

Apiel produces palletizing, robots and case packers grippers.

PALLETIZING GRIPPERS



Self-centering gripper 400 with pallet hooks



Gripper with a fixed and a movable flap



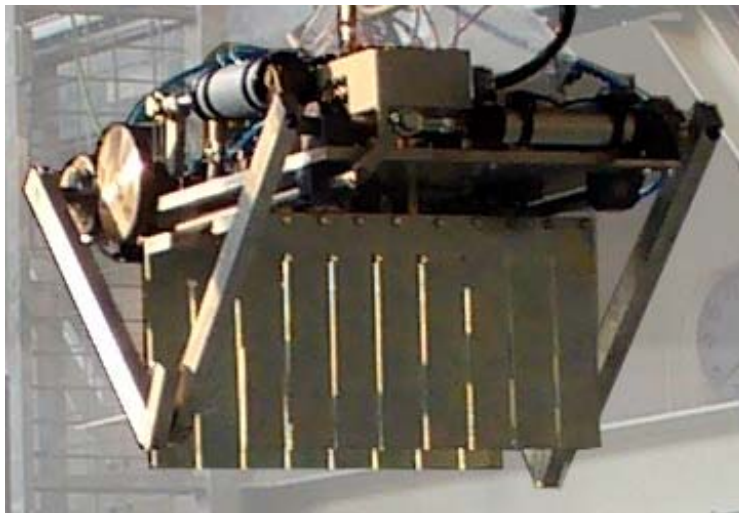
Self centering gripper 400



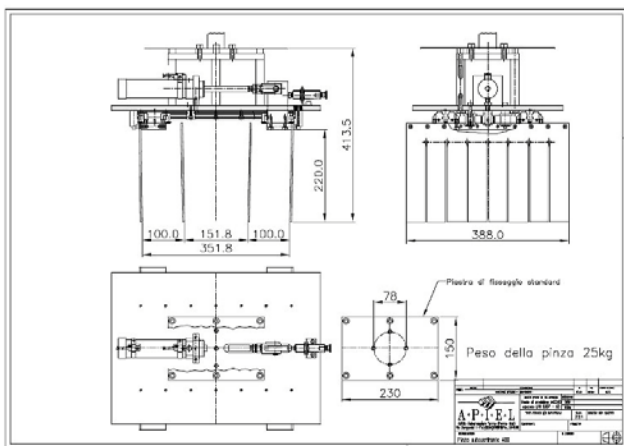
Gripper with pallet hooks

The types of grippers that we produce are:

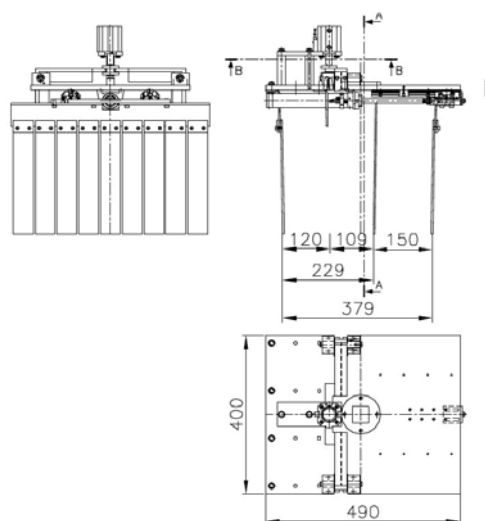
- grippers with a fixed and a movable flaps.
- self-centering grippers in two flaps.
- Vacuum gripping units.
- grippers for bags.



Self-centering gripper 400 with hooks for pallet and suckers for interlayer



Drawing dimensions self-centering gripper 400



Fixed gripper flap 400

The grippers are supplied with pneumatic sensors. The mounting flange of the robot can be made according to customer's specifications.

As standard equipment is used pneumatic Pneumax; alternatively, we can mount Festo, SMC or Rexroth.

Also the gripping flaps are adaptable to the needs of the customer.

Below we have a brief technical description of the various types of grippers.

GRIPPER WITH A FIXED AND A MOBILE FLAP

This type of gripper is made in two different models : width 400 and width 800 . This type of gripper is ideal for all applications where the product has to be placed or attached with one end in a fixed position and is the most economical solution . The movable flap at the time of product release , opens completely , allowing you to move light products. The flaps can be in

one piece or consist of a series of strips . This solution allows you to freely change the width of the flaps without having to replace.

The pneumatic control that moves the flap , it can realize a movement in two positions (opened and closed on the product) or three positions (closed on the product, opened exhaust and opened fully) . The gripper three-position modular with flaps is ideal for filling cartons.

The models available are:

- flaps width 400mm stroke 150mm .
- flaps width 800mm stroke 200mm .
- gripper with gripping hooks for pallet .
- gripper with suction cups interlayer .
- gripper with suction cups and hooks foot pallet.
- gripper with pneumatic actuator for rotation 0-90 ° .

SELF-CENTERING GRIPPER 400

Gripper used for palletizing: flaps both move, speeding up the operations of gripping and releasing of the product. The product can be approached on each of the 4 sides of the gripper. The flaps do not open in release: the release of the product is releasing the pressure in the cylinder which closes the flaps.

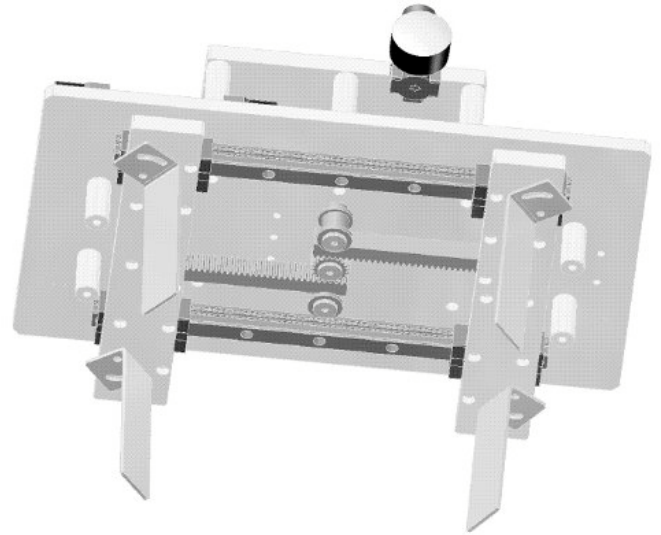
The product slips from flaps and once the clamp lifting above the layer, the flaps are opened. The discharge pressure of the cylinder that moves the flaps not completely releases the clamping force on the product due to friction on the cylinder and on the mechanical parts. This gripper is therefore not suitable for very light products.



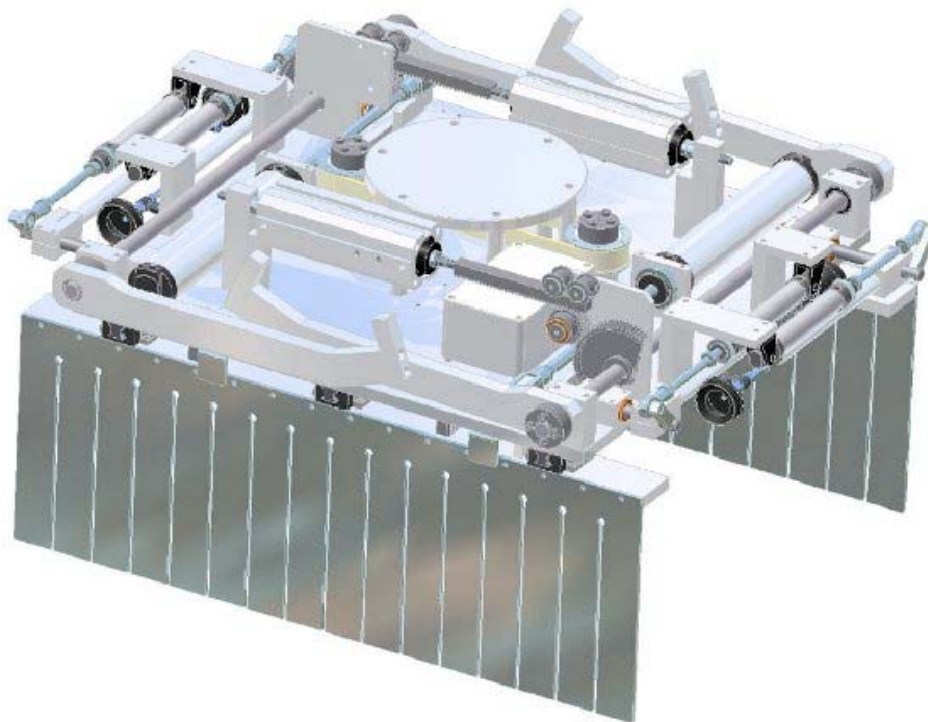
Self-centering gripper with hooks for buckets

The closing force is adjustable by means of a pressure regulator ; the theoretical maximum value is 370N to 6 bar .
Total weight of the group without hooks grip pallets 22 Kg

The gripper can be provided with hooks for moving the pallets and with suction cups for gripping interlayer .



SELF-CENTERING GRIPPER 800



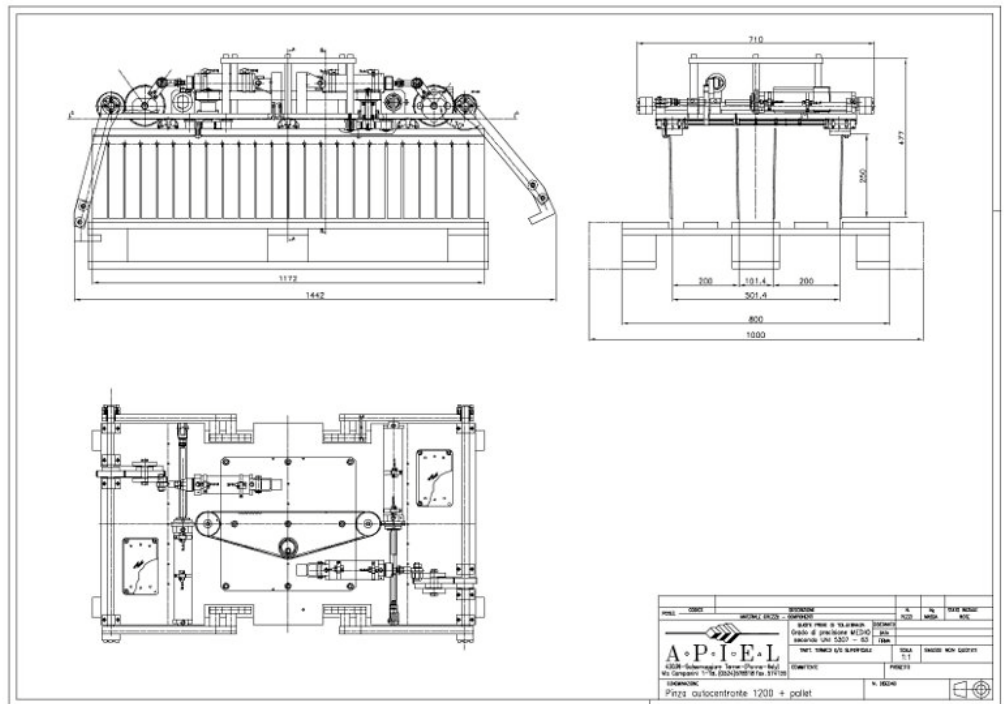
This type of gripper has the same features as model 400 ; because of the larger size is suitable for palletizing with high productivity with multiple sockets (socket more boxes at once). It can be supplied with hooks to hold the pallet and also with suction cups for gripping interlayer .

The maximum force of closure of the flaps is of 1177N to 6 bar .

SELF-CENTERING GRIPPER 1200

This type of gripper has the same features as model 400; because of the larger size is suitable for palletizing with high productivity with multiple sockets (socket more boxes at once).

It can be supplied with hooks to hold the pallet and also with suction cups for gripping interlayer.



Drawing dimensions of self-centering gripper 1200

The maximum force of closure of the flaps is of 1177N to 6 bar.

GRIPPING HEAD FOR BAGS

Gripper for bags with load capacity up to 50 Kg

The gripping elements are divided into grippers for compact bags and gripping elements for inconsistent ones.

The grippers for compact carry bags outlet on the side of the bag. They are self-centering grippers details.

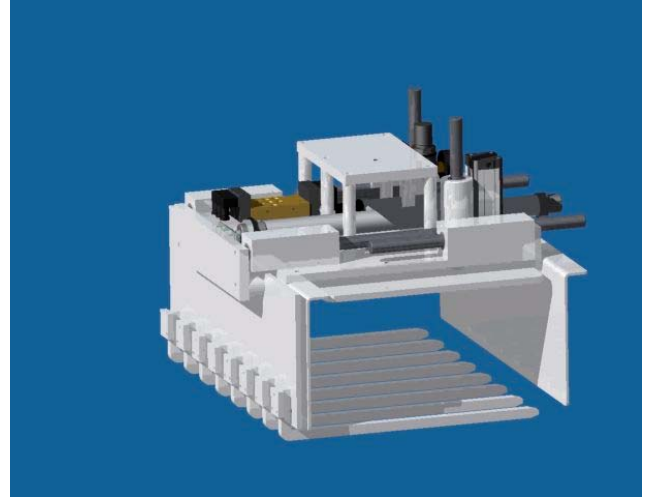
The models available are:

- grippers with gripping elements 400mm long.
- grippers with gripping elements 800mm long.
- grippers with gripping hooks per pallet.

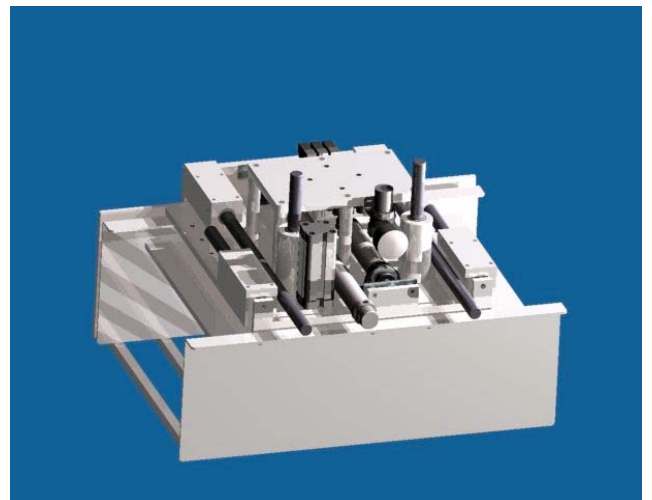
For the flimsy bags, we have 2 models with gallows that slips under the bag, lifting it up and brings it into the unloading position. The discharge takes place by removing the forks from under the bag.

The models available are:

- Fork with 400mm length.
- Fork with 800mm length.
- Head with hooks for gripping pallet.



Gripper for inconsistent bags



Gripper for inconsistent bags

VACUUM GRIPPING HEAD



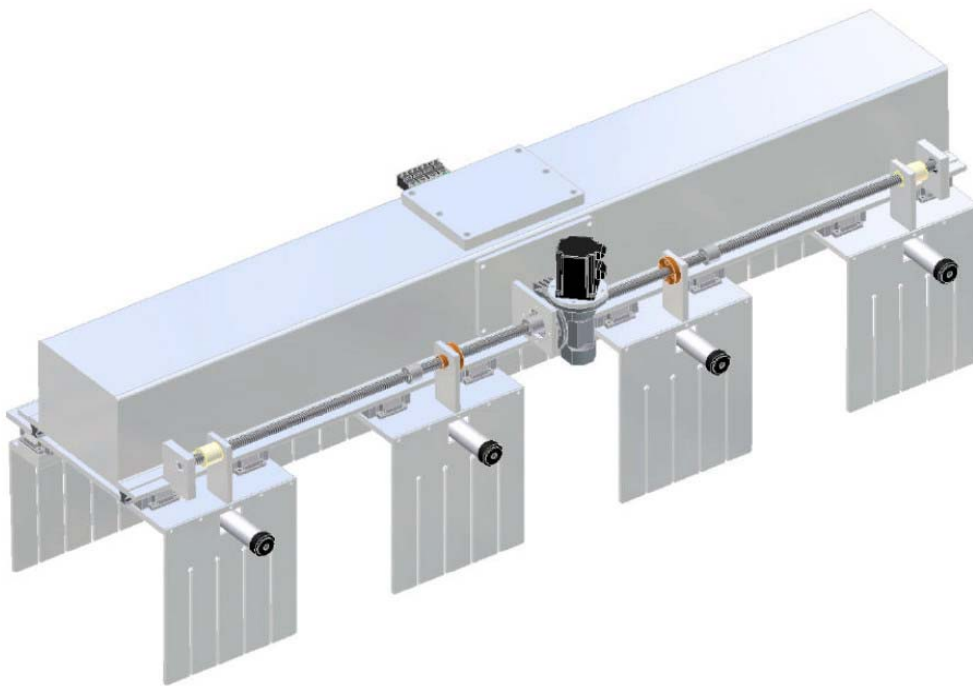
Gripping elements for cartons or containers with smooth upper surface. They are equipped with a series of suction cups arranged in positions suitable for lifting the load. The suction cups are equipped with shut-off valve to allow even took partial or damaged product.

Clamping heads can be supplied in the following versions:

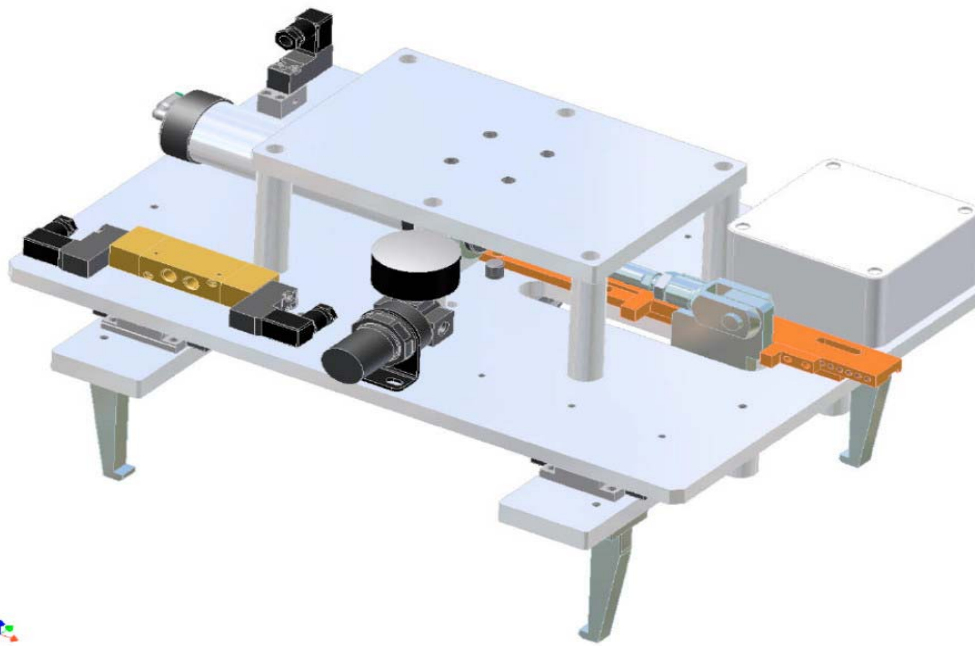
- head with hooks for gripping pallet.
- head actuator for rotation 0-90 °.

SPECIAL GRIPPING HEADS

Apiel also realizes different types of gripping heads for customers' special needs.



The machinery depicted in the image above consists in a head-to 4 independent grippers, able to hook and unhook up to 4 cartons, also with different lengths, even independently of each other.



This model depicts a special gripper for gripping of packs of plates.

APIEL s.r.l.

Via Campanini, 1 - 43039 Salsomaggiore Terme (PR) - Italia

Tel. 0524/578918-574159 - **Fax** 0524/574159

E-mail: apiel@apiel.com - **Indirizzo Web:** <http://www.apiel.com>