

Optical Dome Drawing Template

Optical Dome Engineering Drawing Template Instruction

1. Hemispherical Dome Standard Drawing Outline

- Outer spherical radius R: Custom range 10–300mm
- Dome wall thickness T: 2–15mm, tolerance $\pm 0.01\text{mm}$
- Edge chamfer: $0.3 \times 45^\circ$ to avoid crack during assembly
- Clearance for waterproof O-ring: Standard groove width 2mm, depth 1mm

2. Flanged Dome Drawing Key Dimensions

- Flange outer diameter D: $R+10 \sim R+50\text{mm}$ (customizable)
- Mounting hole: M3/M4/M6 evenly distributed on flange
- Sealing step surface flatness $\leq 0.005\text{mm}$ for underwater pressure resistance

3. Drawing Notes for Customers

1. Mark required material (BK7 / Fused Silica / Sapphire)
2. Specify working depth/pressure for wall thickness calculation
3. Note coating band requirement (Visible / IR / Dual band AR)
4. Attach equipment installation interface size if customized All drawings support PDF/DWG output after DFM review