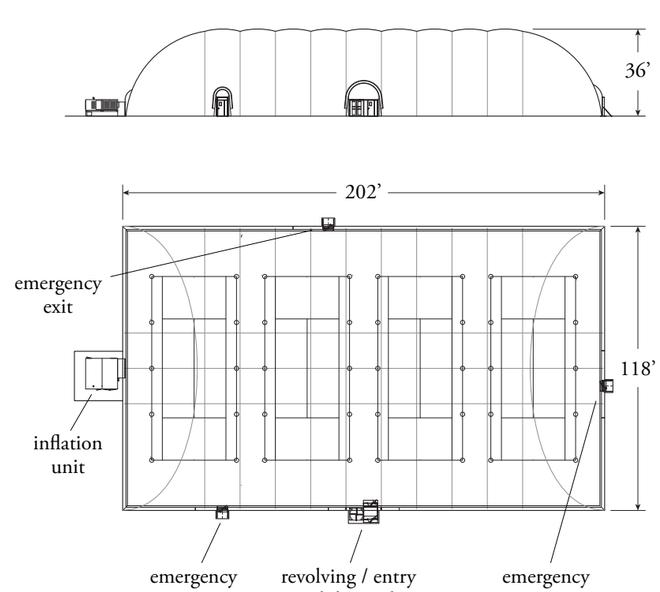
SOCCER/BASEBALL DOMES

A soccer/softball Dome is an example of a smart pairing. Two regulation softball fields and a full soccer pitch makes this a common layout for many high schools and colleges.



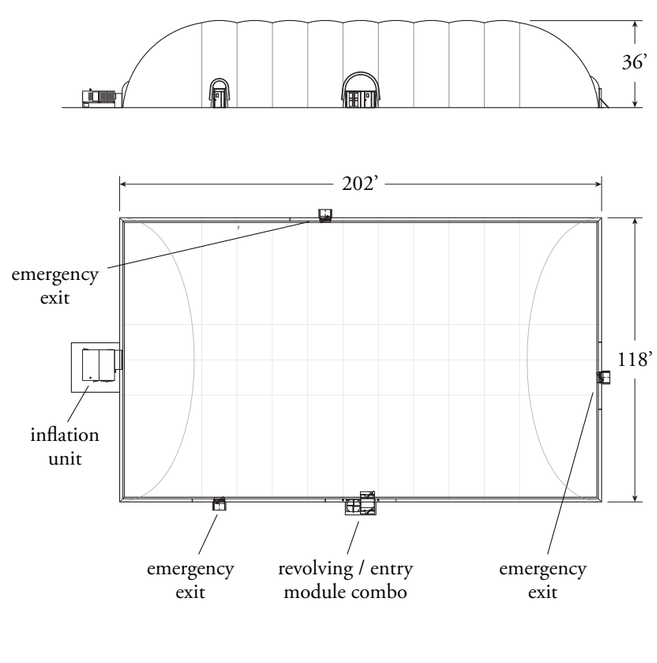
TENNIS DOMES

There are more tennis domes across America than any other type. They are proven as competitive amenities for country clubs, colleges and for the profitable business of tennis pros and training facilities.



DOMES BUILT-TO-SUIT

When space or budgets are limited a smaller turf dome can be designed to provide half-field practice space where schedules, plans, and player safety are never at risk from extreme heat, cold, rain or snow



REVENUE POTENTIAL

The Demand is there.

The high demand for indoor fields is growing every year and rental revenue means Dome owners can run them as profitable businesses or off-set investments and operational costs..

DOMES AS A PROFITABLE BUSINESS

Indoor facilities that offer weatherproof scheduling for practice, play, and tournaments are a growing trend. There are many examples of successful businesses operating in Yeadon Domes and serving all sorts of local public and private athletic programs.

RENTAL REVENUE OFF-SETTING COSTS

Schools and communities investing in domes are finding that they can provide this incredible asset to their programs and residents and still carve out plenty of rental time to offset their costs.

	rental opportunities		
rental hours	per field	hrs ea	# fields
peak*	$175/hr	53	3
off-peak**	$100/hr	80	3

**weekdays **evenings + weekends*

With over 130 peak and off-peak hours available across three separate practice fields, income potential is great (fig a).

YEADON CAN HELP

After years of studies into financially successful domes in a variety of markets, we can help you formulate a business plan for dome that will meet your financial needs. With a good stream of rental revenue, a dome can realitstically pay for itself in 3-5 years and be a revenue producer for many years to come.

We have dozens of real-life examples of operating costs, average rental rates and revenue streams to draw from, and can use that knowledge of the market to help you put together a proforma to meet your financial goals.

100% SELF-SUSTAINING

The city of Plymouth, MN originally built its dome in 1990. Since then, the Plymouth Fieldhouse has built up its user audience – and enough revenue – to support 100% of its operations.

More importantly, there's been enough profit over the years to make upgrades to the dome in 2017. All without a single additional nickel from taxpayers.

The dome is a model of versatility, hosting a number of different activities and events including Parks and Rec programs, adult pickup leagues, Home & Garden Expos and, of course, athletic departments and associations use it regularly throughout the winter months. It's even filled with inflatables and used for open play weekly.

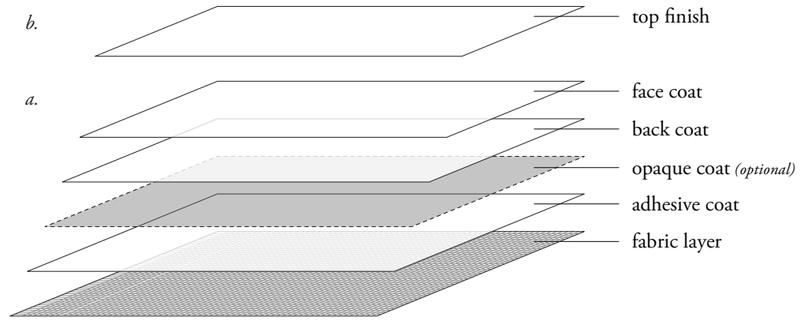
An estimated 150,000 people utilize the dome in the five-month period of time that it's up. In a city of just over 70,000, that's akin to each resident visiting the dome more than two times during that period.

FABRIC MEMBRANE

A thick skin. The architectural fabric membrane is the most visible component of a dome's structure. The quality and finish of the fabric not only sets the tone for the aesthetic of the dome, it's absolutely critical to the dome's lifespan.

FIVE LAYERS OF PROTECTION

This is no ordinary fabric. We use only high-quality vinyl architectural-grade fabric, specifically engineered to provide strength, durability and aesthetic to our air domes. The base fabric alone (*fig a*) consists of at least four layers, with added protection from the top finish (*fig b*).



a. **Base Fabric**

Light-weight, coated knit polyester provides superior tensile strength, tear and peel resistance, UV protection, mildew resistance and long-term performance

b. **Top Finish**

Added protection from the elements, with options to further extend lifespan and long-term colorfastness.

CHOOSING THE RIGHT TOP FINISH

The top coat you choose will impact cost, but more importantly, it's one of the biggest factors in determining the long-term performance and aesthetic of your dome. We offer three standard options, below.

PVDF FINISH

- Stain + mildew resistant
- Repels water
- Improved cleanability
- Retains color + gloss
- 20 year lifespan

BETTER

TEDLAR® FINISH

- UV + mildew resistant
- Colorfast + fade resistant
- Sheds snow and dirt
- Self-cleaning
- 20+ year lifespan

BEST

When you invest in a superior-quality top finish, you're extending the durability and beauty of your dome and ensuring that your overall investment takes you further into the future before repairs or replacement becomes necessary.

OPTIONS GALORE

When you're designing your dome, Options include:

- Opaque fabric
- Sunlights (translucent fabric)
- Patterns, logos or custom designs printed or painted on the fabric
- Wide range of standard color choices
- Color matching to nearly any custom color
- Signage / branding / messaging opportunities

BOLD IS BEAUTIFUL

The first 15 feet of wall space in a dome needs a contrasting color so balls are clearly visible. That's a perfect opportunity to proudly show your colors. Shown below is the bright and welcoming orange and white color scheme at Quad Indoor Sports in Evanston, IL.

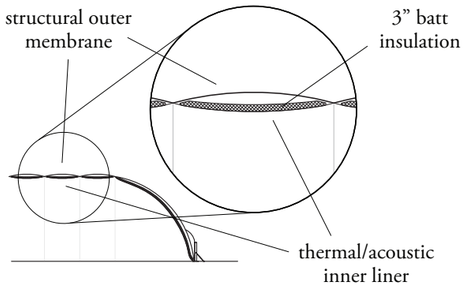
Designing your dome

Exterior fabric is available in a variety of standard colors and finishes, but can also be color-matched to nearly any custom color.

INSULATION SYSTEMS

Our R-Plus insulation system reduces energy costs associated with air conditioning and heating. Glass fiber or foil-faced bubble-wrap insulation is installed in the liner cavity (*fig a*) to reduce heat transfer through the membrane. For more specifics about insulation options, speak to your sales rep.

a.



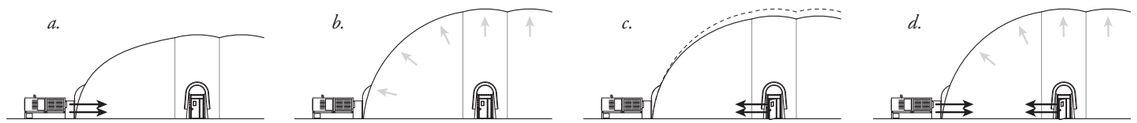
INFLATION SYSTEM

The heartbeat of a dome.

The inflation system has an especially important job in a dome — it's what gives it structure, playing the critical, round-the-clock role of maintaining both the air pressure and internal temperature of a dome.

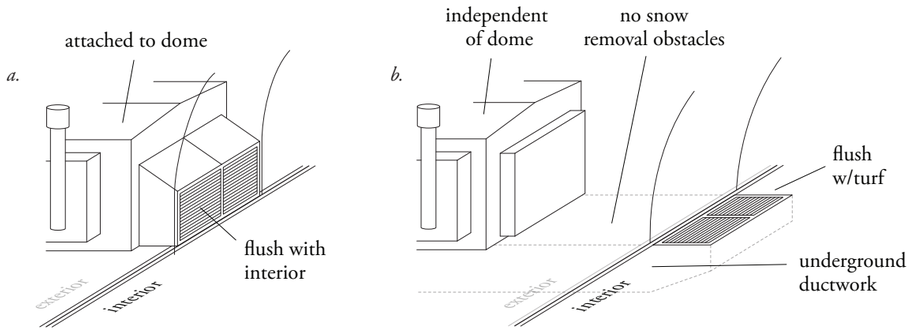
THE PRINCIPLES OF INFLATION

It's really very simple — the inflation unit inflates the dome (*fig a*) by filling it — like a balloon — with an appropriate amount of air (*fig b*). Some air loss will occur naturally each time a door is operated (*fig c*) or as a normal part of the air return system, which decreases the air pressure. The inflation unit's job is to continuously replace the natural air loss so the appropriate air pressure is maintained and the dome stays inflated (*fig d*).



INFLATION UNIT PLACEMENT

We equip each dome with a primary system and backup system. The primary inflation unit can be physically attached to the dome (*fig a*) or it can be positioned up to hundreds of feet away (*fig b*) which significantly reduces noise and simplifies snow removal but requires additional infrastructure investment.

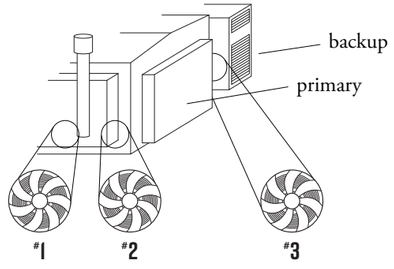


Unit placement

a. *Direct discharge*
b. *Bottom discharge*

TRIPLE REDUNDANCY

The work of the primary inflation unit is shared between its two fans, and each — on its own — has the capacity keep the dome inflated. For *triple-redundancy*, we include a backup system with its own generator that can handle inflation in the event of a power-outage, mechanical failure or maintenance downtime in the primary unit.



TEMPERATURE CONTROL

The secondary job of the inflation unit is to maintain the temperature of the dome. We equip the inflation unit with either a heating or cooling system (or both) and thermostat control in order to control temperature.

HEATING COLD-WEATHER DOMES

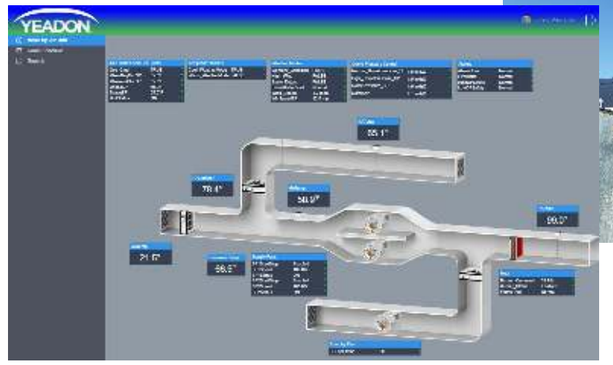
Maintaining comfort for users of the dome is important, but it's really only the beginning. Heat is an important tool in shedding snow off of the dome surface in heavy snowfall. Crank the heat (and the air pressure to counter the weight of the snow) and the dome will be just fine.

COOLING HOT-WEATHER DOMES

In the most extreme heat, the membrane sheilds from harmful UV rays of the scorching sun, but the cooling system is the hero in keeping temps comfortable. Extreme heat often comes with heavy winds, in which case increase air pressure makes the walls more rigid and reduces deflection.

AUTOMATION

Two things determine the optimal temperature and pressure in your dome - Weather and Schedule. Yeadon systems are simply safer becaue they react faster to changes. And becuase of this safety desing, they are also the most efficient to operate. Weather sensors and remote controls make monitoirng and adjusting easy.

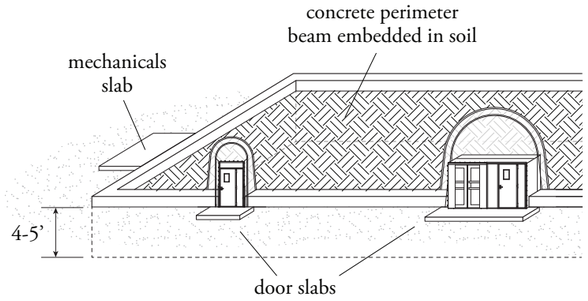


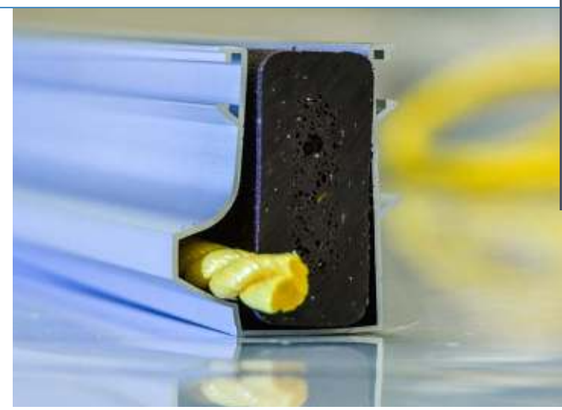
ANCHOR SYSTEM

Sealing the deal. Builders think about how to hold up a building. With a dome, it's all about holding it down. Keeping millions of cubic feet of air where it belongs requires a secure attachment system at the base.

IT STARTS WITH THE GRADE BEAM

The grade-beam is essentially the anchor for your dome. There are a variety of approaches to designing a grade beam the is right for the size of the dome and the soil condisiotn of the site. We can work with your architect and concrete contractor to get it right, and control the costs.



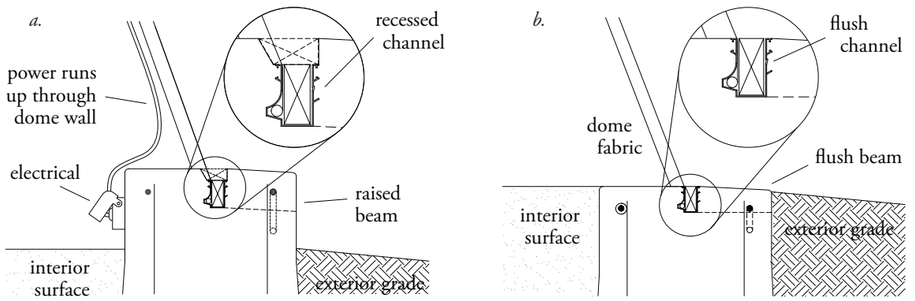


A SIMPLE PROVEN CONNECTION

Our unique, extruded aluminum anchoring channel (pictured above) is embedded into the grade beam during the pour. With the fabric is in place, it creates an airtight and water-resistant seal around the dome's perimeter. Benefits include:

- Faster installation
- Reduced air loss and decreased energy costs
- Uniform transfer of fabric stresses

RAISED BEAM VS. FLUSH BEAM



Grade beam

a. Raised beam with a recessed channel

b. Flush beam with a flush channel

The grade beam can either be raised (*fig a*) or flush with the ground (*fig b*). A raised grade beam aids in snow removal, contributes to vertical loft and eases access to electrical. The grade beam is commonly flush with the ground for seasonal domes over a football field, tennis court or pool deck, which allows it to be completely hidden when the dome is not up.

LIGHTING + ELECTRICAL

Smarter lights. Yeadon Domes are pre-wired between the inner and outer membranes and ready for final connection by your electrician. Our round lights have one hanging cable and save hours during put-up compared to the fussy connections and leveling that rectangle lights require.

YEADON

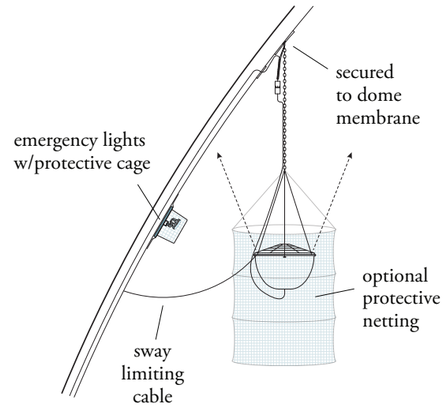
SEEN IN THE RIGHT LIGHT

There's no single formula for getting the light right in a dome. The choice is informed by everything from the size of the ball for the sports being played, to whether it's primarily a practice dome or if competitive standards should be considered. Our consultative approach to lighting ensures you get the appropriate light for the applications you need. We'll do a full photometric evaluation during the design phase and recommend a lighting package that's just right for you and the sorts you are hosting in your dome.

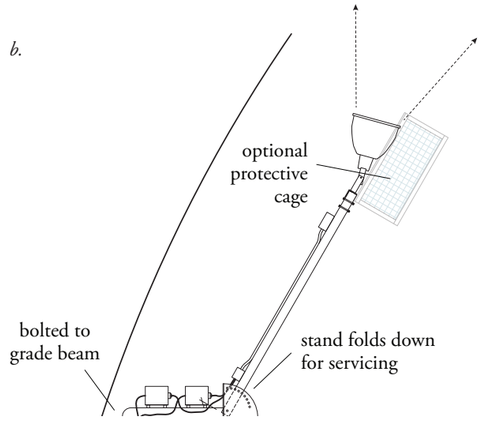
Lighting systems

a. *Suspended lights are most effective but require a lift to service while the dome is up*
b. *Light stands are easier to service, but result in a dimmer environment with more hot spots*

a.



b.



LED: THE NEW STANDARD

LED fixtures produce light far more efficiently than other bulbs. Plus, they're longer-lasting and reach full brightness instantly.

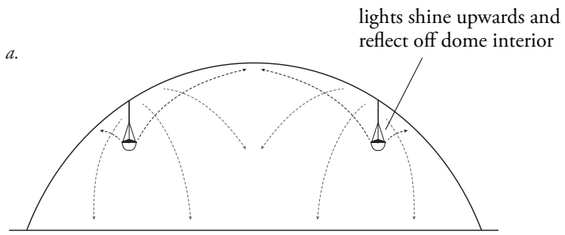
That said, *all LEDs are not the same* — always check specs. If you're quoted an inferior system by the competition, you may be able to save some money up front, but you're likely to start experiencing noticable light decay within 5 years.

We'll be up-front with you, and show you all your options so you can make the right, long-term lighting decision.

REFLECTING WELL ON YOUR DOME

Whether using suspended or stand lights, the most effective way to flood a dome with light is to point lights upwards and reflect the light off the dome surface (*fig a*) back down onto the field. This results in consistent, bright lighting, without the blinding hot flashes that can happen when players look directly into a light.

a.



There are some instances where having the lights shine down is preferable.

ELECTRICAL

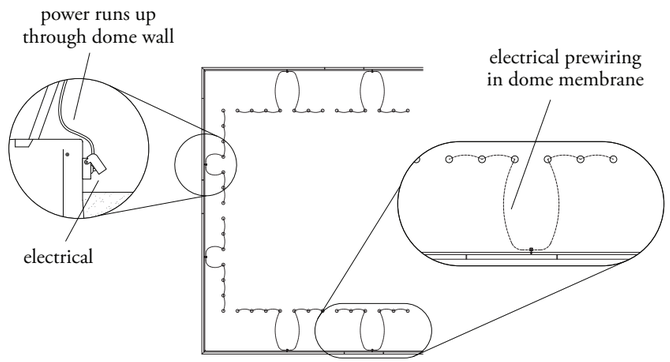
While your general contractor is typically responsible for most of the electrical work for the job site — including powering the base of the dome and the mechanicals — we prewire the dome membrane itself for all necessary lighting (*fig b*) so that everything is in place when the dome is inflated and in the air.

With proper planning and close coordination with the project architects and general contractor, the dome can also be prewired with cabling for things like security cameras or other security equipment, as well as audio systems, wireless networking equipment or other data needs for integration with a building automation system.

G.C. RESPONSIBILITIES:

- Conduit and electrical service to inflation unit
- Conduit and electrical service to designated grade beam locations
- Lighting switch/controls
- Section split wiring

b.



Membrane pre-wiring

b. Wiring for suspended lights is pre-wired inside the membrane and indicated in drawings

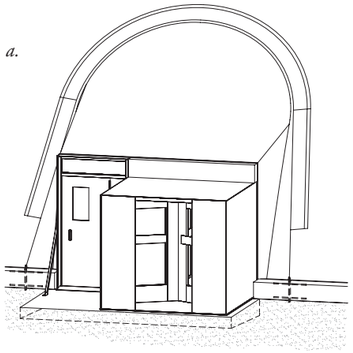
ENTRY / EXIT

Doors. Yeadon has customized pressure-blanced doors that stand up to the elements. All-aluminum construction means no rusting parts. There are a variety of options to meet the code and access requirement of your dome.

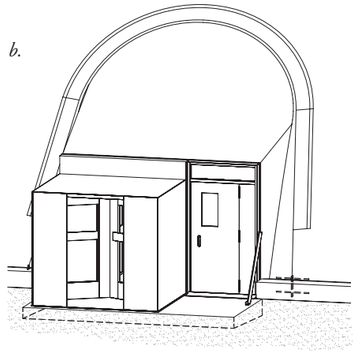
3-Leaf Revolving / Balanced Emergency Exit Module

a. *HCAP on left*
b. *HCAP on right*

a.



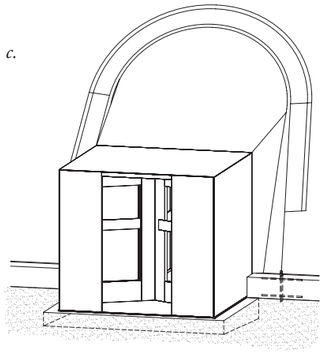
b.



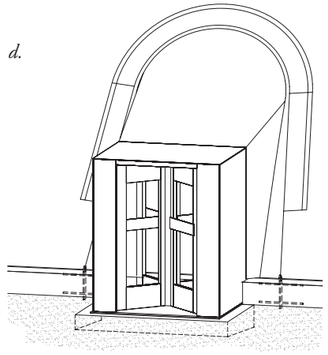
c. **3-Leaf Revolving Entry Module .**

d. **4-Leaf Revolving Entry Module**

c.



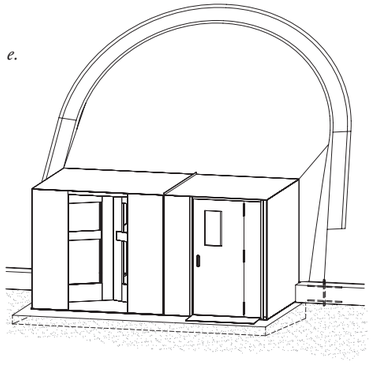
d.



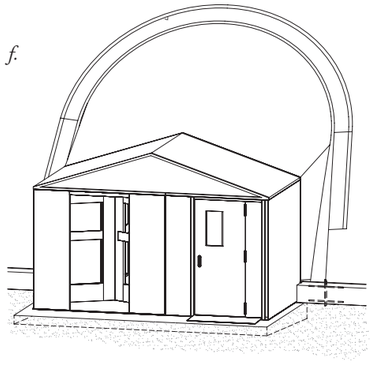
3-Leaf Revolving / Entry Module Combo

e. *Flat roof*
f. *Sloped roof*

e.



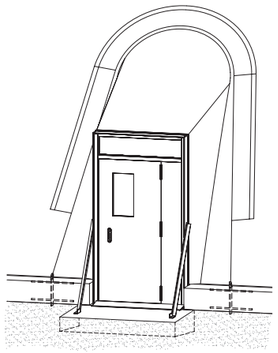
f.



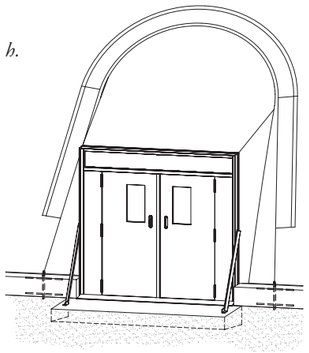
g. **HCAP Balanced Exit Door**

h. **Double HCAP Balanced Exit Door**

g.



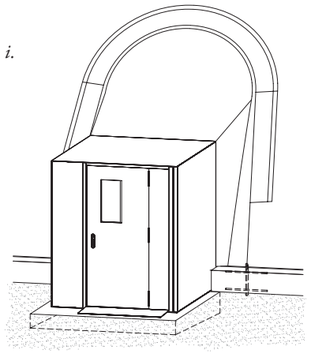
h.



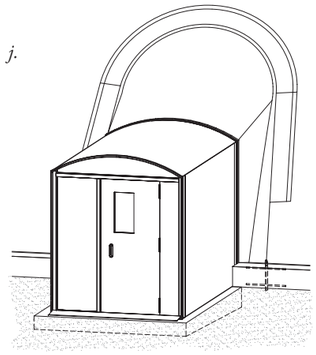
i. **Rigid Entry Module**

j. **Fabric Covered Entry Module w/Side Panel and Arched Top**

i.

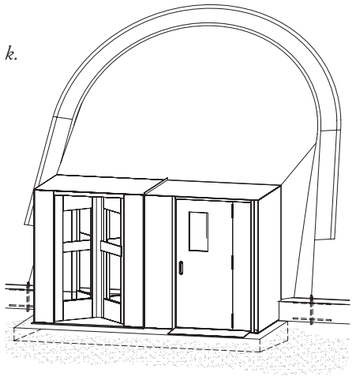


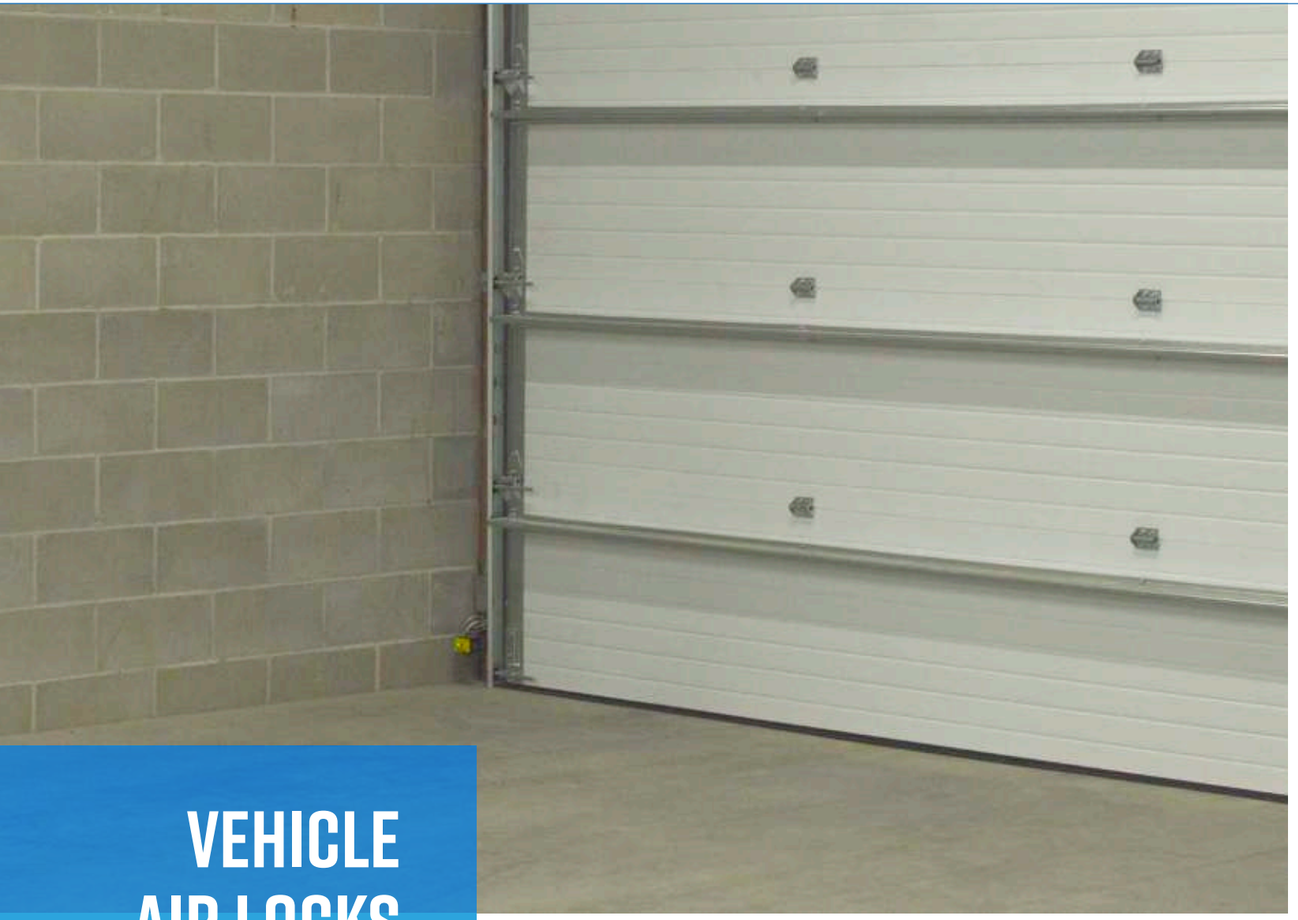
j.



k. **4-Leaf Revolving Entry Module Combo**

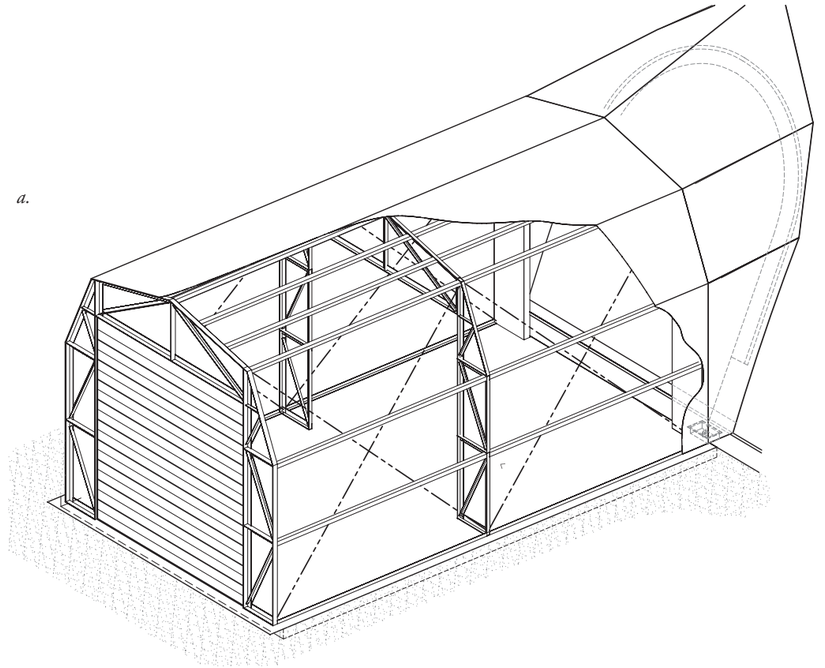
k.





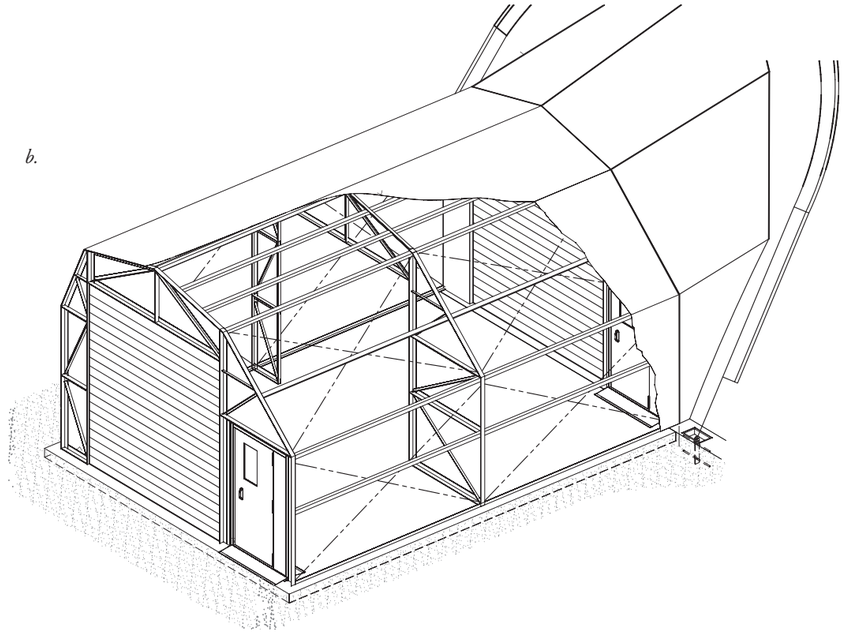
VEHICLE AIR LOCKS

a.



a. **Vehicle Air Lock**

b.



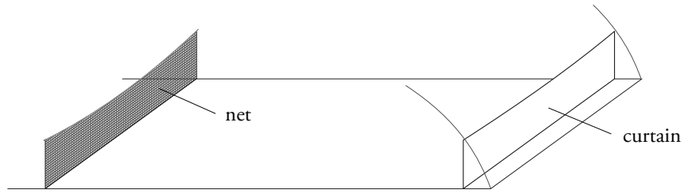
b. **Vehicle Air Lock with Balanced Exit Mandoor**

NETTING + CURTAINS+ BANNERS

Final touches. Nets, solid curtains, batting cages and banners all finish off your dome delivering safety, function and pride.

SAFETY, SUBDIVISION AND SIGHT BLOCKING

Appropriate placement of netting and curtains makes your dome more versatile, more usable and safe.



HIGH QUALITY NETTING

Nets are primarily used to define and subdivide fields for practice, as well as for spectator safety. The perimeter net prevents balls from hitting walkers.

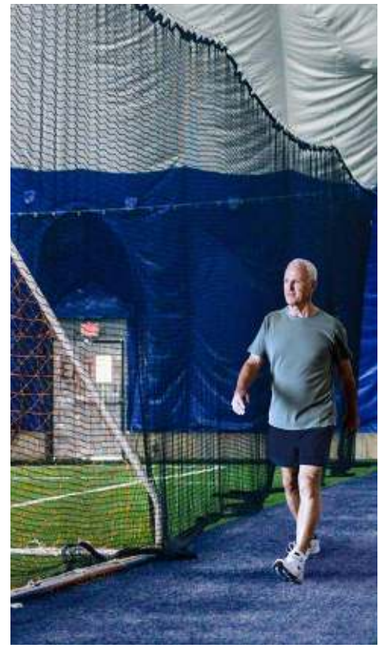
- Perimeter walkways
- Field dividers
- Batting cages
- Driving ranges

FABRIC CURTAINS

Curtains are opaque and made of the same architectural fabric as the dome membrane, and are used as visual barriers to minimize distraction.

- Tennis backdrops
- Lorem ipsum
- Dolor sit amet
- Consecteteur

Nets and curtains are attached to and suspended from the dome membrane, with additional support in the center and as needed across the cable runs.



BANNERS

Inside and outside of the dome, banners can reinforce school pride and raise revenue with field sponsors and paid advertisers.

NETS AND RENTAL INCOME

If you're renting your field on the off peak hours, divider nets allow you to subdivide the larger field into a number of smaller practice fields and increase potential revenue.

It's common to have two or three nets running the width of the field in order to divide it into three or four smaller fields that can be rented individually for running drills and for focused practice, or even to host indoor family play time for kids and their parents.

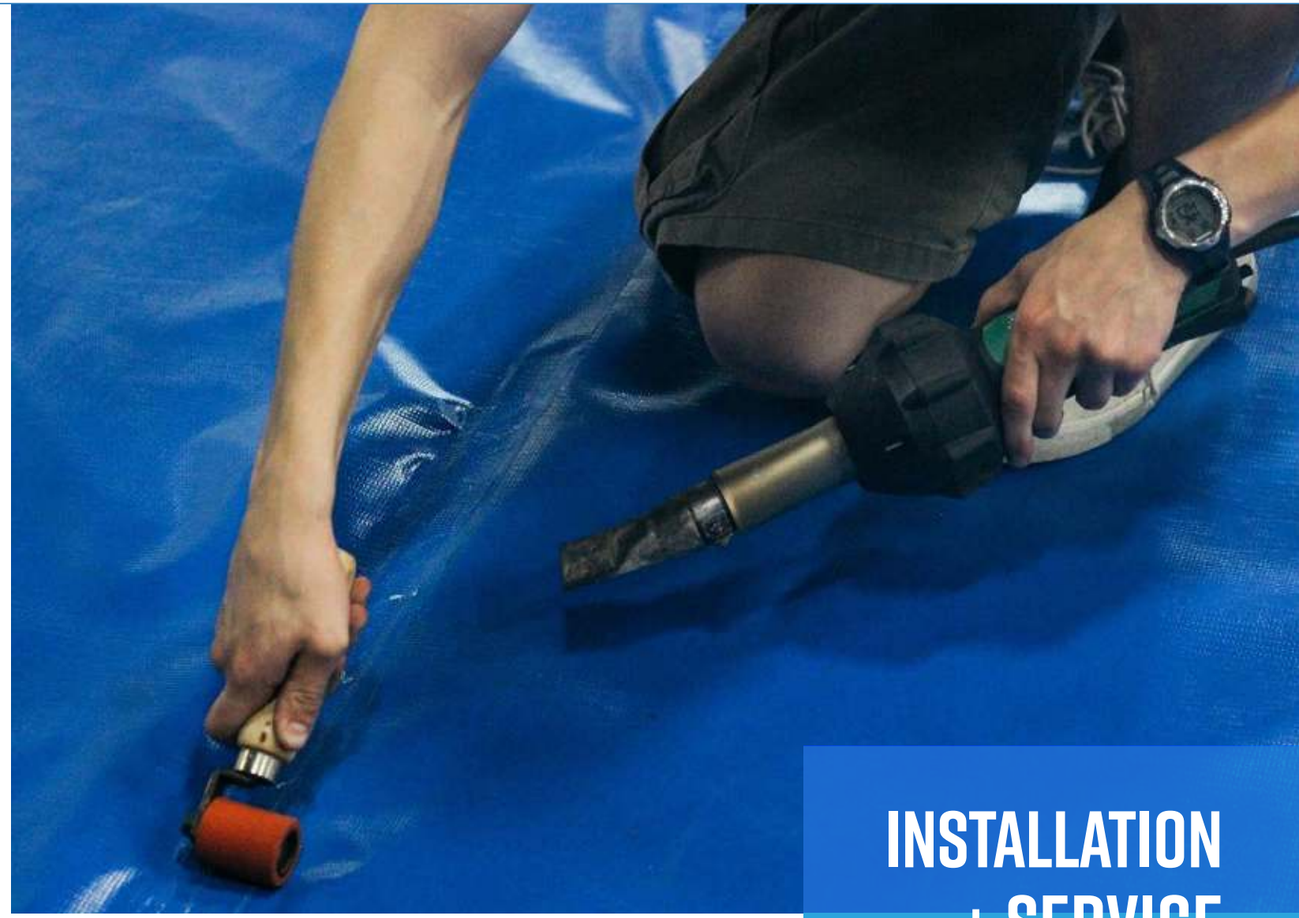
CURTAINS REDUCE VISUAL NOISE

In fast-paced games where players have to be acutely focused on the position of the ball — such as tennis — curtains can block out movement of people walking by, or simply erase visual noise and provide the contrast of a solid wall of color.

BATTING CAGES, BALL NETS + MORE

We can also work with you to create suspended batting cages or nets to protect the dome membrane for applications like an indoor driving range.

Netting is very versatile.



INSTALLATION + SERVICE

WE'VE GOT YOU COVERED

INSTALLATION + TAKE DOWN

Developers and operators of seasonal domes put them up for the 6-9 months when weather is most unfavorable. The twice-a-year ritual of air dome installation and take down is best done by Yeadon's expert service technicians.

It takes experience to know how to fold and pack away thousands of pounds of dome fabric. Yeadon's service teams understand the design and nuances of air-supported dome installation. Protect your investment by relying on their expertise.

INSPECTION, MAINTENANCE + REPAIR

Domes are built to withstand extreme weather conditions. However, like any building exposed to the elements, structural and mechanical components require regular maintenance. Plus, proactive dome maintenance can prevent emergencies and prolong your dome's lifespan.

Yeadon's Service Team is available to perform regular site inspections so potential problems can be identified and resolved, including:

- Fabric integrity
- Door function
- Anchoring components
- Cabling
- Mechanical equipment checks
- Automation
- Dome operator training

SERVICES OFFERED

Put-Up / Take Down Supervision
Technicians provided to supervise owner-provided labor and equipment.

Travel
Day travel within 100 miles of Yeadon offices included. Excludes overnights.

Specialty Tools
Mallet, rope edge pullers, come along, battery impact guns, sockets, crow bars, and heat sealing equipment provided.

Pack / Unpack Dome
Access on-site storage to remove / replace dome and related equipment. Includes bundle and door placement as well as hardware and mechanical plate prep.

Labor Coordination
Schedule, coordinate and organize owner-provided labor in advance of installation and take down dates. Includes rescheduling due to weather delays.

Labor
Yeadon provides manual labor required to handle dome sections, connect plates, attach dome to grade beam and install doors and cables.

Field Maintenance
On-site repairs necessary to stabilize and inflate dome safely. Includes rope edge repair, structural membrane repairs, door, building and inflation curtain repairs.

Lights
Hang, connect and level lights. Install light cages if present.

Netting / Accessories
Installation of dividers, perimeter and goal post netting as well as signage.

Equipment
Schedule, coordinate and call off equipment needed for on-site installation/take down. Including man lifts, telehandlers and turf utility vehicles.

Site Prep / Cleanup
Related to dome equipment and materials only. Remove / install channel, anchor and door post covers. Clean channel. Pick up boards and debris. Place barrels, pallets and boxes, etc. into storage.

Backup / Automation Testing
Ensure backup system is operational and perform power fail tests. Verify remote connectivity to units and automation systems.

Dome Inspection
Once the dome is up, we do an in-depth inspection of the inner and outer membranes, channel, boards, cables, doors and pressure tubing as well as bi-annual fabric testing. A thorough report is provided that details operational issues, necessary repairs and recommended maintenance.

YEADON®

PLAY MORE™

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Yeadon South Korea

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