



## **Quad Indoor Sports Air Circulation Specifications**

Quad Indoor Sports is a unique sports facility unlike most other sports facilities in the Chicagoland area. Our fabric dome is an air supported structure, which means it is 100% structurally free of framing or mechanical support in a typical hard structure building. Here are a few key facts about **ventilation and airflow** inside the Yeadon Air Structures, Quad Indoor Sports facility:

- What keeps the dome up?
  - Quad Indoor Sports is an air structure. The dome is inflated with air, which is pumped into the structure 24 hours/day, 7 days/week – 365 Days/Year.
  - Standing inside the dome is like standing inside a balloon!
- The Air Quality In a Dome Resembles Outdoor Conditions.
  - The Quad Indoor Sports dome has 1.3 million cubic feet of air; for a topical comparison, a typical classroom contains just 6,000 cubic feet of air.
- Dome Ventilation Is Remarkably Better Than In Most Buildings.
  - Under ASHRAE standards, a normal classroom's ventilation is designed to move 222 cubic feet of air per minute; Quad Indoor Sports has 50 times more outside fresh air!
- There's Tons of Room to Breathe in a Dome.
  - At 6-foot social distance, the Quad Indoor Sports dome provides a minimum 800 cubic feet of ventilation air per person per minute
    - A typical classroom with 20 students would provide 11 cubic feet
  - Air is continuously being introduced from outside
    - Our 59hp main fan motor inserts 45,000 cubic feet per minute into the dome
    - Outside air is never less than 35% of the flow into the dome



- Outside air can be as high as 65% of the flow into the dome
- Quad Indoor Sports recycles 100% of the internal air every 3 to 4 hours!