



**TL-100
and
TL-200
Trayloaders**

*Uniquely
Engineered to
Outperform*



PennTech
Machinery Corporation

Designed for aseptic and non-aseptic applications

Functionality

The TL-200 has two loading platforms (the TL-100 has one), so that two trays are loaded simultaneously. Once the trays are full, the operator replaces one of the loaded trays with an empty one and the machine immediately resumes loading that tray. The operator then replaces the other loaded tray with an empty one. When in place, the machine will resume loading both trays. The process is seamless; there is no additional work to be done or buttons to be depressed by the operator. Once a tray is full, the loading process stops and a yellow light and audible signal indicate that the tray can be replaced.

Versatility

The TL-100/TL-200 can be ordered in the standard left to right execution or in the right to left execution (without additional cost). Multiple tray sizes can be handled by the machine through (fixed and adjustable) change parts as well as different tray materials. Glass and plastic containers can be processed from 1-500ml. Containers are automatically loaded in a nested (honeycomb) pattern via a servomotor controlled nesting actuator.

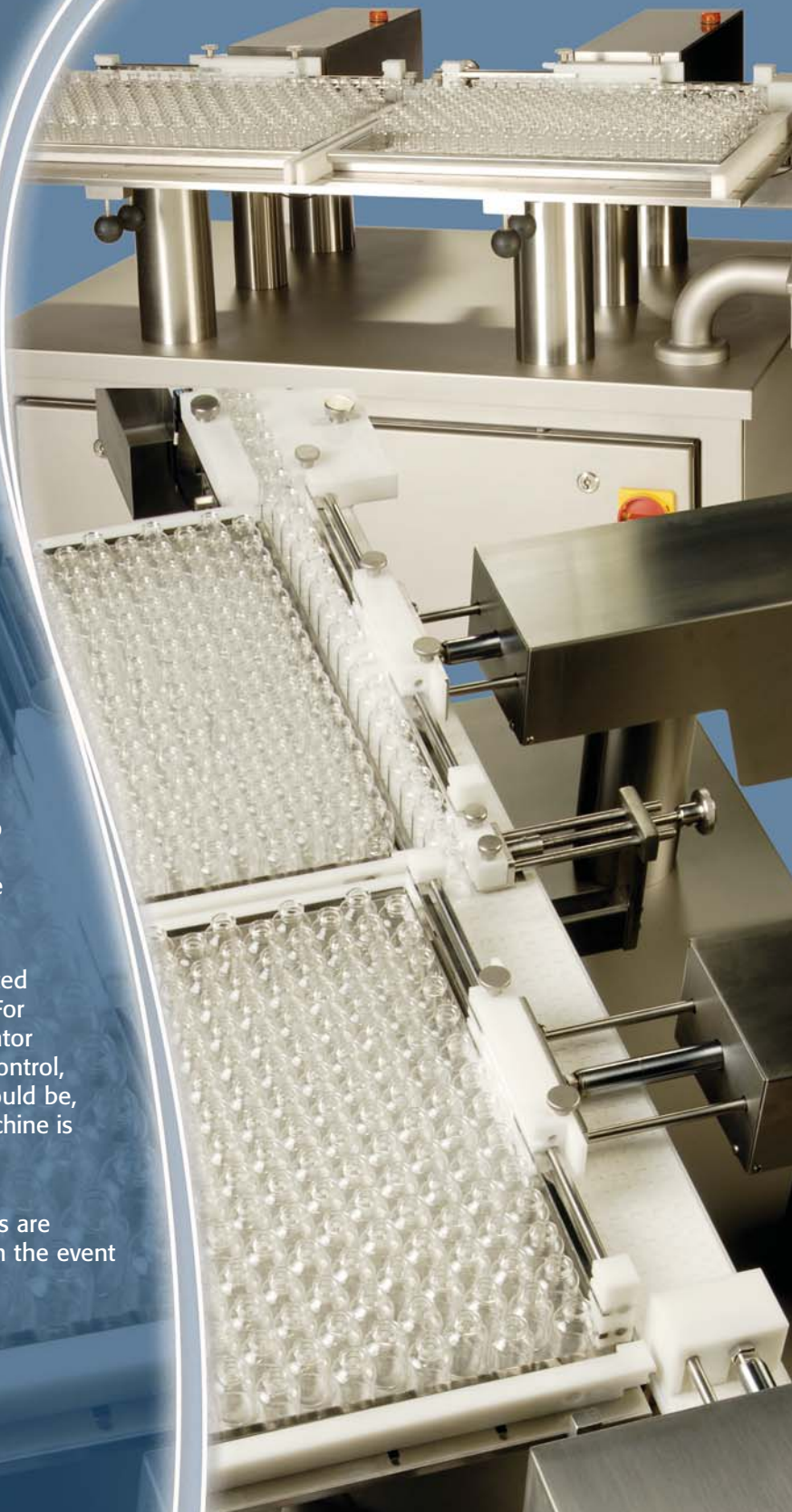
Ease of Operations

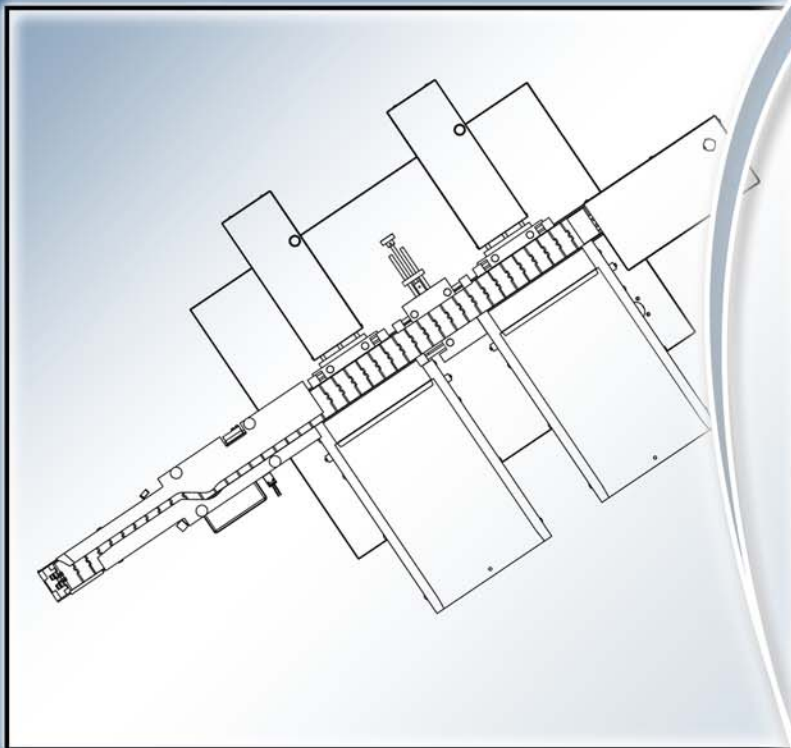
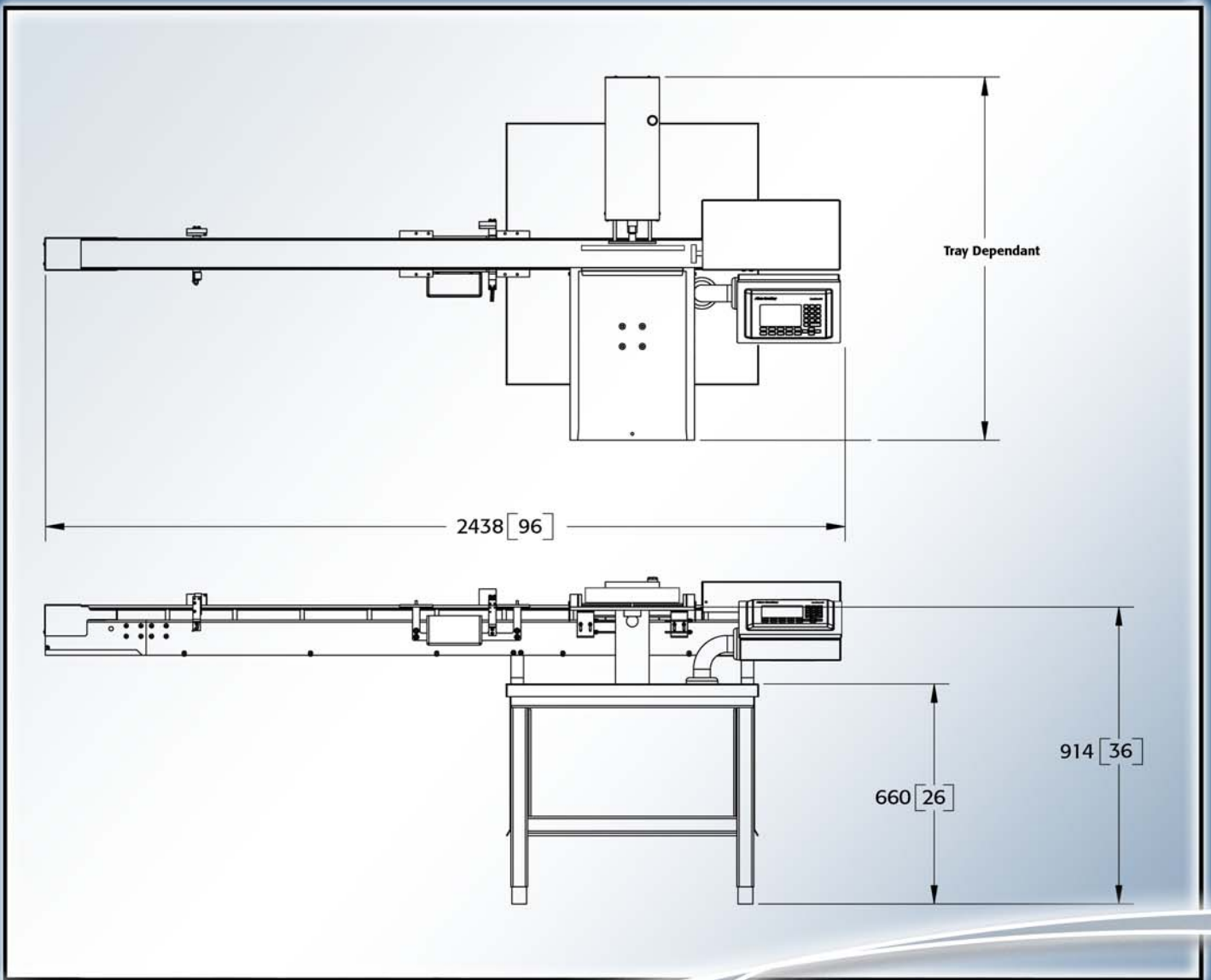
Through the control panel, the operator selects the vial to be processed. The PLC instructs the servomotors as how to position the actuators. The settings of the actuators are specific to the selected vial size; they are always in the optimum position.

In addition, through the PLC, the servomotors are instructed as to how fast and how far the actuators need to move. For example, with small unstable plastic containers, the actuator speed is less than that for 100ml glass vials. Under PLC control, the actuator stroke for each vial size is exactly what it should be, not more, not less. Without operator involvement, the machine is automatically optimized for each vial.

Safety

The machine is designed with safety in mind. All actuators are servomotor controlled, automatically halting production in the event of an obstruction.





Aseptic Operation

There are no overhead parts to interfere with vertical unidirectional airflow. The machine frame is approximately 20 cm (8 inches) below the work surface to minimize the vertical airflow disturbance at the work surface.

A special raised track conveyor is used to aid the cleaning process. Also, for cleaning purposes, the tray beds, actuators and conveyor are mounted on columns, away from the machine frame.

The machine is constructed from AISI-304 stainless steel, including frame, and AISI-316L where required.

Trayloader Specifications

TL-100 SPECIFICATIONS

Output:

Up to 200 vpm

Machine Frame:

AISI-304 stainless steel (opt. AISI-316)

Dimensions:

Length: 1067 mm (42 inches) + conveyor

Depth: Tray dependent

Height to working surface: 851-978 mm
(33 1/2 - 38 1/2")

Height overall: working surface plus 76 mm

Control Panel:

Allen-Bradley® PanelView Plus™ 600 or optional 1000

PLC:

Allen-Bradley®

Tray Sizes:

Customer's choice (up to 610 x 610 mm or 24 x 24 in)

Actuators:

High speed ball screw

Fully programmable servomotor

Panels and Cover:

AISI-304 stainless steel

Electrical Panel in Machine Frame:

Nema 4X, AISI-304 stainless steel

Conveyor:

AISI-316 stainless steel

Conveyor Track:

3.5 inch Delrin (raised track)

Conveyor Length:

Project Specific

Utility Requirement:

115 volt single phase

Weight:

Approximately 160 kg (350 lbs.)

TL-200 SPECIFICATIONS

Output:

Up to 420 vpm

Machine Frame:

AISI-304 stainless steel (opt. AISI-316)

Dimensions:

Length: 1372 mm (54 inches) + conveyor

Depth: Tray dependent

Height to working surface: 851-978 mm
(33 1/2 - 38 1/2")

Height overall: working surface plus 76 mm

Control Panel:

Allen-Bradley® PanelView Plus™ 600 or optional 1000

PLC:

Allen-Bradley®

Tray Sizes:

Customer's choice (up to 457 x 610 mm or 18 x 24 in)

Actuators:

High speed ball screw

Fully programmable servomotor

Panels and Cover:

AISI-304 stainless steel

Electrical Panel in Machine Frame:

Nema 4X, AISI-304 stainless steel

Conveyor:

AISI-316 stainless steel

Conveyor Track:

3.5 inch Delrin (raised track)

Conveyor Length:

Project Specific

Utility Requirement:

115 volt single phase

Weight:

Approximately 200 kg (440 lbs.)



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