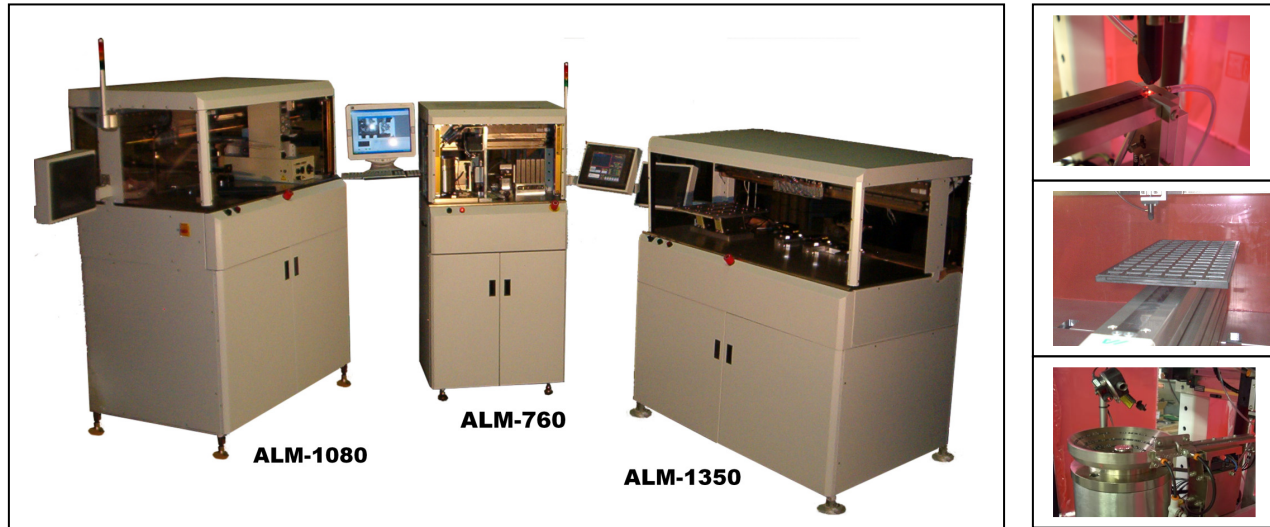




Peak Automation
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ALM-SERIES FLEXIBLE TEST HANDLERS



Maximum flexibility at high speed

The ALM-Series of Flexible Test Handlers are automated work stations designed for processing any type of miniature to medium size parts. The heart of the ALM-Series are their Optically Encoded Linear Motors that transport end effectors at high speeds to an unlimited number of exact locations with extremely precise repeatability. Work space width varies from 760mm up to 2280mm to perfectly match your process requirements.

The overhead gantry design allows the machine to execute processes front-to-back through the machine, or side-to-side. Almost any type of process can be integrated including assembly, testing, laser mark, vision inspection, sorting, and packaging. The specifications section lists many of the processes that can be integrated with the ALM-Series.

Alignment fixturing is available that allows the user to interchange process modules without having to re-align. In addition, utility plug-ins permit true plug-n-play change-overs.

The ALM-Series combines the flexibility for processing prototypes and varied product mix, with the high speed and accuracy for processing high volumes.

Call us, or visit our website for more information on the ALM-Series.

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SPECIFICATIONS

Part Input / Output Configurations

PART INPUT METHODS

- Vibratory feeder
- Tube stacker – manual or auto-stacked
- Manual placement to pick-up nest
- Conveyor through or lateral to machine.
- Tape & reel
- Trays / Waffle packs

PART OUTPUT METHODS

- Bulk bins – Sorted
- Tube stacker – manual or auto-stacked
- Conveyor through or lateral to machine.
- Tape & reel
- Trays / Waffle pack

Processes Available for Integration

- Assembly
- Electrical testing – Cable or Board dock
- Mechanical testing
- Laser marking
- Ink marking
- Packaging
- Media Transfer
- Hot/Cold Testing

Manipulator Specifications

- Linear Motor Stroke 30" (760mm) up to 2280mm.
- Accuracy: Sub-micron resolution
- Maximum Linear Speed 200"/s (5000mm/s)
- Maximum Acceleration 5 g (49m/s²)

End Effectors / Grippers will be provided that match the part to be processed in the machine. Multi-part end effectors can be used to duplicate walking beam motion and improve throughout. In addition, Process Modules can also be placed on the linear motor to execute processes on parts moving through the machine.

Controls

- PLC controller. Extra I/O available
- LCD Color Graphics Touchscreen.
- Full featured MMI: Passwords, graphic counter arrays, pull-down menus, graphics, bit-map images, pass/fail/status indicators, alarm history, diagnostic screen, manual activation screen

The LCD Color Touchscreen incorporates graphics and pictures for ease of use. It comes with a variety of process modules pre-programmed, which the user can select when changing configurations. The PLC has spare I/O available and can add more if needed to integrate more complicated processes.

Safety

- Emergency Stop buttons
- Resistive Brake on Linear Motor quickly stops motion
- Interlocked Lexan safety enclosure
- Light curtain optional
- CE Certification available

Dimensions

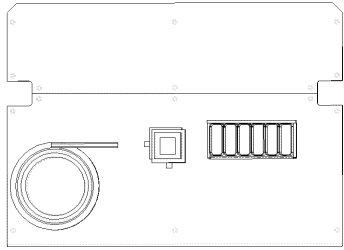
- Width 32" (813mm) up to 92" (2333mm)
- Depth 25.3" (643mm) up to 36" (914mm)
- Height 64" (1626mm) w/ base cabinet
- Height 75" (1905mm) w/ base / light pole
- Height 28" (711mm) w/o base cabinet

The ALM-Series upper frame can be removed from its modular floor standing cabinet, and can be placed on an existing table or integrated with an existing conveyor line through the machine. Dimensions do not include integrated processes.

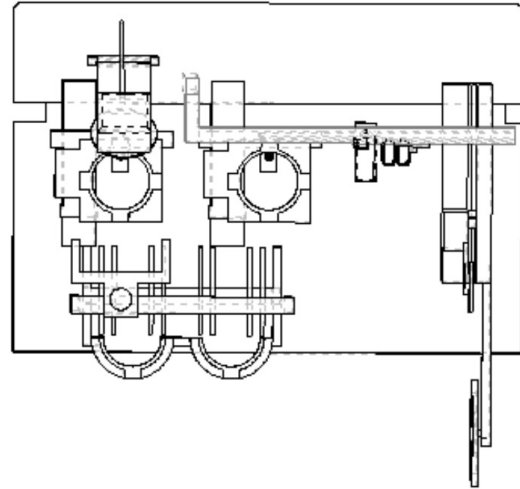
Utilities / Environment

- Power: 220-240 VAC 1-phase, 20 Amp
- CDA/N2: 80-100 psi @ 3 cfm. Internal regulator & SOV provided.
- Clean room certified option.
- The ALM-Series floor standing cabinet is provided with leveling feet and casters.

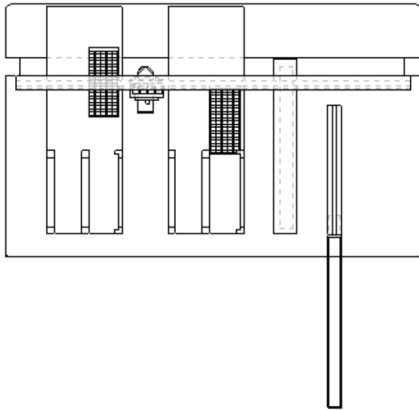
EXAMPLE CONFIGURATIONS



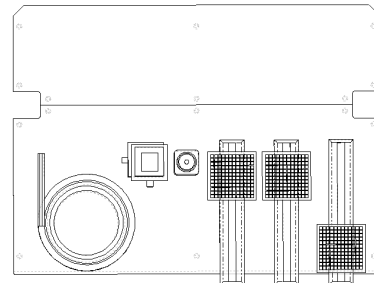
ALM-760 Input: Bulk Vibratory feeder
Process: Test
Output: 6 bulk bins.



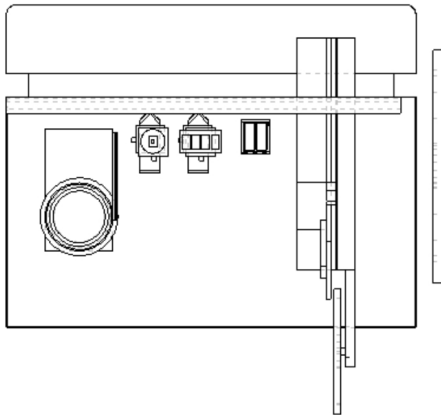
ALM-1080-E: Input: Wafer Film Frame
Processes: Wafer Prober/Mapper, Vision
Output: Two Bulk Bins, Tape & Reel



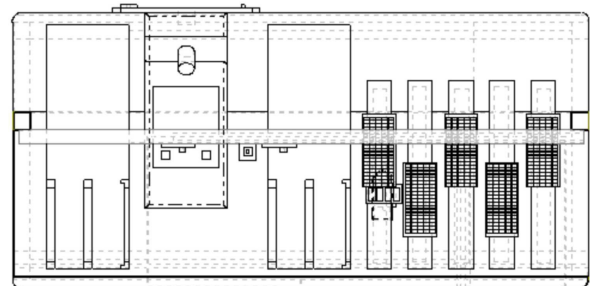
ALM-1320: Input: Jedec Tray Stacker
Process: Quad Test Outputs: Jedec Tray Stacker,
 Single tube, Tube stacker



ALM-1080: Input: Bulk Vibratory Feeder
Processes: Test, Vision
Output: Three waffle packs



ALM-1080: Input: Bulk Vibratory Feeder
Process: Orient, Quad Test
Outputs: Two Bulk bins, Tape & Reel



ALM-2280: Input: Jedec Tray Stacker
Processes: Hot Chamber, Hard dock Test, Vision
Output: Jedec tray stacker, 5 Jedec trays

ALM-Series Flexible Test Handlers

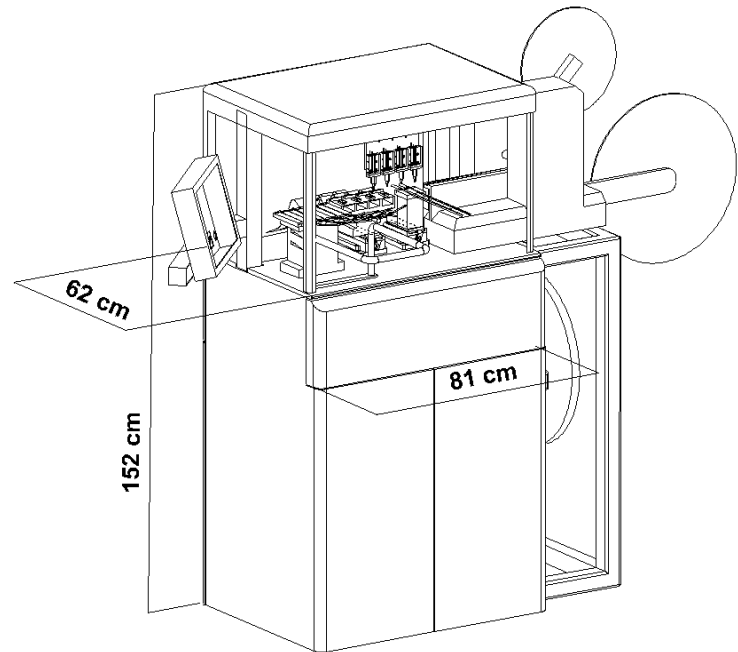
Additional Available Options:

- Direct Dock
(Vertical/Horizontal)
- Hot/Cold testing chambers
- Multi-motor for improved logistics and UPH.
- Quad / Octal testing
- Vision lead inspect (2D or 3D)
- Multi-handler docking (Work cells / Conveyor lines)

Device Application Examples:

BGA	CPGA	HSOP
PGA	SOP	COB
CQFP	MLF/MLP	PLCC
SOT-xx	CFP	CSP
MCM	SC-xx	TO-xx
DIP	Micro-X	SOIC-xx
Chip cells	TSOP	TSSOP
Capacitors	MSOP	Fuses

ALM-760 – Example dimensions



Call us, or visit our website for more information on the ALM-Series

Sales Representative:

