











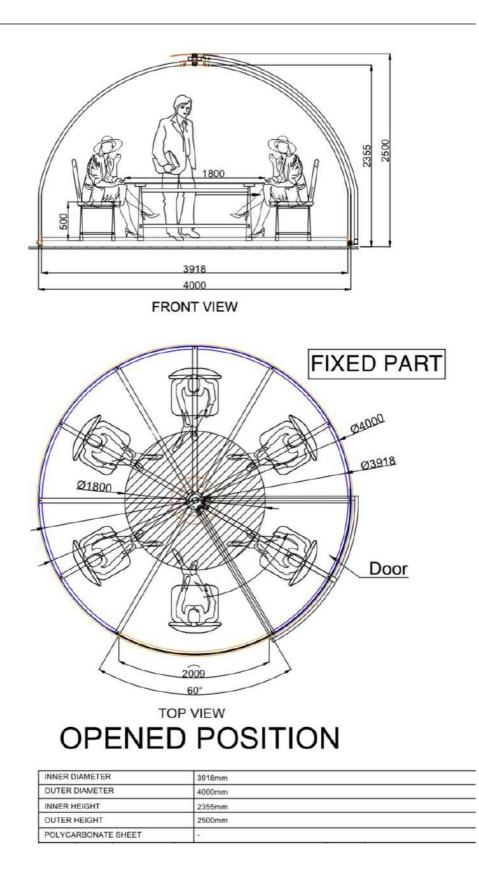




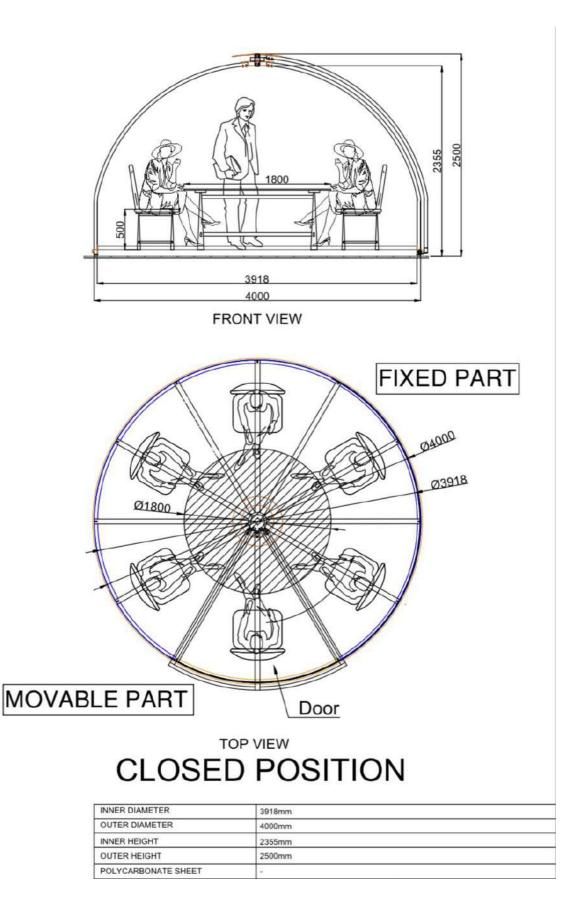


- Our Royal Dome is an Igloo shaped enclosure with a Sliding door on rollers
- The use of A-grade non-corrosive aluminum profiles and stainless steel ensures it is corrosion free.
- The Aluminum profiles are powder coated in multiple colour options with a warranty of 5 years.
- High-grade compact polycarbonate sheets 12 times tougher than toughened glass and UV coated on both sides. Polycarbonate sheets are unbreakable and thus used for safety and durability.
- 4 different variety of Polycarbonate Sheets can be used. A clear polycarbonate can be used for transparency while an embossed polycarbonate is used for privacy.
- Cast nylon rollers are used to slide the doors for its good wear and abrasion resistance. The fasteners used are all high grade Stainless steel, which makes the product minimum to nil maintenance.
- Air vents are provided near the ceiling to allow hot air escape.
- The Royal Dome is designed to withstand heavy wind, rain and snow loads.
- Security is taken care of with lockable doors.
- LED Neon lights can be provided along the profiles to provide lighting inside.
- The sealing of all the segments are done by specially designed high-grade EPDM gaskets. Its excellent sealing properties ensure that the enclosure is 100% leak proof.
- The space inside the Royal Dome can be air conditioned or heated using tower AC or heaters respectively.
- Can be customized with any modifications in design as per requirement.
- Can be fitted onto a level ground base including wood decking.
- Can be installed and disassembled to relocate in three hours flat.
- Ideal ideal for spa, hot tub, private dining space or an exercise room.
- Standard size is 4 meters in Diameter and 2.5m in Height.
- It is the ideal leisure / relaxation room to complement your home, restaurant, hotel or pub.











Enclosure Material Details

The Materials and the technical details of the dome enclosure as listed below .

1. Alluminium structural profiles.

The structure of the Dome enclosure is constructed with A grade Non corrosive Aluminium hollow extruded special profiles of Alloy- EN-AW-6060-T6 and EN-AW-6063-T6 as per BSEN755.

2. SS Base Frame.

The base frame of the dome enclosure is a fabricated component made of Stainless Steel of Grade SS304. The components are laser cut to precision and fabricated with TIG welding. The fabricated base is the support structure for the dome and also the bottom roller guide for the door mechanism .

3. Pretreatment and finishing .

3.1 Surface preparation

A multistage cleaning and pretreatment system is adopted to remove the organic and inorganic surface soils ,remove residual oxides and apply a Chrome chemical conversion coating to which the organic coatings will firmly adhere . This is done as per ASTM D 1730-09.

3.2 Powder coating

The prepared Alumium is powder coated with Type Super Durability powder coat as per standard specifications: Qualicoat Class 2 AAMA 2604. The powder coat is with a warranty of 15years .

4. Poly carbonate – Double sided UV protected compact sheets

3mm Compact Polycarbonate sheets with UV protection on both sides. Sheets resist temperatures of -100 to +120 $^{\circ}$ C.

| | Test Conditions | Typical values(1) | Unit | Standard |
|------------------------------|---------------------------------|----------------------|-------|-----------------|
| PHYSICAL | | | | |
| Density | | 1200 | kg/m3 | ISO 1183-1 |
| Water absorption saturation | water at 23 °C | 0.35 | % | ISO 62-1 |
| Water absorption equilibrium | 23 °C, 50% relative humidity | 0.15 | % | ISO 62-4 |
| MECHANICAL | | | | |
| Tensile stress at yield | | › 60 | MPa | ISO 527-2/1B/50 |
| Elongation at yield | | 6 | % | ISO 527-2/1B/50 |
| Tensile strength | | › 60 | MPa | ISO 527-2/1B/50 |
| Elongation at break | | › 70 | % | ISO 527-2/1B/50 |
| Elastic Modulus | | 2400 | MPa | ISO 527-2/1B/1 |
| Limiting flexural stress | | approx. 90 | MPa | ISO 178 |
| | | | | |
| Impact strength | Charpy, unnotched | no break | kJ/m2 | ISO 179/1fU |
| | Charpy, notched | approx. 11 | kJ/m2 | ISO 179/1eA |



| | Izod, notched | approx. 10 | kJ/m2 | ISO 180/1A |
|---|--------------------|------------|--------|-------------|
| | Izod, notched1 | approx. 70 | kJ/m2 | ISO 180/4A |
| THERMAL | | | | |
| Vicat softening temperature | Method B50 | 148 | °C | ISO 306 |
| Thermal conductivity | | 0.2 | W/mK | DIN 52612 |
| Coeff. of linear thermal expansion | | 0.065 | mm/m°C | DIN 53752-A |
| Heat deflection temperature under load | Method A: 1.80 MPa | 127 | °C | ISO 75-2 |
| | Method B: 0.45 MPa | 139 | °C | ISO 75-2 |
| ELECTRICAL | | | | |
| Dielectric strength | | 35 | kV/mm | IEC 60243-1 |
| Volume resistivity | | 1016 | Ohm∙cm | IEC 60093 |
| Surface resistivity | | 1014 | Ohm | IEC 6009 |
| Dielectric constant | at 103 Hz | 3.1 | | IEC 60250 |
| | at 106 Hz | 3 | | IEC 60250 |
| Dissipation factor | at 103 Hz | 0.0005 | | IEC 60250 |
| | at 106 Hz | 0.009 | | IEC 60250 |
| Light transmission Typical value | | 50 | % | DIN 5036 |
| | | | | |
| | | | | |

Weathering Resistance: Excellent weathering resistance, which guarantees their impact strength even after many years.

5. Stainless steel fasteners

High grade Stainless steel SS304 fastners are used for sustainance against harsh environmental conditions.

6. Fabricated Parts

All the fabricated parts of the enclosure are manufactured with Stainless Steel material and Powder coated as per the standards mentioned above .

7. EPDM- Ethylene Propylene Diene Monomer Synthetic Rubber Beadings and Gaskets.

The sealing of all the constituents are done by specially designed high grade Ethylene Propylene Diene Monomer beadings and gaskets. Their excellent sealing properties ensure the enclosures 100% leak proof. Their excellent resistance to heat, oxidation, ozone and weather aging due to their stable, saturated polymer backbone structure This ensures 100% water resistant enclosures.

8. One-component polyurethane adhesive sealant as per ASTM C920 is used wherever necessary.

9. Rollers are made of Special Nylon with stainless steel sealed bearings.

10. VENTILATING FAN

Make - KAFF Model - HAUS HS 6 GROSS WEIGHT - 1.06Kgs DIMENSIONS - 199mm X 174mm VOLTAGE - 220V - 240V WATTS - 25 AIR FLOW - 320m^3/h