PET Preforms Conveyor

Container Filling Device

Soft drop (pet preform conveyor) is a very efficient system devised to eliminate damage and scratching which may be caused to pet preforms by dropping into storage containers. It is designed to work with all preform production units currently available in the market.

The soft drop system reduces the height from which the preform has to drop to a minimum. This is made possible by the utilisation of a specially designed flat conveyor used to distribute the preforms into two descending unloading hoppers which release the performs into the storage container from a minimum pre-defined height. This release height remains constant throughout the filling phase. When the container is full the conveyor changes direction to commence filling of the second container and at the same time an acoustic/visual alarm warns the operator that the already filled container should be replaced.

• The product from the moulding cycle is accumulated on the press and channelled by a mod. Cpt conveyor to the mod. Pa conveyor/distributor installed for programmed filling of the hoppers.
• Once the loading phase has terminated, the hopper descends into the container and, using an ultrasound sensor, releases the preforms at a minimum predefined height.
• When the first container has been filled, filling of the second container begins, while an audible-visual alarm warns the operator that the filled container must be replaced with an empty one.

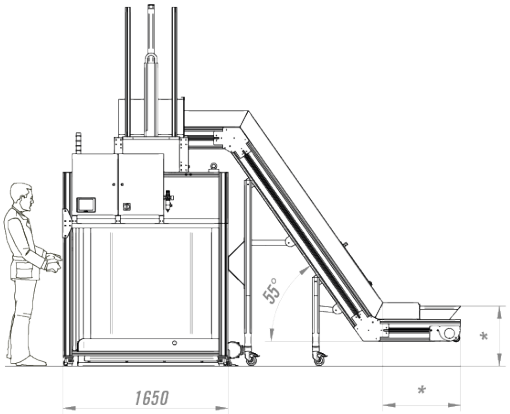
Main characteristics:

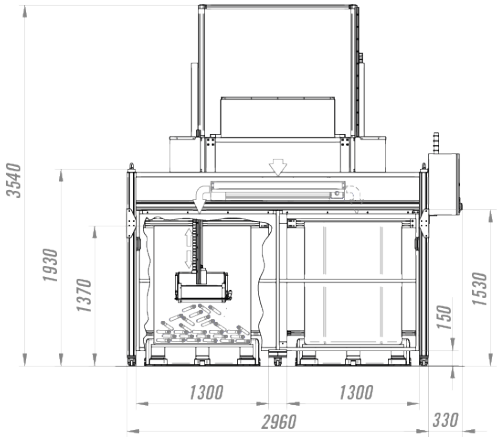
• Anodised alu profile structure (thickness 15 microns) alloy 6060 90×90 mm
• Footmaster ground supports: a single device allows both locking to the ground and quick and safe handling in case of need
• Standard soft drop complete with control unit with touch panel installed on the side for an easier and safer access, to control the operating process via plc:
  • work cycles and parameter settings displayed
  • monitoring of the quantity of preforms placed

in the containers by counting the moulding cycles of the production unit

Optional:
  • Quality control by weighing the preforms per container with 0 to + 2% tolerance
  • installation of vibrating platforms
  • cooling device on loading conveyor

• Power required (including loading cpt): 1 kw
• Standard voltage: 400 volt / 50 hz compressed air: flow rate 610 litres/minute (36,6 m3/h) – pressure 600/800 kpa (6 bars)





** dimensions determined by the type of IMM*

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The Mod. Cpt Standard Loading Conveyor:

• Receives the preforms at the production outlet and channels them to the mod. PA conveyors/distributor installed on the Soft Drop.
• Green PU belt (ref. Pantone 320) complete with H50mm slats, pitch 300mm, vulcanised belt joint
• 17 m/min fixed conveyors speed
• 55° inclination of upward section
• Polycarbonate guard along the entire length of the conveyor

Detail of preform collecting, lowering and out feeding hopper:

• The photo shows the hopper which receives the preforms form the mod. PA conveyor/ distributor.
• The hopper is provided with a pneumatic system for vertical descent into the container.
• The hopper bottom consists of two panels with pistons which open when the release height is reached.

Detail of Hopper with Open Panels:

• Panel opening can be set according to different logic sequences:
    • Simultaneous opening of the panels
    • Opening of the right-hand panel during the first descent and the left-hand panel during the second descent
    • Opening of both panels but at different times
• Note the ultrasound proximity sensor which determines panel opening

Standard touch panel with Siemens S7-1200 Series PLC:

• The system is controlled by a PLC with colour Touch Screen and user-friendly interface for simple settings and ease of use.

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