# SINGLE PALLET INTERLEAF FEEDER



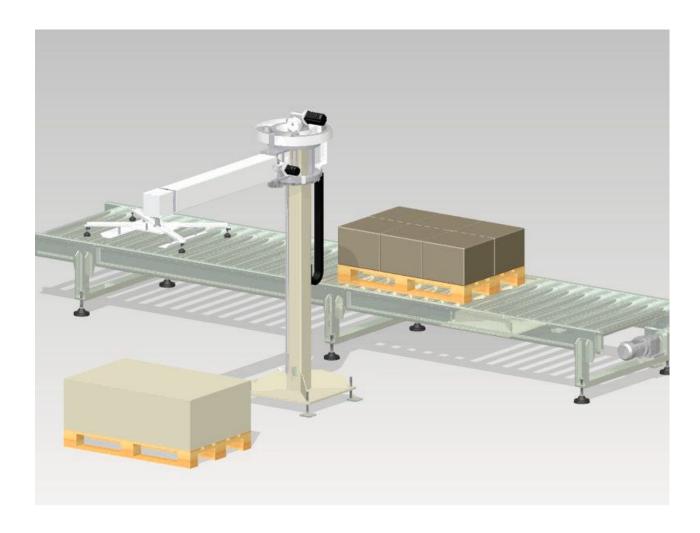
Solaut produces pallet interleaf feeder for single bay or palletizing systems that position the interlayer, taken from a single stock, on more palletizing stations

# **COLUMN PALLET INTERLEAF FEEDER**

The pallet interleaf feeder are realized in two models:

- o Column pallet interleaf feeder 0-90.
- o Column pallet interleaf feeder 0-270.

The figure shows an application of a pallet interleaf feeder that picks up the interleaves from a pallet and it deposits them on a pallet placed on a roller table.



# COLUMN PALLET INTERLEAF FEEDER 0-90

The gripping head with suction cups is fixed to the end of an arm that can rotate 90  $^{\circ}$  in the horizontal plane.

The arm moves vertically with a maximum stroke of 3000mm.

A second articulated arm allows to prevent the rotation of the gripping head, during the rotation of the arm.

The rotation of the head can be performed with a cylinder to achieve positioning solutions details.

#### **Features:**

- o High-performance model with two servo motors.
- o The speed of movement and positioning accuracies are high.
- o Model with asynchronous motors and inverters. This model has performance and lower cost than the previous one.
- o Three arm lengths with wheelbase 1200 1400 1600 mm with stroke lengths respectively 1700, 2000 and 2260mm.
- o Rotating suction port head made with pneumatic actuator (optional).





### Features of column pallet interleaf feeder

- o Clinch from interleaves warehouse and positioning on the pallet
- o High positioning speed
- o Standard vertical stroke 2000mm
- o Column with support base or with brackets for attachment to the palletizer

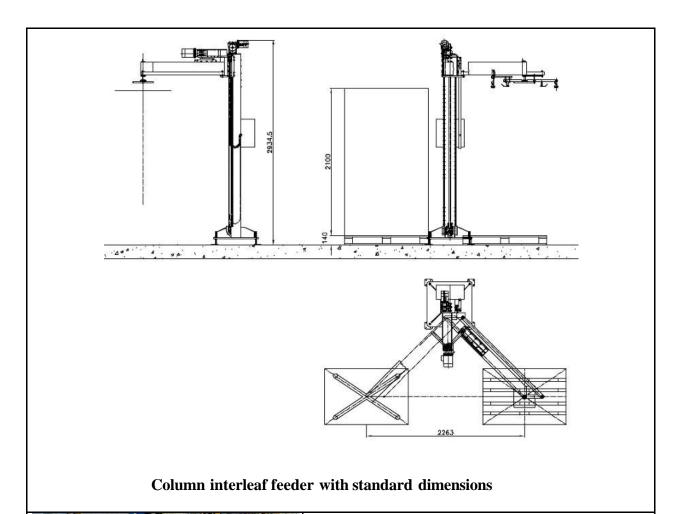
- $\circ$  Horizontal stroke of 2260mm maximum equal to a rotation of the arm 90  $^{\circ}$
- o Speed adjustable from the operator panel
- o Ability to rotate the flap 90 degrees during the translation
- o Provision of only the mechanical or system complete with electrical panel
- o Omron PLC with operating unit and software.
- o Transactions carried out with two servo motors 400 and 750W or induction motors and inverters
- o Photoelectric sensor for sensing the height of the pallet

The arm can be positioned at any position between the extremes of travel. The positions can be set from the operator panel.

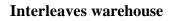
## Order code

PALLET INTERLEAF FEEDER 0-90 \_\_\_ - B\_\_ - H\_\_ - \_

Rotation with pneumatic actuator stroke in ° max 180°
0 machine without pneumatic actuator
Vertical stroke in 100mm (max 20 2000mm)
Arm length from pin to pin in mm/100: 12, 14 o 16
S Servomotors
A Asincronous motors
N no cabling motor and electrical panel









**Gripping element with suction cups** 

The column pallet interleaf feeder consists of a vertical column, two arms and a gripping head of the interleaf. The pallet interleaf feeder engages the brim with 4 suction cups, the user raises a fixed amount and the door into position above the pallet. The flap is positioned over the pallet construction..

The pallet interleaf feeder can be equipped with electrical panel with PLC and operator panel that allow you to operate completely independently. The commands are received by means of digital inputs:

Start reset and start operation
Interleaf hooking
Put again the interleaf on the warehouse
Put the interleaf on the pallet
End of operation and parking
Stop machine

The output signals are: ready machine alarm in the machine stop interleaf positioning

The system consists of the following essential elements:

Vertical column on which two linear guides are mounted, which runs on a cart. The carriage is moved by a servomotor Panasonic 750W mounted on a gearbox Bonfiglioli worm. The travel speed is adjustable vertically via the operator panel. The height of the column and the standard of 2935 mm and can be varied according to the needs of the customer. The vertical stroke is 2000mm standard.

The pallet interleaves hooking group consists of a carriage with two hinged arms supporting a gripping head. On the gripping head are mounted 4 suction cups, two of which are mounted on pneumatic cylinders to browse through the first aquifer from below while avoiding moving more of a flap. The arms rotate up to 90  $^{\circ}$  by means of a geared motor, realizing a horizontal translation of the flaps up to 2260 mm. The head suction port can not rotate during the translation in such a way as to keep the flap parallel to its initial position. If the water table must be rotated 90  $^{\circ}$ , it is sufficient to move the mounting hole of the torque arm of the suction plate. A pair of photocells mounted on the carriage allows to detect the position of the first pallet interleaf to hook and release position, in order to have placements extremely fast.

The grip assembly of ground is floating vertically to stop the machine in case of contact with the pallet or the flaps.

Electrical panel with PLC model CP1L-M40DT1-D and the Operation Panel Omron NQ3. The electrical panel also contains the servo drives or inverters for models with asynchronous motors. The speed of the machine are settable by the panel.

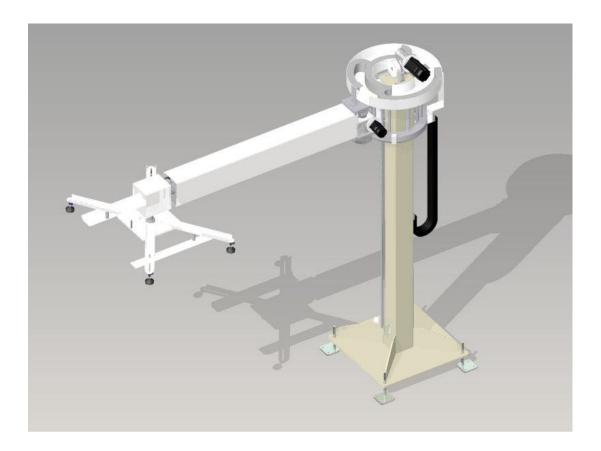
The gripping head of the flaps can rotate by means of a pneumatic cylinder to carry out standard placements.

# **COLUMN PALLET INTERLEAF FEEDER 0-270**

The gripping head with suction cups is fixed to the end of an arm that can rotate  $270^{\circ}$  in the horizontal plane; the axis of rotation of the arm is aligned with the axis of the vertical column. The arm moves vertically with a maximum stroke of 2000mm.

With a kinematic chain, the rotation of the arm around the column involves an identical rotation of the head port suckers: the interlayer therefore does not rotate during the translation in the horizontal plane.

The distance between the head cups holder and rotation axis arm can be fixed or mobile; This version allows you to position the pallet layer pads on multiple formats, without changing the position of the machine.



The column pallet interleaf feeders 0-270 are realized in different versions:

- o Three or arm lengths, wheelbase 1400, 1600 and 1800 mm with stroke lengths respectively of 2800, 3200 and 3600mm
- o Translation of the head suction cups holder with pneumatic actuator



Arm of column pallet interleaf feeder 0-270



Carriage with arm connection

### Features of column pallet interleaf feeder

- o Presa da pila falde e posizionamento su pallet
- High positioning speed
- o Standard vertical stroke 2000mm
- o Column with support base
- $\circ$  Maximum horizontal stroke of 3600mm equal to a rotation of the arm of 180  $^\circ$
- o Speed adjustable from the operator panel
- o Pallet interleaf doesn't rotate during the rotation of the arm
- o Provision of only the mechanical or system complete with electrical
- o Omron PLC or operator panel and the software
- o Movements carried out with two servo motors 400 and 750W...
- o Photoelectric sensor for sensing the height of the pallet.

The arm can be positioned at any position between the extremes of travel. The positions can be set from the operator panel

The system consists of the following essential elements:

Vertical column where they are mounted two linear guides, which runs on a cart. The carriage is moved by a servomotor Panasonic 750W mounted on a gearbox Bonfiglioli worm. The height of the standard column is 2935 mm and can be varied according to the needs of the customer. The standard vertical stroke is 2000mm.

Il carrello sostiene due ralle a cui è agganciato il braccio. The cart supports two fifth wheel couplings coupled to the arm. To a fifth wheel is bound a toothed wheel which meshes with a pinion driven by a motor carried on the arm. The motor is equipped with a Panasonic servo motor 400W. The shaft of the motor arm is keyed a bevel gear with which a drive shaft inserted inside the arm, commands a second bevel gear which rotates the head suction cups holder. The two bevel gear pairs, rotating the suction cups holder head in reverse relative to the arm, make that the door suction

cups holder don't rotate respect to the column and compared to the outside world. The interlayer is placed on the pallet with the same orientation of the warehouse interlayers.

On the gripping head are mounted 4 suction cups, two of which are mounted on pneumatic cylinders to browse through the first pallet interleaf from below while avoiding moving more than one pallet interleaf.

The gripping group of pallet interleaves is floating vertically to stop the machine in case of contact with the pallet or the flaps.

To widen the operation of the machine, it is possible to move the pin of the suction cups holder head with a pneumatic cylinder. You can increase the stroke from 50 to 250mm.

Electrical panel with PLC model CP1L-M40DT1-D model and the Operation Panel Omron NQ3. The electrical panel also contains the servo drives or inverters for models with asynchronous motors. The speed of the machine are settable by the panel.

### Order code

COLUMN PALLET INTERLEAF FEEDER 0-270 \_\_ - B\_\_ - H\_\_ - \_\_

Translation axis head suction cups holder from 50 to 250 steps 50mm
0 machine without pneumatic actuator
Vertical stroke in 100mm (max 20 2000mm)
Arm length from pin to pin in mm/100: 14, 16 o 18
S Servomotors
N no cabling motor and electrical panel



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