

# MARKMATE™

## Laser Marking Control for Glass and Window Manufacturers

MARKMATE™ from PMC Software Inc. provides glass and window manufacturers with complete control of the laser marking of lites. MARKMATE™ offers the ability to operate in two configurations – either Fixed Beam or Movable Beam.

### FIXED BEAM MARKING

The creation of images to be marked is provided by those companies that manufacture laser marking systems. A library of logo designs and text layouts can be maintained within MARKMATE™.

MARKMATE™ allows your plant to select the key decision criteria to use in determining the correct image file to be marked, such as Customer Name, Ship To, Dock Location, Glass Thickness, Color and/or Process, or any information currently being bridged into your MATE software.

Optional bridge fields can be also included as marking criteria.

Lites can be presented to the fixed marking system in Breakout sequence or tied to other MATE products, including RACKMATE™ or BEDMATE™. In addition, information may be accessed based upon bar-coded license plates scanned at the time of marking.

MARKMATE™ provides a visual display of the correct positioning of a lite of glass for laser marking. Operators simply view the on-screen display to insure that the lite is positioned correctly and the logo will appear in the desired corner of the piece. The display also includes dimensional information which helps with orientation verification. This same display is used for the rejection of lites.

### MOVABLE BEAM MARKING

Built upon components of Fixed Beam Marking configuration, the Movable Beam technique addresses those applications where the beam is mounted to an X-Y positioning system.

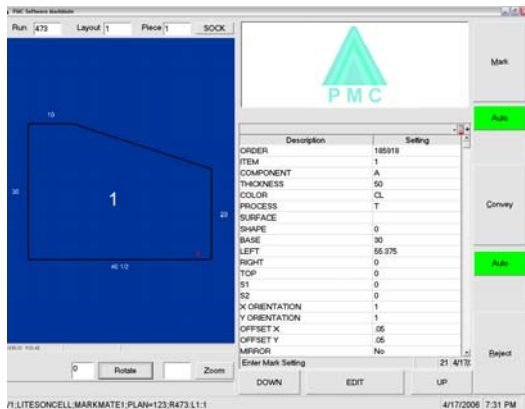
After glass optimization, MARKMATE™ determines the coordinates for the logos by converting the line and arc commands used for cutting to determine the unique coordinates of every lite within the sheet. At this time, additional logic determines the orientation of the lite relative to the base times left dimensions used when the information was entered or bridged in from your business system.

MARKMATE™ considers powerful, user-definable rules for determining logo offset, orientation and mirroring requirements. MARKMATE™ easily handles non-rectangular lites, specialty

shapes processed through PMC's SHAPEMATE™, and layouts that are created manually through PMC's TABLEMATE™ software.

### FULL LINE CONTROL

MARKMATE™ provides the master control for an entire marking line, as it handles requests for coordinate information by the X-Y positioning controller, requests for marking, the actual laser etching, and signals indicating "all clear" to proceed to the next position to be marked. To provide full cutting line control, MARKMATE™ can control requests from the crane for glass, the cutting table for the scoring of the lite after it has been marked, and the breakout monitor once the scored lite moves onto the breakout table.



### Laser marking

Replaces conventional sand blasting or inking

Allows for precise steering of laser beam images

Instantaneous changeover of logo orientation or content

Offers two modes of operation, using either fixed or movable marking beams

### Customized rules determine logo marking information

Utilizes specific criteria about a lite to determine the logo to be marked on it

Uses rules based on your plant's unique operations or customer specific requirements

### Maximum efficiency

Optional TV display assists in sequence and placement of lites for fixed beam logo marking

Uses X-Y coordinates to determine logo position for movable beam marking systems

Etches logos into lites within a sheet of glass while on the cutting table

In addition to rectangles and squares, shapes, SHAPEMATE™ (CAD) shapes, rotation of lites, and mirroring of lites are considered

### Seamless integration

Accesses logo information from your MATE data files

Automatically transmits relevant information to the laser marking computer

Eliminates the possibility of errors involved with re-keying data

### Increased productivity

Frees employees of time-consuming tasks

Logic can also be applied to manually created layouts



Suite 11 8 Bartles Corner Road  
Flemington, NJ 08822  
(908) 806-7824  
www.pmcsoftware.com