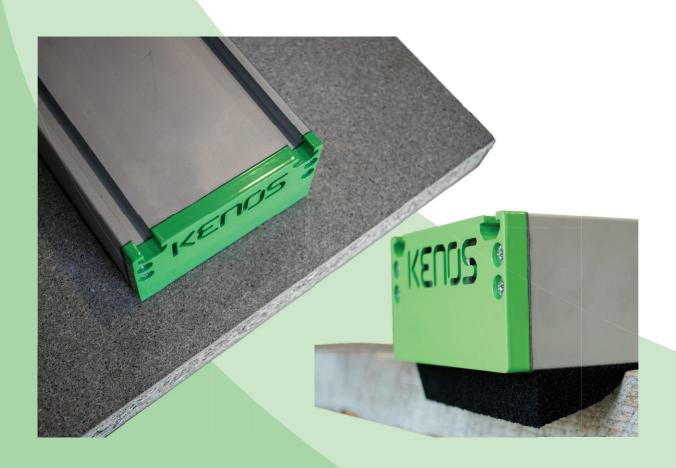


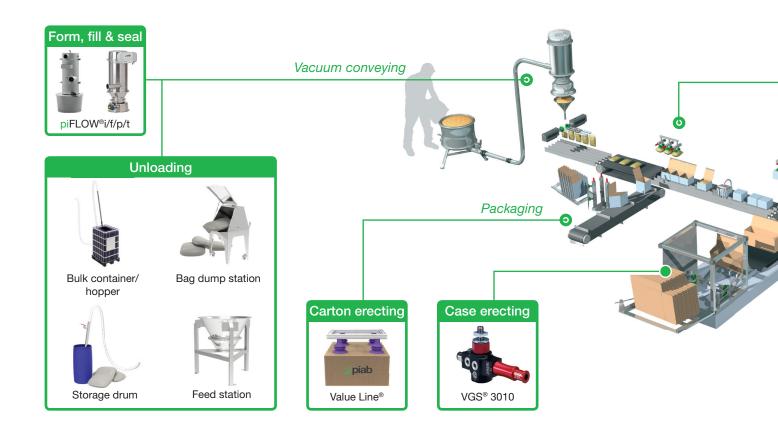
# Kenos® Vacuum Gripping Systems

Realise productivity gains with innovative vacuum components



Your global supplier

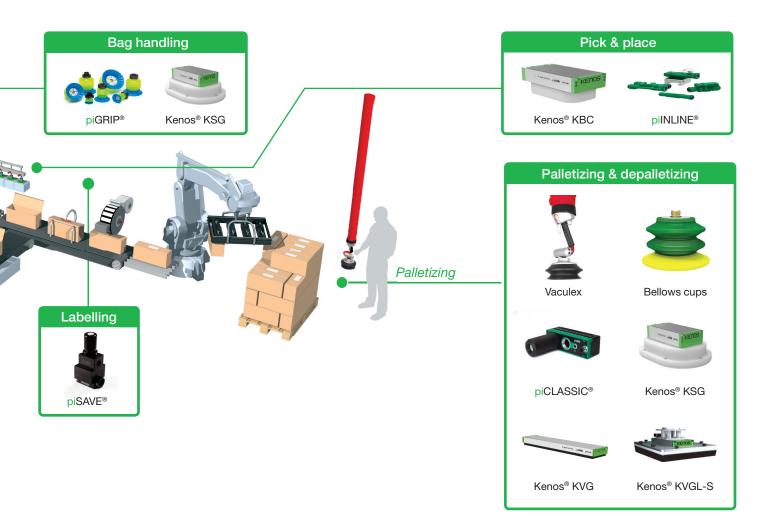
### Optimize your production line with Piab



We offer a wide range of products to better support different products in different applications. Over the years we have built up an amazing application know-how on a global level.

- Kenos® Vacuum grippers are available in different shapes and forms to meet the demands of different applications. They can lift packaging, wood, cans and jars and many other products. Available with FDA approved foam, different porosities and different foam materials to better meet customer demands.
- With the suction cups, you can lift everything from thin sheet paper to metal sheets. As it is proven to have significantly higher lifetime as compared to the competition, it will increase productivity in the application. Available in FDA and EU 1935/2004 approved material and as detectable food cups.





- The vacuum pumps are all based on COAX® cartridges. A vacuum system based on COAX® technology can provide you with three times more vacuum flow than conventional systems, allowing you to increase speed with high reliability while reducing energy consumption.
- The vacuum conveyors are also optimized by the application to prove the best solution within food, pharma and the chemical industries. With a small footprint, and an ability to contribute to an increase in uptime since the changeover time between different materials is kept to a minimum and the maintenance needed for the conveyor is very limited. ATEX, FDA and EU 1935/2004 certified.



## Vacuum grippers and their great benefits

Kenos<sup>®</sup> Vacuum grippers are available in different shapes and forms to meet the demands of different applications.



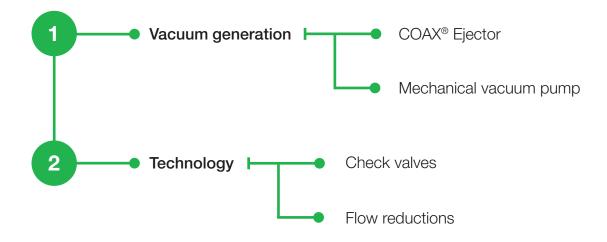


- Easy to obtain a vacuum gripper especially optimized for your application. Different product families are developed for different applications e.g. heavy duty, sack applications, packaging, cans and jars and many more.
- Flexible solution for handling several products with different shapes and dimensions.

- Minimize maintenance time, the foam only takes a few minutes to replace with new and ready to run in production again.
- Wide application span as there is FDA approved foam to choose on.
- Minimize your design time as you can, with the online configurator, build according to your own needs and receive all the documentation with a click.



# How to build a Kenos® Vacuum gripping system

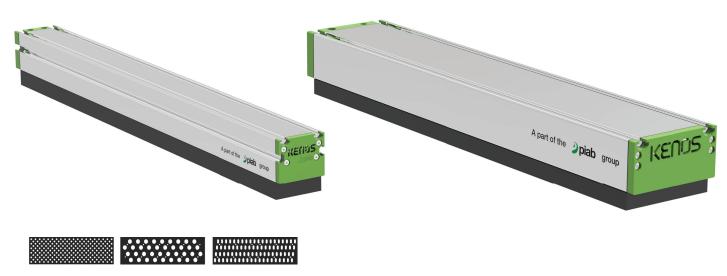


This illustrates the flexibility with the Kenos® Vacuum gripping system. You can choose between using the COAX® ejector to generate vacuum or a mechanical vacuum pump. The COAX® is integrated in the gripper and is a multi-stage COAX® ejector of easy maintenance. The multi-stage COAX® ejector offers the possibility to add cartridges in a very simple way even after the installation, if necessary. Then the choice is between which technology to use, check valves or flow reductions depending on the final application.



### Kenos® Vacuum Gripper – KVG

KVG series represents a flexible solution for the handling manipulation of several products with different shapes, dimensions and compactness due to the double technology available.

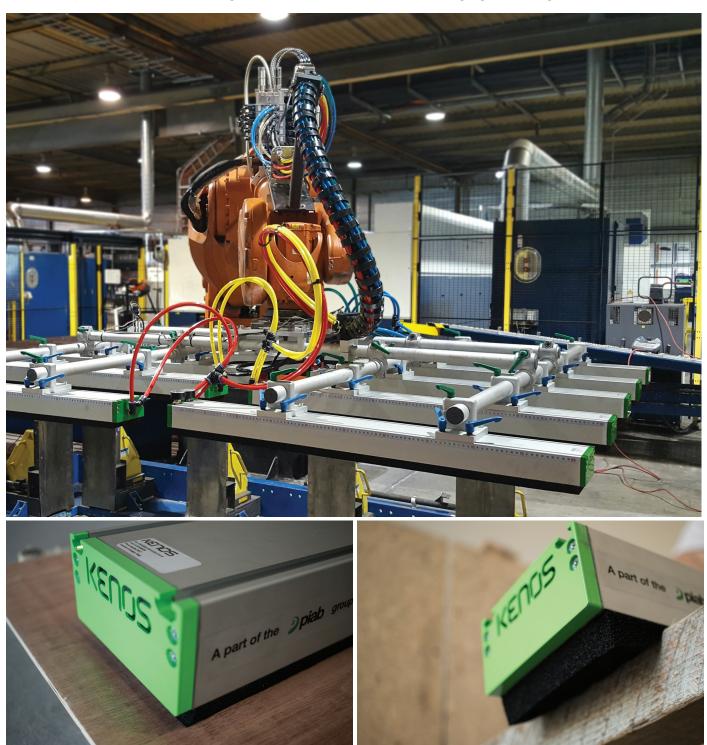


Different type of patterns of the foam

- Check valves or flow reducers can fulfil the needs of many industrial sector applications. The KVG gripping system can be equipped with integrated vacuum generation or suitable for separated vacuum generation (Pump or Side channel blower).
- The integrated vacuum generator is a multi-stage COAX® ejector of easy maintenance. The multistage COAX® ejector used offers the possibility to be simply increased even after the installation if necessary.
- The technical foam is made with different material, opening patterns and thicknesses. There is EPDM foam as a good closed cell sponge rubber material or Silicone foam engineered for high performance applications with high durability.
- The KVG gripping system is made of a technical foam (FDA mat approved available), with different pitch patterns, thickness or with suction cups.
- There are three different pitches available. See picture above.
- Configurable on www.piab.com with all documentation available at your hands (Datasheet, manual and CAD).



Typical applications are palletizing, wood, metal sheets and packaging with irregular surfaces.





### Kenos® Heavy Vacuum Gripper – KHVG

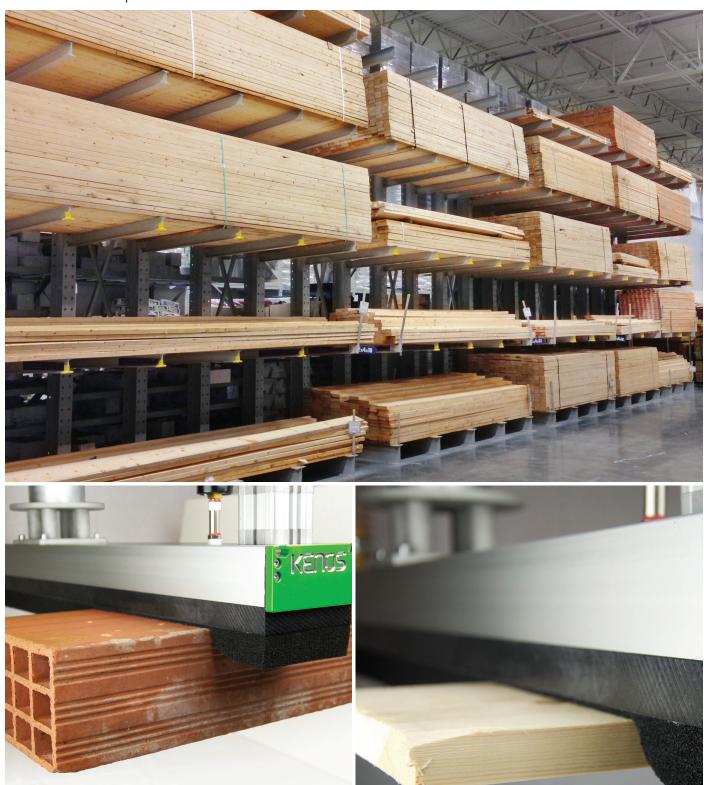
KHVG series products, Kenos® Heavy Vacuum Gripper, are designed for heavy duty applications in the wood and stone industries.



- The KHVG system can be used with side channel blowers as external vacuum generator.
- Provided with shutter check valve technology with low sensibility to the dust.
- Configurable on www.piab.com with all documentation available at your hands (Datasheet, manual and CAD).



KHVG gripping systems are suitable for handling normally complete layers of sawn timber, heavy planking, raw wood and materials for building, such as bricks. They are also useful to handle very long and arcuate workpieces.





### Kenos® Sack Gripper – KSG

The specific know-how in this segment has led to a system dedicated to all the different applications of sack handling. Are suitable to handle sacks up to 50Kg (110 lb.)



- The integrated vacuum generator is a multi-stage COAX® ejector of easy maintenance. The multi-stage COAX® ejector used offers the possibility to be simply increased even after the installation if necessary.
- As an alternative, the KSG system can be used with external vacuum generation with side channel blower.
- Configurable on www.piab.com with all documentation available at your hands (Datasheet, manual and CAD).



Typical applications, sacks with different quality and content.





### Kenos® Bag Cup - KBC

KBC series products, Kenos® Bag Cup, born from the need of handling in the food industry and handling liquid bags. KBC is also suitable with flow pack applications.



- Integrated COAX® vacuum cartridge gives the module flexibility.
- A version for external vacuum generation is available.
- A side channel blower is used when the application condition suggests it.
- Unique characteristic of KBC is the absence of any rubber sealing lip that offers a great advantage to customer: No spare parts needed! No machine stop for maintenance!
- Configurable on www.piab.com with all documentation available at your hands (Datasheet, manual and CAD).



Kenos® Bag Cup series is suitable for liquid bags such as infusion bags, wine, sauces and flow packs.





# Kenos® Vacuum Gripper Layer – KVGL-S

Developed for the world of packaging and line automation.



- Adjustable check valve technology and the technical foam is availabe in 10, 20, 30 and 40mm thickness which allows for superior gripping on different kind of boxes, wrap around packaging and primary ones.
- The large availability of standard dimensioning and the modularity, make this series highly effective.
- Configurable on www.piab.com with all documentation available at your hands (Datasheet, manual and CAD).



Kenos® Vacuum Gripper Layer – KVGL-S is suitable for different kind of boxes, wrap around packaging and primary ones.









# Kenos® Vacuum Gripper Layer-Cans/Jars – KVGL-CJ

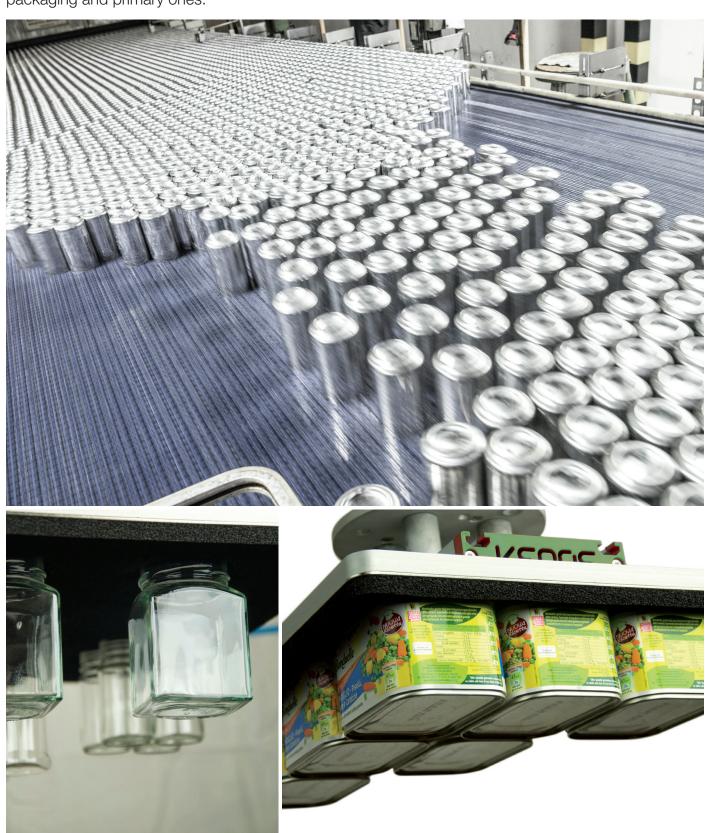
KVGL-CJ series, Kenos® Vacuum Layer – Cans Jars, born for the need to handle the complete layer of cans and jars that can be open or covered on the gripping area.



Typical industrial segments involved are palletizing or de-palletizing in packaging, beverage and food.



 ${\sf Kenos}^{\texttt{@}}\, {\sf Vacuum}\, {\sf Gripper}\, {\sf Layer-Cans/Jars-KVGL-CJ}\, is\, suitable\, for\, different\, kind\, of\, boxes,\, wrap\, around\, packaging\, and\, primary\, ones.$ 











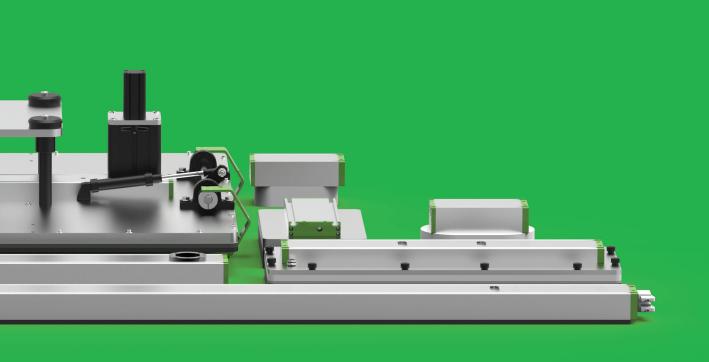




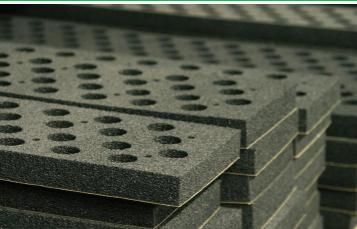














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### No need to compromise

