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## **Shemesh launches a new high-performing mechanical CAM based Rotary Piston Filling Machine for high & low viscous products**

Following five years of extensive research and development, Shemesh Automation, a global maker of high-end packaging machinery, launches Asterra - a robust, versatile high-end industry 4.0-ready pioneering positive displacement Rotary Piston Filling Machine. It offers a filling tolerance of +/- 2ml and speeds of up to 300 containers per minute (higher throughputs available depending on the number of filling stations).

The Asterra includes 16 filling stations specifically designed to fill a wide range of low and high viscous liquid with particulates (viscosities from 500 to 400.000 CPS). It is suitable for a wide range of products across varied market sectors including food & beverage, nonwovens, cosmetics, chemicals and household products.

### **Accurate, consistent and robust**

The robust Asterra features a proprietary mechanical cam with built-in bottom-up Shemesh nozzles and portioning technology. And a programmable portioning speed graph for anti-foaming and drip prevention.

This technology has been developed using three decades of expertise in manufacturing high-quality and reliable filling and packaging machines.

Mechanical-cam based, Asterra's technology also results in higher accuracy as the filling process itself does not depend on auxiliary air pressure, which may be unstable or sometimes liquid contaminated. Additionally, with this filling method, the portioning process is faster and more consistent - yet results in less waste and spillage. Thanks to its proprietary nozzles and mechanical cam technology, unlike other more common pneumatic based rotary piston fillers, Asterra can also easily fill highly viscous liquids, including particles such as sauces with fruit pieces inside, peanut butter, pastes, etc.

There are also no trade-offs when it comes to hygiene: the new Asterra is constructed of 304/316L stainless steel and USDA/FDA approved materials, sanitary welds, giving customers complete peace of mind. The mainframe, slat chain conveyor and construction base are made of 304 stainless steel, while all pistons and 170-litre smart liquid tank are constructed from 316 electro polished stainless steel. Tri-clamp sanitary nozzle connections are designed for quick cleanup and maintenance, a 'tool-less' cam mounting system saves valuable time when changing production and product specifications: less than 30 minutes for the complete changeover.

Featuring top of the line SEW motors, this rotary filling machine is fully controlled by Siemens Human Machine Interface (HMI) and Programmable Logic Controller (PLC) unit (Allen-Bradley controls platform is also optional). Fill speed and portioning trajectory is adjusted simultaneously for all pistons via the touch panel. The user-

friendly interface software provides a wide range of functions, controls, monitoring and traceability for improved production efficiency.

The Asterra has interlocks on all access panels wired through a category IV safety controller, emergency stop buttons and a traffic light status beacon.

This filling machine comes as a stand-alone filler or either in a rinser-filler-capper monoblock or in a filler-capper monoblock configuration. Asterra can also be easily incorporated as part of the complete Shemesh custom made bottling line featuring unscramblers, rinsing machines, loading systems, cappers, sealers, labellers, case packers, palletisers and depalletisers.

### **Full installation support**

Shemesh Automation understands that optimum productivity depends on the high performance of its machinery and minimal production downtime. That's why we make a worldwide network of qualified technicians available to customers 24/7, making sure there is access to expert support whenever and wherever it's needed.

### **Sustainability and built to last**

We all have the responsibility to care for the environment and the world around us. For Shemesh, this means making machines that are designed and built with sustainability in mind. The new Asterra has a small footprint, 4.9ft x 5.2ft only (1500mm x 1600mm excluding infeed and outfeed conveyors). That is thanks to the fact that the portioning process itself is much faster, which results in fewer filling stations and smaller turrets overall, saving space in your production plant.

Furthermore, Asterra's mechanical cam technology does not require pneumatics and air-pressure dependency. This results in a more consistent and sustainable machine that requires less utility consumption. Asterra is also easy to clean due to easily removable filling components. And this filling machine's portioning tolerance of just +/- 2ml of filling volume coupled with its anti-drip, overflow and splash proprietary technology significantly reduces waste.

Shemesh Automation is showcasing its range of filling, sealing, capping and packing equipment, including the all-new Asterra, during the 2021/22 trade shows across the US, the UK and Europe.

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For more info on our full range of machines and Shemesh Automation visit [www.shemeshautomation.com](http://www.shemeshautomation.com)

### **About Shemesh Automation:**

With over 30 years in the industry, Shemesh Automation is a global leader in the high-end packaging and assembly machinery and industrial automation appliances

manufacturing arena. The family-owned business supports almost 2,000 assets in over 30 countries around the world. Its nonwovens arm, Shemesh Automation Wet Wipes ([www.sawetwipes.com](http://www.sawetwipes.com)) is a global pioneer in nonwovens downstream packaging equipment with cutting-edge technology positioned at the very forefront of the industry.

Shemesh is represented in 13 countries around the world with offices in the US, UK, France and Israel. Its London-based office coordinates global sales and marketing operations and its Israeli office managing research, development and engineering innovation. Shemesh's unique combination of UK customer-centric service with an Israeli high-tech mentality to push the technical boundaries, plus the use of tried & tested parts from German manufacturers has greatly contributed to its success. We don't see Shemesh as a company that builds just cutting-edge machinery, we want to become your partner of choice for long and successful cooperation. "Let us build your vision" is not just our slogan, simply put, this is what we do, day in and day out!

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