

Industrial Packaging Equipment, Systems, Support & Service



INTRODUCTION

1000 Series Fully automatic valve Bag Placers are specially designed to automatically place and fill block bottom style valve bags. State of the art technology delivers a high level of performance and reliability, while being user friendly, easy to maintain and dependable.

Placer is capable of handling both paper and block bottom plastic bags. An integrated digital weighing scale controls filling and weighing.

Bags enter the system via a bag indexing conveyor that has a holding capacity of up to 300 bags (depending on bag dimensions). Each bag is preopened and tested before a placing arm secures the bag and delivers it to the filling spout.

Upon completion of each bag filling cycle, filled bags are automatically discharged onto an integrated bag discharge conveyor to be transported to the next station for bag palletizing.



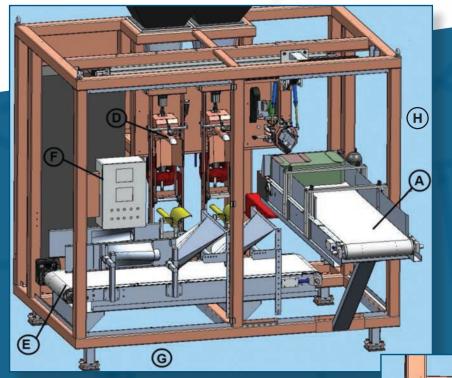
SYSTEM HIGHLIGHTS INCLUDE:

- Enclosed design contains dust / spillage and protects operators from potential injury (optional dust collection available)
- Capable of sustained production rates up to 720 bags per hour (Depending on application specifics)
- Quick changeover between production runs (Handles multiple bag sizes with minimal adjustments)
- "No Bag in Place No Fill" Feature (prevents spillage if bags fail to spout / place correctly)
- · Capable of detecting defective (non-conforming) bags before placement on the filling spout
- Servo motor drives deliver precise, repeatable placing results and reduce the use of pneumatics and other mechanical components
- Containerized / unitized design with small footprint makes system versatile, easy to install and very compact
- · Complete statistical reporting updates on system performance, efficiency and productivity
- Integrated diagnostic features alert operators of specific problems with system functions



AN OVERVIEW OF MAIN SYSTEM COMPONENTS

The modular construction of 1000 Series Automatic Valve Bag Placers accommodate a wide variety of applications and requirements with simple controls that are easy to operate and maintain.



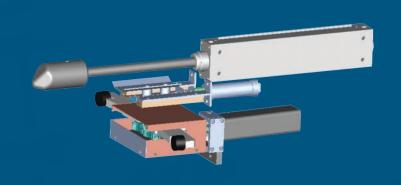
- A Empty Bag Indexing Conveyor
- **B** Valve Pre-Opening & Inspection Station
- C Bag Placing Arm
- **D** Valve Bag Filler
- E Bag Discharge Conveyor
- F Operator Control Panel (HMI)
- **G** Non-Conforming Bag Reject Station (Not shown)
- H Motor Control Cabinet (Not Shown)

(B)

SUB-ASSEMBLY HIGHLIGHTS

VALVE PRE-OPENING & TESTING STATION

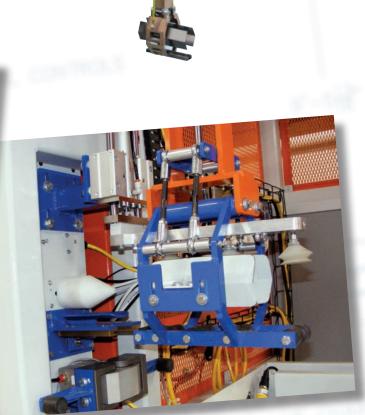
After each bag is picked up by the vacuum pickup from the bag indexing conveyor, the valve is opened and inspected for defects. Bags with defective or non-conforming valves are automatically rejected.



BAG PLACING ARM

After each bag is opened and tested, It is transferred to the bag placing arm which moves the bag from the pickup station to the valve bag filling machine. A brush-less servomotor controls the placing arm with a built-in positioning encoder. No sensors are required to position or adjust the linear travel of the arm. The arm can be programmed and adjusted from the operator control panel (HMI) without the need of any mechanical or sensor adjustments.





FEATURES AND CONTROLS

DESIGN FEATURES INCLUDE:

- · Fully Enclosed with built-in dust collection pickup manifolds
- · Tubular Steel Support Structure
- Empty Bag Indexing Conveyor (96"; 2438 mm) OAL easily reloaded without interrupting production
- Brushless Servo Motor Drive transports bag placing arm from bag pickup station to filling spout optimized to minimize wear parts by reducing the use of pneumatics and other mechanical linkages.
- Access Doors are protected by safety switches (system power shutoff if perimeter doors are opened)
- · Flexible for a wide range of materials and multiple bag sizes with simple adjustments
- · Capable of handling both granular and dusty products
- Compact, Containerized Design Small footprint makes this machine suitable almost anywhere and allows for full factory integration & testing prior to shipment simplifying installation at the plant site
- PLC Operated Controls (with Programmable Inputs and Outputs to Control Pneumatically Operated & Motorized Functions
- Fully Integrated Placer & Filler PLC Control Panel with Touch Screen Display One common operator control panel fully integrates and simplifies and streamlines the control of the entire system.
- · Automatic / Manual Set Points
- Multi-Level System Password Protection
- · Filler & Placer Function Timers
- Traffic Control Function ensures filled bags do not fall on top of one another
- · Statistical Analysis Capabilities
- Diagnostic Capabilities
- · Quick Scale Calibration
- · Valve Pre-Opening & Inspection Station
- Defective Bag Detection Feature
- · Non-Conforming Bag Reject Station

Operational Control Highlights:

The fully integrated system controls provide single point control and management over the system production data.

Statistical analysis production data:

- Target Weight
- Last Weight
- Scale Weight (current bag)
- · Avg. Bag Fill Time
- · Avg. Bag Cycle Time
- · Avg. Bags Per Minute
- · Avg. Bag Weight
- Avg. Over Fill
- Number of Fills Completed
- Run Time (in hours)

Diagnostic Capabilties:

- System Operating Status
- Alarm / Fault Log
- Load Cell Output Voltage (to check health and status of load cells)



1000 Series Automatic Valve Bag Placers can be Integrated with Any of the Following CBE Valve Bag Fillers:



200 SERIES AUGER BAG PACKERS

Dusty, mixed materials, non-free flowing and difficult to handle products such as cocoa, flour, black pepper, pigments, organic & chemical resins, cement and plaster



800 SERIES IMPELLER PACKERS

Fine (100 mesh & down), free flowing powders between 50-100# per cu. ft. such as Portland cement, stucco, bentonite, clay, fly ash, gypsum, talc & plaster



700 SERIES AIR PACKERS

100 Mesh to 3/8" and/or 100# per cu. ft. & heavier powders,granules & mixes such as concrete, sand (dry), cement, barite, bentonite, gypsum, limestone, plastic pellets, iron oxide, TiO₂, salt, calcium carbonate, starch, corn flour, granulated sugar, hard grains



900 SERIES IMPELLER PACKERS

Fine (100 mesh & down), free flowing powders between 20-50# per cu. ft. such as kaolin clay, talc, hydrated lime, alumina, activated carbon & plaster

UNIVERSAL, MODULAR DESIGN

All CBE Valve Bag Fillers feature an integrated weighing scale suspended from a single load cell. The bag saddle is designed to be easily adjustable via a hand wheel (or optionally a motorized gear drive) located on the bag saddle. A very efficient dust collection manifold around

the bag filling spout reduces dust emissions during the filling cycle. The filler can be equipped with a bottom discharging bag rest when the bag must be released bottom-end first onto the bag / discharge conveyor.



VALVE SEALING

All CBE Valve Bag Fillers can be equipped with spout integrated thermal or ultrasonic valve sealers

CBE offers an integrated valve sealing system that provides 100% valve closure of the valve sleeve after the fill cycle has been completed. The sealing process is 100% automatic. At the completion of a bag fill cycle, the system will automatically remove the filled bag from the filling spout and present it to

the sealer for closure. The sealer will automatically locate the sleeve of the bag, clean the inside of the valve and complete the seal on the valve sleeve. Finally, the filled, sealed bag will then be released bottom end first onto a transfer / take-away conveyor with the sealed valve leading.



Valve Sealing Systems feature the following components:

- Bag support carriage designed to hold the located bag in the sealing position
- Pneumatically activated clamping jaws to hold the ultrasonic or thermal sealer
- Sealer designed to seal a valve with a maximum width of 7.875" (200mm)

NOTE: CBE Valve Sealers are designed to seal valve bags with external valve sleeves coated with a heat sealable laminate.



TECHNICAL SPECIFICATIONS:

- · Weight Range 20-110 lb. (9-50KG) valve bags
- Fill Rate up to 12 Bags per minute (Depending on model selected and bag filling time)
- · Proper Application:

Rigid paper or plastic block bottom valve bags
Minimum Bag Size - 18" (450mm) Length X 14" (356mm) Width X 4" (103mm) Valve
Maximum Bag Size - 26" (660mm) Length X 21" (533mm) Width X 6" (152mm) Valve

Maximum Compressed Air Requirements:

Model 1100 (1-Spout) 90 PSI (6 Atm) at 25 CFM (0.7 m³ / min)

Model 1200 (2-Spout) 90 PSI (6 Atm) at 25 CFM (0.7 m³ / min)

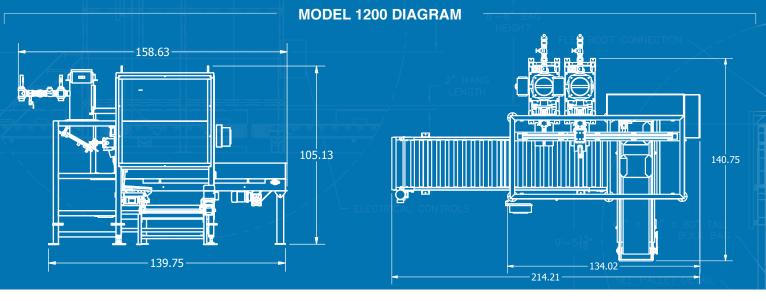
Model 1300 (3-Spout) 90 PSI (6 Atm) at 25 CFM (0.7 m³ / min)

NOTE: The above figures do not include air consumption for bag filling machine integrated with the bag placer. Estimate represents maximum consumption of the placer itself.

• Electrical Requirements - 240 Volt / 3 Phase / 60 Cycle (17.2 amps) or 440 Volt / 3 Phase / 60 Cycle (8.6 amps)

DIMENSIONS (without 3 way valve air supply assembly for air packer)

- Model 1100 (1-Spout) Dimensions 100" (2540 mm) Long X 140" (3581 mm) Wide X 105" (2670 mm) Tall
- Model 1200 (2-Spout) Dimensions 134" (3404 mm) Long X 140" (3581 mm) Wide X 105" (2670 mm) Tall
- Model 1300 (3-Spout) Dimensions 156" (3962 mm) Long X 140" (3581 mm) Wide X 105" (2670 mm) Tall



Choice 4 Bagging Equipment, LTD.

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Choice Bagging Equipment, Ltd. has specialized in the design, manufacture, implementation and support of valve bag filling systems since 1978. We supply simple, manually operated bag filling systems as well as highly advanced automatic bag filling and bag handling systems. Our offering includes a full line of valve bag fillers, valve

bag applicators / placers, robotic bag handling systems for valve bags and valve sealing (both ultrasonic & thermal) for a large variety of products and industries. Additionally, we also offer palletizing and load securing along with our filling systems.

CHEMICAL INDUSTRIES

Fertilizer
Agricultural chemicals
Industrial inorganic chemicals
Industrial organic chemicals
Plastic materials and synthetics
Miscellaneous chemical products

FOOD INDUSTRIES

Flour
Cocoa
Bakery products
Grain products
Sugar and confectionery products
Coffee/tea
Miscellaneous foods and kindred products

OTHER INDUSTRIES

Wood products
Mining & construction
Non-Metallic mining
Petroleum & coal products
Primary and powdered metals
Rubber and miscellaneous plastic products
Stone, clay, glass, ceramic products