



Glass Washing and Drying

Washing:

- Cleaning Low-e coated glass does not require a special glass washing machine, however it does require a different approach or commitment to maintaining a glass washer.
- Washer must be maintained in "like new condition."
- Always run coated side up in case of Low-e glass.
- Wash water should be at a minimum of 120°F to 140°F, but never over 180°F. Please check with glass manufacturer to find the exact temperature range of wash water.
- If a detergent is necessary, a mild, easily dissolving type (such as Shaklee Basic-H®) is preferred. Soap/water concentration should be held as close to neutral as possible. Vinegar cannot be used in the washer. Wash water should never be allowed to go acidic when processing Low-e glass.
- A pre-rinse is helpful in removing the debris prior to the brushes for reduced scratching potential, and a de-ionized final rinse is advantageous in assuring a clean, residue free condition prior to heat treatment.
- It is recommended that the washing machine should incorporate brushes designed to be compatible with soft coatings. Roller or drum brushes should be used. Some glass manufacturers do not recommend using cup type brushes.
- The pinch rolls in the rinse and drying sections must be perfectly smooth and clean, with no cuts, gouges, or other imperfections.
- Pinch rolls should make only slight contact with the glass.
- The glass must never be allowed to stop in the washer, especially under the brushes as this may cause mechanical abrasion. In case of Low-e glass, any abrasion of the coating would be considered reason for rejection.
- Continuously overflowing the wash and especially the rinse tanks into the overflow pipe is a good practice to help assure clean wash water. All tanks should be drained and cleaned daily.

Glass Washing and Drying, continued

- The brush pressure should be minimized and only the tips of the brushes should come in contact with the glass. Therefore, adjustment of the brushes is important.
- When running small lites in a large washer, it is good to alternate where the glass is running in the washer to even out brush wear.
- Brushes should be replaced/trimmed when wear makes adjustment difficult.
- The spray lines and holes must be clean and clear and water flow must be to the manufacturer's original flow rates and pressures (1gallon per minute minimum with line speed 10 FPM or less).
- The washing machine should be steam cleaned regularly to minimize contaminant build-up.
- Routine checking and regular maintenance of the washing machine is essential to ensure cleanliness, correct condition of recycled wash and rinse water, and condition and adjustment of brushes.

Drying:

- Clean filtered air should be used. It is important that absolutely no moisture remains on the glass. Moisture that is left on the coated surface of a Low-e glass could cause corrosion. Moisture left on the coating and allowed to evaporate could result in residues and stains.
- Internal cleanliness of the drying system is critical. The air filters should always be clean to ensure the ambient air supply to the blower is clean. There should not be any processing equipment near the washer with any type of exhaust that may emit an oil mist or grinding fines into the air. Aerosol or paint sprays should not be used near the washer.