



Auto-fed Part Placers

Models AP-111, AP-120, AP-127

- **Proven Reliability**
- **Retoolable**
- **Part Placement Verification**
- **Low Maintenance**

Each Part Placer may be selected for a particular application based on the part geometry and placement requirements. The Placing Heads are available with standard placement strokes from 2-inches (50.8mm) up to 5-inches (127mm) with a range of pressing forces from 40 pounds (178 N) to 175 pounds (778 N) at 90 PSI (6.3 Bar). Placement rates up to 80 per minute are obtainable. This feature sets them apart from basic pick and place units, which are much slower.

The two-stage transfer escapement used on both the Model AP-111 and AP-127 Part Placers ensures positive insertion of each piece part into the placement jaws. The escapements may be actuated either by a mechanical linkage or by an air cylinder depending on the piece part size and tooling application. A shuttle type escapement on the Model AP-120 Part Placer also ensures positive insertion of each piece part into the placement jaws. Each piece part is properly placed (or pressed) into the workpiece with verification sensing.

The maximum piece part size for the Model AP-120 with standard tooling is .75-inch (19mm) diameter, and lengths of 2-inches (50.8mm). Models AP-111 and AP-127 can handle piece part sizes up to 2.5-inches (64mm) in diameter, and 4-inches (102mm) in length. Vibratory bowl feeders can be tooled up to 36 inches (915mm) in diameter. Vibratory feed systems will have either cast bowls or stainless steel bowls. As an option, bowls can be coated for delicate parts or for sound reduction purposes. An optional load cell can monitor pressing force. Control options can be selected to meet the requirements of each application.

Model AP-111 Part Placer with vibratory bowl feeder, optional supply hopper, inline vibratory feed track, two-stage transfer escapement, and feeder control with full-track sensors.

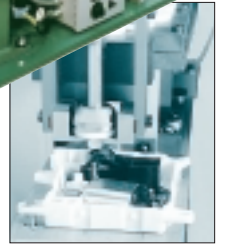


Model AP-111 Part Placer tooled to feed and place terminal springs onto a buss bar.

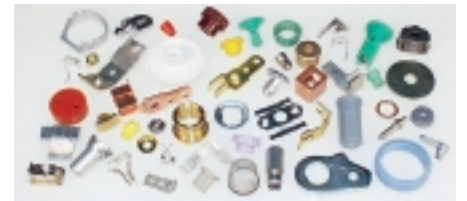


Model AP-111 Part Placer tooled to feed, place, and press an off-set cam onto a D.C. motor shaft.

Model AP-127 Part Placer with vibratory bowl feeder, inline vibratory feed track, two-stage transfer escapement, feeder control with full-track sensing, and an extended column structure.



Model AP-127 Part Placer tooled to feed and place a nylon gear onto a motor shaft.



Typical parts for Models AP-111 and AP-127



Model AP-120 Part Placer with vibratory bowl feeder, feed tube, shuttle escapement, feeder control with full-feed tube sensing.



Model AP-120 Part Placer tooled to feed, place, and press a gear shaft into a motor housing.



Model AP-120 Part Placer tooled to feed, place, and press a worm pinion onto a D.C. motor shaft.



Typical parts for AP-120.

Auto-fed Part Placers

Models AP-111, AP-120, AP-127

Placing Head Features:

(100 Series Head Shown)

Head Cover

(shown as cutaway)
Cover slides upward for access to head.

Sensing Assembly Allows confirmation of piece part placement.

Proximity Switch Initiates return strokes after proper placement of part.

Placing Cylinder Cushioned at both ends. Sensor shaft operates inside cylinder.

Opening Cam Assembly Part placing jaws are mechanically opened as the piece part engages workpiece.

Hardened Jaws Custom machined to grip and align piece part.

Junction Box Valve and terminal strip.

Return Switch Signals head in returned position.

Pretravel Assembly Controls piece part confinement within the placement jaws.

Intermediate Side Switch Provides a signal for any auxiliary function such as timers, index table, transfer systems, etc.

Optional Load Cell Allows monitoring of pressing force.

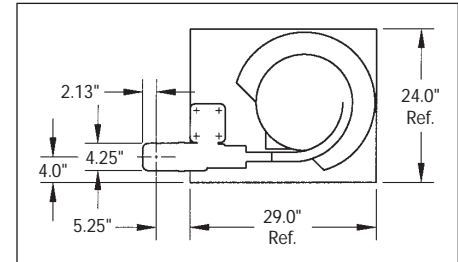


Basic AP-100 Series
Placing Head

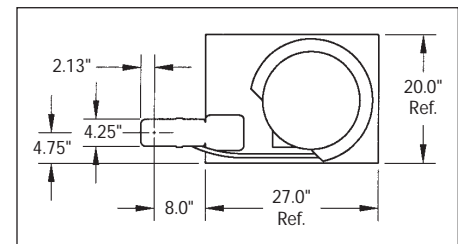


Typical parts for Models
AP-111 and AP-127

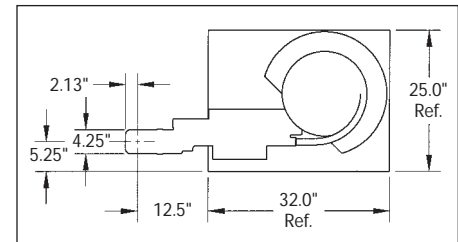
AP-111 Dimensional Data



AP-120 Dimensional Data



AP-127 Dimensional Data



NOTE: Baseplate size varies with bowl size.
15-inch bowl shown.

We reserve the right to make further
technical changes without notice.

CAD drawings are available



DIXON AUTOMATIC TOOL, INC. Products Group

2300 Twenty-Third Ave., Rockford, IL 61104 U.S.A
Phone: 815 / 226-3000 • FAX: 815 / 226-8613

E-mail: sales@dixonautomatic.com • www.dixonautomatic.com