



## Introduction

A simple weekly or monthly maintenance routine can be key to keeping your dome occupants safe, your dome-generated revenue flowing, and your organization's reputation rock-solid. That's why we put together this checklist!

Here's how to use this document:

- 1. Below this introduction, you'll find the "Checklist Cheat Sheet": a short explanation of each of the 10 points included in the checklist. If you're still new to air structures, this information will help you understand what to look for.
- 2. Next is what we call Snow Management 101, which lays out the basics of how to keep your dome safe and sound in the winter. We've included this because snow is a common factor in dome-related emergencies. When you live in a northern climate, dome maintenance and snow management go hand-in-hand.

Of course, there's more to dome maintenance than we could fit in a simple checklist, which is why our dome service team is always standing by to answer your questions or concerns. In the meantime, this list should give you peace of mind and help you maintain a healthy air structure for years to come.

So print off this checklist, stick it to your clipboard and get to work — or, hand it to someone who's already got their boots on.

## Need Help?

While you might be handling the day-to-day maintenance yourself, there are tougher jobs that require the hand of a knowledgeable, experienced and above-all reliable Dome Service Technician. Call our 24-hour dome emergency hotline to get advice or request emergency service now. If it's an emergency, we can be onsite to help you within 24 hours!

# 1. Dome Membrane

#### Seams

Watch for weak spots. Consistency is needed to create an air-tight, strong, and sturdy air structure.

#### **Tears**

When a small tear happens, an alarm will accompany the pressure drop, giving you plenty of time to vacate the dome and look for the problem. If you cannot find or reach the leak to patch it, call the 24-hour dome emergency service hotline at 1-888-445- 3223.

#### Color

Note stains or color degradation due to sunlight.

#### Inner/Outer Liner

Don't panic if you notice the dome's inner liner separating from the outer membrane. While this will need to be fixed, it will not affect the dome's structural integrity. Take photos of what you see and send them to your dome service technician.

# 2. Exit Doors/Pedestrian Airlock

### **Door Open/Close**

Inspect the area around the door for trip hazards or clutter that could interfere with the door.

#### Framework & Hardware

Inspect the brace where it joins with the dome membrane. Inspect glass, ceiling panels and brace and stress relief hardware to ensure no loose or damaged parts. Grease fittings as needed.

### Gaskets/Weatherstripping

Check the condition of all sealing strips. Gaskets with visible wear and tear should be replaced.

# **Exit Signs**

Test lighted exit signs once a month, or as often as required by the fire code in your jurisdiction.

# **Door Installation & Repair**

The Farley Group maintains a close business relationship with an independent door manufacturer specializing in doors and components for air structures. We offer emergency repairs to any exit doors, roll up doors or revolving doors.

# 3. Vehicle Air Lock

#### **Interior & Exterior Doors**

Test that the doors open and close smoothly. Inspect the areas around the doors for trip hazards or clutter that could interfere with the doors.

#### Framework and Hardware

Inspect the brace where it joins with the dome membrane. Inspect glass, ceiling panels and brace and stress relief hardware to ensure no loose or damaged parts. Grease fittings as needed.

### **Interior Light Fixture**

Test interior light fixture(s).

#### Need to add a vehicle airlock to your dome?

We've installed airlocks with cargo doors large enough to fit trucks and small enough for bicycles. The only real limiting factor is the length of the vehicle, since whatever you're trying to get in or out of the airlock system must be shorter than the distance between the two.

## 4. Anchors & Cables

### **Anchoring Systems**

Check cables for external damage and signs of fatigue (abrasions, corrosion pitting or "porcupining.")

# 5. Netting & Dividers

# Clips & Cables

Inspect the condition of hardware and support cables holding the netting and/or divider in place. Fabric Check fabric for wear and tear.

#### Need a new divider?

The Farley Group can provide and install netting and dividers that fits your air structure needs, including soccer, tennis or golf netting. Our unique cabling system allows customers to easily raise and lower nets, thereby changing from one big field, to two, or four fields in minutes!

# 6. Overhead Lights

#### **Bulbs & Fixtures**

Count the total quantity of bulbs and fixtures, noting any bulbs that have burned out or are flickering and require replacement. Inadequate lighting inside the dome could pose a safety hazard.

## **Net Cages**

Note any visible damage to the protective net cages surrounding the fixtures.

#### **Light Meter Reading**

Measure the amount of light to ensure the best possible conditions for play.

### Lighting your dome

Hanging lights must be secured in a way that allows them to sway and undulate with the structure in windy or stormy conditions, but also remain sturdy and secure at an appropriate distance from the inner liner of the dome. We can supply and install any lighting system: pole mounted, hanging, metal halide, LED or fluorescents.

### 7. Insulation

### **Coverage & Sealing**

Check whether all panels of the dome membrane are insulated and note any missing panels. Check that the top and bottom panels are properly sealed.

#### **Grade Beam**

Inspect to ensure that insulation is not dropped and is exposed at the grade beam.

# **Insulating Your Dome**

Good insulation can significantly reduce the cost of your dome's heating and cooling bills! Although we do service domes with fiberglass insulation, The Farley Group strongly recommends installing reflective foil, double bubble insulation that leverages radiant heat transfer rather than conduction and convection. To learn more about insulating your dome, call us at 1-888-445-3223.

# 8. Inflation Unit

# **Pressure Gauge**

Take reading and note any adjustments required. Adjust pressure as needed for climatic conditions. Refer to your operations manual.

#### **Vents**

Check supply and return air vents to ensure there is nothing obstructing the airflow.

#### V-Belt

Check belt tension. Refer to your operations manual for recommended tensioning

#### **Are You Losing Air Pressure?**

Your dome should be equipped with an alarm that will sound if the pressure is dropping. This could indicate a tear that needs to be patched. If your dome is losing pressure rapidly, call our 24-hour emergency service hotline at 1-888-445-3223

# 9. Channel

#### **Grade Beam**

Channel Ensure your anchoring channels and beams are free of debris and in good condition.

# 10. Back-up System

# **Back-up System**

Test inflation system's back-up power generator.

# Case Study: New York State

In 2010, a storm known historically as the 'Snowicane' blew through the mid-Atlantic region. One dome in New York State lost power and its gas back-up generator did not start. As a result, the dome deflated, and the membrane was ripped 250' across by a pole inside of the dome! The takeaway from this incident is never to take your back-up system for granted.

# **Snow Management 101**

Snow management is one of the biggest challenges of running a dome, even for seasoned owners and operators. Winter weather is an aggravating factor in many dome emergencies. In addition to following your regular maintenance routine, you should have a clear and actionable snow management plan long before you need it!

Let this be a reminder to review and update your snow management plan, whether winter is months away or just around the corner!

#### **Test Your Back-up Generator**

With blizzards come blackouts. Your back-up power generator is the only thing keeping your dome from deflating in the event of a power outage! Make sure the generator is fuelled up and ready to engage if your site unexpectedly loses power.

### Service Your Furnace Every Fall

Have your dome's heating system up and running before the first major snowfall. The warmer the air inside the dome, the less snow will accumulate on top of it. Make sure the temperature in your dome will remain consistently warm to keep snow sliding down the walls to the ground. Otherwise, snow will accumulate very quickly during blizzard conditions or snow flurries with minimal wind.

#### **Maintain Consistent Air Pressure**

Do not 'cycle' the dome's air pressure (rapidly reducing then increasing airflow) in an attempt to remove snow. This method, which some people call 'burping' the dome, is unsafe and ineffective. If your dome experiences significant snow loading, call the 24-hour dome emergency service hotline at 1-888-445-3223.

### **Be Prepared To Remove Snow**

As snow slides down the dome's outer membrane, it will quickly pile up at the base of the structure, especially on the windward side. You must remove this snow buildup to reduce side pressure on the dome. Note that heavy snow removal equipment can puncture the dome — ensure the operator is aware of this risk and is prepared to exercise caution.

# **About The Farley Group**

Who maintains your dome is as important as who built it! Since our inception, The Farley Group has had a hand in building, servicing and repairing over 1,000 air-supported structures around the world. We published this checklist to help you extend the life of your dome through routine maintenance and inspections.

Of course, there are plenty of jobs that benefit from the expertise of a qualified service technician! In addition to manufacturing and installing quality domes, The Farley Group is a full-service air structure maintenance company that services air structures from coast-to-coast. Our fully insured Service Technicians boast over a century's worth combined experience rescuing domes just like yours...including domes built by other manufacturers!

Whatever the challenge, you can count on us to find the best solution and help you get back in business.

- Preventative Maintenance and Inspection
- Seasonal Installation and Take-Down
- Storage of Seasoned Domes
- Mechanical Equipment Repair and Replacement
- Netting, Walkways and Dividers
- Fabric Repair and Liner Replacement
- Component Repairs, Maintenance, Retrofits and Upgrades
- Moving Doors and Airlocks, Adding Building Connections
- 24-Hour Emergency Service Hotline

To learn more about our professional dome maintenance services, call us at 1-888-445-3223 or contact us at info@thefarleygroup.com.