

HPPS4000 Servo Pusher Technical features

The **HPPS4000 Servo-Pusher** is an integrated servo pusher system for IS machines, one that provides highly precise enveloping movement of the containers on the conveyor, along with functional flexibility and repeatability.



16-section pusher cabinet

The interconnection between this cabinet and the **pushers** is attained through **individual cables with one connector for pusher.**



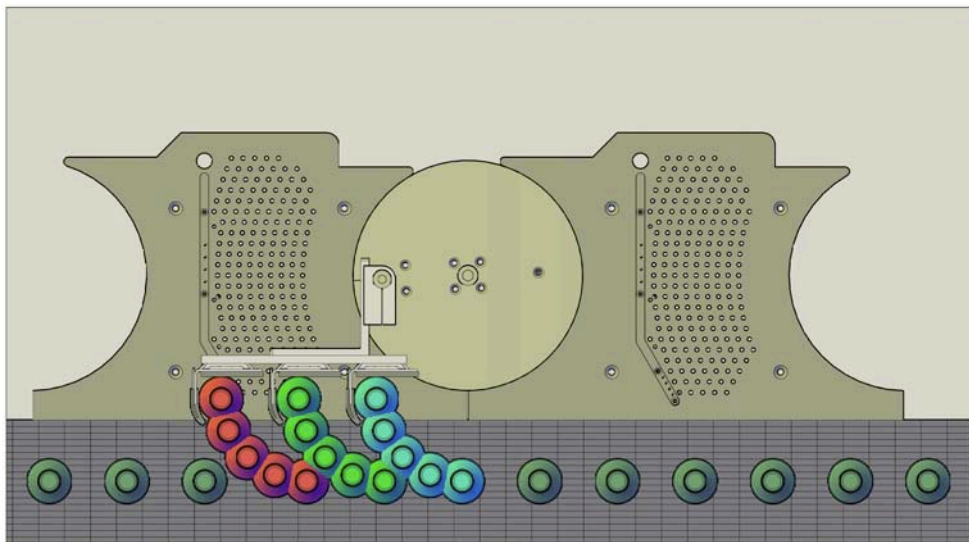
Converters and power supply points inside the cabinet

The control cabinet contains:

- * High performance Lenze servo drives installed.
- * Modular in a decentralized architecture.
- * Do not have a control unit.

Direct drive mechanics make the HPPS4000 a maintenance-free system.

No instability or imbalance will occur throughout the useful life of the system.



RELIABILITY AND DIAGNOSTICS

All equipment parts are protected against short circuits and grounded short-circuits, as well as static and electromagnetic interference.

The service console makes it possible to monitor the operation of each section, providing information on the status of the different elements. The system itself helps in repairs.



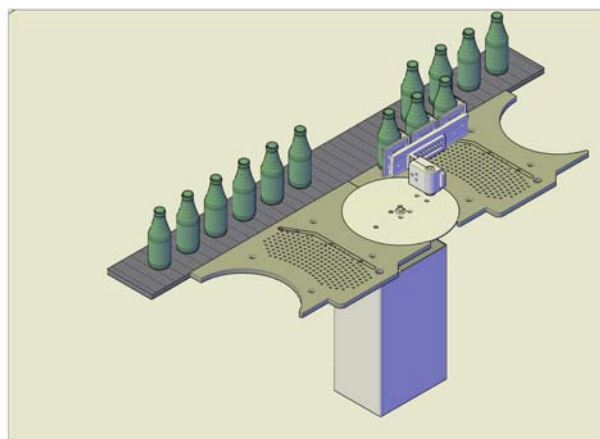
View of the power supplies and external out connectors arranged in the cabinet

Each servo pusher assures automatic resetting of the mechanical hand position to zero. The HPPS4000 notifies of any failure, automatically withdrawing the gob for as long as necessary.

Movement and positioning quality are attained by means of converters that run cams, which are preset from the equipment control unit.

Avacon pusher's mechanics are the result of optimising the durability, simplicity, precision and reliability of all its parts.

Transmission is carried out with commercial elements and metal cams that assure reliable movement at high temperatures.



Servo pusher

The direct drive, which functions without belts, oil or grease assures operation throughout the life of the machine, without the need for mechanical maintenance. It also eliminates the possibility of mechanical loosening.

The motors and reducers are made of high-temperature IP65 and mounted on an insulated piece that avoids the direct transmission of heat from the upper part. This makes operation possible with or without cooling.

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QUICK CHANGE

Quick mechanical change speeds up assembly and disassembly operations, as well as replacement in case of failure.



View of quick mechanical change

Electrical connection is attained through a single Harting connector for the two servo motors.

FLEXIBILITY

This kind of servo pusher can work with any type of electronic timing.

They can be mounted on any standard machine. Performance can be significantly enhanced through the use of AVACON S.A. high performance mechanical hands.

ADVANTAGES

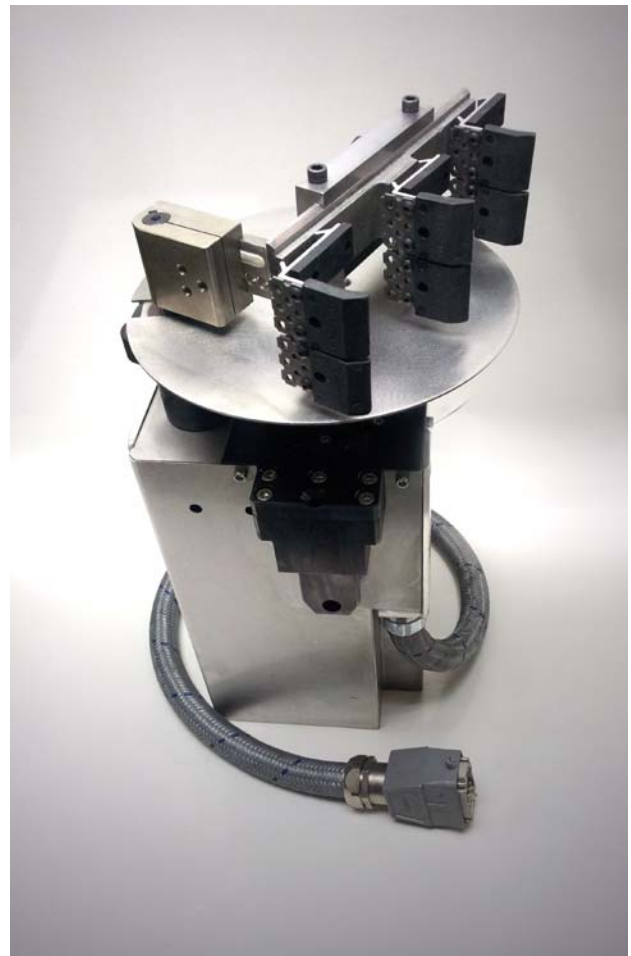
A system that is adaptable to future needs - maintaining the investment while assuring optimum level of productivity.

Built with open standards and in compliance with the strictest safety and quality standards.

Given that it is completely modular in terms of architecture and functions, the system offers greater availability.

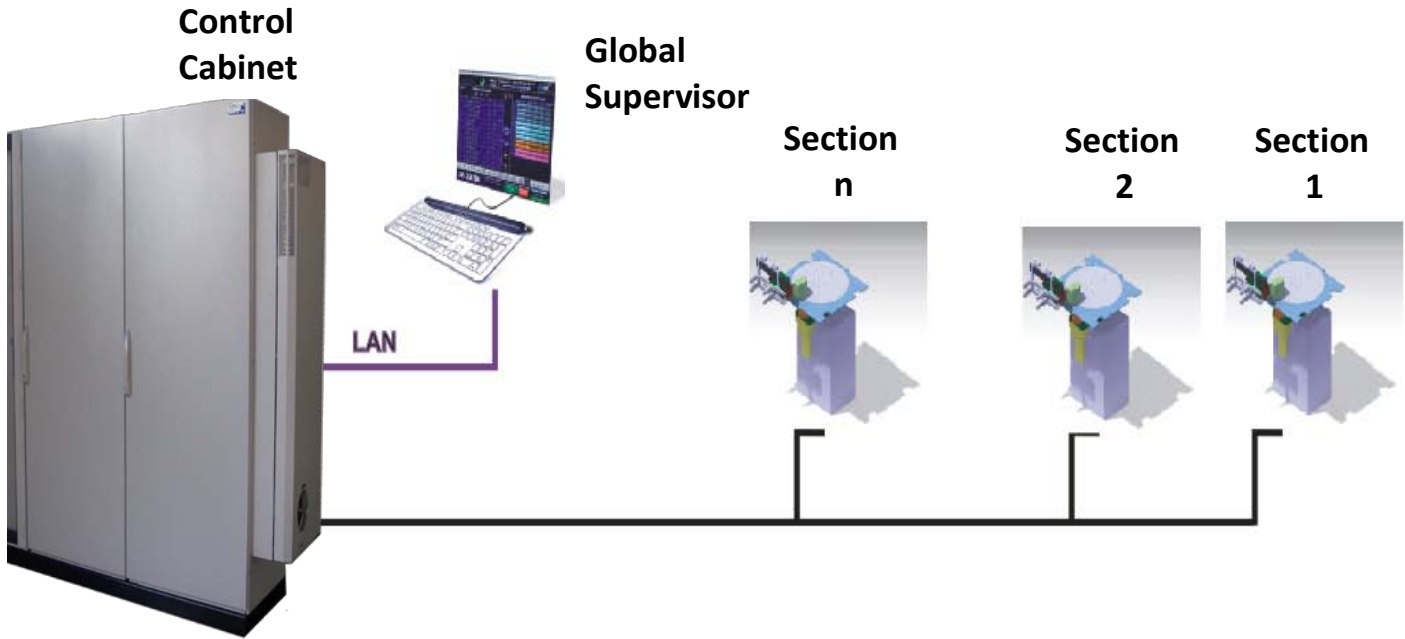
Painstaking design and high technology offer an unbeatable price/performance relation.

All with AVACON S.A.'s firm commitment to innovation and service.

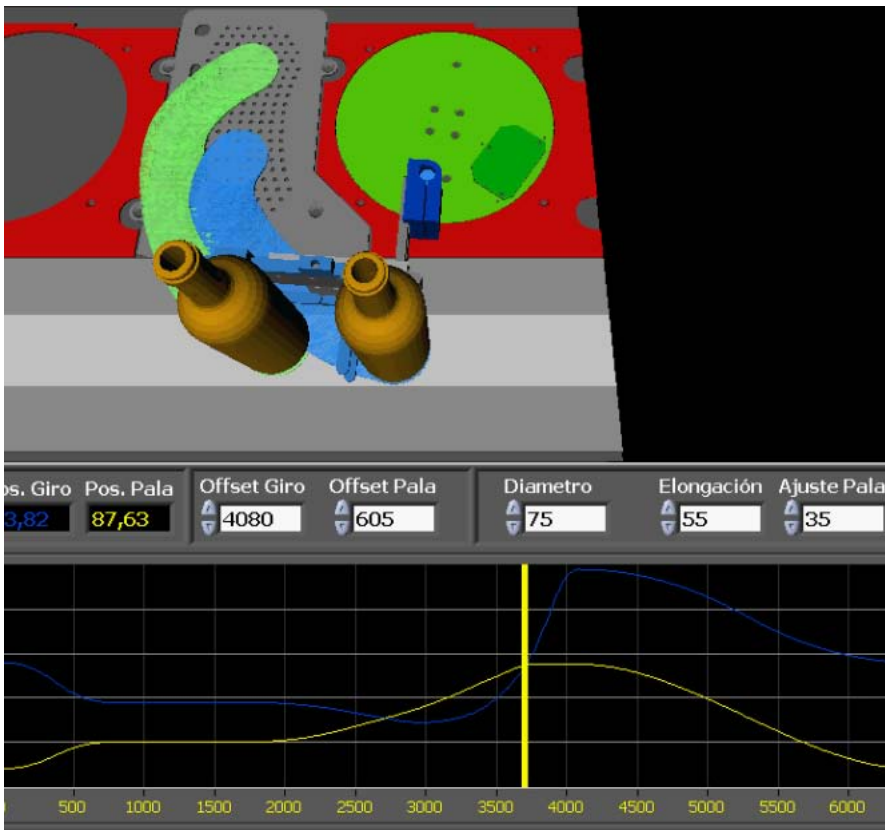


High performance mechanical hand

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Control system architecture.



Supervisor display for curve monitoring and configuration



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General features

The electronic modules are of the quick change type - 19" rack and DIN standard.

- Outputs protected against short circuits with automatic reset and opto-couplers.
- Authorisation level, along with management and maintenance programs.
- Continual measurement of motor position precision. High level of production repeatability.

Mechanical assembly:

High-dynamics Lenze servo motors

- Automatic resetting to the zero position in each motor assures perfect position of the mechanical hand.
- Quick change system
- Mechanical movement by means of cams.
- Requires no maintenance throughout the life of the machine

Control Cabinet

Cabinet Dimensions: 800x1800x600.

Optional

- Central control unit with unlimited expansion possibilities.
- Viewing from the machine's global optipanel.
- Power units with anti-short circuit condenser up to 0.5 sec. and independent protection.
- Communicates with other machine parts (timing, distributor, drive, etc.) through Ethernet and digital signals.
- Power converters for the motors.
- Possible air conditioned version for installation outside the control room.
- Optional remote terminal with keyboard and LCD screen at the conveyor for local adjustment.

Wiring

A set of cables connectorized to both ends of each pusher.

Available controls in the System

Installation with Avacon HPTS2000 timing:

All pusher controls are included and integrated into the timing. There is no need for additional controls.

Stand-alone operation, or functioning with another system:

Control box attached to each machine. Stop key for each pusher, as well as general stop.
Can receive digital orders such as "begin cycle", "hand inside", "hand outside", "stop", etc. from any kind of system or timing.

Power supplies

Three-phase, 400 VAC \pm 10%, 50 Hz in the standard version.