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INSULATING GLASS BREATHER TUBES

Insulating glass units that will be transported through or installed in high altitude locations will require to be ordered with pressure equalization breather tubes. Our factory elevation is approximately 300 feet above sea level. Therefore, if our Insulating glass units are to be transported through or installed in areas at elevations over 3000 feet above sea level, breather tubes should be requested.

When sealed insulating glass units are constructed at low altitudes and then installed at higher altitudes the resulting decrease in pressure causes the glass panes to bow out, creating a pillow shape appearance. If the pressure change is large, the insulating glass panes can fracture and/or the sealant holding the glass panes can rupture causing premature seal failure.

Our factory will install a thin diameter stainless steel tube in an upper corner of the I.G. unit. Upon arrival at the installation site, the units should be checked for deflection with a straight edge and allowed to equalize. The rate of equalization is dependent upon temperature, barometric pressure, altitude, IG unit dimension, glass thickness, airspace width, and the type of insulating glass spacer. Typically, the majority of pressure equalization will occur within 48 hours. However, it is unlikely the glass deflection will return to a perfect neutral or parallel position. Keep in mind, as the unit equalizes in pressure, the pressure difference becomes less, and therefore the rate of pressure equalization is reduced.

With the increase in popularity of the simulated divided lite, glass deflections can be magnified. As indicated above, most of the equalization of the unit will occur within 48 hours, but it's likely that some deflection will remain. This remaining deflection could be objectionable, especially if the unit is constructed with internal muntin bars. The internal bars act as a gauge, by showing the gap between the glass and the bar.

After the insulating glass equalization period, the tube should be crimped closed with a pair of pliers, and the end filled with a butyl sealant. The tube should be glazed into the glazing cavity.

Hawkeye Windows does not recommend filling a high altitude insulating unit with argon gas since the gas can readily escape from the unit through the breather tube.

Insulating units with breather tubes are not warranted unless:

- Hawkeye Windows receives, reviews in advance, and approves in writing the project location and elevation, sizes, quantities, installation specifics and all other relevant facts concerning the installation, and
- Hawkeye Windows receives written confirmation that these procedures have been followed.