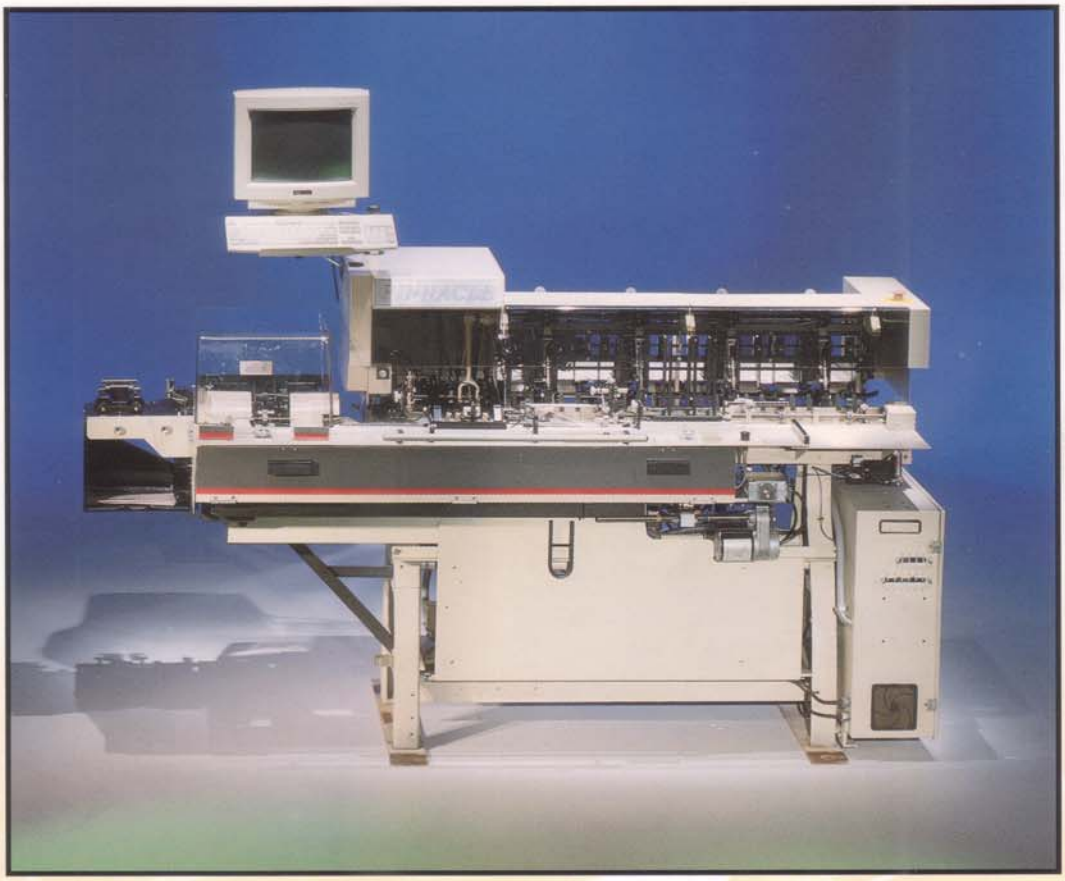
BELL+HOWELL
MAIL PROCESSING SYSTEMS

PINNACLE™ *Mail Processing System*

The Pinnacle Mail Processing System is a computer-controlled, pneumatically actuated, and easy-to-use mailing inserter designed to enhance the productivity of the direct marketing shop. Advanced features include the self-calibrating, self-adjusting miss/double detection gripper arms with pneumatically actuated jaws; automatic diversion of quality control or problem pieces on the fly; control of all operational parameters using job setup. Combined, these features result in increased efficiencies and lower operating costs.

APPLICATIONS

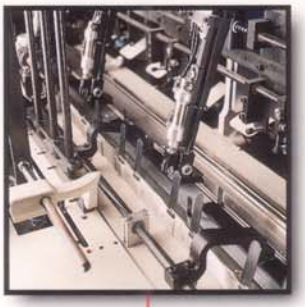
The Pinnacle Mail Processing System is ideal for direct marketing shops who want the fastest, most cost-effective method of processing their mail, while still maintaining job integrity. If applications change and become more sophisticated, the direct marketer has the option of upgrading the system with new technology.



PINNACLE *Mail Processing System*

Control of all inserter functions via a touch screen monitor rather than keyboard entry is simple and easy to master. Jobs can be programmed and recalled as needed.

Revolutionary gripper arm automatically calibrates itself during system operation, eliminating invalid doubles and misses.

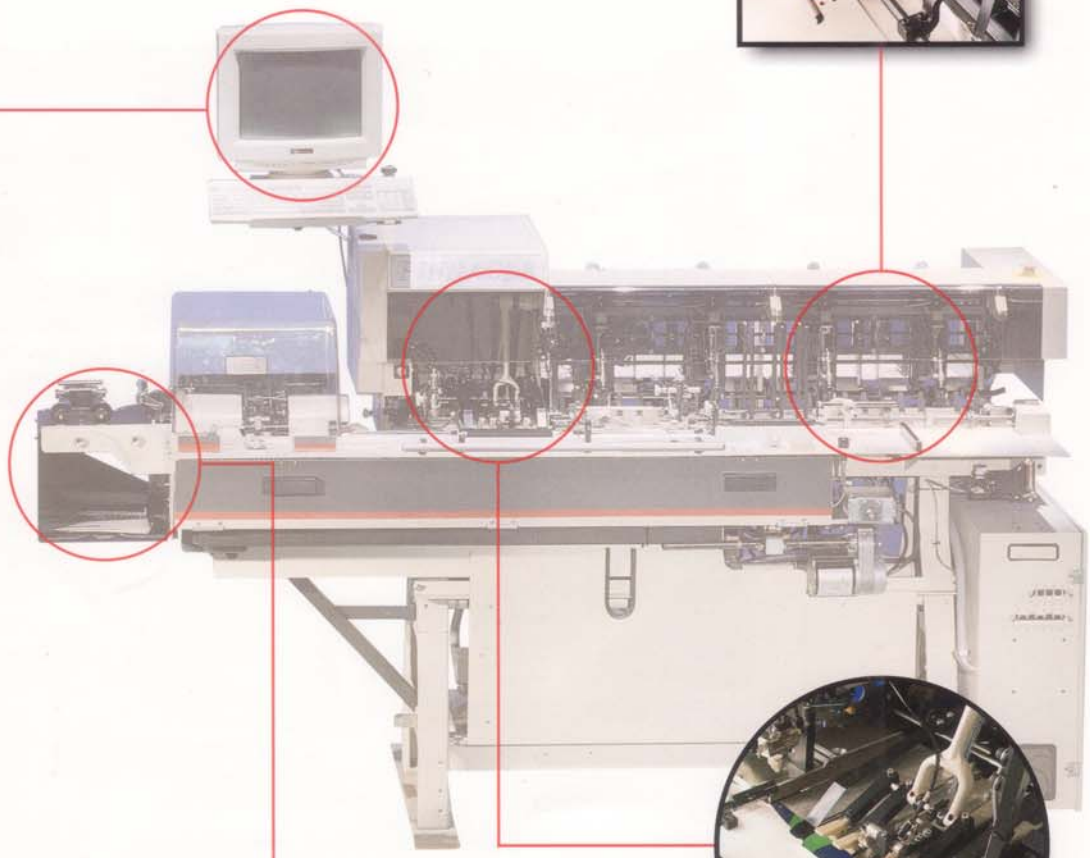


The Pinnacle System provides one of the highest ratios of throughput to cycling speed on the market. It is able to cycle at speeds in excess of 10,000 on most standard jobs. Total throughput ranges from 7,000 to 9,000 envelopes per hour.

These high productivity rates are a result of:

- A weight reduction through the elimination of cams, shafts, chains and gears
- Computer-controlled pneumatic valves and cylinders
- Adaptive control features that allow the speed to be increased and decreased without the need for mechanical changes in the setup parameters
- Job programming for easy set-up and instant job recall

The Pinnacle also has the ability to display detailed job statistics, providing information for job analysis, as well as the ability to save the file for future recall. This powerful management tool aids in planning for future production and job costs, as well as production scheduling.



Divert bin for programmed quality control check documents and documents flagged with a miss or double.

Newly designed envelope flap opening system utilizes an air jet rather than suction. The envelope flap is held under the deck until the documents are inserted. A re-designed inserting station, including a split-plate inserting platform and modified pusher fingers, dramatically reduces jams.

FEATURES AND BENEFITS

- A uniquely designed gripper arm and jaw eliminates the need for manual calibration. The gripper arms automatically calibrate themselves to the thickness of the materials and to new materials when introduced. The gripper arm design minimizes job setup labor and significantly reduces maintenance labor by its modular design. A single arm may be replaced without pulling a shaft.
- Gripper Arm Double Detect and Self Adjusting Action. The revolutionary gripper arm automatically calibrates and re-calibrates itself during system operation, eliminating the invalid occurrence of doubles and misses. The arms default to a standard double-detect parameter.
- For Precision Double Detect, the operator may optionally adjust each arm through the setup screen, on an individual basis, to a tolerance of 12 percent variance to identify a narrow field of difference, such as a nested insert in a letter-folded enclosure.
- Backup Hopper is a feature that allows the operator to designate two or more hoppers for the same insert. If the first hopper runs out of material or has a miss on a pull, the backup hopper will activate and place the insert in the track with the package without stopping or missing a cycle. This function can virtually eliminate most misses.
- Track and support hardware and software improve control over inserts. The result is a reduction of jams in the track while providing increased flexibility in the size of the inserts and material variance.
- Insert stations that improve the handling of the materials and reduce jams in the insert station gripper arm and picking mechanism. The insert stations are computer software controlled versus cam driven.
- Envelope station uses a slide valve with vacuum to provide added reliability.
- A newly designed envelope flap opening system utilizes an air jet rather than suction. After opening, the flap is held under the deck and released by computer-driven pneumatic control. This feature reduces jams significantly during insertion and allows easy access to materials for removal when necessary.
- A flap-detect system using photo cells to diminish failures.
- A re-designed inserting station includes a split-plate inserting platform, and modified pusher fingers. The new design dramatically reduces jams at this most critical position in the system. The new pusher fingers provide longer wear and cost less than the alternative fingers available.
- An envelope sealing station moistens the envelopes using a controlled spray resulting in improved dependability of the seal and fewer jams. The amount of moisture spray is adjustable and computer controlled for on-and-off functionality.
- Automatic rejection of misses, doubles, and selected quality control pieces into a bypass bin, without stopping the inserting system, provides higher production throughputs. By not stopping the process, higher production throughputs are achieved while maintaining integrity. The system may be programmed to divert at specified (open-ended) intervals for operator quality control checking, for example, every 500 pieces. Diverted envelopes are not sealed for ease of inspection and/or correction.
- Microprocessor control provides ease of operation and control over the entire system.
- Computer-controlled vacuum distribution system provides for a more even flow of vacuum to reduce the number of misses and double pulls from the envelope and insert stations.
- Minimal wear points throughout the system provide a longer system life with fewer maintenance requirements.
- Job programming includes:
  - Backup hopper pull
  - Programmed insert memory
  - Programmed quality control checking
  - Non-sealing option
  - Automatic non-sealing of misses or doubles
  - Job parameter setting Save and Recall, by job name
  - Streamfeeder Option
- The system's computer allows operation of all inserter functions via touch screen monitor rather than keyboard entry. System operation is simple and easy to master by operators of all skill levels.

SPECIFICATIONS

Speed
10,900 cycles per hour

Stations
Up to 12 (in four- or six-station modules)

Envelopes
Maximum: 9-1/2" x 6-1/4" (241mm x 159mm)
Minimum: 6" x 3-1/4" (152mm x 83mm)
Flap Depth: 1" x 1-5/8" (25mm x 41mm)

Inserts
Maximum: 9" x 6" (229mm x 152mm)
Minimum: 5-1/2" x 3" (140mm x 76mm)
Maximum Individual Thickness: 1/8" (3mm)
Maximum Accumulated Thickness:
- Turnover option: 3/8" (10mm)
- Meter or conveyor delivery option: 1/2" (13mm)

Paper Weight: 20-24 lb. (75-90 g/m^2)

Environmental Requirements
Power: Two lines
(1) 110VAC, 60HZ, 5AMP, single phase, 4wire
(1) 208/240VAC, 50/60 HZ, 15Amp, single phase, 4-wire
Temperature: 64°-90°F, 18°-32°C
Humidity: 40% - 60% (non-condensing)
Compressed Air: 2.5 CFM, 100PSI

Dimensions
Width: 34" (86cm)
Height: 46" (117cm)
Length: Dependent on system configuration

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