

INMATE/CI™

In-Line Cutting to IG Fabrication

Traditional Insulating Glass fabrication is divided into four major areas. These include Glass Cutting, which encompasses Loading, Scoring and Breakout; IG Unit construction composed of Washing, Assembly and Press operations and the support processes of Spacer and Grid Preparation. Although working on a particular daily schedule, each area operates somewhat independently of the others through the use of batches. While batching is important for yield improvement, excessive batching can cause processing delays and potential remake problems because of extra handling requirements.

INMATE/CI™ is designed to automate all processes from Cutting to IG Unit fabrication. Glass is fed through the system in production sequence, eliminating the need to rack glass



while it travels through the manufacturing facility. This not only speeds up processing, but greatly reduces the possibility of scratching or breaking caused by excessive handling.

Two cutting tables or a dual head numerically controlled (NC) glass cutter allow both lites of glass to be scored at the same time. Breakout personnel can quickly and easily match up mating lites. The traditional practice of racking cut lites is replaced by a direct feed onto the conveyor leading to the glass washer. The breakout monitor displays the sequence number in which lites are to be placed on the conveyor. The entire glass workcenter will become a continuous flow machine with breakout

personnel loading lites directly into the washer at the front of the IG line.

As lites come out of the washer, they are matched with their mates and their corresponding spacer, also racked in production sequence. The assembly operator completes the unit and sends it through the oven press. As it travels into the press, it passes a photo eye signal that triggers a label to print at the offload end of the oven.

Critical to INMATE/CI™ processing is the Grid department and Intercept Spacer line both completing processing of the schedule and loading it in sequence to

meet up with assembly. This is achieved by generating WinIG script files in the same sequence that the glass is broken out at the cutter. Preparing grids in advance and working off the Grid Requirements Report, operators

are able to insert the grids into their corresponding spacer before reaching assembly.

INMATE/CI™ uses IG Unit Harp Racks that provide a slot large enough to store a finished Insulating Glass unit as opposed to cut lites. Located at the off load end of the oven press, these racks provide a sorting and storage facility for completed units. Offload operators affix the label to the finished unit and place it in the rack and slot indicated on the label.

The use of IG Unit Harp Racks allows the glass department to supply glazing areas with units in a predetermined production sequence regardless of the order in which the units are made.

Maximum efficiency

Eliminates racking of glass from Cutting to IG Assembly

Glass is cut in production sequence

Decreased turnaround time

Elimination of glass racks frees valuable floor space and allows for more efficient operations

Puts an end to sorting of glass for production

Glass delivered in production sequence

Lites matched with mates at breakout through IG assembly

Increased productivity

Increased operator efficiency

Eliminates excessive handling of glass

Frees employees of routine, time consuming tasks

Cost Savings

Reduces possibility of scratching or breaking due to handling

Decreases the manpower required to process orders



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