

Festo Introduces the HPSX Universal Adaptive Gripper

This hygienic soft gripper will revolutionize workflows in the food, pharmaceutical, and cosmetic industries.

The [Festo HPSX](#) universal adaptive gripper is a groundbreaking hygienic soft gripper engineered to handle delicate, irregularly shaped, and hygienically sensitive products. Gripper fingers are produced from a soft silicone-based material, making them ideal for items that are easily damaged. HPSX can perform multiple picks per second.

The design of this pneumatic gripper is a significant advancement over traditional, rigid gripping solutions and addresses long-standing challenges in automating tasks in the food, pharmaceutical, and cosmetics industries, where product damage is a concern. It has been tested to withstand acceleration up to 15 g-force, while holding up to 1.1 lbs.

The HPSX is highly corrosion resistant and features a sanitary design that makes it easy to clean and maintain. It has a high-pressure washdown rating of IP69k, which ensures it meets food safety regulations and cleanliness standards. The materials used are food-grade and metal-detectable.

The HPSX all-in-one gripper handles a wide variety of different shapes and sizes without requiring a tool change, which is an important benefit for applications such as kitting in the cosmetics industry, where a single gripper may need to pick up multiple different products. The HPSX is available in three sizes (40 mm, 70 mm, and 100 mm) and in two-, three-, and four-finger designs. Nine different forms widen its application range. HPSX features a universal ISO50 fitting for robotic end-of-arm tooling.

Festo research and development focused on refining the gripper's shape, dimensions, and internal geometry to maximize gripping force and minimize air volume for faster picking. The material's consistency was carefully chosen to be soft enough to prevent damage but firm enough to grasp objects and move with sufficient acceleration.

The HPSX works seamlessly with Festo's other automation components, such as controllers, valves, and pneumatic systems. This can significantly reduce the time and effort required for installation and programming as the original equipment manufacturer (OEM) doesn't have to worry about compatibility issues between different vendors' products.

Having a single point of contact for all automation needs simplifies troubleshooting, maintenance, and support. This major benefit for OEMs and end users can reduce downtime and streamline their operations. The ISO50 universal fitting makes HPSX accessible to an even wider market and aims to compete with other gripper manufacturers by offering a flexible solution that can be easily attached to existing robotic arms.

Contact a Festo sales representative or Festo distribution partner to learn more about the HPSX. For more information on the advantages of working within the Festo ecosystem to leverage less engineering overhead, faster time to market, seamless connectivity, and high-

03. December 2025

Responsible
according to press
law:
Christian Österle



Download/View press
release and press
images.

quality components, visit www.festo.com.

Press Images



HPSX Universal Adaptive Gripper

The HPSX soft gripper is food safe, features a sanitary design, and handles a wide variety of objects with different shapes and sizes without requiring a tool change.

Festo USA - 50th (EN- GB)

Festo is a leading manufacturer of pneumatic and electromechanical systems, components, and controls for process and industrial automation. For more than 50 years in the U.S., Festo Corporation has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Through advanced technical and industrial education, Festo Didactic Learning Systems and its partners prepare workers for current and future manufacturing technologies.